

## Walled Lake

### 2011 - 2014 Treatment Review and 2015 - 2020 Recommendations

#### 2011 Summary

In 2011 Savin Lake Services harvested Eurasian Watermilfoil at two different times. The first cut resulted in 102 acres being removed. The 2<sup>nd</sup> harvest removed 21.5 acres of vegetation.



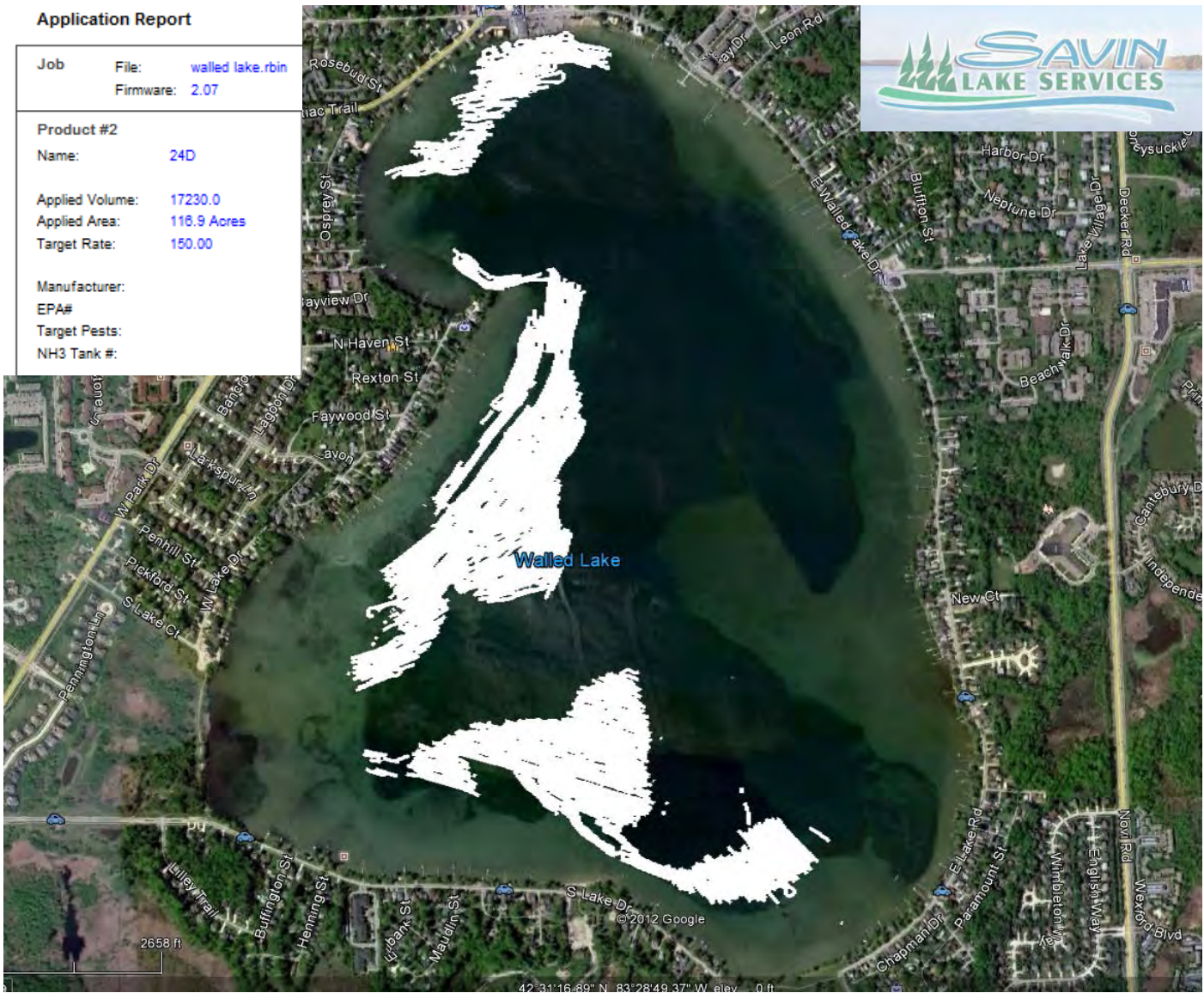


**2012 Summary:**

Savin first used aquatic herbicides in 2012. The product used was 2-4 D, which specifically targets Eurasian Watermilfoil systemically leaving native plants unharmed. Savin applied 2-4 D to Walled Lake twice in 2012. On June 6<sup>th</sup> Savin treated 117 acres. On September 26<sup>th</sup>, 49 acres were treated. Additionally in 2012, harvesting also occurred in the middle of June resulting in 75 acres of Eurasian Watermilfoil being removed from the waterbody. (*Below- June 6<sup>th</sup> 2-4 D Treatment*)

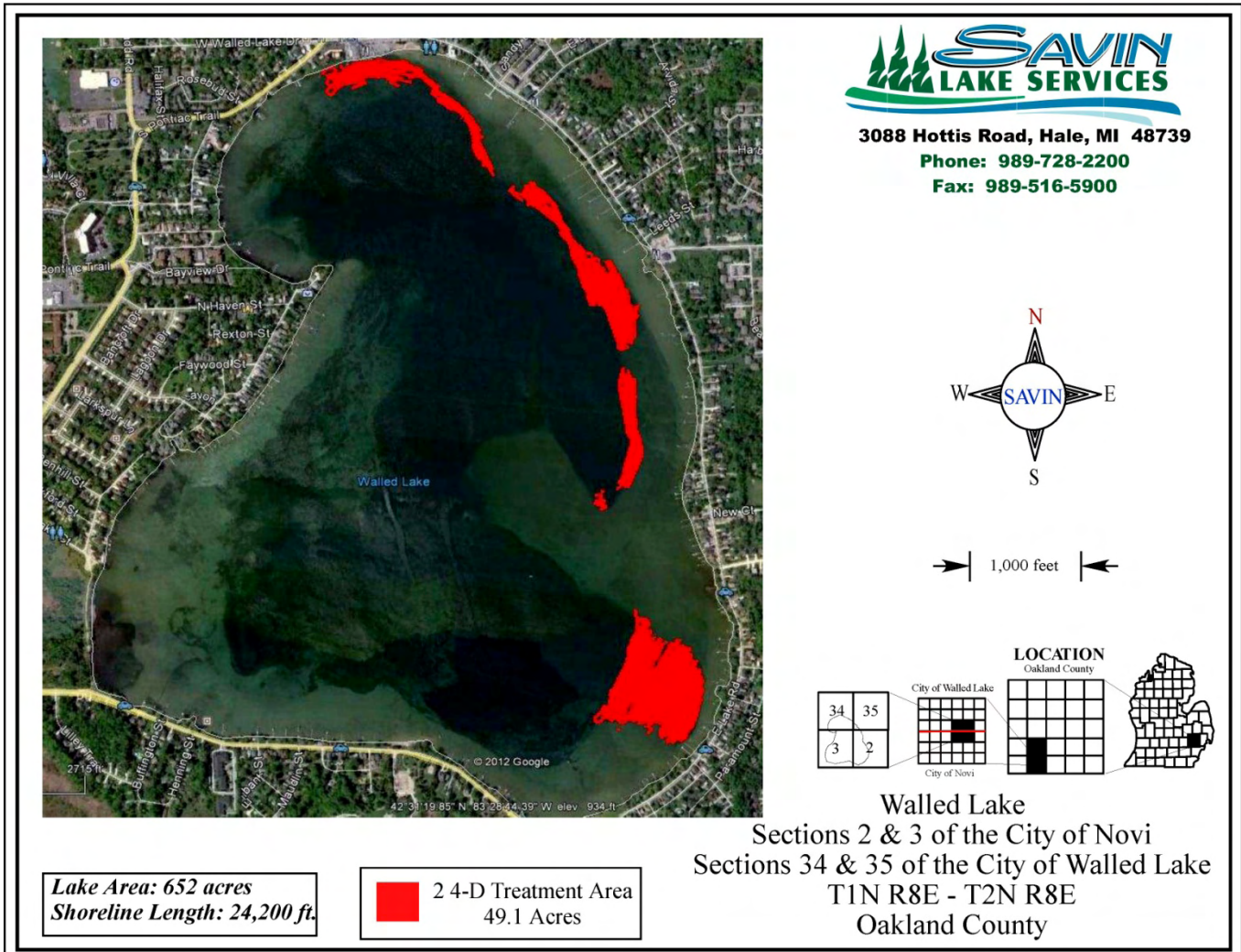
**Application Report**

<b>Job</b>	File: <a href="#">walled lake.rbin</a>
	Firmware: 2.07
<b>Product #2</b>	
<b>Name:</b>	24D
<b>Applied Volume:</b>	17230.0
<b>Applied Area:</b>	116.9 Acres
<b>Target Rate:</b>	150.00
<b>Manufacturer:</b>	
<b>EPA#</b>	
<b>Target Pests:</b>	
<b>NH3 Tank #:</b>	





(September 26<sup>th</sup>, 2012 2-4 D Treatment)





(June 2012 Harvesting)





**2013 Summary:**

Harvesting was removed as a treatment option in 2013. Instead, Eurasian Watermilfoil was managed by herbicides alone. On June 11<sup>th</sup>, 27 acres of milfoil was treated systemically with 2-4 D. 30 acres was treated with a liquid contact herbicide. On August 6<sup>th</sup>, a wider range of aquatic vegetation (algae, milfoil, pondweeds, etc) was managed with liquid contact herbicides on 30 acres of Walled Lake.



(June 11<sup>th</sup> 2013 Treatment)





(August 6<sup>th</sup> 2013 Treatment)



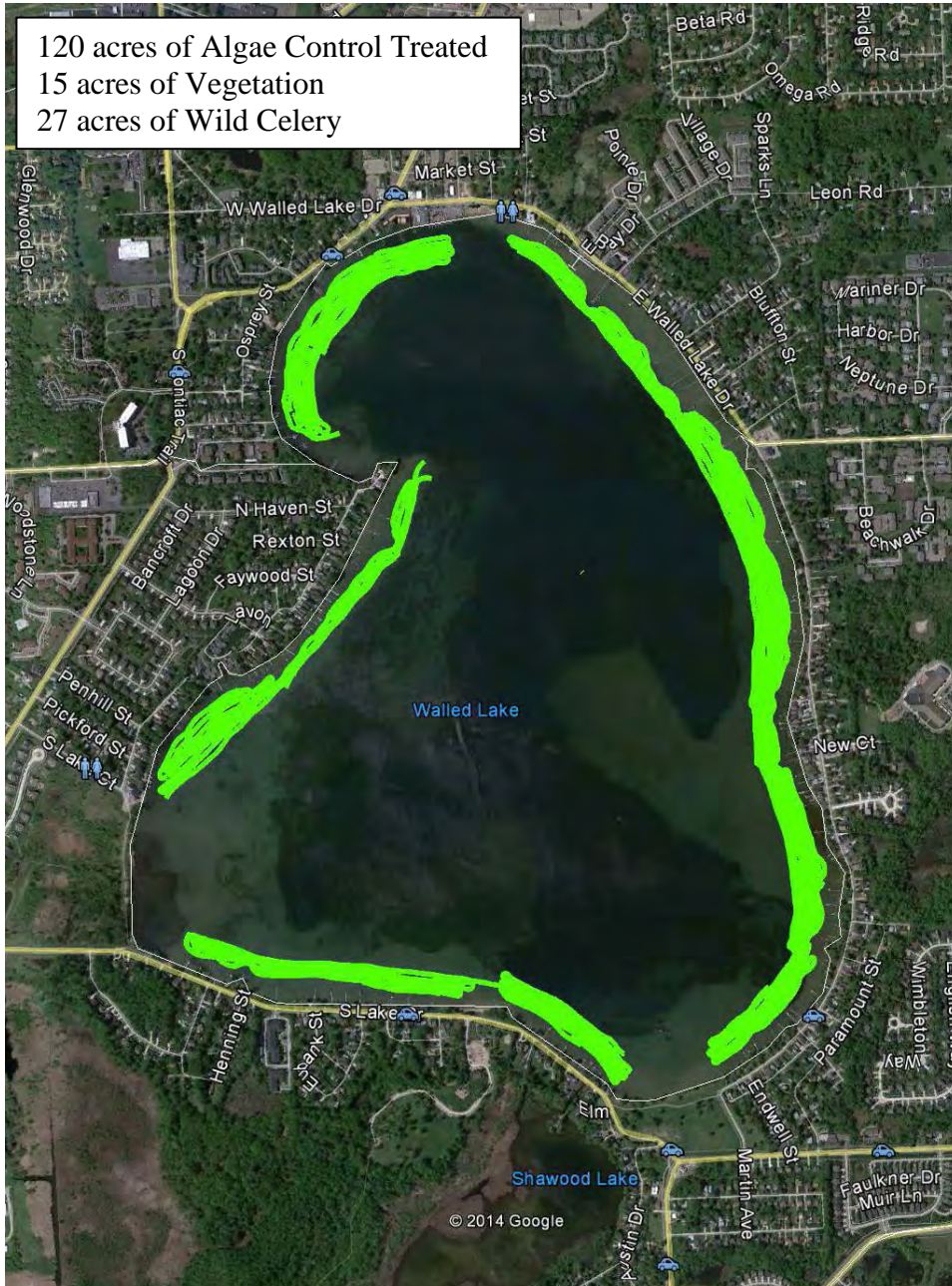
## 2014 Summary:

In 2014, herbicide treatment occurred on June 6<sup>th</sup> and August 20<sup>th</sup>. During the June 6<sup>th</sup> treatment, 112 acres of Walled Lake was treated, primarily for Curly Leaf Pondweed and Eurasian Watermilfoil with contact herbicides. On August 20<sup>th</sup>, 120 acres was treated with herbicides to control Wild Celery, Pondweeds, and Algae.



(June 6<sup>th</sup> Treatment)





(August 20<sup>th</sup> Treatment)



### **Future Recommendations for Walled Lake**

There currently exist 3 types of aquatic vegetation that are causes of concern, Eurasian Watermilfoil, Curly Leaf Pondweed, and Wild Celery. Initially, only the milfoil was a nuisance, but as Savin has systemically killed an abundant amount of it, new species are emerging in those areas treated. As such, new means of control must be utilized in order to keep Walled Lake useable to everyone.

The main area of focus is dependent on DEQ restrictions to treatment. While all nuisance species can be controlled with contact herbicides out to 300 feet from shoreline, or the 5 foot depth contour (whichever is closer); only non-native species can be treated outside of this limit, and only once before June 15<sup>th</sup>. Additionally, treating the 3 current types of vegetation of concern may lead to other species taking their place, with a goal of developing native vegetation. While this is a goal, we must factor in all of this information when thinking about future management of Walled Lake.

Eurasian Watermilfoil needs to be managed with systemic herbicides. We would like to see the beds of milfoil to be reduced in such a way that only a few acres exist every year, in which at that point can be controlled with contact herbicides to prohibit their spread. Unfortunately it is very unlikely that milfoil will ever be completely gone from Walled Lake.

Curly Leaf Pondweed exists in many areas of the lake. The management of this plant is relatively easy. Because it is non-native, we can treat this plant outside of the normal 300 feet/5 ft depth restriction before June 15<sup>th</sup>. Additionally, this plant is highly susceptible to herbicides. Once treated, it is highly unlikely to be a nuisance for the remainder of the year although some minor spots might need to be treated an additional time later in the year if allowable.

Although considered native, Wild Celery is a difficult plant to manage with herbicide. We recommend that we continue to manage the Wild Celery and those type of treatments will usually occur in August. In the scope of a large water body with regular winds, wave action, and water movement, the management of wild celery with herbicides becomes even harder. On Walled Lake, we must address the wild celery before it continues to spread.

Looking at the above factors, Savin recommends the following:

- Continue treating Eurasian Watermilfoil with systemic herbicides until a small amount remains that can be managed with contact herbicides.
- Treat Curly Leaf Pondweed prior to June 15<sup>th</sup> to ensure all the beds can be treated.
- Implement harvesting into management options, in order to control native vegetation offshore (wild celery and anything new that emerges).
- Treat Wild Celery with herbicides as needed, and where permitted.





3088 Hottis Rd. Hale, MI 48739    Hale: 989.728.2200    Clare: 989.386.0600    Fax: 989.516.5900

### Future Budget Recommendations for Walled Lake

We anticipate that the following (6) years budgets should be established as follows:

The numbers are based on our experience and the following plan in each year.

- (30 – 40) acres of herbicide treatment of Wild Celery.
- (10 – 20) acres of herbicide treatment for milfoils with systemic products (like 2-4D).
- (120 – 150) acres of herbicide treatment with diquat for Curly Leaf pondweed / milfoil.
- (120 – 150) acres of algae control in near shoreline areas.
- (50 – 75) acres of harvesting in offshore areas that cannot be managed with herbicides.

2015	\$ 80,000.00
2016	\$ 80,000.00
2017	\$ 85,000.00
2018	\$ 85,000.00
2019	\$ 90,000.00
2020	\$ 90,000.00

Savin Lake Services is pleased to provide these recommendations to the Walled Lake Improvement Board for the upcoming 2015 through the 2020 lake management seasons.

Please let us know if you have any questions.

Sincerely,

Guy Savin – President  
Savin Lake Services Inc.