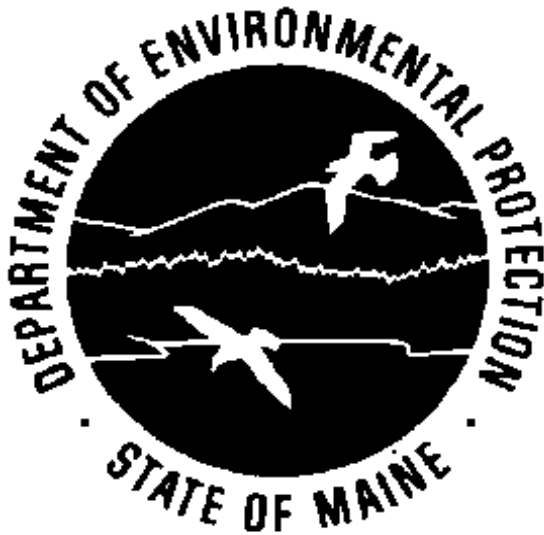


STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

General Permit – Discharge of Pesticides

Maine Pollutant Discharge Elimination System Permit



Bureau of Land and Water Quality

April 1, 2014 (Draft)

MEPDES Permit #MEG230000

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL PERMIT FOR THE DISCHARGE OF PESTICIDES

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STATE OF MAINE
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 17 STATE HOUSE STATION
 AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

PESTICIDES)	MAINE POLLUTANT DISCHARGE
GENERAL PERMIT)	ELIMINATION SYSTEM PERMIT
STATE OF MAINE)	
MEG230000	APPROVAL)	NEW

Pursuant to the provisions of Federal law Title 33 USC, §1251, and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Maine Department of Environmental Protection (Department) has considered a new Maine Pollutant Discharge Elimination System (MEPDES) General Permit (GP) designated as #MEG230000 , with its supportive data, agency review comments, and other related materials on file and **FINDS THE FOLLOWING FACTS:**

APPLICATION SUMMARY

Pursuant to applicable laws and rules of the State’s MEPDES program, the Department’s Bureau of Land and Water Quality, Division of Water Quality Management has developed a GP for discharges of pesticides to surface Waters of the State associated with pest control activities. This GP applies to Class GPA, AA, A, B, C, SA, SB, SC waters of the State, tributaries to Class GPA waters, and those waters having a drainage area of less than 10 square miles. This GP is being issued as a MEPDES permit and has been assigned #MEG230000.

REGULATORY SUMMARY

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From that point forward, the program has been referred to as the MEPDES permit program. The terms and conditions of this GP are consistent with the requirements established in the MEPDES permit program.

CONCLUSIONS

Based on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated April 1, 2014, and subject to the conditions listed in Parts I, II and III of this GP, the Department makes the following

CONCLUSIONS:

1. The discharge(s) covered under this GP, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge(s) covered under this GP, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, Maine law, 38 M.R.S.A. § 464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
 - (c) The standards of classification of the receiving water body are met or not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge(s) covered under this GP will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S.A. § 414-A(1)(D).
5. Discharge(s) in accordance with the terms and conditions of this GP is unlikely to exert a significant impact on non-target species.
6. The discharge(s) are unintended and an incidental result of the application of pesticides.
7. The pesticide(s) will be applied in compliance with federal labeling restrictions.
8. The pesticide(s) will be applied in compliance with statute, Board of Pesticide Control rules and best management practices.

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES GP #MEG230000, *Pesticides*, which results in a discharge to surface Waters of the State from the application of pesticides SUBJECT TO THE ATTACHED CONDITIONS, including:

1. The attached General Conditions included as Part I of this GP.
2. The attached Special Conditions included as Part II of this GP.
3. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, Part III of this GP.
4. This permit becomes effective 60 days following the date of signature below and expires at midnight five (5) years after that date. If the GP is to be renewed, it shall remain in force until the Department takes final action on the renewal. Upon reissuance of a renewal of the GP, persons wishing to continue coverage shall apply for coverage under the renewal GP not later than 30 days prior to the effective date of the new GP.

DONE AND DATED AT AUGUSTA, MAINE, THIS _____ DAY OF _____, 2014.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: _____
Patricia W. Aho, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of Public Notice April 1, 2014.

Date filed with Board of Environmental Protection _____

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY

DEP Draft Pesticides Permit 3_31_2014

3/31/14

PART I - GENERAL CONDITIONS

A. AUTHORITY

A permit is required for the direct or indirect discharge of pollutants to surface waters of the State pursuant to federal law, Title 33 USC, §1251,. The Department may issue a general permit authorizing the discharge of certain pollutants pursuant to 06-096 CMR 529. The similarity of discharges has prompted the Department to issue this General Permit (GP) for those discharges located in fresh waters (Class AA, A, B, C, GPA) and marine waters (Class SA, SB and SC) pursuant to Maine law 38 MRSA, §464, sub-§4A. A violation of a condition or requirement of a GP constitutes a violation of the State's water quality laws, and subjects the discharger to penalties under Maine law, 38 M.R.S.A. §349. Nothing in this GP is intended to limit the Department's authority under the waste discharge and water classification statutes or rules. This GP does not affect requirements under other applicable Maine statutes and Department rules.

B. SPECIALIZED DEFINITIONS

In addition to the definitions found in Maine law, 06-096 CMR 520 (effective January 12, 2001) and in the waste discharge and water classification laws, the terms in section B(1-44) have the following meanings when used in this GP.

1. **Action Threshold** – 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.
2. **Active Ingredient** – any substance (or group of structurally similar substances if specified by the Department) that will prevent, destroy, repel or mitigate any pest, or that functions as a plant regulator, desiccant, or defoliant within the meaning of FIFRA sec. 2(a). [40 CFR 152.3] Active ingredient also means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for the production of such a pesticidal substance. [40 CFR 174.3]
3. **Adverse Incident** – means an unusual or unexpected incident that an Operator has observed upon inspection or of which the Operator otherwise become aware, in which:
 - (a) There is evidence that a person or non-target organism has likely been exposed to a pesticide residue, and
 - (b) The person or non-target organism suffered a toxic or adverse effect.

The phrase toxic or adverse effects includes effects that occur within waters of the State on non-target plants, fish or wildlife that are unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish

PART I - GENERAL CONDITIONS

B. SPECIALIZED DEFINITIONS (cont'd)

- Fish swimming abnormally or erratically
- Fish lying lethargically at water surface or in shallow water
- Fish that are listless or nonresponsive to disturbance
- Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase, toxic or adverse effects, also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to waters of the State that are temporally and spatially related to exposure to a pesticide residue (e.g., vomiting, lethargy).

4. **Annual Treatment Area Threshold** – an area (in acres) or linear distance (in miles) in a calendar year to which an Operator is authorizing and/or performing pesticide applications in that area for activities covered under this permit.

For calculating annual treatment areas for Flying Insect Pest Control, Terrestrial Weed Pest Control and Forest Canopy Pest for comparing with any threshold in Part I §1.2.2 Table 1-1, count each pesticide application activity to a treatment area (i.e., that area where a pesticide application is intended to provide pesticidal benefits within the pest management area) as a separate area treated. For example, applying pesticides three times a year to the same 3,000-acre site should be counted as 9,000 acres of treatment area for purposes of determining if such an application exceeds an annual treatment area threshold. The treatment area for these three pesticide use patterns is additive over the calendar year.

For calculating annual treatment areas for Terrestrial Weed Pest Control for comparing with any threshold in Part I §1.2.2 Table 1-1, calculations should include either the linear extent of, or at water's edge adjacent to surface Waters of the State. For calculating the annual treatment area, count each treatment area only once, regardless of the number of pesticide application activities performed on that area in a given year. Also, for linear features (e.g., a canal or ditch), use the length of the linear feature whether treating in or adjacent to the feature, regardless of the number of applications made to that feature during the calendar year. For example, whether treating the bank on one side of a 10-mile long ditch, banks on both sides of the ditch, the total treatment area is 10 miles for the purposes of determining if a Notice of Intent (NOI) is required to be submitted. Additionally, if the same 10 miles area is treated more than once in a calendar year, the total area treated is still 10 miles for purposes of comparing with any threshold in Part I §1.2.2 Table 1-1. The treatment area for this pesticide use pattern is not additive over the calendar year.

5. **Applicator** – 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) that results in a discharge to surface Waters of the State.

PART I - GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)**

6. **Biological Control Agents** – these agents are organisms that can be introduced to Operator sites, such as herbivores, predators, parasites, and hyperparasites. [Source: US FWS IPM Guidance, 2004]
7. **Biological Pesticides (also called biopesticides)** – include microbial pesticides, biochemical pesticides and plant-incorporated protectants (PIP). Microbial pesticide means a microbial agent intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, that (1) is a eucaryotic microorganism including, but not limited to, protozoa, algae, and fungi; (2) is a procaryotic microorganism, including, but not limited to, Eubacteria and Archaeobacteria; or (3) is a parasitically replicating microscopic element, including but not limited to, viruses. [40 CFR 158.2100(b)] Biochemical pesticide mean a pesticide that (1) is a naturally-occurring substance or structurally-similar and functionally identical to a naturally-occurring substance; (2) has a history of exposure to humans and the environment demonstrating minimal toxicity, or in the case of a synthetically-derived biochemical pesticides, is equivalent to a naturally-occurring substance that has such a history; and (3) Has a non-toxic mode of action to the target pest(s). [40 CFR 158.2000(a)(1)] Plant-incorporated protectant means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance. It also includes any inert ingredient contained in the plant, or produce thereof. [40 CFR 174.3]
8. **Chemical Pesticides** – all pesticides not otherwise classified as biological pesticides.
9. **Cultural Methods** – manipulation of the habitat to increase pest mortality by making the habitat less suitable to the pest.
10. **Decision-maker** – any entity with control over the decision to perform pesticide applications including the ability to modify those decisions that result in a discharge to surface Waters of the State.
11. **Declared Pest Emergency Situation** – an event defined by a public declaration by a federal or state agency or local government of a pest problem determined to require control through application of a pesticide beginning less than ten days after identification of the need for pest control. This public declaration may be based on:
 - (a) Significant risk to human health;
 - (b) Significant economic loss; or
 - (c) Significant risk to:
 - (i) Endangered species,
 - (ii) Threatened species,
 - (iii) Beneficial organisms, or
 - (iv) The environment.
12. **Department** – Maine Department of Environmental Protection composed of the Board and the Commissioner.

PART I - GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)**

13. **Discharge** – when used without qualification, means the "discharge of a pollutant." [40 CFR 122.2]
14. **Discharge of a pollutant** – any addition of any "pollutant" or combination of pollutants to "surface Waters of the State" from any "point source," or any addition of any pollutant or combination of pollutants to the water of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. This includes additions of pollutants into surface Waters of the State from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. [Excerpted from 40 CFR 122.2]
15. **EPA Approved or Established Total Maximum Daily Loads (TMDLs)** – "EPA Approved TMDLs" are those that are developed by the State and approved by EPA. "EPA Established TMDLs" are those that are issued by EPA.
16. **Facility or Activity** – any MEPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the MEPDES program.
17. **Federal Facility** – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned, operated, or leased by, or constructed or manufactured for the purpose of leasing to, the federal government.
18. **For-Hire Applicator** – includes persons who make contractual pesticide applications for which they or their employer receives compensation (e.g., lawn care firms, pest control companies).
19. **Impaired Water** (or "Water Quality Impaired Water" or "Water Quality Limited Segment") – a water is impaired for purposes of this permit if it has been identified by the State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 CFR 130.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.
20. **Inert Ingredient** – any substance (or group of structurally similar substances if designated by the EPA), other than an active ingredient, that is intentionally included in a pesticide product. [40 CFR 152.3] Inert ingredient also means any substance, such as a selectable marker, other than the active ingredient, where the substance is used to confirm or ensure the presence of the active ingredient, and includes the genetic material necessary for the production of the substance, provided that genetic material is intentionally introduced into a living plant in addition to the active ingredient. [40 CFR 174.3]
21. **Mechanical/Physical Methods** - mechanical tools or physical alterations of the environment, for pest prevention or removal.

PART I – GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)**

22. **Minimize** – to reduce and/or eliminate pesticide discharges to surface Waters of the State through the use of Pest Management Measures to the extent technologically available and economically practicable and achievable.
23. **Non-target Organisms** – includes the plant and animal hosts of the target species, the natural enemies of the target species living in the community, and other plants and animals, including vertebrates, living in or near the community that are not the target of the pesticide.
24. **Operator** – for the purpose of this permit, means any entity associated with the application of pesticides which results in an incidental or unintentional discharge to surface Waters of the State that meets either of the following two criteria:
- (i) 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
 - (ii) any entity with control over the decision to perform pesticide applications including the ability to modify those decisions.
25. **Person** – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.
26. **Pest** – Consistent with 40 CFR 152.5, any organism under circumstances that make it deleterious to man or the environment, if it is:
- (a) Any vertebrate animal other than man;
 - (b) Any invertebrate animal, including but not limited to, any insect, other arthropod, nematode, or mollusk such as a slug and snail, but excluding any internal parasite of living man or other living animals;
 - (c) Any plant growing where not wanted, including any moss, alga, liverwort, or other plant of any higher order, and any plant part such as a root; or
 - (d) Any fungus, bacterium, virus, or other microorganism, except for those on or in living man or other living animals and those on or in processed food or processed animal feed, beverages, drugs (as defined in FFDCA sec. 201(g)(1)) and cosmetics (as defined in FFDCA sec. 201(i)).
27. **Pest Management Area** – The area of land, including any water, for which an Operator has responsibility and is authorized to conduct pest management activities as covered by this permit.
28. **Pest Management Measure** – 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 surface Waters of the State.

PART I - GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)**

29. **Pesticide** – means (1) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, (2) any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant, and (3) any nitrogen stabilizer, except that the term “pesticide” shall not include any article that is a “new animal drug” within the meaning of section 201(w) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321(w)), that has been determined by the Secretary of Health and Human Services not to be a new animal drug by a regulation establishing conditions of use for the article, or that is an animal feed within the meaning of section 201(x) of such Act (21 U.S.C. 321(x)) bearing or containing a new animal drug. The term “pesticide” does not include liquid chemical sterilant products (including any sterilant or subordinate disinfectant claims on such products) for use on a critical or semi-critical device, as defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321). For purposes of the preceding sentence, the term “critical device” includes any device that introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body and the term “semi-critical device” includes any device that contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body [FIFRA Section 2(u)].

The term “pesticide” applies to insecticides, herbicides, fungicides, rodenticides, and various other substances used to control pests. The definition encompasses all uses of pesticides authorized under FIFRA including uses authorized under sections 3 (registration), 5 (experimental use permits), 18 (emergency exemptions), 24(c) (special local needs registrations), and 25(b) (exemptions from FIFRA).

Note: drugs used to control diseases of humans or animals (such as livestock, fish stock and pets) are not considered pesticides; such drugs are regulated by the Food and Drug Administration. Fertilizers, nutrients, and other substances used to promote plant survival and health are not considered plant growth regulators and thus are not pesticides. Biological control agents, except for certain microorganisms, are exempted from regulation under FIFRA. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests, parasitic wasps, fish, etc). This permit uses the term “pesticide” when referring to the “pesticide, as applied.” When referring to the chemical in the pesticide product with pesticidal qualities, the permit uses the term “active ingredient.”

30. **Pesticide Product** – a pesticide in the particular form (including composition, packaging, and labeling) in which the pesticide is, or is intended to be, distributed or sold. The term includes any physical apparatus used to deliver or apply the pesticide if distributed or sold with the pesticide.
31. **Pesticide Research and Development** – Activities undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development).
32. **Pesticide Residue** – includes that portion of a pesticide application that is discharged from a point source to surface Waters of the State and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

PART I - GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)**

33. **Point source** – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. [40 CFR 122.2]
34. **Pollutant** – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. For purposes of this definition, a “biological pesticide” is considered a “biological material,” and any “pesticide residue” resulting from use of a “chemical pesticide” is considered a “chemical waste.” [Excerpted from 40 CFR 122.2]
35. **State** - means State of Maine.
36. **Target Pest** – the organism(s) toward which pest management measures are being directed.
37. **Total Maximum Daily Loads (TMDLs)** – a TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. [See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7]
38. **Treatment Area** – the entire area, whether over land or water, where a pesticide application is intended to provide pesticidal benefits within the pest management area. In some instances, the treatment area will be larger than the area where pesticides are actually applied.
39. **Waters of the State** – means any and all surface waters that are contained within, flow through, or under or border upon this State or any portion of the State, including the marginal and high seas, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the State, but not excluding waters susceptible to use in interstate or foreign commerce, or whose use, degradation or destruction would affect interstate or foreign commerce.
40. **Water Quality Impaired** – See ‘Impaired Water’.
41. **Water Quality Standards** – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. Water quality standards also include an antidegradation policy and implementation procedures.
42. **Wetlands** – means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. [40 CFR 122.2]

PART I - GENERAL CONDITIONS**B. SPECIALIZED DEFINITIONS (cont'd)****44. Abbreviations and Acronyms**

BPC – Maine Board of Pesticide Control

CWA - Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)

EPA - U. S. Environmental Protection Agency

ESA - Endangered Species Act

FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act, 7 USC 136 *et seq.*

FWS - U. S. Fish and Wildlife Service

IPM - Integrated Pest Management

MEPDES - Maine Pollutant Discharge Elimination System

NMFS - U. S. National Marine Fisheries Service

NOI - Notice of Intent

NOT - Notice of Termination

PDMP - Pesticide Discharge Management Plan

PMM – Pest Management Measures

TMDL - Total Maximum Daily Load

TRI – Title, Right or Interest

WQS - Water Quality Standard

PART I - GENERAL CONDITIONS

C. APPLICABILITY AND COVERAGE

Coverage under this GP is limited to those receiving waters that conform to the Area of Coverage described below. Applicability of this GP is limited to activities that are in conformance with the terms and conditions of this GP.

1. **Area of Coverage.** The geographic area covered by this general permit is the entire State of Maine. This general permit covers application of pesticides by a licensed applicator for uses in proximity of fresh and marine waters of the State classified by Maine's water classification laws as Class GPA, Class AA, Class A, Class B, Class C, Class SA, Class SB or Class SC waters of the State, tributaries to Class GPA waters, and those waters having a drainage area of less than 10 square miles.
2. **General Restrictions.** Permittees covered by this GP shall use best management practices (BMPs) and pest management measures (PMM) for successful treatment of target pest species while adhering to USEPA registered product label requirements and limiting impacts to non-target organisms and resources to the extent practicable. The Department may deny the application(s) of pesticides when it determines that proposed pesticide applications will be ineffective in controlling the target species, or that the methods and materials proposed do not adequately ensure protection of non-target resources or organisms.

D. NOTIFICATION AND ACCEPTANCE

1. **Notice of Intent (NOI) Required.** An entity meeting the requirements and seeking coverage under this GP shall submit a completed NOI with the appropriate initial permit fee to the Department for review and approval. NOI forms may be obtained from, and completed forms must be sent electronically or in hard copy to:

Attn: Permitting Unit
Department of Environmental Protection
Bureau of Land and Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
e-mail: gregg.wood@maine.gov

Alternately, an applicant may hand-deliver completed NOI forms to the Department's Central Maine Office located in Augusta, Maine. The Department reserves the right to request additional information from the applicant based on review of the NOI. Permitting information, forms, and Augusta office directions may be obtained by contacting the Department's Permitting Unit at (207) 287-3901 or toll-free at 1-800-452-1942. Additionally, a copy of the GP, associated fact sheet and other forms may be obtained at: <http://www.maine.gov/dep/water/wd/gp.html>.

PART I - GENERAL CONDITIONS**D. NOTIFICATION AND ACCEPTANCE (cont'd)**

2. **Required NOI Information.** A complete NOI must contain the following information for each facility required to submit an NOI in Part II §S1.2.2 Table 1-1.

a. The legal name, mailing address, telephone number, email address (if available), and affiliation of any agents assisting, in full or in part, with the completion of the NOI form. Provide evidence of authorization for the agent to act on behalf of the property owner.

b. The legal name, mailing address, telephone number, email address (if available), and BPC license number of the licensed applicator to perform the pesticide treatment.

The pesticide application must be conducted during periods when the target pest species are or will immediately be present and susceptible to mortality from the materials and methods used. An example would be treating the forest canopy for pest species such as browntail moth (public health) or spruce budworm (economic harm) during particularly aggressive infestations, thought by State and or federal agencies to present significant and widespread risks.

c. Information pertaining to all pesticides planned for use, including the concentration (percent active ingredient), maximum application rate, frequency of application, and a copy of the USEPA approved label for the product(s).

d. Information pertaining to the waterbody(s) anticipated to receive a discharge of pesticides, including the name of the water body(s) classification, the closest distance in feet from the area of pesticide use to the surface water or wetland boundary, estimated size of the area to be treated in acres.

e. A statement as to whether the proposed treatment area has been treated for this or other purposes in the past and, if so, provide the dates, the pesticide(s) used, and a brief description of the details of the event(s).

f. A description of each area to be treated that includes, but is not limited to, identification of any intermittent or permanent waters that traverse the area, characterization of vegetation (herbaceous, scrub shrub, woody), and characterization of the land cover and use in the area in and around the waterbody (wetland, upland, marsh, forested, open field, urban, rural, undeveloped, etc.).

PART I - GENERAL CONDITIONS**D. NOTIFICATION AND ACCEPTANCE (cont'd)**

- g. A copy of a topographic or similar type map extending at least one mile beyond each treatment site and specific detailed written directions to each proposed treatment site. The applicant shall indicate the approximate location of the area(s) on the map.
- h. A statement demonstrating that the proposed pesticide treatment program will be conducted pursuant to a Pesticide Discharge Management Plan (PDMP), as described in Part II §5.0 of this permit, that provides for compliance with the more stringent of the Pesticide Management Measures (PMMs) indicated, existing Maine BPC regulations and BMPs, and pesticide label requirements. A copy of the PDMP must accompany the NOI at the time of submission to the Department.
- i. Submit a statement that the Maine Department of Inland Fisheries and Wildlife (MDIFW) Maine Department of Marine Resources (DMR); US Fish and Wildlife Service (USFWS); and the National Oceanic and Atmosphere Administration's (NOAA) National Marine Fisheries (NMFS) have received written notice of the proposed treatment. Include any responses from the agencies.

Failure to submit all required NOI information may result in finding the NOI incomplete for processing and may delay processing or result in denial of the NOI.

- 3. **Public Notice and Filing of a NOI.** Pursuant to 06-096 CMR 2, within 30 days prior to filing the NOI with the Department, an applicant for coverage under this GP shall give public notice of its intent to submit a NOI to the Department via an advertisement published in a newspaper having general circulation in the area of the proposed treatment program. Information to be provided in the advertisement shall include treatment purpose, treatment methods and materials, treatment location, date, and duration, how to get more information, and any applicable cautionary notes regarding human or domestic animal exposure from the product label. Notice of the proposed treatment program must also be provided to abutting landowners to affected resources.

A copy of the NOI must be filed with the civil jurisdiction (for example, the municipal office or, in LUPC jurisdiction, the LUPC regional office and County Commissioners' office) in which the treatment area is located at the time it is submitted to the Department. An original or photocopy of the public notice must be submitted to the Department with the NOI.

- 4. **Review of NOI and Other Information.** Upon review of a NOI for determination of coverage under this GP, the Department may, at its discretion, require an applicant to apply for an individual MEPDES permit for any proposed discharges. In making such a determination, the Department may consider factors including, but not limited to, expressed comments from State or federal agencies or the general public, the location of the waterbody and water quality issues particular to that area, and the location of the proposed treatment area and water quality issues particular to that area.

PART I - GENERAL CONDITIONS

D. NOTIFICATION AND ACCEPTANCE (cont'd)

5. **Effective Date of Coverage.** The Department shall notify an applicant of coverage under this GP within 31 calendar days of receipt of each complete NOI or the effective date of the renewed GP, whichever is later, as to whether or not coverage for the specific discharge is permitted. If the Department does not notify the applicant within 31 calendar days of this time, the NOI is accepted and coverage is granted. In the event coverage is not granted, the Department shall notify the applicant of the reason(s) for not granting coverage. A person may apply for issuance of an individual MEPDES permit if the proposed discharge(s) is not acceptable for coverage under this GP.
6. **Transfer of Ownership.** If ownership of a property in which a treatment application is proposed is transferred to a new owner, the Operator must notify the Department in writing that the treatment program will continue as previously applied and approved, with no significant changes. The notification must be submitted to the Department within two weeks after the transfer of property and must include documentation of the new owner's title, right or interest in the property. If significant changes in the treatment program are proposed including, but not limited to, information described in Part I §D(7), *Changed Conditions* of this GP, a new NOI must be submitted for review and approval. Permit transfers are subject to Maine law 38 M.R.S.A., §413(3) and Department rule 06-096 CMR 2(21)(C).
7. **Changed Conditions.** In the event that a person covered by this GP proposes to make, or anticipates, significant changes in the nature or scope of the pesticide treatment(s) described in a NOI previously submitted and approved, the permit holder shall notify the Department as soon as becoming aware of and before implementing such changes. Based on its evaluation of proposed changes, the Department may require the submission of a new NOI, modification of the previous GP approval with or without conditions, or application for an individual MEPDES permit. Significant changes include, but are not limited to, changes in the waterbody(s) to receive pesticide discharges, changes in the size of area to be treated, changes in facts or information described in the NOI previously submitted and approved, such as the materials, methods, PMMs to be utilized, etc.

E. CONTINUING COVERAGE AND TERMINATION

1. **Notices By Applicant and Payment of Fees.** The term of this GP is five years. Coverage under this GP will be continued from year to year through payment of an applicable annual fee pursuant to Maine law 38 M.R.S.A. § 353-B, provided there are no changes in the treatment area or the PMMs as described in the NOI. Twenty four (24) months prior to expiration of this GP, the Department shall make a determination if it is to be renewed, and, if so, will commence renewal proceedings. The Department will notify all Operators that were required to submit an NOI to be covered by this GP twenty four (24) months in advance of the expiration date whether or not the GP will be renewed. Information pertaining to the Department's renewal determination will be available to the public on the Department's website at <http://www.maine.gov/dep/>.

PART I – GENERAL CONDITIONS**E. CONTINUING COVERAGE AND TERMINATION (cont'd)**

If the GP is to be renewed, this permit shall remain in force until the effective date of the renewal GP. The effective date of the renewal GP will be 60 days after the date of signature by the Department's Commissioner. Upon signature of a renewal GP, persons wishing to continue coverage under the renewal GP will have 30 days following the date of signature to file a NOI with the Department.

2. **Individual Permit Coverage.** The Department may require that a facility covered under this GP obtain an individual MEPDES permit for any of the reasons specified at 06-096 CMR 529(2)(b)(3)(i)(A-G), or any other factors that the Department deems relevant.
3. **Exclusion from Coverage.** A facility may request that it be excluded from coverage under this GP and apply for an individual MEPDES permit pursuant to 06-096 CMR 529(3)(iii-v). When an individual MEPDES permit is issued to a facility otherwise subject to this GP, the applicability of this GP to that facility is automatically terminated on the effective date of the individual MEPDES permit.

F. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam, or floating solids which would impair the usages designated for the classification of the receiving waters.
2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life; or which would impair the usages designated for the classification of the receiving waters.
3. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class.
4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT

Pursuant to Maine law 38 MRSA, §464, sub-§4A, this permit authorizes **the incidental and unintended discharges** of pesticides to surface Waters of the State associated with pest control activities provided the pesticide(s) are applied in compliance with federal labeling restrictions and applied in compliance with State statute, BPC rules and BMPs. This GP applies to Class GPA, AA, A, B, C, SA, SB, SC surface Waters of the State, tributaries to Class GPA waters, and those waters having a drainage area of less than 10 square miles. This permit covers any Operator who meets the eligibility requirements identified in Part II §1.1 and if so required, has submitted a NOI in accordance with Part II §1.2.

For the purpose of this permit, “Operator” is defined in Part I-B to mean any entity associated with the application of pesticides which results in a discharge to surface Waters of the State 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 this permit as Applicators while Operators identified in (2) are referred to in this 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.

For purposes of this permit, all Operators are defined as either an Applicator or a Decision-maker or both an Applicator and a Decision-maker.

When an Operator is both an Applicator and a Decision-maker, the Operator must comply with all applicable requirements imposed on both Applicators and Decision-makers. When the permit references all “Operators,” both Applicators and Decision-makers must comply.

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT

1.1 Eligibility

1.1.1 Activities Covered

Pursuant to Maine law 38 MRSA, §464, sub-§4A, this permit is available to Operators who **incidentally and unintentionally** discharge to surface Waters of the State from the application of (1) biological pesticides or (2) chemical pesticides that leave a residue (collectively called *pesticides*), when the pesticide application is for one of the following pesticide use patterns:

- a. **Flying Insect Pest Control**—to control public health/nuisance and other flying insect pests that develop or are present during a portion of their life cycle in or above standing or flowing water. Public health/nuisance and other flying insect pests in this use category include pests such as adult mosquitoes. For aquatic pesticide application for mosquitoes in the larval stage of its life cycle, Operators must file a NOI for coverage under the Department GP entitled, *Application of Aquatic Pesticides for the Control of Mosquito-Borne Diseases* or submit an application to the Department for coverage by an individual MEPDES permit.
- b. **Terrestrial Weed Pest Control**—to control weeds and pathogens that are pests at water's edge, including ditches. For aquatic pesticide applications to control invasive aquatic plants listed in Maine law, 38 M.R.S.A., §466, sub-§8-A, Operators must file a NOI for coverage under the Department GP entitled, *Application of Herbicides for the Control of Invasive Aquatic Plants* or submit an application to the Department for coverage by an individual MEPDES permit.
- c. **Forest Canopy Pest Control**—application of a pesticide to a forest canopy to control the population of a pest species (e.g., insect or pathogen) where, to target the pests effectively, a portion of the pesticide unavoidably will be applied over and deposited to water.

For aquatic pesticide applications to control invasive fish species listed in Maine law, 38 M.R.S.A., §466, sub-§8-A, Operators must file a NOI for coverage under the Department GP entitled, *Application of Piscicides for Control of Invasive Fishes* or submit an application to the Department for coverage by an individual MEPDES permit.

1.1.2 Limitations on Coverage

1.1.2.1 Discharges to Water Quality Impaired Waters

Operators are not eligible for coverage under this permit for any discharges from a pesticide application to surface 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. For purposes of this permit, impaired surface waters are those that have been identified by the state pursuant to section 303(d) of the CWA as not meeting applicable state water quality standards. Impaired surface waters, for the purposes of this permit, consist of both waters with EPA-approved or Department-established total maximum daily loads (TMDLs) and waters for which EPA has not yet approved or established a TMDL. If a discharge from a pesticide application would not be eligible under this permit because the surface water is listed as impaired for that specific pesticide, but there is evidence that shows the surface water is no longer impaired, Operators may submit this information to the Department and request that coverage be allowed under this permit.

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT (cont'd)

1.1.2.2 Reserved

1.1.2.3 Discharges Currently or Previously Covered by another Permit

Discharges are not eligible for coverage under this permit if any of the following circumstances apply:

- a. The discharge is covered by another MEPDES permit, or
- b. The discharge was included in a permit that in the past 5 years has been or is in the process of being denied, terminated, or revoked by the Department or EPA (this does not apply to the routine reissuance of permits every 5 years).
- c. The application of the pesticide is directly to a receiving water body to control pests in the water body such as invasive fish, invasive plants or algal growth.

1.1.2.4 Reserved

1.2 Authorization to Discharge under This Permit

1.2.1 How to Obtain Authorization

The following discharges, consistent with the permit eligibility provisions in Part II §1.1, are automatically authorized by this permit beginning upon issuance:

- Eligible discharges that result from the application of a pesticide as part of pesticide research and development, as defined in Part I B;

- Eligible discharges for which submission of an NOI is not required. See Part II §1.2.2 and §1.2.3.

To obtain authorization under this permit for all other eligible discharges, an Operator must submit a timely, complete, and accurate NOI consistent with the requirements of Part II §1.2.2 and §1.2.3.

1.2.2 Decision-makers Required to Submit an NOI

Any “Decision-maker who is or will be required to submit an NOI” as defined in Part I B, is identified in Part II §1.2.2 Table 1-1 of this permit.

For calculating annual treatment area totals for purposes of determining if an NOI must be submitted, see the definition for “annual treatment area threshold” in Part I B of the permit.

PART II – SPECIAL CONDITIONS**1.00 COVERAGE UNDER THIS PERMIT (cont'd)**

An NOI provides notice to the State that an Operator may have an incidental or unintended discharge(s) to surface Waters of the State from pesticide application activities eligible for coverage under this permit. Information required is provided on the NOI form provided by the Department. A copy of the initial NOI form shall be provided by the applicant to the municipal office of the town or city, or the county commissioners in the case of an unorganized territory, in which the discharge will occur at the time it is submitted to the Department. The NOI must identify the pest management area where the Operator will conduct activities resulting in discharges to surface waters of the State to be covered under this permit.

Coverage will be available for the duration of the permit for Decision-makers who file an NOI, including the Decision-makers' employees, contractors, subcontractors, and other agents, for all activities identified on the NOI unless coverage is terminated pursuant to Part II §1.2.5 or §1.3. If a submitted NOI is not timely, accurate, or complete, any employee, contractor, subcontractor or other entity that discharges without the required NOI is not covered by this permit.

Applicators who are not also Decision-makers do not need to submit an NOI.

Table 1.1 Decision makers required to submit an NOI

PDP Part/Pesticide Use	Who must submit NOI	Pesticide Application Activities
Part I §1.1.1(a) Flying Insect Pest Control	Any agency which pest management for land resource stewardship is an integral part of the organization's operations.	All flying insect pest control activities that result in a discharge to surface waters of the State.
	Entities that exceed the annual treatment threshold.	Adulticide treatment if more than 6,400 acres during a calendar year.
Part I §1.1.1(b) Terrestrial Weed Pest Control	Any agency which pest management for land resource stewardship is an integral part of the organization's operations.	All weed pest control activities that result in a discharge to surface waters of the State.
	Entities that exceed the annual treatment threshold.	Treatment during a calendar year if more than either 20 linear miles or 6,400 acres during a calendar year.
Part I §1.1.1(c) Forest Canopy Pest Control	Any agency which pest management for land resource stewardship is an integral part of the organization's operations.	All flying insect pest control activities that result in a discharge to surface waters of the State.
	Entities that exceed the annual treatment threshold.	Treatment if more than 6,400 acres during a calendar year.

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT (cont'd)

1.2.3 Discharge Authorization Date

Except for discharges identified in Part II §1.2.2 Table 1-1, any Operator with eligible discharges is automatically authorized to discharge under this permit without submission of an NOI provided the Operator uses BPC best management practices and pest management measures for successful treatment of target pest species while adhering to USEPA registered product label requirements and existing Maine BPC regulations and limiting impacts to non-target organisms and resources to the extent practicable.

On the basis of a review of an NOI or other information, the Department shall notify an applicant of coverage under this GP within 31 calendar days of receipt of each complete NOI or date of public notice publication, whichever is later, as to whether or not coverage for the specific discharge is permitted. If the Department does not notify the applicant within 31 calendar days of this time, the NOI is accepted and coverage is granted. In the event coverage is not granted, the Department shall notify the applicant of the reason(s) for not granting coverage.

The Department may delay authorization to discharge if it determines that additional technology-based and/or water quality-based effluent limitations or other conditions are necessary, or deny coverage under this permit and require submission of an application for an individual MEPDES permit, as detailed in Part II §1.3. Operators may submit multiple NOIs with different activities on each of those NOIs such that discharges from different activities are authorized at different times.

1.2.4 Continuation of This Permit

If this permit is not reissued or replaced before the expiration date, it will be administratively continued in accordance with 40 CFR 122.6 and remain in force and effect. If an Operator was authorized to discharge under this permit before the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of the following:

- a. An Operator is authorized for coverage under a reissued permit or a replacement of this permit, following the timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and in compliance with the requirements of the NOI;
- b. An Operator submits a Notice of Termination (NOT);
- c. A MEPDES individual permit for a discharge resulting from application of a pesticide that would otherwise be covered under this permit is issued or denied;
- d. The Department issues a formal permit decision not to reissue this GP (24 months prior to the expiration date), at which time dischargers must seek coverage under an alternative MEPDES GP or an individual MEPDES permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or
- e. The Department has informed the Operator that its discharge is no longer covered under this permit.

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT (cont'd)

1.2.5 Terminating Coverage

1.2.5.1 Submitting a Notice of Termination (NOT). To terminate permit coverage, an Operator who is required to submit an NOI as identified in Part II §1.2.2, must submit a complete and accurate NOT. Information required to be included in a NOT is provided on a form provided by the Department. The authorization to discharge under this permit terminates at 11:59 PM of the day that a complete NOT is accepted for processing by the Department. If an Operator submits an NOT without meeting one or more of the conditions identified in Part II §1.2.5.2, the NOT is not valid. Operators are responsible for complying with the terms of this permit until authorization is terminated. If required to submit annual reports pursuant to Part II §7 prior to the termination of authorization under this permit, Operators must file an annual report for the portion of the year up through the date of termination. **The annual report is due no later than February 15 of the following year [ICIS Code _____].**

1.2.5.2 When to Submit a NOT. An Operator who is required to submit an NOI as identified in Part II §1.2.2 must submit a NOT within 30 days after one or more of the following conditions have been met:

- a. A new Operator has taken over responsibility of the pest control activities covered under an existing NOI;
- b. The Operator has ceased all discharges from the application of pesticides for which permit coverage was obtained and does not expect to discharge during the remainder of the permit term for any of the use patterns as identified in Part II §1.1.1; or
- c. The Operator has obtained coverage under a MEPDES individual permit or an alternative MEPDES general permit for all discharges required to be covered by an MEPDES permit, unless coverage was obtained consistent with Part II §1.3, in which case coverage under this permit will terminate automatically.

1.2.5.3 Termination for Operators not Required to Submit an NOI. Operators covered under this permit, who are not required to submit an NOI, are terminated from permit coverage when there is no longer a discharge from the application of pesticides or the discharges are covered under a MEPDES individual permit or alternative MEPDES general permit.

1.3 Alternative Permits

1.3.1 Requirements for Coverage under an Alternative Permit

In accordance with 40 CFR 122.64 and 124.5, the Department may require Operators to apply for and/or obtain authorization to discharge under either an MEPDES individual permit or an alternative MEPDES general permit.

If the Department requires an Operator to apply for an MEPDES individual permit, the Department will notify the Operator in writing that a permit application is required. Such a notification will include a brief statement of the reasons for the decision and will provide application information. In addition, for Operators whose discharges are authorized under this permit, any notice will set a deadline to file the permit application and will include a statement that on the effective date of the MEPDES individual

PART II – SPECIAL CONDITIONS

1.00 COVERAGE UNDER THIS PERMIT (cont'd)

permit, coverage under this general permit will terminate. The Department may grant additional time to submit the application if an Operator submits a request setting forth reasonable grounds for additional time. If covered under this permit and the Operator fails to submit an MEPDES individual permit application as required by the Department, the applicability of this permit to such Operator is terminated at the end of the day specified by the Department as the deadline for application submittal. The Department may take enforcement action for any unpermitted discharge or violation of any permit requirement.

1.3.2 Operator Requesting Coverage under an Alternative Permit

If an Operator does not want to be covered by this general permit but needs permit coverage, the Operator can apply for a MEPDES individual permit. In such a case, the Operator must submit an individual permit application to the Department in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request.

When an individual MEPDES permit is issued, or the Operator is authorized under an alternative MEPDES general permit to discharge a pollutant to surface Waters of the State as a result of a pesticide application, authorization to discharge under this permit is terminated on the effective date of the MEPDES individual permit or the date of authorization of coverage under the alternative MEPDES general permit.

1.4 Severability

Invalidation of a portion of this permit does not render the whole permit invalid. The Department's intent is that the permit will remain in effect to the extent possible; if any part of this permit is invalidated, the remaining parts of the permit will remain in effect unless the Department issues a written statement otherwise.

1.5 Other Federal and State Laws

Operators must comply with all other applicable federal and state laws and regulations that pertain to the application of pesticides. For example, this permit does not negate the requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and its implementing regulations to use registered pesticides consistent with the product's labeling. In fact, applications in violation of certain FIFRA requirements could also be a violation of the permit and therefore a violation of the CWA (e.g. exceeding label application rates). Additionally, other laws and regulations might apply to certain activities that are also covered under this permit (e.g., United States Coast Guard regulations).

1.6 Reserved

PART II – SPECIAL CONDITIONS

2.0 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

This section includes technology-based effluent limitations applicable to all Operators, as defined in Part I B, for any discharges authorized under this permit, with compliance required upon beginning such discharge. All Operators are classified as either “Applicators” or “Decision-makers,” as defined in Part I B, or both. Applicators must perform the tasks identified in Part II §2.1 – Applicators’ Responsibilities. Decision-makers must perform the tasks identified in Part II §2.2 – Decision-makers’ Responsibilities. There may be instances when a single entity acts as both an Applicator and a Decision-maker.

If an Operator’s discharge of pollutants results from the application of pesticide that is being used solely for the purpose of “pesticide research and development,” as defined in Part I B, the Operator must use such pesticide consistent with any applicable research plan and experimental use permit.

2.1 Applicators’ Responsibilities – To meet the effluent limitations of this permit, all Applicators must implement Part II §2.1 to minimize the discharge of pesticides to surface waters of the State from the application of pesticides, through the use of Pest Management Measures (PMMs), as defined in Part I B.

2.1.1 Use only the amount of pesticide and frequency of pesticide application necessary to control the target pest, using equipment and application procedures appropriate for this task.

2.1.2 Maintain pesticide application equipment in proper operating condition, including requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges.

2.1.3 Assess weather conditions (e.g. temperature, precipitation and wind speed) in the treatment area to ensure application is consistent with all applicable federal requirements.

2.2 Decision-makers’ Responsibilities: For All Decision-makers

To meet the effluent limitations in Part II §2.2, all Decision-makers must minimize the discharge of pesticides to surface waters of the State from the application of pesticides, through the use of PMMs, as defined in Part I B.

To the extent the Decision-maker determines the amount of pesticide or frequency of pesticide application, the Decision-maker must use only the amount of pesticide and frequency of pesticide application necessary to control the target pest.

2.2.1 Flying Insect Pest Control- This part applies to discharges from the application of pesticides for flying insect pest control as defined in Part II §1.1.1.

a. Identify the Problem. Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, a Decision-maker who is or will be required to submit an NOI must do the following for each pest management area, as defined in Part I B.

PART II – SPECIAL CONDITIONS

2.0 TECHNOLOGY-BASED EFFLUENT LIMITATIONS (cont'd)

1. Establish densities for larval and adult flying insect pest populations or identify environmental condition(s), either current or based on historical data, to serve as action threshold(s) for implementing PMMs;
2. Identify target pest(s) to develop PMMs based on developmental and behavioral considerations for each pest;
3. Identify known breeding sites for source reduction, larval control program, and habitat management;
4. Analyze existing surveillance data to identify new or unidentified sources of flying insect pest problems as well as sites that have recurring pest problems; and
5. In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part II §2.2.1.a.

b. Pest Management Options. Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is or will be required to submit an NOI must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control flying insect pests. In developing the PMMs for each pest management area, the Operator must evaluate the following management options, including a combination of these management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness:

- | | | |
|---------------------|------------------------------|-----------------------------------|
| 1. No action | 2. Prevention | 3. Mechanical or physical methods |
| 4. Cultural methods | 5. Biological control agents | 6. Pesticides |

c. Pesticide Use. If a pesticide is selected to manage flying insect pests, and application of the pesticide will result in a discharge to surface Waters of the State, any Operator who is or will be required to submit an NOI must:

1. Conduct adult surveillance in an area that is representative of the pest problem or evaluate existing surveillance data, environmental conditions, or data from adjacent areas prior to each pesticide application to assess the pest management area and to determine when the action threshold(s) is met;
2. Reduce the impact on the environment and on non-target organisms by applying the pesticide only when the action threshold(s) has been met;
3. In situations or locations where larvicide use is not practicable or feasible for efficacious control, use adulticides for flying insect pest control when the adult action threshold(s) has been met.

PART II – SPECIAL CONDITIONS

2.0 TECHNOLOGY-BASED EFFLUENT LIMITATIONS (cont'd)

2.2.2 Terrestrial Weed Pest Control - This part applies to discharges from the application of pesticides for control of weeds and pathogens as defined in Part II §1.1.1.

a. Identify the Problem. Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is or will be required to submit an NOI must do the following for each pest management area, as defined in Part I B:

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);
2. Identify target pest(s);
3. Identify possible factors causing or contributing to the pest problem;
4. Establish any pest- and site-specific action threshold, as defined in Part I B, for implementing Part II §2.2.2.b; and
5. In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part II §2.2.2.a.

b. Pest Management Options. Prior to the first pesticide application covered under this permit that will result in a discharge to surface waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is or will be required to submit an NOI must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control pests. In developing the PMMs for each pest management area, the Operator must evaluate the following management options, including a combination of these management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness:

- | | | |
|---------------------|------------------------------|-----------------------------------|
| 1. No action | 2. Prevention | 3. Mechanical or physical methods |
| 4. Cultural methods | 5. Biological control agents | 6. Pesticides |

c. Pesticide Use. If a pesticide is selected to manage weed or algae pests, and application of the pesticide will result in a discharge to surface Waters of the State, any Operator who is or will be required to submit an NOI must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each pesticide application to assess the pest management area and to determine when the action threshold(s) is met; and
2. Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action threshold has been met.

PART II – SPECIAL CONDITIONS

2.0 TECHNOLOGY-BASED EFFLUENT LIMITATIONS (cont'd)

2.2.3 Forest Canopy Pest Control - This part applies to discharges from the application of pesticides for forest canopy pest control as defined in Part II §1.1.1.

a. Identify the Problem. Prior to the first pesticide application covered under this permit that will result in a discharge to surface waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, any Operator who is or will be required to submit an NOI must do the following for each pest management area, as defined in Part I B:

1. Establish any pest- and site-specific action threshold, as defined in Part I B, for implementing Part II §2.2.4.b;
2. Identify target pest(s) to develop PMMs based on developmental and behavioral considerations for each pest;
3. Identify current distribution of the target pest and assess potential distribution in the absence of PMMs; and
4. In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part II §2.2.4.a.

b. Pest Management Options Prior to the first pesticide application covered under this permit that will result in a discharge to surface waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is or will be required to submit an NOI must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control pests. In developing the PMMs for each pest management area, the Operator must evaluate the following management options, including a combination of these management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness:

- | | | |
|---------------------|------------------------------|--------------------------------|
| 1. No action | 2. Prevention | 3. Mechanical/physical methods |
| 4. Cultural methods | 5. Biological control agents | 6. Pesticides |

c. Pesticide Use. If a pesticide is selected to manage forest canopy pests, and application of the pesticide will result in a discharge to surface Waters of the State, any Operator who is or will be required to submit an NOI must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold is met;
2. Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) has been met; and
3. Evaluate using pesticides against the most susceptible developmental stage.

PART II – SPECIAL CONDITIONS

3.0 WATER QUALITY-BASED EFFLUENT LIMITATIONS

All Operators must control discharges as necessary to meet applicable numeric and narrative state water quality standards, for any discharges authorized under this permit, with compliance required upon beginning such discharge.

If at any time an Operator becomes aware (e.g., through self-monitoring or by notification from a state or federal agency), or the Department determines, that the Operator's discharge causes or contributes to non-attainment of any applicable water quality standard, the Operator must take corrective action as required in Part II §6, up to and including the ceasing of the discharge, if necessary.

4.0 MONITORING

4.1 Visual Monitoring Requirements for Pesticide Applicators - During any pesticide application with discharges authorized under this permit, all Applicators must, when considerations for safety and feasibility allow, visually assess the area to and around where pesticides are applied for possible and observable adverse incidents, as defined in Part I B, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

4.2 Visual Monitoring Requirements for all Operators - During any Operator post-application surveillance of any pesticide application with discharges authorized under this permit, all Operators must visually assess the area to and around where pesticides were applied for possible and observable adverse incidents, as defined in Part I B, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

5.0 PESTICIDE DISCHARGE MANAGEMENT PLAN

Any Operator who is required to submit an NOI, as required in Part II §1.2.2, must prepare a Pesticide Discharge Management Plan (PDMP) by the time the NOI is filed, with the following exception (for which a PDMP is not required to be developed):

- Any application is made in response to a Declared Pest Emergency Situation, as defined in Part I B.; or

The PDMP does not contain effluent limitations; the effluent limitations are specified in Part II §2 and §3 of the permit. The PDMP documents how Operators will implement the effluent limitations in Part II §2 and §3 of the permit, including the evaluation and selection of PMMs to meet those effluent limitations in order to minimize discharges. In the PDMP, Operators may incorporate by reference any procedures or plans in other documents that meet the requirements of this permit. If Operators rely upon other documents to comply with the effluent limitations in this permit, such as a pre-existing pest management plan, the Operator must attach to the PDMP a copy of any portions of any documents that are used to document the implementation of the effluent limitations.

PART II – SPECIAL CONDITIONS

5.0 PESTICIDE DISCHARGE MANAGEMENT PLAN

5.1 Contents of the Pesticide Discharge Management Plan. The PDMP must include the following elements:

- a. Pesticide Discharge Management Team
- b. Problem Identification
- c. Pest Management Options Evaluation
- d. Response Procedures
 1. Spill Response Procedures
 2. Adverse Incident Response Procedures
- e. Documentation to support eligibility considerations under other federal laws

5.1.1 PDMP Team. Operators must identify all the persons (by name and contact information) that compose the team as well as each person's individual responsibilities, including:

- a. Person(s) responsible for managing pests in relation to the pest management area
- b. Person(s) responsible for developing and revising the PDMP; and
- c. Person(s) responsible for developing, revising, and implementing corrective actions and other effluent limitation requirements;

5.1.2 Problem Identification. Operators must document the following:

- a. Pest problem description. Document a description of the pest problem at the pest management area, including identification of the target pest(s), source(s) of the pest problem, and source of data used to identify the problem in Part II §2.2.1, §2.2.2, §2.2.3, and §2.2.4.
- b. Action Threshold(s). Describe the action threshold(s) for 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.
- c. General location map. In the plan, include a general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) that identifies the geographic boundaries of the area to which the plan applies and location of the surface Waters of the State and;
- d. Water quality standards. Document any water(s) identified as impaired by a substance which either is an active ingredient or a degradate of such an active ingredient.

5.1.3 Pest Management Options Evaluation - Operators must document the evaluation of the pest management options, including combination of the pest management options, to control the target pest(s). Pest management options include the following: No action, prevention, mechanical/physical methods, cultural methods, biological control agents, and pesticides. In the evaluation, Operators must consider the impact to water quality, impact to non-target organisms, feasibility, cost effectiveness, and any relevant previous PMMs.

PART II – SPECIAL CONDITIONS

5.0 PESTICIDE DISCHARGE MANAGEMENT PLAN

5.1.4 Response Procedures. Operators must document the following procedures in the PDMP:

a. Spill Response Procedures – At a minimum, Operators must have:

1. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to surface Waters of the State. 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.
2. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

b. Adverse Incident Response Procedures – At a minimum, Operators must have:

1. Procedures for responding to any adverse incident resulting from pesticide applications;
2. Procedures for notification of the adverse incident, both internal to the Operator'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.

5.1.5 Reserved

5.1.6 Signature Requirements. Operators must sign, date and certify the PDMP meets all the requirements of this permit.

5.2 Pesticide Discharge Management Plan Modifications. Operators must modify the PDMP whenever necessary to address any of the triggering conditions for corrective action in Part II §6.1, or when a change in pest control activities significantly changes the type or quantity of pollutants discharged. Changes to the 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.

5.3 Pesticide Discharge Management Plan Availability. Operators must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided in 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 State, federal or local agency governing discharges or pesticide applications within their respective jurisdictions. The Department may provide copies of the 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 the Department, if requested, and may not be withheld from those staff within state or federal agencies cleared for CBI review.

PART II – SPECIAL CONDITIONS

6.0 CORRECTIVE ACTION

All Operators must comply with the provisions of Part II §6 for any discharges authorized under this permit, with compliance required upon beginning such discharge.

6.1 Situations Requiring Revision of Pest Management Measures

Operators must review and, as necessary, revise the evaluation and selection of PMMs consistent with Part II §2.1 and §2.2 for the following situations:

- a. An unauthorized release or discharge associated with the application of pesticides (e.g., spill, leak, or discharge not authorized by this or another MEPDES permit) occurs.
- b. Operators become aware, or the Department concludes, that PMMs are not adequate/sufficient for the discharge to meet applicable water quality standards.
- c. Any monitoring activities indicate failure to meet applicable technology-based effluent limitations in Part II §2.
- d. An inspection or evaluation of activities by a federal or State entity, reveals that modifications to the PMMs are necessary to meet the effluent limitations in this permit.
- e. Any Operator observes or is otherwise made aware of an adverse incident as defined in Part I B.

6.2 Corrective Action Deadlines

If an Operator determines that changes to PMMs are necessary to eliminate any situation identified in Part II §6.1, such changes must be made before or, if not practicable, as soon as possible after the next pesticide application that results in a discharge.

6.3 Effect of Corrective Action

The occurrence of a situation identified in Part II §6.1 may constitute a violation of the permit. Correcting any situation identified in Part II §6.1 does not absolve Operators of liability for any original violation. However, failure to comply with Part II §6.2 constitutes an additional permit violation. The Department will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

The Department may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) triggering corrective action or schedules and requirements more stringent than specified in this permit. Those requirements and schedules will be in addition to those of Part II §6.1 and §6.2.

PART II – SPECIAL CONDITIONS**6.0 CORRECTIVE ACTION (cont'd)****6.4 Adverse Incident Documentation and Reporting****6.4.1 Twenty-Four (24)-Hour Adverse Incident Notification****6.4.1.1 Adverse Incident Notification Required**

Except as provided for in Part II §6.4.4, if an Operator observes or is otherwise made aware of an adverse incident, as defined in Part I B, which may have resulted from a discharge from a pesticide application, the Operator must immediately notify the Department's assigned compliance inspector in the respective regional offices identified in Part II §7.7 of this permit. This notification must be made by telephone within 24 hours of the Operator becoming aware of the adverse incident and must include at least the following information:

- a. The caller's name and telephone number;
- b. Operator name and mailing address;
- c. If covered under an NOI, the NOI MEPDES permit tracking number assigned by the Department;
- d. The name and telephone number of a contact person, if different than the person providing the 24-hour notice;
- e. How and when the Operator became aware of the adverse incident;
- f. Description of the location of the adverse incident;
- g. Description of the adverse incident identified and the pesticide product, including EPA pesticide registration number, for each product applied in the area of the adverse incident;
- h. Description of any steps the Operator has taken or will take to correct, repair, remedy, clean up, or otherwise address any adverse effects; and
- i. If known, the identity of any other Operators authorized for coverage under this permit for discharges from the pesticide application activities that resulted in the adverse incident.

If an Operator is unable to notify the Department within 24 hours, the Operator must do so as soon as possible and also provide an appropriate rationale for why the Operator was unable to provide such notification within 24 hours.

The adverse incident notification and reporting requirements are in addition to what the registrant is required to submit under FIFRA section 6(a)(2) and its implementing regulations at 40 CFR Part 159.

PART II – SPECIAL CONDITIONS

6.0 CORRECTIVE ACTION (cont'd)

6.4.1.2 Adverse Incident Notification Not Required - Reporting of adverse incidents is not required under this permit in the following situations:

- a. An Operator is aware of facts that indicate that the adverse incident was not related to toxic effects or exposure from the pesticide application;
- b. An Operator has been notified by the Department, and retains such notification, that the reporting requirement has been waived for this incident or category of incidents;
- c. An Operator receives information of an adverse incident, but that information is clearly erroneous; or
- d. An adverse incident occurs to pests that are similar in kind to potential target pests identified on the FIFRA label.

6.4.2 Five (5)-Day Adverse Incident Written Report

Within 5 days of a reportable adverse incident pursuant to Part II §6.4.1.1, Operators must provide a written report of the adverse incident to the Department's compliance inspector in the respective regional offices identified in Part II §7.7 of this permit. The adverse incident report must include at least the following information:

- a. Information required to be provided in Part II §6.4.1.1;
- b. Date and time the Operator contacted the Department notifying the Department of the adverse incident, who the Operator spoke with at the Department, and any instructions received from the Department;
- c. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc);
- d. A description of the circumstances of the adverse incident including species affected, estimated number of individual and approximate size of dead or distressed organisms;
- e. Magnitude and scope of the affected area (e.g., aquatic square area or total stream distance affected);
- f. Pesticide application rate; intended use site (e.g., on the bank, above waters, or directly to water); method of application; and the name of pesticide product and EPA registration number;
- g. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied);
- h. If laboratory tests were performed, an indication of which test(s) were performed, and when; additionally, a summary of the test results must be provided within 10 days after they become available if not available at the time of submission of the 5-day report;
- i. Description of actions to be taken to prevent recurrence of adverse incidents; and
- j. Signature, date, and provide certification.

PART II – SPECIAL CONDITIONS

6.0 CORRECTIVE ACTION (cont'd)

6.4.3 Reserved

6.4.4 Notification and Reporting for Adverse Incidents Involving Multiple Operators

Where multiple Operators are authorized for a discharge that results in an adverse incident, notification and reporting by any one of the Operators constitutes compliance for all of the Operators, provided a copy of the written report required in Part II §6.4.2 is also provided to all of the other authorized Operators within 5 days of the reportable adverse incident.

6.5 Reportable Spills and Leaks

6.5.1 Spill, Leak, or Other Unpermitted Discharge Notification

Where a leak, spill, or other release into surface waters of the State containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs in any 24-hour period, an Operator must notify the Department's compliance inspector in the respective regional offices identified in Part II §7.7 of this permit as soon as the Operator has knowledge of the release. Contact information must be in locations that are readily accessible and available in the area where the spill, leak, or other unpermitted discharge may occur. State or local requirements may necessitate also reporting spills or leaks to local emergency response, public health, or drinking water supply agencies.

6.5.2 Thirty-Day Spill, Leak, or Other Unpermitted Discharge Documentation - If an Operator becomes aware of a spill, leak, or other unpermitted discharge which triggers the notification in Part II §6.5.1 and results in an adverse incident, then the Operator must report the incident per the guidelines in Part II §6.4.1 and §6.4.2. If the spill, leak, or other unpermitted discharge triggers the notification in Part II §6.5.1, but does not result in an adverse incident, then the Operator must document and retain the following information within 5 days of becoming aware of the situation:

- a. Information required to be provided in Part II §6.5.1;
- b. Summary of corrective action taken or to be taken including date initiated and date completed or expected to be completed; and
- c. Any measures to prevent recurrence of such a spill or leak or other discharge, including notice of whether PDMP modifications are required as a result of the spill or leak.

6.6 Other Corrective Action Documentation

For situations identified in Part II §6.1, other than for adverse incidents (addressed in Part II §6.4), or reportable spills or leaks (addressed in Part II §6.5), Operators must document the situation triggering corrective action and planned corrective action within 5 days of becoming aware of that situation, and retain a copy of this documentation. This documentation must include the following information:

- a. Identification of the condition triggering the need for corrective action review, including any ambient water quality monitoring that assisted in determining that discharges did not meet water quality standards;
- b. Brief description of the situation;

PART II – SPECIAL CONDITIONS

6.0 CORRECTIVE ACTION (cont'd)

- c. Date the problem was identified;
- d. Brief description of how the problem was identified, how the Operator learned of the situation, and date the Operator learned of the situation;
- e. Summary of corrective action taken or to be taken, including date initiated and date completed or expected to be completed; and
- f. Any measures to prevent reoccurrence of such an incident, including notice of whether PDMP modifications are required as a result of the incident.

7.0 RECORDKEEPING AND ANNUAL REPORTING

Operators must keep written records for at least three (3) years for all discharges covered under this permit. These records must be accurate and complete to demonstrate the Operator's compliance with the conditions of this permit. Operators may rely on records and documents developed for other obligations, such as requirements under FIFRA, and state or local pesticide programs, provided that all requirements of this permit are satisfied.

The Department recommends that all Operators, who are or may be required to submit an NOI based on their annual treatment area, keep records of acres or linear miles treated for all applicable use patterns covered under this general permit. The records should be kept up-to-date to help Operators determine if the annual treatment area threshold, as identified in Part I §1.2.2, is met during any calendar year.

7.1 Recordkeeping For All Operators – All Operators must keep the following records:

- a. A copy of any Adverse Incident Reports (See Part II §6.4.2);
- b. Rationale for any determination that reporting of an identified adverse incident is not required, consistent with allowances identified in Part II §6.4.1.2;
- c. A copy of any corrective action documentation (See Part II §6.6); and,
- d. A copy of any spill and leak or other unpermitted discharge documentation (See Part II §6.5.2)

7.2 Recordkeeping for All Operators who are For-Hire Applicators – Any Operator who is a For-Hire Applicator, as defined in Part I B, must retain the following records:

- a. Documentation of equipment calibration; and
- b. Information on each treatment area to which pesticides are discharged, including:
 - 1. Description of each treatment area, including location and size (acres or linear feet) of treatment area and identification of any waters, either by name or by location, to which pesticide(s) are discharged;
 - 2. Pesticide use pattern(s) (i.e., mosquito and other flying insects, terrestrial weed, animal pest, or forest canopy);

PART II – SPECIAL CONDITIONS**7.0 RECORDKEEPING AND ANNUAL REPORTING (cont'd)**

3. Target pest(s);
4. Name of each pesticide product used including the EPA registration number;
5. Quantity of each pesticide product applied to each treatment area;
6. Pesticide application date(s); and
7. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not, why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides.

7.4 Recordkeeping for All Operators that are Decision-makers Required to Submit an NOI and

Any Decision-maker required to submit an NOI must retain the following records at the address provided on the NOI:

- a. Copy of the NOI submitted to the Department, any correspondence exchanged between the Decision-maker and the Department specific to coverage under this permit, and a copy of the Department's documentation indicating coverage under the permit has been granted;
- b. A copy of the PDMP, including any modifications made to the PDMP during the term of this permit;
- c. Copy of annual reports submitted to the Department;
- d. Documentation of equipment calibration (only if Decision-maker is also the Applicator);
- e. Information on each treatment area to which pesticides are discharged, including:
 1. Description of each treatment area, including location and size (acres or linear feet) of treatment area and identification of any waters of the State, either by name or by location, to which pesticide(s) are discharged;
 2. Pesticide use pattern(s) (i.e., flying insects, weed or forest canopy);
 3. Target pest(s) and explanation of need for pest control;
 4. Action Thresholds;
 5. Method and/or data used to determine that action threshold(s) has been met;
 6. Description of pest management measure(s) implemented prior to the first pesticide application;
 7. Company name and contact information for pesticide applicator;
 8. Name of each pesticide product used including the EPA registration number;
 9. Quantity of each pesticide product applied to each treatment area;

PART II – SPECIAL CONDITIONS**7.0 RECORDKEEPING AND ANNUAL REPORTING (cont'd)**

10. Pesticide application date(s); and

11. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not, why not and whether monitoring identified any possible or observable adverse incidents caused by application of pesticides.

7.5 Retention of Records for All Operators – All required records must be documented as soon as possible but no later than 14 days following completion of each pesticide application. Operators must retain any records required under this permit for at least 3 years after the Operator's coverage under this permit expires or is terminated. Operators must make available to the Department and EPA, including an authorized representative of either agency, all records kept under this permit upon request and provide copies of such records, upon request.

7.6 Annual Reporting for Any Operator Required to Submit an NOI - Any Operator required to submit an NOI must submit an annual report to the Department. The Operator must submit the annual report each calendar year thereafter for the duration of coverage under this general permit, whether or not the Decision-maker has discharges from the application of pesticides in any subsequent calendar year. **The annual report must be submitted to the Department compliance inspector in the respective regional offices identified in Part II §7.7 of this permit no later than February 15 of the following year for all pesticide activities covered under this permit occurring during the previous calendar year.** The annual report may be submitted electronically or in hardcopy form.

When Decision-makers terminate permit coverage, as specified in Part II §1.2.5, an annual report must be submitted for the portion of the year up through the date of termination. The annual report is due no later than February 15 of the next year. The annual report must contain the following information:

- a. Decision-maker's name and contact information;
- b. MEPDES permit tracking number(s);
- c. Contact person name, title, e-mail address (if any), and phone number; and
- d. For each treatment area, report the following information:
 1. Description of treatment area, including location and size (acres or linear feet) of treatment area and identification of any surface Waters of the State, either by name or by location, to which pesticide(s) are discharged;
 2. Pesticide use pattern(s) (i.e., flying insects, weed or forest canopy) and target pest(s);
 3. Company name(s) and contact information for pesticide applicator(s), if different from the Decision-maker;
 4. Total amount of each pesticide product applied for the reporting year by the EPA registration number(s) and by application method (e.g., aerially by fixed-wing or rotary aircraft, broadcast spray, etc.);

PART II – SPECIAL CONDITIONS**7.0 RECORDKEEPING AND ANNUAL REPORTING (cont'd)**

5. Whether this pest control activity was addressed in the PDMP prior to pesticide application;
6. If applicable, an annual report of any adverse incidents as a result of these treatment(s), for incidents, as described in Part II §6.4.1; and
7. If applicable, description of any corrective action(s), including spill responses, resulting from pesticide application activities and the rationale for such action(s).

7.7 Reporting – All annual reports, adverse incident reports and reportable spill and leak reports required to be submitted to the Department's compliance inspector in the applicable regional office at the following addresses;

Attn: Environmental Specialist IV
Maine Department of Environmental Protection
Central Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
State House Station #17
Augusta, ME. 04333
Tel: 1-800-452-1942

Attn: Environmental Specialist IV
Maine Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, ME. 04401
Tel: 1-888-769-1137

Attn: Environmental Specialist IV
Maine Department of Environmental Protection
Northern Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
1235 Central Drive, Skyway Park
Presque Isle, ME. 04769
Tel: 1-888-769-1053

Attn: Environmental Specialist IV
Maine Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land & Water Quality
Division of Water Quality Management
312 Canco Road
Portland, ME. 04103
Tel: 1-888-769-1036

PART III
MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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PART III
MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

1. **General compliance.** All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. **Other materials.** Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:
 - (a) **They are not**
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.

 - (b) The discharge of such materials will not violate applicable water quality standards.

3. **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
 - (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. **Duty to provide information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

PART III
MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- 5. Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 6. Reopener clause.** The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).
- 7. Oil and hazardous substances.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.
- 8. Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
- 9. Confidentiality of records.** 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."
- 10. Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- 11. Other laws.** The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee of its obligation to comply with other applicable Federal, State or local laws and regulations.

PART III
MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- 12. Inspection and entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:
- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

- (a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
- (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
- (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
- (e) The permittee shall install flow measuring facilities of a design approved by the Department.
- (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

- 2. Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

(a) Definitions.

- (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

- (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

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- (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (C) The permittee submitted notices as required under paragraph (c) of this section.

- (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

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C. MONITORING AND RECORDS

- 1. General Requirements.** This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.
- 2. Representative sampling.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.
- 3. Monitoring and records.**
 - (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
 - (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
 - (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

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- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
- (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

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- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - (B) Any upset which exceeds any effluent limitation in the permit.
 - (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.
 - (iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.
- (g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.
- (h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

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3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- (i) One hundred micrograms per liter (100 ug/l);
- (ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
- (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
- (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

(b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- (i) Five hundred micrograms per liter (500 ug/l);
- (ii) One milligram per liter (1 mg/l) for antimony;
- (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
- (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

- (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
- (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

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(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER PROVISIONS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and or treatment to be used.

3. Removed substances. Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. Connection to municipal sewer. (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

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F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

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Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

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Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

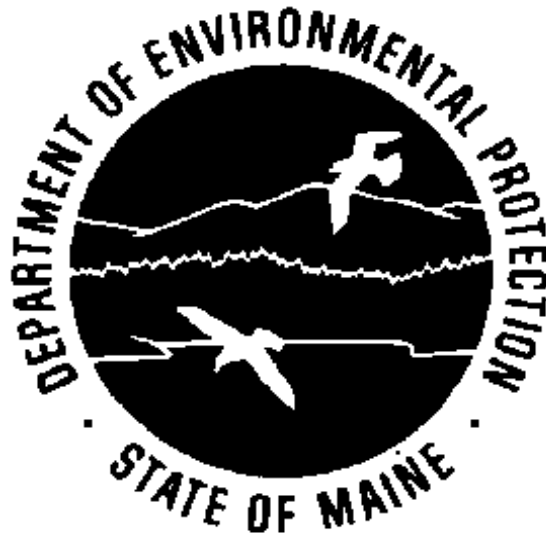
Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Fact Sheet – Discharge of Pesticides

Maine Pollutant Discharge Elimination System Permit



Bureau of Land and Water Quality

April 1, 2014 (Draft)

MEPDES Permit #MEG230000

4/1/14 Proposed Draft Fact Sheet

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PART I. BACKGROUND

1. Clean Water Act

Section 301(a) of the Clean Water Act (CWA) provides that “the discharge of any pollutant by any person shall be unlawful” unless the discharge is in compliance with certain other sections of the Act. 33 U.S.C. 1311(a). The CWA defines “discharge of a pollutant” as “(A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.” 33 U.S.C. 1362(12). A “point source” is any “discernible, confined and discrete conveyance” but does not include “agricultural storm water discharges and return flows from irrigated agriculture.” 33 U.S.C. 1362(14).

The term “pollutant” includes, among other things, “garbage... chemical wastes, biological materials ...and industrial, municipal, and agricultural waste discharged into water.”

2. Maine Pollutant Discharge Elimination System (MEPDES) Permits

A MEPDES permit authorizes the discharge of a pollutant or pollutants into a receiving water under certain conditions. The MEPDES program relies on two types of permits: individual and general. An individual permit is a permit specifically tailored for an individual discharger or situations that require individual consideration. Upon receiving the appropriate permit application(s), the permitting authority develops a draft permit for public comment for that particular discharger based on the information contained in the permit application (e.g., type of activity, nature of discharge, receiving water quality). Following consideration of public comments, a final permit is then issued to the discharger for a specific time period (not to exceed 5 years) with a provision for reapplying for further permit coverage prior to the expiration date.

In contrast, a general permit (GP) covers multiple facilities/sites/activities within a specific category for a specific period of time (not to exceed 5 years). For GPs, the Department develops and issues the permit in advance, with dischargers then generally obtaining coverage under the permit through submission of a Notice of Intent (NOI). A GP is also subject to public comment prior to issuance. For the case of this GP, the Department is the permitting authority. The permitting authority reviews the permittees and geographic area and develops appropriate permits considering technology and water quality. In addition, the Department may issue a permit that has different requirements from a National Pollutant Discharge Elimination System (NPDES) permit issued by the U.S. Environmental Protection Agency (EPA) for similar types of discharges, as long as it satisfies the regulatory requirements of the NPDES program, the CWA, and state law.

Under 40 CFR 122.28, general permits may be written to cover categories of point sources having common elements, such as facilities that involve the same or substantially similar types of operations, that discharge the same types of wastes, or that are more appropriately regulated by a general permit. Given the possible number of pesticide operations requiring MEPDES permit coverage and the discharges common to these operations, the Department believes that it makes administrative sense to issue the GP, rather than issuing individual permits to each Operator.

PART I. BACKGROUND (cont'd)

Courts have approved of the use of general permits. See e.g., *Natural Res. Def. Council v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977); *EDC v. US EPA*, 344 F.3d 832, 853 (9th Cir. 2003). The general permit approach allows the Department to allocate resources in a more efficient manner and to provide more timely coverage and may significantly simplify the permitting process for the majority of pesticide dischargers. As with any permit, the CWA requires the GP to contain technology-based effluent limitations, as well as any more stringent limits when necessary to meet applicable state water quality standards. State water quality standards apply in all surface Waters of the State and the territorial seas, defined in section 502(8) of the CWA as extending three miles from the baseline. *Pacific Legal Foundation v. Costle*, 586 F.2d 650, 655-656 (9th Cir. 1978); *Natural Resources Defense Council, Inc. v. U.S. EPA*, 863 F.2d 1420, 1435 (9th Cir. 1988).

3. History of Pesticide Application Regulation

The EPA regulates the sale, distribution and use of pesticides in the United States under the statutory framework of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to ensure that when used in conformance with FIFRA labeling directions, pesticides will not pose unreasonable risks to human health and the environment. All new pesticides must undergo a registration procedure under FIFRA during which EPA assesses a variety of potential human health and environmental effects associated with use of the product. Under FIFRA, EPA is required to consider the effects of pesticides on the environment by determining, among other things, whether a pesticide “will perform its intended function without unreasonable adverse effects on the environment,” and whether “when used in accordance with widespread and commonly recognized practice [the pesticide] will not generally cause unreasonable adverse effects on the environment.” 7 U.S.C. 136a(c)(5). In performing this analysis, EPA examines the ingredients of a pesticide, the intended type of application site and directions for use, and supporting scientific studies for human health and environmental effects and exposures. The applicant for registration of the pesticide must provide specific data from tests done according to EPA guidelines.

When EPA approves a pesticide for a particular use, the Agency imposes restrictions through labeling requirements governing such use. The restrictions are intended to ensure that the pesticide serves an intended purpose and avoids unreasonable adverse effects. It is illegal under Section 12(a)(2)(G) of FIFRA to use a registered pesticide in a manner inconsistent with its labeling. States have primary authority under FIFRA to enforce “use” violations, but both the States and EPA have ample authority to prosecute pesticide misuse when it occurs. In Maine, the Department of Agriculture, Conservation and Forestry’s Board of Pesticide Control requires applicators of pesticides be licensed and apply pesticides in accordance with federal label requirements.

PART I. BACKGROUND (cont'd)

4. Court Decisions leading to the CWA regulation concerning Pesticide Applications

Over the past ten years, several courts addressed the question of whether the CWA requires NPDES permits for pesticide applications. These cases resulted in some confusion among the regulated community and other affected citizens about the applicability of the CWA to pesticides applied to Waters of the United States. In 2001, the United States Court of Appeals for the Ninth Circuit held in *Headwaters, Inc. v. Talent Irrigation District (Talent)* that an applicator of herbicides was required to obtain an NPDES permit under the circumstances before the court. 243 F.3d 526 (9th Cir. 2001). The Talent decision caused considerable confusion among public health authorities, natural resource managers, and others who rely on pesticides regarding their potential obligation to obtain an NPDES permit when applying a pesticide consistent with FIFRA.

In 2002, the Ninth Circuit in *League of Wilderness Defenders et al. v. Forsgren (Forsgren)* held that the application of pesticides to control Douglas Fir Tussock Moths in National Forest lands required an NPDES permit. 309 F.3d 1181 (9th Cir. 2002). The court in Forsgren did not analyze the question of whether the pesticides applied were pollutants, because it assumed that the parties agreed that they were. In fact, the United States expressly reserved its arguments on that issue in its brief to the District Court. *Id.* at 1184, n.2. The court instead analyzed the question of whether the aerial application of the pesticide constituted a point source discharge, and concluded that it did. *Id.* at 1185.

Since Talent and Forsgren, California, Nevada, Oregon, and Washington, all of which are within the jurisdiction of the Ninth Circuit Court of Appeals, have issued permits for the application of certain types of pesticides (e.g., products to control weeds and algae and products to control mosquito larvae). Other states have continued their practice of neither requiring nor issuing permits to people who apply pesticides to Waters of the United States. These varying practices reflected the substantial uncertainty among regulators, the regulated community, and the public regarding how the CWA applies to discharges to Waters of the United States from the application of pesticides.

Additionally, the Second Circuit Court of Appeals addressed the applicability of the CWA's NPDES permit requirements to pesticide applications. In *Altman v. Town of Amherst (Altman)*, the court vacated and remanded for further development of the record a District Court decision holding that the Town of Amherst was not required to obtain an NPDES permit to spray mosquitocides over Waters of the United States. 47 Fed. Appx. 62, 67 (2nd Cir. 2002). In its opinion, the Second Circuit stated that “[u]ntil the EPA articulates a clear interpretation of current law – among other things, whether properly used pesticides released into or over water of the United States can trigger the requirement for NPDES permits – the question of whether properly used pesticides can become pollutants that violate the CWA will remain open.” *Id.* at 67.

In *Fairhurst v. Hager*, the Ninth Circuit again addressed the CWA's applicability to pesticide applications. The court held that pesticides applied directly to a lake in order to eliminate non-native fish species, where there are no residues or unintended effects, are not “pollutants” under the CWA because they are not chemical wastes. 422 F.3d 1146 (9th Cir. 2005).

PART I. BACKGROUND (cont'd)

5. 2006 Agency Rulemaking Excluding Pesticides from the NPDES Permitting Program

On November 27, 2006, EPA issued a final rule (hereinafter called the “2006 NPDES Pesticides Rule”) clarifying two specific circumstances in which an NPDES permit was not required to apply pesticides to or around water. They were: 1) the application of pesticides directly to water to control pests; and 2) the application of pesticides to control pests that are present over, including near, water where a portion of the pesticides will unavoidably be deposited to the water to target the pests, provided that the application is consistent with relevant Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requirements in both instances. The rule became effective on January 26, 2007.

6. Legal Challenges to the 2006 NPDES Pesticides Rule and Court Decision

On January 19, 2007, EPA received petitions for review of the 2006 NPDES Pesticides Rule from environmental and industry groups. Petitions were filed in eleven circuit courts with the case, National Cotton Council, et al, v. EPA, assigned to the Sixth Circuit Court of Appeals.

On January 7, 2009, the Sixth Circuit vacated EPA’s 2006 NPDES Pesticides Rule under a plain language reading of the CWA. National Cotton Council of America v. EPA, 553 F.3d 927 (6th Cir., 2009). The Court held that the CWA unambiguously includes “biological pesticides” and “chemical pesticides” with residuals within its definition of “pollutant.” Specifically, an application of chemical pesticides that leaves no excess portion is not a discharge of a pollutant, and the applicator need not obtain an NPDES permit. However, chemical pesticide residuals are pollutants as applied if they are discharged from a point source for which NPDES permits are required. Biological pesticides on the other hand are always considered a pollutant under the CWA regardless of whether the application results in residuals or not and require an NPDES permit for all discharges from a point source.

In response to this decision, on April 9, 2009, EPA requested a two-year stay of the mandate to provide the Agency time to develop general permits, to assist NPDES-authorized states to develop their NPDES permits, and to provide outreach and education to the regulated community. On June 8, 2009, the Sixth Circuit granted EPA the two-year stay of the mandate.

On November 2, 2009, industry petitioners of the Sixth Circuit Case petitioned the Supreme Court to review the Sixth Circuit’s decision. On February 22, 2010, the Supreme Court denied the request to hear industry’s petition. On March 3, 2011, EPA requested an extension from April 9, 2011 to October 31, 2011 to allow sufficient time for EPA to engage in Endangered Species Act (ESA) consultation and complete the development of an electronic database to streamline requests for coverage under the Agency’s general permit. EPA also requested more time to allow for authorized states to finish developing their state permits and for permitting authorities to provide additional outreach to stakeholders on pesticide permit requirements. On March 28, 2011, the U.S. Court of Appeals for the Sixth Circuit granted EPA’s request for an extension to October 31, 2011.

PART I. BACKGROUND (cont'd)

As a result of the Court's decision to vacate the 2006 NPDES Pesticides Rule, on October 31, 2011, Operators were required to comply with NPDES permit requirements for discharges to Waters of the United States of biological pesticides, and of chemical pesticides that leave a residue. In response to the Court's decision, EPA proposed a GP on June 4, 2010 to cover certain discharges resulting from pesticide applications. EPA Regional offices and State NPDES authorities may issue additional general permits or individual permits if needed. After consideration of comments received on the proposed permit and engaging in ESA consultation, the EPA issued its final permit on October 31, 2011, and is the basis for this MEPDES pesticide General Permit (GP).

7. Implications of the Court's Decision

Irrigation return flow (which includes runoff from a crop field due to irrigation of that field) and agricultural stormwater runoff do not require NPDES permits, as exempted by the CWA. For example, runoff into engineered conservation measures on a crop field such as grassy swales and other land management structures that direct flow from the crop field is considered either irrigation return flow or agricultural stormwater. However, discharges from the application of pesticides, which includes applications of herbicides, into irrigation ditches and canals that are themselves Waters of the United States, are not exempt as irrigation return flows or agricultural stormwater, and do require NPDES permit coverage. This is because such pesticide discharges are not only point sources, but also that these pesticides are now defined as "pollutants" under the CWA due to the Sixth Circuit Court's decision. Some irrigation systems may not be Waters of the United States and thus discharges to those waters would not require NPDES permit coverage.

Neither the 2006 NPDES Pesticides Rule, the Sixth Circuit Court vacatur of that rule, have changed in any way the determination of whether certain types of stormwater runoff are required to obtain permit coverage, or under which permit coverage is required. This is true whether the runoff contains pesticides or pesticide residues resulting from the application of pesticides. In particular, non-agricultural stormwater runoff that may contain pesticides would not be eligible for coverage under this permit, and is not required to obtain NPDES permit coverage unless it was already required to do so prior to the Sixth Circuit decision or EPA designates a source for future stormwater permitting. Existing stormwater permits for construction, industry, and municipalities already address pesticides in stormwater. Thus, stormwater runoff is either: (a) already required to obtain NPDES permit coverage as established in section 402(p) of the CWA or (b) classified as a discharge for which NPDES permit coverage is not currently required. The regulations that specify what types of stormwater require NPDES permits can be found in 40 CFR §122.26.

EPA determined that the four use patterns would encompass the majority of pesticide applications that would result in point source discharges to Waters of the United States and generally represent the use patterns intended to be addressed by the 2006 rule that is now vacated. This permit does not cover, nor is permit coverage required, for pesticides applications that do not result in a point source discharge to Waters of the State such as for the purpose of controlling pests on agricultural crops, forest floors, or range lands. This permit does not cover the application of pesticides directly into surface Waters of the State to control of pests on plants

PART I. BACKGROUND (cont'd)

grown in surface Waters of the State, such as invasive plants and fish. The application of pesticides directly into surface Waters of the State are to be covered under separate GP already issued by the Department. This Fact Sheet does not identify every activity which may involve a point source discharge of pesticides to surface Waters of the State that would require a permit; rather, the fact sheet focuses on the activities for which coverage under the GP is available. The existence of this general permit does not alter the requirement that discharges of pesticides to surface Waters of the State that are not covered by this permit be covered by an individual permit or another GP.

8. ESA Consultation

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (together, the “Services”), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, “listed” species), or result in the adverse modification or destruction of habitat of such species that is designated by the Services as critical (“critical habitat”). See 16 U.S.C. 1536(a)(2), 50 CFR 402. When a Federal agency’s action “may affect” a protected species, that agency is required to consult with one or both of the Services, depending upon the endangered species, threatened species, or designated critical habitat that may be affected by the action (50 CFR 402.14(a)). The 44 states authorized to administer their own NPDES programs (Maine being one of the 44) are not bound by the same ESA consultation requirements that bind EPA, and thus, these permit terms are not federal NPDES requirements that the NPDES-authorized states must adopt.

06-096 CMR Chapter 523, *Waste Discharge License Conditions*, §10, *Conditions requested by the Corps of Engineers and other government agencies*, sub-§b, states “If during the comment period the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, or any other State or Federal agency with jurisdiction over fish, wildlife, or public health advises the Department in writing that the imposition of specified conditions upon the permit is necessary to avoid substantial impairment of fish, shellfish, or wildlife resources, the Department shall include the specified conditions in the permit to the extent they are determined necessary to carry out the provisions of 40 CFR 122.49 and of the CWA.

PART II. STRUCTURE OF THIS PERMIT

1. General

The Clean Water Act and corresponding NPDES regulations require that permits, at a minimum, include the requirements detailed in Part 122.44 (but not necessarily in the same way as in this permit). States are free to incorporate additional or different requirements that they feel are necessary to adequately protect water quality. Similarly, how EPA and states interpret information from which permit requirements are developed may differ. For example, the regulations, as written at 122.44(i) specify that monitoring requirements be included to assure compliance with permit limitations. One permit writer may make a best professional judgment (BPJ) determination that monitoring of discharges reasonably should occur during pesticide

PART II. STRUCTURE OF THIS PERMIT (cont'd)

application while a second permit writer may make a BPJ determination that monitoring of discharges should reasonably be performed after pesticide application. It is reasonable that the two different permit writers may come to different conclusions about how best to incorporate this requirement into the permit.

Throughout this Fact Sheet (and permit), the Department uses consistent terms when referring to what activity or discharge will be eligible for coverage and who will be responsible to comply with the terms of the permit. Specifically, the permit holder is referred to as the “Operator.” This term has a similar meaning to the term “permittee” which is also used in the Fact Sheet; generally, the term permittee is specific to the period of time that an Operator or contractor is actually covered under the permit. More details on how an Operator is to obtain permit coverage and the applicable permit requirements are provided in Part III of the Fact Sheet.

The permit is divided into seven parts: (1) coverage under this permit, (2) technology-based effluent limitations, (3) water quality-based effluent limitations, (4) monitoring, (5) pesticide discharge management plan, (6) corrective action, and (7) recordkeeping and annual reporting. Operators should carefully read each part of the permit to assess whether or what portion of the requirements in each part may apply to their activities. As will be discussed in more detail in Part III of this Fact Sheet, the permit establishes different requirements for different types of pesticide use patterns, different types of Operators, and different sizes of areas treated and managed for the control of pests. The organization of the permit is intended to clarify the applicable requirements for Operators to the greatest extent possible.

2. Conformance to Recent Court Decisions

The Department has structured this permit to conform to recent relevant court decisions.

One of these cases held that because the terms of the Nutrient Management Plan (NMP) employed by concentrated animal feeding operations (CAFO) imposed restrictions on discharges, those restrictions amounted to effluent limitations that needed to be made part of the permit and to be subject to public and permit writer review. *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2nd Cir. 2005). In this respect, this permit is different from the CAFO requirements. In this permit, the Department explicitly establishes effluent limitations in Parts 2 and 3 that are independent of any documentation and recordkeeping requirements regarding implementation of the limitations. In a separate part of the permit (Part 5) there is a requirement to develop a Pesticide Discharge Management Plan (PDMP). The PDMP is not a limitation and does not itself impose requirements on discharges. These are already imposed by the limitations in Parts 2 and 3. The PDMP is rather a tool for those Operators who are defined as Decision-makers to document, among other things, how Pest Management Measures will be implemented to comply with the permit's effluent limitations.

PART II. STRUCTURE OF THIS PERMIT (cont'd)

Effluent Limitations in the Permit

Part II §2 of the permit contains the technology-based effluent limitations. Part II §3 of the permit contains the water quality-based effluent limitations. These sections of the permit contain effluent limitations, defined in the CWA as restrictions on quantities, rates, and concentrations of constituents that are discharged. Violation of any of these effluent limitations constitutes a violation of the permit. As is described in more detail in Part III.2 of the Fact Sheet, under the CWA these effluent limitations can be narrative rather than numeric.

The technology-based effluent limitations set forth in Part 2 require the Operator to minimize the discharge of pesticides to Waters of the State from the application of pesticides. Consistent with the control level requirements of the CWA, the term “minimize” means to reduce and/or eliminate pesticide discharges to surface Waters of the State through the use of Pest Management Measures (PMM) to the extent technologically available and economically achievable and practicable for the category or class of point sources covered under this permit taking into account any unique factors relating to the Operators to be covered under the permit. The technology-based effluent limitations section is divided into two parts. The first part applies to all Applicators and addresses the general requirement to minimize discharges from application of pesticides. In this part, all Applicators must minimize discharges of pesticides by using only the amount of pesticide product per application, and frequency of pesticide applications, necessary to control the target pest, performing regular maintenance activities, calibrating and cleaning/repairing application equipment, and assessing weather conditions in the treatment area. The second part requires certain Decision-makers to implement pest management measures that involve the following: (1) identifying and assessing the pest problem; (2) assessing effective pest management; and (3) following specified procedures for pesticide application (see Part II §2.2 of the GP.

In addition to the technology-based effluent limitations, Part II §3 of the GP contains the water-quality-based effluent limitations. The Operator must control its discharge as necessary to meet applicable water quality standards. Any discharge that results in an excursion of any applicable numeric or narrative EPA-approved State promulgated water quality standard is prohibited. In general, based on the data included in the record and the additional requirements in this permit in addition to FIFRA, the Department expects that compliance with the technology-based effluent limitations and other terms and conditions in this permit will meet applicable water quality-based effluent limitations. However, if at any time, the Operator or Department determines that the discharge causes or contributes to an excursion of applicable water quality standards, the Operator must take corrective actions as required in Part II §6, and document and report the excursion(s) to the Department as required in Part II §7. Furthermore, consistent with Part II §3.0 and §6.3, the Department may impose additional water quality-based limitations on a site-specific basis, or require the Operator to obtain coverage under an individual permit, if information in an NOI, required reports, or from other sources indicates that, after meeting the technology-based limitations in this permit, the discharges are not controlled as necessary to meet applicable water quality standards. The Department also notes that among the eligibility requirements for coverage under this permit are requirements that the permit does not cover discharges of any pesticide into a water impaired by a substance which either is an active

PART II. STRUCTURE OF THIS PERMIT (cont'd)

ingredient in that pesticide or is a degradate of such an active ingredient except for pesticide applications made to restore or maintain water quality or to protect public health or the environment that either do not degrade water quality or only degrade water quality on a short-term or temporary basis. While not specifically framed as effluent limitations, these eligibility conditions further help to protect water quality on a water-body-specific basis.

Pesticide Discharge Management Plan (PDMP)

Distinct from the technology-based or water quality-based effluent limitation provisions in the permit, Part 5.0 of the permit requires Decision-makers that must submit an NOI prepare a PDMP to document the implementation of Pest Management Measures being used to comply with the effluent limitations set forth in Part II §2.0 and §3.0.

In general, Part II §5.0 requires that the following be documented in the PDMP: (1) pesticide discharge management team information; (2) problem identification; (3) pest management options evaluation; (4) response procedures pertaining to spills and adverse incidents; (5) documentation to support eligibility considerations under other federal laws, and (6) signature requirements. The PDMP must be kept up-to-date and modified whenever necessary to document any corrective actions as necessary to meet the effluent limitations in this permit.

The requirement to prepare a PDMP is not an effluent limitation because it does not restrict quantities, rates, and concentrations of constituents that are discharged. See CWA section 502(11). Instead, the requirement to develop a PDMP is a permit “term or condition” authorized under sections 402(a)(2) and 308 of the Act. Section 402(a)(2) states, “[t]he Administrator shall prescribe conditions for [NPDES] permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he/she deems appropriate.” The PDMP requirements set forth in the permit are terms or conditions under the CWA because the Operator is documenting information on how it is complying with the effluent limitations (and inspection and evaluation requirements) contained elsewhere in the permit. Thus, the requirement to develop a PDMP and keep it updated is no different than other information collection conditions, as authorized by section 402(a)(2), in other permits. Failure to have a PDMP, where required, is a violation of the permit.

While Part II §2 of the permit requires the Operator to select Pest Management Measures to meet the effluent limitations in this permit, the Pest Management Measures themselves described in the PDMP are not effluent limitations because the permit does not impose on the Operator the obligation to comply with the PDMP; rather, the permit imposes on the Operator the obligation to meet the effluent limitations prescribed in Part II §2.0 and §3.0. Therefore, the Operator is free to change as appropriate the Pest Management Measures used to meet the effluent limitations contained in the permit. This flexibility helps ensure that the Operator is able to adjust its practices as necessary to ensure continued compliance with the permit’s effluent limitations. However, the permit also contains a recordkeeping condition that requires that the PDMP be updated with any such changes in the Operator’s practices. See Part II §5.2. Thus, if

PART II. STRUCTURE OF THIS PERMIT (cont'd)

an Operator's on-the-ground practices differ from what is in the PDMP, this would constitute a violation of the permit's recordkeeping requirement to keep the PDMP up-to-date, and not per se a violation of the permit's effluent limitations, which are distinct from the PDMP. EPA and the Department recognize however, that because the PDMP documents how the Operator is meeting the effluent limitations contained in the permit, not following through with actions identified by the Operator in the PDMP as the method of complying with the effluent limitations in the permit is relevant to evaluating whether the Operator is complying with the permit's effluent limitations.

Public Availability of Documents

Part II §5.3 of the permit requires that the Operator retain a copy of the current PDMP at the address listed on the NOI and it must be immediately available, at the time of an onsite inspection or upon request to the Department or EPA governing wastewater discharges and/or pesticide applications. The PDMP must be submitted to the Department at the time the NOI is submitted to the Department for coverage by this GP. Interested persons can request a copy of the PDMP through the Department. By requiring members of the public to request a copy of the PDMP through the Department, the Department is able to provide the Operators with assurance that any Confidential Business Information that may be contained within its PDMP is not released to the public. The NOIs generally will be available to the public after the Department accepts the NOI as complete for processing. Between the time the NOI is accepted for processing by the Department and the date by which coverage is granted by the Department, issues can be raised with the Department, who has the authority to deny coverage.

3. Sharing of Responsibilities

This GP was developed with the understanding that there may be more than one responsible entity for a given discharge. As structured, the permit provides for sharing of responsibilities to meet the end goal of discharges being in compliance with permit requirements. The federal regulations state that "Operators" are responsible for achieving permit compliance. Specifically, 40 CFR 122.21(b) clarifies that when an activity is owned by one person but it is operated by another person (e.g. contractor), it is the Operator's duty to meet terms of the permit. The Department acknowledges, however, that in many instances the owner may still perform Operator duties; as such, they may still be required to obtain permit coverage, even in situations in which, for example, the owner hires a contractor to apply the pesticides to control pests.

The GP includes a definition of "Operator" in Part I §B of the permit that is intended to clarify this point, focusing on the fact that Operator control exists both at the "Decision-maker" level about how to control pests, including financial considerations, as well as at the pesticide Applicator" level (such as calibration of pesticide application equipment). In these instances, both Operators, i.e., the Decision-Maker and the Applicator, are required to obtain MEPDES permit coverage under one permit ; however, the permit strives to minimize any potential duplication of effort by identifying which Operator is responsible for certain permit conditions.

PART II. STRUCTURE OF THIS PERMIT (cont'd)

Entities such as subcontractors that are hired by an owner or other entity but are under the supervision of such owner or entity generally are not Operators. Similarly, entities are likely not an Operator if, for example, they own the land, but the activities are being performed outside of their control (e.g., a public entity is spraying for pests over private property, or a private party is spraying for pests on public lands leased from the federal government).

EPA encourages Operators to use already prepared information and explore possible cost savings by sharing responsibilities for implementing aspects of this permit. For example, a state agency may have developed something for their FIFRA program and they could assume the overall coordination of an integrated pest management program while a hired contractor may be responsible for minimizing the pesticide discharge and for site monitoring and maintaining and calibrating pesticide application equipment. In instances where multiple Operators are responsible for the discharge from larger pesticide application activities, some form of written explanation of the division of responsibilities should be documented. However, any and all Operators covered under this permit are still responsible, jointly and severally, for any violation that may occur, though EPA and the Department may consider this written division of responsibilities when determining the appropriate enforcement response to a violation.

PART III. SUMMARY OF PERMIT CONDITIONS

1. Coverage under this Permit

1.1 Eligibility

1.1.1 Activities Covered

Only Operators meeting the eligibility requirements outlined in the GP may be covered under the permit. If an Operator does not meet the eligibility provisions described in Part I §1.1 of the GP, the Operator's point source discharges to surface Waters of the State from the application of pesticides will be in violation of the CWA, unless the Operator has obtained coverage under another permit or the Clean Water Act exempts these discharges from MEPDES permit requirements. Agricultural stormwater and irrigation return flow are exempt from NPDES permits. Also, applications that do not reach Waters of the State do not need permit coverage. Thus, the permit covers the incidental and unintentional discharge of pesticides (biological pesticides and chemical pesticides which leave a residue) to Waters of the State resulting from the following use patterns: (1) Flying Insect Pest Control; (2) Terrestrial Weed Control; and (3) Forest Canopy Pest Control as summarized below:

Flying Insect Pest Control

This use pattern includes the application, by any means, of chemical and biological insecticides near surface Waters of the State. Applications of this nature usually involve the use of ultra-low volume sprays or granular larvicides discharged over large swaths of breeding habitat and often are performed several times per year. Applications of larvicides for mosquitoes are not covered

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

by the PGP but are eligible for coverage under MEPDES GP entitled, *State of Maine Department of Environmental Protection, General Permit, Application of Aquatic Pesticides for the Control of Mosquito-Borne Diseases* last issued by the Department on July 10, 2010, for a five-year term.

Terrestrial Weed Pest Control

This use pattern includes the application, by any means, of contact or systemic herbicides to control vegetation (and plant pathogens such as fungi) at or near the water's edge, including ditches. Applications of this nature typically are single spot pesticide applications to control infestations or staged large scale pesticide applications intended to control pests at the water's edge. Pesticide applications in a treatment area may be performed one or more times per year to control the pest problem. Pesticide applications for invasive plants in the water are not covered by the PGP but are eligible for coverage under MEPDES GP entitled, *State of Maine Department of Environmental Protection, General Permit, Application of Herbicides for the Control of Invasive Aquatic Plants* last issued by the Department on September 28, 2011, for a five-year term.

Forest Canopy Pest Control

This use pattern includes pest control projects in, over, or to forest canopies (aerially or from the ground) to control pests in the forest canopy where surface Waters of the State exist below the canopy. Applications of this nature usually occur over large tracts of land, and are typically made in response to specific pest outbreaks. The Department understands that for this use pattern pesticides may be unavoidably discharged into surface Waters of the State in the course of controlling pests over a forest canopy as a result of pesticide application. These pests are not necessarily aquatic (e.g., airborne non-aquatic insects) but are detrimental to industry, the environment, and public health.

Consistent with EPA's 2006 NPDES Pesticides Rule, this GP does not cover spray drift resulting from pesticide applications. Instead, to address spray drift, EPA established a multi-stakeholder workgroup under the Pesticides Program Dialogue Committee (PPDC), an advisory committee chartered under the Federal Advisory Committee Act (FACA) to explore policy issues relating to spray drift. The goals of the workgroup are to: (1) improve the understanding of the perspectives of all stakeholders regarding pesticide spray drift; (2) find common ground for further work toward minimizing both the occurrence and potential adverse effects of pesticide spray drift; (3) develop options for undertaking work where common ground exists; and (4) explore the extent of drift, even with proper usage, and the range and effectiveness of potential responses to unacceptable levels of off-target drift. The actions detailed in the PR Notice focus on improving the clarity and consistency of pesticide labels to reduce spray drift and prevent harm to human health and the environment. The draft PR Notice and related documents are available in Docket EPA-HQ-OPP-2009-0628 at www.regulations.gov. The public comments received are being reviewed by the EPA.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Scope of Permit

The Sixth Circuit found that if a chemical pesticide leaves any excess or residue after performing its intended purpose, such excess or residue would be considered a pollutant under the CWA. The Court also found that, unlike chemical pesticides, not only would the residue and excess quantities of a biological pesticide be considered a pollutant, but so too would the biological pesticide itself under the CWA.

Although the court did not define what a residual is, for purposes of this permit, the Department assumes that most if not all chemical pesticides will leave a residual once the product has performed its intended purpose, unless the Operator can show otherwise. The Department offers the following guidance with respect to the use patterns of chemical pesticides covered by this general permit.

1. If the application of a chemical pesticide is made over surface Waters of the State to control pests over the water, any amount of the pesticide that falls into surface Waters of the State is “excess” pesticide and would require coverage by a MEPDES permit. Based on EPA field studies of pesticide applications, the Department expects that some portion of every application of a pesticide made over surface Waters of the State will fall directly into such waters and thus assumes that applications will trigger the requirement for an MEPDES permit. A permit is not necessary if no portion of a chemical pesticide applied over surface Waters of the State will fall into those waters.
2. This permit authorizes discharges associated with three categories of pesticide application activities: flying insect pest control, terrestrial weed pest control, and forest canopy pest control. As noted above, only point source discharges of pollutants to surface Waters of the State require a permit, and it is beyond the scope of this Fact Sheet to identify all specific activities that do or do not require a permit. However, to the extent that activities that fall within the three covered categories require a permit, they can be authorized by this general permit if all eligibility requirements are met. For example, discharges to control pests near areas that are surface Waters of the State, even when these areas are dry for much of the year, may be covered by this permit, if one is required. This would include discharges on forest lands or lands that include ephemeral streams if water is present, to control pests that may be found in these occasionally wet areas, including pests that may also be found in upland areas. For terrestrial weed pest control, the permit specifies that covered activities include applications to control pests “at water’s edge.” The Department intends for the phrase “at water’s edge” to allow coverage of activities targeting pests that are not necessarily “in” the water but are near the water such that control of the pests may unavoidably involve a point-source discharge of pesticides to surface Waters of the State.

The category forest canopy pest control is for applications to a forest canopy. The Department intends that this can include both mature and immature forest canopies, including canopies that may not be continuously connected, where control of pests associated with the canopy (i.e., branches and leaves of the trees) may unavoidably involve point source discharges of pesticides to surface Waters of the State.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

For purposes of this permit, the Department is relying on existing regulatory definitions in 40 CFR 174.3 and 158.2100(a) developed under FIFRA to define the term “biological pesticides.” For purposes of this permit, the Department identifies biological pesticides (also called “biopesticides” under FIFRA regulations) to include microbial pesticides [40 CFR 158.2100(b)], biochemical pesticides [40 CFR 158.2000(a)(1)] and plant-incorporated protectants. [40 CFR 174.3]

How the Court’s Decision Expanded the NPDES Program

EPA estimates that nationwide approximately 365,000 Applicators perform 5.6 million applications a year for the four use patterns covered under EPA’s PGP. EPA’s October 31, 2011 general permit covers only six of the fifty states (plus many other smaller areas, such as most United States territories and Indian Country lands). EPA assumes approximately 10 percent of pesticide applications will occur in the areas covered under EPA’s general permit based on the fact that approximately 10 percent of the population lives in these areas. The remaining 90 percent of pest control activities will occur in areas covered under state-issued NPDES permits. If each Applicator requires NPDES permit coverage, this represents an approximately 70 percent increase in the total number of NPDES permittees covered under the entire NPDES program (an increase from EPA’s current estimate of 565,000 permittees annually to 930,000 permittees annually).

1.1.2 Limitations on Coverage

1.1.2.1 Discharges to Water Quality Impaired Waters

Coverage under this GP is only available for certain discharges to impaired waters. Discharges to waters which are impaired for a substance which is not an active ingredient in that pesticide or a degradate of such an active ingredient are eligible for coverage. Discharges to waters impaired for temperature or some other indicator parameter, or for physical impairments such as “habitat alteration” are also eligible for GP coverage, unless otherwise notified by the Department. Conversely, the permit is not available for the discharge of any pesticide to water that is impaired for a substance that is an active ingredient in that pesticide or a degradate of such an active ingredient. For example, application of the pesticide copper sulfate to a waterbody impaired for either copper or sulfates would not be eligible for coverage under this permit, because copper sulfate can degrade into these two substances. In this instance, the Operator would have to choose between obtaining coverage under an individual permit for such a discharge or selecting some other means of pest management, e.g., using mechanical means or a different pesticide active ingredient.

For this permit, the Department determined that it does not have information warranting a limitation for all impaired waters regardless of the impairment. In fact, the application of a pesticide to water in some instances actually improves the quality of the water, such as when used to control algae growth that can deplete oxygen levels in water. It is important to note that this permit allows the Department, based on additional information, to opt not to approve coverage under the GP, or at a later date to require an Operator covered under the GP to apply for coverage under an individual permit.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

For purposes of this permit, impaired waters are those that have been identified by the Department pursuant to Section 303(d) of the CWA as not meeting applicable water quality standards. Impaired waters for purposes of this permit include both waters with EPA-approved and Department-established Total Maximum Daily Loads (TMDLs), and those for which EPA has not yet approved or a TMDL. (A list of impaired waters, along with the pollutants or pollution identified as the cause of the impairment is available in a biennial report prepared by the Department entitled, *State of Maine Department of Environmental Protection, (year) Integrated Water Quality Assessment Report*). While, it is the Department's opinion that the 303(d) list is not a final determination of impairments, it is the best available information and Operators should use it when deciding whether their discharges meet the eligibility requirements regarding waterbodies impaired for specific pesticides. Thus, these requirements will further ensure protection of water quality.

1.1.2.2 Reserved

1.1.2.3 Discharges Currently or Previously Covered by another Permit

This Part of the GP describes situations where an Operator is ineligible for coverage under this permit because of coverage under another permit. These include discharges currently covered under other MEPDES GPs such as, but not limited, mosquitoes, herbicides and piscicides to discharges from activities where the associated MEPDES permit has been or is in the process of being denied, terminated, or revoked by EPA (although this last provision does not apply to the routine reissuance of permits every five years).

1.1.2.4 Reserved

1.2 AUTHORIZATION TO DISCHARGE UNDER THIS PERMIT

1.2.1 How to Obtain Authorization

The EPA GP regulations, at 40 CFR §122.28(b)(2), require that Operators submit a Notice of Intent (NOI) to obtain coverage under an existing general permit for which that discharge is eligible. However, those regulations, at §122.28(b)(2)(v), provide that at the discretion of the Director (which, for this GP, is the Department), certain discharges can be authorized under a GP without submitting an NOI where the Department finds that an NOI would be inappropriate for such discharges. In making such a finding, the Department must consider the following criteria: the type of discharge; the expected nature of the discharge; the potential for toxic and conventional pollutants in the discharges; the expected volume of the discharges; other means of identifying discharges covered by the permit; and the estimated number of discharges to be covered by the permit. As described below, the Department is requiring submission of an NOI for certain discharges and is providing automatic coverage for certain other discharges for which the Department determined it would be inappropriate to require an NOI. The Department is exempting Operators of pesticide research and development activities from the need to submit an NOI because these activities are typically smaller and in many instances, are already covered under FIFRA's Section 5 (experimental use permits). Similarly, the permit exempts these

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

activities from many requirements of the permit where such activities are inconsistent with the research plan. EPA's consideration of the regulatory criteria in §122.28(b)(2)(v) is as follows:

Type and expected nature of discharge

All discharges authorized by this general permit involve applications to control pests near water such that pesticides will be unavoidably deposited into surface Waters of the State. The general permit is structured by pesticide use patterns. These use patterns were developed to include discharges that are similar in type and nature, and therefore represent the type of discharges and expected nature of the discharges covered under this permit. The general permit covers the three patterns described in Part III.1.1. In its October 31, 2011 NPDES permit issuance, EPA evaluated each use pattern independently with the goal of identifying the significant activities resulting in discharges that should be covered under this GP.

Potential for toxic and conventional pollutants in the discharge

The Department does not expect the potential for toxic and conventional pollutants in the discharges from pesticides to vary among use patterns. The Department would expect, however, that the potential for impacts from high concentrations of toxic or conventional pollutants in the discharge would be smaller when fewer acres or linear feet are treated.

Expected volume of discharge

The Department also considered the expected volume of discharges from each use pattern. It is difficult to estimate the expected volume of discharges for each use pattern because Pest Management Measures used by Operators to meet the permit's technology based effluent limitations may vary based on site-specific conditions. For example, the volume of the discharge may vary depending on the specific pesticide being used, the intensity of the pest pressure based on the specific pest problem, and the pest management strategy deemed to be most effective for the pest problem. Moreover, minimizing the discharge of pesticide product necessary to manage pests successfully will vary among Operators depending on which Pest Management Measures the Operator uses. Nonetheless, the Department expects that, in general, the volume of the discharge will vary proportionally with the number of acres and linear miles treated. Therefore, for all use patterns, the Department expects that the volume of the discharge for a given pesticide application will be lower when fewer acres or linear feet are treated over a calendar year. Moreover, while there may be more Operators applying pesticides to small treatment areas when compared to Operators applying to large treatment areas, the volume of discharges from Operators applying to small treatment areas is believed to be substantially less on a per applicator basis and cumulatively less than the volume of discharges from applications made by Operators applying to large treatment areas.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)***Other means to identify discharges***

The Department also considered other means of identifying types of discharges covered by this permit. EPA believed it was able to identify pesticide discharges from Operator-submitted data, ambient water sampling data, and other information submitted by pesticide dischargers pursuant to federal or state law. However, EPA recognized that the availability and quality of these data may be limited and highly variable across the scope of activities and areas covered under the GP.

1.2.2 Decision-makers Required to Submit an NOI

To obtain authorization under this GP, Operators must meet the Part II §1.1 eligibility requirements, and only if required by Part II §1.2.2, also submit a complete and accurate NOI.

Table 1-1 in Part II §1.2.2 of the permit identifies which Decision-makers are required to submit an NOI. Based on the analysis outlined in Part II §1.2.1 above, the Department has determined that it is inappropriate to require For-Hire Applicators, who are not Decision-makers as defined in Part I B of the permit, to submit NOIs. The EPA determined that Decision-makers who apply pesticides to relatively small areas should not be required to submit NOIs. Therefore, the Department is exercising its discretion and not requiring these Operators to submit NOIs (except for certain Operators that the Department believes have a significant role in pest control for public health and environmental protection and should be expected to provide Department notice of such activities). Nonetheless, the Department emphasizes that even if an NOI is not required, these Operators are covered automatically under this permit and are still subject to all applicable requirements contained within the permit. The Department is requiring NOIs from the following types of Decision-makers:

- Decision-makers exceeding an annual treatment area threshold;
- Other Decision-makers specifically in the business of pest control;

A more detailed discussion of EPA's and the Department's rationale for requiring NOIs for these three categories of Decision-makers follows.

NOIs for Decision-Makers Exceeding an Annual Treatment Area Threshold

EPA developed annual treatment area thresholds for each use pattern that will only require larger Operators applying pesticides to larger areas to submit an NOI. To determine the appropriate annual treatment area thresholds that would trigger the NOI requirement, EPA's Office of Water, Office of Chemical Safety and Pollution Prevention (formerly the Office of Pesticides, Pollution, and Toxic Substances) and the ten EPA Regional Offices engaged in discussions with USDA, states as co-regulators, and representatives from industry including pesticide registrants, applicators, and land managers. EPA also solicited and received some comments on their draft NPDES GP on appropriate threshold values to use for NOI submission. Based on these discussions, the comments received, and EPA's best professional judgment, EPA developed annual treatment area thresholds that establish NOI requirements for applications to larger areas, which are believed to have the greatest potential for impact to Waters of the United States. EPA recognized there are many unknowns concerning the size, organization, and activities of the

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

permitted universe. Considerable variation in the availability of data and in the consistency of requirements across regions and states resulted in EPA relying heavily on its best professional judgment in setting the NOI annual treatment area thresholds for each of the use patterns. If a Decision-maker, otherwise not required to submit an NOI, anticipates it will exceed an applicable annual treatment area threshold during any time in a given calendar year of the permit cycle, that Decision-maker must then submit an NOI for coverage under the GP.

When calculating the size of the treatment area for comparing to an annual treatment area threshold, EPA uses the term “at water’s edge adjacent to Waters of the States” to identify those areas where pesticides are applied to control pests that are present near water where a portion of the pesticides will unavoidably be deposited to the water to target the pests.

To avoid duplication of submission, the Department is requiring that the Decision-maker responsible for such applications be the Operator required to submit the NOI. So, where a Decision-maker hires an Applicator to perform the pest control activities, the NOI is to be submitted by the Decision-maker.

EPA’s rationale for the annual treatment area threshold and Decision-makers required to submit NOIs for each use pattern is as follows:

Flying Insect Pest Control

For Flying Insect Pests, the annual treatment area threshold has been set at 6,400 acres. EPA believes the threshold appropriately captures most Decision-makers engaging in this use pattern. As such, the permit requires Decision-makers treating over the annual treatment area threshold, to submit an NOI. For aquatic pesticide application for mosquitoes in the larval stage of its life cycle, Operators must file a NOI for coverage under the Department GP entitled, *Application of Aquatic Pesticides for the Control of Mosquito-Borne Diseases*.

Terrestrial Weed Pest Control

For Terrestrial Weed Pests, the annual treatment area threshold has been set at 20 linear miles of pesticide application to ditches at the edge of surface Waters of the State or an annual treatment of 6,400 acres. This threshold has been set to capture Decision-makers treating relatively large portions of watersheds, such as water management districts, wildlife and game departments, and silviculture activities. Therefore, EPA and the Department believe the threshold appropriately captures the relatively large applications but excludes a significant number of small applications. Similar to flying pest control, EPA believes that weed control districts, or similar pest control districts created specifically for the control of pests that treat areas below the threshold should be required to submit NOIs. As such, the permit requires all weed control districts or similar pest control districts as well as any other Decision-makers treating over the annual treatment area threshold to submit an NOI. For aquatic pesticide applications in the water to control invasive aquatic plants listed in Maine law, 38 M.R.S.A., §466, sub-§8-A, Operators must file a NOI for coverage under the Department GP entitled, *Application of Herbicides for the Control of Invasive Aquatic Plants*.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)***Forest Canopy Pest Control***

Forest canopy pest suppression programs are designed to blanket large tracts of terrain, throughout which Operators may not be able to see Waters of the State beneath the canopy. EPA has set the annual treatment area threshold at 6,400 acres for this use pattern with the understanding that this will exclude only the smallest applications from the NOI requirement. These smaller applications generally occur on private lands. Therefore, EPA and the Department believe the threshold appropriately captures most Decision-makers engaging in this use pattern, particularly public agencies managing large tracts of land.

NOIs for Certain Entities Regardless of the Annual Treatment Area Threshold

In addition to NOIs from Decision-makers treating the largest areas, EPA is also requiring NOIs from certain other types of entities with land resource stewardship responsibilities that involve the routine control of pests. For these entities, the permit requires NOIs regardless of the size of the area treated. In general, EPA expects that in many instances these entities will exceed one or more of the annual treatment area thresholds. Nonetheless, the Agency believes that regardless of the size of the treatment area, any Agency for which pest management for land resource stewardship is an integral part of the organization's operations should also be required to submit NOIs. Such entities may include State government agencies such as the Department of Agriculture, Conservation and Forestry. EPA's rationale for imposing the NOI requirement is premised on these entities (public, quasi-public, and private) having as an integral responsibility controlling pests. The specific entities required to submit NOIs regardless of whether an annual treatment area threshold is exceeded are as follows:

Any entity for which pest management for land resource stewardship is an integral part of the organization's operations

Any agency that has pest control as an integral part of the organization's operations or responsibilities is required to submit an NOI. EPA believes that many pest control activities performed by these entities will meet or exceed the threshold requirement to submit an NOI. Even when these activities do not exceed the thresholds, however, they are subject to the NOI requirement if the pesticide application is an integral part of their operations and responsibilities. EPA also recognizes, however, that some of these agencies may perform ad-hoc pest control on a small-scale that is not an integral part of the organization's operations but rather incidental, for example, to its occupancy of a building. As an example, the Maine Revenue Service may maintain a building or group of buildings where weeds have overtaken a parking lot that is adjacent to a Water of the State, and the local office decides to control those weeds with an herbicide. That weed control activity would not be considered an integral part of the Maine Revenue Service operations but rather the weed control would be incidental to operation of the facility. By contrast, state agencies such as a Department of Agriculture, Conservation and Forestry, would have pest control as an integral part of their organization's operations and as such would be required to submit an NOI. To be clear, in all instances described above, discharges would require permit coverage; however, the requirement to submit an NOI applies only to those pest control activities that are integral to an organization's operations and responsibilities.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**Contents of the NOI**

A complete NOI must contain the following information for each facility required to submit an NOI in Part II §S1.2.2 Table 1-1. Pursuant to 40 CFR §122.28(b)(2)(ii), the contents of any NOI must be specified in the general permit and require the submission of information necessary for adequate program implementation, including at a minimum:

- a. The legal name, mailing address, telephone number, email address (if available), and affiliation of any agents assisting, in full or in part, with the completion of the NOI form. Provide evidence of authorization for the agent to act on behalf of the property owner.
- b. The legal name, mailing address, telephone number, email address (if available), and Maine Board of Pesticides Control license number of the licensed applicator to perform the pesticide treatment.

The pesticide treatment program must be conducted during periods when the target pest species are or will immediately be present and susceptible to mortality from the materials and methods used. An example would be treating the forest canopy for pest species such as browntail moth (public health) or spruce budworm (economic harm) during particularly aggressive infestations, thought by State and or federal agencies to present significant and widespread risks.

- c. Information pertaining to all pesticides planned for use, including the concentration (percent active ingredient), maximum application rate, frequency of application, and a copy of the USEPA approved label for the product(s).
- d. Information pertaining to the waterbody(s) anticipated to receive a discharge of pesticides, including the name of the water body(s) classification, the closest distance in feet from the area of pesticide use to the surface water or wetland boundary, estimated size of the area to be treated in acres.
- e. A statement as to whether the proposed treatment area has been treated for this or other purposes in the past and, if so, provide the dates, the pesticide(s) used, and a brief description of the details of the event(s).
- f. A description of each area to be treated that includes, but is not limited to, identification of any intermittent or permanent waters that traverse the area, characterization of vegetation (herbaceous, scrub shrub, woody), and characterization of the land cover and use in the area in and around the waterbody (wetland, upland, marsh, forested, open field, urban, rural, undeveloped, etc.).

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PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

- g. A copy of a topographic or similar type map extending at least one mile beyond each treatment site and specific detailed written directions to each proposed treatment site. The applicant shall indicate the approximate location of the area(s) on the map.
- h. A statement demonstrating that the proposed pesticide treatment program will be conducted pursuant to a Pesticide Discharge Management Plan (PDMP), as described in Part II §5.0 of this permit, that provides for compliance with the more stringent of the Pesticide Management Measures (PMMs) indicated, existing Maine BPC regulations and best management practices, and pesticide label requirements.
- j. Submit a statement that the Maine Department of Inland Fisheries and Wildlife (MDIFW) Maine Department of Marine Resources (DMR); US Fish and Wildlife Service (USFWS); and the National Oceanic and Atmosphere Administration's (NOAA) National Marine Fisheries (NMFS) have received written notice of the proposed treatment. Include any responses from the agencies.

Permittee's may contact the Department for a copy of the Department's NOI for seeking coverage under this GP. Failure to submit all required NOI information may result in finding the NOI incomplete for processing and may delay processing or result in denial of the NOI.

1.2.3 Discharge Authorization Date

The GP is effective beginning 60 days after signature by the Commissioner of the Maine Department of Environmental Protection. For any proposed discharges occurring after the date of signature, NOIs are required from Decision-makers identified in Table 1 Part II §1.2.2 of the GP.

Any Decision-maker that discharges in response to a Declared Pest Emergency Situation, as defined in Part I B of the permit, is authorized to discharge immediately; however, a complete and accurate NOI is required to be submitted no later than 15 days after beginning to discharge. This delay in NOI submission and immediate authorization is to allow pest managers the opportunity to respond to pest emergencies without delay.

The NOI must identify:

1. The location of the pest management area in detail or include a map of the location;
2. Pest(s) to be controlled;
3. Pesticide product(s) to be discharged and method of application;
4. Planned quantity and rate of discharge(s) for each method of application;
5. Number of planned discharges;
6. Approximate date(s) of planned discharge(s); and

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**1.2.4 Continuation of this Permit.**

If this permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, existing dischargers are covered under an administrative continuance, in accordance with 40 CFR § 122.6. If coverage is provided to an Operator prior to the expiration date of this permit, the Operator is authorized to discharge under this permit until the earliest of:

- (a) Your authorization for coverage under a reissued permit or a replacement of this permit following your timely and appropriate submittal of a complete NOI (if required) requesting authorization to discharge under the new permit and compliance with the requirements of the NOI (if you are below the NOI threshold, your authorization is automatically extended until you are covered under a revised or replacement permit);
- (b) The processing of your Notice of Termination consistent with Part II §1.2.5.1;
- (c) The issuance or denial of an individual permit for a discharge resulting from application of a pesticide that would otherwise be covered under this permit;
- (d) A formal permit decision by the Department not to reissue this general permit, at which time the Department will notify each permittee 24 months prior to the expiration date of the GP to provide time for dischargers to seek coverage under an alternative MEPDES GP or an individual MEPDES permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or
- (e) The Department has informed you that you are no longer covered under this permit.

Where the Department fails to issue a final GP prior to the expiration of this GP, the Department has the authority to administratively extend the permit for Operators authorized to discharge under the prior GP. However, the Department does not have the authority to provide coverage under an administratively extended permit to entities not authorized prior to the expiration date of the permit.

1.2.5 Terminating Coverage**1.2.5.1 Submitting a Notice of Termination.**

To terminate coverage under this permit, any Operator that submitted a NOI to obtain permit coverage is required to submit the information requested in a Notice of Termination (NOT) form provided by the Department. The Operator's authorization to discharge under the permit terminates at midnight of the day that a complete NOT is processed. If the Department determines that the Operator has not satisfied one of the conditions in Part II §1.2.5.2 for being able to submit a NOT (e.g., the Operator continues to have a discharge), then the notice is not valid and the Operator must continue to comply with the conditions of the permit.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**1.2.5.2 When to Submit a Notice of Termination.**

Once all point source discharges associated with pesticide application have ceased, the Operator must submit a NOT, as described in Part II §1.2.5.1, within 30 days after one or more of the following conditions have been met:

- (1) a new Operator has taken over responsibility for the pest control activities;
- (2) all discharges have ceased from the application of pesticides for which permit coverage was obtained and discharges are not expected during the remainder of the permit term for any of the use patterns as identified in Part II §1.1.1, or
- (3) coverage under an individual permit or alternative general permit has been obtained for all discharges required to be covered by a MEPDES permit, unless coverage was obtained consistent with Part II §1.3, in which case, coverage under this permit will terminate automatically.

The Department is requiring a NOT from Operators that on their own, switch to a different permit to provide the Department with clear notice that the Operator's discharge is not covered under two MEPDES permits. Operators that terminate coverage based on a Department request consistent with Part II §1.3 are not required to submit a NOT.

1.2.5.3 Termination for Operators not Required to Submit an NOI.

Operators covered under this permit that are not required to submit an NOI are terminated from permit coverage when there is no longer a discharge from the application of pesticides or the discharges are covered under an MEPDES individual permit or alternative MEPDES general permit. Operators not required to submit an NOI are also not required to submit a NOT.

1.3 Alternative Permits**1.3.1 Requirements for Coverage under an Alternative Permit**

The Department may require an individual permit (in accordance with 40 CFR 122.28(b)(3)(ii)) or coverage under an alternative MEPDES general permit instead of this GP. The issuance of the individual permit or alternative MEPDES GP is in accordance with 40 CFR Part 124 and provides for public comment and appeal of any final permit decision. The circumstances in which such an action would be taken are set forth at 40 CFR 122.28(b)(3). The Department notes that discharges from anti-foulant hull coatings, biofouling prevention, and residuals from ballast water treatment technologies are already covered under the Vessels GP and do not require coverage under this GP. Coverage for said discharges are regulated via a document entitled, *The State of Maine's Antifouling Paint Contaminated Wessel Wash Water*.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**1.3.2 Operator Requesting Coverage under an Alternative Permit**

After being covered by this permit, the Operator may request to be excluded from such coverage by applying for an individual permit or alternative MEPDES GP. In this case, the Operator must submit an individual permit application in accordance with 40 CFR 122.28(b)(3)(iii), along with a statement of reasons supporting the request to the Department. The request may be granted by issuance of an individual permit or authorization of coverage under an alternative GP if the reasons are adequate to support the request. Under this scenario, if an individual permit is issued, or authorization to discharge under an alternative GP is granted, coverage under this permit is automatically terminated under 40 CFR 122.28(b)(3)(iv) on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

Part II §1.3.2 of the permit reminds Operators of their ability to apply for coverage under an individual permit in lieu of coverage under this general permit and describes the steps to take to be excluded from this permit after being authorized under this permit. Cases where an individual MEPDES permit may be required are described fully in 40 CFR §122.28(b)(3)(iii). The following are the pertinent situations for this permit where an individual permit may be necessary:

- a) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the GP, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; or
- b) The discharge(s) is a significant contributor of pollutants. In making this determination, the Department may consider the following factors:
 - (1) The location of the discharge with respect to surface Waters of the State;
 - (2) The size of the discharge;
 - (3) The quantity and nature of the pollutants discharged to surface Waters of the State; and
 - (4) Other relevant factors.

The Department may require an Operator to apply for an individual permit only if the Department notifies the Operator in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application form, a statement setting a time for the Operator to file the application, and a statement that on the effective date of the individual MEPDES permit the general permit as it applies to the individual Operator shall automatically terminate. The Department may grant additional time upon request of the applicant.

When an individual MEPDES permit is issued to an Operator otherwise subject to a general MEPDES permit, the applicability of the general permit to the individual MEPDES Operator is automatically terminated on the effective date of the individual permit.

Note that an individual permit is required for discharges from the application of pesticides to waters where such waters are impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

1.4 Severability

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. The Department's intent is that the permit remains in effect to the extent possible; in the event any part of this permit is invalidated, the Department will advise the regulated community as to the effect of such invalidation.

1.5 Other Federal and State Laws

Part II §1.5 of this permit includes the following language: "Operators must comply with all other applicable federal and state laws and regulations that pertain to the application of pesticides. For example, this permit does not negate the requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and its implementing regulations to use registered pesticides consistent with the product's labeling. In fact, applications in violation of certain FIFRA requirements could also be a violation of the permit and therefore a violation of the CWA (e.g. exceeding label application rates). Additionally, other laws and regulations might apply to certain activities that are also covered under this permit (e.g., Maine Department of Agriculture, Conservation and Forestry's Board of Pesticide Control regulations and best management practices)."

This part of the permit is intended to clarify that Operators are still required to comply with other applicable laws, and that merely complying with the conditions of this permit may not meet all regulations applicable to the types of activities covered under this permit. In fact, compliance with permit terms, in some instances, establishes an expectation that Operators will comply with other laws to demonstrate compliance with this permit. For example, the permit requires Operators to use "Pest Management Measures" to "minimize" discharges. As these terms are defined in Part I B of the permit, Operators must use practices that comply with, among other things, "relevant legal requirements" to reduce and/or eliminate pesticide discharges to Waters of the State.

1.6 Reserved

2. EFFLUENT LIMITATIONS

Background

The Clean Water Act (CWA) requires that all point source discharges from existing facilities, or in this case, pesticide applications, meet technology-based effluent limitations representing the applicable levels of necessary control. Additionally, water quality-based effluent limitations (WQBELs) are required by CWA Section 301(b)(1)(C) as necessary where the technology-based effluent limitations are not sufficient to protect applicable water quality standards. Water quality-based requirements will be discussed in greater depth in Part III.3 of this Fact Sheet. The technology-based effluent limitations contained in the GP are non-numeric and constitute the levels of control that reduce the area and duration of impacts caused by the discharge of pesticides to Waters of the State. In addition, these effluent limitations provide for protection of water quality standards, including protection of beneficial uses of the receiving waters following completion of pest management activities.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**The Clean Water Act Requires EPA to Develop Effluent Limitations that Represent the Following:*****Best Practicable Control Technology Currently Available (BPT)***

The CWA requires BPT effluent limitations for conventional, toxic, and non-conventional pollutants. Section 304(a)(4) designates the following as conventional pollutants: biochemical oxygen demand (BOD5), total suspended solids, fecal coliform, pH, and any additional pollutants defined by the Administrator as conventional. 40 CFR 401.16. EPA has identified 65 pollutants and classes of pollutants as toxic pollutants, of which 126 specific substances have been designated priority toxic pollutants. 40 CFR 401.15 and 40 CFR Part 423 Appendix A. All other pollutants are considered to be non-conventional.

In specifying BPT, under CWA section 301(b)(1)(A); 304(b)(1)(B); 40 CFR 125.3(d)(1), EPA looks at a number of factors. EPA first considers the total cost of applying the control technology in relation to the effluent reduction benefits. The Agency also considers the age of the equipment and facilities, the processes employed, and any required process changes, engineering aspects of the control technologies, non-water quality environmental impacts (including energy requirements), and such other factors as the EPA Administrator deems appropriate. Traditionally, EPA establishes BPT effluent limitations based on the average of the best performance of facilities within the industry of various ages, sizes, processes, or other common characteristics. Where existing performance is uniformly inadequate, BPT may reflect higher levels of control than currently in place in an industrial category if the Agency determines that the technology can be practically applied.

Best Conventional Pollutant Control Technology (BCT)

The 1977 amendments to the CWA required EPA to identify effluent reduction levels for conventional pollutants associated with BCT for discharges from existing industrial point sources. CWA section 301(b)(2)(E); 304(b)(4)(B); 40 CFR 125.3(d)(2). In addition to considering the other factors specified in section 304(b)(4)(B) to establish BCT limitations, EPA also considers a two part "cost-reasonableness" test. EPA explained its methodology for the development of BCT limitations in 1986. 51 FR 24974 (July 9, 1986).

Best Available Technology Economically Achievable (BAT)

For toxic pollutants and non-conventional pollutants, EPA includes technology-based effluent limitations based on BAT in NPDES permits. CWA section 301(b)(2)(A); 304(b)(2)(B); 40 CFR 125.3(d)(3). In establishing BAT, the technology must be technologically "available" and "economically achievable." The factors considered in assessing BAT include the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the process employed, potential process changes, non-water quality environmental impacts, including energy requirements and other such factors as the EPA Administrator deems appropriate. The Agency retains considerable discretion in assigning the weight accorded to these factors. BAT limitations

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

may be based on effluent reductions attainable through changes in an Operator's processes and operations. Where existing performance is uniformly inadequate, BAT may reflect a higher level of performance than is currently being achieved within a particular subcategory based on technology transferred from a different subcategory or category. BAT may be based upon process changes or internal controls, even when these technologies are not common industry practice.

This permit contains effluent limits that correspond to required levels of technology-based control (BPT, BCT, BAT) for discharges under the CWA. Some effluent limits have been established by examining other existing laws, requirements and practices. Because these are demonstrated practices, EPA has found that they are technologically available and economically practicable (BPT) or achievable (BAT).

Technology-Based Effluent Limitations

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or "ELGs." EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry. The Act sets forth different standards for the ELGs based upon the type of pollutant or the type of permittee involved. Where EPA has not issued effluent guidelines for an industry, EPA and State permitting authorities establish effluent limitations for NPDES permits on a case-by-case basis based on their best professional judgment. See 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 125.3(c)(2).

As stated above, the CWA establishes two levels of technology-based controls. The first level of control, "best practicable control technology currently available," or "BPT" applies to all pollutants. CWA section 304(b)(1)(B); 33 U.S.C. 1314(b)(1)(B). BPT represents the initial stage of pollutant discharge reduction, designed to bring all sources in an industrial category up to the level of the average of the best source in that category. See *EPA v. National Crushed Stone Association*, 449 U.S. 64, 75-76 (1980). In the second level of control, all point sources are required to meet effluent limitations based on "best conventional pollutant control technology," or "BCT" CWA section 304(b)(4)(B); 33 U.S.C. 1314(b)(4)(B) or "best available technology economically achievable," or "BAT" CWA section 301(b)(2)(A); 33 U.S.C. 1311(b)(2)(A), depending on the types of pollutants discharged. BCT applies to conventional pollutants, listed at 40 CFR 401.16 (biological oxygen demand (BOD), pH, fecal coliform, TSS, and oil and grease). BAT applies to toxic and non-conventional pollutants. Technology-based limitations are to be applied throughout industry without regard to receiving water quality. *Appalachian Power Co. v. EPA*, 671 F.2d 801 (4th Cir. 1982)

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Department's Authority to Include Non-Numeric Technology-Based Limitations in this Permit

All NPDES and MEPDES permits are required to contain technology-based effluent limitations. 40 CFR §§ 122.44(a)(1) and 125.3. CWA sections 301(b)(1)(A) for (BPT); 301(b)(2)(A) for (BAT); and 301(b)(2)(E) for (BCT). Technology-based effluent limitations in this permit represent the BPT (for conventional, toxic, and non-conventional pollutants), BCT (for conventional pollutants), and BAT (for toxic pollutants and non-conventional) levels of control for the applicable pollutants. When EPA has not promulgated effluent limitation guidelines for an industry, or if an Operator is discharging a pollutant not considered in the development of the effluent guideline, permit limitations may be based on the best professional judgment (BPJ, sometimes also referred to as "best engineering judgment") of the permit writer. For this permit, the technology-based effluent limitations are based on BPJ decision-making because no ELG applies.

Under EPA's regulations, non-numeric effluent limitations are authorized in lieu of numeric limitations, where "[n]umeric effluent limitations are infeasible." 40 CFR 122.44(k)(3). As far back as 1977, courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., best management practices) designed to reduce the level of effluent discharges to acceptable levels.

Through the Agency's NPDES permit regulations, EPA interpreted the CWA to allow best management practices (BMPs) to take the place of numeric effluent limitations under certain circumstances. Federal Regulations at 40 CFR §122.44(k), entitled "Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs ...)," provides that permits may include BMPs to control or abate the discharge of pollutants when: (1) "[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges"; or (2) "[n]umeric effluent limitations are infeasible." 40 CFR § 122.44(k). Courts have held that the CWA does not require the EPA to set numeric limitations where such limits are infeasible stating "site-specific BMPs are effluent limitations under the CWA." Additionally, the Sixth Circuit cited to *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C.Cir.1982) noting that "section 502(11) [of the CWA] defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction."

For this permit, the Department is using the term "Pest Management Measures," as defined in Part I B of the permit, to represent those practices used to meet the non-numeric effluent limitations.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**Department's Decision to Include Non-Numeric Technology-Based Effluent Limitations in This Permit and Rationale for Why the Limits Represent the Appropriate (BPT, BCT, or BAT) Level of Control.**

As described above, numeric effluent limitations are not always feasible because the discharges pose challenges not presented by other types of MEPDES-regulated discharges. The technology-based effluent limitations in this permit are non-numeric based on the following facts:

- The point in time for which a numeric effluent limitation would apply is not easily determinable. For discharges from the application of pesticides, the discharges can be highly intermittent with those discharges not practically separable from the pesticide application itself. For example, the discharge from the application of a chemical pesticide to Waters of the State is a discharge of pollutants when there is a residual remaining in the ambient water after the pesticide is no longer serving its intended purpose (i.e., acting as a pesticide against targeted pests in the applied medium). This discharge also will have combined with any other discharges to that waterbody (be it from other point sources, non-point source runoff, air deposition, etc). Given this situation, it is not clear what would be measured for a numeric limit or when.
- For discharges from the application of pesticides, there are often many short duration, highly variable, pesticide discharges to surface waters from many different locations for which it would be difficult to establish a numeric limitation at each location. This variability makes setting numeric effluent limitations for pesticide applications extremely difficult. In this situation, requiring the use of standard control practices (i.e., narrative non-numeric effluent limitations), provides a reasonable approach to control pesticides discharges.
- The precise location for which a numeric effluent limitation would apply is not clear. Discharges from the application of pesticide are different from discharges of process wastewater from a particular industrial or commercial facility where the effluent is more predictable and easily identified as an effluent from a conveyance (e.g., pipe or ditch), can be precisely measured for compliance prior to discharge, and can be more effectively analyzed to develop numeric effluent limitations.
- Information needed to develop numeric effluent limitations is not available at this time. To develop numeric technology-based effluent limitations, EPA must fully evaluate factors outlined in 40 CFR 125.3, such as the age of equipment and facilities involved, the process employed, the potential process changes, and non-water quality environmental impacts.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

In the context of this GP, the Department has determined these non-numeric effluent limits represent the best practicable technology (BPT) for all pollutants, the best conventional pollutant control technology for conventional pollutants (BCT) and the best available technology economically achievable (BAT) for toxic and non-conventional pollutants. EPA has determined that the combination of pollution reduction practices described below are the most environmentally sound way to control the point source discharges of biological pesticides, and chemical pesticides that leave a residue.

Technology-based effluent limitations in this permit are presented specific to each pesticide use pattern to reflect the variations in procedures and expectations for the use and application of pesticides. These non-numeric effluent limitations are expected to minimize environmental impacts by reducing the point source discharges of pesticides to surface Waters of the State, thereby protecting the receiving waters, including to the extent necessary to meet applicable water quality standards. The Department notes that this permit uses the term “Pest Management Measures (PMM).” Use of the term PMM is intended to better describe the range of pollutant reduction practices that may be employed when applying pesticides, whether they are structural, non-structural or procedural and includes BMPs as one of the components.

The BAT/BPT/BCT effluent limitations in this permit are expressed as specific pollution prevention requirements for minimizing the pollutant levels in the discharge. In the context of this general permit, these requirements represent the best technologically available and economically practicable and achievable controls. EPA has determined that the combination of pollution prevention approaches and structural management practices required by these limits are the most environmentally sound way to control the discharge of pesticide pollutants to meet the effluent limitations. Pollution prevention continues to be the cornerstone of the NPDES and MEPDES permit program.

Requirements are technologically available

The Department has found that the requirements of this permit represent the appropriate level of control representing BPT, BCT, and BAT. Unlike other general permits, the technology available to Operators depends on the type of Operator (e.g. Applicator v. Decision-maker). For this reason, technology-based effluent limitations vary depending on Operator type. As an example of an effluent limit that meets BPT and BAT standards, applicators are required to maintain pesticide application equipment in proper operating condition, including requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges. This effluent limitation is not appropriate for decision-makers that do not apply the pesticide themselves and as such, is not an effluent limitation for decision-makers. The Department has determined that calibrating, cleaning, and repairing pesticide application equipment is technologically available and based on EPA’s evaluation of this industry, is currently being implemented by many operators and is a practice that every operator should be doing when using pesticides as a way to prevent leaks, spills, and other unintended discharges, such as over-applying pesticides as a result of poorly maintained equipment.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Pest Management Measures Used to Meet the Technology-Based Effluent Limitations

Just as there is variability in the pesticide applications as described above, there is variability in the PMMs that can be used to meet the effluent limitations. Therefore, the Department is not mandating the specific PMMs Operators must implement to meet the limitations. This is analogous to an industrial situation where discharges to waters of the State are via pipes and a numeric effluent limitation may be specified as a given quantity of pollutant that may be discharged, but the Department would not specify what technology should be employed to meet that limitation. For pesticides, namely flying pests, for example, Part II §2.2.1.b of the GP requires pest control Decision-makers to consider mechanical/physical methods of control to eliminate or reduce the pests habitat. How this is achieved will vary by;

Operator: For some, this may be achieved through elimination of development habitat (e.g. filling low areas, dredging, etc.) while for others these measures will not be feasible. Thus, a given PMM may be acceptable and appropriate in some circumstances but not in others. In this respect, the non-numeric effluent limitations in this permit are similar to numeric effluent limitations, which also do not require specific control technologies as long as the limitations are met.

PMMs can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to prevent or reduce water pollution. The key is determining what measure is appropriate for your situation in order to meet the effluent limitation. In this permit, Operators are required to implement site-specific PMMs to meet these effluent limitations. The permit along with this Fact Sheet provides examples of PMMs, but Operators must tailor these to their situations as well as improve upon them as necessary to meet the effluent limitations.

The approach to PMMs in this permit is consistent with the CWA as well as its implementing regulations at 40 CFR 122.44(k)(4). Section 402(a)(2) of the CWA states: "The administrator shall prescribe conditions for such permits to assure compliance with the requirements in paragraph (1) . . . including conditions on data and information collection, reporting and such other requirements as he deems appropriate." (Section 402(a)(1) includes effluent limitation requirements.) This statutory provision is reflected in the CWA implementing regulations, which state that PMMs can be included in permits when, "[t]he practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA." 40 CFR 122.44(k)(4).

Implementation of Pest Management Measures

Part II §2.0 of this permit requires Operators to implement PMMs to meet the technology-based effluent limitations listed in that Part. It also provides Operators with important considerations for the implementation of their specific PMMs. Some Decision-makers will have to document how such factors were taken into account in the implementation of their PMMs (See Part II §5). The Department recognizes that not all of these considerations will be applicable to every pest

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

management area nor will they always affect the choice of PMMs. The Department expects Operators to have the experience and working knowledge to apply pesticides properly. The GP requires the Operator to apply such expertise and working knowledge to use best professional judgment in meeting the permit terms. If Operators find their PMMs are not minimizing discharges of pesticide adequately, the PMMs must be modified as expeditiously as practicable. See Part II §6, *Corrective Action*.

The Department believes flexibility is needed for Operators to tailor PMMs to their situation as well as improve upon them as necessary to meet the technology-based effluent limitations; with the selection of PMMs based on available information and best professional judgment of personnel who are qualified to make pest management decision. For example, while Part II §2.2 requires Operators to evaluate other means than pesticide use, it remains the best professional judgment what ultimate pest control method is employed. Thus, while mechanical pest removal or less toxic chemicals may be possible options, the Operator is in the best position to know what method is most appropriate and effective against the target pest.

Pest Management Measures and Technology-Based Effluent Limitations – Definition of “Minimize”

The Department has found that the requirements of this permit represent the appropriate level of control to address BPT, BCT, and BAT. The non-numeric effluent limitations require Operators to “minimize” discharges of pesticide. Consistent with the control level requirements of the CWA, the term “minimize” means to reduce and/or eliminate pesticide discharges to Waters of the State through the use of PMMs to the extent technologically available and economically achievable and practicable. The Department believes that for many pesticide applications minimization of the discharge of pesticides to surface Waters of the State can be achieved without using highly engineered, complex pest control systems. The specific limits included in Part II §2.0 emphasize effective “low-tech” approaches, including using only the amount of pesticide product and frequency of pesticide application necessary to control the target pest, performing equipment maintenance and calibration, assessing weather conditions prior to pesticide application, accurately identifying the pest problem, efficiently and effectively managing the pest problem, and properly using pesticides.

Statutes, Regulations, and Other Requirements

Operators must comply with all applicable statutes, regulations and other requirements including, but not limited to requirements contained in the labeling of pesticide products approved under FIFRA (“FIFRA labeling”). Although the FIFRA label and labeling requirements are not effluent limitations, it is illegal to use a registered pesticide inconsistent with its labeling. If Operators are found to have applied a pesticide in a manner inconsistent with any relevant water-quality related FIFRA labeling requirements, the Department will presume that the effluent limitation to minimize pesticides entering the Waters of the State has been violated under the MEPDES permit. The Department considers many provisions of FIFRA labeling -- such as those relating to application sites, rates, frequency, and methods, as well as provisions concerning proper storage and disposal of pesticide wastes and containers -- to be requirements

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

that affect water quality. For example, an Operator, who is a pesticide Applicator, decides to use a pesticide product with a FIFRA label that contains the following language, "Apply this product at a rate not to exceed one pound per acre." The Applicator applies this product at higher than the allowable rate, which results in excess product being discharged into surface Waters of the State. The Department would find that this application was a misuse of the pesticide under the FIFRA label and because of the misuse; the Department might also determine that the effluent limitation that requires the Operator to minimize discharges of pesticide products to Waters of the State was also violated, depending on the specific facts and circumstances. Therefore, pesticide use inconsistent with certain FIFRA labeling requirements could result in the Operator being held liable for a CWA violation as well as a FIFRA violation.

Technology-Based Effluent Limitations in the PGP

In this permit, all Operators are classified as either "Applicators" or "Decision-makers" or both. An Applicator is an 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) that results in a discharge to surface Waters of the State. A Decision-maker is an entity with control over the decision to perform pesticide applications, including the ability to modify those decisions that result in discharges to surface Waters of the State. As such, more than one Operator may be responsible for compliance with this permit for any single discharge from the application of pesticides. The Department has delineated the non-numeric effluent limitations into tasks that the Department expects the Applicator to perform and tasks that the Department expects the Decision-maker to perform. In doing so, the Department has assigned the Applicator and the Decision-maker different responsibilities.

2.1 Applicators' Responsibilities

Part II §2.1 of this permit contains the general technology-based effluent limitations that all Applicators must perform, regardless of pesticide use pattern. These effluent limitations are generally preventative in nature, and are designed to minimize pesticide discharges into surface Waters of the State. All Applicators are required to minimize the discharge of pesticides to surface Waters of the State by doing the following:

2.1.1 Use only the amount of pesticide and frequency of pesticide application necessary to control the target pest, using equipment and application procedures appropriate for this task.

As noted earlier, it is illegal to use a pesticide in any way prohibited by the FIFRA labeling. Also, use of pesticides must be consistent with any other applicable state or federal laws. To minimize the total amount of pesticide discharged, Operators must use only the amount of pesticide and frequency of pesticide application necessary to control the target pest. Using only the amount of pesticide and frequency of pesticide application needed ensures maximum efficiency in pest control with the minimum quantity of pesticide. Using only the amount and frequency of applications necessary can result in cost and time savings to the user. To minimize discharges of pesticide, Operators should base the rate and frequency of application on what is known to be effective against the target pest.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

2.1.2 Maintain pesticide application equipment in proper operating condition, including requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges.

Common-sense and good housekeeping practices enable pesticide users to save time and money and reduce the potential for unintended discharge of pesticides to surface Waters of the State. Regular maintenance activities should be practiced and improper pesticide mixing and equipment loading should be avoided. When preparing the pesticides for application be certain that you are mixing them correctly and preparing only the amount of material that you need. Carefully choose the pesticide mixing and loading area and avoid places where a spill will discharge into surface Waters of the State. Some basic practices Operators should consider are:

- Inspect pesticide containers at purchase to ensure proper containment;
- Maintain clean storage facilities for pesticides;
- Regularly monitor containers for leaks;
- Rotate pesticide supplies to prevent leaks that may result from long term storage; and
- Promptly deal with spills following manufacturer recommendations.

To minimize discharges of pesticides, Applicators must ensure that the rate of application is calibrated (i.e. nozzle choice, droplet size, etc.) to deliver the appropriate quantity of pesticide needed to achieve greatest efficacy against the target pest. Improperly calibrated pesticide equipment may cause either too little or too much pesticide to be applied. This lack of precision can result in excess pesticide being available or result in ineffective pest control. When done properly, equipment calibration can assure uniform application to the desired target and result in higher efficiency in terms of pest control and cost. It is important for Applicators to know that pesticide application efficiency and precision can be adversely affected by a variety of mechanical problems that can be addressed through regular calibration. Sound maintenance practices to consider are:

- Choosing the right spray equipment for the application
- Ensuring proper regulation of pressure and choice of nozzle to ensure desired application rate
- Calibrating spray equipment prior to use to ensure the rate applied is that required for effective control of the target pest
- Cleaning all equipment after each use and/or prior to using another pesticide unless a tank mix is the desired objective and cross contamination is not an issue
- Checking all equipment regularly (e.g., sprayers, hoses, nozzles, etc.) for signs of uneven wear (e.g., metal fatigue/shavings, cracked hoses, etc.) to prevent equipment failure that may result in inadvertent discharge into the environment
- Replacing all worn components of pesticide application equipment prior to application.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

2.1.3 Assess weather conditions (e.g. temperature, precipitation, and wind speed) in the treatment area to ensure application is consistent with all applicable federal requirements.

Weather conditions may affect the results of pesticide application. Applicators must assess the treatment area to determine whether weather conditions support pest populations and are suitable for pesticide application.

2.2 Decision-makers' Responsibilities

As noted above, MEPDES permits must contain technology-based effluent limitations. Part II §2.2 of this permit contains the effluent limitations that Decision-makers must perform. The GP requires all Decision-makers, to the extent Decision-makers determine the amount of pesticide or frequency of pesticide application, to minimize the discharge of pesticides to surface Waters of the State from the application of pesticides, through the use of PMM, as defined in Part I B of this permit, by using only the amount of pesticide and frequency of pesticide application necessary to control the target pest.

In addition, Part II §2.2 of this permit requires that any Decision-maker who is required to submit a Notice of Intent (NOI) to identify the pest problem, implement effective and efficient pest management options, and adhere to certain pesticide use provisions. For purposes of the discussion below on Part 2.2, the term Decision-maker means any Decision-maker who is required to submit an NOI.

Decision-makers are required to perform each of these permit conditions prior to the first pesticide application covered under this permit and at least once each calendar year thereafter. These additional technology-based effluent limitations are based on integrated pest management principles. The Department is requiring certain Decision-makers to also comply with different technology-based effluent limitation than Applicators because EPA found that they are the Best Available Technology Economically Achievable for these Operators. These requirements are aimed at reducing discharge of pesticides to surface Waters of the State and lessening the adverse effects of pesticides that are applied. Each pesticide use pattern has specific limitations, and these requirements are divided into three different sections: (1) identify the problem, (2) pest management options, and (3) pesticide use. For each pest management area, Decision-makers must identify the problem prior to pesticide application, consider using a combination of chemicals and non-chemical PMMs, and perform surveillance before pesticide application to reduce environmental impacts.

The Department expects that many of these Decision-makers are already implementing Pest Management Measures that are likely to meet these technology-based effluent limitations. The Department is requiring these additional technology-based effluent limitation requirements from Decision-makers and not the Applicators because the measures necessary to meet these requirements are within the control of the Decision-makers, not the Applicators, as the Applicators' main role is to apply pesticide when needed.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

As stated above, these technology-based effluent limitations are based on integrated pest management principles. Integrated pest management, as defined in FIFRA, is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks. (FIFRA, 7 U.S.C. 136r-1) Integrated pest management is not a single pest control method but, rather, a series of pest management evaluations, decisions and controls. In evaluating available and relevant information, EPA found that some commercial (For-Hire Applicators) and non-commercial (e.g., state governments, federal governments, local governments, utilities) entities are currently implementing integrated pest management or components of integrated pest management to minimize pesticide use.

Below is a general discussion describing the limitations for all pesticide use patterns. Following the general discussion are more detailed descriptions of each specific requirement under each pesticide use pattern.

Any Decision-maker who is required to submit an NOI must do the following regardless of the pesticide use pattern:

Identify the Problem

Decision-makers are required to identify the pest problem, identify the target pest, and establish an action threshold. Understanding the pest biology and ecology will provide insight into selecting the most effective and efficient PMMs (pesticidal or non-pesticidal methods), and in developing an action threshold. Action threshold is defined in Part I B of this permit as the point at which pest populations or environmental conditions cannot be tolerated necessitating that pest control action be taken based on economic, human health, aesthetic, or other effects. An action threshold helps determine both the need for control actions and the proper timing of such actions. It is a predetermined pest level that is deemed to be unacceptable. In some situations, the action threshold for a pest may be zero (i.e., no presence of the pest is tolerated). This is especially true when the pest is capable of transmitting a human pathogen (e.g., mosquitoes and the West Nile virus) and/or is an invasive species. In areas where aquatic weeds are problematic, it may be preferable to use an aquatic herbicide as a preventive measure rather than after weeds become established. In some situations, even a slight amount of pest damage may be unacceptable for ecological or aesthetic reasons. Sometimes pre-emergent pesticide application is needed, as a preventive measure to keep aquatic weeds at bay. Action thresholds, often expressed as number of pests per unit area, can vary by pest, by site, and by season. In a new pest management program, action thresholds may be difficult to establish and as a practical approach should first focus on major pests. As Operators gain insight and experience into specific pest management settings, the action levels can be revised up or down.

To identify the problem at a treatment area, Decision-makers may use existing data to meet the conditions of this permit. For example, the Maine Forest Service may use surveillance data from an adjacent district to identify pests in their pest management area. Decision-makers may also use relevant historical site data.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Pest Management Options

Decision-makers are required to implement efficient and effective means of Pest Management Measures that most successfully minimize discharges to surface Waters of the State resulting from the application of pesticides. Decision-makers must evaluate both pesticide and non-pesticide methods. Decision-makers must consider and evaluate the following options: no action, prevention, mechanical/physical methods, cultural methods, biological control agents, and pesticides. In the evaluation of these options, Decision-makers must consider impacts to water quality, impacts to non-target organisms, feasibility, and cost effectiveness. Combinations of various management options are frequently the most effective PMMs over the long term. The goal should be to emphasize long-term control rather than a temporary fix. For additional information, see discussion under each pesticide use pattern.

Pesticide Use

Decision-makers are required to conduct pest surveillance in an area that is representative of the pest problem and reduce the impact on the environment. Pest surveillance is important to properly time the need for pest control. To reduce the impact on the environment and non-target organisms, Operators are required to only apply pesticide when the action threshold has been met. As noted earlier, action thresholds help determine both the need for control actions and the proper timing of such actions.

There are additional requirements designed for each pesticide use pattern in Part II §2.2.1 through §2.2.4 of this permit. For additional information and other limits on pesticide use, see specific discussion under each pesticide use pattern.

2.2.1 Flying Insect Pests Control

i. Mosquitoes

This GP provides coverage for the application of pesticides for the control of adult mosquitoes. The application of pesticides for the larval stage of mosquito control is regulated via an alternate General Permit entitled, *State of Maine, Department of Environmental Protection, General Permit, Application of Aquatic Pesticides for the Control of Mosquito- Borne Diseases*, last issued by the Department on July 27, 2010 for a five-year term. The discussion on mosquitoes throughout this Fact Sheet is information from EPA's October 31, 2011 Fact Sheet and should be used for informational purposes only.

Background

There are over 2500 different species of mosquitoes throughout the world with approximately 200 species occurring in the United States. The total budgets for mosquito control in the United States exceed \$200,000,000 annually (AMCA 2009). Mosquitoes can be a source of annoyance (e.g., work and leisure activities), a limiting factor in economic development (e.g., residential development and property value), a causal factor in decreased agricultural productivity (e.g., animal weight loss/death and decreased milk production) from irritation and blood loss, and a

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

source of disease transmission (e.g., malaria, encephalitis, yellow fever, dengue, and West Nile Virus). Most of these diseases have been prominent as endemic or epidemic diseases in the United States in the past, although today, only the insect-borne (arboviral) encephalitides and West Nile virus fever occur annually and dengue occurs periodically in this country. Thus, control of mosquitoes is an important public health issue. Numerous strategies are used to reduce the impact of mosquitoes but a comprehensive approach using a variety of complementary control methods is usually necessary for any mosquito control program.

Of major concern is the transmission of microorganisms that cause diseases such as western equine encephalitis and St. Louis encephalitis. Both of these diseases can cause serious, sometimes fatal neurological ailments in people. (Western equine encephalitis virus also causes disease in horses.) Western equine encephalitis infections tend to be more serious in infants while St. Louis encephalitis can be a problem for older people. These viruses normally infect birds or small mammals. During such infections, the level of the virus may increase in these infected animals facilitating transmission to humans by mosquitoes. The West Nile virus, which can also cause encephalitis, was found in the northeastern United States for the first time in 1999, and is a good example of this mode of transmission. Over 20,000 human cases of West Nile virus have been reported in the United States. Symptoms of human illness can range from mild flu-like symptoms to severe encephalitis, meningitis, or acute flaccid paralysis. Over 800 people have died from West Nile virus since its emergence in North America in 1999 (CDC).

Other pathogens transmitted by mosquitoes include a protozoan parasite which causes malaria, and *Dirofilaria immitis*, a parasitic roundworm and the causative agent of dog heartworm. Disease carrying mosquito species are found throughout the United States, especially in urban areas and coastal or inland areas where flooding of low lands frequently occurs. Even when no infectious diseases are transmitted by mosquitoes, they can be a health problem to people and livestock. Mosquito bites can result in secondary infections, allergic reactions, pain, irritation, redness, and itching.

Part 2.2.1.a -- Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is required to submit an NOI must do the following for each pest management area, as defined in Part I B. Decision-makers must identify the pest problem in their pest management area prior to the first application covered under this permit. Knowledge of the pest problem is an important step to developing PMMs. Re-evaluation of the pest problem is also important to ensure PMMs are still applicable. Operators must identify the pest problem at least once each calendar year prior to the first application for that calendar year.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Establish densities for larval and adult flying insect pest populations or identify environmental condition(s), either current or based on historical data, to serve as action threshold(s) for implementing Pest Management Measures. Operators must develop action thresholds for larval and adult flying pests prior to the first pesticide application covered under this permit. The action thresholds must be re-evaluated at least once each calendar year. As noted in the general discussion above, an action threshold is a point at which pest populations or environmental conditions indicate that pest control action must be taken. Action thresholds help determine both the need for control actions and the proper timing of such actions.

Identify the target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest. Knowledge of the developmental biology of mosquitoes is essential to developing PMMs for mosquito control. The mosquito undergoes complete metamorphosis and has four distinct stages in its life cycle: egg, larva, pupa, and adult. Depending on the species, eggs are deposited either in permanent water habitats or in temporary/floodwater habitats. Egg deposition in permanent water habitats occurs as individual eggs or as multiple egg rafts deposited directly to the water surface in natural or artificial water-holding containers found in the domestic environment or in naturally occurring pools. Egg rafts may contain 100-200 eggs. A batch laid of single eggs may range from 60-100 eggs. Egg deposition in temporary/floodwater habitats occurs as individual eggs on moist soil (e.g., roadside ditches, depressions, farmland irrigation ditches, etc.) or in other objects (e.g., flower pots, cans, tires, tree holes, etc.) in which periodic flooding will occur. Eggs deposited in permanent habitats will hatch in a few days whereas eggs deposited in temporary/floodwater habitats are resistant to desiccation in the absence of flooding and can withstand drying for extended periods of time (weeks to months) before hatching.

Following egg hatching, typically 2-3 days after laying, mosquitoes go through four larval developmental stages (instars) commonly known as wrigglers. Larval development may be completed in a week or less under ideal conditions but may also take longer depending on the species, geography, and environmental conditions (e.g., crowding, food availability, and water temperature). The first three larval instars continually feed on detritus, algae, bacteria, and fungi. However, some mosquito species are predacious with larva feeding on other mosquitoes and/or small aquatic invertebrates. Late in the fourth larval instar the larvae ceases to feed in preparation for pupation. The pupal stage, commonly referred to as a tumbler, is a non-feeding developmental stage in which the adult form is developed. Following a few hours to several days, dependent upon species and water temperature, the adult emerges from the pupae.

The adult mosquito is the pestiferous stage. Adults emerge from the water surface and after a short period of rest seek out a food source. Both males and females feed on nectar of flowers and other sugar sources as a source of energy. Only female mosquitoes seek out a blood meal as a source of protein and lipids for egg development. However, females of some species are autogenous (i.e., able to use energy reserves carried over from the immature stage to develop the first egg batch). In addition, most mosquitoes have preferred hosts which may include warm and cold blooded animals and birds. Human blood meals are seldom first or second choices with

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

livestock, smaller mammals and/or birds generally preferred. Host seeking and blood feeding activities by mosquitoes are initiated by a complex variety of host and environmental cues (e.g., carbon dioxide, temperature, moisture, smell, color, movement and host preference). Adult feeding activity is generally either crepuscular (early morning, dusk and into the evening) or diurnal (daytime, particularly in relation to cloudy days and shaded areas). Although highly variable by species and environmental conditions, a complete development cycle can occur every one to three weeks. An understanding of the developmental biology of species in a given area provides the basis for developing Pest Management Measures aimed at reducing pesticide discharges into surface Waters of the State.

Prior to the first pesticide application covered under this permit, Operators must ensure proper identification of mosquito to better understand the biology of the target pest and develop PMMs. Due to the great variability in developmental habitats and adult feeding behaviors as discussed previously, proper identification is imperative in designing an effective and efficient PMMs. Identification of the target pest will aid in development of PMMs aimed at both the immature and adult developmental stages. Identification of the target pest for a specific area allows 1) identification of potential breeding sites, 2) evaluation of alternative PMMs aimed at controlling the immature stages (habitat modification, source reduction, larvicides, biological larvicides, and oils), and 3) assessment of potential for disease transmission.

Identify known breeding sites for source reduction, larval control program, and habitat management. Once pests have been identified, mapping is a valuable tool in assessing habitats and designing control programs for a specific area to minimize pesticide discharges into surface Waters of the State. Maps may simply be township/city/county maps but may also include aerial photo assessments, topographic maps, and satellite imagery where available and/practicable. Mapping is essential to identify pest producing areas which can and cannot be controlled using non-chemical preventative measures (e.g., source reduction). Maps should include all potential sites for pest development including agricultural areas in the specific area (e.g., hay, pasture, circle irrigation, orchards, rill irrigated field crops, and flood irrigated pastures and farmland). Mapping should also be a priority in a surveillance program utilizing traps, biting counts, complaints, and reports from the public. Planning in coordination with mapping ensures the best PMMs (whether source reduction, biological, or chemical) for each particular pest is chosen. Operators must identify known breeding sites prior to the first pesticide application covered under this permit.

In conjunction with identifying the target pest, mapping should be considered part of control programs. Mapping should be for an extended area from the site to be protected by control activities. Pest identification and mapping should also be a priority in a surveillance program (both current and historical) to determine the need for initiating control activity. Identification and mapping are both essential to planning a control program which reduces pesticide discharges into surface Waters of the State.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Analyze existing surveillance data to identify new or unidentified sources of flying insect pest problems as well as sites that have recurring pest problems. As discussed above, mapping is a valuable tool in assessing mosquito habitats and designing control programs. Operators must analyze existing surveillance data to identify any new source of pest problems.

In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part 2.2.1.a. Operators may use historical data or neighboring district data to identify the pest and establish action thresholds.

Part 2.2.1.b -- Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is or will be required to submit NOIs must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control flying insect pests. In developing the PMMs for each pest management area, the Operator must evaluate the following management options, including a combination of these management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness: No action; Prevention; Mechanical/physical methods; Cultural methods; Biological control agents; and Pesticides.

Operators are required to evaluate management options and implement PMMs to minimize pesticide discharges into surface Waters of the State prior to the first pesticide application covered under this permit. PMMs will vary by locality (i.e. stream size, stream substrate, and stream vegetation), species and financial concerns (i.e. accessibility to streams and size/rate of flow for the streams). As noted above, combinations of various management options are frequently the most effective PMMs over the long term. The goal should be to emphasize long-term control rather than a temporary fix. Operators must reevaluate every year prior to the first pesticide application for that calendar year.

The following describes the management options that must be evaluated.

No Action. No action is to be taken, although a mosquito problem has been identified. This may be appropriate in cases where, for example, available control methods may cause secondary or non-target impacts that are not justified or no control methods exist.

Prevention. Prevention strategies are program activities which eliminate developing mosquito populations through environmental modification and/or habitat management. For mosquito control, these activities are physical methods such as habitat modification, cultural methods that reduce sources of mosquitoes, and biological control.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Mechanical/Physical Methods. Habitat modification, also known as physical or permanent control, is in many cases the most effective mosquito control technique available and is accomplished by eliminating breeding sites. Habitat modification activities have the potential to be both effective and economical in some areas and can virtually eliminate the need for pesticide use in and adjacent to the affected habitat. However, the ability to use prevention strategies is dependent upon local authority and restrictions.

Cultural Methods. Cultural methods can reduce sources of flying insect pests and can be as simple as properly discarding old containers that hold water capable of producing *Aedes aegypti*, *Ae. albopictus* or *Culex spp.* or as complex as implementing Rotational Impoundment Management (RIM) or Open Marsh Water Management (OMWM) techniques. RIM is a source reduction strategy that controls salt marsh mosquitoes (e.g., *Ae. taeniorhynchus* and *Ae. sollicitans*) at the same time as significant habitat restoration is occurring. Source reduction may include; water management, vegetation management, biological control, and pesticide use in non-waters of the State.

Containers provide excellent habitats for development of numerous mosquito species. These may include but are not limited to flowerpots, cans, and tires. Container-inhabiting mosquitoes of particular concern include, *Ae. aegypti*, *Ae. albopictus*, *Cx. p. pipiens*, and *Cx. salinarius*. A container-breeding mosquito problem can be solved by properly disposing of such materials, covering them, tipping them over to ensure that they do not collect water, and/or periodic draining. Urban container-breeding mosquito control is best implemented through education and surveillance programs.

Source reduction in freshwater lakes, ponds, and retention areas is more applicable to artificially created areas than natural areas. Artificial ponds can be eliminated as a breeding site simply by filling in the areas, (i.e. habitat modification) provided all the necessary permits are obtained. However, large permanent water bodies and areas for stormwater or wastewater retention require other methods. Options for these areas include minimizing and/or eliminating emergent and standing vegetation, maintenance of steep banks, and inclusion of deep water areas as sanctuary for larvivorous fish.

Mosquito production from stormwater/wastewater habitats can result in considerable mosquito problems as a result of engineering, poor construction or improper maintenance. However, mosquito populations can typically be managed by keeping such areas free of weeds through an aquatic plant management program and maintaining water quality that can support larvivorous fish. *Culex*, *Coquillettidia*, *Mansonia*, and *Anopheles* mosquitoes are often produced in these habitats.

Pastures and agricultural lands are enormous mosquito producers, frequently generating huge broods of *Aedes*, *Psorophora*, and *Culex* mosquitoes. Improved drainage is one effective tool for source reduction in such habitats. The second is the use of efficient, precision irrigation practices that will result in less standing water for those agricultural areas that require artificial watering. In coastal areas with extensive coastal salt marshes, there can be tremendous production of *Aedes*

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

mosquitoes, making coastal human habitation virtually impossible. Several source reduction efforts can greatly reduce salt-marsh mosquito production through high-to mid-intensity management that relies upon artificial manipulation of the frequency and duration of inundation.

Biological Control Agents. The use of biological organisms or their byproducts to combat pest insects, such as mosquitoes, is termed biological control, or biocontrol. Biocontrol is utilization of parasites, predators, and pathogens to regulate pest populations. Generally, this definition includes natural and genetically modified organisms and means that the agent must be alive and able to attack the mosquito. The overall premise is simple: Biocontrol agents that attack mosquitoes naturally are grown in the lab and then released into the environment, usually in far greater numbers than they normally occur, and often in habitats that previously were devoid of them, so as to control targeted mosquito species.

One advantage of biocontrol agents is host-specificity which affords minimal disturbance to non-target species and to the environment. However, it is this specificity and the cost of commercializing biocontrol agents that deter development of biocontrol agents. In addition, utilization of biocontrol requires increased capital outlay and start-up costs as well as increased training requirements for personnel.

Biocontrol should be considered a set of tools that a mosquito control program can use when it is economically feasible. When combined with conventional chemicals and physical control procedures, biocontrol agents can provide short and, occasionally, long-term control. Biocontrol, as a conventional control method, should aim at the weakest link of the life cycle of the mosquito. In most cases, this is the larval life stage.

Mosquitofish (*Gambusia affinis*) are currently the most extensively used biocontrol agent. These fish, which feed on mosquito larvae, can be placed in a variety of permanent and semi-permanent water habitats. Differences of opinion exist on the utility and actual control benefits derived from *Gambusia* implementation in an integrated pest management program with results reported from excellent control to no control at all. Recently, concerns over placing *Gambusia* in habitats where other fish species assemblages are threatened have arisen. Care must be taken in placement of this cosmopolitan species in areas where endemic fish species are sensitive to further environmental perturbation. Additionally, use of endemic fish species in these areas of concern deserves greater attention. An example of this is *Rivulus* fish species. The potential of *Rivulus* as mosquito predators is currently being evaluated in saltwater habitats, especially in Brevard County, Florida.

In some aquatic habitats, fish function as an excellent mosquito biocontrol mechanism. These typically are permanent habitats where *Culex* and *Anopheles* are the primary mosquito residents and where the mosquito densities are not excessive. However, in habitats such as salt marshes fish are unable to control the sudden explosion of larvae produced by rainfall or rising tides. Here, the mosquito population numerically exceeds what the fish can consume during the brief immature mosquito developmental period. In salt marshes, fish must rely on things other than mosquito larvae for their nutritional needs most of the time, simply because there may be long delays between hatches of larvae. Mosquito larvae present an abundant food source, but only for a few days during their rapid development.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Species of predacious mosquitoes in the genus *Toxorhynchites* have been studied in a variety of urban areas for control of container-inhabiting mosquitoes, such as the Asian tiger mosquito (*Ae. albopictus*). *Toxorhynchites* mosquitoes also affect mosquito populations that develop in the treehole environment; however, their introduction into urban container habitats has proven unsuccessful.

In specific containers, *Toxorhynchites* may consume a large number of prey mosquito larvae, such as *Aedes aegypti* and *Ae. albopictus*. However, this predator does not disperse well enough to impact the vast number of natural and artificial containers used by these mosquitoes. Additionally their life-cycle is two to three times that of their prey making it impossible for them to keep up with the other more rapidly developing mosquitoes.

Another group of biocontrol agents with promise for mosquito control is the predacious copepods (very small crustaceans). Copepods can be readily mass reared, are easily delivered to the target sites, and perform well when used with insecticides.

Birds and bats are often promoted as potential biocontrol agents of adult mosquitoes. However, while both predators eat adult mosquitoes, they do not do so in sufficient amounts to impact the mosquito populations. Mosquitoes provide such a small amount of nutrition that birds or bats expel more energy pursuing and eating mosquitoes than they derive from them. They are not a primary food source for these predators. Additionally, with mosquito flight behavior being crepuscular they are not active during the feeding periods of most birds. While bats are active during the correct time period, they simply cannot impact the massive numbers of adult mosquitoes available.

Pesticides. There are chemical and biological pesticide products registered for use against mosquitoes. Two biological pesticide products that are used against mosquito larvae singly or in combination are *Bacillus thuringiensis israelensis* (Bti) and *Bacillus sphaericus* (Bs). Manufactured Bti contains dead bacteria and remains effective in the water for 24 to 48 hours; some slow release formulations provide longer control. In contrast, Bs products contain live bacteria that in favorable conditions remain effective for more than 30 days. Both products are safe enough to be used in water that is consumed by humans. In addition to the biological pesticides, there are chemical pesticides for use against mosquitoes. As described below, once the determination is made to use pesticides to control mosquitoes, additional requirements under this general permit must be met. The application of pesticides for the larval stage of mosquito control is regulated via an alternate GP entitled, *State of Maine, Department of Environmental Protection, General Permit, Application of Aquatic Pesticides for the Control of Mosquito-Borne Diseases*, last issued by the Department on July 27, 2010 for a five-year term.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Part 2.2.1.c. -- Pesticide Use

Conduct larval and/or adult surveillance in an area that is representative of the pest problem or evaluate existing larval surveillance data, environmental conditions, or data from adjacent area prior to each pesticide application to assess the pest management area and to determine when action threshold(s) is met. Pest surveillance is important for timing pest control properly and to evaluate the potential need for pesticide use for pest control. Understanding surveillance data may enable flying insect pest control Operators to more effectively target their control efforts. Operators are required to conduct a surveillance program to minimize discharges from control activities. Surveillance is necessary not only to establish pests' presence and abundance but also as an evaluation tool of the effectiveness of source reduction and chemical control activities. Furthermore, surveillance should be used as an indicator of the need for additional chemical control activities based on pre-established criteria related to population densities in local areas.

Aside from surveillance data, Operators may also evaluate environment conditions to assess the pest management area. For example, if the pest management area is known for pest development after flooding then PMMs may be needed after a rain storm.

Reduce the impact on the environment and on non-target organisms by applying the pesticide only when the action threshold(s) has been met. Operators must apply pesticide only as indicated by action thresholds for the pest management area. As noted above, action thresholds, established by the Decision-maker, help determine both the need for control actions and the proper timing of such actions. Timing pesticide application can reduce the impact on the environment and on non-target organisms.

2.2.2 Terrestrial Weed Pest Control

This GP provides coverage for the application of pesticides for the control of terrestrial weeds at or near the water's edge. The application of pesticides for invasive plants in the water is regulated via an alternate General Permit entitled, *State of Maine, Department of Environmental Protection, General Permit, Application of Herbicides for the Control of Invasive Aquatic Plants*, last issued by the Department on September 28, 2011 for a five year term. The discussion on invasive plant throughout this Fact Sheet is information from EPA's October 31, 2011 Fact Sheet and should be used for informational purposes only.

Background

Weeds that negatively affect aquatic biodiversity, human health, and economic stability are considered to be pests. Weeds can decrease populations of native aquatic species including threatened and endangered species. Weeds can reduce aquatic biodiversity by preventing desirable species growth and unbalancing desirable aquatic species populations and development. Social, economic, and human health are all affected by a lower aesthetic appeal of a water bodies, an increased cost of agricultural irrigation water, and an increase in the risk of

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

human diseases by providing ideal vector breeding grounds. In addition, the reduction in the utility of water can have social and economic impacts due to reduced hydroelectric operations, impeded opportunity for recreational activities (e.g., fishing, boating, and swimming), and disruption of water transport (e.g., agricultural irrigation) to name a few. As a result, if weeds and algae become established and impede the environmental stability and use goals for a body of water, control measures will be necessary. Pest control may be necessary before the pests become established.

The requirements in Part II §2.2.2, apply to pesticide discharges associated with management of weeds and plant pathogens at or near the water's edge include ditches. Most aquatic plants and algae are largely beneficial to water quality, especially when present in the appropriate densities. However, overabundant native algae and aquatic vegetation, as well as introduced, exotic species can decrease water quality and utility. Dense plant growth at or near the water's edge can interfere with recreational activities (e.g., fishing, boating, and swimming), disrupt water transport, reduce aquatic biodiversity by preventing desirable plant growth and unbalancing fish populations, lower the aesthetic appeal of a water body, and increase the risk of human diseases by providing ideal vector breeding grounds.

Weeds include unwanted vegetation, including invasive species, at water's edge, including near the water and vegetation near surface Waters of the State that are not always "wet" (eg, ephemeral streams, seasonal waters). Aquatic systems need plant materials as an important part of the systems ecology; however, when vegetation becomes established to the point of impeding the use goals for a body of water, control measures will become necessary. As a part of such aquatic weed control programs PMMs should consider mechanical, biological, and/or chemical controls. Details for developing an aquatic weed pest management measures can be found in the document *Aquatic Plant Management, Best Management Practices in Support of Fish and Wildlife Habitat* (Getsinger et al. 2005).

The appropriate type of control for weeds is dictated by the biology of the target species and by environmental conditions and concerns for a specific area. Numerous PMMs are used to reduce the impact of weeds, but an integrated pest management should be the basis for any pest control program. This is a comprehensive approach for managing pest populations using a variety of control methods.

Plant Pathogens

Plant pathogens are microorganisms that cause plant disease. Plant pathogens can be fungi, bacteria, viruses, mycoplasmas or nematodes. Each has a different life cycle which includes an infectious stage. Most pathogens are host-specific to a particular plant species, genus, or family. Some diseases, such as the powdery mildews, produce similar symptoms on different plants. However, the fungi involved are usually host-specific. (Ohio State University Extension)

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Fungi is one group of plant pathogens. They cause plant diseases such as rusts, smuts, and mildews. Fungal spores may be actively or passively released for dispersal by several effective methods (air dispersal, rain splash, flowing water dispersal, and forceable release). The function of some spores is not primarily for dispersal, but to allow the organisms to survive as resistant cells during periods when the conditions of the environment are not conducive to growth. Most phyla are terrestrial in origin, although all major groups have invaded marine and freshwater habitats. Wherever adequate moisture, temperature, and organic substrates are available, fungi are present. Although we normally think of fungi as growing in warm, moist forests, many species occur in habitats that are cold, periodically arid, or otherwise seemingly inhospitable. It is important to recognize that optimum conditions for growth and reproduction vary widely with fungal species. Fungi can be controlled using chemical, biological, and cultural practices.

Bacteria are single celled organisms that can cause many plant diseases (such as fire-blight, canker, and leaf spots). The infected plant can suffer significant yield losses or die prematurely. Bacterial diseases can be managed by chemical, biological or cultural practices.

Nematodes are simple, multi-cellular organisms that look like worms. They are soft-bodied (no skeleton) non-segmented round worms. Most nematode species that attack plants are microscopic. Plant parasitic nematodes may attack the roots, stem, foliage, and flowers of plants. Nematodes can be controlled by chemical, physical, or biological methods.

Part 2.2.2.a -- Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is required to submit NOI must do the following for each pest management area, as defined in Part II B. Operators must identify the pest problem in their pest management area prior to the first application covered under this permit. Knowledge of the pest problem is an important step to developing PMMs. Re-evaluation of the pest problem is also important to ensure PMMs are still applicable. Operators must identify the pest problem at least once each calendar year prior to the first application for that calendar year.

Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation). Operators must be well-acquainted with the unique regional conditions of their sites and available PMMs for controlling the pest present. Intended use goals for the water bodies that are being impeded because of nuisance pest infestation must also be considered based on the control site. The use of the best available mapping information to aid in identifying the problem areas is suggested. Mapping may include aerial photo assessments, topographic maps, and satellite imagery where available and/or practicable. Mapping can be essential to identify problem areas which can and cannot be controlled using non-pesticide preventative measures (e.g., mechanical control). Mapping can also be used in plotting the regional desired pest, as well as water use goals and complaints or reports of weeds from the public.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Identify target pest(s). Positive identification of the pest is required because many pests within the same genera may require different levels and types of PMMs. Pest identification is important when determining the best PMMs for each pest and for determining application areas. Operators should develop PMMs based on identification of the targeted pest which occur in their area.

Identify possible factors causing or contributing to the pest problem (e.g., nutrients, invasive species, etc). While there may not be reasonable means to control and/or stop the introduction and occurrence of some nuisance pest infestations, the identification of possible sources (e.g., outflows from other water systems/bodies) may help in reducing the need for pesticide. Potential weed sources such as changes in nutrient levels or accidental or intentional introduction of exotic species must be identified.

Establish any pest- and site-specific action threshold, as defined in Part I B, for implementing Part 2.2.2b. Any data and/or information regarding pest can be used to establish an action threshold. An action threshold must be established.

In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part 2.2.2.a. Operators may use historical data or neighboring area data to identify the pest and establish action thresholds.

Part 2.2.2.b -- Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is required to submit an NOI must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control pests. In developing the PMMs for each pest management area, the Decision-makers must evaluate the following management options, including a combination of these management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness: No action; Prevention; Mechanical/physical methods; Cultural methods; Biological control agents; and Pesticides. Operators must evaluate management options and implement PMMs to minimize pesticide discharges into surface Waters of the State prior to the first pesticide application covered under this permit. As noted above, combinations of various management options are frequently the most effective PMMs over the long term. The goal should be to emphasize long-term control rather than a temporary fix. Operators must reevaluate every year prior to the first pesticide application for that calendar year. All PMMs must be implemented in a manner that reduces impacts to non-target species. The following describes the management options that must be evaluated.

No Action

No action is to be taken, although pest problem has been identified. This may be appropriate in cases where, for example, available pest management options may cause secondary or non-target impacts that are not justified, no available controls exist, or the pest population is stable at a level that does not impair water body uses.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Prevention

Preventing introductions of possible pest is the most efficient way to reduce the threat of nuisance species. Identifying primary pathways of introduction and actions to cut off those pathways is essential to prevention. Through a better understanding of the transportation and introduction of pest, private entities and the public have the necessary knowledge to assist in local pest control by reducing conditions that encourage the spread of pest in their immediate surroundings. For example, recreational water users provide a pathway of unintentional introductions. Increasing public awareness of weed pests, their impacts, and what individuals can do to prevent their introduction and spread is critical for prevention. Other examples of prevention include: better design of water holding sites, better management and maintenance of potential problem sites, and volunteer removal of pest (e.g., hand weeding). Monitoring and detection also play important roles in the prevention of the spread and introduction of weeds.

Mechanical or Physical Methods

Mechanical control techniques will vary depending on the pest. Examples include dewatering, pressure washing, abrasive scrubbing, and weed removal by hand or machine. Mechanical and biological controls will be the appropriate method in some cases, or a part of a combination of methods. In some instances, the need for chemical pesticide use in and adjacent to the affected habitat can be reduced or virtually eliminated with proper execution of Pest Management Measures.

Cultural Methods

Cultural techniques include water-level drawdown.

Biological Control Agents

Biological control of weeds may be achieved through the introduction of diseases, predators, or parasites. While biological controls generally have limited application for control of weeds, the Operator should fully consider this option in evaluating pest management options.

Pesticides

Herbicides are sprayed directly onto plants at or near the water's edge in a liquid form. Systemic herbicides are capable of killing the entire plant. Contact herbicides cause the parts of the plant in contact with the herbicide to die back, leaving the roots alive and able to regrow. Non-selective, broad spectrum herbicides will generally affect all plants that they come in contact with. Selective herbicides will affect only some plants.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Part 2.2.2.c. -- Pesticide Use

Conduct surveillance in an area that is representative of the pest problem prior to each pesticide application to assess the pest management area and to determine when the action threshold(s) is met. Often, each weed pest management area warrants a different PMMs tailored to the site conditions. The PMMs should consist of combinations of mechanical, biological, and/or pesticidal control methods. All PMMs must be conducted in a manner that minimizes impacts to non-target species.

Operators should apply chemical pesticides only after considering the alternatives and determining those alternatives not to be appropriate PMMs. Also, Operators should conduct surveillance (e.g., pest counts or area survey) prior to application of pesticides to determine when the action threshold is met and necessitates the need for implementing PMMs. Surveillance may include the relatively sophisticated transect method used in ecological studies to evaluate species distribution, or it may consist of simply conducting visual observations in the treated area to verify the eradication or reduction in populations of weeds following pesticide application.

Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action threshold has been met. Operators must apply pesticide only as indicated by action thresholds for the pest management area. As noted above, action thresholds help determine both the need to implement PMMs and the proper timing of such actions. Timing pesticide application can reduce the impact on the environment and on non-target organisms.

Environmental factors such as temperature, as well as biological factors such as stage of growth should be considered when deciding on application timing. Partial site pesticide applications over time may be considered to reduce risk. Pesticide application must be limited to the appropriate amount required to control the target pests. Methods used in applying pesticides must reduce the impact to non-target species.

2.2.4 Forest Canopy Pest Control

Background

The forest canopy is the uppermost level of the forest. It is composed of treetops, or the crowns of the trees. It provides habitat for animals and plants, some of whom live their entire lives in the canopy. Pests that threaten the health of the forest canopy must be controlled to maintain forest health. Forest canopy pest control programs are designed to integrate environment-friendly PMMs (e.g., sterile insect release, pheromone trapping, mating disruption, etc.) to reduce losses and pesticide use. But pesticide applications may aerially blanket large tracts of

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

terrain to control an entire population of pests within a delimited geographic area. Forest canopies may also include the tops or crowns of immature trees, where pesticide application is necessary to control pests that live in or threaten these areas. Forest canopy pest control programs included in this permit are treetop pesticide applications that may inadvertently expose surface Waters of the State to direct, but limited, pesticide application. Forest canopy pest control can be directed at a variety of pests, but primarily insects. Forest canopy pest control programs are utilized to prevent habitat elimination/ modification, economic losses (e.g., habitat aesthetics, tree losses), quarantine pest outbreaks, and eradicate or prevent the spread of introduced invasive species. Therefore, forest canopy pest management programs provide environmental, economic, and quality of life benefits in the State.

The type of forest canopy pest control is dictated by the biology of the target pest and by environmental conditions and concerns for a specific area. Forest canopy pest control programs are primarily conducted at the state and federal level but may also be conducted at the local/community level.

Part 2.2.4.a -- Identify the Problem

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application in that calendar year, any Operators who is required to submit an NOI must do the following for each pest management area, as defined in Part I B. In order to reduce pesticide discharges into surface Waters of the State associated with forest canopy pest control, it is important for Operators to ensure proper problem identification. Problem identification is determined through pest identification, delineation of the extent and range of the pest problem, determination of the potential for pest problem expansion, and assessing the economic impact of failure to implement PMMs.

Establish any pest- and site-specific action threshold, as defined in Part I B, for implementing Part 2.2.4.b. Operators must develop action thresholds for the target pests prior to first pesticide application covered under this permit. The action thresholds must be re-evaluated at least once each calendar year. As noted in the general discussion above, an action threshold is a point at which pest populations or environmental conditions indicate that PMMs must be taken. Action thresholds help determine both the need for implementing PMMs and the proper timing of such actions. It is a predetermined pest level that is deemed to be unacceptable.

Identify target pest(s) to develop Pest Management Measures based on developmental and behavioral considerations for each pest. Pest identification is a key activity for implementation of a forest canopy pest control system. Pest identification should only be conducted by personnel with adequate training and experience with the pests. While numerous similar pests (insects and/or pathogens) may be present in any given location, only a few of the representative pest may constitute a threat which requires control activities. Through proper pest identification informed control decisions can be made based on the development biology of the

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

pest (susceptible development stage), pest mobility (potential rate of spread), timing of selected PMMs, applicable control techniques, and most effective chemical pesticides for the target pests (insecticide class, resistance, etc.). Failure to identify pests can lead to unwarranted control activities and/or the need for chemical application with potential for discharges into surface Waters of the State. Control for each specific pest is also predicated on the status of the pest as native recurring, quarantine restricted, or designated as an invasive species.

Identify current distribution of the target pest and assess potential distribution in the absence of Pest Management Measures. Control activities are warranted only after exact pest identification and delineation of the extent of the pest infestation. As forest canopy pest control can involve treating large expanses of forests, mapping is also an important component in identification of the problem. The distribution of the pest, usually insects, within the area of infestation can impact the selection of PMMs. In addition, mapping of the pest infestation will allow evaluation of the actual/potential spread of the infestation (e.g., pest biology, pest mobility, and host availability) and also serve as a tool to evaluate the effectiveness of the PMMs. Mapping can also provide essential information for assessment of economic damages that can result from the current and potential pest infestation and failure to control the pest. Management decisions can thereby be based on cost/benefit evaluations based on the current and potential distribution of any pest.

The third component of problem identification is to determine the potential economic impact of not controlling the pest. By establishing economic thresholds, it is possible to determine pest action thresholds which warrant control activities. However, control decisions must take into account not only the projected economic impact of the current pest infestation but also the potential of the pest infestation to spread. Therefore, control decisions based on economic impact must in turn rely on proper pest identification, pest biology, and current and potential pest distribution.

In the event there are no data for the pest management area in the past calendar year, use other available data as appropriate to meet the permit conditions in Part 2.2.4.a. Operators may use historical data or neighboring district data to identify the pest and establish action thresholds.

Part 2.2.4.b. -- Pest Management Options

Prior to the first pesticide application covered under this permit that will result in a discharge to surface Waters of the State, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, any Operator who is required to submit an NOI must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of pesticides to control pests. In developing the PMMs for each management area, the Operator must evaluate the following management options,

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

including a combination of management options, considering impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness: No action; Prevention; Mechanical/physical methods; Cultural methods; Biological control agents; and Pesticides. Pest control activities in forest canopy management programs may be warranted following problem identification and based solely on pest occurrence (e.g., quarantine pest, invasive species). However, in many instances control activities may only be necessary based on pest population distribution and/or pest densities. To minimize the need for pest control while also producing the best control results, PMMs appropriate for the specific problem site(s) must be developed. A site-specific management plan will consider biotic (e.g., plant and animal species community structure) and abiotic (e.g., environmental) factors. Combinations of various management options are frequently the most effective PMMs over the long term. The goal of PMMs in forest canopy pest control should be to emphasize long-term control rather than a temporary fix.

All PMMs must be conducted in a manner that minimizes impacts to non-target species. The following is a discussion of the relevant management options as they might be implemented for forest canopy pest control.

No Action

No action is to be taken, although a pest problem has been identified. This may be appropriate in cases where available control methods may cause secondary or non-target impacts or where aesthetic/ economic losses are not anticipated.

Mechanical/Physical Methods

Mechanical and biological controls will be the appropriate method in some cases, or a part of a combination of methods. In some instances, the need for chemical pesticide use in and adjacent to the affected habitat can be reduced or virtually eliminated with proper execution of alternative measures and proper best management practices.

Mechanical control techniques will vary depending on the pest. An example of mechanical control in a forest canopy would be egg mass removal (gypsy moth).

Cultural Methods

Cultural control methods are PMM that make the habitat unsuitable for a pest. An example of a cultural method to manage pests of the forest canopy would be to select a different species of tree to plant, or to plant resistant varieties of trees. Maintaining the trees in good health to discourage pests is another method of cultural control.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Biological Control Agents

Biological control of forest canopy pests may be achieved through the introduction/enhancement of diseases, predators, or parasites. In addition, forest canopy pest control programs aimed specifically at insects may also utilize sterile insect release, mating disruption, and biological pesticides. While biological controls generally have limited applications for forest canopy pest control programs, they should be fully considered as an option in the development of PMMs. The latter two control approaches are often utilized when controlling for gypsy moth.

Pesticides

Several chemical and biological pesticides are available that may be used to reduce defoliation of the trees. These pesticides are typically used when pest populations are high and the action threshold has been reached. These products are aerially applied. As described below, once the determination is made to use pesticides, additional requirements must be met.

Part 2.2.4.c. -- Pesticide Use

Conduct surveillance in an area that is representative of the pest problem prior to each application to assess the pest management area and to determine when the pest action threshold is met. Operators must apply pesticides only as needed as determined by pre-established criteria and pest action thresholds. Operators must establish a pest action threshold that warrants pesticide application based on problem identification and pest surveillance. In order to establish pest densities and determine when pest action thresholds have been met, forest canopy pest control programs must include pest surveillance activities as an integral component of PMMs. Pest surveillance is necessary to detect the presence (or confirm the absence) and magnitude of pest populations in a given location and precisely pinpoint zones of infestation. Surveillance activities will vary according to the pest (insect, weed, or pathogen) but in general should include observations of pest numbers, developmental stage of the current infestation, and biotic factors which would enhance development/expansion of pest populations (e.g., weather, crowding, predators, pathogens, etc.).

Pest surveillance will vary according to pest type and species. For insect pests, surveillance activities may include, but not be limited to, pheromone traps, sticky traps, light traps, defoliation monitoring. In some cases, traps used in surveillance activities have been developed to the extent that they alone provide adequate control of the targeted pest, thus eliminating the need for pesticide completely. Conversely, in the instance of quarantine pests or invasive species, pest identification alone may suffice to fulfill surveillance requirements and indicate need for control measures. Regardless, surveillance should take in to account local environmental conditions and projected environmental conditions which would support development and/or spread of the pest population and which would limit the choice or effectiveness of control activities.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

It is also important to continue surveillance following control activities to assess PMMs efficacy and to monitor for new pests. Surveillance can determine if the current techniques are effective and whether additional PMMs are required, particularly pesticide application. Based on follow-up surveillance activity, Operators can make informed decisions which serve to increase the effectiveness of their control programs and minimize the potential for pesticide discharges to surface Waters of the State. Surveillance is necessary not only to establish the pest presence and their abundance but also as an evaluation tool of the effectiveness of chemical control activities. Furthermore, surveillance should be used as an indicator of the need for additional chemical control activities based on pre-established criteria related to population densities in local areas.

Reduce the impact on the environment and non-target organisms by evaluating the restrictions, application timing, and application methods in addition to applying the pesticide only when the action threshold(s) have been met. Forest canopy pest and site restrictions (water use, water movement, etc.) must be identified when choosing an appropriate pesticide. For instance with gypsy moth control a biological insecticide, *Bacillus thuringiensis kurstaki*, is usually selected. However, if endangered or threatened butterfly or moth species are in the area, a viral insecticide that specifically targets gypsy moth larvae will be considered. Environmental factors such as temperature, as well as biological factors such as migration timing should be considered when deciding on application timing. Partial site pesticide applications over time may be considered to minimize risk to non-target organisms. Pesticide application must be limited to the appropriate amount required to control the target pests. Methods used in applying pesticides should weigh the potential impact to non-target species.

Evaluate using pesticides against the most susceptible developmental stage. For forest canopy pests, pesticides should be selected that target the most susceptible life stage. Gypsy moth caterpillars are susceptible to control by chemical pesticides, or by ingestion of nucleopolyhedrosis virus occlusion bodies.

3. WATER QUALITY-BASED EFFLUENT LIMITATIONS

The CWA requires MEPDES permits to include technology-based effluent limitations for all discharges, and then if necessary for a specific discharge, water quality-based effluent limitations (WQBELs). Permit writers are to assess whether the technology-based effluent limitations are protective of water quality standards, and if not, permit writers must also include WQBELs as necessary to ensure that the discharge will not cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality (see 40 CFR 122.44(d)). In developing WQBELs, permit writers must consider the potential impact of every proposed surface water discharge on the quality of the receiving water. Unlike individual permits that include requirements tailored to site-specific considerations, general permits, while tailored to specific industrial processes or types of discharges (e.g., from the application of pesticides), often do not contain site-specific WQBELs. Instead, in general, EPA includes a narrative statement that addresses WQBELs. In this permit the WQBEL is as follows:

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

All Operators must control discharges as necessary to meet applicable numeric and narrative state water quality standards, for any discharges authorized under this permit, with compliance required upon beginning such discharge.

If at any time an Operator becomes aware (e.g., through self-monitoring or by notification from a state or federal agency), or the Department determines, that the Operator's discharge causes or contributes to non-attainment of any applicable water quality standard, the Operator must take corrective action as required in Part II §6, up to and including the ceasing of the discharge, if necessary.

The first sentence includes the general requirement to control discharges as necessary to meet water quality standards, while the second sentence implements this requirement in more specific terms by imposing on Operators a responsibility to take corrective action in response to an excursion of applicable water quality standards, whether discovered by EPA, Department or by the Operator. Failure to take such corrective action is a violation of the permit. Additionally, the permit includes a provision, in Part II §1.2.3, that specifies the Department may determine that additional technology-based and/or water quality-based effluent limitations are necessary, or may deny coverage under this permit and require submission of an application for an individual MEPDES permit, as detailed in Part II §1.3.

Each Operator is required to control its discharge as necessary to meet applicable water quality standards. In general, the Department expects that compliance with the other conditions in this permit (e.g., the technology-based limitations, corrective actions, etc.) will result in discharges that are controlled as necessary to meet applicable water quality standards based on the cumulative effect of the following factors, which are described in more detail below:

- (1) Under FIFRA, EPA evaluates risk associated with pesticides and mitigates unreasonable ecological risk. Compliance with FIFRA is assumed. (See Part III.1.5 of this Fact Sheet.)
- (2) Technology-based effluent limitations in the GP provide further protections beyond compliance with existing FIFRA requirements.
- (3) Biological pesticides discharged to waters, by regulatory definition, do not work through a toxic mode of action. For chemical pesticides, the discharges covered under this permit are the residues after the pesticide has performed its intended purpose. Thus, the residue will be no higher than, and in many instances, lower than, the concentration of the pesticide as applied.
- (4) The GP excludes pesticide applications that result in discharges of any pesticide to (1) surface waters impaired for that pesticide or (2) any outstanding natural resource waters except for pesticide applications made to restore or maintain water quality or to protect public health or the environment that either do not degrade water quality or only degrade water quality on a short-term or temporary basis.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

This permit requires Operators to control discharges as necessary to meet applicable water quality standards. When the Operator or the Department determines a discharge will cause or contribute to an excursion above any WQS, including failure to protect and maintain existing designated uses of receiving waters, the Operator must take corrective action to ensure that the situation is eliminated and will not be repeated in the future. (See Part II §6.0). If additional Pest Management Measures are required, the Department expects the Operator to vigilantly and in good-faith follow and document, as applicable, the process for PMM selection, installation, implementation and maintenance, and cooperate to eliminate the identified problem within the timeframe stipulated in Part II §6.0 of the GP.

(1) Under FIFRA, EPA evaluates risk associated with pesticides and mitigates unreasonable ecological risk.***Background***

EPA regulates the use of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In general, FIFRA authorizes EPA to register each pesticide product intended for distribution or sale in the United States. To register a pesticide, the Agency must determine that its use in accordance with the label will not cause “unreasonable adverse effects on the environment.” [see, e.g., FIFRA sec. 3(c)(5)]. FIFRA defines that term to mean, in part, “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide” (FIFRA sec. 2(bb)). The “unreasonable adverse effects” standard requires EPA, in effect, to balance the human health and ecological risks of using a pesticide against its economic, social, human health, and ecological benefits. Pesticides are registered for sale and distribution only if EPA determines that the benefits outweigh the risks. In making decisions on whether to register a pesticide, EPA considers the use directions on proposed product labeling and evaluates data on product chemistry, human health, ecological effects, and environmental fate to assess the potential risks associated with the use(s) proposed by the applicants for registration and expressed on the labeling. Among other things, the Agency evaluates the risks to human health and the environment (including water quality) posed by the use of the pesticide.

As stated above, EPA reviews and approves pesticide product labeling. EPA implements risk mitigation measures identified through the risk assessment process by placing use restrictions and warnings on labeling to ensure the use of the pesticide (under actual use circumstances and commonly accepted practice) will not cause any “unreasonable adverse effects on the environment.” It is a violation under FIFRA sec. 12(a)(2)(G) (FIFRA’s “misuse” provision) to use a registered pesticide inconsistent with its labeling.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

After a pesticide has been registered, changes in science, public policy, and pesticide use practices will occur over time. FIFRA, as amended by the Food Quality Protection Act of 1996, mandates a registration review program, under which the Agency periodically reevaluates pesticides to make sure that as the ability to assess risk evolves and as policies and practices change, all registered pesticides continue to meet the statutory standard of no unreasonable adverse effects to human health or the environment. The Agency is implementing the registration review program pursuant to Section 3(g) of FIFRA and will review each registered pesticide every 15 years to determine whether it continues to meet the FIFRA standard for registration. Information on this program is provided at: http://www.epa.gov/oppsrrd1/registration_review/.

(2) Technology-based effluent limitations in the GP provide further protections beyond compliance with existing FIFRA requirements.

EPA expects that the technology-based effluent limitations are as stringent as necessary to meet WQS. These effluent limitations require Operators to minimize the discharge of pesticides through the use of the most efficient and effective means of PMMs, including pesticide and non-pesticide methods.

The technology-based effluent limitations require Applicators to minimize the discharge of pesticides by using only the amount of pesticide and frequency of pesticide application necessary to control the target pest, maintaining pesticide application equipment in proper operating condition, and ensuring weather conditions in the treatment area are appropriate for pesticide application.

The Applicator must also 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.

Certain Operators are also required to more fully assess and implement procedures to minimize the discharge of pesticides. In this assessment, these Operators must consider human health and ecological impacts, feasibility, and cost effectiveness and include prevention, mechanical/physical methods, cultural methods, biological control agents, and as a final resort, the application of pesticides. To ensure that pesticide discharges are minimized, these Operators must identify target pest species and areas where those pests occur, identify the possible sources of the problem, and establish action thresholds or similar measures for implementing pest management strategies. The technology-based effluent limitations in Part II §2.2 also require certain Operators, as appropriate to analyze surveillance data prior to each pesticide application to determine when pest action thresholds are met.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

This GP includes several other provisions that the Department expects to provide further protections beyond compliance with FIFRA requirements. For one, Part II §4 of the permit requires Operators to monitor pesticide applications activities to minimize discharges and during any post-application monitoring to determine effectiveness of the pesticide application. In addition, Part II §6.0 of the general permit contains requirements for all Operators to document and report adverse incidents involving non-target organisms or the environment, and to take corrective action if it is determined that revising PMMs can help to prevent future incidents. An adverse incident report calls due attention to a situation in which water quality may be impacted by pesticide use and may indicate that corrective action is required to ensure that water quality standards are further protected during future applications. The permit also requires Operators to take corrective actions to eliminate other situations such as unauthorized releases (i.e., spills or leaks) or the failure to meet applicable water quality standards. These requirements are discussed further in Part 6.0 of this Fact Sheet. The Department expects this approach will further reduce discharges of pesticides to surface Waters of the State from the use patterns covered under this permit.

(3) Biological pesticides do not work through a toxic mode of action, or when they do, are toxic only to a very narrow range of target pest organisms. For chemical pesticides, the discharges covered under this permit are the residues after the pesticide has performed its intended purpose.

This permit provides coverage for point source discharges from certain applications of pesticides, as identified in Part II §1.1.1 of the GP. Discharges from the application of both chemical and biological pesticides are covered under this GP consistent with the Sixth Circuit Court's reading of the CWA term "pollutant".

Discharges of biological pesticides require permit coverage regardless of whether or not a residue exists. Biological pesticides or biopesticides are certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain minerals. Two classes of biopesticides are relevant to this permit, microbial pesticides and biochemical pesticides. Microbial pesticides consist of a microorganism (e.g., a bacterium, fungus, virus or protozoan) as the active ingredient. The most widely used microbial pesticides are subspecies and strains of *Bacillus thuringiensis*, or Bt which do operate by a toxic mode of action yet they are toxic only to a very narrow range of target pest organisms (mosquito larvae). Biochemical pesticides, as defined at 40 CFR 158.2000(a), are naturally occurring substances that control pests by non-toxic mechanisms. Biochemical pesticides include substances, such as insect sex pheromones that interfere with mating, as well as naturally-occurring repellants and attractants.

Biopesticides are usually inherently less toxic than conventional pesticides and generally only affect the target pests and closely related organisms. Often, they are effective in very small quantities and decompose quickly thereby resulting in lower exposures and largely avoiding the pollution problems caused by chemical pesticides. When used as a component of Integrated Pest Management (IPM) programs, biopesticides can greatly decrease the use of chemical pesticides; however, use of biopesticides effectively requires users to have a very good understanding of

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

pest management. Since biochemical pesticides, by regulatory definition, do not work through a toxic mode of action they may be less likely to result in an excursion of a water quality standard.

(4) The GP excludes pesticide applications that result in discharges of any pesticide to (1) waters impaired for that pesticide or (2) any outstanding national resource water except for applications made to restore or maintain water quality or to protect public health or the environment that either do not degrade water quality or only degrade water quality on a short-term or temporary basis. The Department identified two scenarios where it believes the GP may not be adequately protective of water quality standards and has excluded those discharges from coverage under this permit. Namely, the GP excludes from coverage: (1) any discharges from a pesticide application to surface 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 and (2) discharges to Outstanding National Resource Waters except for pesticide applications made to restore or maintain water quality or to protect public health or the environment that either do not degrade water quality or only degrade water quality on a short-term or temporary basis. Any Operator desiring to discharge in either of these two scenarios is required to submit an application for an individual MEPDES permit. Links to lists of impaired waters is available in the Department's document entitled, *State of Maine Department of Environmental Protection, Year Integrated Water Quality Monitoring and Assessment Report*, published every two years in even number years (e.g. 2010, 2012). Additional discussion of the basis for these requirements is provided in Part III.1.1.2 of the Fact Sheet.

4. Site Monitoring

Monitoring is required in any MEPDES permit to demonstrate compliance with the permit conditions. Monitoring requirements apply from the time any authorized Operator begins discharging under this permit. These requirements are not tied to submission of an NOI. There are a variety of monitoring methods that a "traditional" MEPDES permit may require, including end-of-pipe monitoring to show compliance with relevant water quality-based and technology-based effluent limitations prior to discharging to a receiving waterbody. Monitoring may also pertain to actions taken to ensure that record keeping or other permit control activities are being properly implemented. Water quality monitoring of receiving streams is not typically required in MEPDES permits unless it is required to determine among other things, compliance with mixing zone dilution standards or some other special permit condition.

Pursuant to CWA sections 308 and 402(a)(2), 40 CFR 122.43(a), and other applicable implementing regulations, the following requirements have been included in the permit, as discussed below. The monitoring requirements of this permit are narrative and demonstrate compliance with permit conditions by using currently established pesticide use routines for monitoring pest control. For instance, the permit requires routine visual inspections (described below) to be conducted as part of the pest control activity and/or as part of post-application pest surveillance, and calls for records of the pesticide discharge volume to be kept. The monitoring requirements of the permit are reasonable measures of good pest management practice that the conscientious Operator should be currently employing to ensure environmental health and safety and optimal control of pest organisms.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Monitoring of pesticide discharges poses several challenges not generally encountered in “traditional” MEPDES permitting situations. For example, there is no “wastewater discharge” per se from pesticide applications that is analogous to end-of-pipe discharges. For example, a manufacturing plant would typically direct its wastewater through a treatment system to remove pollutants, and then would direct the effluent through a pipe into a receiving waterbody. However, for chemical pesticide applications, at the time of application the pesticide contains both the portion serving its intended purpose as well as the potential residual for which monitoring data would be appropriate. Thus, monitoring the “outfall” in this case would merely provide data on the amount of the product as applied (information already known through the FIFRA registration process) and would be inappropriate to compare with any type of technology based effluent limitation or water quality standard.

In EPA’s October 31, 2011, PGP, EPA considered requiring ambient water quality monitoring. However EPA determined that it was infeasible for the following reasons:

- 1) Uncertainty: Ambient water quality monitoring would generally not be able to distinguish whether the results were from the pesticide application for which monitoring is being performed, or some other upstream source.
- 2) Lack of applicable measurable standards: Federal pesticide-specific ambient water quality criteria do not exist at this time for the vast majority of constituents in the products authorized for use under this PGP.
- 3) Safety and Accessibility: Pesticides, particularly those used for mosquito control and forestry pest control, are often applied over waterbodies in remote areas, hazardous terrain, and swamps that are either inaccessible or pose safety risks for the collection of samples.
- 4) Difficulty of residue sampling for chemical pesticides: For chemical pesticides, the “pollutant” regulated by the EPA PGP is the residue that remains after the pesticide has completed its activity, and it is this residue that would be the subject of any water quality monitoring requirement. However, the point at which only “residue” remains is not practically discernable at this time for all pesticides.
- 5) Usefulness of data: Some states have questioned the value of ambient water quality monitoring data obtained from state permitting programs. The data generally showed that water quality impacts were not occurring, and one state even discontinued the requirement in revisions of its state permit.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Given the infeasibility of requiring ambient water quality data to demonstrate permit compliance, the Department has determined that there are suitable alternative monitoring activities to determine permit compliance, other than ambient water quality monitoring, for this permit. Additionally, in assessing the appropriateness of requiring ambient water quality monitoring, in EPA's October 31, 2011, PGP, EPA considered Whole Effluent Toxicity (WET) testing as a possible option for assessing Operator compliance with permit conditions. However, WET testing in the MEPDES permit program is best used to monitor whether an Operator's discharge is toxic and not whether a receiving stream (i.e., the ambient environment), that may be influenced by a number of different discharges from different Operators and different sources, is toxic. In addition, WET testing would not indicate the actual source of the toxicity. If a waterbody is found to be toxic or to contain pollutants above water quality standards, it can be quite complex to identify the source of the toxicity, which may or may not actually be the permittee performing the monitoring.

Thus, the monitoring program that the Department has developed for this GP has been tailored to accommodate the unique situations related to pesticide applications and is consistent with EPA's October 31, 2011, PGP. Routine visual monitoring is required in the GP and can be used to determine if any pesticide use practices may need to be revised to ensure that avoidable adverse impacts to the environment do not occur (See Section 4.2 of Fact Sheet). Monitoring records required by those Operators who submit NOIs will establish a history that may indicate if or when practices need to be reconsidered.

4.1 Visual Monitoring Requirements for Pesticide Applicators

Visual monitoring assessments are required as a means of identifying, for example, instances of detrimental impact to non-target organisms, disruption or degradation of wildlife habitat, or the prevention of designated recreational or municipal uses of a waterbody that may possibly be related to the Operator's use of pesticides in a given area. This requirement consists of visually monitoring the area to and around where pesticides are applied for possible and observable adverse incidents, such as unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

Visual monitoring assessments are required during the pesticide application when feasibility and safety allow. Visual monitoring is not required during the course of pesticide application when that application is performed in darkness as it would be infeasible for the inspector to note adverse effects under these circumstances. Additionally, the following scenarios often preclude visual monitoring during pesticide application:

1. Applications made from an aircraft.
2. Applications made from a moving road vehicle when the Applicator is the driver.
3. Applications made from moving watercraft when the Applicator is the driver.
4. Applications made from a moving off-road wheeled or tracked vehicle when the Applicator is the driver.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

4.2 Visual Monitoring Requirements for all Operators

Visual monitoring must also be conducted during any post-application surveillance, such as to determine the efficacy of the pesticide application. Visual monitoring of this type is required of all Operators but only if the Operator, be it the Applicator or the Decision-maker or both, performs post application surveillance in the course of business. The Department expects that post-application visual assessments are reasonably conducted on foot or from a stationary vehicle, although they might also be conducted from a moving vehicle, including a boat or plane, in certain circumstances.

5. Pesticide Discharge Management Plan (PDMP)

Any Operator who is required to submit an NOI must develop a PDMP, except for any pesticide applications made in response to a Declared Pest Emergency situation, as defined in Part I B of the permit.

The PDMP itself does not contain effluent limitations; rather it constitutes a tool both to assist the Operator in documenting what pest management measures it is implementing to meet the effluent limitations, and to assist the permitting/compliance authority in determining whether the effluent limitations are being met. Developing a PDMP helps Operators ensure they have (1) taken steps to identify the pest problem, (2) evaluated pest management options, and (3) selected appropriate pest management measures to control pesticide discharges. A PDMP is a “living” document that requires reviews and must be kept up-to-date. Where Pest Management Measures are modified or replaced to meet effluent limitations, such as in response to a Part 6.1 triggering condition, such changes must be documented in the PDMP. All changes to the 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. Failure of an Operator to develop and maintain an up-to-date PDMP is a violation of the permit. This recordkeeping violation is separate and distinct from a violation of any of the other substantive requirements in the permit (e.g., effluent limitations, corrective action, monitoring, reporting, and state-specific requirements).

A PDMP must include identification of the pesticide discharge management team, a description of the pest problem, and a description of the pest management options evaluation. Operators must also provide response procedures for spill response and adverse incident response. The size of a pest management area is determined by the Operator responsible for and with the authority to conduct pest management activities. Once the PDMP is developed, the Operator must maintain the plan thereafter for the duration of coverage under this general permit. For any Operator for which the annual treatment area threshold triggers the NOI requirement (and the Operator is a large entity), the Operator must keep the plan up-to-date for the duration of permit coverage even if the annual treatment area subsequently falls below the annual treatment area threshold.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Operators may choose to reference other documents, such as a pre-existing pest management plan or spill prevention and response plan, in the PDMP rather than recreating the same text in the PDMP. It is not required that an Operator must have authored the pre-existing plan in order to use it. When referencing other documents, the Operator is responsible for ensuring his/her PDMP and the other documents together contain all the necessary elements for a complete PDMP, as specified in Part II §5.1. In addition, the Operator must ensure that a copy of relevant portions of those referenced documents is attached to the PDMP and is located on-site and it is available for review consistent with Part II §5.3 of the permit.

5.1 Contents of Your PDMP

The PDMP prepared under this permit must meet specific requirements under Part II §5.1 of the permit. Generally, Operators must document the following: (1) a pesticide discharge management team; (2) a description of the pest management area and the pest problem; (3) a description of pest management options evaluation; (4) response procedures for spill response and adverse incident response; and (5) any eligibility considerations under other federal laws.

Pesticide Discharge Management Team

The permit requires that a qualified individual or team of individuals be identified to manage pesticide discharges covered under the permit. Identification of a pesticide discharge management team ensures that appropriate persons (or positions) are identified as necessary for developing and implementing the plan. Inclusion of the team in the plan provides notice to staff and management (i.e., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

The pesticide discharge management team is responsible for developing and revising the PDMP, implementing and maintaining the PMMs to meet effluent limitations, and taking corrective action where necessary. Team members should be chosen for their expertise in the relevant areas to ensure that all aspects of pest management are considered in developing the plan. The PDMP must clearly describe the responsibilities of each team member to ensure that each aspect of the PDMP is addressed. The Department expects most Operators will have more than one individual on the team, except for those with relatively simple plans and/or staff limitations. The permit requires that team members have ready access to any applicable portions of the PDMP and the permit.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Problem Identification

This section includes the pest problem description, action threshold(s), a general location map, and water quality standards.

1. Pest Problem Description.

The permit requires that the PDMP include a description of the pest problem at the pest management area. A detailed pest management area description assists Operators in subsequent efforts to identify and set priorities for the evaluation and selection of Pest Management Measures taken to meet effluent limitations set forth in Part II §2 and §3 and in identifying necessary changes in pest management. The description must include identification of the target pest(s), source of the pest problem, and source of data used to identify the problem. The permit allows use of historical data or other available data (e.g., from another similar site) to identify the problem at your site. If you use other site data, you must document in this section why data from your site is not available or not taken within the past year and explain why the data is relevant to your site. Additionally, the pest management area descriptions should include any sensitive resources in the area, such as unique habitat areas, rare or listed species, or other species of concern that may limit pest management options.

2. Action Threshold(s)

The permit requires that the PDMP include a description of the action threshold(s) established for the target pest, including a description of how they were determined and method(s) to determine when the action threshold(s) has been met. An action threshold is a level of pest prevalence (or other indicator) at which an Operator takes action to reduce the pest population.

3. General Location Map

The PDMP must also contain a general location map of the site that identifies the geographic boundaries of the area to which the plan applies and location of the surface 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.

4. Water Quality Standards

Operators must identify any Outstanding National Resource Waters and any water(s) impaired for a specific pesticide or its degradates to which there may be a discharge.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Description of Pest Management Measures Options Evaluation

The permit requires that the PDMP include a description of the PMMs implemented to meet the applicable technology-based or water quality-based effluent limitations. The description must include a brief explanation of the PMMs used at the site to reduce pesticide discharge, including evaluation and implementation of the six management options (no action, prevention, mechanical/physical methods, cultural methods, biological control agents, and pesticides). Operators must consider impact to non-target organisms, impact to water quality, feasibility, and cost effectiveness when evaluating and selecting the most efficient and effective means of PMMs to minimize pesticide discharge to surface Waters of the State.

All six 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 management options, including combination of these options, were evaluated prior to selecting a site specific PMMs. For the no action option, Operators should document the impact of this option without any current PMMs at the site. For the prevention management option, the Operator should document the methods implemented to prevent new introductions or the spread of the pests to new sites such as identifying routes of invasion and how these can be intercepted to reduce the chance of invasion. Prevention may include source reduction, using pathogen-free or weed-free seeds or fill; exclusion methods (e.g., barriers) and/or sanitation methods, like wash stations, to prevent reintroduction by vehicles, personnel, etc. Some prevention management methods may fall under mechanical/physical or cultural methods as well.

For the pesticide management option, Operators should include a list of active ingredient(s) evaluated. Discussion should also identify specific equipment or methods that will prevent or reduce the risks to non-target organisms and pesticide discharges to surface Waters of the State.

Response Procedures

The following procedures necessary to minimize discharges must be documented in the PDMP

1. Spill Response Procedures

The PDMP must document procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other release. In addition, the PDMP must include documentation of the procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

2. Adverse Incident Response Procedures

In the PDMP, Operators must document appropriate procedures for responding to an adverse incident resulting from pesticide applications. Operators must identify and document the following:

- Procedures for responding to any adverse incident resulting from pesticide applications;
- Procedures for notification of the adverse incident, both internal to the Operator's agency/organization and external.;
- State/Federal permitting agency contacts with phone numbers;
- Name, location, and telephone of nearest emergency medical facility;
 - Name, location, and telephone of nearest hazardous chemical responder; and (including police and fire department).

Signature Requirements

The PDMP must be signed and certified in accordance with the signatory requirements in the Standard Permit Conditions Part III §D(2) of this permit. This requirement is intended to ensure that the Operator understands his/her responsibility to create and maintain a complete and accurate PDMP. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

5.2 Pesticide Discharge Management Plan Modifications.

This permit requires that the PDMP be updated whenever any of the triggering conditions for corrective action in Part II §6.1 of the permit occur, or when a review following the triggering conditions in Part II §6.1 requires the Operator to revise his/her PMMs as necessary to meet the effluent limitations in this permit. Keeping the PDMP up-to-date will help the Operator ensure that the condition that triggered the corrective action does not reoccur. All changes to the 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 or after an annual review.

It is important to note that failure to update the PDMP in accordance with Part II §5.2 is a recordkeeping violation, not a violation of an effluent limit. For example, if the Operator changes its spill response procedures, but fails to update its PDMP to reflect these changes, a recordkeeping violation will result. The Decision-maker must revise its PDMP to reflect the new procedures and include documentation of the corrective action (in accordance with Part II §6) to return to full compliance.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

5.3 Pesticide Discharge Management Plan Availability.

This permit requires that a copy of the current PDMP, along with all supporting maps and documents, be kept at the address provided on the NOI. The PDMP and all supporting documents must be immediately available to representatives of federal or State agencies governing pesticide applications at the time of an on-site inspection or upon request. This requirement is consistent with Standard Permit Conditions Part III §A(4) of this permit. Part 5.3 of this permit indicates that EPA may provide access to portions of your PDMP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but consistent with 40 CFR Part 2, may not be withheld from EPA or other federal agencies.

6. Corrective Action

The purpose of including corrective action requirements in this permit is to assist permittees with effectively meeting technology-based and water-quality-based effluent limitations and implementing Pest Management Measures in this permit. Corrective action requirements apply from the time any authorized Operator begins discharging under this permit. These requirements are not tied to submission of an NOI. Corrective actions in this permit are follow-up actions an Operator must take to assess and correct problems. They require review and revision of Pest Management Measures and pesticide application activities, as necessary, to ensure that these problems are eliminated and will not be repeated in the future. The permit makes clear that the Operator is expected to assess why a specific problem has occurred and document what steps were taken to eliminate the problem. The Department believes this approach will help Operators in complying with the requirements of the permit on a consistent basis. Compliance issues with some of the permit's requirements -- for instance, those related to reporting and recordkeeping and some of those related to operation and maintenance -- may be able to be corrected immediately simply by following already established procedures, and therefore, are not considered problems that trigger the corrective action provisions of the permit.

It should be noted that a situation triggering corrective action is not necessarily a permit violation and, as such, may not necessarily trigger a modification of Pest Management Measures to meet effluent limitations. However, failure to conduct (and document) corrective action reviews in such cases does constitute a permit violation.

6.1 Situations Requiring Revision of Pest Management Measures

Operators are required to review and, as necessary, revise the selection and implementation of their PMMs to eliminate any of the following situations:

- An unauthorized release or discharge associated with the application of pesticides (e.g., spill, leak, or discharge not authorized by this or another MEPDES permit) occurs;
- Operators become aware, or the Department concludes, that PMMs are not adequate/sufficient for the discharge to meet applicable water quality standards;

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

- Any monitoring activities indicate failure to meet applicable technology-based effluent limitations in Part II §2;
- An inspection or evaluation by an EPA official, or local, state entity, determines that modifications are necessary to meet the non-numeric effluent limitations detailed in Part II §2 of the GP; or
- An Operator observes or is otherwise made aware (e.g., a third party notification) of an adverse incident.

The Department considers the above situations to be of significant concern. Thus, the Department is requiring Operators to assess the cause of these situations which may be affiliated with the Operator's discharge from the application of pesticides and to take any necessary steps to eliminate the situation and ensure that the situation will not be repeated in the future.

The purpose of Part II §6.1 is to ensure compliance with corrective action requirements through increased accountability and oversight. The Department views ongoing assessment of the effectiveness of PMM and corrective actions as integral to an effective pesticide management program. Written records associated with corrective action assessments must be kept with the other recordkeeping documentation required by this permit.

6.2 Corrective Action Deadlines

The permit requires that corrective action be completed "before or, if not practicable, as soon as possible after the next pesticide application that results in a discharge." The Department emphasizes that this timeframe is not a grace period within which an Operator is relieved of any liability for a permit violation. The Department is adopting this flexible deadline to account for the variation in types of responses (e.g., evaluate situation and select, design, install, and implement new or modified PMMs) that may be necessary to address any identified situations of concern. The Department recognizes that in rare cases a corrective action review may identify the need for substantial improvements to the Operator's PMMs, and does not want to limit the selection and implementation of such controls with an inflexible deadline. Another possibility is that the Department or the Operator may determine that further monitoring is needed under Part II §6.3 of the permit to pinpoint the source of the problem, and this monitoring may need to be conducted during future pesticide application activities. However, the Department believes that in the vast majority of cases, corrective action reviews will identify responses that can be taken quickly, either before the next pesticide application that results in a discharge or shortly thereafter.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

6.3 Effect of Corrective Action

The occurrence of a situation described in Part II §6.1 may, but does not necessarily, constitute a violation of the permit. The occurrence of a situation identified in Part II §6.1 does require the Operator to immediately review and as necessary, revise the selection and implementation of their Pest Management Measures to eliminate the situation. Part II §6.3 explains that taking corrective action does not absolve the Operator of any liability for a permit violation requiring that action, however, failure to take required corrective action will constitute an original or an additional permit violation. The Department will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations. The Department may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) triggering corrective action, additional site-specific water-quality based limitations, additional monitoring requirements, or other schedules and requirements more stringent than specified in this permit. Those requirements and schedules will supersede those of Part II §6.1 and §6.2 if such requirements conflict.

6.4 Adverse Incident Documentation and Reporting

Part II §6.4 of the GP requires Operators to take specific actions in response to identified adverse incidents which may have resulted from a discharge from the Operator's pesticide application. Namely, Operators are required to provide oral notice to the Department within 24 hours and then follow-up with a written report within five (5) days of becoming aware of the adverse incident. The permit defines an "adverse incident" in Part I B of the permit, but generally it is defined as any effect of a pesticide's use that is unexpected or unintended in which there is evidence that a person or non-target organism has likely been exposed to a pesticide residue and suffered a toxic or adverse effect.

Part II §6.4.1 requires Operators to call the appropriate contact within 24 hours of any identified adverse incident and provide basic information about it. Contact information for each regional office for the Department can be found in Part II §7.7. The purpose of this requirement is twofold: (1) to provide an opportunity for the Department to respond to these incidents as soon as reasonably can be expected, and (2) to provide a basis for potential corrective actions. The Department does not expect this initial notification to be detailed but merely a reporting of the date of the finding, a general discussion of the incident and a review of the necessity to conduct corrective action. The permit requires Operators to document the information identified in Part II §6.4.1, including the date and time that the Department was notified and a description of any deviations from Part II §6.4.1 notification requirements based on nuances of the adverse incident. For example, an Operator may decide to notify multiple Department contacts because of the severity of the adverse incident. This type of information should be included in the written documentation of the 24-hour notification as described below.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Part II §6.4.2 requires Operators to provide a written report of the adverse incident to the Department for pesticide regulation within five (5) days of discovering the adverse incident. The adverse incident report must include the following information:

- Information required to be provided in Part II §6.4.1.1;
- Date and time you contacted the Department notifying the Agency of the adverse incident;
- Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc.);
- A description of the circumstances of the incident including species affected, number of individual and approximate size of dead or distressed organisms;
- Magnitude of the effect (e.g., aquatic square area or total stream distance affected);
- Quantity of pesticide applied and EPA registration number of pesticide product, intended use site (e.g., banks, above, or direct to water), and method of application;
- Description of the habitat and the circumstances under which the incident occurred (including any available ambient water data for pesticides applied);
- Information on any laboratory tests performed and test results; and
- Actions to be taken to prevent recurrence of the incident.

The Department believes adverse incident information associated with discharges from the application of pesticides is useful because the information:

- Provides the Department with an indication of the effectiveness of the permit in controlling discharges to protect water quality, including data upon which the Department may base future permit decisions (e.g., modifications to or reissuance of this permit).
- May be considered when reviewing applications for registration of new pesticides that are chemically similar to existing pesticides, as well as re-evaluations of existing pesticides;
- May be considered in ecological risk assessment and during deliberations on risk management decisions;
- May be reviewed to determine trends that may indicate potential ecological impacts with an existing pesticide and/or to track improvements when mitigation measures are applied;

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

- Provides information on the nature, extent, and severity of incidents to decision-makers, stakeholders, and the public; and
- Provides the Department with information on which to assess compliance with regulatory requirements, including documentation and reporting.

Currently, there is no database that includes adverse reporting from anyone other than the registrant under 6(a)(2) of FIFRA. The Department does not consider inclusion of adverse incident reporting in the MEPDES permit to be a duplicative requirement to the FIFRA section 6(a)(2) requirements for registrant reporting of adverse incidents. This is because pesticide registrants are not likely to be directly covered under the GP. Requiring the reporting of adverse incidents and follow-up corrective actions may address the lack of a universal, mandatory legal duty for pesticide users to report adverse incidents, at least for the pesticide use patterns covered by this permit.

The Department acknowledges that assessing and correcting adverse incidents may be complicated in certain instances. For example, symptoms associated with adverse incidents are often vague or mimic other causes which may lead to incorrect diagnoses. Thus, it may be difficult to identify and track chronic effects resulting from pesticides discharges. It may also be difficult to observe adverse effects because of limited visibility or access such as dead fish poisoned in a wetland under dense vegetation or in sparsely populated areas or because scavengers scatter or devour carcasses before discovery. However, the Department believes that it is important to identify to the extent feasible situations where adverse effects occur where discharges from the application of pesticides also occur.

Immediately observable signs of distress or damage to non-target plants, animals and other macro-organisms within the treatment area may warrant concern for a possible adverse incident related to a discharge of pesticides during application. The Department acknowledges that some degree of detrimental impact to non-target species may occur and may be acceptable during the course of normal pesticide application. The Department expects Operators to use their best professional judgment in determining the extent to which non-target effects appear to be abnormal or indicative of an unforeseen problem associated with an application of pesticides.

During a visual inspection, Operators should watch for distressed or dead juvenile and small fish, washed up or floating fish, fish swimming abnormally or erratically, fish lying lethargically at the water surface or in shallow water, fish that are listless or nonresponsive to disturbance, the stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants, and other dead or visibly distressed non-target organisms including amphibians, turtles, and macro-invertebrates. These observations must be noted unless they are deemed not to be aberrant (for example, distressed non-target fish are to be expected when conducting pest control with rotenone and non-target vegetation will be stressed near the target of contact herbicides). It should be noted that observation of these impacts does not necessarily imply that a pesticide has been misused or that there has been a permit violation or an instance of noncompliance, but may provide cause for further investigation of local water quality or reconsideration of PMMs.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

Complete information concerning adverse impacts will aid the Department in any review of current or future pesticide use, adherence to PMMs, or effectiveness of these measures.

Reporting of adverse incidents is not required under this permit in the following situations: (1) you are aware of facts that indicate that the adverse incident was not related to toxic effects or exposure from the pesticide application; (2) you have been notified in writing by the Department that the reporting requirement has been waived for this incident or category of incidents; (3) you receive information notifying you of an adverse incident but that information is clearly erroneous; (4) an adverse incident occurs to pests that are similar in kind to pests identified as potential targets on the FIFRA label. However, even for these situations, certain records must be kept on site by those Operators who are required to submit NOIs, pursuant to Part II §7.3 and §7.4 of the permit.

6.5 Reportable Spills and Leaks

Part II §6.5.1 requires Operators to call the appropriate Department contact to report any spill or leak of a hazardous substance or oil into surface Waters of the State with 24 hours of becoming aware of the spill or leak. Part II §6.5.2 requires Operators to document this notification within five (5) days of becoming aware of such spill or leak. If the spill or leak triggers the notification in Part II §6.5.1 and results in an adverse incident, then Operators must report the incident per the guidelines in Part II §6.4.1 and §6.4.2. If the spill or leak triggers the notification in Part II §6.5.1, but does not result in an adverse incident, then Operators must document and retain information outlined in Part II §6.5.2 within five (5) days of becoming aware of the situation. This documentation provides a written record of what you reported to the Department orally. It should also include a description of the reporting system that will be used to alert responsible managers and legal authorities in the event of a future spill or leak and a description of preventive measures to prevent, contain, or treat spills and leaks of these materials. This information will be used by the Department to ascertain compliance with permit conditions.

6.6 Documentation for Other Corrective Action

For any event described in Part II §6.1 of the permit, other than for adverse incidents or reportable spills or leaks, immediate reporting to the Department is not required, but Operators must document basic information describing the event and the Operators' response to that event within five (5) days. For triggering events in Part II §6.1, where the Operator determines that any revision to PMMs is not necessary, the Operator must still document the review and the basis for this determination. The Department is not requiring Operators to submit this documentation to the Department. Rather, the Department expects Operators to retain this information on-site and upon request, to make any such records available to the Department or any other Federal, state, or local regulatory agency governing pesticide applications. A summary of this information must also be included in the annual report for Operators subject to the annual reporting requirement.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)**7. Recordkeeping and Annual Reporting**

This permit requires all Decision-makers and Applicators to maintain certain records to help them assess performance of PMMs and to document compliance with permit conditions. Recordkeeping and reporting requirements apply from the time any authorized Operator begins discharging under this permit. These requirements are consistent with Federal regulations at 40 CFR 122.41(j), but have been tailored to more closely reflect the requirements in the GP. This permit requires a basic set of records to be maintained by all Decision-makers and Applicators, as well as separate requirements depending on the type of Operator (i.e., Applicator, For-Hire Applicators, NOI submitting Decision-makers). Part II §7 of the permit sets forth the recordkeeping requirements for each of these types of Operators. Operators can rely on records and documents developed for other programs, such as requirements under FIFRA, provided all requirements of the permit are satisfied.

The Department believes that it is appropriate and reasonable to require different records for different types of Operators, reasoning that the recordkeeping responsibilities assigned in the permit reflect the nature of involvement in pesticide application activities for the Operators described. The following sections describe the sets of records that the permit requires different types of Operators keep, and enumerates the specific information items to be recorded.

7.1 Records to be kept by all Operators (all Decision-makers and all Applicators)

These records must be kept by all Operators, including those not submitting an NOI. Although this section is a universal requirement, these particular records are necessary only in the event of an adverse incident, the case that corrective action was required, or in the event of a discharge resulting from a spill or leak.

- a. A copy of any Adverse Incident Reports (See Part II §6.4.2);
- b. Rationale for any determination that reporting of an identified adverse incident is not required, consistent with allowances identified in Part II §6.4.1.2;
- c. A copy of any corrective action documentation (See Part II §6.6); and,
- d. A copy of any spill and leak or other unpermitted discharge documentation (See Part II §6.5.2)

7.2 Records to be kept by all For-Hire Applicators

All Operators who are For-Hire Applicators, as defined in Part I B of the permit, must keep the records listed above, as well as records that specifically document pesticide application equipment maintenance and details of the pesticide application event. Since Decision-makers

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

who are not themselves performing pesticide applications are generally not able to record such information, the Department requires different recordkeeping requirements depending on the type of Operator.

- a. Documentation of equipment calibration; and
- b. Information on each treatment area to which pesticides are discharged, including:
 1. Description of each treatment area, including location and size (acres or linear feet) of treatment area and identification of any waters, either by name or by location, to which pesticide(s) are discharged;
 2. Pesticide use pattern(s) (i.e., flying insects, weed, or forest canopy);
 3. Target pest(s);
 4. Documentation of any assessment of weather conditions in the treatment area prior to and during application to ensure application is consistent with all applicable federal requirements;
 5. Name of each pesticide product used including the EPA registration number;
 6. Quantity of each pesticide product applied to each treatment area;
 7. Pesticide application date(s); and
 8. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not, why not and whether any unusual or unexpected effects identified to non-target organisms.

7.3 (Reserved)**7.4 Records to be kept by Decision makers required to submit an NOI**

Decision-makers who are to submit an NOI must keep the following records as identified in Part II §7.4 of the permit.

- a. Copy of the NOI submitted to the Department, any correspondence exchanged between the Decision-maker and Department specific to coverage under this permit, and a copy of the Department Order with the assigned permit tracking number;
- b. A copy of the PDMP, including any modifications made to the PDMP during the term of this permit;
- c. Copy of annual reports submitted to the Department or EPA;

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PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

- d. Documentation of equipment calibration (only if Decision-maker is also the Applicator);
- e. Information on each treatment area to which pesticides are discharged, including:
 - 1. Description of each treatment area, including location and size (acres or linear feet) of treatment area and identification of any surface Waters of the State, either by name or by location, to which pesticide(s) are discharged;
 - 2. Pesticide use pattern(s) (i.e., flying insects, weed or forest canopy);
 - 3. Target pest(s) and explanation of need for pest control;
 - 4. Action Thresholds;
 - 5. Method and/or data used to determine that action threshold(s) has been met;
 - 6. Description of pest management measure(s) implemented prior to the first pesticide application;
 - 7. Company name and contact information for pesticide applicator;
 - 8. Name of each pesticide product used including the EPA registration number;
 - 9. Quantity of each pesticide product applied to each treatment area;
 - 10. Pesticide application date(s); and
 - 11. Whether or not visual monitoring was conducted during pesticide application and/or post-application and if not, why not and whether any unusual or unexpected effects identified to non-target organisms.

7.5 Retention of Records

All required records must be prepared as soon as possible but no later than 14 days following completion of the associated activity. Operators must retain copies of these documents for a period of at least 3 years from the date their coverage under this permit expires or is terminated.

The Department recommends that all Decision-makers keep records of acres or linear miles treated each calendar year for all applicable use patterns covered under this GP. This record will help Decision-makers estimate when they will exceed the annual treatment area threshold (requiring submission of an NOI), or to complete an annual report if required.

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

7.6 Annual Reports

In addition to recordkeeping, the Department is requiring Operators who are required to submit an NOI to submit annual reports that contain basic information on their pesticide discharges to surface Waters of the State.

The annual report must include information for the calendar year, with the first annual report required to include activities for the portion of the calendar year after the effective date of the NOI. If the effective date of the NOI is after December 1, the Operator is not required to submit an annual report for that first partial year but must submit annual reports thereafter, with the first annual report submitted also including information from the first partial year. When an Operator terminates permit coverage, as specified in Part II §1.2.5, the Operator must submit an annual report for the portion of the year up through the date of the termination. The annual report is due no later than 45 days after the termination date, or February 15 of the following year, whichever is earlier.

This information in the annual report will be used by the Department to assess permit compliance and to determine whether additional controls on pesticide discharges are necessary to protect water quality. For example, these data will help the Department identify where pesticide discharges are occurring and the types of pesticides being discharged. The annual report provides specific information concerning the scope and nature of discharges permitted under the GP.

The annual report is a summary of the pest control activities for each applicable use pattern and must contain:

- a. Operator's name and contact information;
- b. MEPDES permit tracking number(s);
- c. Contact person name, title, e-mail address (if any), and phone number; and
- d. For each treatment area, report the following information:
 1. Description of treatment area, including location and size (acres or linear feet) of treatment area and identification of any surface Waters of the State, either by name or by location, to which pesticide(s) are discharged;
 2. Pesticide use pattern(s) (i.e., flying insects, weed or forest canopy) and target pest(s);
 3. Company name(s) and contact information for pesticide applicator(s), if different from the Operator;

PART III. SUMMARY OF PERMIT CONDITIONS (cont'd)

4. Total amount of each pesticide product applied for the reporting year by the EPA registration number(s) and by application method (e.g., aerially by fixed-wing or rotary aircraft, ground based spray, etc.);
5. Whether this pest control activity was addressed in the PDMP prior to pesticide application;
6. If applicable, any adverse incidents as a result of these treatment(s), for incidents, as described in Part II §6.4.1; and
7. If applicable, description of any corrective action(s), including spill responses, resulting from pesticide application activities and the rationale for such action(s).

PART IV. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of surface waterbodies to meet standards for its classification.

PART V. PUBLIC COMMENTS

Public notice of this GP was made in the Portland Press Herald, Bangor Daily News, Kennebec Journal, Lewiston Sun Journal, Star Herald and Ellsworth American newspapers on or about March 31, 2014. The GP will be available for a 30-day public comment period beginning Tuesday, April 1, 2014. The Department receives public comments on an application until the date a final agency action is taken on the application. All persons shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 CMR 522 (effective January 12, 2001).

PART VI. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7693 Fax: (207) 287-3435
e-mail: gregg.wood@maine.gov

PART VII. RESPONSE TO COMMENTS

Reserved until the close of the formal 30-day public comment period.