

GENERAL NPDES PERMIT FOR RESIDUAL
AQUATIC PESTICIDE DISCHARGES FROM
ALGAE AND AQUATIC WEED CONTROL APPLICATIONS

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

RECEIVED

APR 15 2014

Attachment E - Notice of Intent

WATER QUALITY ORDER NO. 2013-0002-DWQ
GENERAL PERMIT NO. CAG990005

DIVISION OF WATER QUALITY

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. <input checked="" type="checkbox"/> Change of Information: WDID#	5 344800001
	C. <input type="checkbox"/> Change of ownership or responsibility: WDID#		

II. DISCHARGER INFORMATION

A. Name Teichert Land Company			
B. Mailing Address PO Box 15002			
C. City Sacramento	D. County Sacramento	E. State CA	F. Zip 95851
G. Contact Person Becky Wood	H. E-mail address bwco@teichert.com	I. Title EHS Director	J. Phone 916-484-3351

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	

IV. RECEIVING WATER INFORMATION

A. Algaecide and aquatic herbicides are used to treat (check all that apply):

- Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.
Name of the conveyance system: Morrison Creek Bypass
- Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
Owner's name: Granite Construction
Name of the conveyance system: Morrison Creek Bypass
- Directly to river, lake, creek, stream, bay, ocean, etc
Name of water body: Morrison Creek

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: Aquatic Weeds, smartweeds, sedges

B. Algaecide and Aquatic Herbicide Used: List Name and Active ingredients
Agua MASTER or Roundup Custom, Glyphosate + adjuvant
or
Competitor

C. Period of Application: Start Date 5/1/2014 End Date ~~7/1/2014~~

D. Types of Adjuvants Used: Competitor

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

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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: Recky Wood
 B. Signature: *Recky Wood* Date: 3-27-14
 C. Title: Manager, Env. Health & Safety

XI. FOR STATE WATER BOARD STAFF USE ONLY

WDID:	Date NOI Received:	Date NOI Processed:
Case Handler's Initial:	Fee Amount Received: \$	Check #:
<input type="checkbox"/> Lyris List Notification of Posting of APAP	Date _____	Confirmation Sent _____

Teichert Land Company
Morison Creek Bypass
Aquatic Pesticides Application Plan (APAP)

Water Quality Order No. 2013-0002-DWQ

General Permit No. CAG990005

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

Prepared By: Brett Lehman

March 18, 2014

Table of Contents

C.1	Description of the water system to which algaecides and aquatic herbicides are being applied;.....	3
C.2	Description of the treatment area in the water system;.....	3
C.3	Description of the types of weeds and algae that are being controlled and why;....	3
C.4	Algaecide and aquatic herbicide products or types of algaecides and aquatic herbicides expected to be used and if known their degradation byproducts, the method which they are applied, and if applicable, the adjuvants and surfactants used;.....	3
C.5	Discussion of the factors influencing the decision to select aquatic herbicide applications for weed control;.....	3
C.6	If applicable, list the gates or control structures to be used to control the extent of receiving water potentially affected by algaecide and aquatic herbicide application and provide an inspection schedule of those gates or control structures to ensure they are not leaking;.....	4
C.7	If the Discharger has been granted a short-term or seasonal exception under State Water Board <i>Policy for Implementation of Toxics Standards for Inland Surface Water, Enclosed Bays, *</i> and Estuaries of California (Policy) section 5.3 from meeting acrolein and copper receiving water limitations, provide the beginning and ending dates of the exception period, and justification for the needed time for the exception. If algaecide and aquatic herbicide applications occur outside of the exception period, describe plans to ensure that receiving water criteria are not exceeded because the Dischargers must comply with the acrolein and copper receiving water limitations for all applications that occur outside of the exception period;	4
C.8	Description of the monitoring program;	4
C.9	Description of the procedures used to prevent sample contamination from person, equipment, and vehicles associated with algaecide and aquatic herbicide application;.....	6
C.10	Description of the bmp's to be implemented;	6
C.11	Examination of Possible Alternatives. Dischargers should examine the alternatives to algaecide and aquatic herbicide use to reduce the need for applying algaecides and herbicides. Such methods include:	7

C.1 Description of the water system to which algaecides and aquatic herbicides are being applied;

The Morison creek bypass stretches approximately 13,500 feet from Excelsior road southwest to Jackson road. The bypass is a man-made low flow channel, diverting flow around a mine site.

C.2 Description of the treatment area in the water system;

The bypass is approximately 5 feet wide at the bottom of the creek. A two foot strip on each side of the bottom is the area where weeds need to be maintained with herbicide and considered the treatment area.

C.3 Description of the types of weeds and algae that are being controlled and why;

There are very few aquatic plants in this area of water flow. The water is swift, few plants can take hold and seed rarely sprouts. The weeds that exist need control to prevent impoundment of water. Those weeds commonly are smartweed, selected grasses, and sedges.

C.4 Algaecide and aquatic herbicide products or types of algaecides and aquatic herbicides expected to be used and if known their degradation byproducts, the method which they are applied, and if applicable, the adjuvants and surfactants used;

The herbicide we will use is a glyphosate product used in all water uses and is called RoundupCustom™. The adjuvant used is called Liberate® and is generally used around waterways with RoundupCustom™. We will be using a trailer mounted tank type sprayer with a capacity of 200 gallons, powered by a 5.5 horse power engine and pump.

C.5 Discussion of the factors influencing the decision to select aquatic herbicide applications for weed control;

We have tried gas powered hand tools to mow down the weeds along each side of this channel. The result is large amounts of fresh dead green weeds floating down Morison creek and plugging up or catching on certain areas and piling up. By spraying at this time the weeds have 4 months to break down and slowly dry up before the fall and winter rains come. Herbicide is the best solution.

C.6 If applicable, list the gates or control structures to be used to control the extent of receiving water potentially affected by algaecide and aquatic herbicide application and provide an inspection schedule of those gates or control structures to ensure they are not leaking;

We have one gate in the low flow channel leading to the marsh area constructed for Teichert and Granite. Since the glyphosate poses no health problems to fish or birds, we are confident that any leakage into these areas will pose no problems. These gates are only opened when the water level in the pond area gets low and water is needed.

C.7 If the Discharger has been granted a short-term or seasonal exception under State Water Board Policy for Implementation of Toxics Standards for Inland Surface Water, Enclosed Bays, * and Estuaries of California (Policy) section 5.3 from meeting acrolein and copper receiving water limitations, provide the beginning and ending dates of the exception period, and justification for the needed time for the exception. If algaecide and aquatic herbicide applications occur outside of the exception period, describe plans to ensure that receiving water criteria are not exceeded because the Dischargers must comply with the acrolein and copper receiving water limitations for all applications that occur outside of the exception period;

This does not apply to our process.

C.8 Description of the monitoring program;

Monitoring locations are shown on the Morison Creek Bypass Aquatic Weed Control drawing as “Background Excelsior”, “Background Keifer”, and “Downgradient Jackson”. The Background locations were chosen as they should represent pre-treatment/upstream surface flow before it comeslingles with Morison Creek Bypass water. Location “Downgradient Jackson” is the closest point where the bypass channel can be sampled, downstream of the treatment area.

Background Excelsior & Background Keifer samples will be collected at the time of the application event, or just prior (up to 24 hours in advance of) the application event.

Event Monitoring, Downgradient Jackson sample will be collected immediately after the application event, but after sufficient time has elapsed such that treated water would have exited the treatment area.

Post Event Monitoring, Downgradient Jackson sample will be collected one week after application.

Field Measurements: A log will be kept of receiving water conditions throughout the reach bounded by the treatment area. Attention will be given to the presence or absence of:

VISUAL

- a. FLOATING OR SUSPENDED MATTER
- b. DISCOLORATION
- c. BOTTOM DEPOSITS
- d. AQUATIC LIFE
- e. VISIBLE FILMS, SHEENS, OR COATINGS
- f. FUNGI, SLIMES, OR OBJECTIONABLE GROWTHS
- g. POTENTIAL NUISANCE CONDITIONS BOTTOM DEPOSITS

Physical

- a. TEMPERATURE
- b. pH
- c. TURBIDITY
- d. ELECTRICAL CONDUCTIVITY

Chemical samples will be collected in a manner to carefully minimize the chance of cross contamination. Clean new nitrile gloves and laboratory provided clean containers will be used. Laboratory containers will be stored in a secondary containment (i.e. cooler or re-sealable bags) to minimize cross contamination potential. Sample containers will be filled directly from the water body, using an extending reach pole if necessary. A standard laboratory Chain of Custody will accompany the samples.

CHEMICAL

- a. GLYPHOSATE
- b. NONYLPHENOL
- c. DISSOLVED OXYGEN

C.9 Description of the procedures used to prevent sample contamination from person, equipment, and vehicles associated with algaecide and aquatic herbicide application;

If vehicles or personnel present during sample collection have potentially been in contact with Herbicide then the following controls will be implemented.

- a. Clean disposable nitrile gloves will be worn during collection.
- b. After filling laboratory supplied containers they will be returned to secondary containment (i.e. cooler, or re-sealable bags)
- c. Samples will be delivered directly to the laboratory.

C.10 Description of the bmp's to be implemented;

- a. *Measures to prevent herbicide spill and for spill containment during the event of a spill;*

Herbicide will be poured using a funnel if necessary from the sealed graduated container, directly into the mixing/application tank. Plastic will be put down if refilling near the treatment area. Spills to soil will be recovered and placed in a 5 gallon bucket or equivalent, for profiling and disposal. Spills to a solid surface will be adsorbed with suitable material and also placed in a 5 gallon buck or equivalent.

- b. *Measures to ensure that only an appropriate rate of application consistent with product label requirements is applied for the targeted weeds or algae;*

Following manufacturers recommendations, the desired volume of spray solution will be prepared by first measuring the amount of chemical needed, in a separate sealable graduated container. The container will then be poured into the mixing/application tank, and then filled with water.

- c. *The dischargers plan in educating its staff on how to avoid adverse affects from the herbicide applications;*

Staff will have a tailgate safety meeting each morning prior to working with the herbicide. During the meeting safety precautions will be reviewed as per the manufactures product label and MSDS sheet.

- d. *Discussion on planning and coordination with nearby farmers and agencies with water rights diversion so that beneficial uses of the*

water (irrigation, drinking, water supply, domestic stock water, etc.) are not impacted during the treatment period.

Nearby farmers and agencies are aware of weed control along Morison Creek Bypass as the channel needs maintenance to facilitate flow. Years of study of the glyphosate RoundupCustom™ use in water and around marshy areas has revealed that if one complies with the herbicide label instructions and with the use of an approved adjuvant, there are no water quality problems, including irrigation, domestic stock water. Morison Creek is not known to be used for drinking water supply. If one looks at the herbicide list of eight or so other products that have the potential for use for this application, none can say that water quality after usage is not impacted. Glyphosate has been proven to be the correct herbicide for this application.

- e. A description of measures that will be used for preventing fish kill when algaecides and aquatic herbicides will be used for algae and aquatic weed controls;*

Fish are not commonly seen but may be found in the bypass. Fish can be harmed during the application of aquatic herbicides, which can reduce the amount of oxygen in the water. Only the minimum amount of aquatic herbicides is applied to the banks of the bypass to control weed growth.

C.11 Examination of Possible Alternatives. Dischargers should examine the alternatives to algaecide and aquatic herbicide use to reduce the need for applying algaecides and herbicides. Such methods include:

- a. Evaluating the following management options, in which the impact to water quality, impact to non-target organisms including plants, algaecide and aquatic herbicide resistance, feasibility, and cost effectiveness should be considered.*

- i. No action;*

Weeds plug up channel and pose problems in the stream in different areas.

- ii. Prevention*

Preventing weeds from taking root in the banks along this bypass channel is nearly impossible without turning the channel into a concrete lined canal.

- iii. Mechanical or physical methods;*

Hand crews can be sent into the bypass to remove aquatic weeds lining the banks. While effective, this process is very labor intensive and is not cost effective.

iv. Cultural methods;

Cultural methods used to reduce the amount of aquatic herbicide include scheduled application to prevent or reduce the number of plants reaching maturity and reproducing.

v. Biological control agents; and

Goats and sheep work well for terrestrial weed control, but are not suited for aquatic environment.

vi. Algaecides and aquatic herbicides

Teichert considers a variety of weed control approaches. Aquatic herbicides are only used when another more effective method is not available. Our crews are careful to follow product label instruction for each application.

b. Using the least intrusive method of algaecide and aquatic herbicide application; and

It is the goal to only use an amount of herbicide necessary to control the growth of aquatic weeds. The amounts needed for complete elimination of them is too costly and could result in excessive releases of active ingredients.

c. Applying a decision matrix concept to the choice of the most appropriate formulation.

Teichert evaluates the area to be treated prior to the application for the most appropriate formulation. Then following the product label the appropriate amount of herbicide is determined, including application rate. Information regarding details of the application, including sample locations and other physical observations are recorded. A field notebook is used along with other forms to document the activities.