

**NPDES PHASE II
MUNICIPAL SEPARATE STORM SEWER SYSTEM
RULE 13 GENERAL PERMIT PROGRAM
ANNUAL REPORT
2008**

**HANCOCK COUNTY, INDIANA
PERMIT #INR040128**

Public Education and Outreach

Clean-Up Events – (Public Involvement and Participation)

Newsletter Articles – The Soil and Water Conservation District has three different newsletters they distribute to Hancock County residents. They are Backyard Conservation and Plant a Million distributed to 6500 residents, Sugar Creek Scoop distributed to 1500 people. These are sent out quarterly and are available on the website.

Newspaper Articles – The Soil and Water Conservation District prepared 20 articles for the local newspaper including articles about water quality, Sugar Creek watershed, wetlands, bioswales, tree sales, etc.. The paper circulation is 12,500 people. The Solid Waste Management District prepared 10 articles for the local newspaper covering the topics of water quality, fertilizers, recycling, ecology, etc.

Website – The Hancock County Government has added a website (www.hancockcoingov.org) for stormwater management as well as the SWCD web site (www.hancockswcd.org). The Hancock County site has a calendar, ordinances, maps, etc. Currently there has been 255 hits since August. The SWCD site provides information on educational material that is available for classrooms as well as information about Master Naturalist and other water quality information. They also have added information about the Sugar Creek Watershed which is sponsored by a 319 Grant.

Stormwater Educational Brochures – The Soil and Water Conservation District added a Homebuyers checklist and storm drain marking brochures to their existing library of materials available. In addition, there were 7,500 handouts distributed including “Water is Life”, Watershed Protection, wetlands, recycling, etc. At the local 4-H fair they handed out over 3000 handouts titled “Water Pollution is not rubber duckies” and Green Lawns, Clean Lakes”. They also have Backyard Conservation Tip Sheets available on pest management, rain gardens, pervious pavement, wildlife habitat, etc. The Health Department also has brochures about septic system maintenance and repairs that they provide to the public.

Solid Waste Management District Promotions – The Solid Waste hosted 4 events with 719 citizens participated. There were two electronic days collecting 16,623 pounds, a tire recycling day collecting 571 tires, and a household recycling day collecting 100,038 pounds of waste. In addition, the Spring Clean event collected 1,160 pounds of litter.

Soil and Water Conservation District Activities – The SWCD conducted several activities this past year including their Annual Meeting, Taste of Hancock County – Watershed Display, Soil Stewardship, County Fair booth, Farm and Field Day, and Nature Daze Day.

School Programs - SWMD had 6 programs involving 467 students covering the following topics – “Edible Landfill”, “Non-Point Source Water Contamination and What You can do to Prevent it”, and “What, Where, and How to Recycle in Hancock County” The

SWCD conducted 8 events involving the local schools. The Ag Day program, Earth Day Program, Environmental Adventure Days, Water Cycle Program, Water Quality – Ways to Protect, Youth Conservation Day, and the Mini- 4-H program this involved over 1,630 students of various ages.

Mass Media – The SWCD and SWMD works with the local paper to have newspaper articles and inserts published, see above.

Sugar Creek Watershed Study – The SWCD was approved for a 319 Grant for the Sugar Creek Watershed Study. This watershed cuts diagonally across the county including the MS4 area (map enclosed). There have been several activities involving this watershed study including clean up days, testing of water quality, and list of best management practices for rural and urban areas.

Public Involvement and Participation

Stormwater Management Steering Committee – The committee includes staff from the County’s Surveyor’s office, highway department, health department, SWCD, SWMD, and GIS department. There were 5 meetings held by the committee to review the annual report (make suggestions and changes), prepare the permit renewal, report progress on activities, and audit preparations. Zach Bishton with Christopher B. Burke Engineering assisted us with our permit renewal and preparation for the audit in 2009.

Clean-Up Events – There was a clean up day held on May 15, 2008. Litter was picked up along US 40, County Road 200 West, downtown New Palestine and Greenfield. There were 1,160 lbs collected and 192 volunteers. The Sugar Creek Watershed group removed 2.13 tons of debris from the creek. In addition, there are several local organizations that have adopted segments along state roads within our County. These include the Eden United Methodist Church, Hancock Telecom, Charlottesville Lions Club, Greenfield Moose, Rotary, and Hancock Solid Waste Management District.

Soil and Water Conservation District Activities – (see public education and outreach section)

Public Meetings – The Phase II annual report was given at the SWCD annual meeting which was held in March. There were 30 landowners present due to snow storm. In addition, at the January Drainage Board public meeting there was a report on phase II activities including the education, construction, mapping of outfalls and compliance, and permit renewal. On September 2, 2008 the Hancock County Commissioners signed the permit renewal and the Notice of Intent (NOI) Letter.

Training for Construction Professionals – (see construction site stormwater runoff section for more details)

Storm Drain Marking – The SWCD paid for adhesive markers to be placed on inlets. The Surveyor’s office has applied 108 markers in subdivisions inside the MS4 area. According to our stormwater ordinance all new development is required to install all inlet castings that are marked with an appropriate “clean water” message.

Pollution Prevention Program – The Surveyor’s office and the Health department have forms for the public to handle complaints on illegal dumping, illicit discharges, poor erosion control, and other activities that negatively impact stormwater quality. In 2007, the Health Department had 25 sewage and 31 trash complaints. All have been resolved. There were 41 septic repairs made in 2008. The Highway Department had 73 reports of trash in the county. All were picked up and placed in a dumpster or added to the recycled debris pile at the highway garage. The Surveyors office had 169 repairs form submitted on Regulated Drains and 38 complaints on Non-Regulated Drains.

Illicit Discharge Detection and Elimination

Stormwater System Map – The Surveyor’s office has developed a GIS layer to map stormwater conveyance. The Schultz and Schultz Regulated Drain and portions of 2 Regulated Drain open ditches have been walked and identified the outfall structures. A spreadsheet is tracking the following information for these outfalls - the receiving water, type of outfall, material, size, flow rate; discharge if any, turbidity, and if any damage is done to the structure. This information is then placed in a database and will be used to identify which outfalls will need to be tested in the future. Our office has decided to outsource the testing analysis, once the outfalls are identified we will hire a private consultant firm with more experience and knowledge in testing to test those outfalls that are 12” or larger and have a discharge in dry conditions. All new subdivisions are located by GPS during the inspection phase so that all structures are identified and compared to the as-built drawings supplied by the developers. In addition, all existing subdivisions in the MS4 area are being inspected and all structures located and added to the GIS layer. There are several miles of stormwater mapping that have been completed. The GIS department is adding a layer of Regulated Drains and watersheds to our public site. All repairs to Regulated Drains are located by coordinates to make our maps as accurate as possible. In 2008, we have mapped 453,354 feet of stormwater. The MS4 area there is 22,085 feet of open channel and 431,269 feet of tile or approximately 85.8 miles mapped.

Illicit Discharge Detection and Elimination Ordinance – The Health Department has continued to repair failing septic systems. This year there were 41 repairs. The testing of the outfall structures has not been completed. Once the testing is completed, we will follow through and identify the source and take corrective action.

Pollution Prevention Program – (see public involvement and participation section)

Storm Drain Marking – (see public involvement and participation)

Solid Waste Management District Promotions – The Solid Waste hosted 4 events with 719 citizens participated. There were two electronic days collecting 16,623 pounds, a tire recycling day collecting 571 tires, and a household recycling day collecting 100,038 pounds of waste. In addition, the Spring Clean event collected 1,160 pounds of litter.

Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training – The Health Department attends several training sessions throughout the year. This year the following topics were covered: lead assessment, residential onsite sewage disposal, local emergency planning committee, pesticide applicator licenses accreditation for Categories 5 and 8, ISDH wastewater committee meetings, and regular scheduled Indiana Environmental Health Association Meetings. The Highway Engineer attended Purdue Road School. The Hancock County Surveyor and office staff attended Road School.

Susan Bodkin and Tracie Belongia attended several meetings and workshops covering topics of local ordinances, spill prevention and reporting, Green BMP post construction, Lid projects, erosion control inspections, plan review, Good Housekeeping and Pollution Prevention, and permit renewal and audit meetings. They attend the Keep It Clean Workshop, Ltap Stormwater, INAFSM conference and stormwater meetings, and the MS4 annual meeting. The Soil and Water Conservation District employee attended SWCD Annual Conference, Stormwater and Soils training, wetland training, IDEM 319 grant and water quality issues, ISDA education, Urban Ecosystems Conference, SE partnership training, MS4 training, BMP implementation, and IDEA fall workshop. In addition, they have had several meetings on the Sugar Creek Watershed study. The Solid Waste Management District – Katerine Wampler attends many meetings associated with recycling and management held by Purdue University and others.

Construction Site Storm Water Run-off Control

Erosion and Sediment Control Ordinance - The county adopted the comprehensive, County-wide ordinance that meets the minimum requirements of 327 IAC 15-5 (Rule 5) in 2005. During 2008, all new development was reviewed under this ordinance for compliance. All plans had an erosion control plan that the Surveyor's office reviewed. This review includes a section on Stormwater Pollution Prevention, inspection, maintenance, record keeping, and reporting. In addition, all individual house plot plans are reviewed for erosion control compliance as well.

Plan Review, Site Inspection, and Enforcement – In 2008, all new developments were reviewed under the new stormwater ordinance. New sections of previously reviewed subdivisions were reviewed for Erosion Control measures and water quality measures were added if possible. The Surveyor's and Highway Department make periodic inspections of subdivision and building sites to inspect Erosion Control Measures. Before any new subdivision is recorded the site must be inspected by the Surveyor's office for erosion control compliance. In addition, random inspections are done to make sure erosion control measures are being maintained and cleaned. There were 53 inspections made and 27 letters sent to builders and developers to have silt fence put and street inlet protection. There was one fine issued for \$250 for tracking on the streets.

Staff Training - Staff members from the Surveyor's office attended the workshop hosted by Hamilton and Marion County SWCD on local ordinances, spill prevention and reporting, Green BMP post -construction and Lid projects. Susan Bodkin and Tracie Belongia of the Surveyor's office attended the INAFSM conference and stormwater committee meetings throughout the year. Tracie attended the MS4 Annual Meeting as well.

Erosion and Sediment Control and Post Construction BMP tracking – The Surveyor's office is tracking the inspection of subdivision and individual lots utilizing an excel spreadsheet. The post-construction BMP are being maintained by the developer's and then homeowner's associations or commercial park lot owners. Currently, subdivisions have utilized forebays, grass swales, catch basins, and aqua-swirls.

Training for Construction Professionals – The Surveyor's office encourages construction professionals to attend the Keep It Clean workshop.

Quality Assurance/Quality Control (QA/QC) of Overall Program – The County Highway submits all bridge construction sites that disturb over 1 acre to IDEM for review. During construction, silt fence and check dams are utilized to minimize the amount of sedimentation that enters the ditches or streams. In addition, the county surveyor oversees their contractors on routine maintenance of open ditches and the placement of the spoil so that sediment does not re-enter the ditches. The Surveyor and the SWCD encourages the placement of filter strips along all county Regulated Drains.

Post-construction Stormwater Management in New Development and Redevelopment

Post-construction Control Ordinance – The county adopted a new county-wide ordinance that meets the minimum requirements of 327 IAC 15-13 (Rule 13) by including post-construction site run-off control measures. The County has encouraged designers and developers to utilize the Indiana Storm Water Quality Manual.

Plan Review, Site Inspection, and Enforcement – The Surveyor's office outsource post-construction BMP plan reviews. This year all projects must meet the county ordinance for water quality measures.

Inspection and Enforcement Documentation – Currently, the county does not own or operate any post-construction BMPs. At this time the county does not know if they will conduct the inspection or outsource this procedure.

Post-construction BMP Operation and Maintenance Plan – Since the county does not own or operate any post-construction BMPs there is not an operation and maintenance plan. However, upon acquisition of any future BMPS, the county will develop and implement an Operation and Maintenance (O & M) Plan.

Pollution Prevention and Good Housekeeping for Municipal Operations

Maintenance Schedule and Database – The County Highway has log sheets which they complete and that information is then put into a database at the Surveyor's office for reporting purposes. The log sheets cover wash vehicles, cleaning the oil and water separator, and work orders trash collection, ditching and berming roadsides.

Secondary Containment – Currently, the highway department has oil absorbent pads and rolls in each highway garage. In addition, there is an oil and water separator in each garage which goes to the sanitary sewer. The combination of these methods reduces the impact of accidental spills that could contaminate stormwater runoff from these facilities. The used oil and anti-freeze is picked up by an approved recycling company. In addition, they purchase recycled material.

Oil and Water Separator Operation and Maintenance - The County installed an oil and water separator in the garage which is connected to a sanitary sewer line. On September 19, 2008 Crystal Clean was hired to clean solids and liquids from the trenches, pump the oil separator, and cleaned separator in old shop by hand. They collected 702 gallons of liquid and 672 gallons of solids.

Catch Basin Inserts - The county highway installs GEO fabric in all storm drain inlets at the Highway Department's maintenance facilities. The staff has been trained on proper installation and the material that is collected is reused by storing them on stockpiles that are used on construction sites.

Salt and Sand Management – The county highway presently stores the road salt in an enclosed facility and utilizes concrete barriers to contain the sand. They utilize filter cloth in the stormwater inlets to trap the sand and prevent it from entering the stormwater drains.

Liquid Asphalt Storage - The County will implement measures to minimize the risk of liquid asphalt contaminating stormwater runoff as funding becomes available.

Silt Fence Dam - In 2007, the County installed silt fence along the open drain between the County Highway's primary maintenance facilities to minimize potentially contaminated stormwater runoff from spilling into the open drain. This is inspected routinely to insure it is functioning properly and fix any places that are worn or falling down.

Pesticide Management – There was a state certified pesticide applicator and a county employee who apply herbicides to the road right-of-ways to control brush and noxious weeds. There was 840 gallons of Milestone used for Canada Thistle, 4 gallons of Fusilade for Johnson grass, and 178.5 gallons of Barrier applied around signs, bridges, intersections, etc. for vegetation control. The following herbicides are stored at the

highway – 2 ½ gallons of Tordon K, 2 ½ gallons of Milestone, 10 gallons of 2, 4-D, and 2 gallons of Pathway. They are stored in an area that is properly marked and locked.

The Health Department has certified pesticide applicator for mosquito control. They treated 55 sites for mosquitoes in 2008. The following chemicals are stored on-site in a storage room sitting in plastic bins – 2.5 gallons of Flit 10 EC, 63 lbs. of Vectolex CG, 40 lbs. of Vectobac G, 125 lbs of 5% Abate Pellets, and 10.25 lbs of Altosid Briquets.

Chemical Spill Response – Tracie Belongia has conducted a training session at the Highway Department on how to handle a chemical spills. The session covered what to do, how to properly dispose of the material, and how to prevent spills from occurring. It also covered proper handling and storage of chemicals. There were 19 employees in attendance.

MS4 Conveyance System Maintenance – The County Surveyor's office is inspecting existing subdivisions as they GPS location of structures. During inspections, maintenance reports are filled out as needed. The Highway Department completed side ditching projects last year removing approximately 497 tons of material and 7,818 tons of material berming the edge of roadways. This material was brought back to the yard to be recycled on projects that need dirt or given to landowners to be reused.

Waste Disposal – The County Highway department has collected waste from catch basin inserts, oil and water separator, and periodic maintenance (including side ditching and berming). The majority of this waste is added to stockpiles in the yard to be reused on construction sites or given to landowners to be recycled.

Street Sweeping Program - The County does not have a street sweeper and most of the roads do not have curb and gutters except in subdivision. At this time, it is not feasible to perform street sweeping on a county-wide basis.

Wash Water Management - The highway department installed oil and water separator in their garage connected to the sanitary sewer and all highway vehicles are cleaned in the area where the material will drain to these inlets.

Snow Disposal Areas – In 2008, we used much less salt and replaced it with a salt and Calcium Chloride mixture. Most county roads are not curb and gutter so there are grass roadsides. The snow spread in these areas minimizes the amount of pollutants getting into the streams. In subdivision where there are storm inlets, snow is spread as best as possible and not stockpiled in these areas if possible.

Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training – The Highway department has yearly training for its staff on Phase II requirements. In 2008, all employees trained on spill prevention and reporting.

Flood Management Projects – The County does not own or operate any flood control projects.

Canine Park Location – The County does not own or operate any canine parks.

End of the Year Report for Phase II Storm Water Quality Management Plan - 2008			
Programmatic Indicator	Description	BMP Indicator	Results
1	Number or percentage of citizens, segregated by type of constituent that have an awareness of stormwater quality issues	Stormwater Survey Newsletter Articles Newspaper Articles SWCD Brochures School Programs	Stormwater and Watershed survey 65 completed 3 Newsletters - Backyard Conservation, Plant a Million, and Sugar Creek Scoop mailed to 6,500 people 30 Articles - 20 by the SWCD and 10 by SWMD distributed to 12,500 There was 2 new Brochures added this year and 7,600 pamphlets, flyers, and brochures distributed to the citizens by the SWCD, SWMD, and Health Department SWCD - 8 programs 1,550 and SWMD - 6 programs 467 students
2	Number and description of meetings, training sessions, and events conducted to involve citizen constituents in the stormwater program	Stormwater Steering committee Rule 13 Public participation list Training Construction Professionals Storm Drain Marking Staff Training Pollution Prevention Program Annual IDDE, good housekeeping Tr.	Held 5 meetings involving SWCD, SWMD, Surveyor's, GIS department, Health and Highway Departments We are working with the Sugar Creek Watershed Study Group Encouraged Builders, Developers, and Designers to attend Keep It Clean workshop Applied 108 markers to curb inlets and all new developments have installed castings with markings 7 employees have been trained in various Phase II requirements - education, erosion & sediment control, septic system failures, herbicide application, education, etc. There were 25 sewage and 31 trash complaints in Health Dept., 73 reports of trash to Highway Dep, 169 repairs filed in the Surveyors office The Health, Highway, SWCD, and Surveyor's office all attended training on various Phase II requirements including good housekeeping and pollution prevention.
3	Number or percentage of citizen constituents that participate in stormwater quality improvement programs	Clean-up events SWCD Activities School Programs Sugar Creek Watershed Public Meetings Storm Drain Markings Pollution Prevention Program SWMD Activities	There was 192 volunteers and 1,160 pounds of litter collected and 2.13 Tons removed from Sugar Creek Conducted 8 different activities involving over 5,000 people - 4-H Fair, Ag-Day, Soil Stewardship, Environmental Adventure Day, Youth Conservation Day Annual Meeting, etc. 21 school programs involving over 2000 students on recycling, water quality, water cycle, storm water, watersheds, landfills, water pollution, etc. 15 meetings on the Sugar Creek Watershed covering BMP practices that could be used The Annual Report was presented at the SWCD public meeting in March (30 people) and Phase II update presented to the Drainage Board public meetings in January and September 108 markers in subdivisions and all new developments have installed castings with markings The form has been created and is available in the Surveyor's office and Health Department There were 4 events -2 electronic days, 1 tire recycling days, 1 Household waste day and clean up event.
4	Number and location of storm drains marked or cast, segregated by marking method	storm drain marking	108 curb markers
5	Estimated or actual linear feet or percentage of MS4 mapped and indicated on an MS4 area map	Storm System Map	22,085 feet of open ditches and 431,269 feet of tile mapped on GIS within the MS4 area
6	Number and location of MS4 area outfalls mapped	Storm System Map	61 on the Charles Brier Ditch, 11 on the Smith and Johnson Drain, 34 on the Schultz and Schultz Drain
7	Number and location of MS4 area outfalls screened for illicit discharges	Illicit Discharge Detection and Elimination Plan	We are going to outsource the testing
8	Number and location of illicit discharge detected	IDDEP	We will not know until we begin the testing phase
9	Number and location of illicit discharges eliminated	IDDEP	Health Department had 41 septic systems repaired.
10	Number of and estimated or actual amount of material, segregated by type, collected from HHW collections in MS4 area	Solid Waste Management District	There was 16,623 pounds of electronics, 571 tires collected, and 100,038 pounds of household waste collected
11	Number and location of constituent drop-off centers for auto fluid recycling	Solid Waste Management	None
12	Number or percentage of constituents that participate in HHW collections	Solid Waste Management	There were 719 citizens that participated in a total of 4 events.
13	Number of construction sites obtaining an MS entity issued stormwater runoff permit in the MS4 area	Erosion & sediment Control Post-Construction BMP tracking Erosion & sediment Control Ord.	Several sites use forebays, vegetative strips, porous pavers but none under construction at this time none at this time The county has adopted the Stormwater Ordinance.
14	Number of construction sites inspected	Erosion & Sediment Control	53 construction or house sites
15	Number and type of enforcement actions taken against construction site operators	Erosion & Sediment Control	27 letters to developers to have silt fence put up and street inlet protection, 6 phone conversations, 2 holds on inspections, and 1 fine for \$250 for tracking
16	Number of, and associated construction site name and location for, public informational requests received	Erosion & Sediment Control	none
17	Number, type, and location of structural BMPs installed	Erosion & sediment Control	vegetative swales
18	Number, type, and location of structural BMPs inspected	Erosion & sediment control	Every Meadows has vegetative swales which have been inspected routinely.

19	Number, type, and location of structural BMPs maintained or improved to function properly	Post construction BMP O & M	Privately maintained and operated
20	Type and location of nonstructural BMPs utilized	Post construction BMP tracking	Privately maintained and operated
21	Estimated or actual acreage or square footage of open space preserved and mapped in the MS4 area, if applicable	Post construction BMP tracking	30 Acre Nature Preserve in the MS4 area
22	Estimated or actual acreage or square footage of pervious and impervious surfaces mapped in the MS4 area	Not applicable	Not applicable
23	Number and location of new retail gasoline outlets or municipal, state, federal, or institutional refueling areas, or outlets or refueling areas that replaced existing tank systems that have installed stormwater BMPs	Not applicable	Not applicable
24	Number and location of MS4 entity facilities that have containment for accidental releases of stored polluting materials	Secondary Containment Maintenance Schedules & Database Chemical Spill Response Liquid Asphalt Storage	There are oil and water separator units installed in both highway garages that connect to sanitary sewer Database started in 2007 The highway has purchased oil absorbant pads and rolls in both garages. Not enough money in budget
25	Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where stormwater can be exposed within the MS4 area	Herbicide Management	25 miles of roadsides sprayed with herbicides and 2 gallons of pesticides sprayed for mosquito control
26	Estimated or actual linear feet or percentage and location of unvegetated swales and ditches that have an appropriate sized vegetated filter strip	MS4 Conveyance System Maint.	All bridges and large culverts that get replaced the area is stabilized with riprap and erosion control matting.
27	Estimated or actual linear feet or percentage and location of MS4 conveyances cleaned or repaired	MS4 Conveyance System Maint.	Approximately 4 miles of routine maintenance on open ditches, and 36 miles of side-ditching and berming
28	Estimated or actual linear feet or percentage and location of roadside shoulders and ditches stabilized, if applicable	MS4 Conveyance System Maint.	All road side ditches and open ditches are stabilized after work is completed.
29	Number and location of stormwater outfall areas remediated from scouring conditions, if applicable	MS4 Conveyance System Maint.	4 locations using rip rap
30	Number and location of deicing salt and sand storage areas covered or otherwise improved to minimize stormwater exposure	Sand and Salt Management	The salt was already in a covered barn and this year the highway department added concrete barriers around the sand area for containment.
31	Estimated or actual amount, in tons, of salt and sand used for snow and ice control	Sand and Salt Management	8.31 tons of salt only, 247.50 of sand only, 4,823.53 tons of salt and sand mixed, 2,608 tons of sand and Calcium Chloride, and 844.34 tons of clear lane and sand.
32	Estimated or actual amount of material by weight collected from catch basin, trash rack, or other structural BMP cleaning	MS4 Conveyance System Maint Oil & water separator Catch Basin Inserts Waste Disposal	8,315 tons of material collected by side-ditching and/or berming reused in the yard or by landowners 702 gallons of liquid and 672 gallons of solids picked up by vendor 10 pounds of material removed and reused in dirt stockpiled Most of the waste was reused in dirt stockpiled or disposed of in sanitary landfill.
33	Estimated or actual amount of material by weight collected from street sweeping, if utilized	Not applicable	The county does not have a street sweeper.
34	If applicable, number or percentage and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody	Canine Park Location	There are no canine parks in the county.