

Pesticide Discharge Management Plan

for:

Project Name: Alburgh Dunes State Park Phragmites Control

Pest Management Area(s)/General Location: Wetland Complex, predominantly the south end of the park (beach and wetland), but isolated locations in the west-central and northern portion of the park.

City, State: Alburgh, VT

Decision-maker(s):

Company or Organization Name: Vermont Department of Forests, Parks & Recreation

Name: Jason Nerenberg

Address: 111 West Street

City, State, Zip Code: Essex Junction, VT 05452

Telephone Number: (802)498-4342

Email: Jason.nerenberg@vermont.gov

PDMP Contact(s):

Company or Organization Name: Long View Forest, LLC

Name: Tom Groves

Address: 48 Picz Rd.

City, State, Zip Code: Westminster, VT 05158

Telephone Number: 978-888-3718

Email: etomgroves@gmail.com

PDMP Preparation Date:

MM/DD/YYYY: 7/10/2018

Proposed Treatment Dates:

September 1 through November, 2018.

Undetermined for future years, depending on conditions and nuisance growth.

Pesticide Discharge Management Plan Template

Introduction

Any Decision-maker who is required to submit a Notice of Intent (NOI), as required in the Pesticide General Permit (PGP) Part 1.2.2, must submit a Pesticide Discharge Management Plan (PDMP) by the time the Notice of Intent (NOI) is filed, with the following exception:

- Any application is made in response to a Declared Pest Emergency Situation.

To assist in the development a PDMP, the Vermont Department of Environmental Conservation (DEC) has created this electronic PDMP template. This template is designed to provide guidance through the PDMP development process and to help ensure it addresses all the necessary elements stated within the PGP. Incorporation, by reference, any procedures or plans in other documents that meet the requirements of the PGP is acceptable.

While this template covers the PDMP elements that the PGP requires, it is strongly recommended to customize this template as necessary.

Using this Template

Each section of this template includes instructions and space for project information. Please read the instructions for each section before you complete that section. If additional space is required to complete a section, please provide additional pages citing the section the information is related to.

Tips for completing this Template:

- Multiple pest management areas and use pattern(s) may be described in the same PDMP.
- Pest management area(s) may be as large or small as necessary.
- Incorporate by reference any procedures or plans in other documents that meet the requirements of the permit. Attached a copy of any portions of any documents that you refer to in the PDMP.
- Consider adding permit citations in the PDMP when addressing a specific permit requirement.

In the event of a conflict between this template and any corresponding provision of the PGP, the permit is the final authority.

SECTION 1: Operator Information

Instructions (see PGP Part 1.0):

- Describe the Pest Management Area(s) and identify the type(s) of Pesticide Use Patterns, Operator type, and if there will be a discharge to water quality impaired waters.

Note: An “Operator” is defined in Appendix A of the PGP to mean any entity associated with the application of pesticides that results in a discharge to Waters of the United States that meets either of the following two criteria: (1) any entity who performs the application of a pesticide or who has day-to-day control of the application (i.e., they are authorized to direct workers to carry out those activities); or (2) any entity with control over the decision to perform pesticide applications including the ability to modify those decisions. Operators identified in (1) above are referred to in the permit as Applicators while Operators identified in (2) are referred to in the permit as Decision-makers. As defined, more than one Operator may be responsible for complying with this permit for any single discharge from the application of pesticides.

A “Pest Management Area” is defined in Appendix A of the PGP to mean the area of land, including any water, for which an Operator has responsibility for and is authorized to conduct pest management activities as covered by the PGP permit (e.g. for an Operator who is a mosquito control district, the pest management area is the total area of the district). The Pest Management Area could include contiguous and non-continuous sites.

1. Provide a description of the Pest Management Area(s):

The pest management area consists of the entirety of Alburgh Dunes State Park, in Alburgh Vermont. Within that area there are 25 separate infestations ranging in size from individual plants or clumps, to 1.2 acres, with the total area to be treated approximately 6 acres.

2. Identify the Pesticide Use Patterns for this Pest Management Area that trigger the requirement to develop a PDMP. (check all that apply). Note: Decision-makers, that are a large entity, are required to develop a PDMP if they are required to submit an NOI. See Part 5.0 of the PGP for exceptions.

- a. Mosquitoes and Other Flying Insect Pests
- b. Weeds and Algae
- c. Animal Pests
- d. Forest Canopy Pests

3. Operator Type (check one):

- a. Federal Government
- b. State Government
- c. Local Government
- d. Mosquito control district (or similar)
- e. Irrigation control district (or similar)
- f. Weed control district (or similar)
- g. Other: If other, provide brief description of type of Operator:

SECTION 2: PDMP Team

Instructions (see PGP Part 6.1.1):

List the Decision-maker, person or organization that prepared the PDMP and/or responsible for revising the PDMP, and the person or organization that will prepare and address corrective actions, adverse incident, and spills. Indicate respective responsibilities, where appropriate.

1. Decision-maker: *Any entity with control over the decision to perform pesticide applications including the ability to modify those decisions.*

Company or Organization Name: Vermont Department of Forests, Parks & Recreation Name: Jason Nerenberg
Address: 111 West Street
City, State, Zip Code: Essex Junction, VT 05452
Telephone Number: 802.498.4342
Email address: Jason.nerenberg@vermont.gov
Area of Control (if more than one Operator at site):

2. PDMP Contact: *Person(s) who should be contacted regarding PDMP questions.*

Company or Organization Name: Long View Forest, LLC Name: Tom Groves
Address: 48 Picz Road
City, State, Zip Code: Westminster, VT 05158
Telephone Number: 978-888-3718
Email address: etomgroves@gmail.com
Area of Control (if more than one Operator at site):

3. This PDMP was Prepared by: *Person(s) responsible for developing and revising the PDMP.*

Company or Organization Name: Collaboration between- VT Dept. of Forests, Parks & Recreation/ Long View Forest, LLC Name: See contact info above
Address:
City, State, Zip Code:
Telephone Number:
Email address:
Area of Control (if more than one Operator at site):

4. Please include any additional team members and their responsibilities.

Team Member Name(s)	Individual Responsibilities
Tom Groves	Botanist/Field Foreman
Tim Putnam	Invasive Plant Tech
Jeff Dacey	Invasive Plant Tech

SECTION 3: Problem Identification

3.1 Pest Problem Description

Instructions (see PGP Part 6.1.2):

- Describe the pest problem, including identification of the target pest(s), source of the pest problem, and source of data used to identify the problem in Parts 3.2.1, 3.2.2, 3.2.3, and 3.2.4 of the PGP.

Note: The response will be one or more paragraphs, depending on the nature and complexity of the project. The source of the pest problem may be unknown. DEC does not expect the Decision-maker(s) to conduct long term studies to determine the source of the pest problem.

1. Provide a brief summary of the pest problem in the table.

Summary of Pest Problem

Target Pest <i>Note: Use common name</i>	Source of the pest problem	Data Source (e.g. survey conducted in 2016)
Common reed/phragmites	Natural dispersal from uncontrolled populations	Inventory conducted in March 2017

2. Provide a description of the pest problem.

Phragmites has established most predominantly in the southern portion of the park adjacent to the beach and the south side of the extensive wetland complex. There are 25 (known) separate infestation. Left untreated, the phragmites will soon spread rapidly into the rest of the wetland complex, diminishing the value and function of 13 significant natural communities and several rare, threatened, and endangered species.

3.2 Action Threshold(s)

Instructions (see PGP Part 6.1.2):

- Describe the action threshold(s) for pest(s) in the pest management area, including data used in developing the action threshold(s) and method(s) to determine when the action threshold(s) has been met.

Note: An action threshold is the point at which pest populations or environmental conditions necessitate that pest control action be taken based on economic, human health, aesthetic, or other effects. An action threshold may be based on current and/or past environmental factors that are or have been demonstrated to be conducive to pest emergence and/or growth, as well as past and/or current pest presence. Action thresholds are those conditions that indicate both the need for control actions and the proper timing of such actions.

1. Provide a summary of the action threshold(s) in the table.

Summary of Action Threshold(s)

Target Pest	Action Thresholds
Common reed/phragmites	Threat to significant natural communities/ RTE plant species

2. Provide a description of the action threshold(s).

Pest Management Objective: control and eradication

Target Pest: common reed/phragmites

Action Threshold: Threat to significant natural communities/ RTE plant species

Basis for the action threshold: The Mission of the Agency of Natural Resources and Department of Forests, Parks & Recreation

Method to determine when the action threshold has been met: Evaluation by interdisciplinary team of ecologists, foresters, biologists, and watershed planner

3.3 General Location Map

Instructions (see PGP Part 6.1.2):

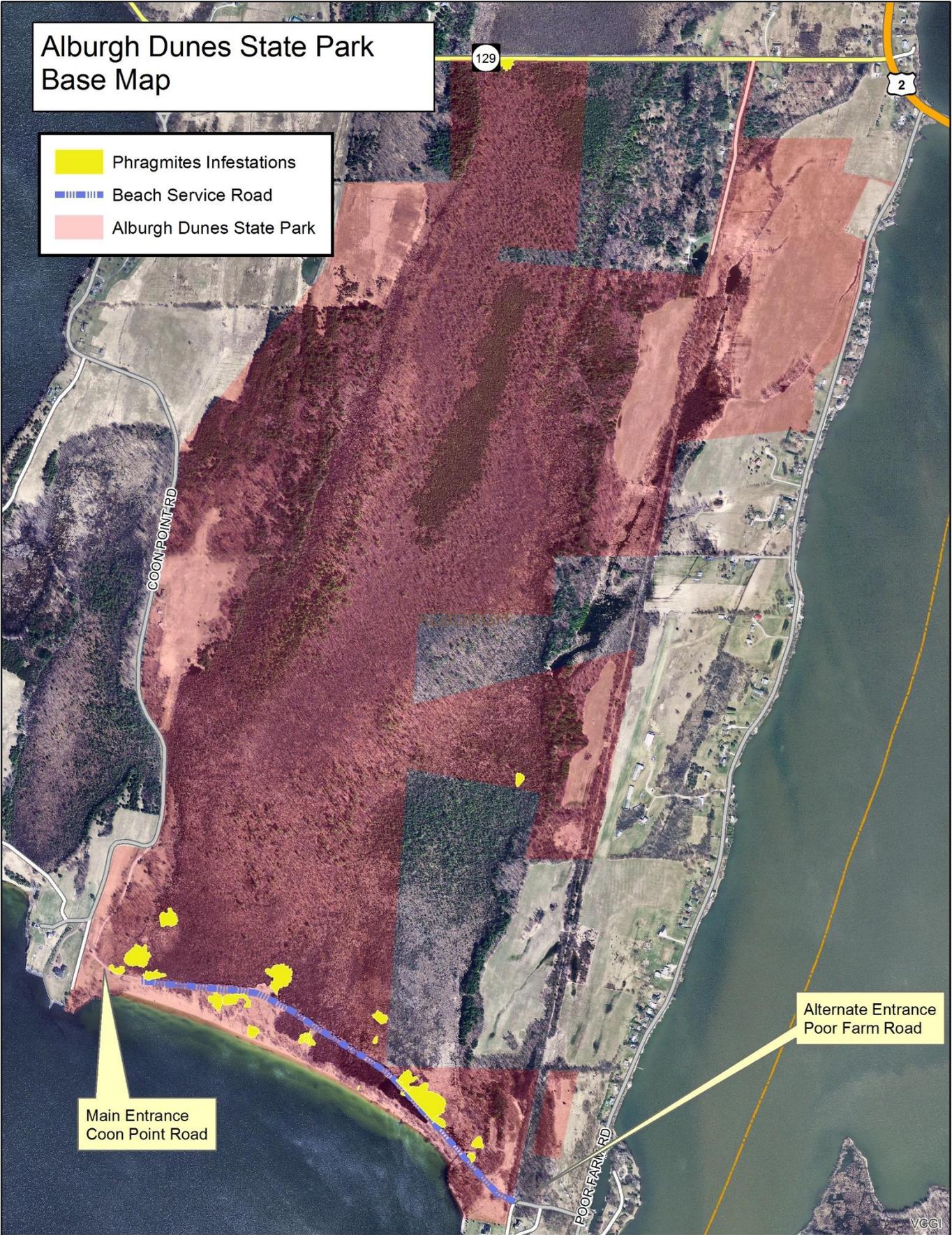
- Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) that identifies the geographic boundaries of the area to which the plan applies and location of the waters of the State
- To improve readability of the map, some detailed information may be kept as an attachment to the site map and pictures may be included as deemed appropriate.

Include a copy of the general location map for this facility as an attachment labeled **3.3 General Location Map**.

See below

Alburgh Dunes State Park Base Map

-  Phragmites Infestations
-  Beach Service Road
-  Alburgh Dunes State Park



Main Entrance
Coon Point Road

Alternate Entrance
Poor Farm Road

3.4 Water Quality Standards

Instructions (see PGP Part 6.1.2):

- Document waters impaired for pesticide(s) or any degradates for which there may be a discharge. Note: Operators are not eligible for coverage under the PGP for any discharges from a pesticide application to waters of the State if the water is identified as impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient, per PGP Part 1.1.2.1.
- Indicate the location of all waters, including wetlands, on the general location map.
- Document any Outstanding Resource Waters and any water(s) impaired for a specific pesticide or any related degradates to which there may be a discharge.

Note: Decision-maker is not required to make a water quality standard (WQS) determination.

Vermont's Water Quality Standards are available at:

http://dec.vermont.gov/sites/dec/files/documents/wsmd_water_quality_standards_2016.pdf

If applicable, provide a summary of waters impaired for pesticides.

SECTION 4: Pest Management Options Evaluation

Instructions (see PGP Part 6.1.3):

- Document your evaluation of the pest management options, including combination of the pest management options, to control the target pest(s) in the following sections:
 - No Action
 - Prevention
 - Mechanical/Physical Methods
 - Cultural Methods
 - Biological Control Agents
 - Pesticides
- In your evaluation, you must consider the impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness.

Note: All six pest management options may not be available for a specific use category and/or treatment area. However, the PDMP must include documentation of how the six pest management options were evaluated. The PGP does not require the use of the least toxic alternative or that non-pesticide methods be tried first. Combinations of various pest management options are frequently the most effective Pest Management Measures over the long term. The goal should be to emphasize long-term control rather than a temporary fix. "Pest Management Measure" is defined to be any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application of pesticides, relevant legal requirements and other provisions that a prudent Operator would implement to reduce and/or eliminate pesticide discharges to waters of the State.

1. Provide a description of the pest management options (include impact to water quality, impact to non-target organisms, feasibility, cost effectiveness and any relevant previous Pest Management Measures).
 - Target Pest: common reed/phragmites
 - No Action: infestation will spread and form a monoculture, impacting important ecological functions
 - Prevention: prevention not possible, seeds spread by wind and plant spreads through runners
 - Mechanical/Physical Methods: requires expensive machiner to excavate extensive rhizome system
 - Cultural Methods: native plants could be planted to compete with phragmites, but phragmites has shown in the past that it is a superior competitor across a broad spectrum of site conditions
 - Biological Control Agents: no effective method known
 - Pesticides: can eradicate phragmites at reasonable cost
2. Provide a summary of Pest Management Measures that will be or are implemented to meet the technology-based effluent limitations.

Target Pest: common reed/phragmites

Pest Management Measures:

The Long View Invasive Plant crew will be using Rodeo, a wetland approved, glyphosate product mixed with water and in some cases Thinvert. Thinvert is a disposition aid used specifically with the "bloody glove" technique. This method of application utilizes a chemical resistant glove covered by a cotton absorbent glove. The Thinvert and 7% Rodeo solution is sprayed directly into the hand while there's very little pressure in the pack. At this point the Phragmites is touched by the applicator and the herbicide is wiped onto the plant. The other methods we may use depending on the density and surrounding native vegetation are:

Backpack sprayers with 5% Rodeo and water and a non-ionic surfactant. The cut stump technique will also be used which applies a 50% Rodeo and 50% water solution directly to the cut phragmites stem. All effort will be taken to ensure the retention of native plants and maximize the contact of phragmites and the herbicide.

SECTION 5: Response Procedures

5.1 *Spill Response Procedures*

5.1.1 Spill Containment

Instructions (See PGP Part 6.1.4):

- Document the procedure for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to Waters of the United States.
- Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the PDMP team.

All mixing of herbicide will be done in the containment unit of the truck. Long View's herbicide is contained/stored and transported in kegs, mixed directly on the back of the truck into 25 gallon tanks and then dispersed through hoses into back pack sprayers. There is very low risk of spills with our system. On hand for potential spills we have kitty litter and PIG absorbent mats to clean up any concentrate herbicide discharge. All spills will be secured and contained and cleaned immediately and the contaminated material disposed of in the correct manner.

5.1.2 Spill Notification

Instructions (See PGP Part 6.1.4):

- Document the procedure for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

Any spills over 2 gallons will be reported immediately by calling 802-828-1138
The 24 hour HAZMAT Hotline 800-641-5005 or the National Response Center at 800-424-8802

5.2 *Adverse Incident Response Procedures*

5.2.1 Responding to an Adverse Incident

Instructions (See PGP Part 6.1.4):

- Document the procedures for responding to any adverse incident resulting from pesticide applications.

All of our treatment days, batches and applications are recorded with specifics like the weather, percent of herbicide, who was applying, time, etc. In the event of an adverse incident paperwork will be reviewed, incident reported on a weekly incident reporting form reviewed by Long View and crew and the any necessary actions will be taken.

5.2.2 Notification of an Adverse Incident

Instructions (See PGP Part 6.1.4):

- Document the procedures for notification of the adverse incident, both internal to the Decision-maker's agency/organization and external. Contact information for state/federal permitting agency, nearest emergency medical facility, and nearest hazardous chemical responder must be in locations that are readily accessible and available.

Long View has an internal reporting system done through safety meeting weekly. Any incidents of safety violations are recorded, discussed and dealt with during this time. Any incidents that are an emergency the subject will be taken to Norwestern Medical Center Emergency Room St. Albans, VT.

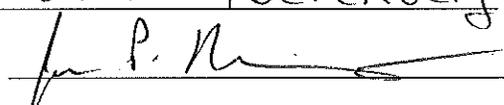
SECTION 6: Signature Requirements

Instructions (see PGP Part 6.1.5):

- The following certification statement must be signed and dated to certify that the PDMP is in accordance with the PGP Appendix B, Subsection B.11.

Note: This certification must be re-signed whenever necessary to address any of the triggering conditions for corrective action in Part 7.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the application of pesticides, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Jason Nevenberg Title: Stewardship Forester
Signature:  Date: 7/17/18

Repeat as needed for multiple Decision-makers at the site.

SECTION 7: PDMP Plan Modifications

Instructions (see PGP Part 6.2):

- You must modify your PDMP whenever necessary to address any of the triggering conditions for corrective action in Part 7.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged. Changes to your PDMP must be made before the next pesticide application that results in a discharge, if practicable, or if not, no later than 90 days after any change in pesticide application activities. The revised PDMP must be signed and dated in accordance with the PGP, Appendix B, Subsection B.11.
- You should include significant changes in the activities or their timing on the project, changes in personnel, updates to site maps, and so on.

SECTION 8: PDMP Availability

Instructions (see PGP Part 6.3):

- You must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided in Section B of the NOI. The PDMP and all supporting documents must be readily available, upon request, and copies of any of these documents provided, upon request, to EPA; a State, Territorial, Tribal, or local agency governing discharges or pesticide applications within their respective jurisdictions; and representatives of the U.S. Fish and Wildlife Service (USFWS). DEC may provide copies of your PDMP or other information related to this permit that is in its possession to members of the public.
- Any Confidential Business Information (CBI), as defined in 40 CFR Part 2, may be withheld from the public provided that a claim of confidentiality is properly asserted and documented in accordance with 40 CFR Part 2; however, CBI must be submitted to DEC, if requested, and may not be withheld from those staff within EPA, FWS, and NMFS cleared for CBI review.

ATTACHMENTS

Attach the following documentation to the PDMP when necessary:

Attachment A – Corrective Action Log Template

Attachment B – PDMP Amendment Log Template

Attachment C – Subcontractor Certifications/Agreements Template

Attachment D – Delegation of Authority Template

Attachment E – Annual Reports and Other Record Keeping

Attachment C – Subcontractor Certifications/Agreements Template

SUBCONTRACTOR CERTIFICATION PESTICIDE DISCHARGE MANAGEMENT PLAN

Project Number: _____

Project Name: _____

Decision-maker(s): _____

As a subcontractor, you are required to comply with the PDMP for any work that you perform for the above designated project. Any person or group who violates any condition of the PDMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the PDMP. A copy of the PDMP is available for your review.

Each subcontractor engaged in pesticide activities in the pest management area that could impact Waters of the United States must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the PDMP for the above designated project.

This certification is hereby signed in reference to the above-named project:

Company: _____

Address: _____

Telephone Number: _____

Type of pesticide application service to be provided: _____

Signature: _____

Title: _____

Date: _____

Attachment D – Delegation of Authority Form Template

DELEGATION OF AUTHORITY

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the PGP, for the _____ project. The designee is authorized to sign any reports, other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix B, Subsection B.11.A of PGP, and that the designee above meets the definition of a “duly authorized representative” as set forth in Appendix B, Subsection B.11.B.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the pest management area, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Attachment E – Annual Reports and Other Record Keeping

The following is a list of records you should keep at your site and available for inspectors to review:

- Copies of Annual Reports
- Records as required in PGP Part 8.2

Please check your permit for additional details.