

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

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

Attachment E – Notice of Intent

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

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. <input checked="" type="checkbox"/> New Applicator	B. Change of Information: WDID# _____
		WDID# 545AP00001
	C. <input type="checkbox"/> Change of ownership or responsibility: WDID# _____	

II. DISCHARGER INFORMATION

A. Name Woodridge Mutual Water and Property Owners Corporation			
B. Mailing Address P.O. Box 8			
C. City Shingletown	D. County Shasta	E. State CA	F. Zip 96098
G. Contact Person Sam Smith	H. E-mail address ridgerunner4719@yahoo.com	I. Title Water Master	J. Phone 530/474-3809

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

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 - Central Valley Region, Redding
(List all regions where algaecide and aquatic herbicide application is proposed.)

V. ALGAEICIDE AND AQUATIC HERBICIDE APPLICATION INFORMATION

A. Target Organisms: Curly leaf pondweed (Potamogeton crispus)
Eurasian water milfoil (Myriophyllum spicatum)

B. Algaecide and Aquatic Herbicide Used: List Name and Active ingredients
Fluridone as manufactured by Sonar or others.

C. Period of Application: Start Date Approx April 15th End Date May 15th

D. Types of Adjuvants Used: None

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
CA Fish & Wildlife & County Agricultural Dept.

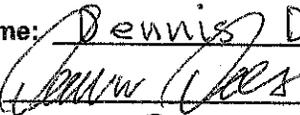
VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal?
 YES NO NA \$2,062

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: Dennis Diestler

B. Signature:  Date: 11-30-14

C. Title: Board President

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 _____

**Woodridge Mutual Water and Property Owners Corporation
Aquatic Pesticide Application Plan (APAP)**

**APPLICATION FOR 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 APPLICATION**

AT

WOODRIDGE LAKE

Submitted to:

**State Water Resources Control Board
NPDES Wastewater Unit
1001 I Street, 15th Floor
Sacramento, CA 95814**

**Prepared By:
Sam Smith
November 2014**

**For:
Woodridge Mutual Water and Property Owners Corporation
PO Box 8
Shingletown, CA 96088**

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Background Information:

This Aquatic Pesticide Application Plan (APAP) is a comprehensive plan developed by the discharger to comply with the provisions of Water Quality Order No. 2013-0002-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, General Permit No. CAG990005, adopted by the State Water Resources Control Board on March 5, 2013.

This Aquatic Pesticide Application Plan (APAP) describes the project site, aquatic plant nuisances, aquatic pesticide product expected to be used, the monitoring program, and Best Management Practices to be followed, as well as the other conditions addressed in the General Permit, Section VIII C, Aquatic Pesticide Use Requirements, Aquatic Pesticide Application Plan.

The application of aquatic pesticides is an undertaking necessary to control specific types of aquatic vegetation that have become a nuisance to the management of Woodridge Lake and are impacting its health and beneficial uses. The beneficial uses of Woodridge Lake include recreation, aesthetics, boating, fishing, and pasture irrigation downstream.

1. Description of Woodridge Lake

Woodridge Lake is a manmade lake impounded by Truett Dam that was constructed in 1959. The Woodridge Mutual Water and Property Owners Corporation was formed in 1978 pursuant to the conditions required for the Woodridge Lake Estates development. Once the development was finalized the WMW&POC assumed the responsibility for operating and managing Truett Dam and Woodridge Lake. Woodridge Lake Estates consist of 81 residential lots, of which 14 border the lake. In addition, there is one other residential lot and 3 commercial parcels that are adjacent to the lake.

Woodridge Lake is located in Shasta County in section 5, T30N, R1E, MDB&M. Truett Dam consists of a main earth dam that is 27 feet high and a much shorter earth saddle dam along a portion of the north side of the lake. The reservoir has a surface area of approximately 20 acres and a maximum depth of 23 feet, when full. When constructed, the reservoir had an estimated capacity of 220 acre-feet.

An outlet in the northern saddle dam discharges water to the Miller property pursuant to their water right. Any discharges in excess of their water allotment flows over the main dam spillway into Ash Creek. Depending upon the amount of rainfall in any given year there may be a few months where the lake water level will drop enough during the summer such that there is no discharge to Ash Creek.

The beneficial uses of Woodridge Lake include recreation, aesthetics, boating, fishing, and pasture irrigation downstream.

2. Description of the treatment area

Woodridge Lake is the cornerstone of the Woodridge Lake Estates residential development. It has always supported a variety of aquatic growth, providing habitat for wildlife and a compatible environment for recreation. The goal of the WMW&POC is to maintain a safe and vibrant aquatic environment for recreational use and wildlife habitat.

In order to manage the explosive growth of non-native aquatic weeds, the WMW&POC has decided to apply an aquatic herbicide with the goal of reducing noxious weed populations in a manner which maximizes the efficacy of the products used while minimizing adverse environmental impacts.

3. Description of type of aquatic weeds that are being controlled and why.

Populations of two (2) exotic, noxious aquatic weeds, **Curlyleaf pondweed** (*Potamogeton crispus*) and **Eurasian watermilfoil** (*Myriophyllum spicatum*) are rapidly

changing and negatively affecting the use of the lake for its intended purposes. Uncontrolled, these two species have caused serious negative impacts on recreational use of the lake and its aesthetic value. It is not the goal of WMW&POC to eliminate seasonal vegetation growth but rather to control the enormous growth of the target weeds.

4. Aquatic herbicide product expected to be used.

Fluridone pellets will be broadcasted (via boat with a gasoline powered spreader) in the spring over the emergent noxious aquatic weeds.

5. Factors influencing the decision to use Fluridone.

Fluridone by Sonar or other manufacturers was selected because of its efficacy, fish safety, no limitations on recreational water use and limited time restrictions on pasture irrigation. The manufacturer has indicated that we can use this product at lower than maximum rates and still obtain satisfactory results. Absorption and herbicidal action usually occurs within a few days and it disrupts the plants photosynthesis process. Normally one application in the spring of the year should be sufficient to control the noxious weeds to an acceptable level. The need for additional applications will be evaluated during the summer months.

6. Control structures used to control receiving waters affected by herbicide application.

The drain valve at the bottom of Truett Dam is used to lower the lake level during an emergency or during dam maintenance. It is not intended that this valve will be opened after the fluridone has been applied.

The concrete spillway weir maintains the lake at a constant full level, except during low rainfall years when the level drops below the spillway crest.

A concrete pipe outlet in the saddle dam discharges flow for downstream pasture irrigation.

7. Dischargers short-term or seasonal exceptions.

WMW&POC is not applying aquatic herbicides containing acrolein or copper products for algae control.

8. Description of monitoring and reporting program.

Pursuant to the requirements of the NPDES permit, sampling and testing will be done to verify that residues comply with the requirements set by water quality order #2204-009-DWQ. Samples will be tested by a third party laboratory.

Material for field sampling:

1. Sampling bottles with labels.
2. Subsurface grab sampler.
3. GPS for sample location.
4. Devices for measuring water temperature, pH and water depth.
5. Site map, data sheets and clipboard.
6. Cooler with ice for samples.

Sample collecting method:

1. Carefully approach site, so as to not disturb the bottom.
2. Record details on sample bottle.
3. Use subsurface sampler to collect sample at the desired depth by removing the cap and recapping bottle at the correct depth.
4. Place the sample in the cooler to keep it cool and out of the sunlight.
5. Enter the appropriate data on the sampling data sheet.
6. Fill out Chain of Custody forms and keep copy for our records.
7. Ship the sample to the lab immediately or refrigerate if not shipped within 48 hours.

Monitoring stages for each application event:

1. **Background monitoring:** Grab a background grab sample in the treatment area prior to the first treatment.
2. **Event monitoring:** Grab a sample in the treatment area after 24 hours of the herbicide application to allow for mixing.
3. **Post event monitoring:** Grab a sample in the treatment area during the 7th day after the herbicide application.

All samples will be analyzed for the constituents/parameters listed in the attached Table 1.

If the residual concentrations of fluridone in the event and post event monitoring is less than the 560 ppb or ug/l receiving water limitation, then no subsequent testing will be done. If the concentrations are higher than 560 ppb then subsequent tests will be taken at 3 day intervals until the concentration drops below 560 ppb.

Monitoring records:

1. The date, time and place samples are taken.
2. Name of sampler.
3. Date of analyses and by whom.
4. Analytical techniques or method.
5. Results of analyses.

Copies of Aquatic Pesticide Application Log forms, field sampling procedures, Chain of Custody forms and methods of laboratory analysis will be maintained for each herbicide application.

9. Procedures used to prevent sample contamination from persons, equipment, and vehicles associated with herbicide application.

1. A different boat from the one used to apply the herbicide will be used during the sampling process.
2. Sampling equipment will be thoroughly cleaned prior to each sampling event.
3. Personnel will be trained and will follow protocol procedures in sampling and handling.
4. Chain of custody procedures will be followed for each sample.

10. Description of Best Management Practices (BPMs) to be implemented.

To prevent aquatic herbicide spill or contamination all applicators will be trained in the use of the spreader and all application instructions listed by the herbicide manufacturers will be followed. In addition, all requirements of the Shasta County Agricultural Commissioner Permit shall be met.

Fluridone will be applied in the spring after the inflows to the lake have diminished and when the weed growth is just beginning. This will limit the impact on the dissolve oxygen concentration because there will not be a significant amount of weeds to decompose.

According to the manufacturer of Sonar Q, fluridone has no impact on fish with application rates of up to 150 ppb. At our proposed application rate of 8 pounds per acre the projected initial concentration will about 45 ppb, so there should be no impact on fish life in the lake.

The downstream water user will be notified at least 5 days prior to any aquatic herbicide treatment, so he can stop his pasture irrigation for about 7 days per the manufacturers recommendations.

After each application, visual observations will be made over a period of a few days to identify any potential adverse impacts on beneficial use caused by these products. Any notable items will be included on the Application Log sheet.

11. Possible Alternatives.

If we do nothing, then these noxious aquatic weeds will continue to get worse and will eventually cover the entire lake. These weeds interfere with all recreational activities, can restrict fish and waterfowl populations, impair water quality, and can lead to mosquito increases. **No-action is not a viable alternative.**

We have evaluated the alternative of mechanical removal by cutting and harvesting the weeds. However, it is anticipated that this would have to be done up to 2 or 3 times per year and this would not only be very labor intensive but there will also be a massive amount of debris to dispose of. Thus the cost associated with the cutting, removing, transporting and disposal of the weeds is prohibitive. The prevalence of submerged stumps throughout the lake is also a great concern because they will not only interfere with the cutting and harvesting of the weeds, but they also present a safety hazard to the personnel doing the work. We are also concerned about the inadvertent removal of fish and other "non-target" species.

Biological control with Grass carp is not an option because they are an exotic fish and are not recommended nor approved in Shasta County.

Other herbicides were considered but the product choice was directed by the nuances of Woodridge Lake and the downstream water usage. By applying the herbicide after spring inflows have decreased and at a relatively low dosage rate it will maximize efficacy and manage residues to comply with receiving water limitations.

12. Reporting Program.

Every calendar year at least 15 days prior to the first aquatic weed application, WMW&POC will notify potentially affected public agencies and the downstream user (Miller Brothers) of any aquatic herbicide applications being planned. We will provide phone numbers and other specific contact information to all persons who request the application schedule.

WMW&POC will maintain a file of sample locations, chain of custody forms, test results and other information developed as part of the monitoring program. These data will be used to compile an Annual Report to be submitted to the Deputy Director of the SWRCB and the Redding Office of the Central Valley RWQCB by March 1 of each year following an application event. The Annual Report will be prepared pursuant to the requirements outlined in Attachment C of the General Permit.

If WMW&POC becomes aware of any noncompliance issue it shall make a Twenty-four Hour Report and a Five-day Written Report pursuant to Attachment C of the General Permit.

TABLE 1 - Required Sample Analyses

Consistent/ Parameter	Units	EPA Method	Reporting Limit	Hold Time (days)	Chemical Preservative
Temperature (1)	F	N/A	N/A	N/A	N/A
pH (2)	Number	150.0 or 150.2	1-14	1	None
Turbidity (2)	NTU	180.1	0.00 NTU	2	None
Electric Conductivity (2)	Umhos/cm	120.1	0 uS/cm	28	None
Dissolve Oxygen (2)	mg/l	360.1 or 360.2	0.0 mg/l	1	None
Fluridone	ug/l	SePro Fas Test	1 ug/l	7	None

Note: ug/l = ppb

1. Must be field measured.
2. May be field or laboratory measured.

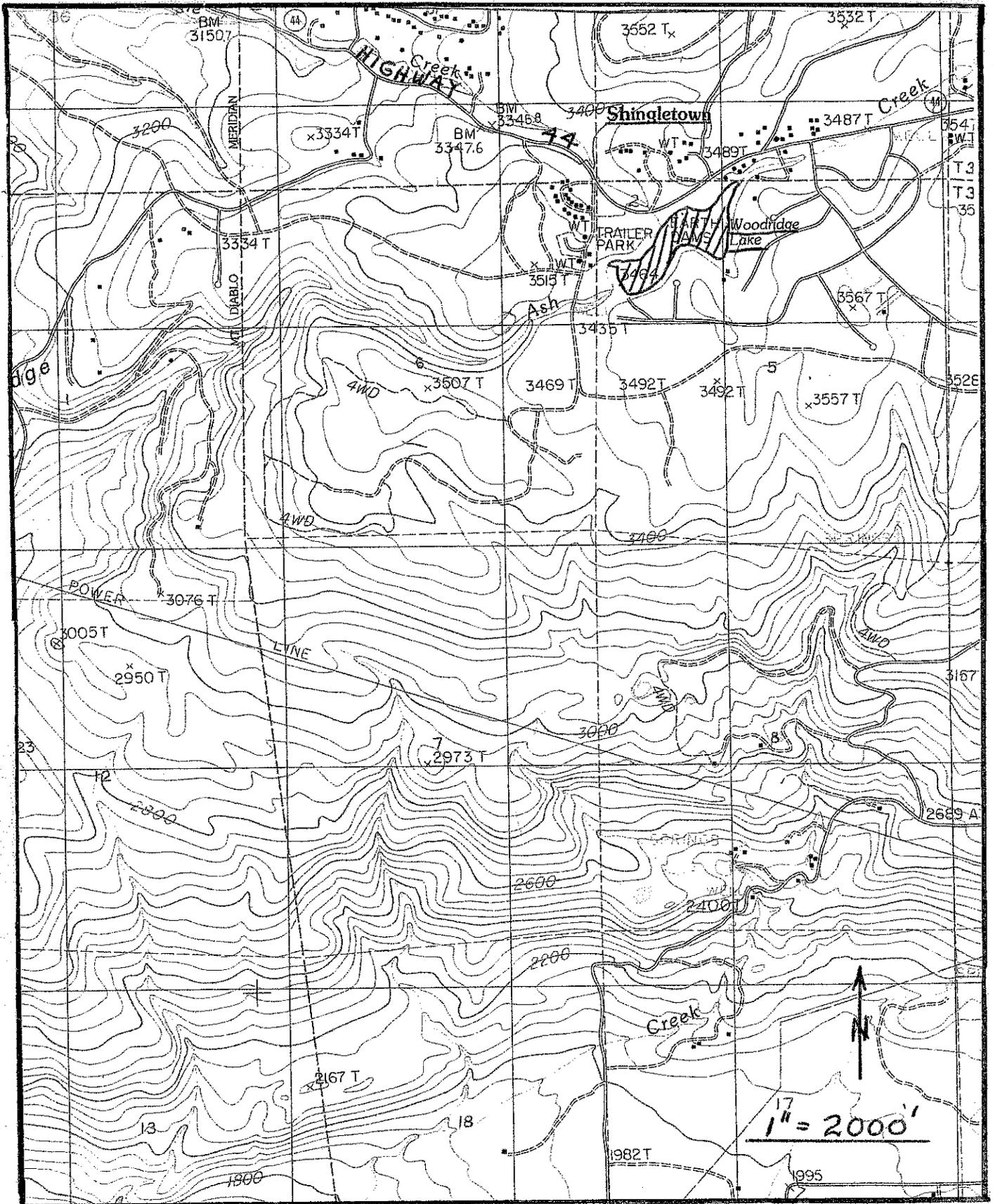


FIGURE 1. WOODRIDGE LAKE LOCATION MAP

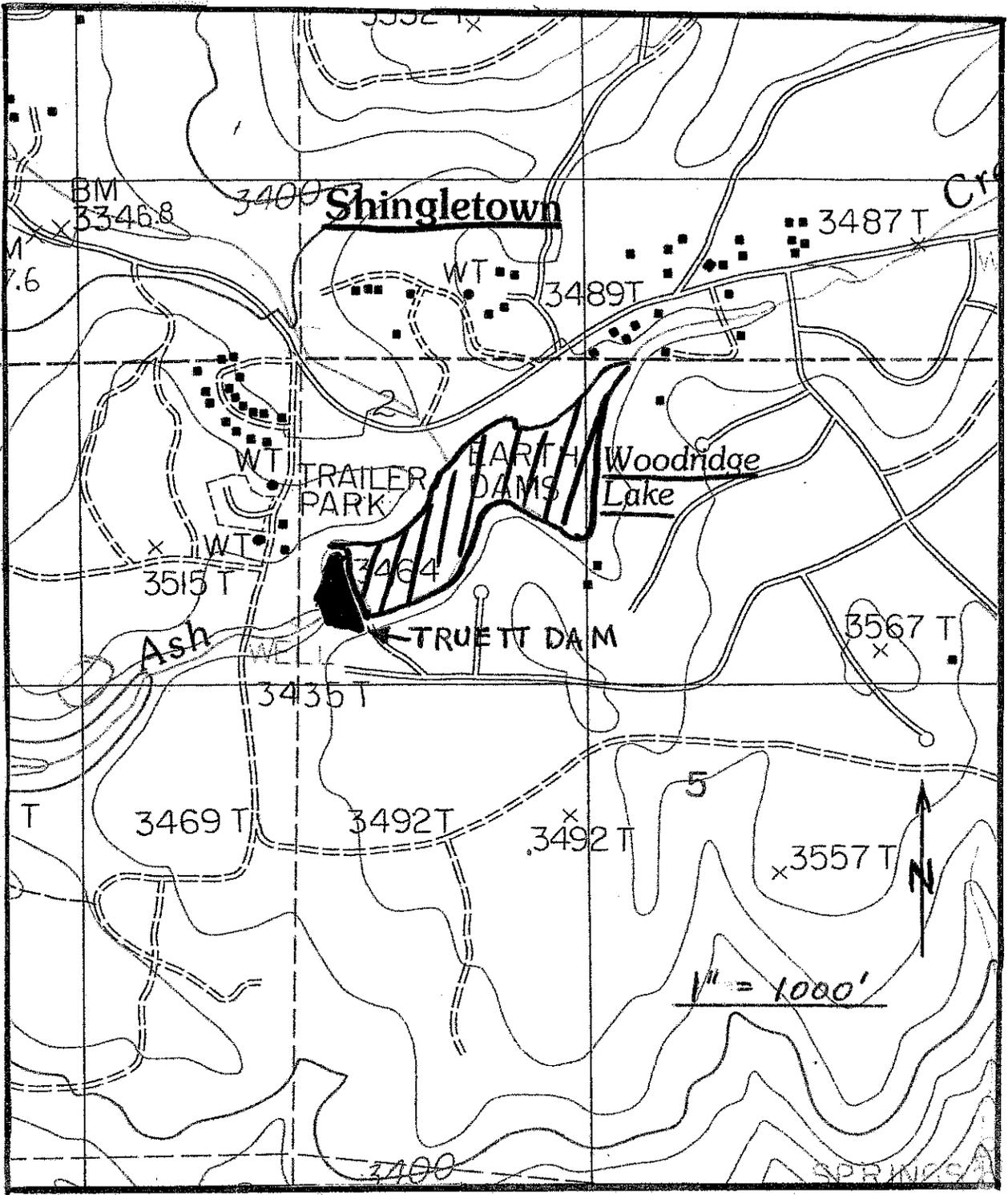


FIGURE 2. TOPO MAP OF WOODRIDGE LAKE

