

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** LPL-180  
**Name:** DEER LAKE IMPROVEMENT ASSOCIATION: Deer Lake Water Quality Study  
**Type:** Lakes Grant  
**Subtype:** Large Scale Lake Planning  
**Status:** COMPLETE  
**Start Date:** 09/09/1993  
**End Date:** 06/30/1995  
**Purpose:** Develop hydraulic and nutrient budgets for the lake. Define nutrient export rates for the five small tributary watersheds. Determine in-lake water quality conditions during the winter and spring. Information will be disseminated to the public by newsletter, local newspaper articles, public meetings, summary report mailing, and the final report. Project results will be reposted at Barr, Land Conservation Office, WDNR offices, and local library.

**Objective:**  
**Comments:**  
**Outcome:**  
**Study Design:**  
**QA Measures:**

### People

| Name                       | Role        | Status | Start Date | End Date   | Organization                      | Comments |
|----------------------------|-------------|--------|------------|------------|-----------------------------------|----------|
| Deer Lake Improvement Assc | GRANT_RECIP | ACTIVE | 09/09/1993 | 06/30/1995 | Deer Lake Improvement Association |          |

### Project Statuses

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

### Actions

| Action  | Detailed Description  | Start      | End Date   | Status   |
|---|---|------------|------------|----------|
| Hydrologic Budget Development                                 |   | 04/16/1992 |            | COMPLETE |
| Develop/Distribute Newsletter                                 |   | 04/16/1992 |            | PROPOSED |
| Grant Awarded   | Develop hydraulic and nutrient budgets for the lake. Define nutrient export rates for the five small tributary watersheds. Determine in-lake water quality conditions during the winter and spring. Information will be disseminated to the public by newsletter, local newspaper articles, public meetings, summary report mailing, and the final report. Project results will be reposted at Barr, Land Conservation Office, WDNR offices, and local library. | 09/09/1993 |            | COMPLETE |
| Monitor Water Quality or Sediment Nutrient Budget Development |   | 09/09/1993 | 06/30/1995 | COMPLETE |
| Issue News/Media Release                                      | Distributed information on Lake Planning Grant via. Media   | 09/09/1993 |            | PROPOSED |
| Informational Meetings  |   | 09/09/1993 | 06/30/1995 | PROPOSED |

### Monitoring Stations

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

### Assessment Units

| WBIC | Segment | Local Name | Official Name |
|------|---------|------------|---------------|
|------|---------|------------|---------------|

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| WBIC    | Segment | Local Name | Official Name |
|---------|---------|------------|---------------|
| 2619400 | 1       | Deer Lake  | Deer Lake     |
| 2619500 | 1       | Rock Creek | Rock Creek    |

### Lab Account Codes

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

### Forms

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

### Methods

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

### Fieldwork Events

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

### Documents

| Title   | Description  | Author           | Published  | Comments |
|---|--|------------------|------------|----------|
| Deer Lake Planning Grant II Report - Polk County, Wisconsin | The study described by this report was initiated by the Deer Lake Improvement Association for the purpose of providing information to water resource managers and citizens regarding the management of Deer Lake. The study resulted in determining that Deer lake is a mesotrophic to slightly eutrophic lake, which experiences degraded water quality in the fall due to internal loads of phosphorus. Hydrologic budgets constructed from study data indicate that the lake is strongly influenced by groundwater inflows during d - pyer iods and by watershed inflows during wet periods (such as in 1994). The lake is at a trophic level where it is very sensitive to even slight increases in nutrient loads. The sources of nutrients which represent the greatest potential for degrading Deer Lake's water quality are the Lake's urban and agricultural watersheds. Water quality monitoring conducted on the stormwater and snowmelt runoff indicates that some tributaries are experiencing degraded water quality, likely due to agricultural sources. Management recommendations include participation in the Priority Watershed Project and additional lake planning grant studies to assist the Priority Watershed Management Team. These efforts should focus on better quantifying and subsequently reducing the nutrient loadings from Watershed 1 as well as providing erosion protection andlor stabilization of Deer Lake's tributary streambanks. | Barr Engineering | 01/31/1995 |          |

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### Budget

Combined Budgets:

Combined SLOH:

Combined Total:

### Funding

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