Wisconsin Department of Natural Resources
SWIMS Project Summary

General Project Information

Project ID: Stillwell Creek TMDL
Name: Stillwell and Squaw Creeks TMDL
Type: TMDL/303d Projects
Subtype: Implement TMDL
Status: ACTIVE
Start Date: 07/01/2006
End Date: 06/30/2007
Purpose: This is a U.S. EPA initiated and approved TMDL.

Objective:
Squaw Creek and Stillwell Creek are tributary streams of the Upper La Crosse River Basin, located in Monroe County in west-central Wisconsin. The streams are within the boundaries of Fort McCoy, a federal military facility. Both Squaw Creek and Stillwell Creek are classified as “water quality-limited” and have been placed on Wisconsin’s list of water bodies in need of restoration, a list prepared in accordance with Section 303(d) of the Clean Water Act and known as the “303(d) list.” The Wisconsin Department of Natural Resources (WDNR) listed Squaw Creek due to temperature impairments. WDNR listed Stillwell Creek due to temperature and sediment impairments. Stillwell Creek was added to the 303(d) list in 2003, but there was an error in listing the precise segment of the creek. The State of Wisconsin has since provided information to USEPA to correct this information.
Stillwell Creek is a 4.7-mile trout stream with a gradient of 28 feet per mile that drains an area of approximately five square miles. A 2.2-mile segment downstream from the cranberry operation supports a class III trout fishery whereas the segment upstream of the cranberry operation is classified as a class II trout fishery. The segment of the creek downstream of the cranberry operation is considered impaired because the fish community is rated poor as measured using the Index of Biotic Integrity (IBI). The low IBI scores are believed to be due to high temperatures, and degraded habitat which is reflected in an elevated fine sediment count.

Water temperature increases cause cold water communities to suffer a variety of ill effects, which can range from decreased spawning to death. Dissolved oxygen sags can also be influenced by an increase in the water temperature because less oxygen is soluble as temperature increases. Water temperature increases can be caused as a result of stream bank erosion, widening the river channels, which exposes more of the river water to direct sunlight.
Sedimentation reduces the suitable habitat for fish and macroinvertebrate communities. Filling-in of pools with sediment reduces the amount of available cover for juvenile and adult fish. Sedimentation of riffle areas reduces the reproductive success of fish by reducing the exposed gravel substrate necessary for appropriate spawning conditions. Sedimentation also affects macroinvertebrate biomass (fish food source) which tends to be lower in areas with predominantly sand substrate than in a stream substrate with a mix of gravel, rubble and sand.

Sedimentation (particularly in the case of fine sediments which remain in suspension longer) also causes elevated turbidity, which reduces the penetration of light necessary for photosynthesis in aquatic plants, reduces feeding efficiency of visual predators and filter feeders, and lowers the respiratory capacity of aquatic invertebrate by clogging their gill surfaces.
In addition, other contaminants such as nutrients (phosphorus) attached to sediment particles can be transported to lakes and streams during runoff events. Nutrient enrichment can contribute to dissolved oxygen sags by stimulating aquatic plant growth and their oxygen consumption demands.

Comments:
Outcome:
Study Design:
QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
KOPERSKI, CYNTHIA A	PROJECT_MAN/	ACTIVE	07/01/2006	06/30/2007	Wisconsin DNR	
KOPERSKI, CYNTHIA A	COORDINATOR	ACTIVE	07/01/2006	06/30/2007	Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
07/14/2014	Lisa Helmuth	Progress: 75-100% Complete	TMDL Complete but not implemented.

Wisconsin Department of Natural Resources
SWIMS Project Summary

Actions

Action	Detailed Description	Start	End Date	Status
TMDL Development	TMDL Development for Squaw Creek and Stillwell Creek, Monroe County, WI. Stillwell Creek is a 4.7-mile trout stream with a gradient of 28 feet per mile that drains an area of approximately five square miles. A 2.2-mile segment downstream from the cranberry operation supports a class III trout fishery whereas the segment upstream of the cranberry operation is classified as a class II trout fishery. The segment of the creek downstream of the cranberry operation is considered impaired because the fish community is rated poor as measured using the Index of Biotic Integrity (IBI). The low IBI scores are believed to be due to high temperatures, and degraded habitat which is reflected in an elevated fine sediment count.	07/01/2006	06/30/2007	COMPLETE
TMDL (USEPA) Approved	This is a U.S. EPA initiated and approved TMDL. Squaw Creek and Stillwell Creek are tributary streams of the Upper La Crosse River Basin, located in Monroe County in west-central Wisconsin. The streams are within the boundaries of Fort McCoy, a federal military facility. Both Squaw Creek and Stillwell Creek are classified as ?water quality-limited? and have been placed on Wisconsin?s list of water bodies in need of restoration, a list prepared in accordance with Section 303(d) of the Clean Water Act and known as the ?303(d) list.? The Wisconsin Department of Natural Resources (WDNR) listed Squaw Creek due to temperature impairments. WDNR listed Stillwell Creek due to temperature and sediment impairments. Stillwell Creek was added to the 303(d) list in 2003, but there was an error in listing the precise segment of the creek. The State of Wisconsin has since provided information to USEPA to correct this information.	10/01/2006	10/24/2008	IN_PROGRESS

Details:	Parameter	Value/Amount	Units	Comments
	Total Phosphorus			
	Total Suspended Solids			

TMDL (USEPA) Approved	EPA initiated and approved TMDL for Squaw Creek and Stillwell Creek, Monroe County, WI. The Wisconsin Department of Natural Resources (WDNR) listed Squaw Creek due to temperature impairments. WDNR listed Stillwell Creek due to temperature and sediment impairments.	06/30/2007	06/30/2007	COMPLETE

Monitoring Stations

Station ID	Name	Comments

Assessment Units

Wisconsin Department of Natural Resources
SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
1650100	1	Un Lake	Unnamed
1662500	1	Tarr Creek	Tarr Creek
1662500	2	Tarr Creek	Tarr Creek
1662600	1	Stillwell Creek	Stillwell Creek
1662600	2	Stillwell Creek	Stillwell Creek
1662900	1	Un Lake	Unnamed
1663000	1	Un Lake	Unnamed
1663200	1	Local Water	Unnamed
1663400	1	Stillwell Pond	Stillwell Pond
1663600	1	Wac Pond	Wac Pond
1663700	1	Sparta Creek	Sparta Creek
1663900	1	Lower Sparta Pond	Lower Sparta Pond
1664100	1	Upper Sparta Pond	Upper Sparta Pond
1664200	1	Creek 29-8 (S. Fk Sparta Cr)	Unnamed
1664500	1	Spring Bank Lake	Unnamed
1664600	1	Un Lake	Unnamed
1664700	1	Creek 20-11	Unnamed
1664900	1	Local Water	Unnamed
1665200	1	Un Lake	Unnamed
1665400	1	Flora Dell Lake	Flora Dell Lake
5558557	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
STILLWELL CREEK 2008 TROUT BOOK DATA	Trout Stream Classification Checklist, survey on file at Fort McCoy.	Noble, John	10/03/2003	
STILLWELL CREEK 303D LISTING DOCUMENTATION		Cindy Koperski	08/05/2008	
Squaw and Stillwell Creeks (1662600 1665800) TMDLs		WDNR WES	09/27/2006	
Stillwell Creek 1662600 Impaired Waters Listing Documentation 2006	Data Documentation Impaired Waters Documentation, Changes	Noble, John	03/09/2006	
Stillwell Creek Land Use Map	Stillwell Creek Land Use Map		07/15/2014	
Stillwell Creek Pond and Cranberry Ponds	Stillwell Pond Cranberry Beds, Ft. McCoy		07/14/2014	
US EPA Squaw and Stillwell Creeks (1662600 1665800)	Squaw and Stillwell Creeks (1662600 1665800) TMDL Decision Document.	US EPA	01/18/2018	

Wisconsin Department of Natural Resources
SWIMS Project Summary

Title	Description	Author	Published	Comments
TMDL Decision Document	This pdf is not an actual EPA decision document as this is an EPA initiated and approved TMDL; they do not ¿review¿ their own TMDLs, so a decision document was not issued.			

Budget

Combined Budgets:

Combined SLOH:

Combined Total:

Funding

Organization	Source	Type	Amount	Start Date	End Date