**Scope of Work**

**Wisconsin DNR Office of the Great Waters**

***Project Title:*** Citizen Science Monitoring for Habitat & Populations BUI to support BUI removal in

the Sheboygan River AOC.

***Project Applicant:*** Sarah DeZwarte, Director of Education

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***Project Location:***

This project is in support of the Sheboygan River AOC.

***Problem Statement:***

The WDNR implemented all habitat restoration management actions in the Sheboygan River AOC in 2012. Since then, the focus over the past four years has emphasized the evaluation of habitat and wildlife-related BUIs in a collaborative effort undertaken by WDNR staff, contractors, local government, and citizens. Citizen-based monitoring has proved an invaluable resource in successfully monitoring responses in local wildlife populations resulting from habitat improvement projects under the AOC program, and will be critical for evaluating future changes in habitat and wildlife quality after the AOC has been delisted. The citizen monitors engaged through this program will contribute a self-sustaining, long-term source of stewards for the Sheboygan River’s resources, therefore it is critical that this program continue engaging current, and expanding future public stewardship.

This is the fourth year that Camp Y-Koda has led the implementation of the citizen-based monitoring program in the Sheboygan River AOC. In previous years, citizen volunteers were trained to collect data on migratory and resident birds, breeding bird nesting boxes, migratory and resident bats, frogs and toads, and mussels. All data collected by citizen monitors is consistent with monitoring protocols established by WDNR staff, and submitted to relevant databases (eBird, Wisconsin Aquatic and Terrestrial Resources Inventory, etc.). Additionally, Camp Y-Koda has coordinated volunteer-based invasive plant removal and litter clean-up events along the river corridor each spring. These opportunities not only encourage public participation in environmental stewardship activities and inspire a sense of ownership of the Sheboygan River’s resources to the local community, but will continue to provide data that will be utilized in habitat and wildlife-related BUI assessments.

In order to keep citizens engaged in the restoration and maintenance of AOC improvement efforts, continued funding is vital for the outreach and coordination efforts needed to bolster public involvement. This proposal seeks to obtain funding for the continuation of coordinated citizen-based monitoring efforts in the Sheboygan River AOC to continue building citizen capacity to monitor and take action towards the protection of AOC habitat restoration projects while simultaneously providing significant data that will be used in the assessment of both the “Loss of Wildlife Habitat” and “Degradation of Populations” BUIs.

***Proposed Work:***

WDNR will continue to collaborate with nonprofit partner, Camp Y-koda, in supporting citizen-based monitoring programs coordinated by Camp Y-Koda Outdoor Skills and Education. As in previous years, citizen-based monitoring efforts will continue to collect populations data on migratory and resident birds and bats, frogs and toads, and mussels. Additionally, Camp Y-Koda will continue to coordinate invasive species removal efforts, though these efforts will be expanded to establish a more rigorous method of addressing invasive species issues in the Sheboygan River AOC. Specifically, Camp Y-Koda will:

* Continue to develop a well-trained citizen volunteer base through various means of recruitment and community engagement.
	+ Volunteers must be trained in the correct DNR monitoring protocols for wildlife populations data collection.
* Coordinate citizen-based monitoring efforts for birds, bats, frogs and toads, and mussels in the Sheboygan River AOC.
	+ Coordinate traveling bird monitoring trips (via canoe and walks)
	+ Coordinate bat roost and acoustical survey outings (via canoe and walks)
	+ Coordinate frog and toad survey outings
	+ Coordinate mussel monitoring survey outings
	+ Act as a repository of photo documentation by citizens of wildlife use in the Sheboygan River AOC
* Coordinate invasive species removal events, develop a handbook identifying and illustrating long-term habitat care methods, and provide training to citizen volunteers on the identification of invasive species and management tools outlined in the handbook.
	+ Coordinate citizen “ground army” field events to control invasive plants.
	+ Develop a handbook of identification methods for invasive species, as well as citizen-based habitat maintenance/invasive species removal methodologies.
	+ Coordinate with public/private landowners and provide training sessions to citizen volunteers to identify and report occurrence of large/unmanageable patches of invasive species in the Sheboygan River AOC using the WDNR AIS reporting tool.
	+ Coordinate with public/private landowners and provide tools/supplies for citizen volunteers to manage small patches of invasive species (excluding noxious species) that can be eradicated via hand-removal methods
* Promote events through various publications and/or social media platforms.

***Collaboration with Partners:***

Camp Y-Koda and WDNR will continue to promote its collaboration with the Sheboygan River Basin Partnership and Maywood Nature Center. In addition, this project will seek to build partnerships with local citizens and groups, including the Sheboygan County Chapter of the Audubon Society, the City of Sheboygan, and Sheboygan County’s Invasive Plant Control Program, among others.

***Timetable:***

Project duration: March 1, 2018 through January 31, 2019.

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| **2018 Proposed Work** |
| Task | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan 2019 |
| Volunteer Recruitment/Training & Program Promotion |  |  |  |  |  |  |  |  |  |  |  |
| Volunteer Survey Effort and Data Acquisition |  |  |  |  |  |  |  |  |  |  |  |
| Quarterly Reporting and Invoicing  |  |  |  |  |  |  |  |  |  |  |  |
| Final Project Report Submission |  |  |  |  |  |  |  |  |  |  |  |

***Outputs/Deliverables***:

1. Coordinate and implement various citizen-based monitoring efforts
	1. 6 CBM birding canoe trips with data submitted to eBird and OGW staff (Maywood lead, Y-Koda outfit)
		1. 6 trips from May-October
		2. Goal # of participants: 10/trip
	2. 6 CBM birding walks with data submitted to eBird and OGW staff (Maywood lead, Y-Koda outfit)
		1. 6 trips from May-October
		2. Goal # of participants: 5/trip
	3. CBM bird nesting box monitoring/maintenance
		1. 14 surveys from May-August
	4. 3 mussel monitoring canoe trips with data submitted to WIATRI – Mussel Monitoring Program of Wisconsin and OGW staff (Y-Koda lead and outfit)
		1. 3 surveys from July-September
		2. Goal # of participants: 5/trip
	5. 3 bat monitoring canoe trips with data submitted to WIATRI - Wisconsin Bat Program and OGW staff (Y-Koda lead and outfit)
		1. 3 trips from June-August
		2. Goal # of participants: 10/trip
	6. CBM bat house monitoring/maintenance
		1. 8 surveys from May-September
	7. 3 frog and toad survey outings with data submitted to WIATRI – Wisconsin Frog & Toad Survey and OGW staff (Maywood lead, Y-Koda outfit)
		1. 3 surveys from May-July
		2. Goal # of participants: 10/survey
2. Coordinate 12 Citizen Invasive Plant “Ground Army” field events, with end-of-season results field tour for local AOC staff (Y-Koda lead)
	1. Two events in each month from April-September
	2. Goal # of participants: 5/event
3. Habitat maintenance handbook development, citizen volunteer training in handbook utilization, and coordination with public/private landowners and WDNR AIS staff on invasive species issues in Sheboygan River AOC
	1. Provide invasive species identification and management training sessions for citizen volunteers
	2. Provide supplies for hand-removal approaches to eradicate small/manageable patches of invasive species in Sheboygan River AOC restoration project areas
	3. Provide WNDR AIS Reporting Tool and Sampling training sessions for citizen volunteers for large/unmanageable patches of invasive species in Sheboygan River AOC restoration project areas and throughout AOC boundaries.\
4. Coordination of one Master Naturalists Volunteer Monitor Training session
5. Citizen monitoring promotional materials developed by Camp Y-Koda
	1. Fliers
	2. Social media posts
6. Quarterly updates submitted to WDNR
	1. Quarterly updates will include the following information:
		1. Amount of money spent that quarter
		2. Deliverables and work accomplished during the quarter
		3. Problems encountered and how/if they were resolved during the quarter
		4. Planned tasks/deliverables for next quarter
7. Final project report submitted to WDNR
	1. Final project report will include the following information:
		1. 2018 Planned vs. Realized budget table, along with explanation for large deviations
		2. Summary of deliverables accomplished during project duration
			1. List of promotional materials used in 2018
			2. Excel spreadsheet identifying the number and date of citizen monitoring surveys for birds, bats, frogs & toads, mussels, and number of participants at each survey
			3. Data collected via citizen monitoring efforts
			4. Copy of Habitat Maintenance Handbook
			5. List of citizen volunteer invasive species mapping and maintenance activities
			6. Brief discussion identifying successes and/or problems encountered, future needs, etc.

***Outcome(s):***

1. To evaluate the current status of AOC habitat restoration projects and wildlife populations relative to the delisting targets.
2. Identify factors, if any, contributing to degraded habitat conditions and wildlife populations in the AOC.
3. Where feasible, use the results to improve habitat conditions at specific locations.
4. Expand public participation in the AOC through monitoring and support long-term stewardship opportunities.

***Project Budget:***

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|  | **Year 1 March 1, 2018-January 31, 2019** |
| Personnel/Salaries (Camp Y-koda) | $7,449.50 |
| Fringe Benefits | - |
| Travel (Camp Y-koda mileage) | $117.60 |
| Equipment | - |
| Supplies | $3,750 |
| Contractual: Maywood | $2,821.30 |
| Other: | - |
| Total Direct Charges | $14,138.40 |
| Indirect Charges (14.92%) | 2,109.43 |
| **Total Cost** | $16,248 |
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***Budget Detail:***

Expenses are for Camp Y-Koda to implement programs and community engagement with its own staff or via contracted services to coordinate, inform, and equip volunteers to conduct monitoring as described in the “Proposed Work” section.