

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** AIRD11218

**Name:** UNIVERSITY OF WISCONSIN - OSHKOSH: Impacts of zebra mussels on P uptake in Lake Winnebago

**Type:** Aquatic Invasives Grant

**Subtype:**

**Status:** COMPLETE

**Start Date:** 4/15/2018

**End Date:** 12/31/2021

**Purpose:** UW-Oshkosh is sponsoring a grant to study the impacts of zebra mussels on phosphorus uptake and conversion in Lake Winnebago. 1) Zebra mussel density and biomass will be monitored using scuba divers at ten rocky littoral sites and five offshore reefs twice per summer during 2018 and 2019. Maps of zebra mussel density and biomass will be created. 2) Mesocosms with lake water will be set up along the shoreline in 2018 and 2019 at five sites and zebra mussels attached to rocks from the site will be added. Total phosphorus (TP) clearance from the mesocosm water will be measured. Then the excretion rate of soluble reactive phosphorus (SRP) from individual zebra mussels from the mesocosms will be measured in smaller containers of filtered lake water. 3) Whole-lake estimates of zebra mussel TP clearance and SRP excretion will be developed using the zebra mussel survey data and phosphorus conversion rates from the mesocosm studies. SRP loading estimates will be compared with known sources of SRP through collaboration with those working on the Upper Fox River TMDL. The information collected during this study will be provided to the TMDL team. Department liaison(s) will oversee the proposed studies. Biannual check-in meetings will occur and progress reports will be presented to Department staff. The first check-in meeting will occur before project work begins. Results will be shared at professional meetings (including the Wisconsin Lakes Convention) and published in peer-reviewed scientific journals. A short management brief, summarizing study findings for the general public, will be developed in collaboration with the Department. The final project report will include results, conclusions of studies and any project data in electronic format. It is recommended that the Grantee provide the DNR liaison with a draft report prior to requesting final payment.

**Objective:**

**Comments:** Grantee is UNIVERSITY OF WISCONSIN - OSHKOSH

**Outcome:**

**Study Design:**

**QA Measures:**

### People

| Name                           | Role            | Status | Start Date | End Date | Organization                    | Comments |
|--------------------------------|-----------------|--------|------------|----------|---------------------------------|----------|
| University of Wisconsin Oshkos | GRANT_RECIPIENT | ACTIVE | 12/14/2018 |          | University of Wisconsin Oshkosh |          |

### Project Statuses

| Date | Reported By | Status | Comments |
|------|-------------|--------|----------|
|------|-------------|--------|----------|

### Actions

| Action        | Detailed Description    | Start Date | End Date   | Status   |
|---------------|-------------------------|------------|------------|----------|
| Grant Awarded | Grant AIRD11218 awarded | 4/15/2018  | 12/31/2019 | COMPLETE |

### Monitoring Stations

| Station ID | Name | Comments |
|------------|------|----------|
|------------|------|----------|

### Assessment Units

## Wisconsin Department of Natural Resources SWIMS Project Summary

| WBIC    | Segment | Local Name                              | Official Name    |
|---------|---------|---|------------------|
| 117900  | 4       | Fox River (At Oshkosh)                  | Fox River        |
| 130600  | 1       | Neenah Channel                          | Neenah Channel   |
| 131100  | 1       | Lake Winnebago                          | Lake Winnebago   |
| 131100  | 2       | High Cliff SP - Lake Winnebago Beach    | Lake Winnebago   |
| 131100  | 3       | Menominee Park Beach                    | Lake Winnebago   |
| 131100  | 4       | Lake Winnebago - Fresh Air Park Beach   | Lake Winnebago   |
| 131130  | 1       | Unnamed Creek                           | Unnamed          |
| 131200  | 1       | Unnamed Streams                         | Unnamed          |
| 131500  | 1       | Mill Creek                              | Mill Creek       |
| 131600  | 1       | Mud Creek                               | Mud Creek        |
| 131650  | 1       | Unnamed Trib to Lk Winnebago            | Unnamed          |
| 131700  | 1       | Roberts Creek                           | Roberts Creek    |
| 131900  | 1       | Johnson Creek                           | Johnson Creek    |
| 132100  | 1       | Brothertown Creek                       | Unnamed          |
| 132200  | 1       | Paukotuk-Candlish Creek                 | Unnamed          |
| 132300  | 1       | Local Water                             | Unnamed          |
| 132400  | 1       | Local Water                             | Unnamed          |
| 132600  | 1       | Van Dyne Creek                          | Van Dyne Creek   |
| 133600  | 1       | Supple Marsh                            | Supple Marsh     |
| 138400  | 1       | Taycheedah Creek                        | Taycheedah Creek |
| 3000093 | 1       | Unnamed trib to Lake Winnebago          | Unnamed          |
| 3000094 | 1       | Local Water                             | Unnamed          |
| 3000188 | 1       | Local Water                             | Unnamed          |
| 5023696 | 1       | Unnamed Stream                          | Unnamed          |
| 5025342 | 1       | Unnamed Stream                          | Unnamed          |
| 5025803 | 1       | Unnamed Stream                          | Unnamed          |
| 5562315 | 1       | Local Water                             | Unnamed          |
| 5562445 | 1       | Lake Winnebago- Channel Off Harbor View | Unnamed          |
| 5562446 | 1       | Local Water                             | Unnamed          |
| 5587866 | 1       | Local Water                             | Unnamed          |

### Lab Account Codes

| Account Code | Description | Start Date | End Date |
|--------------|-------------|------------|----------|
|--------------|-------------|------------|----------|

### Forms

| Form Code | Form Name |
|-----------|-----------|
|-----------|-----------|

## Wisconsin Department of Natural Resources SWIMS Project Summary

### Methods

| Method Code | Method Description |
|-------------|--------------------|
|-------------|--------------------|

### Fieldwork Events

| Start Date | Status | Field ID | Station ID | Station Name |
|------------|--------|----------|------------|--------------|
|------------|--------|----------|------------|--------------|

### Documents

| Title | Description | Author | Published | Comments |
|-------|-------------|--------|-----------|----------|
|-------|-------------|--------|-----------|----------|

### Budget

**Combined Budgets:**

Combined WSLH:

Combined Total:                    \$0.00

### Funding

| Organization | Source | Type | Amount | Start Date | End Date |
|--------------|--------|------|--------|------------|----------|
|--------------|--------|------|--------|------------|----------|