



Department of Environmental Quality, Water Bureau

**PESTICIDE APPLICATION  
TO SURFACE WATERS OF THE STATE OF MICHIGAN**

Permits are required by Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and Part 33, Aquatic Nuisance Control, of the NREPA (Part 33).

**AQUATIC NUISANCE CONTROL GENERAL PERMIT**

**GENERAL PERMIT NUMBER ANCG09-97  
AQUATIC NUISANCE CONTROL ACTIVITIES FOR PONDS**

Date Effective: January 1, 2009

Date Expires: December 31, 2009

In compliance with the provisions of Part 33 of the NREPA, pesticides are authorized to be applied to waters of the state (waterbody) for the control of nuisance aquatic plants and algae in accordance with the requirements and conditions set forth in this Aquatic Nuisance Control General Permit.

The applicability of this General Permit shall be limited to chemical treatment of a waterbody which will not negatively impact human health and will have no more than minimal short-term adverse impacts on the natural resources and environment.

In order to have authorization to chemically treat waters of the state under this General Permit, the permittee must be issued a Certificate of Coverage (COC) by the Michigan Department of Environmental Quality (DEQ). The following will be identified in the COC:

- COC number
- date effective / issued
- expiration date
- permittee name and address
- specific waterbody name and location for which authorization to chemically treat is granted

The terms and conditions of this General Permit shall apply to the permittee for the identified waterbody on the effective date of a COC issued by the DEQ.

The provisions of this General Permit are severable.

All contact with the DEQ as required by this General Permit shall be with the DEQ representative identified in the COC, Aquatic Nuisance Control and Remedial Action Unit, Water Bureau, DEQ, located at 525 West Allegan Street, Lansing, Michigan, 48913, telephone 517-241-7734, facsimile 517-335-4381, and/or e-mail: [deq-lwm-anc@michigan.gov](mailto:deq-lwm-anc@michigan.gov).

## Section A. Qualified Sites

A waterbody qualifying for approval to be chemically treated under this General Permit must meet all of the following criteria:

- has an intermittent or controllable discharge, or no discharge
- has a surface area of less than ten (10) acres
- has no contiguous wetlands associated with it
- does not discharge to a designated trout stream
- does not have federal or state endangered, or threatened species pursuant to Part 365 of the NREPA, or critical habitat, associated with it
- has been identified by the DEQ and the Department of Natural Resources as having minimal resource value to the state

The current list of approved ponds is available from the DEQ upon request or can be downloaded from the Aquatic Nuisance Control website at <http://www.michigan.gov/deqinlandlakes>.

## Section B. Authorizations and Coverage Provisions

### 1. Authorized Areas

Chemical treatment for control of nuisance aquatic plants and algae is authorized only to waters of the state as defined by this General Permit, specified by the issued COC, and identified on the treatment map(s) submitted with the application and on file with the DEQ.

Areas where chemical treatment for control of nuisance aquatic plants and algae is undertaken must be either under the legal control of the permittee or the party(ies) who has/have granted the permittee permission to do the treatment.

### 2. Chemical Application

Follow all pesticide label instructions to protect self, others and the environment. The label is provided with the pesticide container. It explains how to use the pesticide safely, effectively, and may suggest ways to avoid unintended impacts to human health and the environment. Read and understand the label before mixing or applying any pesticide. Most labels list a toll-free number for consumers. Pesticide labels are federally-approved legal documents and their requirements are enforced under both federal and state laws.

The applicant may apply only those specific chemical products that are approved by the DEQ. If only an active ingredient is listed in the tables below, consult the list of DEQ-approved aquatic pesticides and related products to determine if the brand name product you wish to use is approved. This list is available from the DEQ upon request or from the website <http://www.michigan.gov/deqinlandlakes>.

The application of chemical products to the qualified sites is restricted to the products in the following table, at the stated maximum application rates. The necessary application rate may be lower than the maximum rate listed in the table, and may depend on the target species, the timing of the treatment, the use of additives such as surfactants, and various site conditions (refer to the product label).

| Category               | Active Ingredient                  | Brand Name : Maximum Application Rate  |
|------------------------|------------------------------------|--|
| Algae Control          | chelated copper                    | Algae Defense, K-Tea, Symmetry:<br>0.7 gal/acre-foot (planktonic/filamentous algae)<br>1.7 gal/acre-foot (macroalgae)<br>Algi-Cure and Algimycin PWF:<br>1.06 gal/acre-foot (planktonic/filamentous algae)<br>2.13 gal/acre-foot (macroalgae)<br>Captain, Cutrine-Plus:<br>0.6 gal/acre-foot (planktonic/filamentous algae)<br>1.2 gal/acre-foot (macroalgae)<br>Cutrine Plus Granular: 60.0 lbs/acre<br>Formula F-30 Algae Control: 2.0 gal/acre-foot |
|                        | chelated copper (incl. surfactant) | Cutrine Ultra:<br>0.6 gal/acre-foot (planktonic/filamentous algae)<br>1.2 gal/acre-foot (macroalgae)   |
|                        | copper sulfate                     | All approved products (unless specified below):<br>2.6 lbs/acre-foot (planktonic/filamentous algae)<br>4.4 lbs/acre-foot (macroalgae)<br>EarthTec:<br>0.33 gal/acre-foot (planktonic algae)<br>0.55 gal/acre-foot (filamentous algae/macroalgae)   |
|                        | endothall                          | Hydrothol 191: 2.2 pints/acre-foot<br>Hydrothol 191 Granular: 11.0 lbs/acre-foot   |
|                        | hydrogen dioxide                   | GreenClean Liquid Broad Spectrum Algaecide/Bactericide:<br>1.2 – 30.0 gal/acre-foot  |
|                        | sodium carbonate peroxyhydrate     | GreenClean Granular:<br>17.0 lbs/acre-foot (maintenance)<br>170.0 lbs/acre-foot (heavy growth)<br>GreenClean PRO:<br>9.0 lbs/acre-foot (maintenance)<br>90.0 lbs/acre-foot (heavy growth)<br>Pak 27 Algaecide: 16.9 lbs/acre-foot<br>Phycomycin SPC Algaecide & Oxidizer: 16.9 lbs/acre-foot   |
|                        | Submerged Plant Control            | 2,4-D – granular   |
| chelated copper        |                                    | Copper-EDA, Current, Harpoon, Komeen, PondWeed Defense: 3.3 gal/acre-foot<br>Nautique <sup>1</sup> : 3.0 gal/acre-foot   |
| diquat dibromide       |                                    | Reward <sup>1,2</sup> : 2.0 gal/acre<br>Weedtrine D <sup>1,2</sup> : 10.0 gal/acre   |
| endothall              |                                    | Aquathol K: 1.9 gal/acre-foot<br>Aquathol Super K Granular: 13.2 lbs/acre-foot<br>Hydrothol 191 (liquid only): 1.0 gal/acre  |
| imazamox               |                                    | Clearcast <sup>1</sup> : 69.0 oz/acre-foot   |
| triclopyr              |                                    | Renovate 3 <sup>1</sup> : 2.3 gal/acre-foot<br>Renovate OTF: 68.0 pounds/acre-foot   |
| Emergent Plant Control | 2,4-D – granular                   | Aquacide: 22.0 lbs/acre<br>Navigate: 200.0 lbs/acre  |
|                        | glyphosate                         | All Approved Products <sup>1</sup> : 6.0 pints/acre  |
|                        | glyphosate (incl. surfactant)      | ShoreKlear-Plus: 2.6 gal/acre  |
|                        | imazamox                           | Clearcast <sup>1</sup> : 64.0 oz/acre  |
|                        | imazapyr                           | AquaPier <sup>1,2</sup> , Habitat <sup>1,2</sup> : 6.0 pints/acre  |
|                        | triclopyr                          | Renovate 3 <sup>1</sup> : 8.0 quarts/acre<br>Renovate OTF: 68.0 pounds/acre  |

(continued)

| Category               | Active Ingredient                   | Brand Name : Maximum Application Rate   |
|------------------------|-------------------------------------|---|
| Additives <sup>1</sup> | n/a (adjuvants, sink/drift control) | AGRI-DEX: 4.0 pints/acre<br>Cygnet Plus:<br>2.5 pints/acre-foot (submergent)<br>1.0 pint/acre (emergent)<br>PolyAn: 1.0 gal/acre-foot<br>TopFilm: 1.0 pint/acre       |
|                        | n/a (water dyes)                    | All Approved Products:<br>0.01 gal/acre-foot (submergent tracer)<br>0.25 gal/acre-foot (submergent whole pond)<br>0.33 to 1.0 ounce per gallon concentrate (emergent) |

<sup>1</sup> Certain herbicide labels require or strongly recommend the use of additives to aid herbicide uptake, improve effectiveness, and minimize non-target impacts.

<sup>2</sup> Certification requirements may apply. See below in Section B4.

### 3. Treatment Intervals

The products approved for use in Section B(2) of this General Permit have a minimum length of time required between each treatment in the same area(s) of impact, in accordance with the federal product label.

| Active Ingredient              | Minimum Treatment Interval   |
|--------------------------------|--|
| 2,4-D <sup>1</sup>             | 14 days minimum between treatments (Navigate)<br>21 days minimum between treatments (Aquacide)   |
| chelated copper                | 7 days minimum between treatments (except Komeen and Nautique: 4 weeks minimum; Copper-EDA, Current, Formula F-30, Harpoon, PondWeed Defense: 10 days minimum) |
| colorant/water dye             | 24 hours minimum between treatments  |
| copper sulfate                 | 7 days minimum between treatments  |
| diquat dibromide               | 14 days minimum between treatments   |
| endothall                      | 5 days minimum between treatments  |
| glyphosate                     | 24 hours minimum between treatments  |
| hydrogen dioxide               | 48 hours minimum between treatments  |
| imazamox                       | No label requirement   |
| imazapyr <sup>1</sup>          | 10 days minimum between treatments   |
| sodium carbonate peroxyhydrate | 48 hours minimum between treatments  |
| triclopyr <sup>1</sup>         | 10 days minimum between treatments   |

<sup>1</sup> Per the federal product labels, do not apply Aquacide (2,4-D) more than two times per season to the same area; do not apply more than 6 pints of imazapyr per acre per year; do not apply more than 8 quarts of triclopyr per acre per year.

### 4. Special Conditions

#### General

Multiple products with the same active ingredient are approved by this General Permit. Consult the federally-approved product labels to ensure that the total amount of the active ingredient applied does not exceed the amount allowed by label application rates and/or active ingredient concentration for the target species and site conditions.

The permittee shall not employ a commercial applicator, or any legal entity with whom he/she may be associated as a principal, owner or co-owner, who has a significant history of noncompliance with Part 33 or with permits issued under Part 33, as determined by the DEQ pursuant to Rule 323.3108(3). A list of these aquatic commercial applicators who have a significant history of noncompliance is available from the DEQ upon request. The listed individuals are not prohibited from working as an employee under the direction of another certified applicator.

Upon receipt of written notification from the DEQ, the permittee may be required to do any of the following:

- Conduct the chemical treatment only when a DEQ representative is present.
- Notify the DEQ a minimum of three working days prior to application of chemical(s).
- For a permittee who is a licensed commercial pesticide applicator but who does not have a DEQ-approved Emergency Notification Procedure on file with the Aquatic Nuisance Control and Remedial Action Unit, submit an accurate map or written description of the exact locations where each herbicide was applied to the DEQ within 24 hours of the completion of each treatment.
- In addition to the normally required notification, also notify other person(s) specified by the DEQ.
- Any other requirements determined by the DEQ as necessary to protect the natural resources or the public health, to prevent economic loss or impairment of recreational uses, to protect non-target organisms, or to help ensure control of the aquatic nuisance.

For treatment of all waterbodies in Ingham County, the permittee must notify the Ingham County Drain Commission a minimum of two working days prior to application of chemical(s). Notification must be made to Mr. Randy Abbott at 517-676-8381, or fax 517-676-8364, between 8:00 a.m. and 5:00 p.m., Monday through Friday. Notification must include the date, time, and location(s) of the proposed chemical use.

#### Outlet Flow

Do not treat waterbody when discharge is greater than 100 gallons per minute. When discharge from waterbody is less than or equal to 100 gallons per minute, do not treat within **50** feet of the outlet. When there is no discharge from waterbody, outlet setback is not required.

Do not treat beyond the five-foot depth contour when there is discharge from waterbody.

Do not treat pond(s) if significant rain is expected which may inhibit treatment effectiveness and result in pond overflow in the days following the treatment.

#### Specific Products

##### *2,4-D and Endothall*

Do not apply granular endothall or granular 2,4-D products within 75 feet of ANY active drinking water well OR within 250 feet of wells less than 30 feet deep. Distances are measured from the well location not from the shoreline. Wells and isolation distances are not necessarily shown on the treatment map. Prior to treatment, locate the water wells and observe the appropriate isolation requirements. If well location and/or depth are unknown, then assume the full 250-foot isolation distance.

##### *Colorants*

The use of water dyes may not be appropriate in waterbodies used for swimming.

Use of water dyes is permitted only when there is no discharge from waterbody, except when used as a tracer.

For any waterbody with an outlet, the use of water dyes allowed by this General Permit excludes water dyes that are labeled as herbicides (e.g., Aquashade, Admiral, Pond Care Algae Blocker).

##### *Diquat Dibromide*

The diquat dibromide products are listed on the Michigan Department of Agriculture's restricted use pesticide list. You must be a certified applicator to purchase and use these products in waters of the state.

*Imazapyr*

Application of Habitat or AquaPier (imazapyr) can only be made by federal or state agencies, such as Water Management District personnel, municipal officials and the U. S. Army Corps of Engineers, or those applicators who are licensed or certified as aquatic pest control applicators and are authorized by the state or local government. Treatment of species other than non-native invasive species is limited to only those that have been determined to be a nuisance by a federal or state entity.

**5. Notification and Posting Requirements**

The applicant is required to notify, in writing, an owner of any waterfront property within 100 feet of the area of impact, not less than seven days, and not more than 45 days, before the initial chemical treatment. Requirements for written notification are provided in Section 324.3310(h) of Part 33. If the owner is not the occupant of the waterfront property or the dwelling located on the property, then the owner is responsible for notifying the occupant.

Notice of the chemical application must be posted prior to each chemical application, in accordance with Section 324.3310(d) of Part 33. Alternate posting may be reviewed on a case-by-case basis by DEQ upon written request from the applicant. Water use restrictions listed on the label for the specific product (i.e., trade name) used shall be included on the posting sign. In addition, a 24-hour water use restriction for swimming/entry shall be indicated on the signs for each chemical application of 2,4-D, chelated copper herbicides, diquat dibromide, endothall, glyphosate, hydrogen dioxide, imazamox, imazapyr, sodium carbonate peroxyhydrate, triclopyr, and/or water dye (except when approved for use as a tracer dye).

**Section C. Reporting and Record Keeping**

**1. Environmental Impacts**

The applicant is required to immediately contact the DEQ, Water Bureau, at 517-241-7734 if any fish or wildlife damage or significant non-target plant impacts occur in association with any chemical application.

**2. Treatment Report**

A treatment report, on the approved DEQ form, must be returned postmarked no later than November 30 of the year this General Permit is in effect, even if treatment is not undertaken. Submit report to:

AQUATIC NUISANCE CONTROL AND REMEDIAL ACTION UNIT  
WATER BUREAU  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
PO BOX 30273  
LANSING MI 48909-7773

**3. Record Retention**

The applicant shall obtain and maintain written permission from each bottomland owner in the area of impact for 1 year from the expiration date of the General Permit, unless exempt under Section 324.3308 of Part 33. The records shall be made available to the DEQ upon request.

**Section D. Liability**

**1. Noncompliance**

Initiation of any work on the permitted project confirms the applicant's acceptance and agreement to comply with all terms and conditions of this General Permit. Noncompliance with these terms and conditions, and/or the initiation of other regulated activities not specifically authorized by this General Permit, shall be cause for the modification, suspension, or revocation of this General Permit, in whole or in part. Further, the DEQ may initiate criminal and/or civil proceedings to correct project deficiencies, protect public health and natural resource values, and secure compliance with statutes.

The issuance of this General Permit does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other DEQ permits, or approvals from other units of government as may be required by law.

**2. Property Rights**

This General Permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights.

**3. Indemnification**

The applicant shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the applicant, or employees, agents, or representatives of the applicant, undertaken in connection with this General Permit. This General Permit shall not be construed as an indemnity by the State of Michigan for the benefit of the applicant or any other person.

Steven E. Chester, Director  
Department of Environmental Quality

By: Richard M. Hobla

Date: 12/22/08

Richard M. Hobla, Chief  
Aquatic Nuisance Control and Remedial Action Unit  
Water Bureau