U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM FACT SHEET FOR THE GENERAL PERMIT FOR WASTEWATER DISCHARGES ASSOCIATED WITH DOMESTIC WATER PRODUCTION

1 Clean Water Act Authority

Section 301(a) of the Clean Water Act (CWA), 33 U.S.C. § 1311(a), provides that the discharge of pollutants to waters of the U.S. is unlawful except in accordance with terms and conditions of a National Pollutant Discharge Elimination System (NPDES) permit.

EPA Region 8 is the permitting authority for facilities located in Lands of Exclusive Federal Jurisdiction and Indian country, as defined in 18 U.S.C. § 1151, located within Region 8 states[1] and implements federal environmental laws in Indian country consistent with the EPA Policy for the Administration of Environmental Programs on Indian Reservations[2] and the federal government's general trust responsibility to federally recognized Indian Tribes.

NPDES permits issued by EPA Region 8 are federal permits requiring certification under section 401 of the CWA. As part of the certification process, each Tribe with legal authority to implement section 401, pursuant to an EPA approval under the Treatment as a State / Treatment in a Similar Manner as a State (TAS) process, will be provided the opportunity to conduct a review of the General Permit for Wastewater Discharges Associated with Domestic Water Production, also called the Drinking Water General Permit (DWGP), before final issuance and inform the EPA of the results of the review. Table 1 below shows the Tribes approved for TAS for Clean Water Action section 401 in Region 8.

Table 1 – Tribes Currently with TAS in EPA Region 8

Confederated Salish & Kootenai (Flathead)
Assiniboine & Sioux (Fort Peck)
Ute Mountain Ute
Northern Cheyenne
Blackfeet
Southern Ute

[1] Additionally, EPA Region 8 is the permitting authority for facilities located in the portion of the Pine Ridge Reservation in Nebraska, and the portion of the Ute Mountain Ute Reservation in New Mexico, pursuant to EPA Delegation of Authority 1-140. Also pursuant to that delegation, EPA Region 8 is not the permitting authority for facilities location in the Utah portions of the Goshute Reservation of the Confederated Tribes of the Goshute Reservation and of the Navajo Nation Indian Reservation.

[2] The EPA Policy for the Administration of Environmental Programs on Indian Reservations can be found at https://www.epa.gov/sites/default/files/2015-04/documents/indian-policy-84.pdf

1.1 401 Certification

The outcome of EPA's 401 certification request from each Tribe having TAS authority will be recorded in the Addendum to this DWGP Fact Sheet.

2 Major Changes From Previous Permit

Major changes from the previous permit include the following:

- Aluminum effluent limitations were updated to incorporate the 2018 aquatic life criteria in the absence of Tribal water quality standards for this pollutant. Section 9.2.1.
- Arsenic effluent limitations were removed. Section 9.2.3.
- Monitoring requirements for total trihalomethanes (TTHMs) has been removed. Section 9.2.8.
- *E. coli* and fecal coliform effluent limitations were removed. Section 9.2.10.
- Additional iron effluent limitations were added to comply with Salish & Kootenai, Assiniboine & Sioux, Ute Mountain Ute, and Northern Cheyenne Tribal water quality standards. Section 9.3.
- Ute Mountain Ute supplementary pH limitations were removed due to updates in the Tribe's water quality standards. Section 11.
- Permittees may request reduced indicator monitoring for metals in the NOI. Section 14.
- Permittees are required to monitor the sludge depth in wastewater lagoons. Section 17.

3 Background Information

3.1 Permit History

This is the second issuance of the national pollutant discharge elimination system (NPDES) General Permit for Wastewater Discharges Associated with Domestic Water Production (Permit). Also known as the Drinking Water General Permit (DWGP), the Permit was previously titled the General Permit for the Discharge of Wastewater from Potable Water Treatment Plants. The DWGP was first issued in 2019 and expired on June 30, 2024. At the time of drafting this DWGP renewal, there were 12 Facilities covered by the 2019 DWGP.

The 2019 DWGP Covered 11 facilities, as listed in Table 2.

Table 2 - Facilities Covered by 2019 DWGP

Permit #	Name
MTDW0001I	City of Ronan Water Treatment Plant
MTDW0002I	BIA Water Treatment Facility
MTDW0003I	Two Medicine Water Treatment Plant
MTDW0004I	City of Cut Bank Water Treatment Plant
MTDW0005I	Hardin Water Treatment Plant
NDDW0001I	City of Parshall Water Treatment Plant
NDDW0002I	Mandaree WTP
NDDW0003I	Twin Buttes Water Treatment Plant
NDDW0004I	White Shield Water Treatment Plant
NDDW0005I	New Town Water Treatment Plant
WYDW0001I	Shoshone Utility Fort Washakie Membrane Filtration Water Treatment Plant
WYDW0002I	Ethete Water Treatment Plant

3.2 NPDES General Permit Requirements

An NPDES permit authorizes the discharge of pollutants into a receiving water under certain conditions. An NPDES General Permit covers multiple facilities/sites/activities within a specific category for a specific period of time (not to exceed five years). A general permit is subject to a public comment period prior to issuance. After a general permit is issued, dischargers within the category who meet general permit eligibility requirements may apply to obtain coverage under the permit through submission of a Notice of Intent (NOI).

40 C.F.R. § 122.28(a) authorizes the EPA to issue general permits to categories of discharges located within a common geographic area and from one or more categories or subcategories of discharge sources, as follows:

- Geographic Area (40 C.F.R. § 122.28(a)(1)): The general permit shall be written to cover one or more categories or subcategories of discharges or sludge use or disposal practices or Facilities, except those covered by individual permits, within a geographic area. The area should correspond to existing geographic or political boundaries such as:
    - City, county, or state political boundaries;
    - Any other appropriate division or combination of boundaries;
- Sources (40 C.F.R. § 122.28(a)(2)(ii)(A-E)): One or more categories or subcategories of point sources other than storm water point sources, that meet the following criteria:
    - Involve the same or substantially similar types of operations;
    - Discharge the same types of waste;
    - Require the same effluent limits or operating conditions;
    - Require the same or similar monitoring; and
    - In the opinion of the EPA, are more appropriately controlled under a general permit rather than an individual permit.

The facilities covered under this Permit meet the above criteria as described in Section 4.

4 General Permit Requirements

The following Sections describe how the DWGP meets the requirements described in 40 C.F.R. § 122.28(a)(1) and (a)(2)(ii)(A-E).

4.1 Geographic area

The specific areas of coverage and corresponding permit numbering system within each of the Region 8 states, as well as Nebraska and New Mexico, are as follows:

Colorado – Permit numbers CODW####@

(1) lands within the exterior boundaries of the following Indian reservations located within Colorado: the Southern Ute Indian Reservation and the Ute Mountain Ute Reservation;

(2) any land held in trust by the United States for an Indian Tribe;

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(4) all Lands of Exclusive Federal Jurisdiction.

Montana– Permit numbers MTDW####@

(1) lands within the exterior boundaries of the following Indian reservations located within Montana: the Crow Indian Reservation, the Blackfeet Indian Reservation, the Flathead Reservation, the Fort Belknap Reservation, the Fort Peck Indian Reservation, the Rocky Boy's Reservation, and the Northern Cheyenne Indian Reservation;

(2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Little Shell Tribe of Chippewa Indians);

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(4) all Lands of Exclusive Federal Jurisdiction.

Nebraska – Permit Numbers SDDW####@

(1) lands within the exterior boundaries of the Pine Ridge Reservation within Nebraska.

Facilities in the Pine Ridge Reservation within Nebraska will receive South Dakota Permit numbers because the headquarters of the reservation is in South Dakota.

New Mexico – Permit numbers CODW####@

(1) lands within the exterior boundaries of the Ute Mountain Ute Reservation within New Mexico.

Facilities in the Ute Mountain Ute Reservation within New Mexico will receive Colorado Permit numbers because the headquarters of the reservation is in Colorado.

North Dakota – Permit numbers NDDW####@

(1) lands within the exterior boundaries of the following Indian reservations located within North Dakota: the Fort Berthold Indian Reservation, the Spirit Lake Reservation, the Standing Rock Sioux Reservation, and the Turtle Mountain Reservation;

(2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Sisseton-Wahpeton Oyate Tribe);

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(4) all Lands of Exclusive Federal Jurisdiction.

Facilities in the Standing Rock Sioux Reservation within South Dakota will receive North Dakota Permit numbers because the headquarters of the reservation is in North Dakota.

South Dakota – Permit numbers SDDW####@

(1) lands within the exterior boundaries of the following Indian reservations located within South Dakota: the Cheyenne River Reservation, the Crow Creek Reservation, the Flandreau Indian Reservation, the Lower Brule Reservation, the Pine Ridge Reservation, the Rosebud Indian Reservation, and the Yankton Reservation (subject to federal court decisions removing lands from Indian country status within the Yankton Reservation);

(2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Sisseton-Wahpeton Oyate Tribe);

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(4) all Lands of Exclusive Federal Jurisdiction.

Facilities in the Standing Rock Sioux Reservation within South Dakota will receive North Dakota Permit numbers because the headquarters of the reservation is in North Dakota.

Utah – Permit numbers UTDW####@

(1) lands within the exterior boundaries of the following Indian reservations located within Utah: the reservation lands of the Paiute Indian Tribe of Utah (Cedar Band of Paiutes, Kanosh Band of Paiutes, Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes), the Skull Valley Indian Reservation, the Uintah and Ouray Reservation (subject to federal court decisions removing certain lands from Indian country status within the Uintah and Ouray Reservation), and the Washakie Reservation;

(2) any land held in trust by the United States for an Indian Tribe;

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(5) all Lands of Exclusive Federal Jurisdiction.

Facilities in the Ute Mountain Ute Reservation within Utah will receive Colorado Permit numbers because the headquarters of the reservation is in Colorado.

Note that this permit does not apply to the Indian country lands that are located in Utah and are within the exterior boundaries of the Goshute Reservation of the Confederated Tribes of the Goshute Reservation and of the Navajo Nation Indian Reservation.

Wyoming – Permit numbers WYDW####@

(1) lands within the exterior boundaries of the Wind River Indian Reservation (subject to *Wyoming v. EPA*, 875 F.3d 505 (10th Cir. 2017), *cert. denied*, 138 S. Ct. 2677 (2018));

(2) any land held in trust by the United States for an Indian Tribe;

(3) any other areas that are "Indian country" within the meaning of 18 U.S.C. Section 1151; and

(4) all Lands of Exclusive Federal Jurisdiction.

4.2 Permit Number Formatting

The DWGP numbering scheme is in the format of SSDW####@, where:

SS is for the state abbreviation (CO, ND, MT, SD, UT, and WY),

DW indicates DWGP,

is a number assigned to a specific facility/operation covered under the permit.

@ can be I for Indian Country or F for Lands of Exclusive Federal Jurisdiction.

4.3 Source of Discharge Involves the Same or Substantially Similar Types of Operations

The DWGP regulates wastewater discharges from facilities producing water for domestic uses. The DWGP is written specifically for water treatment facilities that employ conventional filtration to treat their source water. Discharges from types of drinking water treatment systems not specifically listed or specifically excluded in the DWGP may be eligible for coverage upon approval by the EPA. Discharges from non-drinking water treatment operations are not eligible for coverage under the DWGP.

4.4 Discharge the Same Types of Waste

The facilities covered by this Permit use the same production process and discharge the same type of wastewater. This wastewater includes filter backwash, filter-to-waste, thickener overflows (supernatant), decant water, and other miscellaneous waste streams.

The pollutants associated with these wastes include total suspended solids (TSS) and pH. Characteristics of the source water and treatment process may cause less-common pollutants such as total residual chlorine, chemical coagulant residuals, and other pollutants to be present.

4.5 Require the Same Effluent Limits or Operating Conditions

The DWGP proposes a set of effluent limits, monitoring requirements and operating conditions for all covered facilities. The effluent limitations will be required based on the specific processes conducted at a facility. A subset of effluent limitations has been developed to account for wastewater chemistry variations at some facilities. In addition, certain operations identified in the NOI are discussed in the effluent limitations Section 9, which if present and identified in the NOI, will require supplemental effluent limitations.

4.6 Require the Same or Similar Monitoring Requirements

The DWGP includes monitoring requirements for all authorized wastewater discharges. The DWGP allows for various monitoring frequencies dependent on the discharge frequency of the facility.

4.7 Appropriateness

EPA has determined that a majority of the existing drinking water treatment facilities located in Indian country and Lands of Exclusive Federal Jurisdiction within the geographic boundary of EPA Region 8 rely on conventional filtration methods to treat source water. EPA has concluded that individual permits for these drinking water treatment facilities would be similar to the requirements of the DWGP. As a result, the facilities' wastewater discharges are more appropriately regulated by a general permit rather than individual permits.

5 Eligibility of Facilities

The DWGP applies to facilities that produce drinking water for domestic uses where the treatment of drinking water is the primary function of the plant.

For the purposes of the DWGP, EPA Region 8 has classified drinking water treatment facilities into the following four (4) categories: conventional direct filtration (including slow sand filtration); membrane filtration; ion exchange; and potassium permanganate iron removal. As discussed in greater detail below, EPA Region 8 has made the eligibility decisions for these categories of drinking water production in Table 3.

Table 3 – List of drinking water production types eligible and ineligible for coverage under the DWGP

Category of Facility	Eligibility	Restrictions on Eligibility
Conventional Direct Filtration	Eligible	Facilities that treat source water containing naturally occurring radioactive pollutants above the Maximum Contaminant Level (MCL) as defined in the Safe Drinking Water Act are not eligible for coverage under the

		DWGP. Facilities discharging arsenic above 53 µg/L will be required to apply for an individual permit.
Membrane Filtration	Eligible	Facilities that use reverse osmosis or nano-filtration, and facilities for which source water exceeds naturally occurring radioactive pollutant MCLs are not eligible for coverage under the DWGP. Facilities discharging arsenic above 53 µg/L will be required to apply for an individual permit.
Ion Exchange	Not Eligible	N/A
Potassium Permanganate Iron Removal	Not Eligible	N/A

5.1 Conventional Direct Filtration Treatment

A conventional treatment system passes source water through a sedimentation tank to remove larger settleable solids, such as sand and large organic matter. After sedimentation, a coagulant or flocculant may be added to improve solids removal. The water may then pass through another sedimentation basin and granular media filter or slow sand filter to remove additional pollutants. The filter removes solids that do not settle in the sedimentation basin.

EPA has determined, pursuant to 40 CFR § 122.28(a)(4)(ii), that discharges from water treatment plants treating source water above any SDWA MCL for radiation may not be covered under this permit. While the science demonstrates that conventional direct filtration may be effective in treating some radioactivity for purposes of compliance with the SDWA, EPA has concluded that it will need additional information about such discharges and their receiving waters before establishing NPDES effluent limits for such facilities.

5.1.1 Coagulants and Flocculants Used in Conventional Direct Filtration Treatment Systems

5.1.1.1 Aluminum-Based Coagulants

Aluminum-based chemicals can be added to source water to improve pollutant removal through filtration or clarification. Sludge generated is pumped to a holding pond for additional clarification. After additional settling in the holding pond, wastewater is ready for discharge.

5.1.1.2 Polymer Coagulation/Flocculation

Polymer coagulation is similar to coagulation using aluminum-based coagulants. A variety of polymers are used to remove suspended solids from the source water.

The polymer is selected by the permittee according to the characteristics of the source water. As with aluminum-based coagulants, sludge generated is pumped to a holding pond for additional clarification. After additional settling in the holding pond, wastewater is ready for discharge.

5.1.1.3 Sludge Management

As described above, coagulants used to treat source water generate sludge that are subject to clarification in holding ponds. The supernatant is discharged as wastewater pursuant to this permit. The sludge may not be discharged or disposed of under this permit. Collected screenings, grit, solids, sludge or other pollutants removed in the course of water treatment shall be buried or disposed in a manner consistent with all applicable federal, state, Tribal, or local regulations (e.g., 40 CFR Part 257 [Criteria For Classification Of Solid Waste Disposal Facilities And Practices], 40 CFR Part 258 [Criteria For Municipal Solid Waste Landfills], 40 CFR Part 503 [Standards for the Use or Disposal of Sewage Sludge]). Sludge supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the United States.

5.1.2 Types of Filters Used in Conventional Direct Filtration Systems

5.1.2.1 Granular Media Filters

Granular media filters remove suspended solids by adsorption and straining. Single media beds or multimedia beds may be used. The most common dual media filters utilize ground anthracite and silica sand. A triple media filter utilizes anthracite, silica, and may also include very fine grain size garnet. Periodically the granular media filters must be backwashed to maintain efficiency in pollutant removal. This backwash is wastewater containing pollutants that were originally present in the source water and is discharged pursuant to this permit, as described in greater detail in Section 6 below.

5.1.2.2 Slow Sand Filtration

Slow sand filtration is a less common drinking water treatment process. Source water is filtered through a bed of sand at low velocity resulting in substantial particulate removal by physical and biological mechanisms. Operating a slow sand filter does not produce filter backwash wastewater. During routine maintenance the filter media is removed and replaced which may generate wastewaters similar to backwash water from conventional filter media systems. Facilities using slow sand filtration are eligible for coverage under the DWGP if operations at the facility produce wastewater qualifying for coverage under the DWGP.

5.2 Membrane Filtration

Membrane filtration uses semi-permeable membranes to separate pollutants from water. Water is forced across the membrane by a driving force (i.e., water pressure). Pollutants are

filtered out and either become stuck to the membrane or concentrated in a reject solution. The type of substances removed will be dependent on the membrane type, pore size, water pressure, and characteristics of the source water. Membrane filtration is classified into four categories (in order of decreasing pore size): microfiltration (MF), ultrafiltration (UF), nanofiltration (NF) and reverse osmosis (RO).

Waste concentrate from membrane filtration is regularly discharged, and the membrane is backwashed with air and water. Periodically, the membrane can be cleaned with various chemical solutions in differing concentrations and orders dependent upon the pollutants to be removed from the membranes. The chemical rinse solution, and therefore the wastewater, can include caustic soda, citric acid, chlorine, sodium tripolyphosphate, surfactants, and sodium metabisulfite. In addition to the pollutants removed from the source water, the wastewater can have a higher pH due to the chemicals used. Discharges of the cleaning wastes from facilities that use MF and UF and meet the effluent requirements of the DWGP may be discharged after wastewater treatment.

Occasionally membrane filters are shut down for extended periods of time and the membranes are placed in storage solutions. After the membranes are returned to service, a facility operator may elect to discharge these storage solutions in a facility's wastewater discharge. Such discharges are required to meet the requirements of the DWGP. It is possible filter backwash wastewater treatment methods are unable to remove the pollutants contained in the storage solutions. These facilities will likely exceed the permit effluent limitations. In order to reduce the risk of a violation, the facility may consider discharging membrane storage solutions to the sanitary sewer. The DWGP does not authorize, or regulate, discharges to the sanitary sewer. It is the facility's responsibility to ensure all requirements established by a sanitary sewer operator are followed before discharging wastewater to a sanitary sewer.

Facilities also occasionally use chlorine in the storage solution to control biological growth during extended periods of shutdown. Typical chlorine residual of the storage solution can exceed 50 milligrams per liter (mg/l) free chlorine. This solution may be re-charged monthly with more chlorine, or the storage solution may be replaced, and the depleted solution discharged as wastewater. Under the DWGP, facilities with such discharges will have total residual chlorine effluent limits and monitoring requirements.

5.2.1 Microfiltration (MF) and Ultrafiltration (UF)

Facilities conducting MF and UF are eligible to qualify for coverage under the DWGP. The DWGP defines MF and UF as filtration operations that have membranes that have a pore size of greater than 0.01 micrometers.

MF and UF remove pollutants and produce wastewater similar in composition to conventional media filters (EPA 820-R-11-003)[3]. The membrane pores can be small enough to separate bacteria and viruses from the source water. Dissolved solids such as salts and minerals are not removed by MF and UF. The EPA concludes that the waste stream from MF and UF processes are likely to have the same characteristics as wastewater produced by conventional filtration and qualifies for coverage by the DWGP.

5.2.2 Radionucleides

EPA has determined, pursuant to 40 CFR § 122.28(a)(4)(ii), that discharges from water treatment plants treating source water above any SDWA MCL for radionucleides may not be covered under this permit. As explained above, EPA has concluded that it will need additional information about such discharges and their receiving waters before establishing NPDES effluent limits for such facilities. The EPA has established the following drinking water MCLs for radioactivity:

Contaminant	MCL[1] (mg/L)[2]
Alpha particles	15 picocuries per Liter (pCi/L)
Beta particles and photon emitters	4 millirems per year
Radium 226 and Radium 228 (combined)	5 pCi/L
Uranium	30 µg/L as of 12/08/03

1) 1 - Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
2) 2 -Units are in milligrams per liter (mg/L) unless otherwise noted. Milligrams per liter are equivalent to parts per million (PPM).

If a facility's source water exceeds any of these MCLs, the owner or operator will need to submit an individual permit application pursuant to 40 CFR § 122.21.

5.2.3 Reverse Osmosis (RO) and Nanofiltration (NF)

Facilities that use RO and NF are not eligible for coverage under the DWGP. For the purposes of the DWGP, RO and NF are defined as filtration operations that have a membrane pore size of equal to or less than 0.01 micrometers.

RO and NF use high pressure to force water across a permeable membrane with smaller pore sizes than other membrane systems. RO and NF have the potential to produce a liquid

[3] EPA Drinking Water Treatment Plant Residuals Management
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concentrate waste containing elevated levels of dissolved solids, heavy metals and other contaminants which do not qualify for coverage under the DWGP. The waste stream from RO and NF includes pollutants not found in conventional and low-pressure membrane filtration processes. As a result, the EPA concludes that the waste stream from RO and NF processes are substantially different from conventional treatment processes and are not eligible for coverage by the DWGP.

5.3 Ion Exchange

Ion exchange processes are not eligible for coverage under the DWGP.

Ion exchange removes pollutants with a resin exchanging undesirable ions for desirable ions. Demineralizers are ion exchange units that use acids, bases, or salts to regenerate the exchange resins. Sodium or potassium ion exchange units are used to "soften" hard water. Sodium chloride or potassium chloride is used to regenerate the resins from these types of systems. The regeneration waste from these processes may require additional treatment or alternate disposal methods before discharge to receiving water, such as metered disposal to a sanitary sewer.

The pollutants of concern from ion exchange units include high pH wastewater, sodium hydroxide, sodium carbonate, and ammonia. The waste stream from ion exchange units includes elevated concentrations of pollutants not found in a conventional or membrane filtration domestic water treatment plant. As a result, the EPA has concluded that the waste streams from ion exchange processes are substantially different from conventional treatment processes and are not eligible for coverage by the DWGP.

5.4 Potassium Permanganate Iron Removal

Facilities that use potassium permanganate to remove dissolved pollutants are not eligible for coverage under the DWGP.

Potassium permanganate is added to source waters which contain high levels of dissolved iron, manganese and hydrogen sulfide. The dissolved pollutants are oxidized and form a precipitate which is easily filtered from the water. The sludge and filter backwash associated with this treatment includes a variety of pollutants in concentrations substantially different than wastes generated by conventional and membrane treatment methods. As a result, the EPA has concluded that the waste streams from these processes are substantially different and are not covered by the DWGP.

6 Wastewaters Generated

The wastewaters produced in conventional water treatment facilities include filter backwash, filter-to waste, thickener supernatant, and liquids from dewatering processes. Filter backwash and filter-to-waste are expected to comprise most of the wastewater discharged. Wastewaters produced by membrane systems identified in Section 5.2.1 are

covered under this permit because the wastewater is similar in nature to wastewater from conventional treatment.

6.1 Filter Backwash

Filter media is usually cleaned by flushing with water in the reverse direction to normal flow, with sufficient force to separate pollutants from the media. A typical backwashing operation lasts for 10 to 25 minutes with maximum flow rates of 15 to 20 gallons per minute (gpm) per square foot. Small facilities may produce filter backwash sporadically; but larger facilities with numerous filters may produce backwash continuously as filters are rotated for backwashing. Filter backwash can comprise 2 to 10 percent of the total plant production of finished water. The quality of spent filter backwash varies from plant to plant. Filter backwash may contain chlorine if the plant backwashes with chlorinated water. Relative to source water, spent backwash shows higher concentrations of *Giardia lamblia* and *Cryptosporidium*, dissolved organic carbon, zinc, total trihalomethanes (TTHMs), turbidity, total organic carbon and total suspended solids (TSS) (EPA 820-R-11-003)[4]. In addition, filter backwash may have higher concentrations of aluminum and iron depending on the type of coagulant used.

6.2 Filter-to-Waste

Filter-to-waste is the initial flow generated after backwashing. The filter-to-waste does not meet the drinking water quality requirements to be sent into the water distribution system. Filter-to-waste is expected to contain pollutants similar to filter backwash wastewater with lower concentrations. Filter to waste amounts to approximately 0.5 percent of the total amount of water filtered at a treatment plant.

6.3 Thickener Overflows (Supernatant)

Thickener supernatant results from gravity thickening of solids in sedimentation basins, backwash holding tanks, stabilization ponds, and other similar operations. After settling, the clarified water that exits the unit is called thickener supernatant. Thickener supernatant may be recycled or discharged at a frequency that depends on the quantity of sludge produced. Microbial, inorganic, and organic contaminants that concentrate in the sludges can remain in the supernatant if sludge is not properly settled, treated, and/or removed.

6.4 Decant Water

Some filtration facilities prepare waste solids for disposal by concentrating solids to remove excess water reducing the costs associated with sludge disposal. Such processes

[4] EPA Drinking Water Treatment Plant Residuals Management
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concentrate sludges as high as 50 percent solids content. Liquids from dewatering processes are produced from a stabilization pond or sludge drying bed as decant and underflow, or as filtrate or centrate from mechanical processes. Small, intermittent wastewater streams are produced by this dewatering process. These waste streams can contain elevated levels of total organic carbon, total trihalomethanes, as well as aluminum, iron, and manganese.

6.5 Miscellaneous Wastewaters

Miscellaneous waste sources may include, but are not limited to, clear-well overflow water, processed potable water, contact and noncontact cooling water, dehumidifier water, sump pump water, disinfection of pipelines and tanks, hydraulic valve operator water and/or pump seal water.

7 Individual NPDES Permits

7.1 Requirement for Individual NPDES Permit

In accordance with 40 C.F.R. § 122.28(b)(3)(ii), EPA may require an owner or operator of a drinking water treatment facility authorized by the DWGP to apply for and obtain an individual NPDES permit. Cases where an individual NPDES permit may be required include, but are not limited to, the following:

(A) The discharger is not in compliance with the conditions of the DWGP;

(B) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

(C) Effluent limitation guidelines are promulgated for point sources covered by the DWGP;

(D) A Water Quality Management plan (40 C.F.R. § 130.6) containing requirements applicable to such point sources is approved;

(E) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the DWGP, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

(F) The discharge(s) is/are a significant contributor of pollutants. In making this determination, the EPA may consider the following factors:

(1) The location of the discharge with respect to waters of the United States;

(2) The size of the discharge;

(3) The quantity and nature of the pollutants discharged to waters of the United States; and

(4) Other relevant factors.

7.2 Requesting an Individual NPDES Permit

In accordance with federal regulations at 40 C.F.R. § 122.28(b)(3)(iii), any owner or operator of a drinking water treatment facility authorized by the DWGP may request to be excluded from coverage under the DWGP by applying for an individual NPDES permit. The details of this process for new and existing discharges are covered in Section 1.3.3 of the DWGP.

7.3 Discharges Not Authorized by the DWGP

The DWGP does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of a drinking water plant as disclosed in the NOI.

8 Notification Requirements and Authorization

Dischargers seeking coverage under the DWGP must submit an NOI to the EPA Region 8. In accordance with 40 C.F.R. § 122.28(b)(2)(i), a discharger who fails to submit a timely and complete NOI in accordance with the terms of the DWGP is not authorized to discharge under the DWGP. A complete and timely NOI fulfills the requirements of a permit application for purposes of 40 C.F.R. §§ 122.6 and 122.21. According to 40 C.F.R. § 122.28(b)(2)(vi), the EPA may notify a facility that it is covered by the DWGP, even if the facility has not submitted a notice of intent to be covered.

8.1 Submitting a Notice of Intent (NOI) and Supporting Information

Any discharger seeking coverage under the DWGP must submit an NOI to the EPA Region 8. The “NPDES Drinking Water General Permit Notice of Intent Form” can be found in Appendix D of the DWGP.

The form can be filled out on the computer, printed, signed, and submitted to the EPA at the address given in the NOI instructions of the DWGP. The permittee is also required to send a copy of the complete NOI to the applicable Tribal environmental office. See Appendix A of the DWGP for Tribal contact information.

As of December 21, 2025, all NOIs submitted in compliance with this section must be submitted electronically by the discharger to the EPA in accordance with 40 C.F.R. § 122.28(b)(2). If the online NOI or application is not available on December 21, 2025, the NOI or application can be submitted via hard copy until such time as the online option is available.

8.2 Authorization to Discharge

The EPA will review the NOI and, upon approval, issue a written notice granting coverage under the DWGP to the discharger. The written notice will specify the authorization date for coverage under the DWGP.

9 Effluent Limitations

Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants to waters of the U.S. except in compliance with section 402 of the CWA, 33 U.S.C. § 1342. Section 402 authorizes the EPA to issue NPDES permits authorizing discharges of pollutants, on the condition that such discharges comply with limitations and requirements imposed pursuant to CWA sections 301, 302, 306, 307, 308, and 403, 33 U.S.C. §§ 1311, 1312, 1316, 1317, 1318, and 1343.

9.1 Technology Based Effluent Limitations

Section 301(b)(1)(A) of the CWA requires permits for point sources other than publicly owned treatment works (POTWs) to include limitations based on effluent limitation guidelines (ELGs) established by EPA pursuant to CWA § 304(b). In the absence of effluent guidelines for an industry, section 402(a)(1)(B) of the CWA, and its implementing regulation at 40 C.F.R. Part 125, Subpart A, requires the permit writer to establish technology based effluent limitations using best professional judgement (BPJ). Because the EPA has not issued an ELG for wastewater discharges from drinking water treatment facilities, the technology-based effluent limitations (TBELs) for the DWGP were developed using the best professional judgement process outlined below.

9.1.1 DWGP Total Suspended Solids (TSS) TBEL Background

The 2019 DWGP had TSS limitations that were based on the National Secondary Standards (NSS) found at 40 C.F.R. part 133. The NSS establish the minimum treatment requirements for publicly owned treatment works treating domestic sewage, but application of this requirement to DWGP facilities is not clearly authorized by the CWA. The EPA has not promulgated recommended water quality criteria for TSS, and not all Tribes in Region 8 with EPA-approved WQS have provisions limiting TSS. In the absence of EPA-approved water quality standards and without EPA recommended water quality criteria, the EPA Region 8 must develop a TSS TBEL to protect water quality.

TSS includes both organic and inorganic materials. The inorganic compounds include sand, silt, and clay. The organic fraction is carbon found in the source water as well as any coagulant the facility may use. Solids are typically suspended in water for a time and settle to the bed of the stream or lake. When the solids are suspended, they increase the turbidity of streams and impair the vision of fish and other visual hunters reducing their chances of feeding properly. TSS in suspension reduce light penetration and impair the photosynthetic activity of aquatic plants. When suspended solids settle out of the water

column and form sludge deposits on the stream or lakebed, they often negatively affect aquatic life. Suspended solids also reduce the recreational value of the water.

TSS is easily controlled with economically affordable technologies. Controlling TSS at point source dischargers is common throughout Region 8 and the country. For DWGP facilities, the EPA is using best professional judgment to set a case-by-case Best Practicable Control Technology Currently Available (BPT) limitation for TSS in wastewater associated with potable water production as allowed by 40 C.F.R. § 125.3(c)(2). The development of the case-by-case BPT values are further discussed below, but they are similar to limitations imposed on the other water treatment plants[5], and are either identical to or similar to other BPT limits developed and implemented in 40 C.F.R. Part 133.

9.1.2 TSS TBEL Development

40 C.F.R. § 125.3(c)(2) states that 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. The permit writer shall apply the appropriate factors listed in § 125.3(d) and shall consider:

- The appropriate technology for the category or class of point sources of which the applicant is a member, based upon all available information; and
- Any unique factors relating to the applicant.

40 C.F.R. § 125.3(d) further states that when setting case-by-case limitations pursuant to § 125.3(c), the following factors must be considered for BPT requirements:

- The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived;
- The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources;
- The age of equipment and facilities involved;
- The process employed;
- The engineering aspects of the application of various types of control techniques;

[5] Massachusetts General Permit # MAG640000, 2023; Idaho General Permit # IDG380000, 2022

- Process changes; and
- Non-water quality environmental impact (including energy requirements).

There are currently no existing ELGs for potable water treatment plants so it will be necessary to follow the requirements of 40 C.F.R. § 125.3(c)(2) when developing the TBEL.

Best practicable control technology currently available emphasizes treatment at the end of a manufacturing process, but also includes the control technology within the process itself when it is considered to be normal practice within an industry. For potable water treatment, minimizing TSS introduction into the system can also be an important consideration. Typically, facilities covered by the 2019 DWGP used groundwater which has lower TSS and their wastewater does not require treatment to meet the TSS effluent limitations in the 2019 permit. The BPT level of technology may be assessed using performance metrics by facilities of various sizes, ages, and processes within the individual subcategory. There are currently 12 potable water treatment facilities covered by the 2019 DWGP in Region 8. Every facility has monitored for TSS and, if necessary, implemented TSS controls in their wastewater treatment for many years. Data from these facilities was analyzed in the development of this case-by-case TBEL.

The EPA considered two types of common TSS reduction technologies: pond settling of suspended solids prior to discharge, and no treatment – both of which are used at Region 8 facilities to maintain low TSS in their discharge. These represent the appropriate technologies for the facilities and nothing indicates that the appropriate technology is not affordable to the facilities. Both are discussed further below.

Settling ponds are the predominant treatment technique for removal of suspended solids in the domestic water industry. Settling ponds are versatile in that they perform several waste-oriented functions including solids removal (i.e., solids settle to the bottom and the clear water overflow is much reduced in suspended solids content), equalization and water storage capacity (i.e., the clear supernatant water layer serves as a reservoir for reuse or for controlled discharge), and solid waste storage (i.e., the settled solids are provided with long term storage). Their versatility, ease of construction and relatively low cost, explains the wide application of settling ponds as compared to other technologies. The performance of these ponds depends primarily on the settling characteristics of the suspended solids, the flow rate through the pond, and the pond size. Settling ponds can be used over a wide range of suspended solids levels. As the ponds fill with solids, they can be dredged to remove these solids or they may be left filled and new ponds provided. The choice often depends on whether land for additional new ponds is available. When suspended solids levels are low and ponds large, settled solids build up so slowly that neither dredging nor pond abandonment is necessary for a period of many years.

The chief problems experienced by settling ponds are rapid fill-up, insufficient retention time and short circuiting. The first can be avoided by constructing larger or multiple ponds.

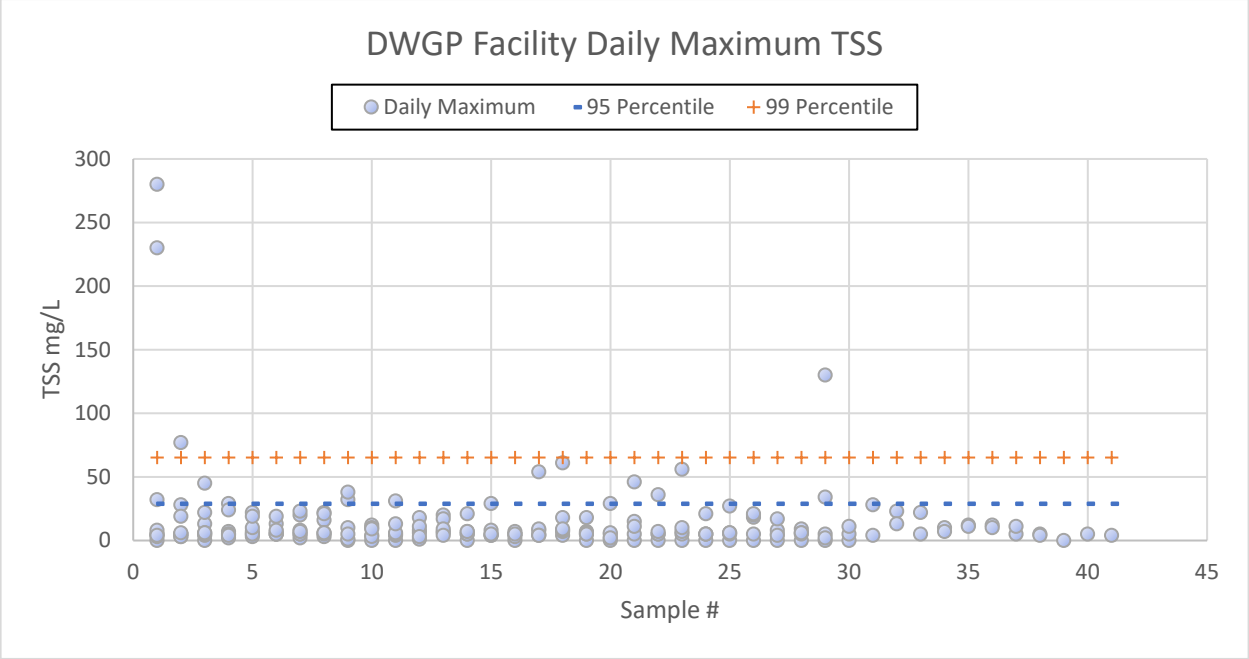
Frequent dredging of the first in a series of ponds can reduce the need to dredge the remaining ponds. The solution to the second problem involves additional pond volume or use of flocculants. The third problem, short circuiting, is simply the formation of currents or water channels from pond influent to effluent whereby whole areas of the pond are not utilized. The object is to achieve a uniform plug flow from pond influent to effluent. This can be achieved by proper inlet-outlet construction that forces water to be uniformly distributed at those points, such as by use of a weir. Frequent dredging or insertion of baffles will also minimize channelling. A final consideration for settling ponds is that they can take up substantial physical space and depending on the geography and topography of the specific site, it may be infeasible to install them without a massive amount of earthwork.

No treatment is an option that DWGP facilities implement. Filter backwash water is piped directly to the receiving water with no treatment. These facilities have source water of such high quality that TSS is virtually nonexistent making wastewater treatment of the filter backwash water unnecessary.

There are several methods for developing a technology-based permit limit using monitoring data, the EPA generally uses statistical procedures. These procedures involve fitting effluent data to distributions and using estimated upper percentiles of those distributions. These methods are described in the EPA's Technical Support Document for Water Quality-based Toxics Control[6] (commonly referred to as the "TSD"). The TSD suggests using a confidence level approach combined with a relatively high percentile of the data to determine a statistically defensible value that is then implemented as an average monthly limit (AML) and/or a maximum daily limit (ML). The TSD recommends using the 95th and 99th percentiles of data for determining the AML and ML, which equate to approximately 29 mg/L and 65 mg/L, respectively).

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

Figure 1 – TSS Discharges at Existing DWGP Facilities



Below, each of the factors in 40 C.F.R. § 125.3(d) is addressed to fulfill the requirements for this case-by-case TBEL.

9.1.2.1 The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived:

- The 2019 DWGP data show that facilities are able to meet the 29 mg/L 30-day average and 65 mg/L daily max for TSS.
- The drinking water industry is aware of the need to abate TSS in their wastewater.
- Drinking water facilities are designed around the constraints of the source water and the drinking water treatment types.
- If wastewater treatment is necessary, a lagoon or other settling pond is typically used.

9.1.2.2 The age of equipment and facilities involved:

- DWGP facilities are existing discharges, and as such currently comply with the TSS effluent limitations.
- It is reasonable to expect that new facilities are able to meet effluent limitations of the existing facilities.
-

- New facilities can install new equipment and design discharge systems with newer technology available without incurring costs associated with any process or layout modifications that existing facilities may need to perform.

9.1.2.3 The process employed:

The process employed would likely be digging a small retention pond. Other potential processes (i.e., chemical flocculation, centrifuges/hydrocyclones, and total retention) would require more economic investment at the facility and would require electricity or larger footprints, addition of chemicals, etc. Therefore, these were not considered in the economic evaluation.

9.1.2.4 The engineering aspects of the application of various types of control techniques:

Settling ponds are very simple to design, engineer, install, and maintain. Other types of control techniques would be much more complex and would require significantly more infrastructure.

9.1.2.5 Process changes:

Because this technology is easily installed (new or retrofit) at the end of a process train, there would be no process changes expected or required.

9.1.2.6 Non-water quality environmental impact (including energy requirements)

Settling ponds, once installed, are passive and have no identified non-water quality environmental impacts (such as energy use, etc.).

Considering the relatively simple and inexpensive implementation of settling ponds, their proven ability to substantially reduce TSS in the discharge, and the robust dataset and analysis provided above, the EPA will implement a case-by-case BPT limitation (as allowed by 40 C.F.R. § 125.3(d)) at DWGP facilities, and apply an average monthly limit of 29 mg/L for TSS in wastewater discharges, and a daily maximum limit of 65 mg/L TSS in wastewater (Table 4). These limits were selected because they are in line with the limits of the previous permit and are quite close to the statistical TBELs calculated above.

DWGP facilities demonstrated an ability to comply with TSS effluent limitations in the 2019 DWGP. Facilities reported a total of 8 instances where a facility exceeded a TSS effluent limitation. In every case the facility was able to return to compliance within two monitoring events.

9.2 Water Quality Based Effluent Limitations

Section 301(b)(1)(C) of the CWA, and its implementing regulation at 40 C.F.R. § 122.44(d), requires permits to include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute, to an excursion above applicable

WQSs. 40 C.F.R. § 122.44(d)(vii) requires that water quality-based effluent limitations (WQBELs) must be stringent enough to ensure that water quality standards are met, and they must be consistent with any available waste load allocation under an EPA approved Total Maximum Daily Load (TMDL). In practice, this means that for pollutants with technology-based limits, the EPA must determine whether the technology-based limits will be protective of water quality standards and, if not, include any more stringent WQBELs necessary to protect the applicable standards.

EPA developed WQBELS for this permit using multiple sources. EPA examined and incorporated EPA approved Tribal water quality standards (Tribal WQS), including Tribal narrative standards. In the absence of applicable Tribal WQS, the EPA evaluated CWA § 304(a) recommended water quality criteria (WQC).

The beneficial uses protected by this permit are aquatic life and recreational uses. The aquatic life uses are protected by developing effluent limitations according to Tribal WQS or EPA's WQC for aquatic life. Recreational uses are protected through Tribal water quality standards or the EPA's WQC for the consumption of organisms.

9.2.1 Aluminum

Aluminum-based coagulants, such as alum and poly-aluminum chloride, are used to facilitate the removal of suspended solids from source water through coagulation and clarification. Wastewater generated from processes and coagulants has the potential for elevated levels of aluminum.

The Final Aquatic Life Ambient Water Quality Criteria for Aluminum (2018 Aluminum criteria, 2018 EPA 822-R-18-001) recommends use of a spreadsheet, Aluminum Criteria Calculator V2.0 found at: https://www.epa.gov/sites/default/files/2018-12/aluminum-criteria-calculator-v20.xlsm to develop acute and chronic criteria. The aluminium criteria calculator requires dissolved organic carbon (DOC), hardness and pH as inputs. Facilities subject to aluminium effluent limitations are required to provide DOC, hardness and pH monitoring data from the receiving water with the NOI. The receiving water data will be used in the calculation and assignment of a site-specific effluent limitation for aluminum. If the receiving water critical low flow is zero or less than the wastewater discharge, then the wastewater pH, DOC and hardness will be used in the calculation and the more restrictive effluent limitation will be applied in the letter of authorization.

Multiple permittees have reported difficulty in meeting the 2019 DWGP's aluminum effluent limitation. Adoption of the 2018 aluminum criteria has resulted in effluent limitations being less stringent than in the 2019 DWGP. The less stringent limitations are expected because the 2018 recommended WQC accounts for pH, hardness and DOC effect on aluminum toxicity concentration resulting in higher WQBELs.

Multiple Tribes have EPA-approved WQS for aluminum that are different from the 2018 aluminum criteria. This is discussed in more detail in Section 9.3 of the Fact Sheet.

The 2018 aluminum criteria apply to Tribes that do not have EPA-approved WQS or that have adopted the updated 2018 aluminium criteria into their EPA-approved WQS. In these instances, implementation of the 2018 aluminum criteria will calculate less stringent WQBELs for most facilities in Region 8 compared to the 2019 DWGP due to the influence of site-specific dissolved organic carbon and pH on the calculated toxicity of aluminium.

Even with these expected less stringent effluent limitations, multiple permittees reported discharges during the term of the 2019 DWGP indicating that they will not meet the aluminium recommended water quality criteria at end of pipe. In many cases they will be able to meet the acute criteria but not the chronic criteria. EPA has implemented the EPA Region 8 Mixing Zones and Dilution Policy (1994) to account for site specific dilution. The applicant is required to research and submit the 7Q10 for the receiving water with their NOI. If the facility's receiving water 7Q10 critical low flow is greater than 50 times its wastewater discharge flow rate, indicating a lack of reasonable potential due to dilution, the aluminium chronic effluent limitations (30-day average) will not be required. The facility will be required to monitor for aluminium in the receiving water over the term of the permit to verify that the receiving water has capacity to accept the discharge. If the facility is unable to meet the daily maximum aluminium effluent limitation, an individual permit will be necessary to properly develop a mixing zone analysis.

9.2.2 Iron

Iron salts are the active ingredients in some coagulants. As noted in the Drinking Water Treatment Plant Residuals Management Technical Report (EPA 820-R-11-003), iron was listed as a pollutant of concern for drinking water treatment facilities using iron-based coagulants. The DWGP has an effluent limitation and monitoring requirement for iron. This effluent limit is applied to facilities that use iron-based coagulants in their treatment stream. The 1986 EPA recommended chronic water quality criterion for iron for the protection of freshwater aquatic life is 1000 µg/l. This concentration will be the effluent limitation at the discharge point prior to mixing with the receiving water. The Confederated Salish and Kootenai Tribes of the Flathead Reservation, Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Ute Mountain Ute Tribe of the Ute Mountain Ute Reservation, and Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation have a 300 µg/L EPA approved surface water quality. Facilities on these reservations will be required to comply with a 300 µg/L iron effluent limitation.

9.2.3 Arsenic

Arsenic is a pollutant with carcinogenic and other human health impacts. Arsenic is present in the ground and surface waters of Region 8 states. The national recommended water quality criterion for aquatic life of arsenic is 304 µg/l and 150 µg/L for acute and chronic toxicity, respectively. The human health recommended criterion for consumption of fish is 0.14 µg/L. The Safe Drinking Water Act has a maximum contaminant level of 10 µg/L. 40 C.F.R. Part 136 Appendix C Table 1 identifies the method detection limit for arsenic in wastewater as being 53 µg/L. With a MDL for arsenic that is higher than the recommended

water quality criteria for human health, permittees are not able to determine if wastewater meets national recommended surface water criteria for human health. The EPA is unable to perform a reasonable potential analysis because all arsenic data reported during the previous term of the permit were below the MDL of 53 µg/l. Therefore, arsenic monitoring is only required in the NOI pollutant scan in this permit.

The effluent limitation for arsenic in the previous permit was 10 µg/L based on the drinking water MCL. The 10 µg/l effluent limitation has been removed from the permit because it is orders of magnitude higher than the 0.14 µg/L recommended water quality criteria. Arsenic data will continue to be collected, and facilities who report concentrations above 53 µg/L will be required to apply for an individual permit. Facilities that report below 53 µg/L are below the MDL, and therefore coverable by this permit. Arsenic criteria, limits, and MDLs will be reviewed at the time of renewal at the end of this permit term.

9.2.4 Copper

Copper is a pollutant with toxic effects on aquatic life. 40 C.F.R. Part 136 Appendix C Table 1 identifies the MDL for copper as being 5.4 µg/L in wastewaters. One facility reported copper as present in their effluent with a high value of 15.9 µg/L. All other facilities reported 0.0 µg/L of copper. The recommended WQC used for developing copper effluent limitations requires site-specific data similar to the 2018 aluminium criteria. Facilities with copper in their effluent will be required to monitor for copper, hardness and pH in the effluent and receiving water. This data is critical in calculating copper toxicity. At renewal upon the end of this permit term, copper will be assessed to determine the need for an effluent limitation.

9.2.5 Zinc

Zinc was reported by facilities to have a maximum wastewater concentration of 20 µg/L total recoverable. 50% of data reported was 0.0 µg/L. The recommended aquatic life water quality criterion for zinc is 120 µg/L (chronic and acute). The MCL for zinc is 5 mg/L which is above the aquatic life criteria. The zinc data consisted of 14 samples among 9 facilities. With one facility submitting 3 samples. The available zinc data did not have enough samples for each facility to conduct a reasonable potential analysis. The coefficient of variation for such small sample sets is very large. The EPA was not able to determine reasonable potential for DWGP facilities to cause a zinc exceedance. Zinc monitoring will continue to be required at DWGP facilities.

9.2.6 Other Metals

The 2019 DWGP required annual monitoring for metals in addition to the ones discussed above: antimony, beryllium, cadmium, total chromium, copper, lead, nickel, selenium, and silver. Metals monitoring was required on an annual basis. In some instances, data collected for these metals was not consistent enough to determine whether these metals are pollutants of concern at Region 8 facilities. Additionally, the MDL is much higher than

the recommended WQC in some instances. Two permittees submitted three annual metals pollutant scans. The other permittees submitted two or fewer annual pollutant scans each.

Thallium has a recommended human health water quality criterion for the consumption of fish of 0.47 µg/L. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 40 µg/L. 100% of thallium data reported were below the MDL. With an MDL above the criterion, these data do not enable a calculation of reasonable potential.

All 16 samples submitted by the permittees for antimony were reported below the 40 C.F.R. Part 136 appendix C Table 1 MDL of 32.0 µg/L. The human health criterion for the consumption of fish only criterion for antimony is 640 µg/L. While the data do not show definite reasonable potential. The available data did not have enough samples for each facility to conduct a reasonable potential analysis. The coefficient of variation for such small sample sets is very large. The EPA was not able to determine reasonable potential for DWGP facilities to cause an exceedance.

Beryllium does not have national recommended water quality criteria for aquatic life or human health. Beryllium monitoring has been removed from the DWGP.

Silver has a recommended acute aquatic life water quality criteria of 3.2 µg/L. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 7 µg/L. 100% of silver data reported were below the MDL. Since the MDL is above the criterion, the data do not allow a calculation to determine reasonable potential.

Selenium has a recommended water quality criterion for aquatic life of 1.5 µg/L as a 30-day average. The recommended water quality criterion for the consumption of fish is 4200 µg/L. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 75 µg/L. 100% of selenium data reported were below the MDL. Due to 100% of the data being reported below the 136.3 method detection limit, the EPA is unable to conclusively determine reasonable potential.

Nickel has an aquatic life water quality criterion of 470 µg/L and 52 µg/L for acute and chronic toxicity respectively. Nickel has a human health water quality criterion for the consumption of fish 4600 µg/L. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 15 µg/L. 100% of nickel data reported were below the MDL. The data do not show reasonable potential requiring an effluent limitation.

Lead has an aquatic life water quality criterion of 65 µg/L and 2.5 µg/L for acute and chronic toxicity respectively. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 42 µg/L. 100% of lead data reported were below the MDL. Due to 100% of the data being reported below the 136.3 method detection limit, the EPA is unable to conclusively determine reasonable potential.

Total chromium has an aquatic life water quality criterion of 570 µg/L and 74 µg/L for acute and chronic toxicity respectively. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 6.1 µg/L.

100% of chromium data reported were below the MDL. The data do not show reasonable potential requiring an effluent limitation.

Cadmium has an aquatic life water quality criterion of 1.8 µg/L for acute toxicity. The 40 C.F.R. Part 136 appendix C Table 1 MDL is 3.7 µg/L. 100% of cadmium data reported were below the MDL. With an MDL above the criterion, these data do not enable a calculation of reasonable potential.

For each of the metals above a facility may request in its NOI that indicator monitoring be reduced based on the absence of the pollutant. The facility will have to test below the 40 C.F.R. Part 136 Table 1 MDL, or below the lowest of the water quality criteria identified above if it is higher than the MDL, four consecutive times to justify a modified monitoring requirement; see Section 14. This is consistent with the EPA's practice in other permits allowing for waiver of monitoring requirements (e.g., EPA's Multisector General Permit (MSGP), and Individual POTW permits Form 2C).

9.2.7 Total Residual Chlorine

Chlorine is used in various forms for disinfection of water. Many water treatment facilities will generate wastewater and sludge from operations containing chlorinated water. According to information provided in the NOI, the permittee may be required to monitor for, and comply with, effluent limits for chlorine.

The EPA is using the recommended WQC for aquatic life to maintain the previous DWGP chlorine effluent limits: acute 19 µg/L, chronic 11 µg/L. These concentrations are used as the limits for daily maximum and 30-day average, respectively. Section 5.2 of the DWGP requires that sufficiently sensitive monitoring methods must be used. The analysis for TRC shall be conducted using reliable devices (Equivalent to EPA Standard Methods 4500-Cl-G). The method achieves a method detection limit (MDL) of 50 µg/L. Analytical results less than the MDL shall be expressed as <50 µg/L in the calculation of daily maximum and 30-day average, and calculated results equal to the MDL shall be reported as "<50 µg/L." For compliance purposes, the limit coded into EPA's Integrated Compliance Information System will be <50 µg/L. The footnote to the monitoring tables in the DWGP states that calculated results for daily maximum and 30-day average coded as "<50 µg/L" will be interpreted as compliant with the effluent limits for total residual chlorine. Results higher than the MDL shall be reported as the calculated value.

The data reported for total residual chlorine had multiple exceedances of the effluent limitations. Three facilities had 27 exceedances of both the acute and chronic effluent limitations. Every facility with exceedances was able to modify their operation to bring their chlorine effluent concentration into compliance with effluent limitations.

9.2.8 Total Trihalomethanes (TTHMs)

TTHMs were identified as a pollutant of concern in the fact sheet for the 2019 DWGP due to the potential human health impacts when consumed in drinking water. Data reported during the 2019 DWGP were analyzed and are summarized below:

Bromoform has a recommended human health water quality criteria (WQC) of 120 µg/L. Twenty-three monitoring events were reported for bromoform. All facilities reported below 7.6 µg/L.

Chlorodibromomethane has a recommended WQC of 21 µg/L. Twenty-three monitoring events were reported for chlorodibromomethane. All facilities reported below 1.6 µg/L.

Chloroform has a recommended WQC of 2000 µg/L. Twenty-four monitoring events were reported for chloroform. All facilities reported at or below 47 µg/L.

Dichlorobromomethane has a recommended WQC for human health of 27 µg/L. Twenty-three monitoring events were reported for dichlorobromomethane. All facilities reported at or below 9.3 µg/L.

For each of the TTHMs the maximum reported value was less than 50% of the recommended WQC. The data show no reasonable potential to exceed the applicable water quality criteria. Monitoring for TTHMs has been discontinued in the permit renewal.

9.2.9 pH

The EPA has recommended WQC of 6.5-9 pH to protect aquatic life. (EPA-822-R-02-047). Source water characteristics and chemicals used in drinking water treatment facilities may result in pH outside the 6.5-9.0 standard units range. To ensure the protection of aquatic life, discharges must be maintained within a pH range from 6.5 to 9.0 as an end of pipe discharge limitation. Refer 9.3 of the for discussion of Tribal WQS.

DWGP facilities demonstrated an ability to comply pH effluent limitations in the 2019 DWGP. There were zero instances of pH effluent limitation exceedances.

9.2.10 *E. Coli* I and Fecal Coliform

DWGP facilities did not submit monitoring data for *E. coli* and fecal coliform despite supplemental monitoring requirements for these parameters in the 2019 DWGP. In the absence of monitoring data to determine reasonable potential for DWGP facilities to cause an exceedance of a water quality standard, a literature review was conducted to verify whether *E. coli* and fecal coliform are a pollutant of concern at DWGP. A technical guidance document[7] describes *E. coli* in the introduction as an example of conventional pollutants in

[7] EPA Drinking Water Treatment Plant Residuals Management

wastewater, but the section of the document discussing conventional and other pollutants does not include *E. coli* and fecal coliform as pollutants of concern at drinking water treatment plants. Similarly, two recent EPA-issued general permits[8] for drinking water treatment discharges do not identify bacteria in their pollutant analyses. Therefore, *E. coli* and fecal coliform limits and monitoring have been removed from the DWGP.

9.2.11 Temperature

There are no EPA recommended water quality criteria for temperature to implement in Indian country. The Confederated Salish and Kootenai Tribes, Assiniboine and Sioux Tribes, Ute Mountain Ute Tribe, Northern Cheyenne Tribe, Blackfeet Tribe, and the Southern Ute Indian Tribe have TAS and EPA approved water quality standards for temperature.

The temperature standards on these reservations are based upon measurable changes in the receiving water as an effect of the discharge. Facilities which are on a reservation that has TAS and EPA approved water quality standards for temperature will be required to report receiving water temperature to assist in reasonable potential analysis at the time of renewal.

9.3 Tribal Water Quality Standards

It is necessary to determine whether the proposed effluent limitations will protect the receiving waters according to Tribal Water Quality Standards approved by the EPA under the Clean Water Act. shows a comparison between the proposed DWGP effluent limitations and each Tribe's EPA-approved WQS. This analysis is only performed for Tribes who have been approved by EPA for treatment as a state / treatment in a similar manner as a state (TAS) for purposes of water quality standards under section 303(c) of the Clean Water Act.

Tribal WQS are equivalent to recommended WQC for pH, TRC and TSS. The effluent limitations for these pollutants are protective of the Tribals WQS and will not require modification of the effluent limitations.

Aluminum and iron are pollutants the Tribes have a stricter water quality standard than the WQC. Facilities on these reservations will be assigned supplementary effluent limitations that will protect the Tribe's WQS.

The Confederated Salish & Kootenai, Assiniboine & Sioux, Ute Mountain Ute and Northern Cheyenne Tribes have not adopted the 2018 recommended aluminum criteria into Tribal WQS. These Tribes' have Tribal WQS of 750 µg/L 7-day average and 87 µg/L 30-day average

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[8] Massachusetts General Permit # MAG640000, 2023
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Facilities under the jurisdiction of the Confederated Salish & Kootenai, Assiniboine & Sioux and Northen Cheyenne Tribes have a human health WQS for iron of 300 µg/L that is applied to all waters of the Tribes. Facilities that discharge on these reservations will receive an iron daily maximum limit of 300 µg/L to protect these Tribes' WQS.

In the 2019 DWGP a supplementary pH effluent limitation was required for facilities on the Southern Ute Indian Reservation. On April 15, 2022, the EPA approved WQS for Southern Ute Indian reservation that brought the Tribe's WQS in alignment with EPA's recommended WQC eliminating the need for the supplemental effluent limitation.

Table 4 – Comparison of Tribal WQS and DWGP Effluent Limitations

Tribes	Date WQS Approved	Aluminium (µg/L)[1]	Iron (µg/L)[1]	TRC (µg/L)[1]	TSS (mg/L)[1]	pH (Standard Units)
Confederated Salish and Kootenai Tribes of the Flathead Reservation	4/2/2019	7-Day - 750	AL - 1000	7-Day - 19	N/A	6.5-9.0
		30-Day - 87	HH - 300	30-Day - 11		
Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana	12/19/2019	7-Day - 750	AL - 1000	7-day - 19	Narrative	6.5-9.0
		30-Day - 87	HH - 300	30-Day - 11		
Ute Mountain Ute Tribe of the Ute Mountain Ute Reservation	1/20/2011	7-Day - 750	N/A	7-Day - 19	N/A	6.5-9.0
		30-Day - 87		30-Day - 11		
Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana	3/21/2013	7-Day - 750	AL - 1000	7-Day - 19	Narrative	6.5-9.0
		30-Day - 87	HH - 300	30-Day - 11		
Blackfeet Tribe of the Blackfeet Indian Reservation of Montana	8/14/2024	Calc - EPA 2018 WQC	AL - 1000	7-Day - 19	N/A	6.5-9.0
				30-Day - 11		
Southern Ute Indian Tribe	4/15/2022	Calc - EPA 2018 WQC	AL - 1000	7-Day - 19	N/A	6.5-9.0
				30-Day - 11		

DWGP Limitations	N/A	Calc - EPA 2018 WQC	AL - 1000	7-Day - 19 30-Day - 11	Daily - 65 30-Day - 29	6.5-9.0
Supplemental Tribal Effluent Limitation Needed?	N/A	Yes	Yes	No	No	No

1. Definitions:

7-Day – 7-day average
30-Day – 30-day average
Daily - Daily Maximum
AL – Recommended Aquatic Life Water Quality Criteria
HH – Recommended Human Health Water Quality Criteria

10 Effluent Limitations for the DWGP

As summarized in Table 5 below, EPA has established two categories of effluent limitations for the DWGP. These include primary and supplemental effluent limitations for pollutants expected to be present in discharges from all facilities eligible for coverage under the DWGP. Effluent limitations are effective at the wastewater outfall(s) before mixing with other discharges.

There are two pollutants considered primary effluent limitations: TSS and pH. All permittees must comply with these effluent limits.

Supplemental effluent limitations have been developed for total residual chlorine (TRC), aluminum and iron. Supplemental effluent limitations will be required depending on the information provided in a facility's NOI. EPA will notify the permittee which supplemental limits will apply in the notice of coverage. The basis and application for each effluent limitation is discussed below.

Table 5 – DWGP Effluent Limitations – Category and Type

Pollutant	**Daily Maximum**[6]	**30-day average**[6]	**Category**	**Type**
Aluminum[1,2], µg/L	Calculated	Calculated	Supplemental	WQBEL
Aluminum [1,3], µg/L	750	87	Supplemental	WQBEL
Iron[4], µg/L	1000	N/A	Supplemental	WQBEL
Iron[5], µg/L	300	N/A	Supplemental	WQBEL
Total Residual Chlorine, µg/L	19	11	Supplemental	WQBEL
Total Suspended Solids, mg/L	65	29	Primary	TBEL

pH, Standard Units	Must remain in the range of 6.5 to 9.0 at all times	Primary	WQBEL

1) Aluminum limitations will only be applied at facilities using an aluminum-based coagulant.
2) Effluent limitation is calculated with Aluminum Criteria Calculator V2.0 found at: https://www.epa.gov/sites/default/files/2018-12/aluminum-criteria-calculator-v20.xlsm.
3) Due to EPA-approved Tribal WQS, this aluminum effluent limitation will be used at facilities in the following Tribal jurisdictions: Confederated Salish & Kootenai Tribes, Assiniboine & Sioux Tribes of the Fort Peck Indian Reservation, Ute Mountain Ute of the Ute Mountain Ute Reservation, and Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation.
4) Iron effluent limitations will be required at facilities using iron-based coagulants.
5) This iron effluent limitation will be applied to facilities using an iron-based coagulant in the following Tribal jurisdictions: Confederated Salish & Kootenai Tribes of the Flathead Reservation, Assiniboine & Sioux Tribes of the Fort Peck Indian Reservation, and Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation.
6) The analysis for all pollutants shall be conducted using sufficiently sensitive methods. Permittees shall report the method detection limit (MDL) for the identified pollutants. Analytical results less than the MDL shall be expressed as <MDL. For example, if the method detection limit is 50 µg/L and the measurement is below the MDL, the permittee shall enter "<50 µg/L." DMR Results higher than the MDL shall be reported as the calculated value.

10.1 Method Detection Limit (MDL)

When conducting the reasonable potential analysis for each analyte it was difficult to identify which data points are valid for many of the pollutants. In many cases such as arsenic, each facility might have wastewater with different interferences allowing for variability in method sensitivity and the resulting method detection limit. The 2016 method update rule contained "Definition and Procedure for the Determination of the Method Detection Limit, Revision 2" (EPA 821-R-16-006) which requires:

> "The method detection limit (MDL) is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

As a result, the MDL can change from laboratory to laboratory and it is not feasible to determine whether the reported measurements are being reported at the method detection limits in consideration of the interferences that may be present in the wastewater. The permittee is required to include the MDL for each applicable analyte in the DMR.

11 Anti-backsliding

Section 402(o)(2) of the Clean Water Act and federal regulations at 40 C.F.R. § 122.44(l) generally prohibit the renewal, reissuance or modification of an existing NPDES permit that contains effluent limits, permit conditions or standards that are less stringent than those established in the previous permit (i.e., anti-backsliding) but provides limited exceptions. Section 402(o)(1) of the CWA states that a permit may not be reissued with less stringent limits established based on sections 301(b)(1)(C), 303(d) or 303(e) (i.e. WQBELs or limits

established in accordance with Federal treatment standards) except in compliance with section 303(d)(4). Section 402(o)(1) also prohibits backsliding on TBELs established using Best Professional Judgement (BPJ) as described in CWA section 402(a)(1)(B).

Section 303(d)(4) of the CWA states that, for water bodies where the water quality meets or exceeds the level necessary to support the water body's designated uses, WQBELs may be revised if the revision is consistent with the Tribe's antidegradation policy and as long as the provisions of CWA 303(d)(4) are met.

The TSS effluent limitations in this DWGP have changed and may be interpreted as being less stringent than the corresponding 2019 DWGP's effluent limitation. The proposed effluent limitations were calculated as case-by-case TBEL in Section 9.1. The proposed 30-day average of 29 mg/L is more restrictive than the 30 mg/L effluent limitation in the 2019 DWGP. The proposed daily maximum was calculated at 65 mg/L, which is less restrictive than the corresponding 45 mg/L limit in the 2019 DWGP. It is necessary to prove the increased daily maximum meets anti-backsliding requirements. The 2019 DWGP effluent limitation was based on the Secondary treatment Regulations found at 40 C.F.R. § 133. These regulations are intended for wastewater treatment plants treating domestic wastewater. The wastewater at DWGP facilities is not expected to have characteristics similar to domestic wastewater, which contains biological oxygen demand (BOD_5), TSS and pathogens, among other pollutants. The main method of treatment at a domestic wastewater treatment plant is through biological activity. DWGP facilities' wastewater discharge may contain TSS, but are not expected to contain BOD_5, pathogens or many of the other pollutants in domestic wastewater. Therefore, the application of 40 C.F.R. § 133 to DWGP facilities in the 2019 permit was incorrect, and EPA has replaced the limits with this case-by-case TBEL. This change complies with anti-backsliding restrictions under 40 C.F.R. § 122.44(l)(2)(i)(B)(*2*) because EPA determined that technical mistakes or mistaken interpretations of law were made in issuing the 2019 permit under section 402(a)(1)(b).

The effluent limitations for *E. coli* and fecal coliform have been removed from the permit. This change complies with anti-backsliding restrictions under 40 C.F.R. § 122.44(l)(2)(i)(B)(*2*). The EPA determined that technical mistakes or mistaken interpretations of law were made in issuing the 2019 DWGP under section 402(a)(1)(b). There is no evidence that DWGP facilities are sources of *E.coli* and fecal coliform. For more information see Section 9.2.10.

Arsenic effluent limitations were removed from the permit in accordance with 40 C.F.R. § 122.44(l)(2)(i)(B)(*2*). The arsenic limit in the 2019 DWGP was developed using the Safe Drinking Water Act (SDWA) MCL of 10 µg/L as a reference. Using a drinking water MCL is not a recommended practice in developing WQBELs and as such has been removed. Any facility that reports arsenic concentrations with reasonable potential to cause an exceedance of water quality standards or recommended criteria will be required to obtain an individual permit.

The pH limitations specific to Southern Ute Indian Reservation have been removed from the permit in accordance with anti-backsliding provisions of CWA sections 402(o) and 303(d)(4). The Tribe has updated their water quality standards to align with the recommended WQC, which is the basis for the pH limits in the DWGP.

The aluminum effluent limitations have been updated to meet requirements in the 2018 aluminum criteria. The 2018 aluminum criteria, in most situations, are expected to be less stringent than the 2019 DWGP's effluent limitation. This change in WQBEL developed according to a new WQC complies with anti-backsliding requirements CWA sections 402(o) and 303(d)(4).

Facilities transitioning to the DWGP are not expected to incur backsliding in conformance with 40 CFR 122.28(a)(3) requirement that effluent limitations include WQBEL applicable to the category of permittees.

12 Antidegradation

At the time of writing this DWG there is not an antidegradation policy for EPA Region 8 to apply on reservations where Tribes do not have TAS and EPA approved WQS. Tribes with TAS who have EPA approved WQS (Confederated Salish and Kootenai Tribes, Assiniboine and Sioux Tribes, Southern Ute Tribe, Northern Cheyenne Tribe, Ute Mountain Ute Tribe, Blackfeet Tribe) have an antidegradation policy which were considered when drafting this DWGP. For all these Tribes with TAS, an antidegradation review is required for Tier 2 and outstanding natural resource waters. Only facilities discharging to Tier 1 waters on these reservations can be covered by the DWGP. All other facilities will have to apply for an individual permit to have an antidegradation review performed.

13 Monitoring and Reporting Requirements

13.1 Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and the Federal regulation found at 40 C.F.R. § 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality.

The permittee is responsible for conducting the monitoring and for reporting results on discharge monitoring reports (DMRs) or on the NOI for renewal, as appropriate, to the EPA. Permittees must analyze water samples using Sufficiently Sensitive analytical methods approved by the EPA found at 40 C.F.R. § 136.3. All metals monitoring is to be reported as total recoverable as required in 40 C.F.R. § 122.45(c).

13.2 Monitoring Location(s)

Discharges authorized by this permit must be monitored at each outfall identified in the letter of authorization. Monitoring requirements will be specified for each outfall. All covered outfalls will be specified in the letter of authorization.

13.3 Monitoring Frequencies

Monitoring frequencies are based on the nature of the pollutant, as well as a determination of the minimum sampling necessary to adequately represent the facility's performance. Monitoring frequencies are generally consistent with the 2019 DWGP. Intermittent dischargers are expected to monitor every discharge, while continuous and frequent dischargers are required to monitor on a regular frequency. Permittees are not required to conduct monitoring if no discharge occurs during the monitoring period interval. The permittee is required to commence monitoring when the facility commences discharge. Pollutant specific monitoring frequencies are discussed below.

13.3.1 Conventional pollutants

TSS and pH monitoring are to be conducted on a weekly basis for frequent discharges and every discharge for infrequent discharges. This frequency is expected to capture any variability in the discharge and are easily monitored.

13.3.2 Metals

Antimony, cadmium, total chromium, copper, iron, lead, nickel, selenium, silver, thallium, and zinc are included to determine presence or absence. These pollutants are expected to be geologically present in ground water and influencing the source water of the facility. Annual pollutant scan data will provide Region 8 EPA with a baseline and comparable understanding of wastewater discharge quality and potential water quality exceedances.

Aluminum monitoring is required as a result of chemical addition during the water treatment process. Since the concentration is the result of the facility's activity, monitoring should be more frequent than the frequency specified for the geological metals. Monitoring for aluminum will be required on a monthly basis for frequent dischargers. Infrequent dischargers will be required to monitor every discharge. The monitoring frequency is expected to detect wastewater quality variations that may be caused by operations changes or equipment failure.

13.3.3 Chlorine

Facilities that have chlorine monitoring requirements will be required to monitor daily during discharge due to the toxicity of chlorine, high potential for variability and ease of measurement. Water treatment plants are prepared to test chlorine throughout the system and testing their wastewater discharge would have a minimal impact. Chlorine is a

very effective disinfectant. The properties that make it a good disinfectant make it acutely toxic to aquatic organisms.

13.3.4 Receiving Water Monitoring

Monitoring of the receiving water will be required quarterly to capture seasonal variation of the receiving water.

Hardness monitoring is required for the calculation of metals toxicity. This information will be used to determine the need for metals effluent limits in re-issuance of the DWGP.

Dissolved Organic carbon monitoring is required for the calculation of metals toxicity. This information will be used to determine the need for metals effluent limits in re-issuance of the DWGP.

13.4 Monitoring Type

Grab samples have been determined to be appropriate for all the required measurements. A grab sample is appropriate because the facilities produce consistent quality and quantity effluent since their source water, pollutant source, is expected to be fairly consistent. Drinking water plants are designed around source water quality in order to reduce the risk to the community and to reduce treatment costs. The effluent does not contain the variations that would require composite or other sampling methods.

13.5 Final Monitoring Requirements

Table 6 details the monitoring requirements for facilities continuously and frequently discharging wastewater. The DWGP defines frequent dischargers as those discharging wastewaters at least once per 30-day period. Facilities who discharge less than once per 30-day period are considered intermittent dischargers.

Table 6 – Monitoring requirements for continuous and frequent discharge - Facilities discharging at or more frequent than once per 30-day period.

Parameter	**Monitoring[2,11] Frequency**	**Type of Sample[11]**	**Data Reported[11]**
Flow (Million Gallons per day, Million Gallons per month)	Daily[1,2]	Grab	Daily Max. Monthly Total
pH, Standard units	Weekly[2]	Grab	Daily Max. Daily Min.
TSS (mg/L)	Weekly[2]	Grab	Daily Max, 30 Day Average
Antimony[3, 10] (µg/L)	Annually	Grab	Daily Max.
Arsenic[3 ,10](µg/L)	Annually	Grab	Daily Max.

Cadmium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Chromium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Copper[3, 10] (µg/L)	Annually	Grab	Daily Max.
Lead[3, 10] (µg/L)	Annually	Grab	Daily Max.
Nickel[3, 10] (µg/L)	Annually	Grab	Daily Max.
Selenium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Silver[3, 10] (µg/L)	Annually	Grab	Daily Max.
Thallium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Zinc[3, 10] (µg/L)	Annually	Grab	Daily Max.
Total Residual Chlorine[6, 10] (µg/L)	Daily	Grab	Daily Max, 30 Day Average.
Iron[3, 10] (µg/L)	Annually	Grab	Daily Max, 30 Day Average
Iron[6, 10] (µg/L)	Monthly	Grab	Daily Max, 30 Day Average
Aluminum[6, 10] (µg/L)	Monthly	Grab	Daily Max, 30 Day Average
Hardness[7] (mg/L $CaCO_3$)	Annually[6]	Grab	Daily Min.
Dissolved Organic Carbon (mg/L)	Quarterly	Grab	Daily Min.
Hardness (receiving water)[7] (mg/L $CaCO_3$)	Annually[6]	Grab	Daily Min.
Aluminum[6, 10] (receiving water)	Quarterly	Grab	Daily Max.
Dissolved Organic Carbon (receiving water) (mg/L)	Quarterly	Grab	Daily Min.
pH (receiving water) (standard units)	Quarterly	Grab	Daily Max. Daily Min.
Temperature Change[8] (receiving water) (°C)	Quarterly	Grab	Daily Maximum
Lagoon Sludge Depth[9] (% of total depth)	Once per permit term	Grab	Average % Depth Sludge for each lagoon

1. Report total monthly discharge volume and maximum gallons per day (gpd).
2. All monitoring is required if a wastewater discharge occurs during the applicable compliance monitoring period in Section 5.4 of the DWGP.
3. Indicator monitoring. These parameters must be measured and reported as total recoverable.
5. Only required at plants where chlorine is expected to be in the wastewater discharge.

6. Monitoring for these pollutants is only required when using a coagulant containing the corresponding parameter.
7. Hardness shall be sampled at the same time metal samples are collected.
8. The permittee is required to measure receiving water upstream and downstream of the outfall then report the temperature change caused by the discharge.
9. Required once per permit term for each lagoon at facilities that use lagoons for wastewater treatment.
10. Data results are to be reported with a reporting limit determined from spiked samples in combination with bench samples. Monitoring results reported by the lab as below the reporting limit (RL) of a particular method (these are also known as "non-detect" values) shall be reported in the DMR using the "<" data qualifier and using the numeric RL value as the data value. For example, if the lab reports a non-detect with an RL of 10 units, the value shall be reported in the DMR as "<10" units. The permittee shall not report non-detects by any other method (e.g., "non-detected," "zero," NODI code B, etc.). When non-detect values are used in the calculation of an arithmetic mean, the permittee shall substitute zero for any non-detect values used in the calculation. When non-detect values are used in the calculation of a geometric mean, the permittee shall substitute 1.0 for any non-detect values used in the calculation. In all cases, values reported by the lab at or above the RL shall be used as reported in the calculation. Additional parameter-specific guidance on reporting and non-detects may be found in footnotes in the Effluent Limitations table and the Monitoring and Reporting Requirements table.
11. Definition of Terms is available in Appendix E of the Permit.

Table 7 details the monitoring requirements for facilities with an intermittent or seasonal discharge. If a plant discharges wastewater less than once every 30 days, then the discharge will be considered intermittent.

Table 7 - Monitoring Requirements for Facilities with Intermittent Wastewater Discharges - Facilities that discharge less than once per 30-day period

Parameter	Monitoring Frequency[11]	Type of Sample[11]	Data Reported[11]
Flow (Million Gallons per Day)	Daily[1,2]	Grab	Daily Max.
pH, Standard units	Daily[2]	Grab	Daily Max. Daily Min.
TSS (mg/L)	Daily[2]	Grab	Daily Max. 30 Day Average
Antimony[3, 10] (µg/L)	Annually	Grab	Daily Max.
Arsenic[3 ,10](µg/L)	Annually	Grab	Daily Max.
Cadmium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Total Chromium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Copper[3, 10] (µg/L)	Annually	Grab	Daily Max.
Lead[3, 10] (µg/L)	Annually	Grab	Daily Max.
Nickel[3, 10] (µg/L)	Annually	Grab	Daily Max.

Selenium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Silver[3, 10] (µg/L)	Annually	Grab	Daily Max.
Thallium[3, 10] (µg/L)	Annually	Grab	Daily Max.
Zinc[3, 10] (µg/L)	Annually	Grab	Daily Max.
Total Residual Chlorine[6] (µg/L)	Daily[2]	Grab	Daily Max, 30 Day Average.
Iron[6, 10] (µg/L)	Monthly	Grab	Daily Max, 30 Day Average
Iron[3, 10] (µg/L)	Annually	Grab	Daily Max, 30 Day Average
Aluminum[6, 10] (µg/L)	Once per discharge	Grab	Daily Max, 30 Day Average
Hardness[7] (mg/L $CaCO_3$)	Annually[6]	Grab	Daily Min.
Dissolved Organic Carbon (mg/L)	Quarterly	Grab	Daily Min.
Hardness (receiving water)[7] (mg/L $CaCO_3$)	Annually[6]	Grab	Daily Min.
Aluminum[6, 10] (receiving water)	Quarterly	Grab	Daily Max.
Dissolved Organic Carbon (receiving water) (mg/L)	Quarterly	Grab	Daily Min.
Dissolved Organic Carbon (receiving water) (mg/L)	Quarterly	Grab	Daily Min.
pH (receiving water) (standard units)	Quarterly	Grab	Daily Max. Daily Min.
Temperature Change[8] (receiving water) (°C)	Quarterly	Grab	Daily Maximum
Lagoon Sludge Depth[9] (% of total depth)	Once per permit term	Grab	Average % Depth Sludge for each lagoon

1. Report total monthly discharge volume and maximum gallons per day (gpd).
2. All monitoring is required if a wastewater discharge occurs during the applicable compliance monitoring period in section 5.4 of the DWGP.
3. Indicator monitoring. These parameters must be measured and reported as total recoverable.
5. Only required at plants where chlorine is expected to be in the wastewater discharge.
6. Monitoring for these pollutants is only required when using a coagulant containing the corresponding parameter.
7. Hardness shall be sampled at the same time metal samples are collected.
8. The permittee is required to measure receiving water upstream and downstream of the outfall then report the temperature change caused by the discharge.
9. Required once per permit term for each lagoon at facilities that use lagoons for wastewater treatment.

10. Data results are to be reported with a reporting limit determined from spiked samples in combination with bench samples. Monitoring results reported by the lab as below the reporting limit (RL) of a particular method (these are also known as "non-detect" values) shall be reported in the DMR using the "<" data qualifier and using the numeric RL value as the data value. For example, if the lab reports a non-detect with an RL of 10 units, the value shall be reported in the DMR as "<10" units. The permittee shall not report non-detects by any other method (e.g., "non-detected," "zero," NODI code B, etc.). When non-detect values are used in the calculation of an arithmetic mean, the permittee shall substitute zero for any non-detect values used in the calculation. When non-detect values are used in the calculation of a geometric mean, the permittee shall substitute 1.0 for any non-detect values used in the calculation. In all cases, values reported by the lab at or above the RL shall be used as reported in the calculation. Additional parameter-specific guidance on reporting and non-detects may be found in footnotes in the Effluent Limitations table and the Monitoring and Reporting Requirements table.11. Definition of Terms is available in Appendix E of the Permit.
11. Definition of Terms is available in Appendix E of the Permit.

13.6 Pollutant Scan

This permit requires a pollutant scan that consists of monitoring of eleven parameters – antimony, cadmium, total chromium, copper, lead, nickel, selenium, silver, thallium, and zinc. Pollutant scan data will provide Region 8 EPA with a baseline and comparable understanding of wastewater discharge quality and potential water quality exceedances. The indicator monitoring parameters are "report-only." The permittee may find it useful to evaluate and compare your indicator monitoring data over time to identify any fluctuating values and why they may be occurring. Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation. Instead, it is a permit condition. Thus, failure to conduct indicator monitoring is a form of noncompliance.

14 Reduction of Pollutant Scan Monitoring

The EPA has determined if the permittee can demonstrate a pollutant is not present at their facility they can request reduced pollutant monitoring. The monitoring requirements of the DWGP include many pollutants which may not be present at most facilities. Copper for instance was only reported at facilities in one of Region 8's six states. In order to help facilities target pollutants that are present and reduce monitoring expense for pollutants not present, the permittee may request a reduction in monitoring in the NOI. The permittee will still be required to monitor for these pollutants when submitting an NOI for coverage under the DWGP. The pollutant scan will be required for all NOI submissions. The pollutant scan at time of renewal, at the end of this DWGP permit term, will ensure that the facility's effluent chemistry has not changed.

The permittee is required to submit four consecutive monitoring results, with their NOI, collected after the effective date of the previous permit. EPA would remove monitoring requirements for pollutants included in the pollutant scan that meet at least one of the following three criteria: All data points must be 0.0 µg/L, below 50% of the WQC, or below the MDL identified in 40 C.F.R. part 136.

Four monitoring results are considered sufficient to prove the absence of pollutants because NPDES application Form 2A only requires 3 pollutant scans for POTWs discharging over one million gallons per day. DWGP facilities are not expected to discharge wastewater in a similar volume or pollution potential as POTWs.

15 Reporting Requirements

With the effective date of the DWGP, the permittee must electronically report DMR on a quarterly frequency using NetDMR. Electronic submissions by permittees must be submitted to the EPA Region 8 no later than the 28th of the month following the completed reporting period (e.g., for the reporting period that includes monitoring results from January 1 to March 31, the DMR would be due April 28). See Table 5 of the Permit for a listing of all DMR deadlines. The permittee must sign and certify all electronic submissions in accordance with the signatory requirements of the DWGP. NetDMR is accessed from the internet at https://netdmr.zendesk.com/home.

In addition, the permittee must submit a copy of the DMR to the respective Tribe. Currently, the permittee may submit a copy to the Tribe(s) by one of three ways: 1. A paper copy may be mailed. 2. The email address for the Tribe(s) may be added to the electronic submittal through NetDMR, or 3. The permittee may provide the Tribe(s) with viewing rights through NetDMR.

16 Facility Inspection Requirements

Inspection requirements apply to all facilities covered under the DWGP. The records of inspections are to be retained on-site at the plant or at a nearby office for the plant.

Section 7 of the DWGP includes routine inspection requirements. These are included as an operation and maintenance measure and require that the facility be inspected on at least a weekly basis unless otherwise specified by the EPA.

The objectives of the inspections include verifying the discharge status of the backwash stabilization pond; checking for specified items that will require corrective maintenance and determining if proper operation procedures are being undertaken (e.g., leakage through the dikes, animal burrows in the dike, excessive erosion of the dikes, rooted plants growing in the water, and the vegetation growth on the dikes need mowing).

If an inspection shows that a discharge has occurred or is likely to occur before the next inspection, the appropriate monitoring and reporting requirements are to be performed if not already done. The permittee shall maintain a log, either electronic or hardcopy recording all information obtained during the inspection.

17 Lagoon Sludge Monitoring

When lagoons are used to remove solids from wastewater, the solids will accumulate and eventually need to be disposed of. Accumulated sludge directly impacts the treatment capability of the settling lagoon. If the facility uses lagoons to treat the wastewater before discharge to waters of the U.S, the lagoon sludge depth must be measured and reported once over the term of the permit. If the sludge depth is over 50% of the lagoon's designed depth, the permittee must submit a plan with the next NOI that describes when the sludge will be removed and how it will be disposed of. In this way, the only requirement for sludge in this iteration of the DWGP is to monitor, with a frequency of once over the permit term that is based on EPA's anecdotal information suggesting most wastewater lagoons in Region 8 remove solids once every 15-30 years.

18 Resilience

To promote hazard resilience of wastewater treatment infrastructure, permittees are required to identify if their facilities are located in the 100-year flood plain. If a facility is identified as being in the 100-year flood plain, the permittee is required to assess the risks to its facility from a catastrophic flooding event during the term of the DWGP to determine what actions or response plans can be implemented to mitigate these risks.

The EPA recommends the below assessment options or similar and associated technical assistance in performing a resilience assessment.

- FEMA's Building Resilient Infrastructure and Communities (BRIC) program offers direct technical assistance over a multi-year commitment. The program aims to support communities as they build capability and capacity in hazard mitigation and resilience. BRIC also encourages and aids innovation. It helps partnerships grow; supports infrastructure projects; and fosters flexibility and consistency. Under this program there is both Direct Technical Assistance available as well as occasional funding opportunities.
- EPA's Creating Resilient Water Utilities (CRWU) initiative offers direct technical assistance over 2-4 months with an approximate 35-40 hour time commitment for interested communities. CRWU technical assistance will promote a clear understanding of resilience and help to identify potential long-term adaptation options for decision-making related to implementation and infrastructure financing.

19 Endangered Species Considerations

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, "listed" species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS as critical ("critical habitat"). See 16 U.S.C. § 1536(a)(2), 50 C.F.R. Part 402. When a Federal agency's action

"may affect" a protected species, that agency is required to consult with the FWS, depending upon the endangered species, threatened species, or designated critical habitat that may be affected by the action (50 C.F.R. § 402.14(a)).

To evaluate how DWGP facilities may affect endangered species and their critical habitat, the EPA is requiring the use of FWS criteria in Appendix B of the DWGP to evaluate potential impacts to federally-listed threatened or endangered species (federally-listed species) and designated critical habitat of those species by the wastewater discharges covered by the DWGP. Applicants will provide EPA R8 with information relating to their eligibility under one or more of the FWS criteria in Appendix B, and EPA R8 will use this information to confirm that permitted discharges will either have "no effect" or "may affect, but [are] not likely to adversely affect" federally-listed species or designated critical habitat. If the analysis indicates that the wastewater discharge and its related activities are likely to adversely affect federally-listed species and/or designated critical habitat and the facility cannot devise measures to implement to avoid the likelihood of adverse effects, the permittee must apply for an individual permit. Where the FWS selection criteria are not indicated in the NOI application, the EPA will withhold its notification of coverage until the permittee has provided adequate information to determine whether DWGP coverage may be issued.

As part of the evaluation of potential impacts, the EPA performed a Biological Evaluation (BE) for each facility covered under the 2019 DWGP. The BE for each facility includes a list of the potential endangered and threatened species that might be present at the facility and the expected effects on the listed species. The EPA used the FWS IPaC website to determine which endangered species to include in the BE. The EPA has made a determination that reissuance of the DWGP may affect, but is not likely to adversely affect all listed species and designated critical habitats present at 2019 DWGP facilities. The FWS will be contacted for concurrence on the EPA's determination during public comment for the DWGP. The BE and corresponding concurrence from FWS will be included as an addendum to the permit. The ESA criterion for each facility will be included in the facility's authorization letter.

20 National Historic Preservation Act Requirements

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their "undertakings" on historic properties. "Undertaking" is defined in the NHPA regulations as "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval." 36 C.F.R. § 800.16(y). EPA R8's renewal of the DWGP is considered a federal "undertaking" within the meaning of the NHPA regulations.

With regard to compliance with the NHPA, based on information received in reports and updates provided to EPA by permittees during the previous permit term, EPA R8 is not aware of any impacts or potential impacts to historic properties by the discharges from the drinking

water treatment facilities previously covered under the 2019 DWGP. No new ground disturbance is expected to occur because of the issuance of the DWGP. To evaluate whether and how the DWGP may affect historic properties, EPA R8 is requiring the use of NHPA criteria in Appendix C of the DWGP. The NOI requires the permittee evaluate potential impacts to historic properties by the discharges from wastewater treatment lagoon systems covered under the DWGP. EPA R8 is requiring applicants to provide certification regarding the NHPA criteria outlined in the DWGP and will evaluate whether the DWGP NHPA criteria have been satisfied prior to authorization for coverage under the DWGP. Additionally, EPA R8 has included, in Section 1.3.7 of the DWGP, the requirement for applicants to notify the appropriate Tribal Historic Preservation Officers (THPO), or designated Tribal officials, and, if applicable, State Historic Preservation Officers (SHPO) of their NOI application for the renewal of coverage under the DWGP.

For any facility that does not meet the NHPA criteria outlined in the DWGP, EPA R8 will withhold its notification of coverage until the permittee has provided adequate information to determine whether DWGP coverage may be issued. During the public comment period, the EPA will notify the THPOs and/or designated Tribal officials, EPA NHPA counsel, as applicable, of the planned issuance of the DWGP.

Permit and Statement of Basis drafted by:

Paul Garrison 04/2024, EPA Region 8, 8WP-CWW, 303-312-6016

ADDENDUM:

Public Notice and Response to Comment

The permit and statement of basis were public noticed in the Federal Register on DATE TBD with docket identification: TBD. The period for comment ended DATE TBD. [Comments to be addressed after public notice.]

401 Certification from Tribes with Treatment as a State

On [Month Day, Year], the EPA sent a sent CWA Section 401 certification requests to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Blackfeet Tribe of the Blackfeet Indian Reservation, Confederated Salish and Kootenai Tribes of the Flathead Reservation, and the Northern Cheyenne Tribe. [The certification decision for each Tribe with the date will be inserted - certified without Section 401 requirements/certified with the following Section 401 certification requirements/waived Section 401 certification]. Any review or appeal of these conditions must be made through Tribal procedures pursuant to 40 CFR § 124.55(e).