

## WATERFORD WATERWAYS MANAGEMENT DISTRICT

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**February 9, 2018**

You are invited to submit a bid to the Waterford Waterway Management District (hereinafter referred to as “WWMD”) for 2018 and 2019 control of Eurasian watermilfoil (EWM) and navigation lane maintenance through herbicide applications on the Waterford Waterway, Racine County. The Waterford Waterway includes Tichigan Lake, Buena Lake, portions of the (Illinois) Fox River, and small locally-named bays and basins as displayed on the attached maps. Project description and bidding specifications follow:

### **PROJECT DESCRIPTION:**

With Onterra, LLC’s assistance, the WWMD is committed to controlling EWM in multiple areas and maintaining navigation lanes through nuisance levels of aquatic vegetation during the 2018 and 2019 growing seasons. This bid request is for 2018 and 2019 (i.e. two-year contract). Please bid exactly on the following strategy using the specific herbicide dose listed on the attached maps for 2018. Please also provide a bid for the same treatment occurring in 2019. Any additional treatment ideas you have can be submitted as additional options.

Additional information is available on the WWMD website by accessing the Waterford Waterway 2018 Interim Plan.

1. Treat 68.3 non-contiguous acres of EWM as specified on Map 1
  - In your bid response, please confirm the gallons of each product required with your own calculations.
  - The final treatment acreage will be determined following a pretreatment survey conducted by Onterra, LLC staff approximately 3 weeks after ice-out.
2. Treat approximately 28.5 acres of mixed natives and exotics up to three times during the 2018 growing season (approximately late-May through August). Please see Map 2.
  - Many of the areas displayed on Map 2 may be treated several times through out the 2018 growing season, whereas others may not be warranted at all. In your bid, please provide a per acre cost for applying the herbicides listed at the specified concentrations. If a minimum acreage must be treated as a part of an application event, please specify that minimum. If other price break-points are available, please list those separately.

### **PERFORMANCE REQUIREMENTS:**

#### **Timing:**

The WWMD puts the following condition on the EWM treatment application: application cannot occur when winds exceed 7 mph, and would prefer the application occur when winds are 0-5 mph. To satisfy this requirement, applications may occur during the early morning hours.

Ideal treatment timing would be dictated by factors of aquatic plant growth stage, water temperature, holiday weekends, etc. as dictated by the WWMD's lake management consultant, Onterra, LLC with input from the applicator firm.

**Electronic data exchange:**

The success of this project will rely heavily on the accurate and timely transmittal of spatial data between the applicator, the WWMD, and Onterra, LLC. The results of the spring EWM pretreatment surveys are used to refine the conditional EWM treatment plans. Similar surveys will be completed by Onterra, LLC staff prior to navigation lane treatments as well. The refined application areas for both types of treatments are provided to the district, the WDNR, and the applicator immediately following completion of the pretreatment survey (could be 24 hours or less prior to the scheduled treatment) in the form of an updated map in Adobe's Portable Document Format (.pdf). Upon approval of the refined treatment areas by the WDNR and the WWMD, the refined areas are considered the final treatment sites.

EWM treatment areas include a predetermined buffer around the target species and are often irregular in shape. Onterra, LLC will provide the applicator with details of the final treatment areas in ArcView shapefile format (polygon or polylines in WGS84 or WTM 83/91(HARN)).

**Financial Obligation:**

If the final permit in 2018 and/or 2019 is denied or the WWMD decides not to conduct either treatment type for **any** reason, WWMD will not be financially responsible for services that were not performed (i.e. herbicide application costs). This includes the potential need for less product based upon updated application area characteristics determined just prior to treatment.

**The WWMD reserves the right to award the project based upon factors it deems important, including but not limited to: overall cost, application equipment, GPS technology, experience, references. To aid in the decision process, please list individually within your bid package the following:**

1. Timely electronic data exchange
  - a. Please specify specific GPS model (or GPS methodology) and accuracy specifications
  - b. Please provide specific examples of ability to exchange this form of data with Onterra
2. Specific herbicide application equipment abilities to perform the prescribed treatments - Pictures of your delivery equipment with additional explanation are encouraged
3. Ability to schedule and conduct the treatment when indicated by Onterra, LLC
4. Ability to be flexible in conditions of inclement wind (>7 mph)
5. Ability to and cost associated with preparing and coordinating WDNR and WPDES

Permit Applications and post-application treatment records

6. Explanation of additional permit-related costs such as educational mailing and newspaper notice. Please note that WWMD may decide to handle these activities themselves, but will discuss at a later date
7. Explanation of all cost estimates broken apart by herbicide product, labor, and mobilization of equipment (travel)
8. Applicator Detail:
  - a. Firm name, Address, Telephone number, e-mail address
  - b. Contact name
  - c. Wisconsin certification for aquatic pesticide application
  - d. Certificate of Liability Insurance
  - e. Worker's Compensation Insurance Company Policy Number
  - f. References for similar work completed

Your bid must be post marked no later than February 23, 2018 by mail to:

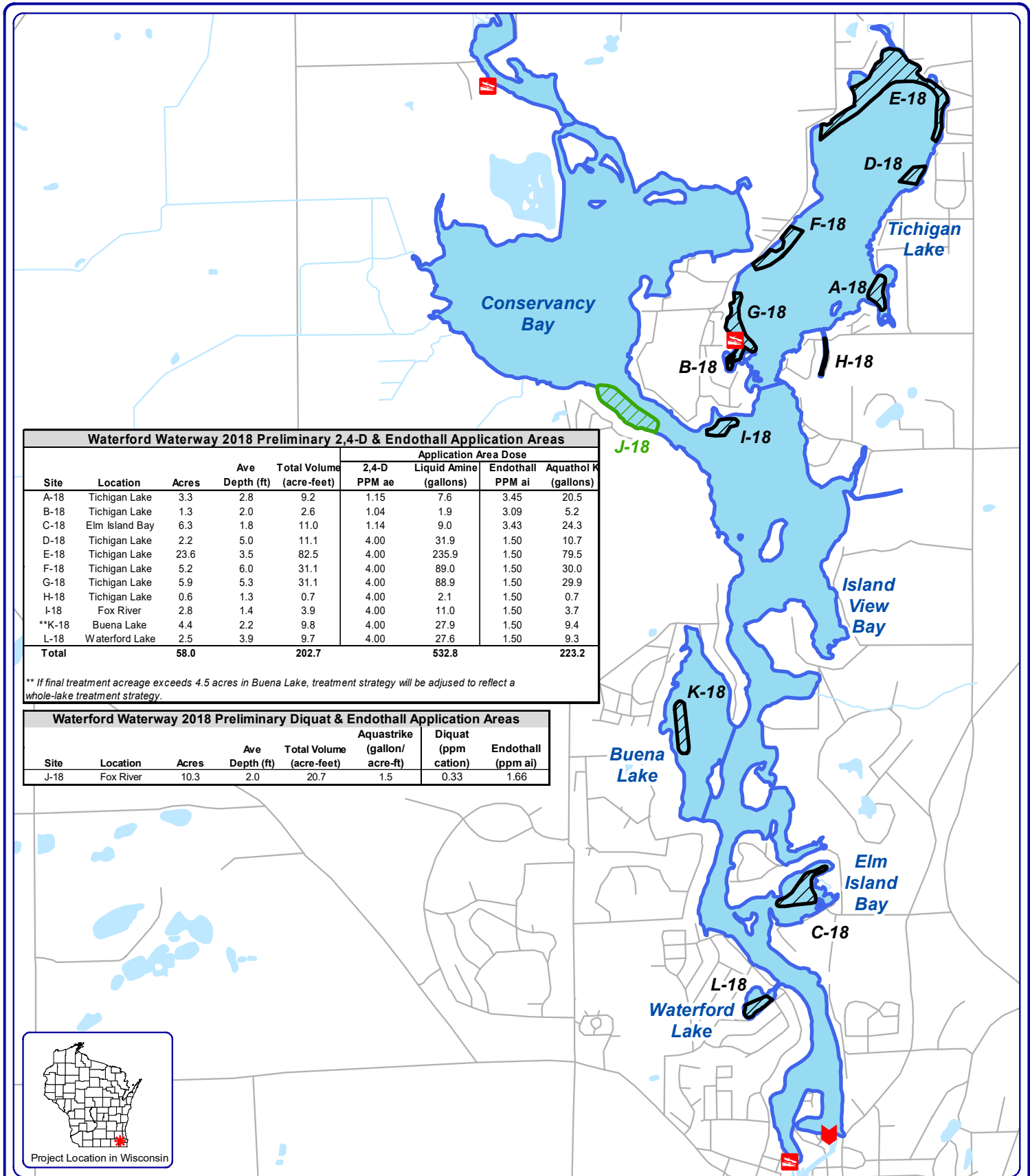
WWMD  
Herbicide Bid  
Post Office Box 416  
Waterford, Wisconsin 53185

Please feel free to contact me for any additional information at (312) 952-1959 or [mikewaghorn@yahoo.com](mailto:mikewaghorn@yahoo.com).

You are also welcome to contact Tim Hoyman ([thoyman@onterra-eco.com](mailto:thoyman@onterra-eco.com)) for technical specifics regarding your bid.

Thank you for your consideration of this matter.

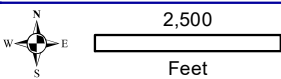
Sincerely,  
Mike Waghorn  
Chair, Waterford Waterway Aquatic Plant Management Committee



Waterford Waterway 2018 Preliminary 2,4-D & Endothall Application Areas								
Site	Location	Acres	Ave Depth (ft)	Total Volume (acre-feet)	Application Area Dose			
					2,4-D PPM ae	Liquid Amine (gallons)	Endothall PPM ai	Aquathol K (gallons)
A-18	Tichigan Lake	3.3	2.8	9.2	1.15	7.6	3.45	20.5
B-18	Tichigan Lake	1.3	2.0	2.6	1.04	1.9	3.09	5.2
C-18	Elm Island Bay	6.3	1.8	11.0	1.14	9.0	3.43	24.3
D-18	Tichigan Lake	2.2	5.0	11.1	4.00	31.9	1.50	10.7
E-18	Tichigan Lake	23.6	3.5	82.5	4.00	235.9	1.50	79.5
F-18	Tichigan Lake	5.2	6.0	31.1	4.00	89.0	1.50	30.0
G-18	Tichigan Lake	5.9	5.3	31.1	4.00	88.9	1.50	29.9
H-18	Tichigan Lake	0.6	1.3	0.7	4.00	2.1	1.50	0.7
I-18	Fox River	2.8	1.4	3.9	4.00	11.0	1.50	3.7
**K-18	Buena Lake	4.4	2.2	9.8	4.00	27.9	1.50	9.4
L-18	Waterford Lake	2.5	3.9	9.7	4.00	27.6	1.50	9.3
<b>Total</b>		<b>58.0</b>		<b>202.7</b>		<b>532.8</b>		<b>223.2</b>

\*\* If final treatment acreage exceeds 4.5 acres in Buena Lake, treatment strategy will be adjusted to reflect a whole-lake treatment strategy.

Waterford Waterway 2018 Preliminary Diquat & Endothall Application Areas							
Site	Location	Acres	Ave Depth (ft)	Total Volume (acre-feet)	Aquatrike	Diquat	Endothall
					(gallon/acre-ft)	(ppm cation)	(ppm ai)
J-18	Fox River	10.3	2.0	20.7	1.5	0.33	1.66



**Legend**

- 2018 Proposed Diquat Herbicide Application Areas
- 2018 Proposed 2,4-D & Endothall Herbicide Application Areas
- Public Access
- Waterford Dam

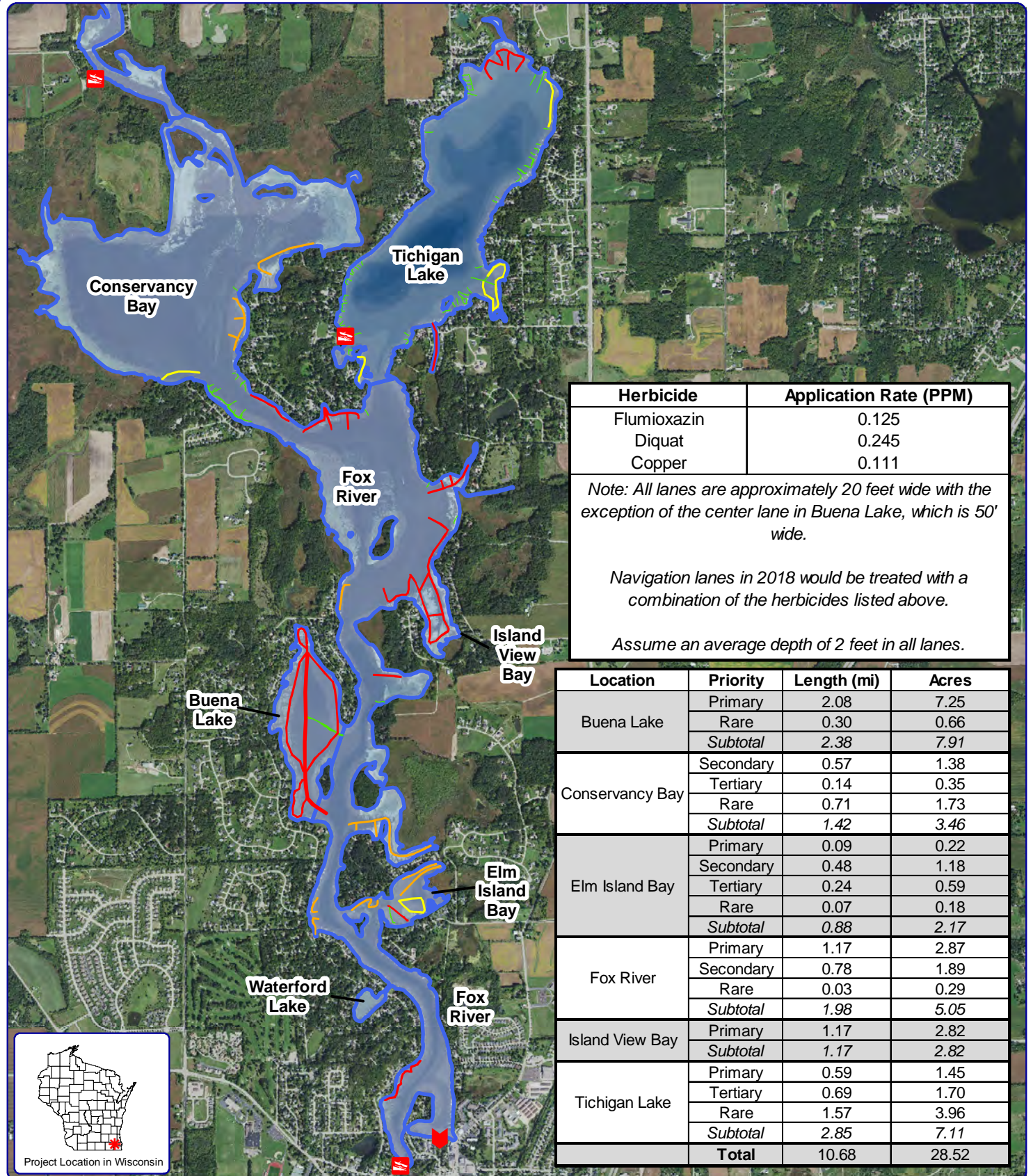
**Map 1**

Waterford Waterway  
Racine County, Wisconsin  
**2018 Preliminary EWM Treatment Strategy**

**Onterra LLC**  
Lake Management Planning  
815 Prosper Road  
De Pere, WI 54115  
920.338.8860  
www.onterra-eco.com

Sources:  
Roads and Hydrd: WDNR  
Plant Survey: Onterra, 2017  
Map Date: January 23, 2018  
Filename:  
Waterford\_EWM\_Sept17.mxd





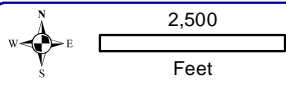
Herbicide	Application Rate (PPM)
Flumioxazin	0.125
Diquat	0.245
Copper	0.111

Note: All lanes are approximately 20 feet wide with the exception of the center lane in Buena Lake, which is 50' wide.

Navigation lanes in 2018 would be treated with a combination of the herbicides listed above.

Assume an average depth of 2 feet in all lanes.

Location	Priority	Length (mi)	Acres
Buena Lake	Primary	2.08	7.25
	Rare	0.30	0.66
	<b>Subtotal</b>	<b>2.38</b>	<b>7.91</b>
Conservancy Bay	Secondary	0.57	1.38
	Tertiary	0.14	0.35
	Rare	0.71	1.73
	<b>Subtotal</b>	<b>1.42</b>	<b>3.46</b>
Elm Island Bay	Primary	0.09	0.22
	Secondary	0.48	1.18
	Tertiary	0.24	0.59
	Rare	0.07	0.18
<b>Subtotal</b>	<b>0.88</b>	<b>2.17</b>	
Fox River	Primary	1.17	2.87
	Secondary	0.78	1.89
	Rare	0.03	0.29
	<b>Subtotal</b>	<b>1.98</b>	<b>5.05</b>
Island View Bay	Primary	1.17	2.82
	<b>Subtotal</b>	<b>1.17</b>	<b>2.82</b>
Tichigan Lake	Primary	0.59	1.45
	Tertiary	0.69	1.70
	Rare	1.57	3.96
	<b>Subtotal</b>	<b>2.85</b>	<b>7.11</b>
<b>Total</b>		<b>10.68</b>	<b>28.52</b>



**Onterra LLC**  
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 815 Prosper Road  
 De Pere, WI 54115  
 920.338.8860  
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Sources:  
 Roads and Hydro: WDNR  
 Bathymetry: WDNR, digitized by Onterra  
 Orthophotograph: NAIP, 2015  
 Map Date: January 15, 2018  
 Filename:  
 Waterford\_Nuisance\_Treatment.mxd

- Legend**
- Primary Nuisance Navigation Lane Treatment
  - Secondary Nuisance Navigation Lane Treatment
  - Tertiary Nuisance Navigation Lane Treatment
  - Rare Nuisance Navigation Lane Treatment
  - Public Access
  - Waterford Dam
  - Rare Nuisance Navigation Lane Treatment

Map 2  
 Waterford Waterway  
 Racine County, Wisconsin  
**2018 Potential  
 Herbicide  
 Navigation Lanes**