

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** LPL-1268-09  
**Name:** CITY OF MADISON: INFOS Model for Yahara Lakes  
**Type:** Lakes Grant  
**Subtype:** Large Scale Lake Planning  
**Status:** COMPLETE  
**Start Date:** 04/01/2009  
**End Date:** 12/31/2009  
**Purpose:** "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. The deliverable will consist of a final report in hard copy and electronic copy describing the web browser interface, and give the final site address of the online model. All raw data will be included in digital format."  
**Objective:**  
**Comments:** Grantee is CITY OF MADISON  
**Outcome:**  
**Study Design:**  
**QA Measures:**

### People

| Name             | Role          | Status | Start Date | End Date   | Organization    | Comments |
|------------------|---------------|--------|------------|------------|-----------------|----------|
| CITY OF MADISON, | GRANT_RECIPII | ACTIVE | 04/01/2009 | 12/31/2009 | CITY OF MADISON |          |

### Project Statuses

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

### Actions

| Action        | Detailed Description  | Start      | End Date | Status   |
|---------------|---|------------|----------|----------|
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |

## Wisconsin Department of Natural Resources SWIMS Project Summary

| Action                 | Detailed Description  | Start      | End Date | Status   |
|------------------------|---|------------|----------|----------|
| Grant Awarded          | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |
| Grant Awarded          | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |
| Grant Awarded          | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |
| Water Quality Modeling | 29395805  | 04/01/2009 |          | PROPOSED |

## Wisconsin Department of Natural Resources SWIMS Project Summary

| Action        | Detailed Description  | Start      | End Date   | Status   |
|---------------|---|------------|------------|----------|
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |            | COMPLETE |
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 | 12/31/2009 | COMPLETE |
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |            | COMPLETE |

## Wisconsin Department of Natural Resources SWIMS Project Summary

| Action        | Detailed Description  | Start      | End Date | Status   |
|---------------|---|------------|----------|----------|
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |
| Grant Awarded | "The City of Madison proposes to develop the first phase of an evaluation and prediction model for the upper half of the Yahara Watershed, called Integrated Nowcast and Forecast Operation System (INFOS). This is a real-time, three-dimensional, operational model that can provide information to lake managers to assess water level orders in conjunction with dam operations on the Yahara system, predict flood heights under various scenarios which may assist planning efforts, and identify constrictions that need to be removed to reduce flooding. The model can help define floodplain zones for improved planning, among other benefits. | 04/01/2009 |          | COMPLETE |

### Monitoring Stations

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

### Assessment Units

| WBIC   | Segment | Local Name                           | Official Name      |
|--------|---------|--------------------------------------|--------------------|
| 780650 | 1       | Tenney Park Lagoon                   | Tenney Park Lagoon |
| 783750 | 1       | Stricker Pond                        | Strickers Pond     |
| 798300 | 3       | Yahara River                         | Yahara River       |
| 802800 | 1       | Door Creek                           | Door Creek         |
| 803700 | 1       | Lake Waubesa                         | Lake Waubesa       |
| 804000 | 1       | Upper Mud Lake                       | Upper Mud Lake     |
| 804100 | 1       | Unnamed Creek Trib To Upper Mud Lake | Unnamed            |
| 804200 | 1       | Nine Springs Creek                   | Nine Springs Creek |
| 804600 | 1       | Monona Lake                          | Lake Monona        |
| 804600 | 2       | Brittingham Beach                    | Lake Monona        |
| 804600 | 3       | Esther Park Beach                    | Lake Monona        |
| 804600 | 5       | Hudson Park Beach                    | Lake Monona        |
| 804600 | 6       | Bernies Beach                        | Lake Monona        |
| 804600 | 7       | Olbrich Park Beach                   | Lake Monona        |
| 804600 | 8       | Olin Park Beach                      | Lake Monona        |
| 804600 | 9       | BB Clark Beach, Monona Lake          | Lake Monona        |
| 804700 | 1       | Murphy (Wingra) Creek                | Wingra Creek       |

## Wisconsin Department of Natural Resources SWIMS Project Summary

| WBIC    | Segment | Local Name                                     | Official Name      |
|---------|---------|--|--------------------|
| 805000  | 1       | Lake Wingra                                    | Lake Wingra        |
| 805000  | 2       | Vilas Park Beach                               | Lake Wingra        |
| 805100  | 1       | Starkweather Creek                             | Starkweather Creek |
| 805200  | 1       | W. Br. Starkweather Creek (Airport Road Creek) | Unnamed            |
| 805400  | 1       | Mendota Lake                                   | Lake Mendota       |
| 805400  | 2       | James Madison Park Beach                       | Lake Mendota       |
| 805400  | 3       | Marshall Park Beach                            | Lake Mendota       |
| 805400  | 39      | Spring Harbor Beach                            | Lake Mendota       |
| 805400  | 40      | Hoofers Dock Beach, Lake Mendota               | Lake Mendota       |
| 805400  | 41      | Memorial Union Pier Beach, Lake Mendota        | Lake Mendota       |
| 805400  | 42      | Tenny Park Beach, Lake Mendota                 | Lake Mendota       |
| 805400  | 43      | Warner Park Beach, Lake Mendota                | Lake Mendota       |
| 806500  | 1       | Cherokee Lake                                  | Cherokee Lake      |
| 872800  | 1       | Morse Pond                                     | Morse Pond         |
| 3000089 | 1       | Local Water                                    | Unnamed            |
| 3000513 | 1       | Odana Pond                                     | Unnamed            |
| 5574166 | 1       | Local Water                                    | Unnamed            |
| 5574959 | 1       | Local Water                                    | Unnamed            |
| 5575000 | 1       | Local Water                                    | Unnamed            |
| 5575371 | 1       | Local Water                                    | Unnamed            |
| 5575427 | 1       | Local Water                                    | Unnamed            |
| 5575462 | 1       | Local Water                                    | Unnamed            |
| 5575484 | 1       | Local Water                                    | Unnamed            |
| 5575502 | 1       | Local Water                                    | Unnamed            |
| 5575570 | 1       | Local Water                                    | Unnamed            |

### 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 |
|---|-------------|-----------------------------|-----------|----------|
| Hydrologic & Hydraulic Modeling Yahara River Inputs to Lake Mendota |             | City of Madison Engineering |           |          |

### Budget

## Wisconsin Department of Natural Resources SWIMS Project Summary

**Combined Budgets:**

**Combined SLOH:**

**Combined Total:**

### Funding

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