# MUNICIPAL OPERATIONS STORM WATER POLLUTION PREVENTION PLAN



# CITY OF EVANSVILLE Municipal Separate Storm Sewer System (MS4)

MS4 Operator: Lloyd Winnecke, Mayor

**Brent Schmitt, PE – City Engineer** 

**Chris Weil, Assistant City Engineer** 

Qualified Professional: Storm Water Coordinator: Karan Barnhill

Date: January 6, 2010

**UPDATED: November 12, 2019** 

### 1.0 Introduction

This Storm Water Pollution Prevention Plan (SWPPP) is developed to cover all of the Municipal Operations within the City of Evansville. It has been developed as a Best Management Practice (BMP) for implementation of the Municipal Separate Storm Sewer System (MS4) Program in accordance with 327 IAC 15-13-17. This plan describes the facilities, their operations; inventories potential pollutant sources, identifies controls and best management practices (BMPs) for reducing the discharge of pollutants in storm water runoff, and outlines measures for implementing and reviewing this plan.

### **2.0 Pollution Prevention Team:**

Facility Name	Contact	Location of Facility	Number of facility on Map
	Information		
Street	Greg Bryant,	1304 Waterworks Road	1
Maintenance	Superintendent		
Dept.	Transportation		
	Services		
	Phone No.: 435-		
	6000, Cell No.:		
	568-9503		
METS Building	Kerry Kamp,	601 John Street	2
	Director METS		
	Phone No.: 435-		
	6166, ext. 225		
Evansville Levee	Jay Perry,	1300 Waterworks Road	3
Authority	Superintendent		
	Levee Authority		
	Phone No.: 435-		
	6137		_
Fire Departments	Charles Connelly,	750 SE Eighth St.	4
	Fire Chief	3061 Maxx Road	5
	Phone No.: 435-	310 N Fourth Ave.	6
	6235	1200 Oak Hill Rd.	7
		2413 W Maryland	8
		6521 Washington 1050 S Barker Ave	9
			10
		2003 N Kentucky 2020 Keystone	12
		120 E Columbia	13
		545 S Willow Rd	14
		1711 S Weinbach	15
		2801 Washington	16
		425 W Mill Rd	17
Evansville Fire	Charles Connelly,	550 SE Eighth St.	18
Department	Fire Chief	223 22 2.0	
Administration	Phone No.: 435-		
Building	6235		

Evansville Fire	Charles Connelly,	2005 N. Kentucky	19
Department	Fire Chief	2005 M Kemedoky	13
Mechanics Shop			
Cemeteries	Chris Cooke,	3800 Kratzville Road	20
	Superintendent	(Locust Hill)	
	of City	1400 E. Virginia St. (Oak	21
	Cemeteries	Hill)	
	Phone No.: 435-		
	6045		
	Cell No.: 568- 9534		
Urban Forestry	Shawn Dickerson,	1400 E. Virginia Street.	22
Orbani Torestry	City Arborist	1400 L. Vilgilia Street.	22
	Phone No.: 475-		
	1426		
Park Maintenance	Brian Holtz,	Diamond Avenue	23
Building	Executive		
	Director of City		
	Parks		
	Department Phone No.: 435-		
	6141		
Golf Courses	Brian Holtz,	1550 Mesker Park Dr –	24
	Executive	Helfrich	
	Director of City	1900 E. Diamond –	25
	Parks	Fendrich	
	Department	2905 E. Morgan –	26
	Phone No.: 435-	McDonald	
	6141	Vann Avenue -	27
Carlad Caraan	Duin a Halta	Wesselman's Par 3	30
Goebel Soccer	Brian Holtz, Executive	6800 North Green River Road	28
Complex	Director of City	Kodu	
	Parks		
	Department		
	Phone No.: 435-		
	6141		
Parks and Pools	Brian Holtz,	2601 W. Maryland St.	29
	Executive	(Helfrich Pool)	
	Director of City		
	Parks		
	Department Phone No.: 435-		
	6141		
	Brian Holtz	201 North Boeke	30
	Executive	(Hartke Pool)	
	Director of City		

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Parks Department , Phone No.: 435- 6141		
Brian Holtz, Executive Director of City Parks Department Phone No.: 435-6141	2399 S. Adams (Lorraine Pool)	31
Brian Holtz Executive Director of City Parks Department Phone No.: 435-6141	1650 N. Main Street (Garvin Pool)	32
Brian Holtz, Executive Director of City Parks Department Phone No.: 435-6141	6101 N. First Avenue - Igleheart Park (Lloyd Pool)	33
Brian Holtz Executive Director of City Parks Department Phone No.: 435-6141	Seventh Street (Lamasco Park)	34
Brian Holtz, Executive Director of City Parks Department Phone No.: 435-6141	Boeke Road (Wesselmans Park and Ballfields )	35
Brian Holtz, Executive Director of City Parks Department Phone No.: 435-6141	209 N. Boeke Road (Swonder Ice Arena)	36

	Brian Holtz, Executive Director of City Parks Department Phone No.: 435-6141	209 N. Boeke Road (Roberts Stadium)	37
Mesker Park Zoo	Eric Beck Director	Mesker Park Drive	38
Animal Control	Allisa Webster, Superintendent – 812-435-6016 Office 812-305-6254 Cell	815 Uhlhorn Drive	39

# 3.0 Impaired Waters List – 303(d) List of Impaired Waters:

OHIO	51402020400	VANDERBURGH	PIGEON CREEK-	DISSOLVED	5
TRIBUTARIES	51402020400 80	CO	HARPER DITCH	OXYGEN	э А
OHIO	51402020400	VANDERBURGH	PIGEON CREEK-	E. COLI	5
TRIBUTARIES	80	CO	HARPER DITCH		A
OHIO	51402020400	VANDERBURGH	PIGEON CREEK-	NUTRIENTS	5
TRIBUTARIES	80	CO	HARPER DITCH		A
OHIO TRIBUTARIES	51402020400 80	VANDERBURGH CO	PIGEON CREEK- HARPER DITCH	TOTAL DISSOLVED SOLIDS	5 A
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	DISSOLVED	5
TRIBUTARIES	00	CO	KLEYMEYER PARK	OXYGEN	A
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	E. COLI	5
TRIBUTARIES	00	CO	KLEYMEYER PARK		A
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	NUTRIENTS	5
TRIBUTARIES	00	CO	KLEYMEYER PARK		A
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	SULFATES	5
TRIBUTARIES	00	CO	KLEYMEYER PARK		A
OHIO TRIBUTARIES	51402020401 00	VANDERBURGH CO	PIGEON CREEK- KLEYMEYER PARK	TOTAL DISSOLVED SOLIDS	5 A
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	Mercury in Fish	5
TRIBUTARIES	00	CO	KLEYMEYER PARK	Tissue	B
OHIO	51402020401	VANDERBURGH	PIGEON CREEK-	PCBs in Fish	5
TRIBUTARIES	00	CO	KLEYMEYER PARK	Tissue	B
OHIO	51402020401	VANDERBURGH	PIGEON CREEK	Mercury in Fish	5
TRIBUTARIES	20	CO		Tissue	B
OHIO	51402020401	VANDERBURGH	PIGEON CREEK	PCBs in Fish	5
TRIBUTARIES	20	CO		Tissue	B
OHIO	51402020700	VANDERBURGH	BAYOU CREEK	DISSOLVED	5
TRIBUTARIES	20	CO		OXYGEN	A

OHIO RIVER	5140201	VANDERBURGH CO	OHIO RIVER - NEWBURGH TO GREEN R	DIOXINS	5 A
OHIO RIVER	5140201	VANDERBURGH CO	OHIO RIVER - Newburgh to Green R	PCBs in Fish Tissue	5 B
OHIO RIVER	5140202	VANDERBURGH CO	OHIO RIVER - GREEN RIVER TO EVANSVILLE	E. COLI	5 A
OHIO RIVER	5140202	VANDERBURGH CO	OHIO RIVER - Green River to Evansville	Mercury in Fish Tissue	5 B
OHIO RIVER	5140202	VANDERBURGH CO	OHIO RIVER - Green River to Evansville	PCBs in Fish Tissue	5 B

## 4.0 Municipal Facility List of Pollutants and Activities.

Facility Name	Location of Facility	Activities	Potential Pollutant Sources	Receiving Water
Street	1304 Waterworks	Street and	Gas, Diesel, Oil,	Ohio River
Maintenance Dept.	Road	Road	Batteries,	Offio Kiver
Waintenance Dept.	Noau	Maintenance,	Windshield De-	
		Fueling and	Icer, Paint, Round-	
		Vehicle Repairs	up, floor dry, Nox-	
		veriicie kepairs	Ice, Battery	
			Cleaner, Non-	
			Chlorinated Brake	
			Cleaner, Sea	
			Foam, Injection	
			Cleaner, Diesel	
			Flo, Lubricants,	
			Roadway De-Icers,	
			Antifreeze,	
			Herbicides , Storm	
			Sewer and Inlet	
NATTO Decilation	COA Labra China ah	Dudalia	Debris	Ohio Divon
METS Building	601 John Street	Public	Gas, Diesel, Oil,	Ohio River
		Transportation	Batteries,	
		System, Fueling	Lubricants,	
		and Vehicle	Antifreeze, glass	
		Repairs, and	cleaner,	
		car wash	degreaser,	
			transmission fluit,	
			windshield washer	
			fluid, heavy duty	
			cleaner,	
			detergent,	
Evansville Levee	1300 Waterworks	Maintenance	Gas, Diesel, Oil,	Ohio River
Authority	Road	of Levee,	De-Icer,	

		Fueling and minor vehicle repairs	Antifreeze, Oil, Dry Mineral Spirits Lubricants, Herbicides	
Fire Departments	750 SE Eighth St. 3061 Maxx Road 310 N Fourth Ave. 1200 Oak Hill Rd. 2413 W Maryland 6521 Washington 1050 S Barker Ave 2003 N Kentucky 2020 Keystone 120 E Columbia 545 S Willow Rd 1711 S Weinbach 2801 Washington 425 W Mill Rd	Fire Department Emergency Vehicles. Disposal and cleanup of accidental spills.	Absorb All, Haz Mat cleanup materials, Gas, Oil, Diesel Fuel	Bee Slough Sontagg Ditch Pigeon Creek Pigeon Creek Pigeon Creek Aiken Ditch Carpentier Creek Pigeon Creek Hurst Ditch Pigeon Creek Ohio River Bee Slough K-2 Pump Station Dry Branch
Evansville Fire Department Administration Building	550 SE Eighth St.	Administrative Duties, Storage of Some materials and chemicals	Gas, Diesel, Contaminant Clean up materials.	Bee Slough
Evansville Fire Department Mechanics Shop	2005 N. Kentucky	Maintenance of Vehicles.	Gas, Diesel, Oil, Lubricants.	Pigeon Creek
Cemeteries	3800 Kratzville Road (Locust Hill) 1400 E. Virginia St. (Oak Hill)	Small Equipment Maintenance, Maintenance of Grounds and Buildings	Gas, Oil, Herbicides	Pigeon Creek Pigeon Creek
Urban Forestry	1400 E. Virginia Street.	Small Equipment Maintenance	Oil, Lubricant Diesel Fuel and Gas, Grease, Spray Paint Herbicides	Pigeon Creek
Park Maintenance Building	Diamond Avenue	Maintenance of Vehicles and Small equipment, storage of old	Gas, Oil, Lubricants, Round-up, hydraulic Oil, transmission oil, engine oil, washer fluid, gear oil carb	Pigeon Creek

		equipment and small tools	cleaner, power steering stop leak, ATF additive, brake fluid, wheel bearing grease, fuel treatment etc. ( A full list of chemicals is on file in SWPPP File)	
Golf Courses	1550 Mesker Park Dr – Helfrich 1900 E. Diamond – Fendrich 2905 E. Morgan – McDonald	Maintenance of Small Equipment and upkeep of grounds and buildings	Oil, Lubricants, Herbicides, Fertilizers, degreasers,	Pigeon Creek Pigeon Creek Harper Ditch
	Vann Avenue - Wesselman's Par 3	bullulligs		Harper Ditch
Goebel Soccer Complex	6800 North Green River Road	Maintenance of Small Equipment and upkeep of grounds and buildings	Oil Lubricants, Herbicides	Firlick Creek
Parks and Pools	2601 W. Maryland St. (Helfrich Pool)	Swimming Pools	Pool Chemicals	Pigeon Creek
	201 North Boeke (Hartke Pool)	Swimming Pools	Pool Chemicals	Harper Ditch
	2399 S. Adams (Loraine Pool)	Swimming Pools	Pool Chemicals	K-2 Pump Station
	1650 N. Main Street (Garvin Pool)	Swimming Pools	Pool Chemicals	Pigeon Creek
	6101 N. First Avenue -Igelhart Park (Lloyd Pool)	Swimming Pool	Gas and Oil, Pool Chemicals	Dry Branch Creek
	Seventh Street (Lamasco Park)	Park and Ball fields	Gas and Oil	Pigeon Creek
	Boeke Road (Wesselmans Park and Ballfields)	Park and Ball fields	Gas, Oil,	Harper Ditch
	2430 Sunburst Blvd. (Anthony Oates Park and Pool)	Pool and Park	Dry Chlorinating granuals, Cyanuric Acid, Sanitizer Trichlor, Sodium Bicarbonate Industrial Grade, Soda Ash, Sodium Thiosulfate	Pump Station K- 2A at Kentucky and Riverside

	200 11 5 :		0 0:1 1:=::	
	209 N. Boeke Road	Ice Arena with	Gas, Oil, MEK,	Harper Ditch
	(Swonder Ice	Parking Lot	Xylene, Paint	
	Arena)		Thinner,	
			Antifreeze, WD40,	
			Weed Killer, Dash	
			Board Cleaner,	
			Diesel, Latex	
			Paint, Oil Dry,	
			Consume	
			Ecolyser, Bleach,	
			Lithium Grease,	
			Coil Cleaner, Mop	
			Cleaner Hard	
			Surface Cleaner	
	209 N. Boeke Road	Stadium with	Gas, Oil	Harper Ditch
	(Roberts Stadium)	Parking Lot		
Mesker Park Zoo	Mesker Park Drive	Zoo and	Gas, Oil, Cleaners	Pigeon Creek
		Botanic	and detergents,	
		Gardens	floor wax	
			defoamer, graffiti	
			remover,	
			insecticides,	
			icemelt,	
			Lubricants,	
			Herbicides, carpet	
			extractor, floor	
			sweep compound,	
			orange tough,	
			carbon dioxcide,	
Animal Control		Animal Control	Gas, Oil, Cleaners	Pigeon Creek
		Shelter and	and deteregents,	-
		Incinerator		
	•	•	•	

### 5.0 Maintenance Activities and Schedules for BMPs

Each department will maintain all Best Management Practices that have been installed. This includes routine sweeping of parking lots, proper management of trash disposal, roadside shoulder and ditch stabilization, proper planning and care of roadside vegetation or vegetative swales and monitor and remediation of outfall scouring conditions.

Each department will put in place controls for reducing or eliminating the discharge of pollutants from operational areas, including roads, parking lots, and maintenance and storage yards. This shall include covering or otherwise reducing the potential for polluted storm water run-off from deicing salt or sand storage piles.

Each department shall have in place standard operating procedures for spill prevention and clean-up during fueling operations. Proper facilities will be provided for containment of any accidental loss of concentrated solutions, acids, alkalis, salts, oils, or other polluting materials. Best Management Practices shall be in place for vehicular maintenance areas for each department where vehicles, equipment and other maintenance activities take place.

The City of Evansville will prohibit vehicle and equipment washing (with the exception of small equipment such as mower decks, chainsaws, etc.) and concrete or asphalt hydro demolition waste waters into storm water run-off except under the allowance of any appropriate NPDES wastewater permit. Further the minimization of pesticide and fertilizer use will be promoted by the City of Evansville and its employees. Pesticides shall be used, applied, handled, stored, mixed, loaded, transported and disposed of according to the Indiana Chemists guidance requirements.

Each department that has Fueling facilities shall ensure that all fueling areas have an appropriate spill kit that is labeled. Any fueling facility that has secondary containment shall ensure that all secondary containment is functional and any drain plugs are installed or tank is doubled walled. These facilities shall be routinely inspected and any damaged tanks, hoses, or containment shall be replaced/repaired as necessary. All tanks shall have pollution prevention messages with spill contact information and shall have automatic shut off installed as required. Each fueling facility area shall be locked at the end of each work day.

The City of Evansville will promote the proper disposal of animal waste. It will be recommended, where applicable, that canine parks be sited at least one hundred fifty feet away from a surface water body.

All Dumpsters will be maintained, inspected and kept covered after use. Dumpsters will be located away from storm drain inlets.

The City of Evansville will adhere to the reporting guidelines and reportable spill quantities listed with the United States Environmental Protection Agency.

### 6.0 Fertilizer Application Management

Fertilizers will never be applied within five feet of pavement, 24 feet of a storm drain inlet, or 50 feet of a stream or water body. A low or no fertilizer approach to maintain turf when feasible will be utilized. Fertilizer will not be applied when rain is expected. Soil tests will be performed to determine actual fertilization needs and application rate. Fertilizer spreaders will be calibrated to avoid excessive application.

### 7.0 Pesticide/Herbicide Application Management (Integrated Pest Management)

The use of mechanical methods of vegetation removal rather than herbicides will be used when possible. Consideration will be given to using a low or no pesticide approach to maintaining landscaped areas. All departments will avoid applying herbicides and pesticides if rain is expected.

Equipment will be calibrated in order to avoid over application. The City of Evansville will ensure staff is certified by the Indiana Office of State Chemist for Pesticide Application.

### 8.0 Onsite Storage of Materials

All hazardous materials will be properly marked and stored on site. This shall include but not be limited to oil, fuel, antifreeze, lubricants, chemicals, and other possible pollutants that may be on site. Where possible these materials will be within an enclosed building where they are not at risk to contaminate the storm water if spilled and can be properly contained should a spill occur.

Material Safety Data Sheets (MSDS) for the fuels, oils, hydraulic fluids, and antifreeze used in the vehicles and equipment can be found in the MSDS binder located within the Maintenance Buildings and Areas adjacent to the storage areas where these materials are located.

### 9.0 Catch Basin Cleaning/Storm Drain Maintenance

A daily log of the amount of sediment collected and removed will be maintained. Waste will be analyzed to determine the nature of disposal. Any liquids collected during cleanouts should be decanted and disposed of separately depending on its hazard class. Cleaning will be planned to coincide with municipal street sweeping. All suspicious catch basins will be reported to the MS4 coordinator for follow-up inspection and enforcement (e.g., inappropriate discharges and illegal dumping).

### 10.0 Storm Drain Marking

The City of Evansville will ensure that any newly constructed or replaced storm drain covers have pre-cast storm water pollution prevention messages such as "DUMP NO WASTE DRAINS TO WATERWAY".

### 11.0 Waste Disposal of Materials.

All departments that are involved in waste removal of any materials removed from the separate storm sewer systems and operational areas must dispose of the materials in a landfill that is equipped with handling the type of material being disposed of. This disposal shall be in compliance with all applicable solid waste disposal regulations. This shall include but not be limited to trash and debris, dredge spoil, accumulated sediments, floatables, and debris.

### 12.0 <u>Training of Personnel to Handle Hazardous Waste.</u>

All departments that deal with Hazardous Waste are properly trained, with periodic refresher sessions, on topics such as proper disposal of hazardous wastes, vegetative waste handling, fertilizer and pesticide application, and the function of implemented BMPs.

### 13.0 <u>Building Perimeter</u>

When feasible, a vegetative buffer around the building perimeter will be established and maintained. Routinely collect and properly dispose of any trash, debris or empty containers.

### 14.0 Building Interior

All departments with maintenance activities inside of a building will ensure all floors are routinely swept and kept free from oils, hydraulic fluids, fuels etc. Spill kits will be made available where hazardous fluids are placed and will be located in a centralized location and employees will be properly educated on the use of the spill kits. All absorbents are cleaned and disposed of after spills. Drip trays will be placed in all buildings with vehicles and used when needed.

### 15.0 <u>Vehicle Washing Guidelines</u>

All departments will utilize a commercial washing facility when feasible. Purchase and utilize non-toxic, biodegradable, phosphate free detergents. Designate and label specific areas for washing operations which drains to a sanitary system. Floor drains should have oil and water separators. Vehicles will not be washed outside. No Hazardous materials will be stored in the designated wash area unless adequate containment is provided.

### 16.0 Vehicle/Equipment Maintenance Guidelines.

All departments will maintain accurate inventory of vehicle/equipment fluids, properly and promptly dispose of used fluids in appropriate labeled containers, recycle all used fluids when feasible, store bulk fluid waste in an appropriate area inside, dry sweep work area routinely, have an appropriate spill kit accessible and utilize approved cleanup procedures, store damaged batteries in a covered secondary container, designate and label specific area for maintenance operations which drain to the sanitary system, floor drains should have oil and water separators, place drip trays under small drips from vehicles/equipment for temporary containment and do not perform maintenance involving fluid handling outside the building.

All bulk fluid contains shall be maintained in spill pallets and routinely inspected for leaks and fluid accumulation. Residual flood accumulations shall be cleaned in secondary containment.

All containers shall be clearly labeled to accurately identify the contents (i.e. Garbage Cans – "Regular Trash Only" and Used oil containers – "Waste Oil".)

### 17.0 Other Practices

- Storm Water Pollution Prevention Plan (SWPPP) Implement the BMPs within this plan. Revise SWPPP as needed to improve protection of storm water. Conduct annual review of SWPPP to determine effectiveness.
- Quarterly Site Inspections Designate an individual (facility employee) responsible for conducting inspections. Conduct quarterly MCM 6 Facility Site Inspections to indentify insufficient BMP implementation and corrective actions. Report results of inspections to facility supervisor. Maintain copies of all documentation from inspections at facility. Conduct quarterly visual monitoring of outfalls as specified in this SWPPP.

- Biannual Employee Training. Provide Two (2) opportunities annually for staff to attend Good Housekeeping Training Sessions which may include but is not limited to the following:
  - Spill response procedure
  - Review of past spills
  - Review of SWPPP
  - Review of good housekeeping procedures
  - Proper material handling procedures
  - Proper disposal or recycling of materials
  - Be sure employees know where spill kits are located
  - Review sources of storm water pollutants onsite
  - Familiarize employees with drainage routes near areas where industrial materials are handled.
  - EPA Webcasts
  - NIRPC workshops
  - Good Housekeeping Videos

Maintain records of staff training attendance.

### 19.0 <u>Documentation and Recording Information</u>

- Track/Document Materials Collected. Keep record of the amount of the following materials collected; Catch Basin Cleaning, Street Sweeping and Ditch Cleaning. Provide MS4 Coordinator with a total amount annually. (See 9.0 <u>Catch Basin Cleaning/Storm Drain Maintenance</u>.)
- Track/Document Materials Applied. Keep record of the amount, locations and acreage of the following material applied; Pesticides, Herbicides, Fertilizers, Road Salt. Provide MS4 Coordinator with a total amount annually. (See 7.0 <u>Pesticide/Herbicide Application</u> <u>Management (Integrated Pest Management.)</u>
- Material Safety Data Sheets (MSDS). Post MSDS Binder in a centralized location labeled "MSDS CENTER". Designate individual responsible for MSDS updating and training for staff. (See 8.0 <u>Onsite Storage of Materials</u>.)