



STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

Mr. Sid Hazelton
Auburn Water District
P.O. Box 414, 268 Court St.
Auburn, ME. 04212-414

April 1, 2018

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME00002712
Maine Waste Discharge License (WDL) Application #W009100-5U-B-R
Final Permit Renewal

Dear Mr. Hazelton:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL **renewal** which was approved by the Department of Environmental Protection. Please read this permit/license renewal and its attached conditions carefully. Compliance with this permit/license will protect water quality.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693. Your Department compliance inspector copied below is also a resource that can assist you with compliance. Please do not hesitate to contact them with any questions.

Thank you for your efforts to protect and improve the waters of the great state of Maine!

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Stuart Rose, MDEP/EMRO Lori Mitchell, MDEP/CMRO
Sandy Mojica, USEPA Olga Vergara, USEPA, Marelyn Vega, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143



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

DEPARTMENT ORDER

IN THE MATTER OF

AUBURN WATER DISTRICT)	MAINE POLLUTANT DISCHARGE
AUBURN, ANDROSCOGGIN COUNTY, MAINE)		ELIMINATION SYSTEM PERMIT
ALGAECIDE DISCHARGE)	AND
ME0002712)	WASTE DISCHARGE LICENSE
W009100-5U-B-R)	RENEWAL
APPROVAL)	

Pursuant to the provisions of the *Federal Water Pollution Control Act*, Title 33 USC, §1251, *Conditions of Licenses*, 38 M.R.S. § 414-A, and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of the AUBURN WATER DISTRICT (AWD/permittee hereinafter), with its supportive data, agency review comments, and other related material on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The permittee has submitted an application to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0002712/Maine Waste Discharge License (WDL) #W009100-5U-A-N issued by the Department on May 31, 2013. The May 31, 2013, permit authorized the discharge of an algicide (a pesticide by definition) to Lake Auburn to control the growth of algae. Lake Auburn is a public drinking water supply for the cities of Lewiston and Auburn and the Auburn Water District (AWD) extracts unfiltered water from the lake and supplies it to its customers for consumption via a network of piping infrastructure. The Maine Department of Health and Human Services has made the determination that Lake Auburn has been experiencing episodic algal blooms that may pose a threat to public health for people who utilize the drinking water supplied by the AWD.

PERMIT SUMMARY

This permit requires the permittee to comply with technology based and water quality based limitations, conduct visual and ambient water quality monitoring, recordkeeping and submit a report to the Department following each application or series of applications.

CONCLUSIONS

Based on the findings in the attached Fact Sheet, dated February 28, 2018, and subject to the terms and conditions of this permit, the Department makes the following **CONCLUSIONS**:

1. The discharge, 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, 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, *Classification of Maine Waters*, 38 M.R.S. § 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) Where the standards of classification of the receiving water body are 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 will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S. § 414-A(1)(D).

ACTION

Based on the findings and conclusions as stated above, the Department APPROVES the application of the AUBURN WATER DISTRICT to discharge an algaecide to Lake Auburn to control algal growth which the Maine Department of Health and Human Services has deemed a potential public health threat, SUBJECT TO THE ATTACHED CONDITIONS, including:

1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires five (5) years after that date. Algaecide applications will be limited to one application or series of applications not to exceed six (6) months in length and the permittee will be limited to two applications or series of applications over the five-year term of the permit. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [Maine Administrative Procedure Act, 5 M.R.S. § 10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (last amended October 19, 2015)]

DONE AND DATED AT AUGUSTA, MAINE, THIS 3RD DAY OF April, 2018.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

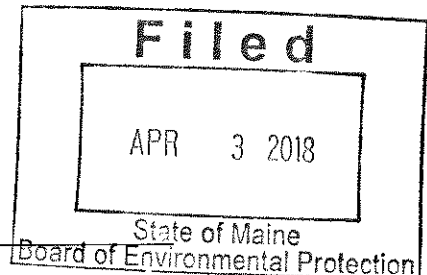
BY: Michael Kubers
Paul Mercer, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application February 20, 2018.

Date of application acceptance February 20, 2018.

Date filed with Board of Environmental Protection _____



This Order prepared by GREGG WOOD, BUREAU OF WATER QUALITY

SPECIAL CONDITIONS

A. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must 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 must not contain materials in concentrations or combinations which are hazardous or toxic to non-target aquatic life; or which would impair the usages designated for the classification of the receiving water.
3. The discharge must 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 discharge 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.

B. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge License (WDL)/Maine Pollutant Discharge Elimination System (MEPDES) permit, accepted for processing on February 20, 2018; and 2) the terms and conditions of this permit. Discharges of waste water to a surface waterbody from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting*, of this permit.

C. NOTIFICATION REQUIREMENTS

At least three (3) days prior to the commencement of a discharge, the permittee is required to notify the Department's compliance inspector and the Department's Lake Assessment Section Leader to inform them of the discharge event(s). In accordance with Standard Condition D, the permittee must notify the Department of any substantial change (realized or anticipated) in the volume or character of pollutants being introduced into the receiving waters.

D. OPERATORS RESPONSIBILITIES

1. **Operator** – For the purpose of this permit, means any entity associated with the application of pesticides which results in a discharge to Lake Auburn that meets either of the following two criteria:
 - (a) **Applicator** – For the purpose of this permit is defined as 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
 - (b) **Decision maker** – For the purpose of this permit is defined as any entity with control over the decision to perform pesticide applications including the ability to modify those decisions.

SPECIAL CONDITIONS

D. OPERATORS RESPONSIBILITIES (cont'd)

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 Federal Insecticide, Fungicide, and Rodenticide Act (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 U.S Environmental Protection Agency (EPA) 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 that are necessary to protect water quality.

2. Applicator Responsibilities

- a. To meet the effluent limitations of this permit, all Applicators must implement the following conditions to minimize the discharge of algaecides to Lake Auburn through the use of Pest Management Measures (PMMs). For the purposes of this permit, PMMs are defined as any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application, relevant legal requirements and other provisions that a prudent Operator would implement to reduce and/or eliminate algaecide discharges to Lake Auburn.
- b. Use only the amount of algaecide and frequency of algaecide application necessary to control the target pest (in this case algae), using equipment and application procedures appropriate for this task.
- c. Maintain application equipment in proper operating condition, including requirement to calibrate, clean, and repair such equipment and prevent leaks, spills, or other unintended discharges.
- d. Assess weather conditions (e.g. temperature, precipitation and wind speed) in the treatment area to ensure application is consistent with all applicable federal requirements.

SPECIAL CONDITIONS

D. OPERATORS RESPONSIBILITIES (cont'd)

3. Decision Makers Responsibilities

a. General

1. To meet the effluent limitations in this permit, all Decision-makers must minimize the discharge of algaecide to Lake Auburn from the application of algaecide through the use of PMMs.
2. To the extent the Decision-maker determines the amount of algaecide or frequency of the application, the Decision-maker must use only the amount of algaecide and frequency of algaecide application necessary to control the target pest.

b. Identify the Problem

1. Identify areas with pest problems and characterize the extent of the problems, including, for example, water use goals not attained (e.g. human health, fisheries, recreation);
2. Identify target pest(s);
3. Identify possible factors causing or contributing to the pest problem (e.g., nutrients);
4. Establish any pest and site-specific action threshold(s). Action threshold is defined as 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

- c. Pest Management Options.** Prior to the first algaecide application that will result in a discharge to Lake Auburn, the Decision Maker must select and implement efficient and effective means of PMMs that minimize discharges resulting from the application of algaecide to control algae. In developing the PMM for each pest management area, the Decision-maker must evaluate the following management options, including a combination

SPECIAL CONDITIONS

D. OPERATORS RESPONSIBILITIES (cont'd)

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

d. Algaecide Use. If an algaecide is selected to manage the algae, the Decision-maker must:

1. Conduct surveillance in an area that is representative of the pest problem prior to each algaecide 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 algaecide only when the action threshold has been met and at a dosage rate that minimizes effects to non-target organisms while remaining effective for target species.

E. 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 the state or third party), or the State determines that the Operator's discharge causes or contributes to an excursion of any applicable water quality standard, the Operator must take appropriate corrective action(s) up to and including the ceasing of the discharge, if necessary.

SPECIAL CONDITIONS

F. MONITORING

- a. **Visual Monitoring Requirements for Pesticide Applicators** - During any algaecide 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 algaecides were applied for possible and observable adverse incidents (defined in Special Condition G(4)(b) of this permit) caused by application of algaecide, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.
- b. **Visual Monitoring Requirements for all Operators** - During any Operator post-application surveillance of any algaecide application with discharges authorized under this permit, all Operators must visually assess the area to and around where algaecides were applied for possible and observable adverse incidents 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.

See Special Condition H, *Recordkeeping And Reporting*, §a(10) of this permit for recordkeeping requirements.

G. PESTICIDE DISCHARGE MANAGEMENT PLAN (PDMP)

Prior to the application of a algaecide, the Decision maker must prepare a Pesticide Discharge Management Plan (PDMP) and submit it to the Department for review and comment.

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

- a. **Contents of the Pesticide Discharge Management Plan.** The PDMP must include the following elements:
 1. **Pesticide Discharge Management Team** - Decision-makers 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;

SPECIAL CONDITIONS

G. PESTICIDE DISCHARGE MANAGEMENT PLAN (cont'd)

2. **Problem Identification** - Decision-makers 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.
 - 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 Lake Auburn 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.
3. **Pest Management Options Evaluation** - Decision-makers 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, Decision-makers must consider the impact to water quality, impact to non-target organisms, feasibility, cost effectiveness, and any relevant previous PMMs.
4. **Response Procedures**
 - a. **Spill Response Procedures** - At a minimum, Decision-makers must have
 1. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to 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,

SPECIAL CONDITIONS

G. PESTICIDE DISCHARGE MANAGEMENT PLAN (cont'd)

- b. **Adverse Incident Response Procedures** – For the purposes of this permit means an unusual or unexpected incident that an Operator has observed upon inspection or of which the Operator otherwise become aware, in which:

- (1) There is evidence that a person or non-target organism has likely been exposed to a algaecide residue, and
- (2) 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 algaecide product label or otherwise not expected to be present) as a result of exposure to a algaecide residue, and may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish
- 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 algaecide residue (e.g., vomiting, lethargy). At a minimum, Decision-makers must have:

1. Procedures for responding to any adverse incident resulting from algaecide applications;
2. Procedures for notification of the adverse incident, both internal to the Decision-maker's agency/organization and external. Contact information for state/federal permitting agency, nearest emergency medical facility, and nearest hazardous chemical responder must be in locations that are readily accessible and available.

SPECIAL CONDITIONS

G PESTICIDE DISCHARGE MANAGEMENT PLAN (cont'd)

5. **Signature Requirements-** Decision-makers must sign, date and certify the PDMP in accordance with Standard Conditions entitled, *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002,
- b. **Pesticide Discharge Management Plan Availability.** Decision-makers must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided in the application for this permit. The PDMP and all supporting documents must be readily available, upon request, and copies of any of these documents provided, upon request, to the State, federal, or local agencies governing discharges or pesticide applications within their respective jurisdictions.

H. RECORDKEEPING AND REPORTING

a. Decision makers

1. Copy of the application submitted to the Department and any correspondence exchanged between the Decision-maker or Applicator and the Department specific to coverage under this permit;
2. Information on each treatment area to which algaecides are discharged, including a description of treatment area, including location and size of treatment area and identification of any waters of the State, either by name or by location, to which algaecide(s) are discharged;
3. Target pest(s) and explanation of need for pest control;
4. Description of pest management measure(s) implemented prior to the first algaecide application;
5. Company name and contact information for the pesticide applicator and documentation of equipment calibration;
6. Name of each algaecide product used including the U.S. Environmental Protection Agency (EPA) and State of Maine Department of Agriculture's Board of Pesticide registration number;
7. Quantity of each algaecide product applied to each treatment area;
8. Algaecide application start date;
9. Algaecide application end date; and

SPECIAL CONDITIONS

H. RECORDKEEPING AND REPORTING (cont'd)

10. Whether or not visual monitoring and or ambient water quality monitoring was conducted during algaecide application and/or post-application and if not, why not and whether monitoring identified any possible or observable adverse incidents caused by application of algaecides.

Ambient water quality sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Human Services. Samples that are sent to a publicly owned treatment works licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

All analytical test results must be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. The Department's RL for total copper is 3 ug/L. If a non-detect analytical test result is below the respective RL, the concentration result must be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department.

Within 90 days following the discharge of the pesticide(s), the Decision maker must submit a report to the Department with documentation addressing items H(a)2-H(a)10 of this permit including a summary of any analytical test results associated with ambient water quality monitoring. The report must be submitted to the Department's compliance inspector at the following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

SPECIAL CONDITIONS

I. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

J. SEVERABILITY

In the event that any provision(s), or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE**

FACT SHEET

Date: February 28, 2018

PERMIT NUMBER: **ME0002712**

LICENSE NUMBER: **W009100-5U-B-R**

NAME AND ADDRESS OF APPLICANT:

**AUBURN WATER DISTRICT
P.O. Box 414, 268 Court Street
Auburn, ME. 04212-0414**

COUNTY: **Androscoggin County**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

**Lake Auburn
Auburn, Maine**

RECEIVING WATER(S)/CLASSIFICATION: **Lake Auburn/Class GPA**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**Mr. Sid Hazelton, P.E.
Superintendent
Auburn Water District
Tel: 207-784-6469
e-mail: shazelton@awsd.org**

1. APPLICATION SUMMARY

- a. Application: - The Auburn Water District (AWD/permittee hereinafter) has submitted an application to the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0002712/Maine Waste Discharge License (WDL) #W009100-5U-A-N issued by the Department on May 31, 2013. The May 31, 2013, permit authorized for the discharge of an algacide (by definition a pesticide) to Lake Auburn to control the growth of algae. Lake Auburn is a public drinking water supply for the cities of Lewiston and Auburn and the Auburn Water District (AWD) extracts unfiltered water from the lake and supplies it to its customers for consumption via a network of piping infrastructure. The Maine Department of Health and Human Services has made the determination that Lake Auburn has been experiencing episodic algal blooms that may pose a threat to public health for people who utilize the drinking the water supplied by the AWD.

1. APPLICATION SUMMARY (cont'd)

Though not a permittee, the City of Lewiston's Water Division has been a partner in the preparation of the materials contained in the discharge application and has served as a co-Decision Maker throughout the process to date and is listed as a member of the Pest Discharge Management Plan (PDMP) team. Both the AWD and the City of Lewiston are members of the non-governmental organization, Lake Auburn Watershed Protection Commission.

The permittee is seeking authorization to apply copper sulfate up to approximately 1,140 acres (divided into two 570-acre areas with the option to treat either or both) of Lake Auburn on an as needed basis during the five-year term (2018 – 2023) of this permit. The proposed treatment will take place in the general vicinity of the intake for the public water supply. See **Attachment A** of this Fact Sheet for a map of the two treatment areas. During the summers of 2011 and 2012, Lake Auburn experienced algal blooms that raised health concerns expressed by the Maine Department of Health and Human Services (DHHS) as the AWD has a waiver from filtration requirements under the Safe Drinking Water Act given the historic clarity of Lake Auburn. The AWD and DHHS are concerned that if algal production in the lake approaches 2012 levels, the increased turbidity may decrease the effectiveness of the ultraviolet treatment of the water and harmful bacteria may enter the water distribution system posing a health risk to AWD customers.

The algae of concern are cyanobacteria (blue-green algae) more specifically *Microcystis* and *Anabaena*. These algae have been most abundant in Lake Auburn in late summer of calendar years 2011 and 2012. Cyanobacteria is common in lakes with elevated nutrient levels. Nutrients, predominately phosphorus, are introduced into the lake water column as storm water runoff or are internally recycled in late summer when surface waters are cooling and may more easily mix with bottom water in response to wind action releasing phosphorus from the sediment and transporting it upwards into the water column. When phosphorus is available and growing conditions favorable, algal reproduction can result in nuisance algal bloom conditions.

The permittee proposes to dissolve copper sulfate crystals in lake water in a mix tank on board an application vessel. The aqueous copper solution will be introduced into the lake between 0-20 feet in a pattern and dosing to achieve an in-lake target concentration between 0.05 mg/L and 0.10 mg/L in the treatment area(s). The application will be conducted for no more than three consecutive days. The final target concentration will be determined within two days of the application based on lab assays with actual algae assemblages that are representative of lake conditions. The timing of the application will be linked to detected increases in algae, as measured by turbidity and visual observations as a surrogate and supported by algal analysis.

The permittee proposes to conduct visual monitoring of the treatment area for dead, dying or distressed organisms, especially fish, within 24 hours before and after treatment and one week after treatment. The permittee proposes to sample for zooplankton and phytoplankton within the treatment area with 24 hours before and after treatment in accordance with a schedule found in the PDMP.

1. APPLICATION SUMMARY (cont'd)

In-lake copper concentrations will be determined at 5 locations within the treatment area on the day of treatment, once within 30 minutes of treatment and then again near the end of the treatment. Samples will be composite samples of the upper 6 meters (20 feet) of the water column. Special Condition H of this permit requires the permittee to submit a report to the Department on or before 90 days after the treatment is complete.

The February 20, 2018, application submitted to the Department contains a letter from Maine's DHHS, Division of Environmental Health stating that an overabundance of cyanobacteria (*Anabaena*, *Microcystis* and *Gloeotrichia*) poses a potential public health threat due to the potential for the production of cyanotoxins which can cause illness or fatality if ingested. In addition, the existing water treatment plant cannot adequately treat for pathogens in water having a turbidity above 5NTUs and this level would cause DHHS to impose a "boil water order." The DHHS supports the application of the algacide to Lake Auburn should the turbidity rise (>1.5 NTU) as a result of cyanobacteria growth, as long as the algacide meets National Sanitation Foundation (NSF) 60 standards and the chemical application will result in an in-lake concentration of 0.1 mg/L of total copper. Consultants for the AWD have made a best professional judgment that an application dosing of 0.065 mg/L is more likely but the final dosing will depend on real time lab assays and actual algal assemblage.

The February 20, 2018, application submitted to the Department also contains a letter from Maine's Department of Inland Fisheries and Wildlife (DIFW) stating that if administered as proposed in the permittee's Pesticide Discharge Management Plan (PDMP), the interim strategy to address water quality concerns via the one time use of copper sulfate should not result in long term impacts to fisheries management plans and if successful, may reduce oxygen loss in the hypolimnion that resulted in the 2012 lake trout kill.

2. CONDITIONS OF PERMITS

Maine law, 38 M.R.S. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

3. RECEIVING WATER STANDARDS

Maine law 38 M.R.S., §465-A(1) classifies Lake Auburn as a Class GPA waterbody and describes the standards for classification of Class GPA waterbodies as follows;

Class GPA shall be the sole classification of great ponds and natural ponds and lakes less than 10 acres in size.

- A. Class GPA waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection, recreation in and on the water, fishing, agriculture, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other aquatic life. The habitat must be characterized as natural.
- B. Class GPA waters must be described by their trophic state based on measures of the chlorophyll "a" content, Secchi disk transparency, total phosphorus content and other appropriate criteria. Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations and must be free of culturally induced algal blooms that impair their use and enjoyment. The number of *Escherichia coli* bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 29 per 100 milliliters or an instantaneous level of 194 per 100 milliliters.
- C. There may be no new direct discharge of pollutants into Class GPA waters. The following are exempt from this provision:
 - (1) Chemical discharges for the purpose of restoring water quality approved by the department;
 - (2) Aquatic pesticide or chemical discharges approved by the department and conducted by the department, the Department of Inland Fisheries and Wildlife or an agent of either agency for the purpose of restoring biological communities affected by an invasive species;
 - (3) Storm water discharges that are in compliance with state and local requirements and
 - (4) Discharges of aquatic pesticides approved by the department for the control of mosquito-borne diseases in the interest of public health and safety using materials and methods that provide for protection of nontarget species. When the department issues a license for the discharge of aquatic pesticides authorized under this subparagraph, the department shall notify the municipality in which the application is licensed to occur and post the notice on the department's publicly accessible website.

3. RECEIVING WATER STANDARDS (cont'd)

Discharges into these waters licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist. Materials may not be placed on or removed from the shores or banks of a Class GPA water body in such a manner that materials may fall or be washed into the water or that contaminated drainage may flow or leach into those waters, except as permitted pursuant to section 480-C. A change of land use in the watershed of a Class GPA water body may not, by itself or in combination with other activities, cause water quality degradation that impairs the characteristics and designated uses of downstream GPA waters or causes an increase in the trophic state of those GPA waters.

4. TERMS AND CONDITIONS

Maine law, 38 M.R.S., §414-A(1-A) states as follows;

1-A. *License for copper sulfate applications in public water supplies.* The commissioner may issue licenses to treat public water supplies with copper sulfate or related compounds. The commissioner may not issue more than 2 consecutive licenses for the same body of water.

A. A license may only be issued if the Department of Human Services, Division of Health Engineering has determined that:

- (1) An abundant growth of algae producing taste or odor exists to such a degree that the water supply is in danger of becoming unhealthful or unpalatable
- (2) The abundance of algae is a sporadic event. For purposes of this section, "sporadic" means occurring not more than 2 years in a row; and
- (3) The algae cannot effectively be controlled by other methods.

B. Any license issued under this subsection is for one application or series of applications not to exceed 6 months, as provided in the terms of the license.

C. The commissioner shall impose all conditions necessary to meet the requirements of this section and all other relevant provisions of law.

06-096 CMR, Chapter 514, *Regulations Concerning the Use of Aquatic Pesticides*, states as follows:

1. Definition. An aquatic pesticide is any substance (including biological agents) applied in, on or over the waters of the State or in such a way as to enter those waters for the purpose of inhibiting the growth or controlling the existence of any plant or animal in those waters.

4. TERMS AND CONDITIONS (cont'd)

2. Criteria for Approving a License to Use Aquatic Pesticides

- A. Except as provided in 38 M.R.S., Section 362-A, no permit for aquatic pesticide use will be issued for a pesticide which is not registered for the intended use by the United States Environmental Protection Agency and the Maine Department of Agriculture.
- B. No permit for aquatic pesticide use will be issued unless the applicant or agent for the applicant is certified and licensed in aquatic pest control by the Maine Board of Pesticides Control.
- C. A permit for aquatic pesticide use will be issued only if the applicant provides adequate protection for non-target species.
- D. A permit for aquatic pesticide use will be issued only if the applicant can demonstrate a significant need to control the target species and that pesticide control offers the only reasonable and effective means to achieve control of the target species. Demonstration of significant need may include, but not be limited to, health risk, economic hardship, or loss of use.
- E. In addition to paragraphs (A) through (D), any discharge of aquatic pesticides, alone or in combination with all other discharges, shall meet all other applicable requirements of Maine's waste discharge laws including, but not limited to, the provisions of 38 M.R.S., Sections 464 and 465.

For the purposes of this permit, the term 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)].

4. TERMS AND CONDITIONS (cont'd)

The term "pesticide" applies to algacides, 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).

- A. **Applicators & Decision Makers** - 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 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 water 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.

This permit delineates the non-numeric effluent limitations into tasks that Department expects the Applicator to perform and tasks the Decision-maker to perform. In doing so, the permit assigns the Applicator and the Decision-maker different responsibilities.

1. **Applicators' Responsibilities** - Special Condition D(2) of this permit contains the general technology-based effluent limitations that *all* Applicators must perform. These effluent limitations are generally preventative in nature, and are designed to minimize pesticide discharges into waters of the State. All Applicators are required to minimize the discharge of pesticides to waters of the State by doing the following:

- a. **To the extent not determined by the Decision-maker, 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.**

It is illegal to use a pesticide in any way prohibited by the Federal Insecticide, Fungicide, and Rodenticide Act (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.

4. TERMS AND CONDITIONS (cont'd)

- b. 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 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 they are mixed correctly and prepare only the amount of material that is needed. Carefully choose the pesticide mixing and loading area and avoid places where a spill will discharge into 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.

4. TERMS AND CONDITIONS (cont'd)

- c. 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 are suitable for pesticide application.

- 2. Decision-makers' Responsibilities** Special Condition D(3) of this permit contains the effluent limitations that Decision-makers must perform. The permit requires the Decision-makers, to the extent Decision-makers determine the amount of pesticide or frequency of pesticide application, to minimize the discharge of pesticides to waters of the State from the application of pesticides, through the use of Pest Management Measure (PMMs), by using only the amount of pesticide and frequency of pesticide application necessary to control the target pest. For the purposes of this permit PMMs are defined as any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application of pesticides, relevant legal requirements and other provisions that a prudent Operator would implement to reduce and/or eliminate pesticide discharges to waters of the State.

Decision-makers are required to meet technology-based effluent limitations that are based on integrated pest management principles. The permit is requiring certain Decision-makers to also comply with different technology-based effluent limitation than Applicators because they are considered the Best Available Technology Economically Achievable for these Operators. These requirements are aimed at reducing discharge of pesticides to waters of the State and lessening the adverse effects of pesticides that are applied. These requirements are divided into three different sections:

- Identify the problem,
- Pest management options
- Pesticide use.

Prior to each application or series of applications, Decision-makers must identify the problem prior to pesticide application, consider using a combination of chemicals and non-chemical Pest Management Measures, and perform surveillance before pesticide application to reduce environmental impacts. This permit 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.

4. TERMS AND CONDITIONS (cont'd)

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. Integrated pest management is not a single pest control method but, rather, a series of pest management evaluations, decisions and controls. A more detailed description of each specific requirement is as follows;

- a. **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 Pest Management Measures (pesticidal or non-pesticidal methods), and in developing an action threshold. For the purposes of this permit, action threshold is defined 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. Action thresholds, often expressed as number of pests per unit area, can vary by pest, by site, and by season. 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 or use relevant historical site data.
- b. **Pest Management Options** - Decision-makers are required to implement efficient and effective means of PMMs that most successfully minimize discharges to 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 PMM.
- c. **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.

4. TERMS AND CONDITIONS (cont'd)

B. Pesticide Discharge Management Plan (PDMP)

Distinct from the technology-based or water quality-based effluent limitation provisions in the permit, Special Condition G of this permit requires Decision-makers to prepare a PDMP to document the implementation of Pest Management Measures being used to comply with the effluent limitations set forth in this permit. In general, Special Condition G of this permit requires that the following be documented in the PDMP:

- Pesticide discharge management team information;
- Problem identification;
- Pest management options evaluation;
- Response procedures pertaining to spills and adverse incidents;
- Documentation to support eligibility considerations under other federal laws, and

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. Instead, the requirement to develop a PDMP is a permit "term or condition" authorized under Sections 402(a)(2) and 308 of the Clean Water Act. The PDMP requirements set forth in the permit are terms or conditions 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 is a violation of the permit.

While Special Condition D of the permit requires the Operator to select PMMs to meet the effluent limitations in this permit, the PMMs 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 Special Conditions D, E, and F of this permit. Therefore, the Operator is free to change as appropriate the PMMs 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 Special Condition H of this permit. Thus, if 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. The Department recognizes, 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.

4. TERMS AND CONDITIONS (cont'd)

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 Federal Insecticide, Fungicide, and Rodenticide Act labeling ("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 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 that affect water quality.

If an Applicator applies a pesticide at higher than the allowable rate, which results in excess product being discharged into 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 permit or water quality violations as well as a FIFRA violation.

1. Contents of the PDMP - The PDMP prepared under this permit must meet specific requirements in Special Condition G of this permit. Generally, Decision-makers must document the following:

- A pesticide discharge management team;
- A description of the pest management area and the pest problem;
- A description of pest management options evaluation;
- Response procedures for spill response and adverse incident response; and
- Any eligibility considerations under other federal laws.

a. 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.

4. TERMS AND CONDITIONS (cont'd)

The pesticide discharge management team is responsible for developing and revising the PDMP, implementing and maintaining the Pest Management Measures 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 Decision-makers 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.

- b. **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 Decision-makers 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 Special Conditions D & E 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 the site. If other site data is used, the permittee must document in this section why data from the site is not available or not taken within the past year and explain why the data is relevant to the 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 Lake Auburn.

4. TERMS AND CONDITIONS (cont'd)

- c. **Description of Pest Management Measures Options Evaluation** - The permit requires that the PDMP include a description of the Pest Management Measures implemented to meet the applicable technology-based or water quality-based effluent limitations. The description must include a brief explanation of the Pest Management Measures 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). Decision-makers 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 Pest Management Measures to minimize pesticide discharge to waters of the State.
1. **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.
 2. **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. Increasing public awareness of algae, its impacts, and what individuals can do to prevent proliferation is critical for prevention.
 3. **Mechanical or Physical Methods** - Mechanical control techniques will vary depending on the pest. 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.
 4. **Cultural Methods** - Cultural techniques include water-level drawdown.
 5. **Biological Control Agents** - Biological control of algae may be achieved through the introduction of diseases, predators, or parasites. While biological controls generally have limited application for control of weeds and algae, the Operator should fully consider this option in evaluating pest management options.

4. TERMS AND CONDITIONS (cont'd)

- 6. Pesticides** - Aquatic herbicides are chemicals specifically formulated for use in water to kill or control aquatic plants. Aquatic herbicides are sprayed directly onto floating or emergent aquatic plants as well as plants at or near the water's edge or are applied to the water in either a liquid or pellet 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.

All six management options may not be available for the 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 Pest Management Measures.

5. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has made a determination based on a best professional judgment that the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class GPA classification.

6. PUBLIC COMMENTS

Public notice of this application was made in the Lewiston Sun Journal newspaper on or about February 14, 2018. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

7. DEPARTMENT CONTACTS

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

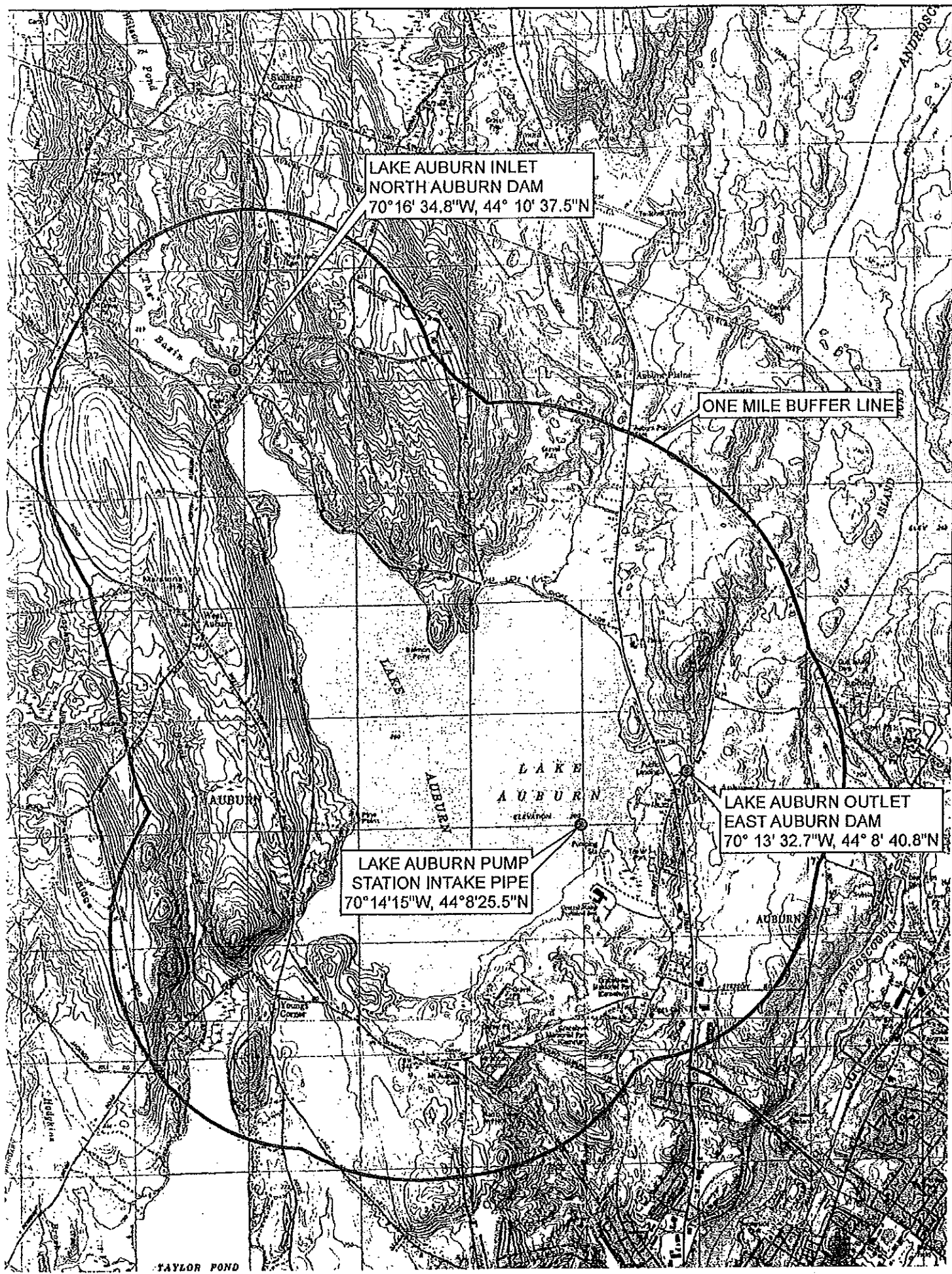
Gregg Wood
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
e-mail: gregg.wood@maine.gov

Telephone (207) 287-7693

8. RESPONSE TO COMMENTS

During the period of February 28, 2018, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) to Lake Auburn. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A



LAKE AUBURN INLET
NORTH AUBURN DAM
70°16' 34.8"W, 44° 10' 37.5"N

ONE MILE BUFFER LINE

LAKE AUBURN PUMP
STATION INTAKE PIPE
70°14'15"W, 44°8'25.5"N

LAKE AUBURN OUTLET
EAST AUBURN DAM
70° 13' 32.7"W, 44° 8' 40.8"N

TAYLOR POND

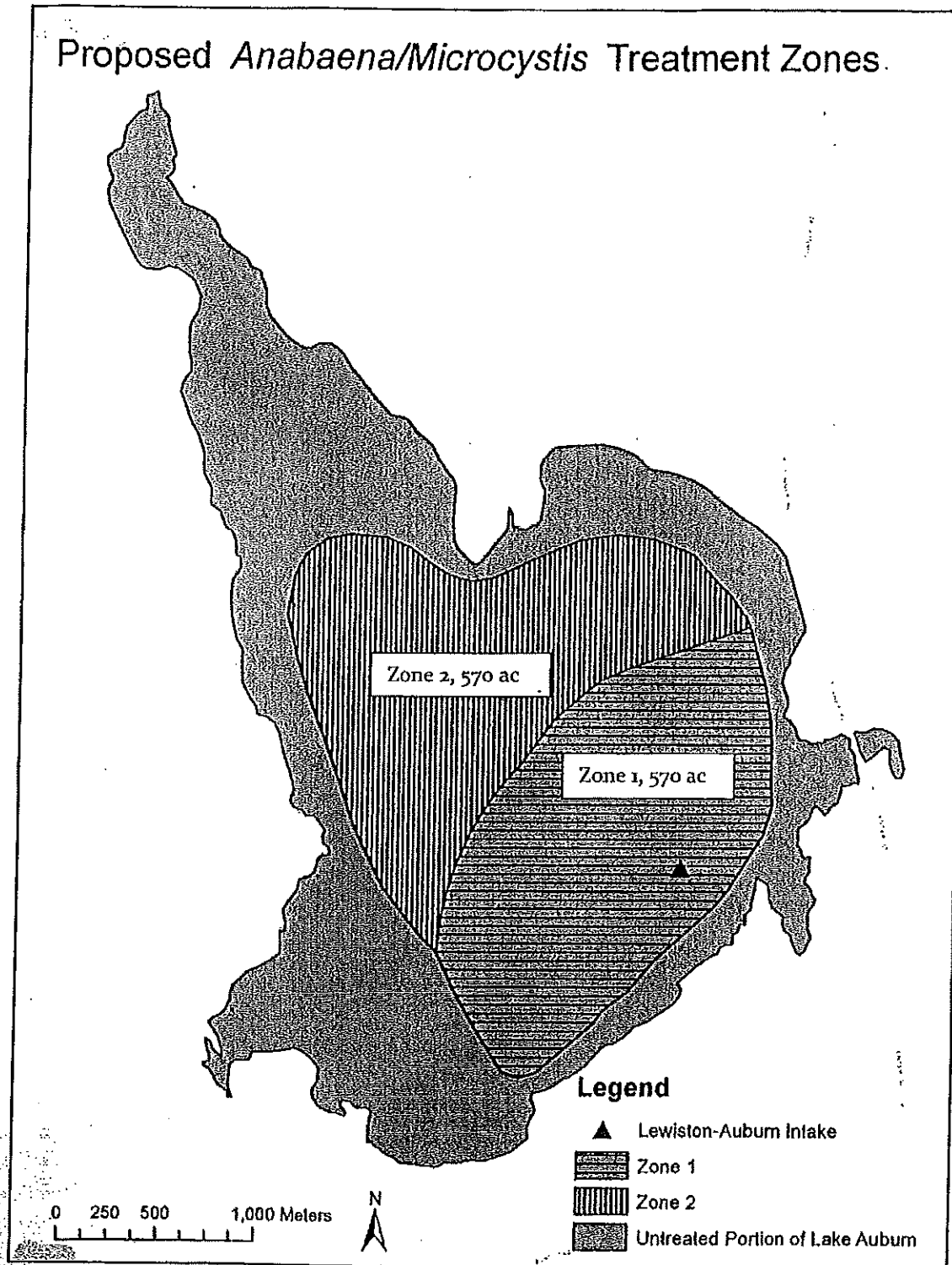


Figure 2. Proposed Treatment Zones for Surface Copper Application