

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** ARRA\_Project\_18C WTDT

**Name:** SEWRPC SWEET Water Trust ARRA 18C

**Type:** Grant Project

**Subtype:** ARRA Pass Through Project

**Status:** ACTIVE

**Start Date:** 10/01/2009

**End Date:** 12/31/2010

**Purpose:** SEWRPC Contract - Supplemental funds for water quality planning in designated management areas; expedite updates for additional urban service areas with intense development pressures; contract with Southeast Wisconsin Regional Planning Commission.

**Objective:** The Southeastern Wisconsin Regional Planning Commission would pass through the 604 (b) funding to the consultant doing the Kinnickinnic River Watershed Restoration Plan for the Southeastern Wisconsin Watersheds Trust (SWWT). The consultant would also provide the information to Milwaukee Metropolitan Sewerage District to incorporate into their Kinnickinnic River Watercourse Flood Control Study.

1) To integrate the use of non-structural best management practices widely known as green infrastructure into the planning and implementation process of the Kinnickinnic Watershed Restoration Plan (WRP) process for two subwatershed: Villa Mann Creek and Holmes Avenue Creek.

2) To model using the "blanket approach" of green infrastructure for the two subwatersheds showing where implementation of practices would benefit water quality and quantity in the stream.

3) To integrate the use of green infrastructure practices into the Kinnickinnic Watercourse Flood Study for the two subwatersheds.

4) To identify areas in the two watersheds where the "blanketing" approach of green infrastructure would benefit water quality and water quantity goals.

### Comments:

- Outcome:**
- 1) Completion of the green infrastructure practices "blanketing" modeling results for Villa Mann and Holmes Avenue Creek subwatersheds.
  - 2) Incorporation of the green infrastructure practices "blanketing" modeling results into both the Kinnickinnic River WRP and the Kinnickinnic River Watercourse Study
  - 3) Identification of green infrastructure practices by area in each of the subwatersheds that show the greatest water quality and water quantity benefit for the stream
  - 4) Summarize results in a report on the effectiveness of using a blanket green infrastructure practices approach.
  - 5) Recommend a green infrastructure pilot project (if benefits are found through this analysis) to the Southeastern Wisconsin Watershed Trust for implementation.

### Project Statuses

Date	Reported By	Status	Comments
04/23/2010	LISA HELMUTH	Progress: 0-25% Comple	Contract is signed.
04/26/2010	LISA HELMUTH	Progress: 0-25% Comple	The Milwaukee Metropolitan Sewerage District (MMSD) issued the Notice to Proceed to HNTB on February 15, 2010. A kickoff discussion was held on March 5, 2010 between HNTB, Tetra Tech, and MMSD to discuss the project tasks and which stormwater best management practices (BMPs) should be used in the proposed water quantity and quality modeling of the Villa Mann Creek and the Holmes Ave Creek subwatersheds. The BMPs selected and the scenarios developed are summarized below in Task 1. The scenarios will be run for both the Holmes Ave Creek and the Villa Mann Creek subwatersheds.
07/01/2010	Elizabeth Larsen	Progress: 25-50% Compl	
10/25/2010	Elizabeth Larsen	Progress: 75-100% Com	Tetra Tech and HNTB have completed the modeling of the four scenarios described in Task 1. A draft report summarizing these results was completed on June 4, 2010, and submitted to MMSD for review. MMSD provided initial comments in July 2010 and HNTB incorporated these comments into a final draft report that

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Date	Reported By	Status	Comments
			<p>was submitted on August 20, 2010. This final draft report is currently being reviewed by MMSD.</p> <p><b>Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts</b>            Scenarios that include low impact development (LID) stormwater management practices were developed for the area east of S. 13 Street in the Holmes Ave Creek subwatershed and for the entire Villa Mann Creek subwatershed. Water quantity and quality impacts were evaluated in the Holmes Avenue Creek subwatershed and water quality impacts were evaluated in the Villa Mann Creek subwatershed. In summary, the following scenarios were developed:</p> <ol style="list-style-type: none"> <li>1. 25% of parking lot areas with storage –apply to 50% of parking lots and use 50% of the area in each for storage. A depth of 4 inch was considered acceptable for the parking lot storage</li> <li>2. 25% of commercial/industrial roofs with storage. A 6 inch depth is used for the roof storage based on the 2020 Facilities Plan State of the Art Report.</li> <li>3. Combine 1 and 2.</li> </ol> <p>In addition, a fourth scenario was developed which replaced parking lot storage with porous pavement in scenario No. 3. All four scenarios built off of the Extreme Measures run from the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) Regional Water Quality Management Plan Update (RWQMPU).</p> <p>This task was completed in the first quarter of 2010.</p> <p><b>Task 2. Run Scenarios</b>            The scenarios described in Task 1 were modeled by Tetra Tech in the second quarter of 2010. The results of these model runs were summarized under Task 3 and are currently being reviewed by MMSD.</p> <p><b>Task 3. Process and Interpret Results</b>            The results from the model runs were summarized in a draft report prepared by Tetra Tech and HNTB and submitted to MMSD. MMSD provided comments to HNTB which they incorporated into the final draft report which was submitted to MMSD on August 20, 2010. This final draft report is currently being reviewed by MMSD. It is anticipated that MMSD's review will be completed and the final draft report will be submitted to SEWRPC by November 1, 2010.</p> <p><b>Project Issues</b>            No issues to date.</p>
10/26/2010	Elizabeth Larsen	Progress: 75-100% Com	<p>Tetra Tech and HNTB have completed the modeling of the four scenarios described in Task 1. A draft report summarizing these results was completed on June 4, 2010, and submitted to MMSD for review. MMSD provided initial comments in July 2010 and HNTB incorporated these comments into a final draft report that was submitted on August 20, 2010. This final draft report is</p>

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### Project Status Detail

Question	Answer
1. Reporting Timeframe (Q1 (Oct-Dec), Q2 (Jan-Mar), Q3 (Apr-June), Q4 (July-Sept)):	Q4 ( July - Sept)
2. Amount expended this time period:	No request for funding at this time.
3. Subcontracts or subgrants awarded this period:	Yes, Subcontract was signed and is moving forward.
4. Number work hours created or maintained to date:	NA
5. Work accomplished this reporting period:	Tetra Tech and HNTB have completed the modeling of the four

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**Question**

**Answer**

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Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts

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In addition, a fourth scenario was developed which replaced parking lot storage with porous pavement in scenario No. 3. All four scenarios built off of the Extreme Measures run from the Southeastern Wisconsin Regional Planning Commission?s (SEWRPC) Regional Water Quality Management Plan Update (RWQMPU).

This task was completed in the first quarter of 2010

6. Work goals for coming reporting period:

The scenarios described in Task 1 were modeled by Tetra Tech in the second quarter of 2010. The results of these model runs were summarized under Task 3 and are currently being reviewed by MMSD.

**Task 3. Process and Interpret Results**

The results from the model runs were summarized in a draft report prepared by Tetra Tech and HNTB and submitted to MMSD. MMSD provided comments to HNTB which they incorporated into the final draft report which was submitted to MMSD on August 20, 2010. This final draft report is currently being reviewed by MMSD. It is anticipated that MMSD?s review will be completed and the final draft report will be submitted to SEWRPC by November 1, 2010.

7. Overall project status:

The Milwaukee Metropolitan Sewerage District (MMSD) issued the Notice to Proceed to HNTB on February 15, 2010. A kickoff discussion was held on March 5, 2010 between HNTB, Tetra Tech, and MMSD to discuss the project tasks and which stormwater best management practices (BMPs) should be used in the proposed water quantity and quality modeling of the Villa Mann Creek and the Holmes Ave Creek subwatersheds. The BMPs selected and the scenarios developed are summarized below in Task 1. The scenarios will be run for both the Holmes Ave Creek and the Villa Mann Creek subwatersheds.

8. WDNR Question: Job equivalent Created

People						
Name	Role	Status	Start Date	End Date	Organization	Comments

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Name	Role	Status	Start Date	End Date	Organization	Comments
HELMUTH, LISA D	COORDINATOR	ACTIVE	10/01/2009		Wisconsin DNR	
Larsen, Elizabeth	COORDINATOR	ACTIVE	07/07/2010		SEWRPC	

### Actions

Action	Detailed Description	Start Date	End Date	Status
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### Monitoring Stations

Station ID	Name	Comments
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### Assessment Units

WBIC	Segment	Local Name	Official Name
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### Lab Account Codes

Account Code	Description	Start Date	End Date
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### Forms

Form Code	Form Name
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### Methods

Method Code	Description
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### Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
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### Documents

Title	Description	Author	Published	Comments
ARRA 18C SEWRPC SWEET Water Trust ARRA 18C SEWRPC SWEET Water Trust Project Description			10/29/2009	
ARRA_18C_Q2FFY10_Rep ort		WDNR	04/28/2010	
ARRA_18C_Q3FFY10_Rep ort			07/30/2010	
MMSD LETTER AGREEMENT ARRA PROJECT - VMC & HAC		HAHN, MICHAEL	04/26/2010	
MMSD LETTER AGREEMENT ARRA PROJECT - VMC & HAC Exhibit A		HAHN, MICHAEL	04/26/2010	
MMSD LETTER AGREEMENT ARRA PROJECT - VMC & HAC Exhibit B		HAHN, MICHAEL	04/26/2010	
WPC Modeling task_quarterly report 032310 ARRA 18C		HAHN, MICHAEL	04/26/2010	

## Wisconsin Department of Natural Resources SWIMS Project Summary

### Budget

Code	Description	Quantity	Units	Unit Cost	Total Cost
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Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
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Total SLOH Lab Costs: \$0.00