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: COMPLETE

Start Date: 10/1/2009

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.

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Larsen, Elizabeth	COORDINATOR	ACTIVE	7/7/2010		SEWRPC	

Project Statuses

Date	Reported By	Status	Comments
4/23/2010	Lisa Helmuth	Progress: 0-25% Complete	Contract is signed.

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4/26/2010	Lisa Helmuth	Progress: 0-25% Complete	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.
7/1/2010	Elizabeth Larsen	Progress: 25-50% Complete	

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10/25/2010	Elizabeth Larsen	Progress: 75-100% Complete	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 currently being reviewed by MMSD. Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts 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: 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 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. 3. Combine 1 and 2. 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. Task 2. Run Scenarios 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. Project Issues No issues to date.

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10/26/2010	Elizabeth Larsen	Progress: 75-100% Complete	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 currently being reviewed by MMSD. Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts 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: 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 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. 3. Combine 1 and 2. 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. Task 2. Run Scenarios 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. Project Issues No issues to date.
7/8/2011	MOLLI MACDONALD	Complete	Final Report finished

Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Reporting Timeframe (Q1 (Oct-Dec), Q2 (Jan-Mar), Q3 (Apr-June), Q4 (July-Sept):	Q4 (July - Sept)

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Question	Answer
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 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 currently being reviewed by MMSD. Task 1. Develop Scenarios to Evaluate Flood Flow and/or Water Quality Impacts 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: 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 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. 3. Combine 1 and 2. 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	

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Actions

Action	Detailed Description	Start Date	End Date	Status
Rivers Planning Grant	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.	10/1/2009	12/31/2010	IN_PROGRESS

Details: Parameter	Value/Amount	Units	Comments
BMP Implementation			
I & E Activities			
PCBs			
Permit Modification			
Report Writeup			
Total Nitrogen			
Total Phosphorus			
Total Suspended Solids			
Watershed Outreach, Planning			

Informational Meetings	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.	10/1/2009	12/31/2010	COMPLETE

Monitoring Stations

Station ID	Name	Comments

Assessment Units

WBIC	Segment	Local Name	Official Name
20	1	South Shore Beach, Lake Michigan	Lake Michigan
20	2	Bradford Beach, Lake Michigan	Lake Michigan
20	3	Mckinley Beach, Lake Michigan	Lake Michigan
20	4	Tietjen Beach-Doctors Park, Lake Michigan	Lake Michigan
20	12	Lake Michigan	Lake Michigan
20	13	Atwater Beach, Lake Michigan	Lake Michigan
20	14	Bender Beach, Lake Michigan	Lake Michigan
20	22	Grant Park Beach, Lake Michigan	Lake Michigan
20	40	Bayview Park Beach, Lake Michigan	Lake Michigan
20	83	Klode Park Beach, Lake Michigan	Lake Michigan
20	84	Watercraft Beach, Lake Michigan	Lake Michigan

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28	1	Milwaukee Harbor	Milwaukee Harbor
200	1	Greenfield Park Pond	Greenfield Park Pond
390	1	Un Lake	Unnamed
2900	2	Root River	Root River
2900	3	Root River	Root River
2900	4	Root River	Root River
3385	1	Unnamed	Unnamed
3510	1	Local Water	Unnamed
3800	1	Mid. Oakwood Golf Course P	Mid. Oakwood Golf Course P
4000	1	South Oakwood Golf Course Pond	South Oakwood Golf Course Pond
4200	1	North Oakwood Golf Course Pond	North Oakwood Golf Course Pond
4300	1	Root River Canal	Root River Canal
5100	1	Ryan Creek	Ryan Creek
5200	1	Dumkes Lake	Dumkes Lake
5300	1	Franklin Trib	Unnamed
5350	1	Un Lake	Unnamed
5500	1	Mud Lake	Mud Lake
5550	1	Legend Creek	Legend Creek
5700	1	Root River Parkway Pond	Root River Parkway Pond
5900	1	Koepmier Lake	Koepmier Lake
6000	1	Dale Creek	Dale Creek
6100	1	Scout Lake	Scout Lake
6200	1	Tess Corners Creek	Unnamed
6300	1	Local Water	Unnamed
6500	1	Boerner Bot. Garden Pond No.1	Boerner Bot Gdn Pond No. 1
6700	1	Boerner Bot. Garden Pond No.2	Boerner Bot Gdn Pond No. 2
7100	1	Upper Kelly Lake	Upper Kelly Lake
7300	1	Whitnall Park Pond	Whitnall Park Pond
7500	1	Monastery Lake	Monastery Lake
7600	1	Un Lake	Unnamed
7635	1	Wildcat Creek	Unnamed
8600	1	Dineen Park Pond	Dineen Park Pond
8800	1	Estabrook Park	Estabrook Park Lagoon
9400	1	Holler Park Pond	Holler Park Pond
9700	1	Humboldt Park Pond	Humboldt Park Pond

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9800	1	Jacobus Park Pond	Jacobus Park Pond
10000	1	Bradley Lake (Little)	Kosciuszko Park Pond
10100	1	Linden Pond	Linden Pond
10300	1	Mcgovrn Park Pond	McGovern Park Pond
10450	1	Un Lake	Unnamed
10500	1	Mitchell Park Pond	Mitchell Park Pond
10700	1	North Golf Course Ponds	North Golf Course Pond Number 1
10800	1	North Golf Course Pond # 2	North Golf Course Pond Number 2
10900	1	North Golf Course Pond # 3	North Golf Course Pond Number 3
11000	1	New Zoo Pond	New Zoo Pond
11100	1	Noyes Park Pond	Noyes Pond
11500	1	Saveland Park Pond	Saveland Park Pond
11700	1	Sheridan Park Pond	Sheridan Park Pond
14400	1	Washington Park	Washington Park Pond
14500	1	Oak Creek	Oak Creek
14700	1	Oak Creek Parkway Pond	Oak Creek Parkway Pond
14800	1	Mitchell Field Ditch	Unnamed
14800	2	Mitchell Field Ditch	Unnamed
14900	2	North Branch Oak Creek	Unnamed
15000	1	Milwaukee River	Milwaukee River
15000	2	Milwaukee River	Milwaukee River
15100	1	Kinnickinnic River	Kinnickinnic River
15100	2	Kinnickinnic River	Kinnickinnic River
15100	3	Kinnickinnic River	Kinnickinnic River
15200	1	Wilson Park Creek	Wilson Park Creek
15200	2	Wilson Park Creek	Wilson Park Creek
15250	1	Cherokee Creek	Unnamed
15300	1	Villa Mann Creek	Unnamed
15500	1	Wilson Park Pond	Wilson Park Pond
15550	1	Holmes Avenue Creek	Unnamed
15575	1	Un. Creek (Edgerton Ditch)(T06n R22e Sw Ne 28)	Unnamed
15800	1	Jackson Park Pond	Jackson Park Pond
15900	1	South 43rd Street Ditch	Unnamed
16000	1	Menomonee River	Menomonee River
16000	2	Menomonee River	Menomonee River

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16000	3	Menomonee River	Menomonee River
16000	5	Menomonee River	Menomonee River
16100	1	Wood Creek	Wood Creek
16200	1	Wood Hospital Pond	Wood Hospital Pond
16300	2	Honey Creek	Honey Creek
16600	1	Mccarty Park Pond	McCarty Park Pond
16700	1	Underwood Creek	Underwood Creek
16700	2	Underwood Creek	Underwood Creek
16800	1	South Branch Of Underwood Creek	Unnamed
17400	1	Menomonee Parkway Pond	Menomonee Parkway Pond
17600	2	Little Menomonee	Little Menomonee River
17700	1	Noyes Creek	Unnamed
18300	1	Schroedel Pond	Schroedel Pond
18350	1	Unnamed Stream (R21e S18)	Unnamed
19300	1	Milwaukee River Licoln Park Lagoon	Mil River -Lincoln Park Lagoon
19400	1	Lincoln Creek	Lincoln Creek
19450	1	Crestwood Creek	Unnamed
19600	1	Indian Creek	Indian Creek
19700	1	Un. Creek (Brown Deer Creek)(T08n R22e Sw Nw 07)	Unnamed
19900	1	Brown Deer Park	Brown Deer Park Pond
20000	1	Beaver Creek	Unnamed
20400	1	Un. Creek (Trinity Creek)(T09n R21e Se Ne 35)	Unnamed
20400	2	Local Water	Unnamed
44600	1	Juneau Park Lagoon	Juneau Park Lagoon
44700	1	Fish Creek	Fish Creek
3000042	1	Burnham Canal	Unnamed
3000073	1	South Branch Creek	Unnamed
3000341	1	Local Water	Unnamed
5034070	1	Local Water	Unnamed
5034132	1	Local Water	Unnamed
5034171	1	Unnamed Stream	Unnamed
5034191	1	Unnamed Stream	Unnamed
5034235	1	Local Water	Unnamed
5034304	1	Unnamed Stream	Unnamed
5034362	1	Local Water	Unnamed

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5034457	1	Unnamed Stream	Unnamed
5034465	1	Local Water	Unnamed
5034662	1	Unnamed Stream	Unnamed
5034771	1	Local Water	Unnamed
5035100	1	Local Water	Unnamed
5035175	1	Grantosa Creek	Unnamed
5035175	2	DUPLICATE	Unnamed
5035401	1	Local Water	Unnamed
5035805	1	Local Water	Unnamed
5036024	1	Local Water	Unnamed
5036088	1	SOUTH BRANCH UNDERWOOD CREEK	Unnamed
5036265	1	Hale Creek	Unnamed
5036372	1	Local Water	Unnamed
5036509	1	Local Water	Unnamed
5036633	1	Zablocki Park Creek	Unnamed
5036990	1	Local Water	Unnamed
5037118	1	Local Water	Unnamed
5037240	1	Local Water	Unnamed
5037305	1	Local Water	Unnamed
5037407	1	Local Water	Unnamed
5037597	1	Local Water	Unnamed
5037655	1	Local Water	Unnamed
5037694	1	Local Water	Unnamed
5037792	1	Local Water	Unnamed
5037797	1	Unnamed Stream	Unnamed
5037833	1	Local Water	Unnamed
5038138	1	Unnamed Stream	Unnamed
5038183	1	Unnamed Stream	Unnamed
5038451	1	Local Water	Unnamed
5573818	1	Local Water	Unnamed
5573892	1	Local Water	Unnamed
5573998	1	Unnamed	Unnamed
5574026	1	Local Water	Unnamed
5574079	1	Local Water	Unnamed
5574091	1	Local Water	Unnamed

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5575643	1	Unnamed Lake	Unnamed
5575706	1	Unnamed Lake	Unnamed
5575745	1	Unnamed Lake	Unnamed
5575751	1	Unnamed Lake	Unnamed
5575899	1	Unnamed Lake	Unnamed
5576237	1	Local Water	Unnamed
5576428	1	Unnamed Lake	Unnamed
5576479	1	Local Water	Unnamed
5576495	1	Local Water	Unnamed
5576523	1	Unnamed Lake	Unnamed
5576584	1	Unnamed	Unnamed
5576636	1	Local Water	Unnamed
5576672	1	Local Water	Unnamed
5576707	1	Local Water	Unnamed
5576877	1	Local Water	Unnamed
5576946	1	Local Water	Unnamed
5576991	1	Unnamed Lake	Unnamed
5577024	1	Local Water	Unnamed
5577038	1	Local Water	Unnamed
5577146	1	Local Water	Unnamed
5577409	1	Local Water	Unnamed
5588787	1	Local Water	Unnamed
5588789	1	Local Water	Unnamed
5590457	1	Northridge Lake	Unnamed

Lab Account Codes

Account Code	Description	Start Date	End Date

Forms

Form Code	Form Name

Methods

Method Code	Method Description

Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name

Documents

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Title	Description	Author	Published	Comments
ARRA_18C_FinalQuarterlyReport	Grant Report		12/1/2011	
ARRA_18C_Q2FFY10_Report		Wdnr	4/28/2010	
ARRA_18C_Q3FFY10_Report	Grant Report		7/30/2010	
ARRA_18c_Q4FFY10_Report	Grant Report		11/1/2010	
Final Report Evaluation of Potential Impacts from Implementing Stormwater Management Practices in Holmes Avenue Creek and Villa Mann Creem on Wilson Creek		MMSD, Terta Tech, HNTB	7/8/2011	
MMSD LETTER AGREEMENT ARRA PROJECT - VMC & HAC		Hahn, Michael	4/26/2010	
MMSD LETTER AGREEMENT ARRA PROJECT - VMC & HAC Exhibit A		Hahn, Michael	4/26/2010	
MMSD Letter Agreement ARRA Project - VMC & HAC Exhibit B		Hahn, Michael	4/26/2010	
SEWRPC ARRA 18C SWEET Water Trust Grant Modification	SEWRPC ARRA 18C SEWRPC SWEET Water Trust	Michael G. Hahn	10/29/2009	
SEWRPC SWEET Water Trust ARRA 18C Project Description	SEWRPC SWEET Water Trust ARRA 18C Project Description	Michael G. Hahn	4/1/2009	
WPC Modeling task_quarterly report 032310 ARRA 18C		Hahn, Michael	4/26/2010	

Budget

Combined Budgets:

Combined WSLH:

Combined Total: $0.00

Funding

Organization	Source	Type	Amount	Start Date	End Date