SCOPE OF WORK YEARS 2-3 (2015-17)

# Project Title:

Milwaukee Estuary Area of Concern Baseline Wildlife Population Assessment

# Project Manager:

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Date:

26 January 2015

# Project Description and Background:

See 2014 SOW

# Work Plan:

Work will again be coordinated with the Milwaukee County Park Natural Areas program, whose surveys will be limited to county-owned lands. We will again supplement their surveys on county lands, and continue surveys on other public and private lands where access is available. Surveys will follow guidance in the Quality Assurance Project Plan. Data management will include merging and vetting data from both parties for final reporting products such as maps and databases.

2015 Tasks:

1. Aquatic funnel trapping for salamanders and crayfish (approximately 10 sites; April-June)
2. Visual encounter surveys (e.g., shoreline searches, road surveys) for mammals (including tracks), reptiles, amphibians and birds (approximately 15 sites; April-Sept.)
3. Aquatic egg mass surveys for salamanders and wood frogs (approximately 15 sites; March-April)
4. Mussel surveys (approximately 3 sites; late summer)
5. Cover object surveys for snakes (approximately 5 sites; May-July)
6. Turtle basking surveys (approximately 10 sites; April-May)
7. Turtle trapping surveys (approximately 2 sites; May-June)
8. Breeding bird point count surveys (approximately 10 sites; June)
9. Odonate surveys following Wisconsin Odonata Survey methods (approximately 5 sites; May-Sept.)
10. Camera surveys for mammals (approximately 5 sites; year-round)
11. Flying squirrel nest box surveys (continue 5 sites established in 2014, year-round, checked every 4-6 weeks)
12. Automated Recording System surveys for bats, frogs and birds (3-6 sites; March - July)
13. Frog call surveys (approximately 5 sites and road surveys; April-June)
14. Data management, entry, analyses; reporting (ongoing)

2016 Tasks:

The 2016 field work plan will be reviewed with DNR concurrence after data from 2015 are available to perform a new gap analysis and prioritize remaining 2016 field work.

1. Aquatic funnel trapping for salamanders and crayfish (approximately 5 sites; April-June)
2. Visual encounter surveys (e.g., shoreline searches, road surveys) for mammals (including tracks), reptiles, amphibians and birds (approximately 7 sites; April-Sept.)
3. Aquatic egg mass surveys for salamanders and wood frogs (approximately 7 sites; March-April)
4. Mussel surveys (possibly 1 additional site; late summer)
5. Cover object surveys for snakes (approximately 2 sites; May-July)
6. Turtle basking surveys (approximately 5 sites; April-May)
7. Turtle trapping surveys (possibly 1 additional site; May-June)
8. Breeding bird point count surveys (approximately 5 sites; June)
9. Camera surveys for mammals (approximately 5 sites; year-round)
10. Flying squirrel nest box surveys (continue 5 sites established in 2014, end in November and remove, checked every 4-6 weeks)
11. Automated Recording System surveys for bats, frogs and birds (3-6 sites; March - July)
12. Frog call surveys (approximately 3 sites and road surveys; April-June)
13. Data management, entry, analyses; reporting (ongoing)

2017 Tasks:

1. Reporting (finish final report and products)

The number and specific location of survey sites remain subject to landowner permissions, weather, phenology and surveyor logistical considerations each year.

## Preliminary Survey Areas for 2015

* Little Menomonee River Parkway - County Line to confluence with Menomonee River, inc. Joseph Lichter Park
* Menomonee River Parkway - inc. Granville Dog Park, Honey Creek corridor, Menomonee Valley, Underwood Creek Parkway to county line
* Milwaukee River corridor - North Ave. to county line, inc. Lincoln Park, Kletzsch Park, Brown Deer Park
* Other public lands: MMSD Greenseams, Kohl Park, Noyes Park, Havenwoods State Forest, Forest Discovery Center, Milwaukee County Grounds, Milwaukee County Zoo
* Private lands: inc. Schlitz Audubon Nature Center properties, YMCA of Metro Milwaukee properties, WE Energies properties, New Testament Church property, Milwaukee Area Land Conservancy property, Nicolet High School property, Lynden Sculpture Garden

Survey areas for 2016 will be determined in early 2016 with DNR concurrence.

# Documentation:

See the 2014 SOW

# Tasks and Required Deliverables:

The species occurrence databases developed under this grant by necessity will continue to be revised through 2016 as Year 3 surveys continue and are incorporated into the databases. After discussion with our grantor, this deliverable was agreed to be a work in progress with development continuing into Year 3. In order to avoid the production of multiple versions, and potential use of preliminary data by other partners which could result in confusion and errors, annual reporting will provide updated Species Checklists and metadata describing the status of the databases. Final tabular and GIS data will be made available at the end of Year 3 (March 31, 2017).

1. Quarterly reports will identify amount expended each quarter, activities conducted, and planned activities for the next quarter, and identify any issues encountered (e.g., delays or deviations from the original schedule or other setbacks) during the quarter and how they were addressed.
2. All voucher material from the study will be deposited in public museum collections.
3. Presentation of ongoing findings in person at one to two meetings of the Wildlife Subcommittee or the Milwaukee AOC Fish and Wildlife Technical Team per year.
4. Prepare an annual report including the following elements (due March 31 each year):
	* + - 1. Survey results presented as updated Species Checklists and updated metadata for each taxonomic group.
				2. Maps showing current Focal Species distribution and survey sites for the reporting year. Some species locations may be generalized in public presentation materials if they are deemed to be sensitive information by the WDNR or landowners.
				3. Recommendations for the next year.

# Project Timetable:

Appropriate survey start times and weather conditions are weather dependent. The general timetable listed below is subject to change depending on weather and other environmental conditions. Any changes to timing below will be at the discretion of the principle investigator and in concordance with survey protocols for maximizing species detection probabilities.

February – March 2015

* Retain contractors, complete supply purchases, continue landowner contacts and obtaining 2015 access permissions, finalize initial survey sites
* Camera surveys for mammals
* Flying squirrel nest box surveys

March – May 2015

* Egg mass surveys
* Aquatic funnel trapping for amphibians and crayfish
* Visual encounter surveys
* Frog call surveys
* Automated Recording System surveys
* Camera surveys for mammals
* Flying squirrel nest box surveys

July 15, 2015 – first quarterly report due (for period March through June 30, 2015)

May – July, 2015

* Turtle basking and trapping surveys
* Visual encounter surveys
* Snake cover object surveys
* Automated Recording System surveys
* Aquatic funnel trapping for amphibians and crayfish
* Breeding bird point count surveys (June)
* Odonate surveys
* Frog call surveys
* Camera surveys for mammals
* Flying squirrel nest box surveys

August – October, 2015

* Odonate surveys
* Mussel surveys
* Camera surveys for mammals
* Flying squirrel nest box surveys

October 15, 2015 – Second quarterly report due (for July-September, 2015)

November 2015 - January 2016

* Camera surveys for mammals
* Flying squirrel nest box surveys
* Prepare draft annual report for review

January 15, 2016 – Third quarterly report due (for October-December, 2015)

January-March 2016

* Camera surveys for mammals
* Flying squirrel nest box surveys
* Prepare for Year 3 sampling, develop budget, site selections, target species refinements and timetables

March 2016 – Submit annual report by March 31, 2016

February – March 2016

* Retain contractors, complete supply purchases, continue landowner contacts and obtaining 2016 access permissions, finalize initial survey sites
* Camera surveys for mammals
* Flying squirrel nest box surveys

March – May 2016

* Egg mass surveys
* Aquatic funnel trapping for amphibians and crayfish
* Visual encounter surveys
* Frog call surveys
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* Prepare draft annual report for review

January 15, 2017 – Third quarterly report due (for October-December, 2016)

January-March 2017

* Reporting

March 2017 – Submit final report by March 31, 2017

# Project Budget

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| **Wildlife Assessment Project Budget** |  |  |
| **Item** | **Year 2** | **Year 3** |
| **Personnel Costs** - principle investigator (includes fringe benefits) | $26,864 | $20,119 |
| **Contractors** - surveys | $33,850 | $22,300 |
| **Travel** - mileage | $1,010 | $609 |
| **Supplies** - snake boards, acoustic analysis software,  acoustic recording system, misc. supplies (bags, tags) | $3,493 | $450 |
| **UWM Overhead** - 15% | $9,783 | $6,522 |
| **Total** | $75,000 | $50,000 |

 Grand Total $125,000