STATEMENT OF BASIS

Permit Type: General Surface Water Discharge Permit for Point Source Application of Pesticides to Waters of the State in South Dakota

Permit Number: SDGA10000

This document is intended to explain the basis for the requirements contained in the draft Surface Water Discharge General Permit for Discharges Associated with the Application of Pesticides into Surface Waters of the State (General Permit). This document provides guidance to aid in complying with the General Permit requirements. This guidance is not a substitute for reading the draft General Permit and understanding its requirements.

APPLICABILITY

This General Permit is proposed for any pesticide application that may result in a discharge of pesticides to surface waters of the state.

GENERAL PERMIT DESCRIPTION

Pesticide applications have the potential to be discharged to surface waters of the state. These discharges contain pollutants which, if not properly managed, can result in impacts to water quality and aquatic life. In accordance with the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), the discharge of pollutants into surface waters of the state requires a Surface Water Discharge permit. This draft General Permit is intended to outline the requirements for pesticide applications near or into surface waters of the state.

The draft General Permit contains pesticide application requirements, Pesticide Discharge Management Plan (PDMP) requirements, and other conditions applicable to pesticide applications near or into surface waters of the state.

BACKGROUND

The federal Clean Water Act (CWA) requires that any discharge of a pollutant into waters of the United States must be covered by a National Pollutant Discharge Elimination System (NPDES) permit. On December 30, 1993, the United States Environmental Protection Agency (EPA) delegated the permitting authority under the NPDES program to the state of South Dakota. The South Dakota Department of Agriculture and Natural Resources (SDDANR) refers to its permits as Surface Water Discharge permits.

Prior to 2011, all pesticide applications were regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA includes regulations on the sale, distribution, and use of pesticides. Beginning in 2001, numerous court cases began addressing pesticide discharges to waters of the United States. Many states began issuing NPDES permits for pesticide applications beginning in 2002. Because of the varying court decisions, and the different positions of the states

on the issue, EPA published a final rule on November 27, 2006 stating that a NPDES permit is not required for pesticide applications. The final rule became effective on January 26, 2007.

Petitions for review of EPA's 2006 NPDES Pesticides Rule were filed in eleven circuit courts following the issuance of the final rule. On January 9, 2009, the Sixth Circuit vacated EPA's 2006 NPDES Pesticides Rule. This decision broadened the definition of "pollutant" to include biological pesticides and residual chemical pesticides. Therefore, chemical pesticide excess and residues are pollutants and are required to obtain a NPDES permit if they are discharged from a point source into waters of the United States. Additionally, the application of any biological pesticides to waters of the United States requires a NPDES permit for all discharges from a point source.

Following the 2009 Sixth Circuit decision, EPA request a two-year stay of the mandate to provide time to develop a General Permit, assist NPDES-authorized states develop General Permits, and provide outreach and education to the regulated community. On June 8, 2009, the Sixth Circuit granted EPA the two-year stay of the mandate.

Because of the 2009 Court decision to vacate the 2006 NPDES Pesticides Rule, South Dakota was required to issue Surface Water Discharge permits for pesticide discharges to, over, or near near waters of the state. The current General Permit was developed to meet this requirement.

The United States Congress has considered, and continues to consider, legislation to eliminate the need for NPDES permits for pesticide applications. This legislation, if passed, may alter the need for the General Permit. If Congress passes legislation stating NPDES permits are no longer needed for pesticide applications, SDDANR intends to revoke the General Permit and eliminate any permitting requirements for discharge to surface waters of the state resulting from the application of pesticides.

DISCHARGE DESCRIPTION

Based on the Sixth Circuit's court decision in 2009, two types of pesticides are considered a pollutant: biological pesticides and chemical pesticides which leave any excess or residue. For purposes of the draft General Permit, SDDANR is following EPA guidance by assuming that all chemical pesticides will leave a residue once the product has performed its intended purpose. SDDANR is adopting the following guidance (as developed by EPA) with respect to the application of chemical pesticides.

1. **The application of a chemical pesticide over surface waters of the state to control pests located over the water.** Any amount of the pesticide that falls into surface waters of the state is "excess" pesticide and would require a Surface Water Discharge permit. SDDANR expects that some portion of every application of a pesticide made over surface waters of the state will fall directly into the waters. Therefore, coverage under the draft General Permit is needed for these types of applications.

2. **The application of a chemical pesticide to control pests near the water's edge such that pesticides will be unavoidably deposited into waters of the state**. Pesticide that is applied "at water's edge" is included to grant coverage of the application as a portion of

the application will enter the water and would require a Surface Water Discharge Permit. SDDANR expects that some portion of every application of a pesticide made "at water's edge" will be discharged into the water. Therefore, coverage under the draft General Permit is needed for these types of applications.

3. **The application of a chemical pesticide into surface waters of the state to control a pest located in surface waters of the state.** Once the pesticide no longer provides any pesticidal benefit, any amount of the pesticide remaining the in the water is a "residual" and would require a Surface Water Discharge permit. SDDANR expects that some portion of every application of a pesticide made into surface waters of the state will leave a residual in the water. Therefore, coverage under the draft General Permit is needed for these types of applications.

All applications of biological pesticide to surface waters of the state will require coverage under the draft General Permit.

Pesticide Application Activities Covered

Pesticides are applied for a variety of pests to many different areas in South Dakota. Additionally, the application procedure can vary based on the type of targeted pest and the location of application. Five application categories are included in the draft General Permit. These five categories are intended to cover the various types of pesticide applications throughout South Dakota.

1. **Mosquito and Other Flying Insect Pest Control.** This application category includes the application, by any means, of chemical and biological insecticides and larvicides into or over surface waters of the state to control insects that breed or live in, over, or near water. Flying insect pests in this application category include, but are not limited to, mosquitoes and black flies.

2. **Weed and Algae Control.** This application category includes the application, by any means, of contact or systemic herbicides to control vegetation and algae in water and at water's edge, including irrigation ditches and/or irrigation canals. Applications of this nature may be single spot treatments of infestations or staged large scale treatments intended to clear several acres of waterway. Treatments may be singular or occur several times per year.

3. **Aerial Pest Control.** This application category is for the aerial application of a pesticide to control the population of a pest (e.g., insect or pathogen) where to target the pests effectively, a portion of pesticide will unavoidably be discharged into surface waters of the state. These pests are not necessarily aquatic (e.g., airborne non-aquatic insects) but are detrimental to industry, the environment, and public health. **Note:** If mosquito adulticides are applied aerially, the application would be covered under the "Mosquito and Other Flying Insect Pest Control" application category.

4. **Ditch and Stream Bank Pest Control.** This application category includes the management of a diverse pest spectrum where pesticides are deposited into ditch or along stream banks to target the pests effectively and may result in a discharge to surface waters of the state.

5. **Declared Pest Emergency Situation.** This application category is for a publicly declared emergency by a federal agency, state, or local government.

GENERAL PERMIT COVERAGE

To obtain authorization under the draft General Permit, the applicator's pesticide activities must be included in one of the five application categories stated above. Pesticide applicators discharging a pollutant from a point source associated with one the application categories covered by the draft General Permit will automatically be covered under the draft General Permit upon the effective date of the draft General Permit. These applicators are subject to all applicable requirements contained within the draft General Permit.

Coverage under this draft General Permit is required if water is present at the time and location of the pesticide application. If water is not present at the time and location of the pesticide application, the requirements included in the draft General Permit do not apply. Compliance with this provision must be documented by recording the presence or absence of water at the date, time, and location of application.

Activities Not Covered

An applicator is not eligible for coverage under the draft General Permit for the activities listed below. An individual permit or alternative General Permit would be required for any of the following discharges to surface waters of the state:

1. **Discharges of a Pesticide to Waters of the State Identified in the 303(d) List or Integrated Report as Impaired for that Pesticide or its Degrades.** The draft General Permit allows SDDANR to deny coverage under the draft General Permit or require an applicator covered under the draft General Permit to apply for an individual permit.

2. **Management of Invasive or Other Nuisance Animals in Water, Including, but not Limited to, Lakes, Ponds, Rivers, and Streams.** Aquatic nuisance animals in this activity include, but are not limited to, fish, lampreys, and mollusks. Aquatic nuisance pest control is not included in the draft General Permit because this activity is covered under a separate general permit that has been issued by SDDANR.

The CWA specifically exempts irrigation return flows and agricultural storm water runoff from requiring a NPDES permit, even if they contain pesticides or pesticide residues. The draft General Permit will not require these activities to obtain General Permit coverage.

This draft General Permit does not cover terrestrial application for the purpose of controlling pests on agricultural crops or forest floors. SDDANR does not anticipate these activities will result in a discharge of pollutants to surface waters of the state.

Termination of Coverage
Coverage under the draft General Permit is automatically terminated if one or both of the following occur:

1. All discharges covered by the draft General Permit have ceased and there will be no further discharges during the remainder of the General Permit term for any of the application categories as identified in **Section 2.1** of the draft General Permit; or

2. The permittee has obtained coverage under an individual Surface Water Discharge permit or an alternative general permit for all discharges of pollutants to surface waters of the state.

REQUIRING AN INDIVIDUAL PERMIT

If a permittee is currently discharging under the draft General Permit and SDDANR determines that individual permit coverage is required, SDDANR will notify the permittee in writing of the need for an individual Surface Water Discharge permit. This written notice will include the reasoning for requiring an individual permit, an application form for an individual permit, and a deadline for filing the application.

Any permittee may apply for an individual permit rather than obtaining automatic coverage under the draft General Permit. An individual application shall be submitted for coverage under an individual permit with reasoning supporting the request. SDDANR will review the request and will determine if individual permit coverage is appropriate. If SDDANR issues an individual permit to a permittee currently covered under the draft General Permit, or coverage under an alternative General Permit is obtained, coverage under the draft General Permit will be terminated on the effective date of the new permit.

RECEIVING WATERS

Discharges from the activities listed above have the potential to enter many water bodies within the state of South Dakota. These water bodies are classified by the South Dakota Surface Water Quality Standards (SDSWQS), the ARSD, Chapters 74:51:02 and 74:51:03 for the following beneficial uses:

(1) Domestic water supply waters;
(2) Coldwater permanent fish life propagation waters;
(3) Coldwater marginal fish life propagation waters;
(4) Warmwater permanent fish life propagation waters;
(5) Warmwater semipermanent fish life propagation waters;
(6) Warmwater marginal fish life propagation waters;
(7) Immersion recreation waters;
(8) Limited contact recreation waters;
(9) Fish, wildlife propagation, recreation, and stock watering waters;
(10) Irrigation waters; and,

(11) Commerce and Industry waters.

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 draft General Permit requires best management practices (BMPs) to ensure the SDSWQS are met and maintained. However, if SDDANR determines a specific site or application has the potential to cause or contribute to an impairment of the SDSWQS, SDDANR can require the permittee to implement additional controls and/or obtain an individual discharge permit.

ANTIDEGRADATION

SDDANR has fulfilled the antidegradation review requirements for this draft General Permit. In accordance with South Dakota's Antidegradation Implementation Procedure and the SDSWQS, no further review is required. The results of SDDANR's review are included in Attachment 1.

EFFLUENT LIMITS

Under the CWA, dischargers shall comply with both technology-based and water quality-based effluent limits. Where EPA has not yet issued a technology-based effluent limitation guideline, states are expected to determine the appropriate technology-based level of control based on permit writer's judgement. The CWA allows states and EPA to meet the requirement for technology-based limits using non-numeric, or "narrative" effluent limits in permits, where appropriate. EPA has developed regulations allowing the use of narrative BMPs as effluent limits (40 CFR 122.44(k)). EPA has not yet developed specific technology-based effluent limits for pesticide applications. Therefore, the draft General Permit includes non-numeric effluent limits based on permit writer's judgement and the current permit, including BMPs, to ensure state and federal requirements are met.

The non-numeric effluent limits are expected to minimize environmental impacts by reducing the discharge of pesticides to surface waters of the state, thereby protecting the receiving waters and all applicable water quality standards. SDDANR believes if the permittee follows the narrative effluent limits in the draft General Permit, the beneficial uses of South Dakota's surface waters

will be maintained. Therefore, numeric water quality-based effluent limits have not been included in this draft General Permit. However, if beneficial uses are impacted, SDDANR could reopen and modify the draft General Permit or could require the permittee to obtain an individual permit or alternative General Permit. Violation of any of the narrative effluent limits constitutes a violation of the draft General Permit.

The narrative effluent limits in this draft General Permit are expressed as specific pollution prevention requirements for minimizing the pollutant levels in the discharge. The combination of pollution prevention practices and management practices required by these limits are the most reasonable way to control the discharge of pesticide pollutants to meet the narrative effluent limits.

Effective immediately and lasting through the life of the draft General Permit, all permittees shall comply with the narrative effluent limits included in the draft General Permit. These limits are based on BMPs to meet the SDSWQS, current General Permit limits, and permit writer's judgement.

All Pesticide Applications

The following limits apply to **all** pesticide applications:

1. The permittee must follow all applicable state and FIFRA label instructions.

2. The permittee shall make efforts to be aware of other pesticide applications that are occurring in the same treatment area. If the applicator is aware of other pesticide applications occurring in the same treatment area, the applicators shall coordinate the applications to minimize discharge into surface waters of the state due to over application.

3. The permittee shall use only the amount of pesticide and frequency of pesticide application necessary to control the target pest using equipment and application procedures appropriate for the task.

4. The permittee shall maintain equipment to minimize leaks, spills, or other unintended discharges of pesticides by adhering to any manufacturer's conditions and industry practices, and by calibrating, cleaning, and repairing such equipment on a regular basis.

5. The permittee shall develop and implement BMPs to minimize and mitigate the adverse effects of discharges on water quality and non-target species.

6. If a release or spill occurs within and/or outside of the operational area, the permittee shall immediately contain and recover the product using absorbent materials, pumps, or similar means. The permittee shall properly dispose of or reuse excess materials.

   Operational area containment surfaces exposed to concentrated and diluted pesticides shall be periodically cleaned by the permittee and all rinsates shall be recovered and stored in accordance with South Dakota Codified Law (SDCL) Chapter 38-21 and Article 12:56.

Recovered substances may be used in accordance with the applicable pesticide product labels.

7. Permittees who apply pesticides as part of a declared pest emergency or have been certified for (1) aquatic pest control or for (2) public health pest control must prepare a PDMP. The requirements of the PDMP are included in **Section 4.0** of the draft General Permit.

8. If an application will result in a discharge of pollutants to surface waters of the state, the permittee shall:

    a. Assess environmental conditions prior to each pesticide application (e.g., temperature, precipitation, and wind speed in the treatment area) to identify if conditions are suitable for pesticide application activities; and

    b. Evaluate the management options, considering impacts to water quality, impacts to non-target organisms, pest resistance, feasibility, and cost-effectiveness.

9. If any of the following situations occur, the permittee shall review and, as necessary, revise the control measures to ensure that the situation is eliminated and will not be repeated in the future:

    a. A pesticide application results in adverse impacts to water quality or non-target organisms;

    b. An unauthorized release or discharge occurs (e.g., spill, leak, or discharge not authorized by the draft General Permit or another Surface Water Discharge permit);

    c. An inspection or evaluation by EPA or SDDANR determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in the draft General Permit; or

    d. The permittee observes or is otherwise made aware of an adverse incident as a result of the application.

    If the permittee determines that changes to the PDMP are necessary to eliminate any situation identified above, such changes shall be made before the next pesticide application that results in a discharge.

Mosquito and Other Flying Insect Pest Control Pesticide Applications

These limits apply to discharges to surface waters of the state from the application of pesticides for mosquito and other flying insect pest control, as stated in **Section 2.1** of the draft General Permit.

1. Prior to the first pesticide application and at least once each year thereafter, the permittee shall, at a minimum:

a. Determine densities of larval and adult populations in order to implement pest management controls for each treatment area;

b. Develop a pest-specific control strategy based on developmental and behavioral considerations for each pest;

c. Identify known and potential breeding sites for source reduction, larval control programs, and habitat management; and,

d. Analyze existing data to identify sources of nuisance insect production, including sites that have recurring pest problems.

Weed and Algae Control Pesticide Applications

These limits apply to discharges to surface waters of the state from the application of pesticides for weed and algae control, as stated in **Section 2.1** of the draft General Permit.

1. Prior to the first pesticide application and at least once each year thereafter, the permittee shall, at a minimum:

    a. Identify areas with aquatic pest problems and characterize the extent of the problems in order to implement BMPs;

    b. Identify target aquatic pests, as necessary, for pest control; and

    c. Establish past or present pest densities which serve to determine pest management strategies.

2. If an application of the pesticide will result in a discharge to surface waters of the state, the permittee shall, at a minimum:

    a. Inspect and evaluate the treatment area prior to each application to properly implement pest management controls; and

    b. Inspect and evaluate the treatment area after each pesticide application to determine effectiveness of the treatment and determine if the application adversely affected the environment or non-target organisms.

Aerial Pest Control Pesticide Application

These limits apply to discharges to surface waters of the state from the application of pesticides for aerial pest control if water is present at the time and location of an application, as defined in **Section 2.1** of the draft General Permit.

1. Prior to each aerial application of pesticides to a treatment area, the permittee shall do the following, at a minimum:

    a. Identify areas with pest problems and characterize the extent of the problems;

b. Identify target pests as necessary for pest control; and

c. Establish past or present pest densities to determine pest management strategies.

2. If the application of the pesticide will result in a discharge to surface waters of the state, the permittee shall, at a minimum:

   a. Inspect and evaluate the treatment area prior to each application to properly implement pest management controls; and

   b. Inspect and evaluate the treatment area after each pesticide application to determine if there have been adverse impacts to water quality or to non-target organisms.

Ditch and Stream Bank Pest Control Pesticide Applications

These limits apply to discharges to surface waters of the state from the application of pesticides for ditch and stream bank pest control, as stated in **Section 2.1** of the draft General Permit.

1. Prior to the first pesticide application and at least once each year thereafter, the permittee shall, at a minimum:

   a. Establish target pest densities for each treatment area for implementing BMPs and pest management controls;

   b. Identify target pests to develop a pest-specific control strategy based on developmental and behavioral considerations for each pest; and

   c. Identify current distribution of the target pest and assess potential distribution in the absence of control measures.

2. If an application of the pesticide will result in a discharge to surface waters of the state, the permittee shall, at a minimum:

   a. Inspect and evaluate the treatment area prior to each application to assess the treatment area and to properly implement BMPs and pest management controls;

   b. Assess and record environmental conditions to identify known and potential sites which support target pest development and are conducive for treatment activities; and

   c. Apply pesticides during the most susceptible developmental stage, when possible.

Declared Pest Emergency Pesticide Applications

These limits apply to discharges from the application of pesticides for Declared Pest Emergency Situations, as defined in **Section 2.1** of the draft General Permit. A pest emergency is identified when a federal agency, the State of South Dakota, or a local government has publicly declared an

emergency situation requiring the application of a pesticide. Once a pest emergency has been declared, the permittee shall, at a minimum:

1. Take reasonable steps during the pesticide application to minimize the impact on the environment and non-target organisms by considering site restrictions, application timing, and application method; and

2. Inspect and evaluate the treatment area after each pesticide application to determine the effectiveness of the treatment and determine if the application adversely affected the environment or non-target organisms.

BEST MANAGEMENT PRACTICES

The draft General Permit does not require the permittee to perform regular sampling of the pesticide application discharge. However, the draft General Permit requires the permittee to implement BMPs. Due to the variance in types of pesticide application activities, a variety of BMPs could be implemented to meet the narrative effluent limits included in the draft General Permit. Therefore, the draft General Permit does not include specific BMPs that must be implemented.

BMPs can include, but are not limited to:

- Process and procedure modifications to reduce the impacts to the environment;
- Developing schedules for maintenance or training activities;
- Prohibitions on specific practices;
- Installation of devices or structures to prevent or reduce water pollution; and
- Other management practices.

PESTICIDE DISCHARGE MANAGEMENT PLAN (PDMP)

The draft General Permit requires the following permittees to develop a PDMP: permittees who apply pesticides as part of a declared pest emergency, permittees who have been certified for aquatic pest control, or permittees who have been certified for public health pest control. The PDMP is required to document inspections, maintenance activities, required monitoring, and any corrective actions being used to comply with the effluent limits. The PDMP may reference procedures in other documents, such as a pre-existing integrated pest management (IPM) plan. If so, the permittee shall keep a copy of relevant portions of these documents with the PDMP.

A PDMP must be developed for each pesticide application activity which requires coverage under the draft General Permit. One PDMP can be used for multiple applications under a single application category.

Section 4.2 of the draft General Permit outlines the requirements of the PDMP. The PDMP shall include the following, at a minimum:

1. Personnel Responsibilities

    a. Person(s) responsible for developing and revising the PDMP;

    b. Person(s) responsible for pesticide application in each treatment area;

    c. Person(s) responsible for taking corrective actions where required; and

    d. Person(s) responsible for pesticide applications.

2. Pest Problem Description

    a. Location of the treatment area(s), including a map with geographic boundaries and any surface waters of the state that may receive a discharge due to pesticide application (e.g., quadrangle map, a portion of a city or county map, or other map);

    b. The target pest(s) and, if known, pest densities; and

    c. The desired result of application (e.g., target pest density, obtain wildlife habitat, recreational or water use, etc.).

3. Pest Management Controls

    a. Mechanical/physical management controls;

    b. Cultural management controls;

    c. Biological control agents; and

    d. Pesticides.

4. Schedules and Procedures

    a. **Equipment Maintenance Schedules and Procedures.** The permittee shall develop and document procedures for maintaining the application equipment in proper operating condition, including calibrating, cleaning, and repairing the equipment. These procedures shall include schedules for completing the required maintenance, as well as employee training, where necessary.

    b. **Handling Procedures.** The permittee shall develop and document procedures for proper handling and storage of pesticides to prevent or minimize the potential for discharges to surface waters of the state.

c. **Response Procedures.** The permittee shall identify and document the following procedures for preventing and responding to spills and leaks, and for responding to an adverse incident:

i. Detailed steps for responding to any incident, including steps to minimize and mitigate the adverse incidents on water quality or non-target species;

ii. Chain of command notification for any incident, including both internal and external contacts;

iii. Name and telephone number for state contacts including SDDANR at (605) 773-3296;

iv. Name, location, and telephone of nearest emergency medical facility;

v. Name, location, and telephone of nearest hazardous chemical responder (including police and fire department); and

vi. Name and telephone number for the National Pesticide Telecommunications Network at (800) 858-7378.

5. Pesticide Inspection and Evaluation Procedures

a. The procedures and methods for conducting both pre- and post-application inspection and evaluation of the treatment area;

b. The person(s) responsible for conducting treatment area inspections and evaluations; and

c. Procedures for documenting any incidents of General Permit noncompliance.

6. BMPs

a. The PDMP shall include BMPs the permittee will use to ensure compliance with the conditions of the draft General Permit.

7. Modifications to the PDMP

8. Other Documents Referenced in the PDMP.

MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

The permittee must keep records and submit reports to SDDANR upon request. All records, including the PDMP, must be maintained and made available to SDDANR, upon request. These records must be retained for a period of at least three years.

Recordkeeping Requirements

Permittees who are required to develop a PDMP shall keep a copy of the PDMP for review by SDDANR as well as the following records for each application:

1. Date and time of the pesticide application;

2. The name and address of the person, or entity, for whom the pesticide was applied;

3. Person or entity who applied the pesticide;

4. The locations of land or property where the pesticide was applied;

5. The pest(s) to be treated;

6. The size of the treatment area;

7. The trade or brand name and common name of each pesticide applied, the EPA pesticide registration number for each product, and the company name appearing on the product label;

8. The weather conditions at the time of application, including wind direction, estimated wind velocity, and temperature at the time the pesticide was applied (this requirement does not apply to application of baits in bait stations or pesticide applications in or immediately adjacent to structures);

9. The amount of pesticide applied and the application rate; and

10. The specific crop, designated site, or commodity to which pesticide application was made.

The permittee shall give advanced notice to SDDANR of any planned changes in the permitted facility or activity that may result in noncompliance with the draft General Permit requirements.

Annual Report

The permittee shall submit an Annual Report to SDDANR if one or more of the annual treatment area thresholds were exceeded in the calendar year, or if pesticides were applied because of a declared pest emergency. This report is due by February 28th of the following year.

Pesticide Application Category	**Annual Treatment Area Threshold [1]**
Mosquitos and Other Flying Insect Pests	**6,400 surface water acres** of treatment area annually [2]
Weed and Algae Control In Water	**80 surface water acres** of treatment area, per application [3]
Weed and Algae Control At Water's Edge	**20 linear miles** of treatment area at water's edge, per application [4]

Pesticide Application Category	Annual Treatment Area Threshold [1]
Ditch and Stream Bank Control In Water	**80 surface water** acres of treatment area, per application [3]
Ditch and Stream Bank Control At Water's Edge	**20 linear miles** of treatment area at water's edge, per application [4]
Aerial Pest Control	**6,400 surface water acres** of treatment area annually [2]

[1] The thresholds are calculated based on the areas treated when water is present. If water is not present at the time of the application, these areas should not be included in the calculation of the annual threshold areas.

[2] This is a cumulative threshold level. To calculate the annual treatment area over the calendar year, add the surface water acres for each pesticide application to surface waters of the state (when water is present). If that total is greater than the stated threshold, an annual report is required to be submitted.

[3] This threshold is not cumulative and is determined by the surface water acres receiving pesticides, regardless of the number of applications in a calendar year.

[4] This threshold is not cumulative and is determined by the linear miles of stream banks receiving pesticides, regardless of the number of applications in a calendar year.

The annual report must contain the following information, at a minimum:

1. The permittee's name;

2. South Dakota Certified Pesticide Applicator number, if applicable;

3. The total surface water treatment area in acres or linear miles, as appropriate, for each pesticide use category;

4. Target pest(s) and pesticides used, for each threshold exceeded; and

5. Whether or not the permittee applied pesticides because of a declared pest emergency. If pesticides were applied in response to a declared pest emergency, the permittee must include:

    a. Dates and times of the pesticide application;

    b. Target pest(s); and

    c. Which government entity declared the pest emergency.

The annual treatment area thresholds were developed based on the Notice of Intent thresholds developed by EPA.

Twenty-Four (24) Hour Adverse Incident Notification

The permittee shall notify SDDANR of any adverse incidents that may have resulted from a discharge from the permittee's pesticide application as soon as possible. SDDANR shall receive notification no later than twenty-four (24) hours after the permittee becomes aware of the circumstances.

Thirty (30) Day Adverse Incident Written Report
Within thirty days of becoming aware of an adverse incident, the permittee shall provide a written report of the adverse incident to SDDANR.

SDDANR may waive the written report requirement on a case-by-case basis if the notification has been received within 24 hours by the Water Quality Program at (605) 773-3351.

Other Reporting Requirements
Other state and federal regulations require spills and leaks of pesticides to be reported. SDDANR has a website with reporting requirements for pesticide applicators (https://sdeforms.na2.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLblqZhCIxm4Fej7hpkVg8WilCyABVccy2wXQg4KkvyvOQGIAz6j3lSqZXSAzL-mXZDx5m6E*).

Sampling Requirements
The draft General Permit does not require effluent monitoring as a General Permit requirement. Adequate PDMPs and BMPs should be sufficient to meet the effluent limits in the draft General Permit. Therefore, sampling and testing for specific parameters will not be required. However, if there is reason to suspect noncompliance with the narrative effluent limits, SDDANR reserves the right to require sampling and testing on a case-by-case basis. Additionally, SDDANR may require sampling and testing to measure the effectiveness of the BMPs in preventing the discharge of pollutants.

DRAINAGE ISSUES

The county in which the discharge will occur has the authority to regulate drainage. The permittee is responsible for getting any necessary drainage permits from the respective county **prior** to discharging, if applicable.

ENDANGERED SPECIES

No listed endangered species are expected to be impacted by activities related to the draft General Permit. However, the US Fish and Wildlife Services has a list of all of the endangered species, listed by county, at the following website, last updated February 12, 2021: https://www.fws.gov/sites/default/files/documents/SpeciesByCounty_Feb2021.pdf.

The following table lists the endangered species that may be present in South Dakota:

GROUP	SPECIES
BIRD	CRANE, WHOOPING
	TERN, LEAST
FISH	SHINER, TOPEKA [1]
	STURGEON, PALLID
INSECT	BEETLE, AMERICAN BURYING [2]
INVERTEBRATE	POWESHIEK SKIPPERLING
	RUSTY PATCHED BUMBLE BEE [3]
MAMMAL	FERRET, BLACK-FOOTED [4]
MUSSEL	MUSSEL, SCALESHELL [5]
	MUSSEL, HIGGINS EYE [5, 6]

[1] Although Topeka Shiners have not been formally documented within Clark, Douglas, Jerauld, Kingsbury, McPherson, Spink, or Yankton Counties, the species may still occur in these areas because they contain portions of known occupied Topeka Shiner streams and/or potentially occupied streams that exist within one or more of the three known inhabited watersheds in South Dakota: the James, Vermillion, and Big Sioux.

[2] The American Burying Beetle is presently known for only Gregory, Todd, and Tripp counties. One specimen was recently trapped in southern Bennett County. Historic specimens have been recorded from Haakon and Brookings Counties. A comprehensive status survey has never been completed for the American burying beetle in South Dakota. Until status surveys have been completed, the beetle could and may occur in any county with suitable habitat. Suitable habitat is considered to be any site with significant humus or topsoil suitable for burying carrion.

[3] The Rusty Patched Bumble Bee was added to the Endangered Species List on January 11, 2017. South Dakota is not included in the current range. Two counties (Roberts and Day) have historic occurrence records. Under Section 7 consultation, surveys are not required and the species is not anticipated to be present in South Dakota.

[4] Black-footed ferrets have been reintroduced in the Badlands National Park, Buffalo Gap National Grasslands, Cheyenne River Sioux Reservation, Lower Brule Sioux Reservation, Rosebud Sioux Reservation, and Wind Cave National Park.

[5] Shells of these species have been found, but no populations have been located.

[6] A fresh dead shell of a Higgins Eye Mussel was found in the Missouri River below Gavins Point Dam on October 27, 2004.

GENERAL PERMIT EXPIRATION

A five-year General Permit is recommended. If the draft General Permit should expire before a new general permit is reissued, the terms and conditions of the expired General Permit will remain effective and enforceable until the effective date of the reissued general permit. SDDANR will continue the General Permit coverage for each permittee covered under the draft General Permit upon the expiration date.

PERMIT CONTACT

This statement of basis and the draft General Permit were developed by Kyle Doerr, Engineer III for the Water Quality Program. Any questions pertaining to this statement of basis or the draft General Permit can be directed to the Water Quality Program, at (605) 773-3351.

January 19, 2023

ATTACHMENT 1

Antidegradation Review

Permit Type: **General Permit for Point Source Application of Pesticides**
Permit #: **SDGA10000**
Receiving Stream: **Varies** Classification: **Varies**

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: Discharges are of a temporary nature. Any change in water quality will be temporary.

*An antidegradation review is not required where the proposal is to maintain or improve the existing effluent levels and conditions. Proposals for increased effluent levels, in these categories of activities are subject to review.

No further review required.

ANTIDEGRADATION REVIEW SUMMARY

2. 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: _____

3. Describe any other requirements to implement antidegradation or any special conditions that are required as a result of this antidegradation review: **Antidegradation will not apply to this draft General Permit due to the intermittent and temporary nature of most pesticide activities and the expected limited impact of the discharge. Therefore, no formal antidegradation review is required.**

Tina McFarling, PE	01/19/2023
Team Leader	Date
Kelli Buscher, PE	01/19/2023
Program Administrator	Date