**Assessment of Migratory Waterfowl Populations and Native Wetland Plant Remnants in the Lower Green Bay and Fox River AOC (Complement to Phase 2 of the Fish & Wildlife Habitat and Population Assessment)**

**Award #GL-00E01091**

**Wisconsin DNR / USEPA Project Report #2**

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**UW-Green Bay Project ID:** 241000 144-AAC1659

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**Project Objectives:**

The specific goals of the project are to:

1. Develop and implement a systematic, repeatable method for surveying migratory waterfowl in the AOC. Objectives for this aspect of the project are as follows:

a) Identify and map locations where waterfowl stage within the AOC during both fall and spring migratory periods.

b) Describe waterfowl species composition and estimate seasonal numbers of individuals in the AOC.

c) Describe how waterfowl distributions change throughout each migratory period and across seasons.

d) Compare data collected at ground survey points with aerial sampling and describe how these field methodologies differ.

2. Identify and map critical remnants of native wetland and submerged aquatic plants in the AOC, possibly including nearby areas that may serve as sources and benchmarks for restoration projects.

3. Collaborate with agencies and other researchers to assemble information from previous and ongoing projects that are relevant to goals 1-2. In other words, avoid duplication of efforts in order to maximize field effort and to complement existing sources of information.

**Progress summary:** Waterfowl surveys in were conducted by Tom Prestby at 9 land-based survey points from the DePere Dam to Longtail Point and Point au Sable. An additional point was surveyed at Sensiba State Wildlife Area for comparison. Prestby sampled each point at least 20 times between October 2016 and May 2017. During this quarter Prestby entered the data into a computer file and UWGB student assistants drew boundaries around areas with high waterfowl concentrations. Field surveys of submerged aquatic vegetation (SAV) were conducted during July and August by Wolf, Horn, and students. Field teams documented locations and species composition of SAV beds using standardized data forms. Wolf enlisted the help of Chris Houghton to obtain bathymetric data and SAV locations in the area south of Longtail Point, one of the most significant localities in the AOC. Results from both the waterfowl and plant biodiversity studies have been organized and archived by Giese at the Cofrin Center for Biodiversity.

**Funding:** *(Numbers below are tentative and my change based on final analysis by Grant Controller Jeffrey Selner)*

Note: Expenses reported during the last report need to be amended because we have kept Tom Prestby’s salary expenses and travel in the original AOC project budget. We did not obtain a budget account for spending funds from this amendment until April 28th, 2017 – after much of Tom’s field work had been completed. Since Tom’s work is consistent with goals of the original proposal and since much of our remaining work involves analyzing and reporting results from that work (along with results from the plant biodiversity “hotspot” analysis), we ask for approval to proceed by 1) covering remaining project expenses with the balance left in this amendment budget and 2) leaving Tom Prestby’s expenses in the main account (which is nearly all spent).

Expenses for the AOC project Phase 2 amendment incurred during this period totaled **$15,476**, including salaries ($8,159: $5,159 for Erin Giese, $3,000 for James Horn), student hourly costs ($2,990), fringe benefits ($2,419), indirect costs ($1,579) travel/fleet vehicle expenses ($430), and supplies/miscellaneous costs ($150). Overall, these expenses account for 37% of the amendment budget. Hence, approximately 63% ($26,934) of the amendment budget remains to be spent.

**Deliverables and Work Accomplishments:**

We now have a repeatable, cost-effective method for sampling waterfowl, coupled with baseline data for future comparisons. Field surveys of submerged aquatic vegetation have resulted in a map of critical sites, many with species lists.

**Problems Encountered:**

[From Progress Report #1:] Tom Prestby was available to work independently as a field observer for completion of AOC waterfowl surveys, so we hired him as a limited term UWGB employee. Tom is no longer a UWGB student, so we request a revision of the project budget to shift the line from student employees to this LTE appointment. The LTE hire requires us to add 43% fringe benefits, which were much lower (3%) for students. As mentioned above, we used funds from the main AOC project to support the field work because of the timing of this work. We strongly believe that these activities can be justified under the objectives of both projects, just as future work on the analysis and description of results will fit under both the original project and the amendments. Accounting will be much simpler if we could just leave the past expenses in the AOC budget and charge new, appropriate and relevant expenses (e.g., Erin Giese’s time) to the amendment.

**Planned Tasks / Deliverables During Next Quarter:**

During the next (final) quarter of this project we will complete the spatial analysis and mapping of waterfowl and plant biodiversity hotspots, including terrestrial, wetland, and aquatic habitats. These materials will be incorporated in to the final document submitted in fulfillment of our AOC grant contract.