

## STATEMENT OF BASIS

**Applicant:** POET Biorefining – Hudson  
**Permit Number:** SD0027944  
**Contact Person:** Adam Wirt, General Manager  
Lisa Sprang, Senior EHS Specialist  
PO Box 439  
Hudson, SD 57034  
**Phone:** (605) 607-6315  
**Permit Type:** Minor Industrial - Renewal

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This document is intended to explain the basis for the requirements contained in the draft Surface Water Discharge Permit. This document provides guidance to aid in complying with the permit requirements. This guidance is not a substitute for reading the draft permit and understanding its requirements.

### DESCRIPTION

POET Biorefining – Hudson (POET – Hudson) operates an ethanol plant located approximately 2 miles southwest of Hudson in the Northeast  $\frac{1}{4}$  of Section 35, Township 96 North, Range 48 West, in Lincoln County, South Dakota (Latitude 43.096722°, Longitude -96.477778°, satellite map interpolation).

The facility was constructed July 1, 2003, with an operational start-up date of May 1, 2004. The ethanol production process consists of four basic steps:

1. Starch conversion – starch from corn is converted to sugars. The corn is milled and blended with water and enzymes to form a mash.
2. Batch fermentation – sugars in the mash are converted to ethanol. Yeast and enzymes are added to the mash to convert the sugars to glucose and then to ethanol.
3. Distillation/Dehydration – ethanol is separated from the other fermentation products through a distillation process. Ethanol is vaporized, water is removed, and ethanol is recondensed to yield the final product.
4. Byproduct processing – distillation byproducts (stillage) consisting of solids and water are processed to produce a dry product for storage and as an animal feed product. Stillage is centrifuged, yielding thin stillage and solids fractions. Some thin stillage is recycled back to the starch conversion process and the remainder is fed to an evaporator where water is removed to create syrup. The syrup is recombined with the centrifuge solids and dried. The result is dried distillers grain used for animal feed.

A process wastewater stream is generated throughout the production process. However, the system is designed to recycle the wastestreams with no discharge of process wastewater. Reverse osmosis reject water may be discharged at a rate of approximately 84,000 gallons per day if the facility is

unable to recycle the entire reject stream. POET – Hudson reported this discharge would occur less than 10% of the time.

POET – Hudson implemented a water recycle project in May 2010 to reduce the amount of water discharged from its facility. The generated wastestreams are recycled internally, rather than being sent to Outfall 001, reducing the need for a discharge from the facility. However, POET – Hudson has elected to keep its current discharge permit, in case future changes in plant operations make discharging necessary. The facility has not discharged since 2010.

The facility routinely performs maintenance on its cooling tower. During this time, the existing water in the cooling tower is pumped to the facility's stormwater retention pond. The retention pond is located directly to the north of the facility and has the hydraulic capacity for the cooling tower water. SDDANR is notified prior to discharges from the cooling tower to the stormwater pond.

## **RECEIVING WATERS**

Any discharge from this facility will enter an unnamed tributary of Pattee Creek which is classified by the South Dakota Surface Water Quality Standards (SDSWQS), Administrative Rules of South Dakota (ARSD), Section 74:51:03:01 for the following beneficial uses:

- (9) Fish and wildlife propagation, recreation, and stock watering waters; and
- (10) Irrigation waters.

The unnamed tributary of Pattee Creek flows approximately 0.25 miles to Pattee Creek, which is classified by the SDSWQS, ARSD Sections 74:51:03:01 and 74:51:03:07 for the following beneficial uses:

- (5) Warmwater semipermanent fish life propagation waters;
- (8) Limited contact recreation waters;
- (9) Fish and wildlife propagation, recreation, and stock watering waters; and
- (10) Irrigation waters.

Pattee Creek flows approximately 1 mile to the Big Sioux River, which is classified by the SDSWQS, ARSD Sections 74:51:03:01 and 74:51:03:07 for the following beneficial uses:

- (5) Warmwater semipermanent fish life propagation waters;
- (7) Immersion recreation waters;
- (8) Limited contact recreation waters;
- (9) Fish and wildlife propagation, recreation, and stock watering waters; and
- (10) Irrigation waters.

Since the receiving waterbody has only the minimum fishery beneficial use classification of (9), the SDSWQS (ARSD Section 74:51:01:02.01) require that an analysis of the receiving stream be conducted to determine whether the waterbody deserves a higher beneficial use designation. The South Dakota Department of Agriculture and Natural Resources (SDDANR) has conducted an

analysis for the unnamed tributary of Pattee Creek near the discharge location. SDDANR personnel have determined that the beneficial use classifications for the unnamed tributary of Pattee Creek are appropriate and will remain unchanged.

The SDSWQS (ARSD Section 74:51:01:04) allow application of criteria to protect downstream waterbodies which are impacted by discharges. Based on the proximity of the discharge location to Pattee Creek and the Big Sioux River, POET – Hudson’s discharge is expected to impact the Pattee Creek and the Big Sioux River. The effluent limits will be drafted to be protective of the beneficial use classifications of Pattee Creek and the Big Sioux River, in accordance with ARSD Section 74:51:01:04.

## **TOTAL MAXIMUM DAILY LOAD**

Section 303(d) of the federal Clean Water Act requires states to develop Total Maximum Daily Loads (TMDLs) for waters at levels necessary to achieve and maintain water quality standards. TMDLs are calculations of the amount of pollution a waterbody can receive and still maintain applicable water quality standards. According to the federal Clean Water Act, the state must develop TMDLs for all waters identified on their Section 303(d) list of impaired waters, according to their priority ranking on that list. Every two years, the state assesses its water quality and publishes the list of impaired water bodies as part of its Integrated Report.

TMDLs address specific waterbodies, segments of waterbodies, or even entire watersheds, and are pollutant specific. TMDLs must allow for seasonal variations and a margin of safety, which accounts for any lack of knowledge concerning the relationship between pollutant loads and water quality. A wasteload allocation is developed for any point sources that cause or contribute to the water quality impairment.

The unnamed tributary of Pattee Creek and Pattee Creek segment of the receiving waterbody has not been identified as being impaired; therefore, a TMDL is not needed.

A downstream segment of the Big Sioux River has been identified as being impaired for total suspended solids (TSS). A TMDL has been completed and approved by EPA with no wasteload allocation assigned to POET – Hudson. This facility is a closed loop system and has not discharged since 2010.

## **ANTIDEGRADATION**

SDDANR has fulfilled the antidegradation review requirements for this permit. In accordance with South Dakota’s *Antidegradation Implementation Procedures* (SDDANR, October 1998) and the SDSWQS, it was determined that the discharge at the draft permit limits will cause an insignificant change in water quality. The results of SDDANR’s review are included in Attachment 1 (Antidegradation Review). The antidegradation review and conclusions will be public noticed for public comment at the same time as the draft permit.

## MONITORING DATA

POET – Hudson has been submitting Discharge Monitoring Reports (DMRs) electronically as required under the current permit. The facility has not reported a discharge during the current permit cycle. The last reported discharge was in 2010. Public access to facility’s monitoring data is available at EPA’s Enforcement and Compliance History Online (ECHO) website: <https://echo.epa.gov/>

This facility has had no violations during the current permit cycle.

## INSPECTIONS

Personnel from SDDANR conducted a Compliance Inspection of the POET – Hudson facility on September 21, 2022. The following comments and corrective actions were required in order to come into compliance with the facility’s Surface Water Discharge (SWD) permit:

COMMENTS	REQUIRED CORRECTIVE ACTIONS
<p>No inspection notebook is being maintained for the facility. Precipitation logs are kept, but they do not contain all of the required information.</p> <p>An inspection notebook has been mailed to the facility which can be used for tracking the weekly inspections of the facility’s process and outfall location.</p>	<p>You must keep an inspection notebook in accordance with Section 3.4 of your Surface Water Discharge Permit. Inspections must be conducted on at least a weekly basis and at least daily during a discharge. The notebook shall include, at a minimum, the following:</p> <ul style="list-style-type: none"> <li>a. Date and time of the inspection;</li> <li>b. Name of the inspector(s);</li> <li>c. The facility’s discharge status;</li> <li>d. Identification of operational problems and/or maintenance problems;</li> <li>e. Recommendations, as appropriate, to remedy identified problems;</li> <li>f. A brief description of any actions taken with regard to problems identified; and,</li> <li>g. Other information, as appropriate.</li> </ul>
<p>You must update your Stormwater Pollution Prevention Plan (SWPPP) to the statement regarding non-stormwater discharges.</p>	<p>Section 4.0 of the General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit) requires that the SWPPP include the statement found in Section 4.4.5 of the General Permit regarding non - stormwater discharges.</p>

COMMENTS	REQUIRED CORRECTIVE ACTIONS
The annual site evaluation has not been signed with the required certification statement.	You must sign each annual site evaluation using the certification statement found in Section 6.8 of the General Permit.

**EFFLUENT LIMITS**

40 CFR Part 414 Subpart F, Commodity Organic Materials, is applicable to the process wastewater discharges resulting from the manufacture of certain commodity organic chemicals and commodity organic chemical groups, of which ethanol is one. However, POET – Hudson does not discharge process wastewater and, therefore, the limits stated in 40 CFR 414.60 are not applicable. In addition, 40 CFR 414.11 (e) states the provisions of 40 CFR 414 do not apply to any process wastewater discharges from the manufacture of organic chemical compounds solely by extraction from plant and animal raw materials or by fermentation processes; because POET – Hudson uses fermentation processes to produce ethanol, they are not subject to 40 CFR 414.

Based on the permit application, self-monitoring data, and operational processes, SDDANR believes the parameters listed below need effluent limits. These limits are based on the South Dakota Surface Water Quality Standards (SDSWQS), permit writer's judgment, and the current permit limits.

**Outfall 001** – Any discharge of non-contact cooling tower blowdown, filter backwash, reverse osmosis reject, or water softener regeneration effluent to an unnamed tributary of Pattee Creek (Latitude 43.097925°, Longitude -96.475364°, Satellite Map Interpolation).

1. The Total Dissolved Solids (TDS) concentration shall not exceed 2,500 mg/L as a 30-day average or 4,375 mg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification of the Big Sioux River and Pattee Creek, the SDSWQS (ARSD Section 74:51:01:52) and the current permit limits, and are being included because SDDANR has determined there is a reasonable potential for the TDS of the discharge to violate the SDSWQS without a limit.
2. Conductivity shall not exceed 2,500 micromhos/cm as a 30-day average or 4,375 micromhos/cm as a daily maximum. These limits are based on the irrigation waters classification of the Big Sioux River and Pattee Creek, the current permit limits and are being included because SDDANR has determined there is a reasonable potential for the conductivity of the discharge to violate the SDSWQS without a limit.

**Note:** For the non-irrigation season of November 1 through March 31, the SDSWQS's conductivity standards of 4,000 µmhos/cm 30-day average and 7,000 µmhos/cm daily maximum are less stringent than the current permit's effluent limits. The more-stringent effluent limits are proposed in this draft permit to prevent backsliding.

3. The Total Suspended Solids (TSS) concentration shall not exceed 6.0 mg/L as a 30-day average or 10.5 mg/L as a daily maximum. These limits are based on the current permit limits, the antidegradation review from a previous Statement of Basis, the permit writer's judgment and are being included because SDDANR has determined there is a reasonable potential for the TSS of the discharge to violate the SDSWQS without a limit.
4. The five-day biochemical oxygen demand (BOD<sub>5</sub>) concentration shall not exceed 10.0 mg/L as a 30-day average, and 17.5 mg/L as daily maximum. These limits are based on the current permit limits, the antidegradation review from a previous Statement of Basis, and the permit writer's judgment.
5. The Nitrates (as N) concentration shall not exceed 50 mg/L as a 30-day average or 88 mg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification of the Big Sioux River and Pattee Creek, the SDSWQS (ARSD Section 74:51:01:52), the current permit limits.
6. The oil and grease concentration shall not exceed 10 mg/L or impart a visible film or sheen to the surface or to the adjoining shorelines. This limit is based on the SDSWQS (ARSD Section 74:51:01:52).
7. The Total Residual Chlorine (TRC) concentration in any one sample shall not exceed 0.019 mg/L. This limit is based on the warmwater semipermanent fish life propagation waters classification of the Big Sioux River, Pattee Creek and the SDSWQS (ARSD Section 74:51:01:55).

**Note:** SDDANR considers the analytical detection limit for total residual chlorine to be 0.05 mg/L. If the effluent value is less than the analytical detection limit, "Below Detection Level" shall be used for reporting purposes.

8. The pH shall not be less than 6.5 standard units or greater than 9.0 standard units in any single analysis and/or measurement. These limits are based on warmwater semipermanent fish life propagation waters classification of the Big Sioux River, Pattee Creek and the SDSWQS (ARSD Section 74:51:01:48).

**Note:** SDDANR specifies that pH analyses are to be conducted within 15 minutes of sample collection with a pH meter. Therefore, the permittee must have the ability to conduct onsite pH analyses. The pH meter used must be capable of simultaneous calibration to two points on the pH scale that bracket the expected pH and are approximately three standard units apart. The pH meter must read to 0.01 standard units and be equipped with temperature compensation adjustment. Readings shall be reported to the nearest 0.1 standard units.

9. The Dissolved Oxygen (DO) concentration shall not be less than 5.0 mg/L (daily minimum). This limit is based on the warmwater semipermanent fish life propagation waters classification of the Big Sioux River, Pattee Creek, the SDSWQS (ARSD Section 74:51:01:48) and the permit writer's judgment.

10. The Total Recoverable Cadmium concentration shall not exceed 0.25 µg/L as a 30-day average and 1.80 µg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the Big Sioux River and Pattee Creek, the current permit limits, and the SDSWQS (ARSD Section 74:51:01:55). The water quality standard for cadmium is also based on the hardness (as CaCO<sub>3</sub>) of the receiving waters. An assumed receiving stream hardness of 100 mg/L was used for determining the cadmium limits.

**Note:** The SDSWQS for the 30-day average cadmium standard is less stringent than the effluent limit in the current permit. This more stringent effluent limit is proposed in this draft permit to prevent backsliding.

11. The Total Recoverable Copper concentration shall not exceed 9.0 µg/L as a 30-day average and 13.0 µg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the Big Sioux River, Pattee Creek, and the SDSWQS (ARSD Section 74:51:01:55). The water quality standard for copper is also based on the hardness (as CaCO<sub>3</sub>) of the receiving waters. An assumed receiving stream hardness of 100 mg/L was used for determining the copper limits.
12. The Total Recoverable Lead concentration shall not exceed 2.5 µg/L as a 30-day average and 65.0 µg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the receiving waters, and the SDSWQS (ARSD Section 74:51:01:55). The water quality standard for copper is also based on the hardness (as CaCO<sub>3</sub>) of the receiving waters. An assumed receiving stream hardness of 100 mg/L was used for determining the copper limits.
13. The Total Recoverable Silver concentration shall not exceed 3.2 µg/L as a daily maximum. This limit is based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the receiving waters (SDSWQS, ARSD Section 74:51:01:55). The water quality standard for silver is also based on the hardness (as CaCO<sub>3</sub>) of the receiving waters. An assumed receiving stream hardness of 100 mg/L was used for determining the silver limits.
14. The Total Recoverable Selenium concentration shall not exceed 5.0 µg/L as a 30-day average and 12.82 µg/L as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the receiving waters (ARSD Section 74:51:01:55). The acute standard for selenium is based on the fractions of selenite, f<sub>1</sub>, and selenate, f<sub>2</sub>.  $CMC = 1/[(f_1/CMC_1) + (f_2/CMC_2)]$  where CMC<sub>1</sub> and CMC<sub>2</sub> are 185.9 µg/L and 12.82 µg/L, respectively. In the worst case scenario the chronic SDSWQS could be violated if sample results are above 12.82 µg/L. To be conservative, 12.82 µg/L will be included as the 30-day average limit.

15. The Total Recoverable Zinc concentration shall not exceed 120 µg/L as a 30-day average or as a daily maximum. These limits are based on the fish and wildlife propagation, recreation, and stock watering waters classification for toxic pollutants of the receiving waters (ARSD Section 74:51:01:55). The water quality standard for silver is also based on the hardness (as CaCO<sub>3</sub>) of the receiving waters. An assumed receiving stream hardness of 100 mg/L was used for determining the silver limits.
16. Acute Toxicity, as measured by the Whole Effluent Toxicity (WET) test, shall be less than 1.0 toxic unit (TU<sub>a</sub>). This limit is based on the SDSWQS (ARSD Section 74:51:01:12), the SDDANR *Guidance Document for Whole Effluent Toxicity (WET)*, and permit writer's judgment.
17. There shall be no discharge of floating solids or visible foam in other than trace amounts. This limit is based on the SDSWQS (ARSD Section 74:51:01:06).
18. No sanitary wastes shall be introduced into this discharge. This limit is based on permit writer's judgment.
19. No chemicals corrosion inhibitors, biocides, descalers, etc., shall be added to the discharge without prior review from SDDANR. This limit is based on the permit writer's judgment. Chemicals already identified in the permit application process are considered permissible for purposes of this limit.

**Note:** With prior review from SDDANR, additional chemical additives may be added for use without additional public notice.

SDDANR does not believe there is a reasonable potential for other pollutants to violate the SDSWQS. The limits and monitoring in the draft permit will be sufficient to ensure the protection of the water quality near POET – Hudson's discharge.

## **SELF MONITORING REQUIREMENTS**

The draft permit requires the permittee to monitor all discharges for TDS (mg/L), TSS (mg/L), conductivity (µmhos/cm), BOD<sub>5</sub> (mg/L), nitrate-nitrogen (as N, mg/L), pH (su), oil and grease (contingent, mg/L), TRC (mg/L), DO (mg/L), total recoverable cadmium (µg/L), total recoverable copper (µg/L), total recoverable lead (µg/L), total recoverable silver (µg/L), total recoverable selenium (µg/L), total recoverable zinc (µg/L), floating solids/visible foam (visual), oil and grease (visual), and acute whole effluent toxicity (TU<sub>a</sub>). These monitoring requirements are based on the limits in the draft permit for these parameters. Effluent water temperature (°F), total flow (million gallons), flow rate (MGD), ammonia-nitrogen (as N, mg/L), total hardness (as CaCO<sub>3</sub>, mg/L), total recoverable arsenic (µg/L), total recoverable Chromium VI (µg/L), total recoverable mercury (µg/L), and duration of discharge (days) shall be monitored, but will not have a limit. These monitoring requirements are based on the need to fully characterize the discharge.

### ***Reporting***

Effluent monitoring results shall be summarized for each month and recorded on a DMR to be submitted via NetDMR to SDDANR on a **monthly** basis. If no discharge occurs during a month, it shall be stated as such on the DMR.

### ***Inspections***

Monitoring shall consist of **monthly** inspections of the facility and the outfall to verify that proper operation and maintenance procedures are being practiced. **Daily** inspections are required during a discharge. Documentation of each of these visits shall be kept in a log in either paper or electronic format to be reviewed by SDDANR or EPA personnel when an inspection occurs.

## **WHOLE EFFLUENT TOXICITY (WET)**

The SDDANR *Reasonable Potential Implementation Procedure for SWD Permits* was reviewed to determine if WET testing is applicable to POET – Hudson. Following the guidance document, POET – Hudson has reasonable potential to cause or contribute to an exceedance of the SDSWQS for toxicity.

POET – Hudson’s current permit includes Acute WET testing and monitoring requirements; the facility currently monitors WET and has had no WET violations during the current permit cycle. Due to the potential presence of toxic compounds in the discharge, the draft permit will include WET monitoring and limits.

The *South Dakota WET Implementation Plan* was followed to determine the limits, sampling and monitoring frequency and types, dilution water, dilution series, hardness of the dilution water, test methods, test temperatures, and other WET testing procedures to use.

## **SLUDGE**

Based on POET – Hudson’s permit application, SDDANR does not anticipate sludge will be removed or disposed of during the life of the permit. Therefore, the draft Surface Water Discharge permit shall not contain sludge disposal requirements. However, if sludge disposal is necessary, SDDANR’s Waste Management Program regulates sludge from industrial facilities. The facility is required to contact the Waste Management Program at (605) 773-3153 **prior** to the removal and disposal of sludge.

## **STORMWATER**

POET – Hudson has obtained coverage under the *General Permit for Storm Water Discharges Associated with Industrial Activity*, Permit Number SDR00B406. POET – Hudson must comply with all requirements in the stormwater permit. Therefore, stormwater requirements will not be included in this permit.

## **DRAINAGE ISSUES**

Lincoln County has the authority to regulate drainage. POET – Hudson is responsible for getting any necessary drainage permits from the county **prior** to discharging.

## ENDANGERED SPECIES

This is a renewal of an existing permit. No listed endangered species are expected to be impacted by activities related to this permit. However, the table below shows the species that may be present in the POET – Hudson’s geographic area.

COUNTY	GROUP	SPECIES
Lincoln	Mammals	Northern Long-eared Bat
	Fishes	Pallid Sturgeon

This information was accessible at the following US Fish and Wildlife Service website as of January 28, 2026: <https://ipac.ecosphere.fws.gov/>.

## PERMIT EXPIRATION

A five-year permit is recommended.

## PERMIT CONTACT

This statement of basis and the draft permit were developed by Tom Anderson, Environmental Engineer for the Water Quality Program. Any questions pertaining to this statement of basis or the draft permit can be directed to the Water Quality Program, at (605) 773-3351.

January 28, 2026

# **ATTACHMENT 1**

## **Antidegradation Review**

Permit Type: Minor Industrial- Renewal Applicant: POET Biorefining – Hudson  
 Date Received: 9/12/2024 Permit #: SD0027944  
 County: Lincoln Legal Description: NE ¼ Sec 35, T96N, R48W  
 Receiving Stream: Unnamed tributary of Pattee Creek Classification: 9, 10  
 If the discharge affects a downstream waterbody with a higher use classification, list its name and uses: Pattee Creek (5, 8, 9, 10) → Big Sioux River (5, 7, 8, 9, 10)

## APPLICABILITY

1. Is the permit or the stream segment exempt from the antidegradation review process under ARSD 74:51:01? Yes  No  If no, go to question #2. If yes, check those reasons why the review is not required:
  - Existing facility covered under a surface water discharge permit is operating at or below design flows and pollutant loadings;
  - Existing effluent quality from a surface water discharge permitted facility is in compliance with all discharge permit limits;
  - Existing surface water discharge permittee was discharging to the current stream segment prior to March 27, 1973, and the quality and quantity of the discharge has not degraded the water quality of that segment as it existed on March 27, 1973;
  - The existing surface water discharge permittee, with DANR approval, has upgraded or built new wastewater treatment facilities between March 27, 1973, and July 1, 1988;
  - The existing surface water discharge permittee discharges to a receiving water assigned only the beneficial uses of (9) and (10); the discharge is not expected to contain toxic pollutants in concentrations that may cause an impact to the receiving stream; and DANR has documented that the stream cannot attain a higher use classification. This exemption does not apply to discharges that may cause impacts to downstream segments that are of higher quality;
  - Receiving water meets Tier 1 waters criteria. Any permitted discharge must meet water quality standards;
  - The permitted discharge will be authorized by a Section 404 Corps of Engineers Permit, will undergo a similar review process in the issuance of that permit, and will be issued a 401 certification by the department, indicating compliance with the state’s antidegradation provisions; or
  - Other: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## FORMAL REVIEW

2. Is the stream segment classified as an OSRW? Yes  No  If no, go to question #3. **If yes, no change in water quality allowed. No further review required.**
3. Will there be an insignificant change in water quality? Yes  No  If no, go to question #4. **If yes, no further review required. List reason why discharge is insignificant**
- Only temporary change in water quality will result from the discharge;
  - Resulting change in water quality from the discharge will only affect a water quality parameter that is only regulated by a narrative standard and the discharge will not adversely impact the stream's beneficial uses;
  - Volume of the proposed discharge is small compared to the flow in the stream. The ratio of the average stream flow to discharge flow is greater than 50:1;
  - The increase in pollutant loading at critical low flow is expected to be less than 20% of the stream's assimilative capacity;
  - The resulting change in water quality from the discharge is less than one standard deviation of the mean concentration of the ambient water quality; or
  - Other: **This permit has not discharged since 2010. The system is designed to recycle the entire process wastestream with no discharge of process wastewater. This permit does not authorize an increase in effluent limits.**
4. Are existing, regulated point or nonpoint sources located in the area in compliance with required controls or has a compliance schedule been established for these sources? Yes  No  If no, establish an appropriate compliance schedule prior to approving, as proposed, the activity under review.
5. Based on available information, are there existing uses that are better than the currently designated uses? Yes  No  If yes, use protection of the higher existing use(s) as the basis for antidegradation decision-making and arrange to upgrade the currently designated use(s).
6. Will existing uses be fully maintained and protected? Yes  No  If no, recommend denial of the activity as proposed.

## PERMIT APPLICATION

7. Has the applicant submitted all information listed in the antidegradation implementation Procedure? Yes  No  If no, why not? \_\_\_\_\_

## PUBLIC NOTICE AND OPPORTUNITY FOR HEARING

8. Has the application been properly public noticed? Yes  No  Date notice occurred  
In paper: \_\_\_\_\_ Paper notice appeared in: \_\_\_\_\_
9. Has anyone petitioned the department for a public hearing on the application? Yes  No   
**If no, no further review required. Proceed with writing permit based on outcome of antidegradation review. If yes, schedule time before the Water Management Board for public hearing on application.**  
Date and time of hearing: \_\_\_\_\_  
Location of hearing: \_\_\_\_\_
10. Did the Board of Water Management approve the application? Yes  No  Attach a copy of the board minutes to this worksheet.

## ANTIDEGRADATION REVIEW SUMMARY

11. The outcome of the review is:
- A formal antidegradation review was not required for reasons stated in this worksheet. Any permitted discharge must ensure water quality standards will not be violated.
  - The review has determined that degradation of water quality should not be allowed. Any permitted discharge would have to meet effluent limits or conditions that would not result in any degradation estimated through appropriate modeling techniques based on ambient water quality in the receiving stream, or pursue an alternative to discharging to the waterbody.
  - The review has determined that the discharge will cause an insignificant change in water quality in the receiving stream. The appropriate agency may proceed with permit issuance with the appropriate conditions to ensure water quality standards are met.
  - The review has determined, with public input, that the permitted discharge is allowed to discharge effluent at concentrations determined through a total maximum daily load (TMDL). The TMDL will determine the appropriate effluent limits based on the upstream ambient water quality and the water quality standard(s) of the receiving stream.
  - The review has determined that the discharge is allowed. However, the full assimilative capacity of the receiving stream cannot be used in developing the permit effluent limits or conditions. In this case, a TMDL must be completed based on the upstream ambient water quality and the assimilative capacity allowed by the antidegradation review.
  - Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Describe any other requirements to implement antidegradation or any special conditions  
That are required as a result of this antidegradation review: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tom Anderson  
Permit Writer

January 28, 2026  
Date

Kathleen Grigg  
Reviewer

March 27, 2026  
Date