STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR RESIDUAL AQUATIC PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM ALGAE AND AQUATIC WEED CONTROL APPLICATIONS

I. NOTICE OF INTENT STATUS (see Instructions)

Mark only one item

A. New Applicator
B. Change of Information: WDID# 082204P00002
C. □ Change of ownership or responsibility: WDID#

II. DISCHARGER INFORMATION

<table>
<thead>
<tr>
<th>A. Name</th>
<th>Madera Irrigation District</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Mailing Address</td>
<td>12152 Road 28 1/4</td>
</tr>
<tr>
<td>C. City</td>
<td>Madera</td>
</tr>
<tr>
<td>D. County</td>
<td>Madera</td>
</tr>
<tr>
<td>E. State</td>
<td>California</td>
</tr>
<tr>
<td>F. Zip</td>
<td>93637</td>
</tr>
<tr>
<td>G. Contact Person</td>
<td>Thomas Greci</td>
</tr>
<tr>
<td>H. E-mail address</td>
<td><a href="mailto:tgreci@madera-id.org">tgreci@madera-id.org</a></td>
</tr>
<tr>
<td>I. Title</td>
<td>General Manager</td>
</tr>
<tr>
<td>J. Phone</td>
<td>559-673-3514</td>
</tr>
</tbody>
</table>

III. BILLING ADDRESS (Enter Information only if different from Section II above)

| A. Name                  |                                |
| B. Mailing Address       |                                |
| C. City                 |                                |
| D. County               |                                |
| E. State                |                                |
| F. Zip                  |                                |
| G. E-mail address       |                                |
| H. Title                |                                |
| I. Phone                |                                |
GENERAL NPDES PERMIT FOR RESIDUAL
AQUATIC PESTICIDE DISCHARGES FROM
ALGAE AND AQUATIC WEED CONTROL APPLICATIONS

ORDER NO. 2013-0002-DWQ
NPDES NO. CAG990005

IV. RECEIVING WATER INFORMATION

A. Algaecide and aquatic herbicides are used to treat (check all that apply):
   1. ☐ Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.
      Name of the conveyance system: MC & I System
   2. ☐ Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
      Owner's name: United States Bureau of Reclamation
      Name of the conveyance system: 32.2, 24.2, & 9.2 Systems
   3. Directly to river, lake, creek, stream, bay, ocean, etc.
      Name of water body:

B. Regional Water Quality Control Board(s) where treatment areas are located
   (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 5
   (List all regions where algaecide and aquatic herbicide application is proposed.)

V. ALGAECIDE AND AQUATIC HERBICIDE APPLICATION INFORMATION

A. Target Organisms: ______
   Algae, submersed, floating, and emergent aquatic vegetation.

B. Algaecide and Aquatic Herbicide Used: List Name and Active ingredients
   Acronein (Magnaicide®)
   Copper (Copper Sulfate Crystals, Captain Liquid Copper Algaecide®, Nautique®)
   Diquat Dibromide (Reward®)
   Endothall (Cascade®)
   Fluridone (Sonar Genesis®)
   Glyphosate (AquaNeat®, Rodeo®)
   Imazamox (Clearcast®)
   Penoxsulam (Galleon SC®)

   Specific product names may change.

C. Period of Application: Start Date January 1        End Date December 31

D. Types of Adjuvants Used:
   Various nonionic surfactant products, including LI-7000® and Quest®.

VI. AQUATIC PESTICIDE APPLICATION PLAN

Has an Aquatic Pesticide Application Plan been prepared and is the applicator familiar with its contents?
   ☐ Yes        ☐ No

If not, when will it be prepared? ________________

VII. NOTIFICATION

Have potentially affected public and governmental agencies been notified?   ☐ Yes   ☐ No

VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal?
   ☐ YES      ☐ NO      ☐ NA
IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the General Permit, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: Thomas Greci

B. Signature: [Signature]

Date: 4/20/16

C. Title: General Manager

XI. FOR STATE WATER BOARD STAFF USE ONLY

<table>
<thead>
<tr>
<th>WDID:</th>
<th>Date NOI Received:</th>
<th>Date NOI Processed:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
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<th>Fee Amount Received:</th>
<th>Check #:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

☐ Lyris List Notification of Posting of APAP

<table>
<thead>
<tr>
<th>Date</th>
<th>Confirmation Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ATTACHMENT E – NOTICE OF INTENT

E-3
Aquatic Pesticides Application Plan (APAP)

Water Quality Order
No. 2013-0002-DWQ

Madera Irrigation District
12152 Road 28 ¼
Madera, CA 93637-9119
(559)673-3514 Office
(559)673-0564 Fax

April 12, 2016
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Certification

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

[Signature]

Thomas Greci
General Manager
Madera Irrigation District
1. EXECUTIVE SUMMARY

Madera Irrigation District (MID or District) has prepared this Aquatic Pesticides Application Plan (APAP) in accordance with Water Quality Order No. 2013-0002-DWQ (Order) for the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications (General Permit # CAG990005).

The purpose of this APAP is to provide detailed information of the use of aquatic pesticides in District facilities to control the growth of aquatic and submerged weeds. This APAP provides a description of the facilities where pesticides will be applied, a description of the targeted weeds, a list of aquatic pesticides used, and other pertinent information as described in Section 5 of the Order. This APAP is intended to be a living document that is revisited and updated on an annual basis to maintain compliance with General Permit # CAG990005 and any amendments.

MID contact person: Ramon (Eddie) Mendez

Email: rmendez@madera-id.org

Phone: (559) 673-3514 Ext. 209

2. DESCRIPTION OF WATER SYSTEM

MID operates and maintains an irrigation water distribution system of approximately 300 miles of open flow canals and 150 miles of pipelines. The MID distribution system consists of the Madera Canal and Irrigation Company (MC&I) distribution system and the United States Bureau of Reclamation (USBR) distribution system. The MC&I and USBR distribution systems are comprised of four primary canal systems, the 6.2, 24.2, 32.2, and the Big Main. All other lateral canals receive water from one or more of the primary canal systems. The Big Main receives water from Hidden Dam by way of the Fresno River or 18.8 by way of the Madera Canal. The 6.2, 24.2, and 32.2 receive water from Friant Dam by way of the Madera Canal. The Madera Canal is operated by the Madera-Chowchilla Water & Power Authority.

Both the MC&I and Bureau distribution systems require the application of aquatic pesticides as a method of weed control. The majority of the open canals that comprise each system require the application of one or more aquatic pesticides. The District also utilizes the Fresno River, Cottonwood Creek, Dry Creek, and Berenda Creek to convey water.

3. DESCRIPTION OF THE TREATMENT AREA

The four primary canal systems, the 6.2, 24.2, 32.2, and the Big Main, are shown on the MID Distribution System Map in Appendix A. The majority of application areas contain portions of open canal and pipeline. All portions of a canal may or may not be treated during the course of the irrigation season depending upon the weed growth and effectiveness of the aquatic pesticide application.
4. TARGETED WEEDS

The District targets a variety of weeds that may be submerged, floating, or emergent/shoreline. Table 1 provides the names and descriptions of the weeds controlled utilizing aquatic pesticides.

<table>
<thead>
<tr>
<th>Weed Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filamentous Algae (Various species)</td>
<td>Algae cells that form threads into a mat-like surface. Algae can be submerged and/or floating</td>
</tr>
<tr>
<td>American Pondweed (<em>Potamogeton nodosus</em>)</td>
<td>Perennial plant with oval shaped floating and submerged leaves</td>
</tr>
<tr>
<td>Bulrush (<em>Scirpus spp</em>)</td>
<td>Perennial grass-like plant with tall stems and flowers near the tip of the stem</td>
</tr>
<tr>
<td>Cattail (<em>Typha spp</em>)</td>
<td>Perennial plant with very long leaves and cigar-shaped flowers</td>
</tr>
<tr>
<td>Horned Pondweed (<em>Zannichellia palustris</em>)</td>
<td>Annual plant with long, linear, thread-like submerged leaves</td>
</tr>
<tr>
<td>Sago Pondweed (<em>Potamogeton pectinatus</em>)</td>
<td>Perennial plant with very thin filament-like submerged leaves</td>
</tr>
<tr>
<td>Spike Rush (<em>Eleocharis spp</em>)</td>
<td>Annual plant, typically short with no leaves and thin sheaths</td>
</tr>
</tbody>
</table>

Failure to adequately control weed growth in District facilities has detrimental effects. Weed growth significantly limits the amount of water that can be conveyed through District facilities. Substantial weed growth also clogs irrigation structures, increasing the risk of flooding and canal breaks. Consistent and effective weed control will not only improve the District’s ability to serve its customers, it also provides cleaner water and improves public safety during high flows. Weed growth also causes maintenance issues for farmers when it clogs pumps, filters, and other irrigation equipment. This discourages the use of surface water.

5. AQUATIC PESTICIDES USED AND APPLICATION METHOD

MID uses various aquatic pesticide types for weed abatement. Table 2 provides the names and descriptions of the aquatic pesticides and adjuvants used, along with their respective application methods.
TABLE 2: AQUATIC PESTICIDES USED

<table>
<thead>
<tr>
<th>Active Ingredient</th>
<th>Aquatic Pesticide</th>
<th>Application Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrolein</td>
<td>Magnacide H</td>
<td>Gas injected into irrigation system</td>
</tr>
<tr>
<td>Copper Ethanolamine Complex</td>
<td>Captain Liquid Copper Algaecide</td>
<td>Gravity drip system or metered injection system</td>
</tr>
<tr>
<td>Copper Sulfate Pentahydrate</td>
<td>Copper Sulfate</td>
<td>Slug method</td>
</tr>
<tr>
<td>Copper Ethylenediamine Complex, Copper Triethanolamine Complex</td>
<td>Nautique</td>
<td>Surface sprayed or injected into irrigation system</td>
</tr>
<tr>
<td>Diquat Dibromide</td>
<td>Reward</td>
<td>Surface sprayed</td>
</tr>
<tr>
<td>Endothall</td>
<td>Cascade</td>
<td>Surface sprayed or injected into irrigation system</td>
</tr>
<tr>
<td>Fluridone</td>
<td>Sonar Genesis</td>
<td>Surface sprayed or injected into irrigation system</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>AquaNeat, Rodeo</td>
<td>Surface sprayed</td>
</tr>
<tr>
<td>Imazamox</td>
<td>Clearcast</td>
<td>Surface sprayed</td>
</tr>
<tr>
<td>Penoxsulam</td>
<td>Galleon SC</td>
<td>Surface sprayed</td>
</tr>
<tr>
<td>Phosphatidylcholine, Methylacetic Acid, Alkyl Polyoxyethylene Ether</td>
<td>LI 700 (Adjuvant)</td>
<td>Surface sprayed</td>
</tr>
<tr>
<td>Hydroxy Carboxylic Acid, Phosphoric Acid, and Ammonium Sulfate</td>
<td>Quest (Adjuvant)</td>
<td>Surface sprayed</td>
</tr>
</tbody>
</table>

Note: Table 2 will be updated if the District changes aquatic pesticides.

6. AQUATIC PESTICIDE APPLICATION FACTORS

The primary goal is to prevent weed overgrowth whenever possible, which is accomplished through the application of aquatic pesticides. During the irrigation water season, MID facilities are visually inspected. When any type of significant weed growth is identified, it is scheduled for treatment.

The threshold for what is considered significant growth can vary between facilities with different cross sectional areas, lengths, and waterline relative to the canal bank. In general, a location will be scheduled for treatment as soon as small patches of weeds are found throughout a particular canal section. This is typically accomplished in conjunction with targeting weeds while they are still in their juvenile phase. By targeting weeds in this manner, the applicator is able to effectively treat the District facilities and use a smaller quantity of aquatic pesticides.
7. GATES AND CONTROL STRUCTURES MAINTENANCE

Gates and control structures are inspected frequently during the season and at least once in the irrigation off season when there is no running water in the distribution system. The number of locations that are serviced varies each year and is dependent upon weather conditions and the length of the irrigation water season. In urgent cases, the repair/replacement of gates and control structures can be done during the irrigation water season. Where applicable, the District will close gates and/or structures that would unintentionally discharge treated water into adjacent water bodies.

8. EXCEPTION PERIOD

MID does not have a Section 5.3 Policy seasonal exception at this time. The District is currently in the process of obtaining a seasonal exception for the use of Copper by public entities. The desired exception period is from the months of March through October. Once an exception is granted by the State Water Resources Control Board, MID will be allowed to temporarily exceed residual copper limitations.

9. MONITORING PLAN

Aquatic pesticide application in MID facilities is in accordance with the regulations of the United States Environmental Protection Agency (USEPA), California EPA (Cal/EPA), Department of Pesticide Regulation (DPR), and the Madera County Department of Agriculture. The pesticide application log shown in Appendix C will be kept by the applicator for each aquatic pesticide application. The log will contain a minimum of the following criteria:

1) Date and start/stop time
2) Location
3) Name of applicator
4) List of gates or control structures in the treatment area that may discharge to surface waters, if applicable.
5) Time of gate or control structure closure and reopening, if applicable, including calculations used to determine closure and reopening times
6) Water temperature
7) Flow or level of water body
8) Aquatic pesticide application rate and concentration
9) Visual monitoring assessment
10) Certification that the applicator followed the APAP

Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting (flowing water and non-flowing water, where applicable) per year, except for glyphosate. In the event that there are less than six application events in a year, samples shall be collected during each application event for each active ingredient in each environmental setting (flowing water and non-flowing water, where applicable).
If the results from six consecutive sampling events show concentrations that are less than the receiving water limitation/trigger for an active ingredient in an environmental setting, sampling shall be reduced to one application per for that active ingredient in that environmental setting. If the yearly sampling event shows exceedance of the limitation/trigger for an active ingredient in an environmental setting, then sampling shall return to six application events for that active ingredient in each environmental setting. For glyphosate, samples shall be collected from one application event from each environmental setting (flowing water and non-flowing water, where applicable) per year. A set of three samples will be collected for each representative location.

- **Background Monitoring** – Background samples shall be collected upstream at the time of the application event, or they may be collected at the treatment area, just prior (up to 24-hours in advance of application) to the application event.

- **Event Monitoring** – Event monitoring samples shall be collected immediately downstream of the treatment area in flowing waters or adjacent to the treatment area in non-flowing waters, immediately after the application event or shortly after application, but after sufficient time has elapsed such that treated water will have entered the adjacent or downstream area.

- **Post-Event Monitoring** – Post-event monitoring samples shall be collected within the treatment area within one week after application.

A minimum of the following records shall be kept for each representative sample:

a) Date and time  
b) Exact place  
c) Name(s) of individual(s) who performed the sampling  
d) Date the analysis was performed  
e) Name(s) of individual(s) who performed the analysis  
f) Analytical techniques or methods used  
g) Results of each analysis

These records are organized in Appendix D.

**10. PROCEDURES TO PREVENT SAMPLE CONTAMINATION**

Samples shall be collected upstream of potential sources of contamination and will not be in close proximity with application equipment, containers, related vehicles, and protective equipment. Sampling equipment will be thoroughly cleaned before and after each sampling trip, including between samples. Decontamination shall be performed with a detergent that does not leave a residue on sampling equipment, then triple-rinsed with uncontaminated water. The rinse water shall be disposed away from the sampling location.
11. BEST MANAGEMENT PRACTICES (BMPs)

A. SPILL PREVENTION AND CONTAINMENT

District applicators are required to take the necessary precautions to ensure the safe handling and transportation of each aquatic pesticide. Application equipment and vehicles are regularly inspected and maintained to identify potential sources or unintended chemical discharges. When applicable, chemicals are mixed at the District’s yard prior to visiting the application sites.

In the event of an aquatic pesticide spill, District staff will prevent the contaminated water from reaching adjacent water bodies wherever feasible. The use of absorbent granules and pads will be deployed as needed. The District will report spills as required by the local, state, and federal regulations.

B. AQUATIC PESTICIDE APPLICATIONS

All pesticide applicators must either be licensed by the DPR with a valid Qualified Applicator Certificate (QAC) or work under the supervision of someone who is licensed. Qualified applicators will ensure that all equipment is regularly maintained, that application rates are within product label specifications and regulatory requirements, and that only the targeted plants are treated.

Prior to any application of aquatic pesticides, a qualified applicator will visually inspect a site for weed growth. If weed growth has exceeded the acceptable tolerances, the qualified applicator will determine the appropriate weed treatment. The qualified applicator may also determine the weed treatment based upon the site history and anticipated weed growth.

C. STAFF EDUCATION PLAN

In accordance with the State of California Department of Pesticide Regulation, employees with a Qualified Applicator Certificate are required to maintain 20 hours of continuing education every two years for certificate renewal.

D. PUBLIC NOTICE OF APPLICATIONS

Each calendar year, the District shall notify potentially affected farmers and agencies prior to the first application of aquatic pesticides.

The notifications shall contain a minimum of the following information:

I. Statement of intent to apply aquatic pesticide(s)
II. Name of pesticide(s)
III. Purpose of use
IV. Approximate time period and expected locations of use
V. Applicable water use restrictions and precautions during treatment
VI. Contact information for interested persons to obtain additional information
E. FISH KILL PREVENTION MEASURES

MID canals are drained on an annual basis after water deliveries are completed. The canals typically remain dry for at least four months a year. As a result the canals are not suitable habitat for fish, and fish kills within the canals are unlikely. To prevent fish kills in the downstream adjacent water bodies, aquatic pesticide applications will be made as far as possible upstream of the discharge location. In general, it is expected that the residual amounts of aquatic pesticides present in the discharged water is not high enough to cause significant fish kills.

F. WEATHER CONDITIONS

Weather conditions will be checked by the qualified applicator before each aquatic pesticide application. The applicator will apply aquatic pesticide during favorable weather conditions to minimize environmental hazards and allow for the effective treatment of weeds. For example, the applicator will not apply pesticide in rainy or windy conditions to avoid pesticide runoff and overspray outside of the target area.

G. EVALUATION EFFECTIVENESS

The effectiveness of BMPs will be evaluated during the aquatic pesticide applications and at the end of each irrigation water season. The water quality data will be reviewed as part of the evaluation process. If aquatic pesticides are detected, the BMPs will be reviewed and modified as needed. The effectiveness of aquatic pesticides, efficiency of application methods, and field staff organization will also be analyzed annually.

In addition to the aforementioned BMPs the following BMPs are specific to the application.

H. ACROLEIN AND COPPER APPLICATIONS

The acrolein and copper will be applied as far as possible upstream from potential points of discharge into rivers or creeks.

I. DIQUAT DIBROMIDE & GLYPHOSATE APPLICATIONS

The pesticide will be applied only when the wind speed is between 2 and 10 miles per hour. The QAC will setup equipment to produce a large droplet size in order to avoid pesticide drift. An application schedule will be designed to treat small areas at one time, in order to avoid large amounts of decaying vegetation and potential depletion of dissolved oxygen.
12. ALTERNATIVE CONTROL METHODS

I. NO ACTION

Not controlling the weed and algae population within MID canals is not a feasible alternative. The District’s ability to deliver agricultural water to farmers will be severely diminished and impacts would be manifested in reducing agricultural production in Madera County. The increased presence of algae in the distribution system will reduce the volume of water that can be delivered and decrease the ability to accurately control water deliveries. Without the ability to control algae growth in MID canals and pipelines, the implementation of highly water efficient irrigation methods employed by farmers within MID will not be possible.

II. PREVENTION

MID regularly maintains its canal system when dry through sloping and dipping the bottom and sides of the channels, which includes sediment removal. As a result some aquatic weeds will generally take longer to return due to the soil disturbance and the removal of sandy deposits. MID is also testing pre-emergent aquatic pesticides in dry canals before the start of the water delivery season. These aquatic pesticides are designed to inhibit the growth of aquatic weeds during the water delivery season. Pre-emergent pesticides will continue to be used in canals when found to be effective.

III. MECHANICAL OR PHYSICAL METHODS

The District utilizes mechanical means, including an excavator and grader/sloper, to remove weeds. However, various areas of the distribution system are not easily accessible or do not provide adequate room for safe equipment operation. The excavator and grader/sloper are necessary equipment for other District maintenance operations and pipeline construction projects. As a result, the equipment is frequently unavailable for daily weed removal. The growth of emergent or shoreline weeds can also be controlled utilizing a tractor with a mower attachment. Mowing is done 3-4 days per week and is limited to locations that are accessible by tractor.

At control structures, trash screens, and road crossings, manual removal of weeds is employed. Manual removal of weeds along canal banks and along the water surface is inefficient and very expensive. In the past the District also made an effort to utilize chaining as a method of weed removal, but this method was too expensive to be implemented District-wide.

IV. CULTURAL METHODS

District applicators monitor weed and algae populations to determine optimum application periods. By making applications during specific weed and algae growth stages, a reduced application rate is required to maintain the population below the desired threshold. Due to the nature of the on demand water distribution system, it is typically not feasible to manage canal water levels as a method of weed or algae control.
V. BIOLOGICAL CONTROL AGENTS

Biological control methods such as fish, goats, and sheep are not feasible for widespread use in or around District canals. Given that the canal system is typically drained for at least four months per year, it does not provide suitable habitat for fish. Goat and sheep grazing for emergent and terrestrial weeds is limited by the lack of fencing limits, vehicle traffic, and high maintenance costs.

VI. ALGAECIDES AND AQUATIC HERBICIDES

Due to the very limited feasible alternatives mentioned in the previous sections, MID has decided to continue to use aquatic pesticides as a primary method of treating weed and algae populations.

1) APPLICATION METHODS

The district applies aquatic pesticides based on manufacturer recommendations. These methods are typically unobtrusive and require only one or two applicators in a single vehicle along a canal bank. Table 2 includes the application methods used for each aquatic pesticide.

2) DECISION MATRIX

Due to the variety of aquatic pesticides applied, and various factors that influence applications (canal flow, temperature, target weeds etc.) it is not feasible to apply a traditional decision matrix. The site conditions can very significantly each day, which requires diligent evaluation by district applicators.
APPENDICES

Appendix A – MID Distribution System
Appendix B – Water Quality Sample Sites
Appendix C – Aquatic Pesticides Application Log
Appendix D – Aquatic Pesticides Field Monitoring & Sampling Form
Appendix E – Sample Public Notice Letter
Madera Irrigation District
Water Quality Monitoring Locations

Potential Sample Location
Madera I.D.
Madera Canal
Big Main System
32.2 System
24.2 System
6.2 System
Waterways

Date: 4/12/2016
Author: Ramon E Mendez

Legend
- Potential Sample Location
- Madera I.D.
- Madera Canal
- Big Main System
- 32.2 System
- 24.2 System
- 6.2 System
- Waterways

Document Path: F:\ENGINEERING\Projects\Misc Projects\NPDES General Permit\GIS\APAP Map_11x17_2014.mxd
# Aquatic Pesticide Application Log

*To Be Completed for Every Pesticide Application*

### General Information

- **Date:**
- **Location:**
- **Personnel:**

### Treatment Information

- **Start time:**
- **Stop Time:**
- **Targeted Weed(s):**
- **Vegetative Growth Stage:**
- **Water Body Type:**
- **Water Temperature (°F):**
- **Water Flow (cfs):**
- **Air Temperature (°F):**
- **Weather:**

### Pesticide Details

- **Pesticide #1 Used:**
  - **Rate or Concentration:**
  - **Application Method:**
- **Pesticide #2 Used:**
  - **Rate or Concentration:**
  - **Application Method:**
- **Adjuvant #1 Used:**
  - **Rate or Concentration:**
  - **Application Method:**
- **Adjuvant #2 Used:**
  - **Rate or Concentration:**
  - **Application Method:**

*I certify that the APAP has been followed.*

---

**Print Name**

**Sign Here**
# Aquatic Pesticides Field Monitoring & Sampling Form

## Sample # 1: Background Monitoring (Up To 24 Hours Before Treatment)

<table>
<thead>
<tr>
<th>Date</th>
<th>Sample Time</th>
<th>Location</th>
<th>Aquatic Pesticide Applied</th>
<th>Temperature (°C)</th>
<th>Turbidity (NTU)</th>
<th>pH</th>
<th>Electrical Conductivity (mho/cm)</th>
<th>Dissolved Oxygen (mg/L)</th>
<th>Color</th>
<th>Weather</th>
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## Sample # 2 Event Monitoring

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<th>Location</th>
<th>Aquatic Pesticide Applied</th>
<th>Temperature (°C)</th>
<th>Turbidity (NTU)</th>
<th>pH</th>
<th>Electrical Conductivity (mho/cm)</th>
<th>Dissolved Oxygen (mg/L)</th>
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## Sample # 3 Post-Event Monitoring

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<th>Location</th>
<th>Aquatic Pesticide Applied</th>
<th>Temperature (°C)</th>
<th>Turbidity (NTU)</th>
<th>pH</th>
<th>Electrical Conductivity (mho/cm)</th>
<th>Dissolved Oxygen (mg/L)</th>
<th>Color</th>
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Employee ID | Print Name | Sign Name
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*APPENDIX D – AQUATIC PESTICIDES FIELD MONITORING & SAMPLING FORM*
March 1, 2016

Agency Name
Attn: Staff Name
Address Line 1
Address Line 2

Dear Staff Name,

Madera Irrigation District (District) intends to apply aquatic pesticides to District facilities for weed control. The approximate period of application will be from *(starting month)* through *(ending month)*. The pesticides being applied are as follows:

- Magnacide H
- Captain Liquid Copper Algaecide
- Copper Sulfate
- Nautique
- AquaNeat
- Reward
- LI-700 (Adjuvant)
- Quest (Adjuvant)

All persons should avoid contact with shoreline weeds and irrigation water during this period to avoid potentially harmful effects. The potential pesticide application sites are shown on District facility maps available online at [http://madera-id.org/index.php/district-maps](http://madera-id.org/index.php/district-maps). Please contact the District with any additional questions.

Sincerely,

Thomas Greci
MID General Manager

cc: Sean Smith, District Engineer
Charles Contreras, Operations and Maintenance Manager