

WRC SWAG Grant (2013-2014)

Surface Watershed Assessment Grants (SWAG)

The Water Resource Center (WRC) received a SWAG (Surface Watershed Assessment Grant) to carry out water quality monitoring in the Watonwan River during 2013-2014. SWAG grants are part of a 10 year monitoring cycle funded through the Minnesota Legislature and are managed by the Minnesota Pollution Control Agency (MPCA). SWAGs are used to fund local groups and volunteers to assist the MPCA with monitoring water quality in lakes and streams. Data is used to check if water quality standards are met, and if water quality allows for designated uses (such as supporting health of biota, and recreation), and assists the MPCA in targeting water bodies in need of improvement.

For more information on the SWAG program: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/surface-water-financial-assistance/surface-water-assessment-grants.html>

Watonwan River Watershed

The Watonwan River is one of the 12 major watersheds for Minnesota River Basin, and one of the 3 watersheds that make up the Great Blue Earth River Basin (GBERB). Major tributaries of the Watonwan River include North Fork, South Fork, St. James Creek, and Perch Creek. Of the rivers in the GBERB the Watonwan River typically has the highest nitrate and phosphorus loads. Land use in the Watonwan River is predominantly agriculture, and much of the river has been channelized or altered to allow for drainage and flood control.

For a list of locations and types of impairments under the MPCA's impaired waters list:

<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/minnesotas-impaired-waters-and-tmdls/impaired-waters-list.html>

For more information on the Watonwan River:

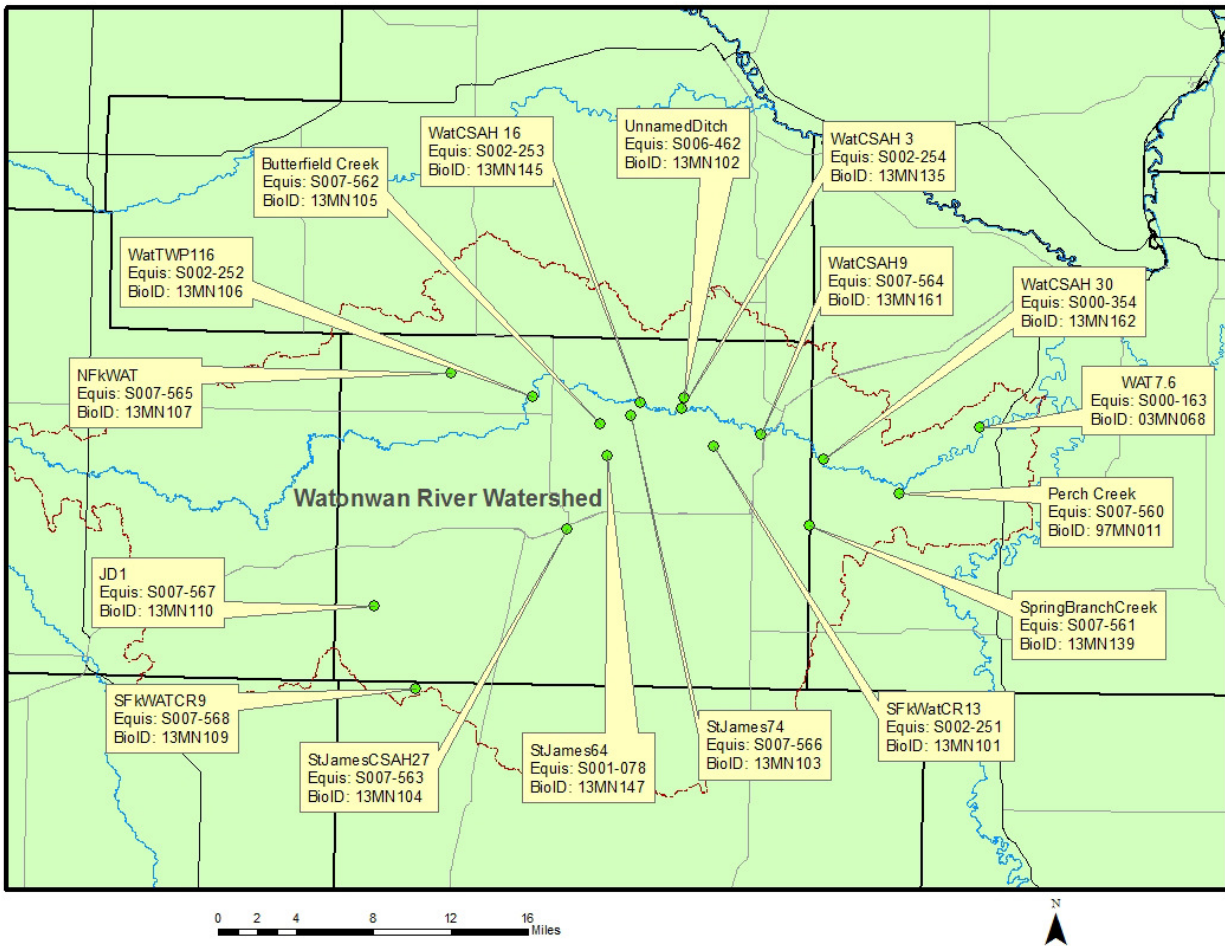
http://www.pca.state.mn.us/index.php?option=com_k2&layout=item&view=item&Itemid=2893&id=2819#overview

<http://www.gberba.org/watonwanwatershednew.htm>

Water Quality Monitoring for 2013-2014 SWAG

The WRC received a SWAG grant of \$80,510.40, and the budget ran from 4/1/2013 through January 2015. WRC staff began water quality monitoring in May, 2013, and completed monitoring in August, 2014. The final SWAG report was submitted in December, 2014.

17 sampling sites were monitored in the Watonwan River Watershed, as shown in the map below:



The site descriptions and locations are shown in the table below. To obtain further information about the sites, links to the MPCA’s Environmental Data Access is provided.

Site	Description	ID	County	EDA Site Link
WAT7.6	Watonwan River upstream of CR 13 (173rd St), 1.5 mi. W of Garden City	03MN068	Blue Earth	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S000-163&ORG=MNPCA&wdip=2
PerchCreek	Perch Creek at CR 135 (154th St), 10 mi. SE of Madelia	97MN011	Blue Earth	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-560&ORG=MNPCA&wdip=2
SpringBranchCreek	Spring Branch Creek at CR 9 (473rd Ave), 4.5 mi. NE of Lewisville	13MN139	Blue Earth/Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-561&ORG=MNPCA&wdip=2
WATCSAH30	Watonwan River at CSAH 30, 3 mi SE of Madelia	13MN162	Blue Earth	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S000-354&ORG=MNPCA&wdip=2
WATCSAH9	Watonwan River at City Park off CSAH 9 in Madelia	13MN161	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-564&ORG=MNPCA&wdip=2

SFkWATCR13	South Fork Watonwan River at CSAH 13, 4 mi. SW of Madelia	13MN101	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S002-251&ORG=MNPCA&wdip=2
StJamesCSAH27	St. James Creek upstream of CSAH 27, 0.5 mi. S of St James	13MN104	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-563&ORG=MNPCA&wdip=2
SFkWATCR9	South Fork Watonwan River at CR 9 (50th Ave), 4 mi. W of Ormsby	13MN109	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-568&ORG=MNPCA&wdip=2
JD1	Judicial Ditch 1 at CR 128 (630th Ave), 4 mi. SW of Butterfield	13MN110	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-567&ORG=MNPCA&wdip=2
NFkWAT	North Fork Watonwan River at CSAH 1, 5 mi. E of Darfur	13MN107	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-565&ORG=MNPCA&wdip=2
WATTWP116	Watonwan River at Twp Rd 116(710th Ave), 6 mi. W of St James	13MN106	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S002-252&ORG=MNPCA&wdip=2
BUTTERFIELD CREEK	Butterfield Creek at CSAH 27 (740th Ave), 2 mi SW of La Salle	13MN105	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-562&ORG=MNPCA&wdip=2
StJames64	St. James Creek at Twp Rd 64, 3.5 mi. NE of St James	13MN147	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S001-078&ORG=MNPCA&wdip=2
StJames74	St. James Creek at Twp Rd 74, 6.5 mi. NE of St James	13MN103	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S007-566&ORG=MNPCA&wdip=2
WATCSAH16	Watonwan River at CSAH 16, 1 mi SE of LaSalle	13MN145	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S002-253&ORG=MNPCA&wdip=2
WatCSAH3	Watonwan River at Twp Rd 99, 4.5 mi west of Madelia	13MN135	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S002-254&ORG=MNPCA&wdip=2
UnnamedDitch	Unnamed Ditch at CR 3, 3.5 mi. E of La Salle	13MN102	Watonwan	http://www.pca.state.mn.us/customPHP/eda/stationInfo.php?ID=S006-462&ORG=MNPCA&wdip=2

Monitoring was carried out following the Intensive Watershed Monitoring SOP (procedure) <http://www.pca.state.mn.us/index.php/view-document.html?gid=16141>. Samples were collected for chemical parameters, including nitrogen (total Kjehldal nitrogen, Nitrate+nitrite, Ammonia-N), phosphorus (total phosphorus), chloride, hardness, sulfate, conductivity, dissolved oxygen, and pH, for physical parameters, including total suspended solids, suspended volatile solids, temperature, and transparency, and for biological parameters, including E. Coli, chlorophyll-a, and pheophytin-a). In addition, appearance and recreational suitability were assessed and photos were taken to document site conditions. Laboratory analyses were carried out at Minnesota Valley Testing Labs <http://www.mvtl.com/>

Results

Data was submitted to the MPCA during 2013 and 2014, for entry into the MPCA's Equis database. When the data entering and processing is complete it will become available through the MPCA's Environmental Data Access (see table above).

Contact Information

For more information on the SWAG project in the Watonwan River please contact the WRC:

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