



Town of St John

Stormwater Quality Management Plan (SWQMP)

Part B: Baseline Characterization and Report Certification Checklist

Updated:
October 8, 2010

Prepared by the Town of St John Stormwater Advisory Council

Introduction and Procedure

The Town of St John is located in Lake County in Northwest Indiana. As determined by the Indiana Department of Environmental Management (IDEM), the Town of St. John has been designated an MS4 Area. The Town of St. John's MS4 Area includes the incorporated town limits. The incorporated town limits includes approximately 10.04 square miles of land area. There is another 1.1 square miles of streets and roads and unincorporated areas. The total size of the MS4 area is 11.14 square miles. The Town of St John is located in the Great Lakes Watershed and the Kankakee Watershed.

As required in 327 IAC 15-3-7, the Town of St John has collected, developed, and assessed data related to the receiving waters identified below. Receiving waters have been determined primarily by study of the USGS Quadrangle map(s) within the designated area.

Receiving Waters

Hart Ditch (Plum Creek) – Dyer Ditch	HUC (07120003030030)
Main Beaver Dam Ditch - Headwaters	HUC (04040001030030)
Turkey Creek Headwaters	HUC (04040001030010)
West Creek – Bull Run	HUC (07120001140010)

The strategy used for development of Part B information included participation by local staff and public involvement, with coordination by Robinson Engineering. A work session was held to develop strategy and determine assignments for data collection, and then worksheets were used for individual tasks. Following data collection, all information was used together to develop conclusions and recommendations within this report.

Land Usage










The Town has grown since 2004, adding approximately 2.3 square miles of commercial land and planned unit development (PUD) through three annexations.

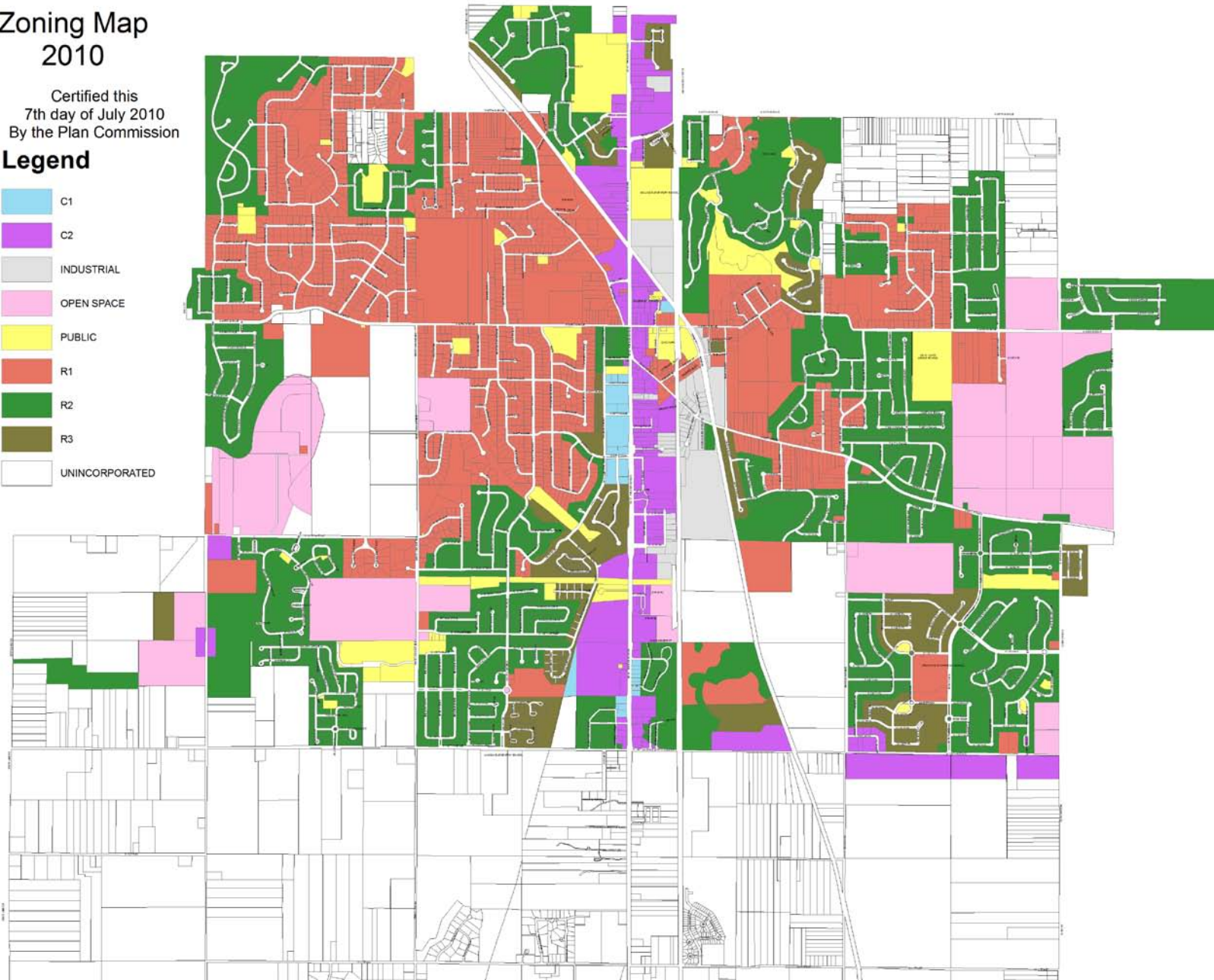
The vast majority (~72%) of the developed portion of the Town is residential. Approximately 19% is civic, open space, government, or schools. 2.4% of the Town is industrial. The remainder of the developed portion of the Town is commercial, ~7%.

Zoning Map 2010

Certified this
7th day of July 2010
By the Plan Commission

Legend

	C1
	C2
	INDUSTRIAL
	OPEN SPACE
	PUBLIC
	R1
	R2
	R3
	UNINCORPORATED



Identification of Known Sensitive Water Areas

The town of St John's public drinking water comes from 4 wells. The wells feed into one of two water treatment plants before public consumption.

To better assess the existing water quality within the identified receiving waters, data was collected from multiple sources. In some cases, data was available for particular receiving water, while limited existing data is available for other receiving waters. For St. John data was available in the 2008 IDEM 303(d) list:

07120003030030	IMPAIRED BIOTIC COMMUNITIES
04040001030030	IMPAIRED BIOTIC COMMUNITIES
04040001030010	E. COLI
04040001030010	IMPAIRED BIOTIC COMMUNITIES
07120001140010	E. COLI
07120001140010	IMPAIRED BIOTIC COMMUNITIES
07120001140010	NUTRIENTS
07120001140010	TOTAL DISSOLVED SOLIDS

They are all IRCAT 5A.

The above impaired biotic communities have a TMDL Program which is scheduled to be developed sometime between 2011 and 2014. The above E. Coli communities will have a TMDL Program between 2011 and 2015.

Additionally, the Indiana Integrated Water Quality Monitoring and Assessment Report (2008 – 305b), Appendix B: Site specific Waterbody Assessments shows the same data as the 303(d) report in addition to:

Bull Run Basin is non-supporting of aquatic life and non-supporting for fish consumption. Bull Run Basin was not evaluated for recreation uses due to its physical restraints for such activity.

Turkey Creek – mainstreams is non-supporting for aquatic life and recreation, while having slight stressors from biotic community and pathogens.

Existing Best Management Practices (BMPs)

An assessment and inventory of existing structural and non-structural BMPs was begun as part of the characterization effort. This effort will continue throughout the remaining development of the MS4 Program and additional information will be included in future reports. To date, structural BMPs used within this community include detention basins with non-erodible low-flow channels, sediment and erosion control protection during construction, etc. Locations, condition and effectiveness of each BMP has been reviewed as part of the Characterization efforts, as new BMPs are identified or added, these will be reviewed as well. The Town is removing the requirement for the low flow channels in detention basins. The town will sweep the streets as finances allow. The town collects leaves and branches several times a year.

In addition to structural BMPs, non-structural BMPs in use within the designated community will be documented and assessed as to impact and usefulness during the Characterization. Non-structural BMPs currently in place include several planning and building guidelines within the Subdivision Control Ordinance, a weekly curbside recycling program, and a semi-annual household hazardous waste drop site.

MCM 1 – PUBLIC EDUCATION AND OUTREACH BMPs

The following BMPs are being considered by the Town of St John in order to comply with the minimum requirements of this MCM.

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Develop a survey designed to assess initial constituent knowledge and practices as they relate to stormwater quality.	Distribute via newsletter, the Lake County HHW mobile collection program, public meetings, and other locations.	Assess constituent knowledge and practices as they relate to stormwater quality.
Create a series of stormwater educational brochures and articles targeting citizens, visitors, the construction and development community, and businesses and commercial facilities.	Distribute via utility bills, the Lake County HHW facility, public meetings, and other local events, such as “Christmas in the Park”, the Open House, and libraries.	Educate community members on the need for a stormwater management program and the impacts that stormwater runoff can have on water quality.
Partner with Park Board to develop additional materials and venues for distribution.	Distribute information via Park events.	Educate community members on the need for a stormwater management program and the impacts that stormwater runoff can have on water quality.
Educating children	St John grade schools	Town personnel went to 3 local grade schools and presented MS4 material to the 4th graders.

MCM 2 – PUBLIC PARTICIPATION AND INVOLVEMENT BMPs

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Implement a Storm Drain Inlet Marking Program.	Town storm sewer inlets in priority watersheds.	Increase citizen awareness of the Town’s Stormwater Program through public participation.
Formalize and advertise community cleanup programs.	Town Parks and other common areas.	Increase citizen awareness of the Town’s Stormwater Program through public participation.
Develop an education training program focusing on the local construction and development community.	Town of St John	Increase the construction and development community’s awareness of changing erosion and sediment control standards.
Battery Recycling Program	Town of St John Clerk’s office	Keeps heavy metals out of the landfills.
Household Hazardous Waste Recycling Program	Lake Central High School parking lot	Keeps hazardous materials out of the air, water, and landfills.
Stormwater Advisory Council Meeting	The Stormwater advisory council will have a public meeting once a year	Educate the public and answer questions or concerns about stormwater
Stormwater Advisory Council and Home owners Associations	The Stormwater advisory council will meet with Home Owners Associations as requested.	

MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION BMPs

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Develop a plan for identifying and eliminating illicit storm sewer connections.	Town of St John	Ensure effective detection and elimination of illicit discharges to St John’s storm sewer system.
Continually update the stormwater system map.	Town of St John	Increase effectiveness of Town responses to illicit discharges entering the storm sewer system.
Conduct dry weather screening of all storm sewer outfalls.	Town of St John	Ensure efficient and effective identification of illicit discharges.
Sweep the streets	Town of St John	Prevent illicit discharges from entering the storm sewer system.
Pickup leafs and branches	Town of St John	Prevent leafs and branches from entering the storm sewer system.
Automobile Fluid Drop-off Centers	<p>The Town of St. John Public Works will accept fluids</p> <p>Mighty Mikes gas station @ 9524 Wicker Ave</p> <p>Stan's Auto Salvage @ 7967 Wicker Ave.</p> <p>Kmart Service Center @ 9550 Wicker Ave accepts transmission fluid, oil, and antifreeze. They also accept oil filters for a small fee.</p> <p>Oil Exchange @ 9977 Wicker Ave</p> <p>K & M Transmissions @ 10135 Earl Drive</p> <p>Kubiak’s @ 10749 Wicker Ave</p>	Prevent automobile fluids from entering the storm sewer system.

MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Develop a comprehensive Erosion and Sediment Control (ESC) Program fulfilling requirements of Rule 13.	Town of St John	Minimize water quality impacts of development occurring within the Town of St John. Ensure that new/redevelopment within the Town’s MS4 area is managed as efficiently as possible.
Hire new and/or train staff to conduct ESC plan reviews and site inspections within the Town of St John.	Town of St John	Ensure adequate staff to address increased workloads associated with performing ESC plan review, inspection, and enforcement as mandated by Rule 13.
Develop and implement a system to track the status of development projects and ESC complaints.	Town of St John	Ensure efficient management and accurate reporting on the status of development within the Town of St John.
Develop an educational training program focusing on the local construction and development community.	Town of St John	Increase the construction and development community’s awareness of changing erosion and sediment control standards.
Develop written procedures for prioritizing construction sites for inspection and enforcement, including authority for issuing stop work orders.	Town of St John	Ensure that construction and development site inspections are as effective as possible.
Conduct review of ESC Program to determine overall effectiveness and adequacy.	Town of St John	To correct deficiencies or make updates based on new information or technology.

MCM 5 – POST-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Develop a comprehensive Erosion and Sediment Control (ESC) Program addressing post-construction stormwater runoff from new/redevelopment areas and fulfilling requirements of Rule 13.	Town of St John	Minimize the water quality impacts of new development within the Town of St John, and ensure that new/redevelopment within the Town’s MS4 area is managed as efficiently as possible.
Train staff to conduct ESC plan reviews and inspections for post-construction BMP control measures.	Town of St John	Ensure adequate staff to address increased workloads associated with performing plan review, inspection, and enforcement as mandated by Rule 13.
Develop and implement operational and maintenance plans for Town owned Post-Construction BMPs.	Town of St John	Ensure long-term effectiveness and adequacy of newly installed BMPs.
Develop and implement a system to track the number and types of post-construction BMPs installed in new/redevelopment projects.	Town of St John	Ensure consistent inspections and record keeping regarding the number and condition of newly installed BMPs.
Maintain the Floodplain Management Plan.	Town of St John	Ensure protection of floodplain storage and prevention of flood damages.

MCM 6 – POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs

Best Management Practice (BMP)	Location/ Application	Purpose/ Objective
Implement secondary containment for areas of chemical storage.	Public Works Department - Maintenance Facility	Reduce the impact of accidental spills that could contaminate stormwater runoff from the maintenance facility.
Install hydrocarbon and sediment removing BMPs at the street department facility.	Public Works Department	Prevent contaminants associated with daily operations from contaminating stormwater runoff from street department facility.
Implement additional salt and sand BMPs.	Public Works Department - Salt and Sand Storage areas.	Prevent stockpiles of salt and sand from contaminating stormwater runoff.
Develop and post a spill response plan at all Town facilities where hazardous material and chemicals are used or stored.	Vehicle Maintenance Facilities	Ensure efficient and effective response to accidental chemical spills.
Contract with a waste disposal company to dispose of all materials collected via the Town's street sweeping program.	Town of St John	Ensure that wastes collected via the Town's street sweeping program are disposed of in a manner that prevents them from contaminating stormwater runoff.
Develop a system for tracking street sweeping and other litter pickup efforts.	Town of St John	Ensure accurate reporting and documentation of the Town's pollution prevention programs.
Develop and implement a mechanism to prevent vehicle wash waters from leaving Town facilities without being treated by appropriate BMPs.	Vehicle Maintenance Facilities	Prevent vehicle wash waters from contaminating stormwater runoff or discharging directly into receiving waters.
Implement secondary containment for areas of chemical storage.	Public Works Department - Maintenance Facility	Reduce the impact of accidental spills that could contaminate stormwater runoff from the maintenance facility.

Conclusions – Future Plans

Based upon the information collected and reviewed as listed above, the water quality within receiving water located within the St. John MS4 Area may best be maintained or improved by implementing the following:

Regarding Land Use:

Much of the land area within St. John is already developed, mostly of a residential nature. Therefore, there will be some impact from future development and redevelopment possibilities, but more impact to water quality is likely to be caused by existing activities as well as maintenance of existing storm drainage features, and the local community's life-style impacts on water quality. Therefore, public education and information as well as municipal good housekeeping measures will be a very important part of this particular MS4 Program development.

Regarding BMP placement and usage:

Use and maintenance of BMPs according to the Subdivision Control Ordinance shall continue. In addition the Town of St John will enact a soil and erosion control manual that will be better suited at detailing the appropriate BMP and their required maintenance. Furthermore this manual will put an emphasis on post construction water quality planning. As the MS4 Program is developed, additional BMP placement may be identified as part of the illicit Discharge Detection and Elimination or Municipal Operations programs development.

As the steps identified above are included within the MS4 Program development and implementation, storm water impacts to the water quality of the receiving waters identified may be reduced. Through the development of the Storm Water Quality Management Plan (to be submitted as Part c) as well as annual follow-up, the condition of the water quality within the receiving waters will be updated.