

# Storm Water Pollution Prevention Initiative

**Michigan General Permit No.** MIG619000  
**Certificate of Coverage No.** MIG610101

**Municipality/Agency:** City of Lansing  
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**Date:** March 31, 2006

## 1. Purpose

The purpose of this Storm Water Pollution Prevention Initiative (SWPPI) is to bring together the following storm water pollution controls for the City of Lansing:

- goals and actions from the Red Cedar River Watershed Management Plan (WMP)
- actions applicable to pollution prevention and good housekeeping for municipal operations to meet the NPDES permit requirements
- actions applicable to post construction controls for areas of significant development and redevelopment to meet the NPDES permit requirements
- details and schedules to describe the process for implementing the program
- evaluation methods to demonstrate the reduction of storm water pollution to the maximum extent practicable,

The SWPPI includes those actions expected to be implemented over the term of the permit, and in some cases beyond.

The City of Lansing has the Lower Red Cedar River and the Lower Upper Grand River watersheds. Together with the Middle Looking Glass River watershed, all three WMPs were written in conjunction with one another; goals and actions for the City of Lansing are identical in all three WMPs, as listed below.

Goal 1: Educate the Public about the Importance of Protecting and Managing the Watershed.

Goal 2: Provide a Sustainable and Equitable Funding Source

Goal 3: Encourage Water Quality Friendly Development

Goal 4: Restore and Enhance Recreational Uses through Development of a Watershed Recreation Plan

Goal 5: Protect and Enhance Habitat for Wildlife and Aquatic Animals through Development of a Watershed Habitat Plan

Goal 6: Protect and Increase Wetlands through Development of a Watershed Habitat Plan

Goal 7: Provide Pollution Prevention/Good Housekeeping Practices for Municipal Operations

Goal 8: Strive to Eliminate Pathogens to Meet Total and Partial Body Contact for Recreational Uses

Goal 9: Encourage Water Quality Friendly Agricultural Practices

Table 1 outlines the specific activities that the City of Lansing has undertaken, or will undertake, with respect to each of its commitments in the WMP(s) and to address other Watershed Permit requirements as necessary.

## **2. SWPPI Revisions**

The SWPPI will be reviewed and revised by April 1, 2008 according to the certificate of coverage. Action 10A of the action plan table is for revising the WMP and corresponding documentation. DEQ approval will be sought for revisions to date-specific commitments listed in Table 1.

## **3. Retention of records**

The City of Lansing will retain the approved SWPPI, and its associated records, in-house for a minimum of three years after the termination of the permit. The records will be available upon request by MDEQ and shall include, but not be limited to:

- Information regarding the effectiveness of these activities
- Records of analyses performed
- Calibration and maintenance of instrumentation (if used)
- Recordings from continuous monitoring instrumentation (if used)

These records will be retained by the City of Lansing, and submitted to MDEQ if requested.

## **4. Actions Committed to in the Watershed Management Plan**

This SWPPI addresses the actions that the City of Lansing committed to, as identified in the WMP(s) for the Lower Red Cedar River, Lower Upper Grand River, and the Middle Looking Glass River watersheds. All Watershed Permit SWPPI requirements under Part I.B.2.a.1 are included in Table 1. The Illicit Discharge Elimination Plan (IDEP) and the Public Education Plan (PEP) are not included in the SWPPI; they are addressed in the separate respective plans.

The measure of usage of facilities or material used to identify the mechanisms to evaluate each action and success is provided in Table 1. Also refer to Section 9 of the WMP for additional evaluation mechanisms the City will be participating in.

The City of Lansing does not have any specific disagreements to the WMPs.

**Table 1: Stormwater Pollution Prevention Initiative**

Objective Description	Objective Number	Action Number	Action	Schedule			Material Cost Estimate	Labor Hour Estimate	Measure of Usage of Facilities or Material (Refer also to Section 9 for Additional Evaluation Mechanisms)	Level of Commitment Lansing, City of
				Begin By	Complete By	Comment				
Youth Education	1A	6	Provide (or coordinate presentation by others) classroom presentations on water quality related topics to local educational institutions	Jan-06	Long Term	Upon request	TBD	TBD	No. of students presented to	C
Youth Education	1A	7	Conduct, participate in or support local water festivals or open houses that include watershed education activities	Jan-06	Long Term	Annually	TBD	8 to 20 hours/year per Permittee	No. of students attending the festival	W
Youth Education	1A	8	Provide both educational and project materials to elementary classes for annual water quality awareness fish painting project	Jan-06	Long Term	Annually	TBD	4 to 10 hours/year per Permittee	No. of classrooms participating	-
General Public Education	1B	3	Solicit and train volunteers for curb markers	Jan-06	Long Term	As Needed	none	40 hours	No. of participating volunteers	W
General Public Education	1B	4	Purchase and install curb markers in targeted community locations.	Mar-06	Long Term	As Needed	Markers: 500/yr@ \$1-\$3 ea = \$500 - \$1,500/yr Hangers: 500/yr@ \$0.25 ea = \$125/yr	40 hours/year	No. of curb markers and door hangers installed.	C
General Public Education	1B	5	Compile/Track all Curb Marker Locations in watershed.	Jan-06	Long Term	Annually	none	40 hours/year	Area of watersheds marked. No. of Phone calls received.	C
General Public Education	1B	6	Install watershed awareness road signs	Jul-05	Dec-07		\$50-80/sign	15 hours/year	No. of signs installed	C
Riparian Vegetation and Wetland Education	1D	1	Identify municipal locations as candidates to install riparian buffer preservation (no mow). Mark selected areas.	Jun-06	Dec-07		none	20-200 hours of identifying riparian buffer locations	Estimate No. of acres of municipal property protected by riparian buffers	C
Riparian Vegetation and Wetland Education	1D	2	Install an educational posting within buffer to create a demonstration project and explain and promote the practice of Riparian Buffer BMPs and the reestablishment of native vegetative species.	Oct-06	Dec-07		Sign: \$50 each 2-20 signs depending on size of riparian buffer	4-20 hours of designing sign 4-40 hours of installing signs		W
Riparian Vegetation and Wetland Education	1D	4	Develop a list of riparian land owners.	Jan-07	Long Term	As Needed	none	20 hours per community		W

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Riparian Vegetation and Wetland Education	1D	5	Provide the riparian landowners with educational materials emphasizing protecting and managing the riparian corridor	Dec-07	Long Term	Annually	Brochures: \$0.20 each 10,000 - 50,000 ct. \$2,000-\$10,000	TBD	No. of Brochures distributed	C
Homeowner Education	1E	3	Distribute materials to homeowners and environmental organizations.	Jul-05	Long Term		Brochures/tip cards: \$0.20 each 10,000 - 50,000 ct. \$2,000-\$10,000	40 hours of organizing mailing	No. of brochures/tip cards distributed.	C
Web Site Education	1F	3	Update Permittee specific web sites with community specific educational material for public viewing and reproduction as well as mechanisms for public input and involvement. Include links to the www.mywatersheds.org Web sites.		Long Term	Annually	none	80-200 hours per year	No. of hits per page. No. of downloads List of information kept on the web site	C
Update Public Education Plan	1H	3	Submit revised PEP to MDEQ.		Sep-06		none	2 hours	NA	C
Business Education	1I	1	Develop a listing of businesses through a watershed wide focus group. Include private salt appliers, restaurants, and automobile service stations.	Jun-06	Jun-07		none	40-80 hours of prioritizing businesses	NA	W
Business Education	1I	4	Distribute educational information to businesses	Jul-07	Long Term	Annually	Brochures: \$0.20 each 2,000 copies \$400	40-200 hours/ per year	No. of brochures distributed.	W
Funding Strategy	2A	5	Adopt preferred mechanism.	Jan-07	Long Term	Annually	TBD	TBD	TBD	W
Water Quality Friendly Development Standards	3B	3	Adopt development standards manual as appropriate by ordinance or procedure	Long Term	Long Term		TBD	40-200 hours per community	No. of communities that adopt ordinances.	W
Water Quality Friendly Development Standards	3B	4	Announce new standards through notices to appropriate businesses, developers, and builders and through public service announcements (PSA) directed to residents.	Long Term	Long Term		\$500-\$2,000	100-300 hours	No. of notices distributed. No. of PSAs broadcasted. Estimated No. of people reached.	W

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Water Quality Friendly Development Standards	3B	5	Site Plan Review using adopted standards	Long Term	Long Term	Annually	Dependent on Municipality	Dependent on Municipality	No. of site plans reviewed each year Summary of water quality impact of typical new development	W
Incorporate Water Quality Friendly Practices	3D	3	Work with applicable government staff to implement appropriate changes to plans.	Sep-07	Long Term		none	100-300 hours	No. of meetings held with government staff.	C
Septic and Well Inspections	3E	1	Support the Ingham County Health Department's ordinance for time of sale inspection for septic and wells for Ingham County communities (anticipated to be adopted Summer '06)		Dec-06		none	none	Ordinance adopted	C
Retrofit Areas of High Impervious Cover	3G	3	Select sites and implement LID.	May-07	Long Term		TBD	TBD	Estimate annual water quality load reductions	W
Retrofit Areas of High Impervious Cover	3G	4	Work through GLRC to Retrofit 30% of high impervious cover throughout the watershed.	Long Term	Long Term		TBD	TBD	NA	W
Deadfall Management Techniques	4A	3	Promote and adopt plan.	Long Term	Long Term		none	200 hours of discussion	No. of local agencies that adopt the plan.	W
Recreational Assessment	4D	5	Work with GLRC to Construct recreational project.	Long Term	Long Term		TBD	TBD	NA	W
Watershed Habitat Plan	5B	3	Adopt the aquatic and terrestrial wildlife plan and include in Watershed Habitat Plan.	Long Term	Long Term		Reproduction: ~\$25 per plan 50 copies \$1,000 - \$1,500	80 hours for the communities	No. of local agencies and municipalities that adopt the plan.	W
Watershed Habitat Plan	5B	4	Implement plan.	Long Term	Long Term	Annually	none	Varies annually	Summarize annual accomplishments.	W
Tree/Wood Ordinance	5E	2	Adopt tree/woodland ordinance		Long Term		TBD	TBD	Progress toward ordinance adoption	W

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Manage Woodlands/Forested Property	5F	1	Professionally manage municipal woodlands/forested property		Long Term		TBD	TBD	Acres managed	E
Reforestation Project	5G	1	Complete a municipal reforestation project		Long Term		TBD	TBD	Area converted, No. of trees planted	W
Municipal Turf Grass	5H	1	Reduce area of turf grass on selected areas of municipal property - no mow zones - and revegetate the areas with native vegetation (See 1D1 and 1D2)		Long Term		TBD	TBD	Area converted	W
Municipal Buffer Zone	5I	1	Provide vegetated buffer zones around water features and drains on municipal property		Long Term		TBD	TBD	Area converted	W
Adopt Wetland Protection Measures	6B	3	Adopt standards or ordinance as appropriate.	Jul-07	Long Term		none	None	No. of communities adopting ordinance	W
Ensure Operating Procedures Comply with Phase II	7A	3	Adopt new/revised SOPs appropriately.	Jun-07	Long Term		Legal fees are TBD	100 hours of revising and adopting	No. of new ordinances adopted.	C
Ensure Operating Procedures Comply with Phase II	7A	4	Train municipal staff, other appropriate agencies, and public utilities on new procedures. Include basic storm water management awareness information.	Jul-07	Long Term	Annually	Training Materials: \$100-\$300	50 hours initial training; 20 hours annually thereafter	No. of staff trained. Freq of training.	C
Pesticide and Fertilizer Application	7B	3	Adopt new procedures as appropriate	Aug-07	Long Term		Legal fees are TBD	0 to 80 hours per agency	No. of local agencies that adopt changes	C
Pesticide and Fertilizer Application	7B	4	Train Staff on new application procedures, as needed.	Dec-07	Long Term	Annually	Training Materials: \$100-\$300	30 hours initial training prep per community; 20 hours annually thereafter per community	No. of staff trained. Freq of training.	C

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Maintenance of Structural BMPs	7C	2	Adopt BMP manual as appropriate.	Long Term	Long Term		~\$25 per plan 50 copies \$1,000 - \$1,500	80 hours for the communities	No. of local agencies and municipalities that adopt the manual.	W
Maintenance of Structural BMPs	7C	4	Train Staff on new BMPs and BMP maintenance procedures, as needed.	Sep-07	Long Term	Annually	Training Materials: \$100-\$300	Initial 30 hours plus 20 hours annually	No. of staff trained. Freq of training.	W
Impacts from Flood Management Projects	7D	1	Use the BMP Manual when designing new flood management BMPs. Determine pollutant removal efficiencies to assess impacts on water quality.	Sep-07	Long Term	Annually	none	NA	Specific location of flood management BMPs throughout watershed.	W
Reduce Discharge from Municipal Impervious Areas	7E	3	Adopt changes as appropriate	Jan-08	Long Term		Legal fees are TBD	0 to 80 hours per agency	No. of local agencies that adopt changes	C
Reduce Discharge from Municipal Impervious Areas	7E	5	Work with GLRC to develop methods to track quantity of sediment and debris removed.	Jan-08	Long Term		none	50 hours of developing debris tracking method	Qty of debris removed from streets and catch basins annually.	C
O&M Waste Disposal	7F	1	Review existing operation and maintenance waste disposal procedures for proper practices.	Jan-07	Dec-07		none	20 hours of reviewing	NA	C
O&M Waste Disposal	7F	2	Recommend improvements to be made to disposal procedures.	Jan-08	Apr-08		none	50 hours of meeting and drafting changes	NA	C
O&M Waste Disposal	7F	3	Adopt changes as appropriate	Long Term	Long Term		Legal fees are TBD	0 to 80 hours per agency	No. of local agencies that adopt changes	C
O&M Waste Disposal	7F	4	Train Staff on new waste disposal procedures as needed.	Long Term	Long Term	Annually	Training Materials: \$100-\$300	30 hours initial training; 20 hours annually thereafter	No. of training attendees. Freq of training.	C
O&M Waste Disposal	7F	5	Dispose of operation and maintenance waste appropriately	Jan-06	Long Term	Annually	TBD	TBD	TBD	C

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Low or No Phosphorus Fertilizer	7G	2	Adopt ordinance in watershed communities.	Jan-08	Long Term		none	30 hours of meetings	No. of communities that adopted ordinance.	W
Low or No Phosphorus Fertilizer	7G	3	Work with both businesses and residents to see this new ordinance implemented.	Long Term	Long Term		Advertising: \$300-\$1,500	100 hrs initially; 20 hrs annually thereafter	No. and circulation of advertisements.	W
Excess Salt (Deicing)	7H	1	Review existing salt application practices including truck calibration, salt loading, and salt storage.	Jun-06	Jul-06		none	20 hours of reviewing	NA	E
Excess Salt (Deicing)	7H	2	Recommend improvements to be made to existing practices or create new practices.	Jan-07	Dec-07		none	50 hours of meeting and drafting changes	NA	E
Excess Salt (Deicing)	7H	3	Train Staff on new salt storage, application, and truck calibration practices, as needed.	Jan-08	Long Term	Annually	Training Materials: \$100-\$300	50 hours initial training; 20 hours annually thereafter	No. of training attendees. Freq of training.	E
Trash and Debris in River	7I	3	Clean up trash and debris on municipally owned property along water bodies	Jan-06	Long Term	Annually	TBD	TBD	Amount of debris removed. Length of river cleaned	E
Stream and Ditch Rehabilitation	7J	4	Adopt management plan as appropriate.	Long Term	Long Term		none	80 hours of discussions	NA	W
Stream and Ditch Rehabilitation	7J	5	Implement management plan.	Long Term	Long Term	Annually	none	varies annually	Track locations of rehabilitation projects.	W
Sweep Parking Lots and	7K	1	Sweep/clean municipal owned parking lots and streets		Long Term	Annually	TBD	TBD	Freq of sweeping, amount of material collected	E
Municipal OSDS	7L	1	Operate and maintain municipally owned on-site disposal systems		Long Term	Annually	TBD	TBD	No. of OSDSs inspected, repaired, and cleaned	X
Oil and Grease Collection	7M	1	Provide, or partner with other communities, collection of waste cooking oil and grease and distribution of home grease collection containers.		Long Term	Annually	TBD	TBD	No. of containers distributed. Amount of oil/grease collected	W
Yard Waste Collection	7N	1	Yard waste and Christmas tree collection		Long Term	Annually	TBD	TBD	Amount of brush collected. No. of Christmas trees collected	E

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Thermometer Exchange	7O	1	Mercury thermometer exchange program		Long Term	Annually	TBD	TBD	No. of mercury thermometer collected and	W
Re-use Rally	7P	1	Municipal re-use rally		Long Term	Annually	TBD	TBD	Amount of material reused, recycled, and sent to a landfill	W
Dumpster Replacement	7Q	1	Insure that only leak proof dumpsters are used on municipal properties			TBD	TBD	TBD	No. of dumpsters replaced or converted	W
IDEP	8B	1	Implement municipal separate storm sewer system illicit discharge elimination plans. (Part of IDEP document.)	Apr-05	Apr-08		To be determined	Contractor cost and cost to correct problems.	No. of Corrective Actions Taken.	C
IDEP	8B	5	Implement Pet Waste Reduction Campaign as appropriate	Jan-08	Long Term	Annually	TBD	TBD	Locations where bags are provided. No. of bags provided	W
IDEP	8B	6	Participate in Health Department's program for E-coli river testing and consider expanding the program	Jan-06	Long Term	Annually	TBD	TBD	No. of tests preformed. Evaluate for trends	E
IDEP	8B	7	Minimize the potential for SSOs through sanitary sewer cleaning		Long Term	Annually	TBD	TBD	Length of sewer cleaned	E
IDEP	8B	8	Minimize the potential for SSOs through municipal grease trap requirements and inspections		Long Term	Annually	TBD	TBD	No. of grease traps installed. No. of grease traps inspected.	E
IDEP	8B	9	Minimize the potential for SSOs through sewer improvements		Long Term	Annually	TBD	TBD	Qty of enhancements	E
IDEP	8B	10	Minimize sanitary sewer leakage through sewer rehabilitation projects		Long Term	Annually	TBD	TBD	Qty of rehabilitation	E
IDEP	8B	11	Eliminate illicit discharge identified through the municipal industrial pretreatment program		Long Term	Annually	TBD	TBD	No. of illicit discharges identified and removed	E
Agricultural Water Quality Friendly Practices	9A	2	Promote water quality friendly agricultural practices with local farmers through NRCS, FSA and MDA etc.	Sep-07	Long Term		Advertisement: \$500-\$1,500	40-200 hours	No. of farmers contacted, No. of farmers willing to consider water quality friendly practices.	X

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Agricultural Water Quality Friendly Practices	9A	4	Ensure that water quality friendly agricultural practices are promoted through the distribution of existing materials and programs.		Long Term	Annually	Brochures: ~\$0.20 each 2,000 - 5,000 ct. \$400 - \$1,000	Ongoing 20 hours annually	No. of brochures distributed	X
WMP Updates	10A	8	Review, revise, and approve WMP updates as appropriate. Disagreements with significant components of the WMP will be documented.	Aug-07	Oct-07		\$20-\$40/copy for reproduction	4-20 hours/update per permittee	Plan update completed and agreed to	C