

October 23, 2024

Mr. David J. Rousseau, Director
NH Division of Pesticide Control
PO Box 2042
Concord, NH 03302-2042

Re: 2024 Aquatic Weed Treatment at Pillsbury Lake in Webster, NH - SP-106

Dear Mr. Rousseau:

In accordance with NH Pesticide Rules 603.03, SOLitude Lake Management is submitting a written year-end report for the herbicide treatment of portions of Pillsbury Lake in Webster. This treatment was conducted in accordance with the conditions of Special Permit # SP-106 issued by the Division of Pesticide Control.

Project Summary

Project (Site / Location):	Pillsbury Lake / Webster, NH
Special Permit #:	SP-106
Pre-Treatment Survey:	May & June 2024 (SLM)
Treatment Summary:	<p><u>Treatment Date: May 23, 2024</u></p> <p><i>Herbicide:</i> Sonar Q (fluridone granular) - EPA Reg. No. 67690-3 <i>Target Species:</i> Lilies <i>Area Treated:</i> 25 acres <i>Treatment Area Depth:</i> 5 ft. average <i>Application Rate:</i> 5.4 pounds/acre <i>Total Herbicide Used:</i> 135 pounds <i>Herbicide Concentration:</i> 20 ppm <i>Herbicide Application:</i> Airboat with a backpack blower and GPS unit</p> <p><u>Treatment Date: June 6, 2024</u></p> <p><i>Herbicide:</i> Sonar Q (fluridone granular) - EPA Reg. No. 67690-3 <i>Target Species:</i> Lilies <i>Area Treated:</i> 25 acres <i>Treatment Area Depth:</i> 5 ft. average <i>Application Rate:</i> 5.4 pounds/acre <i>Total Herbicide Used:</i> 135 pounds <i>Herbicide Concentration:</i> 20 ppb <i>Herbicide Application:</i> Airboat with backpack blower and GPS unit</p> <p><u>Treatment Date: June 25, 2024</u></p> <p><i>Herbicide:</i> Sonar Genesis (fluridone liquid) - EPA Reg. No. 67690-54 <i>Target Species:</i> Lilies <i>Area Treated:</i> 25 acres <i>Treatment Area Depth:</i> 5 ft. average <i>Application Rate:</i> 0.54 gallons/acre <i>Total Herbicide Used:</i> 13.5 gallons <i>Herbicide Concentration:</i> 20 ppb <i>Herbicide Application:</i> Airboat with calibrated pump system and GPS unit</p>
Post-Treatment Survey:	June 6, June 25 & October 16, 2024 (SLM)

Control of Target Species:	<ul style="list-style-type: none"> Varying degrees of reduction of yellow & white lilies was observed in and around the treatment area during the post-treatment inspections. The cover of these floating leaf species was reduced by roughly: 80% throughout the lake, with 90%+ in the southern 3rd of the lake. Dense low-growing cover of native plants, primarily bladderwort and pondweeds remained throughout the lake. Herbicide distribution during the 3 treatments was concentrated in the northern portion of the lake and inner portions of the eastern coves (with all other areas receiving a lesser dose), knowing that released herbicide would be flowing/moving south over time. Other aquatic plants observed in the treatment area that appeared to be healthy included: <ul style="list-style-type: none"> <i>Potamogeton spp.</i> Pondweeds (large-leaf & ribbon-leaf) <i>Pontederia sp.</i> Pickerelweed <i>Brasenia sp.</i> Watershield (*appeared “beat-up”, but greatly unaffected) <i>Nymphoides cordata</i> Floating heart <i>Carex sp.</i> Sedge <i>Utricularia spp.</i> Bladderwort (*reduced) <i>Vallisneria sp.</i> Tapegrass No unanticipated impacts to non-targeted plants or other aquatic organisms were observed in or adjacent (Habitat Preservation Areas) to the treated areas during the post-treatment surveys. Areas outside of the treatment showed no negative impacts.
Herbicide Residue Testing Results:	<p>Samples were collected and analyzed by Granite State Analytical in accordance with the permit requirements.</p> <p><u>May 23, 2024 Treatment</u></p> <ul style="list-style-type: none"> Result of the <u>7-day</u> sample Site A: fluridone- <u>3.0</u> ppb Result of the <u>13-day</u> sample Site A: fluridone- <u>4.0</u> ppb <p><u>June 6, 2024 Treatment</u></p> <ul style="list-style-type: none"> Result of the <u>7-day</u> sample Site A: fluridone- <u>8.2</u> ppb Result of the <u>14-day</u> sample Site A: fluridone- <u>8.9</u> ppb <p><u>July 25, 2024 Treatment</u></p> <ul style="list-style-type: none"> Result of the <u>7-day</u> sample Site A: fluridone- <u>5.2</u> ppb Result of the <u>14-day</u> sample Site A: fluridone- <u>4.5</u> ppb <ul style="list-style-type: none"> Copies of the laboratory reports are attached.
Late summer reports (DES, Assoc, etc.):	<p>PLVD reported late summer that many abutters were very happy with the results of the treatment</p>
Ongoing Management Recommendations:	<ul style="list-style-type: none"> Pillsbury Lake is a shallow nutrient rich pond that has posed continual management challenges, due to its rich sediment and progressive weed growth. With that said, in 2024, excellent progress was made towards the overall control of waterlilies (floating leaf vegetation). If the 2024 treatment does not provide good enough carryover control next season, another treatment with a different combination of fluridone products (or a topical glyphosate or other) treatment will likely be proposed for Pillsbury Lake in 2025. The 2025 treatment (if necessary) will mainly be focused on watershield growth. SÖLitude is consulting with SePRO (herbicide manufacturer) and the PLVD to come up with the best approach to avoid low efficacy due to outside contributing factors.

We trust that this report satisfies the reporting requirement for the 2024 herbicide treatment program performed at Pillsbury Lake.

Please feel free to contact our office if you have any questions or require additional information.

Sincerely,

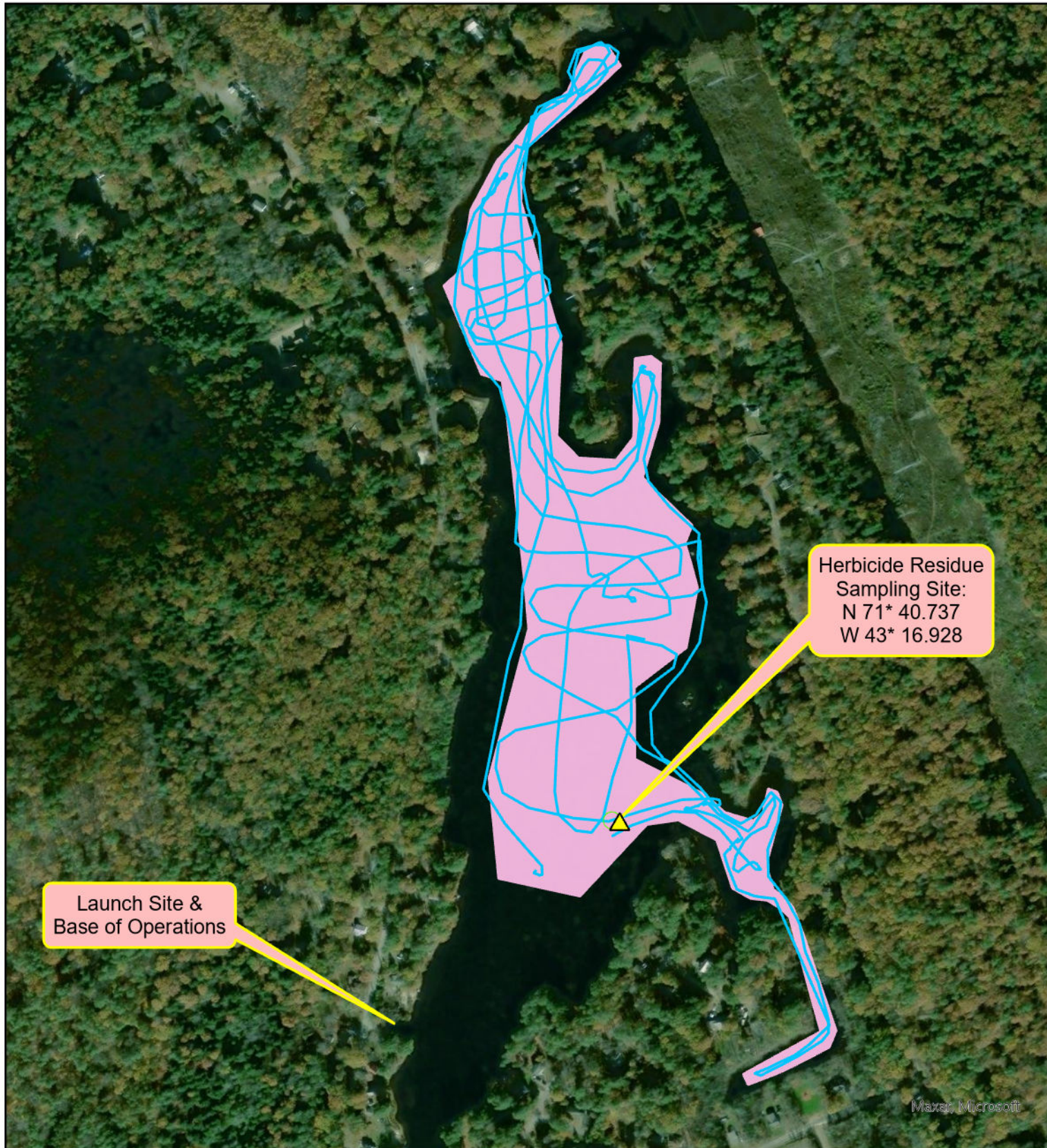
SÔLITUDE LAKE MANAGEMENT



Pete Beisler
Senior Aquatic Specialist

Enclosures: Actual Treatment Map
 Laboratory Reports for post-treatment herbicide residue testing

cc: Michael Malecha, Pillsbury Lake Village District (via email)
 Michael Dionne, NH Fish and Game Department (via email)
 Ashley Litwinenko, NH DNCR (via email)



PILLSBURY LAKE

Webster, NH

2024 Actual Treatment #1 & Sampling Map

Legend:

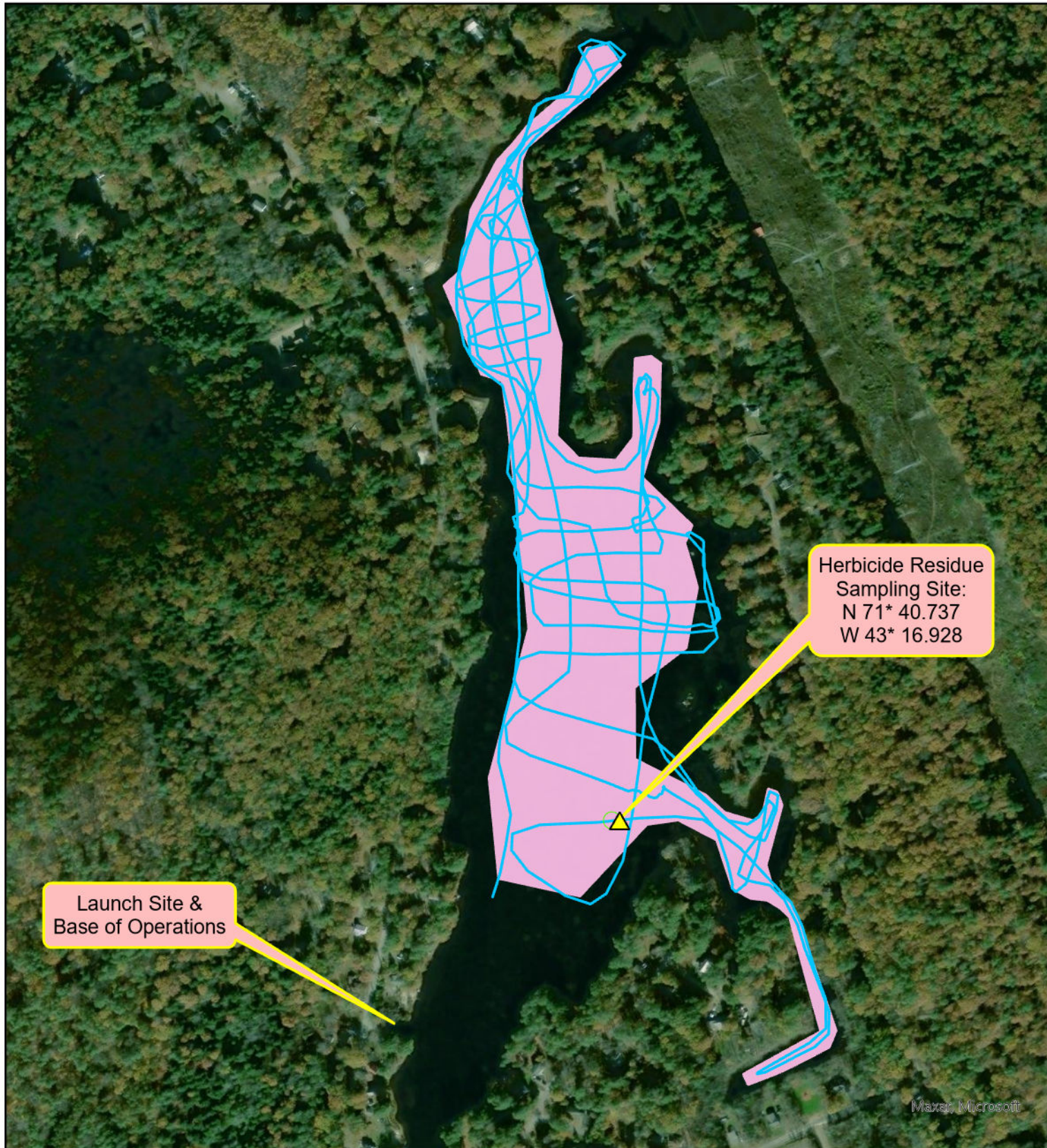
- Actual Treatment application Areas (25 ac)
- Actual Treatment Track 5/23/24
- 7 Day Sampling Location
- 13 Day Sampling Location

0 200 400 800 1,200
Feet

SOLITUDE LAKE MANAGEMENT
590 LAKE STREET
SHREWSBURY, MA 01545
PHONE: (508) 865-1000
SOLITUDELAKEMANAGEMENT.COM



FIGURE:	SURVEY DATE:	MAP DATE:
2	5/23/24	9/25/24



PILLSBURY LAKE

Webster, NH

2024 Actual Treatment #2 & Sampling Map

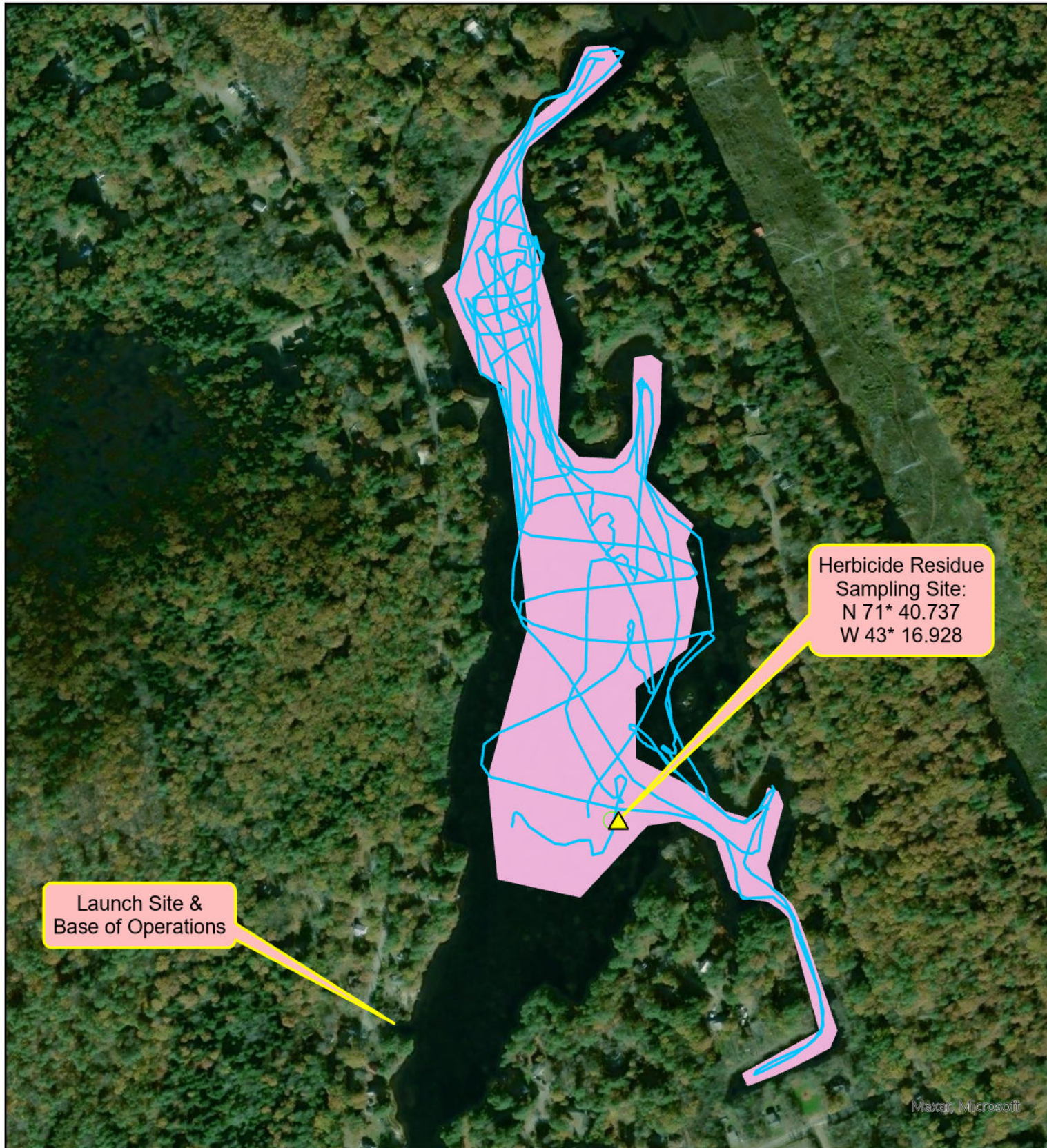
Legend:

- Actual Treatment application Areas (25 ac)
- Actual Treatment Track 6/6/24
- 7 Day Sampling Location
- 14 Day Sampling Location

0 200 400 800 1,200
Feet

SOLITUDE LAKE MANAGEMENT
590 LAKE STREET
SHREWSBURY, MA 01545
PHONE: (508) 865-1000
SOLITUDELAKEMANAGEMENT.COM





PILLSBURY LAKE

Webster, NH

2024 Actual Treatment #3 & Sampling Map

Legend:

- Actual Treatment application Areas (25 ac)
- Actual Treatment Track 6/25/24
- 7 Day Sampling Location
- 14 Day Sampling Location

0 200 400 800 1,200
Feet

SOLITUDE LAKE MANAGEMENT
590 LAKE STREET
SHREWSBURY, MA 01545
PHONE: (508) 865-1000
SOLITUDELAKEMANAGEMENT.COM

