

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** ACEI18416  
**Name:** NORTH & SOUTH TWIN LAKES RIPARIAN ASSN: North & South Twin Lakes EWM Control & Prevention Project  
**Type:** Aquatic Invasives Grant  
**Subtype:** Aquatic Invasives Control  
**Status:** COMPLETE  
**Start Date:** 04/15/2016  
**End Date:** 12/31/2018  
**Purpose:** North and South Twin Lakes Riparian Association is sponsoring an ACEI grant on North and South Twin Lakes, in Vilas County. This project will focus on EWM management.

Project activities include: 1) Annual professional hand-harvesting of EWM; 2) Herbicide treatments of EWM; 3) Herbicide concentration monitoring; 4) Pre/post treatment monitoring and analysis; 5) Annual EWM peak biomass survey, analysis and mapping; 6) Annual volunteer AIS monitoring; 7) South Twin Lake point-intercept (PI) aquatic plant survey; 8) Develop annual treatment report and updated management plan.

Project deliverables include: 1) Manual removal and chemical control of EWM; 2) Pre/post treatment, herbicide monitoring, peak biomass, and PI survey data; 3) Treatment report and updated management plan.

Specific Conditions for this project: Annual reports and updated management plan need Dept review and approval.

WDNR Lakes Management Coordinator will be provided with an electronic (pdf or word) copy of all annual reports, all maps, all GIS, and survey data.

**Objective:**  
**Comments:** Grantee is NORTH & SOUTH TWIN LAKES RIPARIAN ASSN  
**Outcome:**  
**Study Design:**  
**QA Measures:**

### People

Name	Role	Status	Start Date	End Date	Organization	Comments
Bailey, Robert G	APPLICANT	ACTIVE	06/02/2016			
Heath, Eddie	LEAD_EQUIPME	ACTIVE	06/02/2016		Onterra, LLC	
North & South Twin Lakes Ri	GRANT_RECIIPI	ACTIVE	06/01/2016		North & South Twin Lakes Riparian Association	
State Lab of Hygiene,	LABORATORY	ACTIVE	06/02/2016		State Lab of Hygiene	

### Project Statuses

Date	Reported By	Status	Comments
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### Actions

Action	Detailed Description	Start	End Date	Status
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## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Permit Request	Chemical Permit Details	04/14/2016	10/01/2017	APPROVED
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	APM Plan	N		
	APM Plan Agree	N		
	Advance Notification	N		
	Broad-leaved cattail ( <i>Typha latifolia</i> )	N		
	Business Location License	N/A		
	CO - # days	2		
	CO - 15 days	Y		
	CO - Date Sent	4/18/2016		
	CO-Date_Received	4/14/2016		
	CONTROL_INVASIVES	N		
	CONTROL_OTHER	N		
	Category 5 Certification Number	N/A		
	Chemical Permit ID	3073		
	Chemicals - Approved	Liquid 2,4 D applied at .35 pp		
	Common arrowhead ( <i>Sagittaria latifolia</i> )	N		
	Common reed ( <i>Phragmites australis</i> )	N		
	Common waterweed ( <i>Elodea canadensis</i> )	N		
	Control - Algae	N		
	Control - Emergent water plants	N		
	Control - Floating water plants	N		
	Control - Nuisance algae	N		
	Control - PL	N		
	Control - Submerged water plants	Y		
	Coontail ( <i>Ceratophyllum demersum</i> )	N		
	Curly-leaf pondweed ( <i>Potamogeton crispus</i> )	N		
	Entered in SharePoint	N		
	Estimated Acres	161.25		
	Eurasian water-milfoil ( <i>Myriophyllum spicatum</i> )	Y		
	Expiration Date	10/1/2016		
	Fee	1270		
	Field - 15 days	N		
	Field Issued By	Kevin_Gauthier		
	Filamentous Algae	N		
	Improvement - swimming	N		
	Lake Surface Area			
	Large Duckweed ( <i>Spirodela polyrhiza</i> )	N		
	Large Scale Treatment Form	N		
	Large-leaf pondweed	N		

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
(Potamogeton amplifolius)				
Maintain navigational channel	N			
Maintain private access - boating	N			
Maintain private access - fishing	N			
Muskgrasses (Chara )	N			
NUISANCE_CAUSED_OTHER	N			
Native Plants	N			
Next Steps	Sent to Kevin			
Payment Number	1600			
Permit County	Vilas			
Permit End Year	2016			
Permit Latitude	46.0320			
Permit Longitude	-89.1708			
Permit PLSS Section	18 41N11E			
Permit Start Year	2016			
Permit WBIC	1623700			
Permit Year	2016			
Pithophora	N			
Planktonic Algae	N			
Private Pond	N			
Purple loosestrife (Lythrum salicaria)	N			
Sensitive Area	N			
Softstem bulrush (Schoenoplectus tabernaemontani)	N			
Sogo pondweed (Stuckenia pectinata)	N			
TREATMENT_AREA	South Twin Lake			
Treatment Date	N			
Treatment Date	N			
Treatment Record - Received	N			
Treatment Record - Scanned	N			
Waterbody Type	LAKE			
Grant Awarded	South Twin Lake	04/15/2016	06/30/2018	COMPLETE

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Treatment Record	Chemical treatment details	06/07/2016	06/07/2016	COMPLETE
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Aqua-Pro Acres	0		
	Aqua-Pro Gallons	0		
	Aquaneat Acres	0		
	Aquaneat Gallons	0		
	Aquashade Acres	0		
	Aquashade Pounds	0		
	Aquastar Acres	0		
	Aquastar Gallons	0		
	Aquathol Acres	0		
	Aquathol Gallons	0		
	Aquathol K Acres	0		
	Aquathol K Gallons	0		
	Aquathol Super K, # Acres	0		
	Aquathol Super K, # Pounds	0		
	Aquathol, # Acres Gallons	0		
	Aquathol, # Pounds	0		
	Avast Acres	0		
	Avast Gallons	0		
	Captain XTR, # Acres	0		
	Captain XTR, # Gallons	0		
	Clearcast Acres	0		
	Clearcast Gallons	0		
	Clearigate Acres	0		
	Clearigate Gallons	0		
	Contains Herbicide totals	N		
	Control Comments	DUPLICATE RECORD		
	Copper Acres	0		
	Copper Liquid, # Acres	0		
	Copper Liquid, # Gallons	0		
	Copper Pounds	0		
	Citrine Acres	0		
	Citrine Liquid Acres	0		
	Citrine Liquid Gallons	0		
	Citrine Plus Acres	0		
	Citrine Plus Liquid Acres	0		
	Citrine Plus Liquid Gallons	0		
	Citrine Plus Pounds	0		
	Citrine Pounds	0		
	Citrine Ultra Acres	0		
	Citrine Ultra Gallons	0		
	DMA 4 IVM Acres	161.25		
	DMA 4 IVM Gallons	1817		
	Diquat Acres	0		
	Diquat Gallons	0		
	Diquat Liquid Acres	0		

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
	Diquat Pounds	0		
	Endotholl Acres	0		
	Endotholl Liquid Acres	0		
	Endotholl Liquid Gallons	0		
	Endotholl Pounds	0		
	Floridone Acres	0		
	Floridone Gallons	0		
	Glyphosate Acres	0		
	Glyphosate Gallons	0		
	Glyphosate Liquid Acres	0		
	Glyphosate Pounds	0		
	Green Clean Acres	0		
	Green Clean Gallons	0		
	H2O2 Acres	0		
	H2O2 Pounds	0		
	Habitat Acres	0		
	Habitat Gallons	0		
	Harvester Acres	0		
	Harvester Gallons	0		
	Hydrothol Acres	0		
	Hydrothol Gallons	0		
	Imazapyr Acres	0		
	Imazapyr Gallons	0		
	Nautique Acres	0		
	Nautique Gallons	0		
	Navigate Acres	0		
	Navigate, # Pounds	0		
	Onsite Supervision	No		
	Permit County	Vilas		
	Permit Year	2016		
	Person Completing Form	N/A		
	Phycomycin Acres	0		
	Phycomycin Pounds	0		
	Polaris Acres	0		
	Polaris Gallons	0		
	Refuge Acres	0		
	Refuge Gallons	0		
	Reward Acres	0		
	Reward Gallons	0		
	Reward Liquid Acres	0		
	Reward Pounds	0		
	Rodeo Acres	0		
	Rodeo Gallons	0		
	SCI-62 Acres	0		
	SCI-62 Gallons	0		
	Sculpin G Acres	0		

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Action	Detailed Description	Start	End Date	Status
Details: Parameter	Value/Amount	Units	Comments	
Sculpin G Pounds	0			
SeClear Acres	0			
SeClear Gallons	0			
ShoreKlear Acres	0			
ShoreKlear Gallons	0			
Sonar AS Gallons	0			
Sonor AS Acres	0			
Touchdown Pro Acres	0			
Touchdown Pro Gallons	0			
Treatment Date Series	DUPLICATE RECORD			
Tribune Acres	0			
Tribune Gallons	0			
Vectobac Acres	0			
Vectobac Gallons	0			
Water Use Restriction - Animal Water	N			
Water Use Restriction - Crop Irrigation	N			
Water Use Restriction - Drinking Water	N			
Water Use Restriction - Fish Consumption	N			
Water Use Restriction - None	N			
Water Use Restriction - Other Irrigation	N			
Water Use Restriction - Swimming	N			

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Treatment Record	Chemical treatment details	06/07/2016	06/07/2016	COMPLETE
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Aqua-Pro Acres	0		
	Aqua-Pro Gallons	0		
	Aquaneat Acres	0		
	Aquaneat Gallons	0		
	Aquashade Acres	0		
	Aquashade Pounds	0		
	Aquastar Acres	0		
	Aquastar Gallons	0		
	Aquathol Acres	0		
	Aquathol Gallons	0		
	Aquathol K Acres	0		
	Aquathol K Gallons	0		
	Aquathol Super K, # Acres	0		
	Aquathol Super K, # Pounds	0		
	Aquathol, # Acres Gallons	0		
	Aquathol, # Pounds	0		
	Avast Acres	0		
	Avast Gallons	0		
	Captain XTR, # Acres	0		
	Captain XTR, # Gallons	0		
	Clearcast Acres	0		
	Clearcast Gallons	0		
	Clearigate Acres	0		
	Clearigate Gallons	0		
	Contains Herbicide totals	N		
	Control Comments	DUPLICATE RECORD		
	Copper Acres	0		
	Copper Liquid, # Acres	0		
	Copper Liquid, # Gallons	0		
	Copper Pounds	0		
	Citrine Acres	0		
	Citrine Liquid Acres	0		
	Citrine Liquid Gallons	0		
	Citrine Plus Acres	0		
	Citrine Plus Liquid Acres	0		
	Citrine Plus Liquid Gallons	0		
	Citrine Plus Pounds	0		
	Citrine Pounds	0		
	Citrine Ultra Acres	0		
	Citrine Ultra Gallons	0		
	DMA 4 IVM Acres	161.25		
	DMA 4 IVM Gallons	1805		
	Diquat Acres	0		
	Diquat Gallons	0		
	Diquat Liquid Acres	0		

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
Details: Parameter	Value/Amount	Units	Comments	
	Diquat Pounds	0		
	Endotholl Acres	0		
	Endotholl Liquid Acres	0		
	Endotholl Liquid Gallons	0		
	Endotholl Pounds	0		
	Floridone Acres	0		
	Floridone Gallons	0		
	Glyphosate Acres	0		
	Glyphosate Gallons	0		
	Glyphosate Liquid Acres	0		
	Glyphosate Pounds	0		
	Green Clean Acres	0		
	Green Clean Gallons	0		
	H2O2 Acres	0		
	H2O2 Pounds	0		
	Habitat Acres	0		
	Habitat Gallons	0		
	Harvester Acres	0		
	Harvester Gallons	0		
	Herbicide Treatment and Water Use Restriction Signs Posted in Accordance with NR 107?	Y		
	Hydrothol Acres	0		
	Hydrothol Gallons	0		
	Imazapyr Acres	0		
	Imazapyr Gallons	0		
	Nautique Acres	0		
	Nautique Gallons	0		
	Navigate Acres	0		
	Navigate, # Pounds	0		
	Onsite Supervision	No		
	Permit County	Vilas		
	Permit Year	2016		
	Person Completing Form	N/A		
	Phycomycin Acres	0		
	Phycomycin Pounds	0		
	Polaris Acres	0		
	Polaris Gallons	0		
	Refuge Acres	0		
	Refuge Gallons	0		
	Reward Acres	0		
	Reward Gallons	0		
	Reward Liquid Acres	0		
	Reward Pounds	0		
	Rodeo Acres	0		
	Rodeo Gallons	0		



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Action	Detailed Description	Start	End Date	Status
Details: Parameter	Value/Amount	Units	Comments	
SCI-62 Acres	0			
SCI-62 Gallons	0			
Sculpin G Acres	0			
Sculpin G Pounds	0			
SeClear Acres	0			
SeClear Gallons	0			
ShoreKlear Acres	0			
ShoreKlear Gallons	0			
Sonar AS Gallons	0			
Sonar AS Acres	0			
Touchdown Pro Acres	0			
Touchdown Pro Gallons	0			
Treatment Date Series	DUPLICATE RECORD			
Tribune Acres	0			
Tribune Gallons	0			
Vectobac Acres	0			
Vectobac Gallons	0			
Water Use Restriction - Animal Water	N			
Water Use Restriction - Crop Irrigation	N			
Water Use Restriction - Drinking Water	N			
Water Use Restriction - Fish Consumption	N			
Water Use Restriction - None	N			
Water Use Restriction - Other Irrigation	N			
Water Use Restriction - Swimming	N			

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Treatment Record	Chemical treatment details	06/10/2016	06/10/2016	COMPLETE
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Air Temperature	48-54		
	Air Temperature Units	F		
	Aqua-Pro Acres	0		
	Aqua-Pro Gallons	0		
	Aquaneat Acres	0		
	Aquaneat Gallons	0		
	Aquashade Acres	0		
	Aquashade Pounds	0		
	Aquastar Acres	0		
	Aquastar Gallons	0		
	Aquathol Acres	0		
	Aquathol Gallons	0		
	Aquathol K Acres	0		
	Aquathol K Gallons	0		
	Aquathol Super K, # Acres	0		
	Aquathol Super K, # Pounds	0		
	Aquathol, # Acres Gallons	0		
	Aquathol, # Pounds	0		
	Avast Acres	0		
	Avast Gallons	0		
	Captain XTR, # Acres	0		
	Captain XTR, # Gallons	0		
	Clearcast Acres	0		
	Clearcast Gallons	0		
	Clearigate Acres	0		
	Clearigate Gallons	0		
	Common waterweed (Elodea canadensis)	SP		
	Contains Herbicide totals	Y		
	Control Comments	*Lakewide 2,4-D rate = 350 ppb		
	Coontail (Ceratophyllum demersum)	SP		
	Copper Acres	0		
	Copper Liquid, # Acres	0		
	Copper Liquid, # Gallons	0		
	Copper Pounds	0		
	Citrine Acres	0		
	Citrine Liquid Acres	0		
	Citrine Liquid Gallons	0		
	Citrine Plus Acres	0		
	Citrine Plus Liquid Acres	0		
	Citrine Plus Liquid Gallons	0		
	Citrine Plus Pounds	0		
	Citrine Pounds	0		
	Citrine Ultra Acres	0		

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
Citrine Ultra Gallons	0			
DMA 4 IVM Acres	161.25			
DMA 4 IVM Gallons	12			
Diquat Acres	0			
Diquat Gallons	0			
Diquat Liquid Acres	0			
Diquat Pounds	0			
Duration of Chemical Residualts	21			
Endotholl Acres	0			
Endotholl Liquid Acres	0			
Endotholl Liquid Gallons	0			
Endotholl Pounds	0			
Eurasian water-milfoil (Myriophyllum spicatum)	TS			
Floridone Acres	0			
Floridone Gallons	0			
Glyphosate Acres	0			
Glyphosate Gallons	0			
Glyphosate Liquid Acres	0			
Glyphosate Pounds	0			
Green Clean Acres	0			
Green Clean Gallons	0			
H2O2 Acres	0			
H2O2 Pounds	0			
Habitat Acres	0			
Habitat Gallons	0			
Harvester Acres	0			
Harvester Gallons	0			
Herbicide Treatment and Water Use Restriction Signs Posted in Accordance with NR 107?	Y			
Hydrothol Acres	0			
Hydrothol Gallons	0			
Imazapyr Acres	0			
Imazapyr Gallons	0			
Large-leaf pondweed (Potamogeton amplifolius)	SP			
Muskgrasses (Chara )	SP			
Nautique Acres	0			
Nautique Gallons	0			
Navigate Acres	0			
Navigate, # Pounds	0			
OTHER_Aquatics	SP			
OTHER_Aquatics_Desc	Variable pondweed; hard-stem b			
Onsite Supervision	No			

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
Permit County	Vilas			
Permit Year	2016			
Person Completing Form	James Scharl			
Phycomycin Acres	0			
Phycomycin Pounds	0			
Polaris Acres	0			
Polaris Gallons	0			
Refuge Acres	0			
Refuge Gallons	0			
Reward Acres	0			
Reward Gallons	0			
Reward Liquid Acres	0			
Reward Pounds	0			
Rodeo Acres	0			
Rodeo Gallons	0			
SCI-62 Acres	0			
SCI-62 Gallons	0			
Sculpin G Acres	0			
Sculpin G Pounds	0			
SeClear Acres	0			
SeClear Gallons	0			
ShoreKlear Acres	0			
ShoreKlear Gallons	0			
Sonar AS Gallons	0			
Sonor AS Acres	0			
Touchdown Pro Acres	0			
Touchdown Pro Gallons	0			
Treatment Date	6/07/2016			
Treatment Date Series	Also includes treatment detail			
Treatment End Time	16:00			
Treatment Start Time	7:30			
Tribune Acres	0			
Tribune Gallons	0			
Vectobac Acres	0			
Vectobac Gallons	0			
Water Temperature	62			
Water Temperature Units	F			
Water Use Restriction - Animal Water	N			
Water Use Restriction - Crop Irrigation	N			
Water Use Restriction - Drinking Water	N			
Water Use Restriction - Fish Consumption	N			
Water Use Restriction - None	N			
Water Use Restriction - Other Irrigation	N			

## Wisconsin Department of Natural Resources SWIMS Project Summary

<b>Action</b>		<b>Detailed Description</b>		<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>		
	Water Use Restriction - Swimming	N				
	White water lily (Nymphaea odorata)	SP				
	Wind Direction	NW				
	Wind Speed	5-15				

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Action	Detailed Description	Start	End Date	Status
APM Chemical Permit Request	Chemical Permit Details	03/21/2017	10/01/2017	APPROVED
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	APM Plan	N		
	APM Plan Agree	N		
	Advance Notification	N		
	Broad-leaved cattail (Typha latifolia)	N		
	Business Location License	N/A		
	CO - # days	2		
	CO - 15 days	N		
	CO - Date Sent	3/23/2017		
	CO-Date_Received	3/21/2017		
	CONTROL_INVASIVES	N		
	CONTROL_OTHER	N		
	Category 5 Certification Number	N/A		
	Chemical Permit ID	4117		
	Chemicals - Approved	DMAIVM4, Aquathol K		
	Common arrowhead (Sagittaria latifolia)	N		
	Common reed (Phragmites australis)	N		
	Common waterweed (Elodea canadensis)	N		
	Control - Algae	N		
	Control - Emergent water plants	N		
	Control - Floating water plants	N		
	Control - Nuisance algae	N		
	Control - PL	N		
	Control - Submerged water plants	Y		
	Coontail (Ceratophyllum demersum)	N		
	Curly-leaf pondweed (Potamogeton crispus)	N		
	Entered in SharePoint	N		
	Estimated Acres	24.6		
	Eurasian water-milfoil (Myriophyllum spicatum)	Y		
	Expiration Date	10/1/2017		
	Fee	645		
	Field - 15 days	N		
	Field Issued By	Kevin_Gauthier		
	Filamentous Algae	N		
	Improvement - swimming	N		
	Lake Surface Area			
	Large Duckweed (Spirodela polyrhiza)	N		
	Large Scale Treatment Form	N		
	Large-leaf pondweed	N		

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
(Potamogeton amplifolius)				
Maintain navigational channel	N			
Maintain private access - boating	N			
Maintain private access - fishing	N			
Muskgrasses (Chara )	N			
NUISANCE_CAUSED_OTHER	N			
Native Plants	N			
Next Steps	Kevin			
Payment Number	3021			
Permit County	Vilas			
Permit End Year	2017			
Permit Latitude	46.054160			
Permit Longitude	-89.134330			
Permit PLSS Section	18 41N11E			
Permit Start Year	2017			
Permit WBIC	1623800			
Permit Year	2017			
Pithophora	N			
Planktonic Algae	N			
Private Pond	N			
Purple loosestrife (Lythrum salicaria)	N			
Sensitive Area	N			
Softstem bulrush (Schoenoplectus tabernaemontani)	N			
Sogo pondweed (Stuckenia pectinata)	N			
TREATMENT_AREA	North Twin Lake			
Treatment Date	N			
Treatment Date	N			
Treatment Record - Received	N			
Treatment Record - Scanned	N			
Waterbody Type	LAKE			

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Treatment Record	Chemical treatment details	05/23/2017	05/23/2017	COMPLETE
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Aqua-Pro Acres	0		
	Aqua-Pro Gallons	0		
	Aquaneat Acres	0		
	Aquaneat Gallons	0		
	Aquashade Acres	0		
	Aquashade Pounds	0		
	Aquastar Acres	0		
	Aquastar Gallons	0		
	Aquathol Acres	0		
	Aquathol Gallons	0		
	Aquathol K Acres	0		
	Aquathol K Gallons	220		
	Aquathol Super K, # Acres	0		
	Aquathol Super K, # Pounds	0		
	Aquathol, # Acres Gallons	24.6		
	Aquathol, # Pounds	0		
	Avast Acres	0		
	Avast Gallons	0		
	Captain XTR, # Acres	0		
	Captain XTR, # Gallons	0		
	Clearcast Acres	0		
	Clearcast Gallons	0		
	Clearigate Acres	0		
	Clearigate Gallons	0		
	Control Comments	DUPLICATE RECORD		
	Copper Acres	0		
	Copper Liquid, # Acres	0		
	Copper Liquid, # Gallons	0		
	Copper Pounds	0		
	Citrine Acres	0		
	Citrine Liquid Acres	0		
	Citrine Liquid Gallons	0		
	Citrine Plus Acres	0		
	Citrine Plus Liquid Acres	0		
	Citrine Plus Liquid Gallons	0		
	Citrine Plus Pounds	0		
	Citrine Pounds	0		
	Citrine Ultra Acres	0		
	Citrine Ultra Gallons	0		
	DMA 4 IVM Acres	24.6		
	DMA 4 IVM Gallons	654		
	Diquat Acres	0		
	Diquat Gallons	0		
	Diquat Liquid Acres	0		
	Diquat Pounds	0		



**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
	Endotholl Acres	0		
	Endotholl Liquid Acres	0		
	Endotholl Liquid Gallons	0		
	Endotholl Pounds	0		
	Floridone Acres	0		
	Floridone Gallons	0		
	Glyphosate Acres	0		
	Glyphosate Gallons	0		
	Glyphosate Liquid Acres	0		
	Glyphosate Pounds	0		
	Green Clean Acres	0		
	Green Clean Gallons	0		
	H2O2 Acres	0		
	H2O2 Pounds	0		
	Habitat Acres	0		
	Habitat Gallons	0		
	Harvester Acres	0		
	Harvester Gallons	0		
	Hydrothol Acres	0		
	Hydrothol Gallons	0		
	Imazapyr Acres	0		
	Imazapyr Gallons	0		
	Nautique Acres	0		
	Nautique Gallons	0		
	Navigate Acres	0		
	Navigate, # Pounds	0		
	Onsite Supervision	No		
	Permit County	Vilas		
	Permit Year	2017		
	Person Completing Form	N/A		
	Phycomycin Acres	0		
	Phycomycin Pounds	0		
	Polaris Acres	0		
	Polaris Gallons	0		
	Refuge Acres	0		
	Refuge Gallons	0		
	Reward Acres	0		
	Reward Gallons	0		
	Reward Liquid Acres	0		
	Reward Pounds	0		
	Rodeo Acres	0		
	Rodeo Gallons	0		
	SCI-62 Acres	0		
	SCI-62 Gallons	0		
	Sculpin G Acres	0		
	Sculpin G Pounds	0		

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description		Start	End Date	Status
Details:	Parameter	Value/Amount	Units	Comments	
	SeClear Acres	0			
	SeClear Gallons	0			
	ShoreKlear Acres	0			
	ShoreKlear Gallons	0			
	Sonar AS Gallons	0			
	Sonor AS Acres	0			
	Touchdown Pro Acres	0			
	Touchdown Pro Gallons	0			
	Treatment Date Series	Duplicate Record			
	Tribune Acres	0			
	Tribune Gallons	0			
	Vectobac Acres	0			
	Vectobac Gallons	0			
	Water Use Restriction - Animal Water	N			
	Water Use Restriction - Crop Irrigation	N			
	Water Use Restriction - Drinking Water	N			
	Water Use Restriction - Fish Consumption	N			
	Water Use Restriction - None	N			
	Water Use Restriction - Other Irrigation	N			
	Water Use Restriction - Swimming	N			

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
APM Chemical Treatment Record	Chemical treatment details	05/23/2017	05/23/2017	COMPLETE
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Air Temperature	11.7-13.9		
	Air Temperature Units	C		
	Aqua-Pro Acres	0		
	Aqua-Pro Gallons	0		
	Aquaneat Acres	0		
	Aquaneat Gallons	0		
	Aquashade Acres	0		
	Aquashade Pounds	0		
	Aquastar Acres	0		
	Aquastar Gallons	0		
	Aquathol Acres	0		
	Aquathol Gallons	0		
	Aquathol K Acres	0		
	Aquathol K Gallons	220		
	Aquathol Super K, # Acres	0		
	Aquathol Super K, # Pounds	0		
	Aquathol, # Acres Gallons	24.6		
	Aquathol, # Pounds	0		
	Avast Acres	0		
	Avast Gallons	0		
	Captain XTR, # Acres	0		
	Captain XTR, # Gallons	0		
	Clearcast Acres	0		
	Clearcast Gallons	0		
	Clearigate Acres	0		
	Clearigate Gallons	0		
	Contains Herbicide totals	Y		
	Copper Acres	0		
	Copper Liquid, # Acres	0		
	Copper Liquid, # Gallons	0		
	Copper Pounds	0		
	Citrine Acres	0		
	Citrine Liquid Acres	0		
	Citrine Liquid Gallons	0		
	Citrine Plus Acres	0		
	Citrine Plus Liquid Acres	0		
	Citrine Plus Liquid Gallons	0		
	Citrine Plus Pounds	0		
	Citrine Pounds	0		
	Citrine Ultra Acres	0		
	Citrine Ultra Gallons	0		
	DMA 4 IVM Acres	24.6		
	DMA 4 IVM Gallons	654		
	Diquat Acres	0		
	Diquat Gallons	0		

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
Details: Parameter	Value/Amount	Units	Comments	
	Diquat Liquid Acres	0		
	Diquat Pounds	0		
	Duration of Chemical Residualts	<30 days		
	Endotholl Acres	0		
	Endotholl Liquid Acres	0		
	Endotholl Liquid Gallons	0		
	Endotholl Pounds	0		
	Eurasian water-milfoil (Myriophyllum spicatum)	TS		
	Floridone Acres	0		
	Floridone Gallons	0		
	Glyphosate Acres	0		
	Glyphosate Gallons	0		
	Glyphosate Liquid Acres	0		
	Glyphosate Pounds	0		
	Green Clean Acres	0		
	Green Clean Gallons	0		
	H2O2 Acres	0		
	H2O2 Pounds	0		
	Habitat Acres	0		
	Habitat Gallons	0		
	Harvester Acres	0		
	Harvester Gallons	0		
	Herbicide Treatment and Water Use Restriction Signs Posted in Accordance with NR 107?	Y		
	Hydrothol Acres	0		
	Hydrothol Gallons	0		
	Imazapyr Acres	0		
	Imazapyr Gallons	0		
	Nautique Acres	0		
	Nautique Gallons	0		
	Navigate Acres	0		
	Navigate, # Pounds	0		
	Onsite Supervision	No		
	Permit County	Vilas		
	Permit Year	2017		
	Person Completing Form	Amy Kay Wensink		
	Phycomycin Acres	0		
	Phycomycin Pounds	0		
	Polaris Acres	0		
	Polaris Gallons	0		
	Refuge Acres	0		
	Refuge Gallons	0		
	Reward Acres	0		
	Reward Gallons	0		

## Wisconsin Department of Natural Resources SWIMS Project Summary

Action	Detailed Description	Start	End Date	Status
Details: Parameter	Value/Amount	Units	Comments	
Reward Liquid Acres	0			
Reward Pounds	0			
Rodeo Acres	0			
Rodeo Gallons	0			
SCI-62 Acres	0			
SCI-62 Gallons	0			
Sculpin G Acres	0			
Sculpin G Pounds	0			
SeClear Acres	0			
SeClear Gallons	0			
ShoreKlear Acres	0			
ShoreKlear Gallons	0			
Sonar AS Gallons	0			
Sonor AS Acres	0			
Touchdown Pro Acres	0			
Touchdown Pro Gallons	0			
Treatment Date	5/23/2017			
Treatment End Time	13:52			
Treatment Start Time	8:57			
Tribune Acres	0			
Tribune Gallons	0			
Vectobac Acres	0			
Vectobac Gallons	0			
Water Temperature	10.6-11.1			
Water Temperature Units	C			
Water Use Restriction - Animal Water	N			
Water Use Restriction - Crop Irrigation	N			
Water Use Restriction - Drinking Water	N			
Water Use Restriction - Fish Consumption	N			
Water Use Restriction - None	N			
Water Use Restriction - Other Irrigation	N			
Water Use Restriction - Swimming	N			
Wind Direction	variable			
Wind Speed	0-1.2			

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
APM Chemical Permit Request	Chemical Permit Details	02/26/2018	02/28/2018	DENIED
<b>Details:</b>	<b>Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>
	Broad-leaved cattail (Typha latifolia)	N		
	CO - # days	2		
	CO - 15 days	Y		
	CO - Date Sent	2/28/2018		
	CO-Date_Received	2/26/2018		
	CONTROL_OTHER	N		
	Chemical Permit ID	5415		
	Chemicals - Approved	SonarOne		
	Comments	Denied3/19, refund submitTed		
		J		
	Common arrowhead (Sagittaria latifolia)	N		
	Common reed (Phragmites australis)	N		
	Common waterweed (Elodea canadensis)	N		
	Control - Algae	N		
	Control - Emergent water plants	N		
	Control - Floating water plants	N		
	Control - Nuisance algae	N		
	Control - PL	N		
	Control - Submerged water plants	Y		
	Coontail (Ceratophyllum demersum)	N		
	Curly-leaf pondweed (Potamogeton crispus)	N		
	Entered in SharePoint	Y		
	Estimated Acres	178.8		
	Eurasian water-milfoil (Myriophyllum spicatum)	Y		
	Fee	1270		
	Field - # days	Y		
	Field Issued By	Kevin_Gauthier_Ty_Krajewski		
	Filamentous Algae	N		
	Improvement - swimming	N		
	Large Duckweed (Spirodela polyrhiza)	N		
	Large Scale Treatment Form	N		
	Large-leaf pondweed (Potamogeton amplifolius)	N		
	Maintain navigational channel	N		
	Maintain private access - boating	N		
	Maintain private access - fishing	N		
	Muskgrasses (Chara )	N		
	NUISANCE_CAUSED_OTHER	N		

**Wisconsin Department of Natural Resources  
SWIMS Project Summary**

<b>Action</b>	<b>Detailed Description</b>	<b>Start</b>	<b>End Date</b>	<b>Status</b>
<b>Details: Parameter</b>	<b>Value/Amount</b>	<b>Units</b>	<b>Comments</b>	
Native Plants	N			
Next Steps	Kevin Gauthier / Ty Krajewski			
Other Plants	EWM			
PLSS_DIRECTION	E			
PLSS_RANGE	11			
PLSS_SECTION	18			
PLSS_TOWNSHIP	41			
Payment Number	3047			
Permit County	Vilas			
Permit End Year	2018			
Permit PLSS Section	18 41N11E			
Permit Start Year	2018			
Permit WBIC	1623700			
Pithophora	N			
Planktonic Algae	N			
Private Pond	N			
Purple loosestrife (Lythrum salicaria)	N			
SharePoint Submittal	N			
Softstem bulrush (Schoenoplectus tabernaemontani)	N			
Sogo pondweed (Stuckenia pectinata)	N			
TREATMENT_AREA	South Twin Lake			
Treatment Date	N			
Treatment Date	Y			
Treatment Record - Received	N			
Treatment Record - Scanned	N			
Waterbody Type	LAKE			

**Monitoring Stations**

<b>Station ID</b>	<b>Name</b>	<b>Comments</b>
10048315	North Twin Lake - Herbicide Monitoring Site NT1	
10048316	North Twin Lake - Herbicide Monitoring Site NT2	
10048317	North Twin Lake - Herbicide Monitoring Site NT3	
10048318	North Twin Lake - Herbicide Monitoring Site NT4	
10048319	North Twin Lake - Herbicide Monitoring Site NT5	
10048320	North Twin Lake - Herbicide Monitoring Site NT6	
643106	South Twin Lake - Deep Hole	
10044687	South Twin Lake - N (Herbicide Monitoring Site 3)	
10044685	South Twin Lake - NE (Herbicide Monitoring Site 1)	
10044686	South Twin Lake - SW (Herbicide Monitoring Site 2)	

**Assessment Units**

<b>WBIC</b>	<b>Segment</b>	<b>Local Name</b>	<b>Official Name</b>
1623700	1	Twin Lakes	Twin Lakes (South)

## Wisconsin Department of Natural Resources SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
1623800	1	Twin Lakes	Twin Lakes (North)

### Lab Account Codes

Account Code	Description	Start Date	End Date
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### Forms

Form Code	Form Name
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### Methods

Method Code	Description
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### Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
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### Documents

Title	Description	Author	Published	Comments
North & South Twin Lakes - 2018 EWM Monitoring & Control Strategy Development Report	The North and South Twin Lakes Riparian Association implemented recommendations outlined in the North and South Twin Lakes Comprehensive Management Plan. This report contains the 2018 management actions as well as a discussion of 2019 EWM control on the lakes.	Eddie Heath and Tim Hoyman, Onterra LLC	01/01/2019	
North & South Twin Lakes - 2018 EWM Monitoring & Control Strategy Development Report [Appendices]	Appendices of North & South Twin Lakes - 2018 EWM Monitoring & Control Strategy Development Report.	Eddie Heath and Tim Hoyman, Onterra LLC	01/01/2019	
Surface Water Grant Project Lab Costs	Lab costs for grants received by North and South Twin Lakes Riparian Association.			

### Budget

**Combined Budgets:**  
**Combined SLOH:**  
**Combined Total:**

### Funding

Organization	Source	Type	Amount	Start Date	End Date
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