

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: CAP_11_2011
Name: St. Louis River AOC and reference water quality monitoring (CAP_11_2011)
Type: Great Lakes Grant Project
Subtype: Great Lakes Information and Indicators
Status: COMPLETE
Start Date: 06/17/2011
End Date: 12/31/2099
Purpose: This study will facilitate study of the St. Louis River Area of Concern by collecting and analyzing samples within the AOC as well as sites outside the AOC. The sites outside the AOC will be used for comparative purposes. Three sites are in the AOC 8 sites are outside the AOC. All of the sites, with the exception of the one near Outer Island, were sampled in 2010 as part of the EPA National Coastal Condition Assessment. The 3 sites in the AOC as well as 5 other sites have previously been sampled by DNR personnel.

The samples will be collected during a week in August. At each site profiles of temperature, DO, pH, light extinction (PAR), and conductivity will be collected along with Secchi depth and samples for nutrients and chlorophyll. The latter analyses would be conducted at the State Lab of Hygiene. Plankton (phyto and zoos) would also be collected and analyzed at the Science Operations Center.

Data analysis will include comparisons with concentrations measured in previous years at the sites as well a comparison of concentrations at sites within the AOC with concentrations at sites located outside the AOC.

Objective: Collect water quality information from within the St. Louis AOC and from reference sites outside the AOC for the purpose of evaluating the relative impairment of some water quality parameters within the AOC

Comments:

Outcome: Quarterly and final reports to include data summaries, spatial and temporal comparisons, and conclusions related to the relative impairment of the St. Louis AOC.

Study Design:

QA Measures:

People

| Name | Role | Status | Start Date | End Date | Organization | Comments |
|------------------|-------------|----------|------------|------------|-----------------------|----------|
| FAYRAM, ANDREW H | COORDINATOR | ACTIVE | 06/17/2011 | 12/31/2099 | Wisconsin DNR | |
| Garrison, Paul J | COORDINATOR | INACTIVE | 06/28/2011 | 03/28/2016 | Retired Wisconsin DNR | |
| LEDDER, TRACEY D | COORDINATOR | ACTIVE | 06/17/2011 | 12/31/2099 | Wisconsin DNR | |

Project Statuses

| Date | Reported By | Status | Comments |
|------------|---------------|----------------------------|---|
| 09/30/2011 | Paul Garrison | Progress: 75-100% Complete | First status report on CAP_11_11 - St. Louis River AOC and reference water quality monitoring Paul Garrison September 2011 |
| | | | All 12 sites were successfully sampled during the week of August 15. At each site water chemistry samples were collected and sent to the State Lab of Hygiene. At each Secchi depth was measured and profiles of DO, temperature, pH, and conductivity were collected. A video of the bottom was recorded at most sites. Phytoplankton and zooplankton samples were also collected. The only problem was failure of the light meter to work. All of the money except for lab analysis has been spent. |
| 01/13/2012 | ANDREW FAYRAM | Progress: 75-100% Complete | Sites were all sampled in previous quarter. Lab results have been obtained (total cost \$2032.68) and will be provided in summary form. |

Actions

Wisconsin Department of Natural Resources SWIMS Project Summary

| Action | Detailed Description | Start | End Date | Status |
|--------|----------------------|-------|----------|--------|
|--------|----------------------|-------|----------|--------|

Monitoring Stations

| Station ID | Name | Comments |
|------------|--|----------|
| 10012254 | Chequamegon Bay - Cheq Bay - 15m | |
| 10012247 | Chequamegon Bay - Cheq Bay - 3m | |
| 10014686 | Lake Superior - Bouy R3 Allouez Bay | |
| 10028967 | Lake Superior - Chequamegon Bay - Kakagon Slough | |
| 10022882 | Lake Superior - Lake Superior East | |
| 10014688 | Lake Superior - Old Bridge By High Bridge | |
| 10031579 | Lake Superior NCAGL10-2036 | |
| 10034088 | Lake Superior at Quarry Rd | |
| 10031401 | NCAGL10-1041 | |
| 10031402 | NCAGL10-1044 | |
| 10020835 | North Apostle Islands | |
| 10020834 | Northwest Manitou | |

Assessment Units

| WBIC | Segment | Local Name | Official Name |
|---------|---------|--------------------------------------|-------------------|
| 2843800 | 1 | St. Louis River AOC, St. Louis River | Saint Louis River |

Lab Account Codes

| Account Code | Description | Start Date | End Date |
|--------------|-------------------------------|------------|------------|
| GL010 | Louis River AOC and reference | 07/28/2011 | 06/30/2012 |

Forms

| Form Code | Form Name |
|-------------------|---|
| SECCHI_TEMPDO_PLI | Lake Monitoring - Secchi, Temp., D.O., pH, Conductivity |

Methods

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

Fieldwork Events

| Start Date | Status | Field ID | Station ID | Station Name |
|------------|----------|----------|------------|---|
| 08/15/2011 | COMPLETE | GE-1 | 10022882 | Lake Superior - Lake Superior East |
| 08/15/2011 | COMPLETE | GE-2 | 10031401 | NCAGL10-1041 |
| 08/15/2011 | COMPLETE | GE-3 | 10014688 | Lake Superior - Old Bridge By High Bridge |
| 08/15/2011 | COMPLETE | GE-4 | 10014686 | Lake Superior - Bouy R3 Allouez Bay |
| 08/15/2011 | COMPLETE | | 10014688 | Lake Superior - Old Bridge By High Bridge |
| 08/15/2011 | COMPLETE | | 10022882 | Lake Superior - Lake Superior East |
| 08/15/2011 | COMPLETE | | 10031401 | NCAGL10-1041 |
| 08/15/2011 | COMPLETE | | 10014686 | Lake Superior - Bouy R3 Allouez Bay |
| 08/16/2011 | COMPLETE | GE-5 | 10034088 | Lake Superior at Quarry Rd |
| 08/16/2011 | COMPLETE | GE-6 | 10031579 | Lake Superior NCAGL10-2036 |
| 08/16/2011 | COMPLETE | GE-7 | 10031402 | NCAGL10-1044 |
| 08/16/2011 | COMPLETE | | 10031402 | NCAGL10-1044 |
| 08/16/2011 | COMPLETE | | 10031579 | Lake Superior NCAGL10-2036 |

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| Start Date | Status | Field ID | Station ID | Station Name |
|------------|----------|----------|------------|--|
| 08/16/2011 | COMPLETE | | 10034088 | Lake Superior at Quarry Rd |
| 08/17/2011 | COMPLETE | GE-11 | 10012247 | Chequamegon Bay - Cheq Bay - 3m |
| 08/17/2011 | COMPLETE | GE-8 | 10028967 | Lake Superior - Chequamegon Bay - Kakagon Slough |
| 08/17/2011 | COMPLETE | GE-9 | 10012254 | Chequamegon Bay - Cheq Bay - 15m |
| 08/17/2011 | COMPLETE | | 10028967 | Lake Superior - Chequamegon Bay - Kakagon Slough |
| 08/17/2011 | COMPLETE | | 10012247 | Chequamegon Bay - Cheq Bay - 3m |
| 08/17/2011 | COMPLETE | | 10012254 | Chequamegon Bay - Cheq Bay - 15m |
| 08/18/2011 | COMPLETE | GE-12 | 10020834 | Northwest Manitou |
| 08/18/2011 | COMPLETE | GE-13 | 10020835 | North Apostle Islands |
| 08/18/2011 | COMPLETE | | 10020834 | Northwest Manitou |
| 08/18/2011 | COMPLETE | | 10020835 | North Apostle Islands |

Documents

| Title | Description | Author | Published | Comments |
|---|---|---------------|------------|----------|
| NCCA QAPP - Water Quality Monitoring in Lake Superior | Accepted QAPP for Lake Superior WQ EPA Monitoring project | | 06/22/2011 | |
| St. Louis AOC Final Report | Final report. "In 2011 this study collected and analyzed selected water quality data within the AOC as well as other sites in the nearshore area in the Wisconsin portion of Lake Superior. The results are compared between the AOC and non-AOC sites as well as data collected in 2010 as similar sites." | Garrison | 12/10/2012 | |
| St. Louis R AOC Water Quality Monitoring 2011 Project Summary | | Paul Garrison | 06/08/2011 | |

Budget

Combined Budgets:

Combined SLOH:

Combined Total:

Funding

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