INDOT SWQMP

Annual Report

April 2019-April 2020

Measures that were previously reported as complete have been removed from this report unless an update is required based on additional work done during the reporting year.

Public Education and Outreach

1A-Awareness Program (12/15/14)

Develop and/or update a public awareness program including brochures, electronic communications, etc. The completion of this goal will be measured by the delivery of business rules and formal INDOT policies that describe the communication method, frequency, and measure of success for this awareness program. Communications and measures of success will be included in the annual report and kept in the MS4 Coordinator's files.

The Public Awareness program was completed for the 2014-15 Annual Report. It will be reviewed in 2021.

1B-Awareness Training (12/15/14)

Develop and/or update a program of annual stormwater pollution awareness training for appropriate INDOT maintenance staff. Training shall include general stormwater awareness, identification of stormwater pollution potential, and appropriate contacts for reporting spills and illicit discharges. The completion of this goal will be measured by the submittal of the training materials, frequency, audience, and number of people trained each year. This information will be kept in the MS4 Coordinator's files.

Due to ongoing issues with the INDOT University Learning Management System (LMS) we were unable to continue this training for the 2019-20 permit cycle. However, updates are continuing to be made to the program and as soon as the new LMS system is live, or INDOT Maintenance finds a different delivery method, INDOT will roll out the new version of this training.

1C- Volunteer Training (09/25/14)

Develop and/or update an ongoing program for training Adopt-A-Highway volunteers. The completion of this goal will be measured by the submittal of the training materials, frequency, and trainee audience each year. This information will be kept in the MS4 Coordinator's files.

Adopt-A-Highway volunteers receive a fact sheet about storm water quality in their training briefing. A copy of the fact sheet is in the MS4 Coordinator’s files.

1D- Internal Education and Involvement Plan (12/15/14)

Develop and/or update an Internal Education and Involvement Plan. The plan shall detail the internal training requirements related to the assigned specific responsibilities of INDOT staff. The completion of this goal will be measured by the submittal of the Internal Education and Involvement Plan, any training materials developed, and an accounting of staff trained in each year. This information will be kept in the MS4 Coordinator's files.

The internal education and involvement plan was completed for the 2014-15 annual report. The plan is in the MS4 Coordinator's files. It will be reviewed in 2021.

1E- Public Involvement Programs (Ongoing)

Continue the Trash Bash, Adopt-A-Spot, Sponsor-A-Highway and Adopt-a-Highway programs. Timber planting, native vegetation and additional programs may also be expanded or developed. The completion of this goal will be measured by the annual submission of documentation of the number of programs, projects, lane miles or areas adopted and number of participants.

Throughout the State dedicated citizen volunteers participate in programs such as Adopt-A-Highway, Adopt-A-Spot as well as Sponsor-A-Highway programs. INDOT does not track of the amount of litter and debris that these volunteers gather.

INDOT let contracts for litter removal in 2019. These contracts collected 2,589 tons of liter. INDOT employees collected an additional 6,001 tons of debris. In 2019 we collected a total of 8,590 tons of liter and debris. The following charts provide additional details.

Contracted Forces Litter and Debris Collection	
Tons	2,589
Centerline Miles	13,392
Cubic yards	18,899
Person Hours	140,563
State forces Litter Collection	
Tons	6,001
Cubic yards	43,807
Person Hours	121,220

Total 2019 Litter Collection	
Tons	8,590
Cubic Yards	62,706
Person Hours	261,783

Contracted litter plan for CY 20

Group 1: 12 contracts for litter collection (~634 centerline miles)

1 per district for selected roads for urban areas

12 collections per year except Indy and Gary areas with 24 collections a year

Northeast Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 469	0.00	30.83	30.83	I 69 TO I 69
I 69	293.44	317.50	24.06	I-469 INTERCHANGE TO N END OF RAMPS AT EXIT 317
US 27	106.00	111.62	5.62	BOSTICK RD TO PETTIT AVENUE
SR 930	151.50	152.11	0.61	MINNICH ROAD TO I 469
Sum			**61.12**	

Southeast Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
SR 37	94.60	106.25	11.65	OLD STATE ROAD 37/S WALNUT ST TO FIRST BRIDGE BEYOND N WALNUT ST (TO INCLUDE I 69)
I 64	117.29	123.61	6.32	GEORGETOWN EXIT TO IN/KY STATE LINE
I 265	0.00	6.71	6.71	I 64 TO I 65
SR 265	6.71	8.78	2.07	I 65 TO
I 65	0.00	10.47	10.47	STATE LINE TO ST. JOE RD.
I 275	15.00	18.17	3.17	IN/KY STATE LINE TO IN/OH STATE LINE
Sum			**40.39**	

East Central Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 65	88.40	142.25	53.85	S OF FRANKLIN EXIT (BEGINNING OF 6 LANE) TO PRAIRIE CREEK BRIDGE
SR 37	135.00	145.10	10.10	SR 144 TO I 465
US 31	92.00	107.17	15.17	LEMLEY ST TO I 465
US 136	69.44	74.64	5.21	N 900 E TO I 465
I 465	0.00	53.19	53.19	I 65 TO I 65
I 865	50.00	54.12	4.12	I65 TO I465 NE CONNECT
I 70	58.80	96.20	37.40	MEDIAN CROSS OVER W OF EXIT 59 TO E END OF POST ROAD EXIT
I 70	145.00	156.31	11.31	W OF CENTERVILLE ROAD EXIT TO IN/OH STATE LINE
I 69	200.00	210.13	10.13	96TH ST TO SR 238
SR 67	95.00	104.52	9.52	WHITE LICK CREEK BRIDGE TO I 465
SR 931	156	167.52	11.52	US 31 TO US 31
I 74	65.37	73.27	7.90	WHITE LICK CREEK BRIDGE TO I 465
I 74	92.80	95.75	2.95	I 465 TO END OF RAMPS AT POST ROAD EXIT
Sum			**232.36**	

Northwest Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 80	0.00	15.67	15.67	IN/IL STATE LINE TO I 80/90/94 SPLIT
I 94	15.67	26.40	10.73	I 80/90/94 SPLIT TO END OF RAMP E OF JCT SR 49
I 65	239.50	262.00	22.50	0.5 M S OF SR 2 TO US 12/20
SR 2	77.70	80.98	3.28	RICE RD TO END OF RAMPS E OF US 31
US 30	0.00	16.09	16.09	IN/IL STATE LINE TO DEEP RIVER AT PORTER CO LINE
US 31	242.00	245.70	3.70	MEDIAN CROSS OVER S OF MILLER RD TO IRELAND RD
US 31	253.74	257.50	3.76	US 20 TO MI STATE LINE
US 41	273.80	278.45	4.65	GRAND CALUMET RIVER TO SHEFFIELD AVE

US 41	258.00	269.00	11.00	US 231 TO SR 152 & 175TH STREET
US 20	70.53	99.06	28.53	US 20/31 TO SR 15
Sum			**119.91**	

Southwest Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
SR 62	17.15	27.44	10.29	ST. PHILLIPS RD TO 41
SR 62	28.53	32.80	4.27	US 41 TO END OF BARRIER W OF I-69
SR 66	15.34	25.58	10.24	NEU CREEK TO US 41
SR 66	27.13	39.80	12.67	US 41 TO HONEY CREEK
US 41	0.00	18.00	18.00	IN/KY STATE LINE TO CR 1200 S
I 69	-0.60	10.50	11.10	OVERHEAD SIGN FOR US 41 RAMP TO N OF LYNCH ROAD EXIT
Sum			**66.57**	

West Central Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 70	0.00	12.60	12.60	IN/IL STATE LINE TO RP 12.6 (MEDIAN CROSS OVER)
US 41	103.00	120.43	17.43	PATRIOT LANE TO EVANS AVE
US 150	13.30	14.50	1.20	N MACKSVILLE AVE TO WABASH RIVER BRIDGE
US 40	0.00	4.40	4.40	IN/IL STATE LINE TO END OF GRASS MEDIAN
US 40	8.00	16.65	8.65	I 70 TO SR 340
SR 641	0.00	6.14	6.14	US 41 TO I 70
SR42	0.00	2.55	2.55	US 40 TO END OF ROUND ABOUT
SR 63	33.00	44.98	11.98	US 41 TO SR 163
US 52 O	41.3	44.46	3.16	US 52/231 TO DUNCAN ROAD (SAGAMORE PARKWAY)
US 52	49.065	55.2	6.14	INTERSECTION OF TEAL RD TO WYANDOTTE RD (E 550S)
US 231	198.18	202.35	4.17	O'NEALL DITCH TO US 52
US 52	41.4	46.85	17.75	US 52/231 (OLD US 52) TO US52/SR25

				INTERSECTION
I 65	168.45	179.1	10.65	SR 38 TO BRIDGE OVER BURNETT CREEK
SR 25	30.56	30.85	0.29	CR S 100 W TO US 231
SR 26	39.63	41.86	2.23	I 65 E TO MCCARTY LN
SR 25 HHH	39.33	40.68	1.35	I 65 E TO CO RD 300 N (TO INCLUDE ROUND ABOUT)
SR 43	28.2	30.5	2.30	CO RD E 500 NORTH TO SR 225
Sum			**112.99**	

Group 2: 1 contract per district for rural interstate miles (~764 centerline miles)

5 litter collections per year

West Central Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 65	142.25	168.45	26.2	PRAIRIE CREEK BRIDGE TO SR 38
I 65	179.1	200.59	21.49	BRIDGE AT BURNETTE CREEK TO US 24
I 70	12.6	58.8	46.2	RP 12.6 (MEDIAN CROSS OVER) TO MEDIAN CROSS OVER AT RP 58.8
I 74	0	65.37	65.37	TO WHITE LICK CREEK BRIDGE
Sum			**159.26**	

Northeast Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 69	254.94	293.44	38.5	SR 26 TO I 469
I 69	317.5	357.3	39.8	EXIT 317 TO IN/MI STATE LINE
Sum			**78.3**	

East Central Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 69	210.13	254.94	44.81	SR 238 TO SR 26
I 70	96.2	145	48.8	POST RD TO RP 145 (CENTERVILLE RD EXIT)
I 74	95.75	123.18	27.43	POST RD TO ST PAUL
Sum			**121.04**	

Northwest Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 65	200.59	239.5	38.91	US 24 0.5 M S OF JCT SR 2
I 94	26.4	45.75	19.35	SR 49 TO IN/MI STATE LINE
Sum			**58.26**	

Southeast Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 64	91.9	117.29	25.39	SR 66 TO GEORGETOWN EXIT
I 65	10.47	88.4	77.93	ST JOE RD TO BEGINNING OF 6 LANE S OF FRANKLIN EXIT
I 74	123.18	171.24	48.06	ST PAUL TO IN/OH STATE LINE
Sum			**151.38**	

Southwest Indiana				
Route	**Starting RP**	**Ending RP**	**Centerline Miles**	**Description**
I 64	0	91.9	91.9	IN/IL STATE LINE TO SR 66
I 69	10.5	114.23	103.73	LYNCH ROAD EXIT TO JCT SR 37
Sum			**195.63**	

Street Sweeping

INDOT – 11,783 miles, 25,703 person hours (debris not currently weighed)

Ohio River Bridges (ORB)/SR 265 Toll Bridges - 16.07 tons of material

1F- Anti-Litter Programs (09/25/14)

Develop informational anti-litter and vehicle maintenance programs designed to educate and involve the public in reducing this major cause of storm water pollution. The completion of this goal will be measured by the annual submission of the communication message (i.e. proper disposal of cigarette butts), type (i.e. signs on restroom doors), message (i.e. copy of poster), quantity delivered (i.e. posted on 50 restroom doors for six months) and estimated audience reached for each communication activity. This information will be kept in the MS4 Coordinator's files.

An INDOT webpage about trash removal on INDOT right-of-way is located at http://www.in.gov/indot/2598.htm An anti-littering themed poster was developed, installed in the State House Tunnel, and distributed to rest areas, rest parks, district, and maintenance buildings throughout the state. The poster is provided to local governments upon request. A copy of this poster is included in the MS4 Coordinator's files.

1G- Storm Water Web Site (12/15/14)

INDOT's website will be expanded to include a storm water web page with information on INDOT storm water activities. These will include outreach programs, brochures, guidelines for erosion and sediment control, maintenance activities and how to obtain information. The completion of this goal will be measured by the annual submission of documentation of website content and the number of visitors to the website. This information will be kept in the MS4 Coordinator's files.

During the 2019-20 permit cycle there were 3,614 hits to the Storm Water webpage http://www.in.gov/indot/2892.htm

1H- Storm Water Information Center (12/15/14)

Create an online library of storm water-related materials accessible through the storm water website. Materials will be updated quarterly with the most recent guidance, research, publications, and training materials. The completion of this goal will be measured by annual submission of a list of available library resources and the number of visitors to the website. This information will be kept in the MS4 Coordinator's files.

The INDOT Storm Water Information Center is intended as a resource for MS4 communities and other user groups throughout the state. This on-line library exists to distribute material in various forms that can assist MS4 communities and others that are interested in the prevention of storm water pollution. The Information Center contains various materials including brochures, handouts, processes, research articles, and website links. New material has been added during this permit cycle. This material can be accessed through the INDOT Storm Water webpage. http://www.in.gov/indot/2892.htm

1I- Employee Education (Ongoing)

Publish two articles in either The Torch (monthly State Personnel Department) and/or Inside INDOT (monthly INDOT) publications annually. The completion of this goal will be measured by annual submission of copies of the articles and an estimate of the number of recipients. This information will be kept in the MS4 Coordinator's files.

Three posters 4 articles and one brochure have been published internally and distributed via INDOT intranet and email during this annual report cycle. Copies can be found in the MS4 Coordinator's files. Titles of the articles are:

"Talkin Trash: INDOT Attacks Litter Problem Like Never before"

"Mowing and Vegetation Management Policy"

"Wholesale Changes Improve Our Roadside Management Program"

"New Roadside Management Program Proves Fruitful after Year 1"

1J- Collaboration (03/15/15)

Coordinate with IDEM and MS4s statewide to share ideas and resources. The completion of this goal will be measured by including the agenda, copies of the presentations, discussion group notes, attendee list, and INDOT participants (presenters, volunteers, etc.) in the annual report. This information will be kept in the MS4 Coordinator's files.

The INDOT EWPO Manager is a voting member on the Indiana MS4 Partnership Committee and attends all meetings. The MS4 Annual Meeting scheduled for May 2020 was cancelled due to the COVID-19 crisis. The next MS4 Annual Meeting will be held on May 11th, 2021. INDOT was scheduled to provide a presentation on "What is New at INDOT" at the 2020 meeting. More information about this organization can be found at www.indianams4.org The district's INDOT Construction Erosion Control Specialists have some involvement with the MS4 groups in their area. The LaPorte Erosion Control Specialist, Donovan Wilczynski, gave a presentation to 270 participants at the 2020 Northwest Indiana "Trained Individual" Erosion Control Construction Site Certification Workshop on February 18, 2020. His presentation was on "INDOT - UPDATED Construction Site Stormwater & Erosion Control Requirements."

1K- Road School and Other Trainings (06/15/15)

Develop storm water quality training module(s) and present annually at the Purdue Road School (Joint Transportation Research Program (JTRP) and Indiana Local Technical Assistance Program (LTAP) sponsored) and the LTAP Stormwater Drainage Conference. The completion of this goal will be measured by including a copy of the presentation, number of attendees and INDOT presenters/volunteers in the annual report. This information will be kept in the MS4 Coordinator's files.

The CO Stormwater Team Landscape Architect, Shawn Slaymon, gave a presentation on the Plant Growth Layer Standards at the 2020 Purdue Road School. The CO ESC Specialist, Greg Couch, provided Storm Water training to three groups (16 total participants) of Graduate Engineer Development Program (GEDP) engineers. The Greenfield District Erosion Control

Specialist gave a presentation at the district consultant conference on various storm water topics. Fifty consultants attended. The Fort Wayne Storm Water Specialist presented two web casts on storm water topics relevant to the seasonal construction activities. Thirty-five construction personnel receiving that training. The Crawfordsville Storm Water Specialist trained district personnel on various storm water topics. Fifty construction HT's receiving that training. Copies of the presentations are in the MS4 Coordinator's files.

1L-Facility Signage (03/15/15)

Develop educational signage (i.e. illicit discharges, waterway protection) and install signage in rest areas, weigh stations, and other public facilities. The completion of this goal will be measured by including a copy of the signage and location installed in the annual report. This information will be kept in the MS4 Coordinator's file.

INDOT's first tunnel poster of 2019 is on the theme of Litter and Storm Water. A Roadside Management poster is being distributed to be displayed at District offices and facilities as well as rest areas/rest parks. Storm Water Awareness themed posters and brochures are continual replenished at the Rest Areas/Rest Parks. Copies of these posters are in the MS4 Coordinator's files. Required signage in the facilities showing hazardous chemical storage as well as outflows from drains are being installed as each Facility SWPPP is developed.

Public Participation and Involvement

2B- Public Involvement in Project Development (Ongoing)

Public involvement in project development follows the National Environmental Policy Act (NEPA) requirements that results in a varying amount of involvement depending on the project scope. INDOT's public includes citizens, state employees, consultants, and contractors. The completion of this goal will be measured by analyzing the contracts let for the reporting year (i.e. projects let, number requiring public involvement under NEPA, number falling within a UA, etc.) and including this in the annual report. The supporting information will be available to the MS4 Coordinator through INDOT electronic storage mediums.

INDOT Public Involvement Procedures (August 2012) is located on the internet at:
http://www.in.gov/indot/files/PI_PublicInvolvementManual_2012.pdf

Following the public involvement requirements of the National Environmental Policy Act, INDOT held 58 public meetings across Indiana to inform the public and receive input for highway projects. Approximately 2,871 citizens attended INDOT public meetings in this permit cycle. Copies of the INDOT Storm Water Management Brochure are handed out at public meetings throughout the state. Copies of the public meeting participation sign in sheets are in the MS4 Coordinator's files.

2C-Annual Reporting (Ongoing)

An Annual Report will be developed and posted on the website. An availability notice will be sent to a list serve containing the MS4s and interested public. The completion of this goal will be measured by recording the posting of the document on the website, list serve message and tracking the public comments received, if any. This information will be kept in the MS4 Coordinator's files.

The 2019-20 Annual Report will be posted on the INDOT Storm Water webpage and will be in the MS4 Coordinator's files.

Illicit Discharge Detection and Elimination

3A- IDDE Program Development

INDOT will develop a program for illicit discharge detection and elimination. The completion of this goal will be measured by including a summary and a copy of the program and policies developed in the annual report. The information will be kept in the MS4 Coordinator's files.

INDOT developed an Illicit Discharge Detection and Elimination (IDDE) Plan (final date 12/19/2019). The report was provided to IDEM in January 2020 and is available in the supporting documents and is posted on the Storm Water web page. The following INDOT departments participated in the development of this plan: Environmental Services Division, ESD Site Assessment and Management, and ESD Ecology and Waterway Permitting Office, Customer Service, Permits, Construction, Technical Services, Communication, Safety, Facilities Maintenance, IDEM Emergency Response, Highway Maintenance, Information Technology and Traffic Management Center.

3B- IDDE Program Review

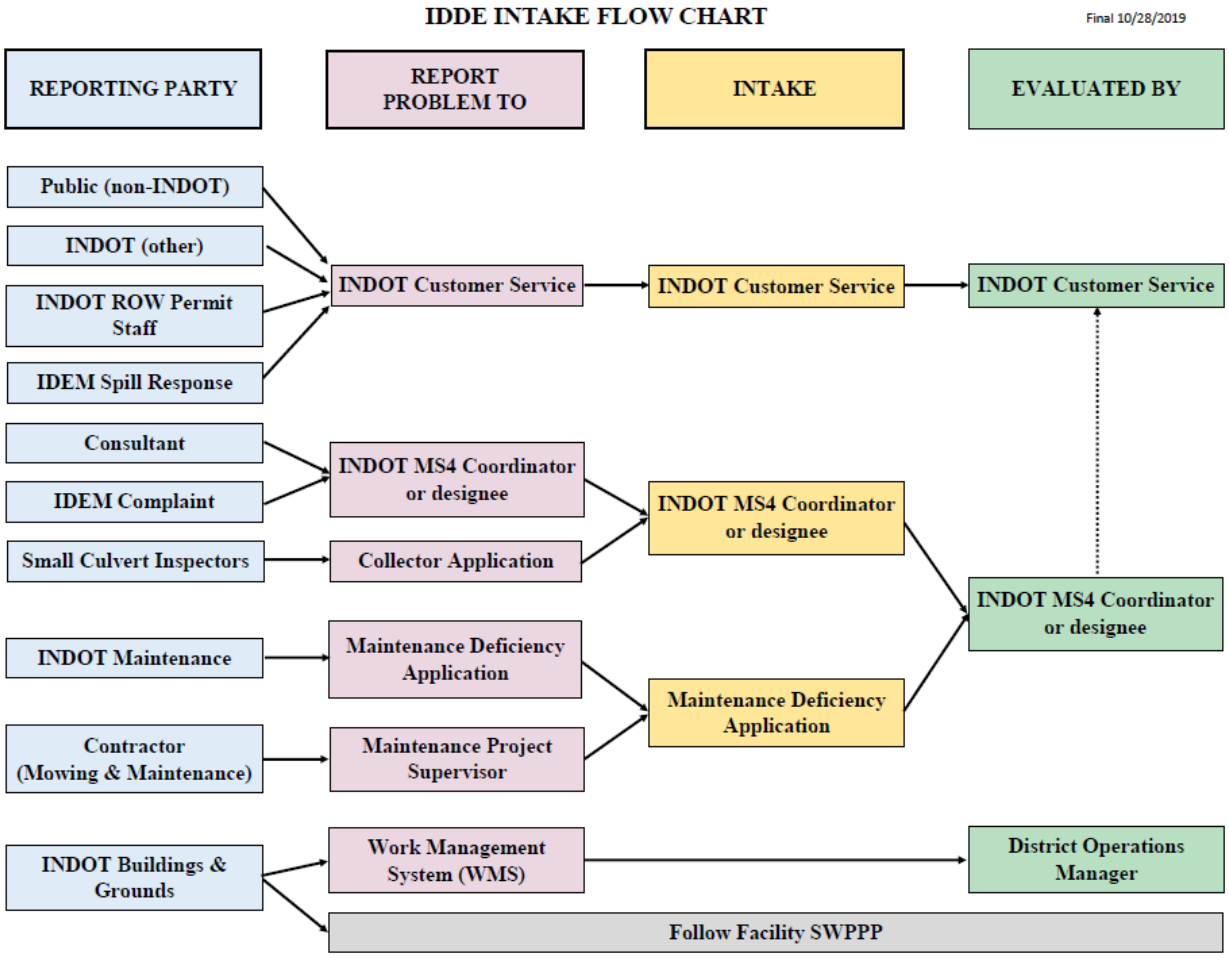
INDOT shall review their programs, policies, practices for issuing utility and access permits and make modifications necessary to ensure that non-storm water discharges are not connected into the INDOT storm sewer system. The completion of this goal will be measured by including a summary and copy of the changes to the policies in the annual report. The information will be kept in the MS4 Coordinator's files.

INDOT's Right of Way Permitting Program does not allow discharges of non-storm water to INDOT's stormwater system. No specific changes to policy were required. The Right of Way Permitting Manual was updated in 2019 and is available athttps://www.in.gov/indot/2727.htm

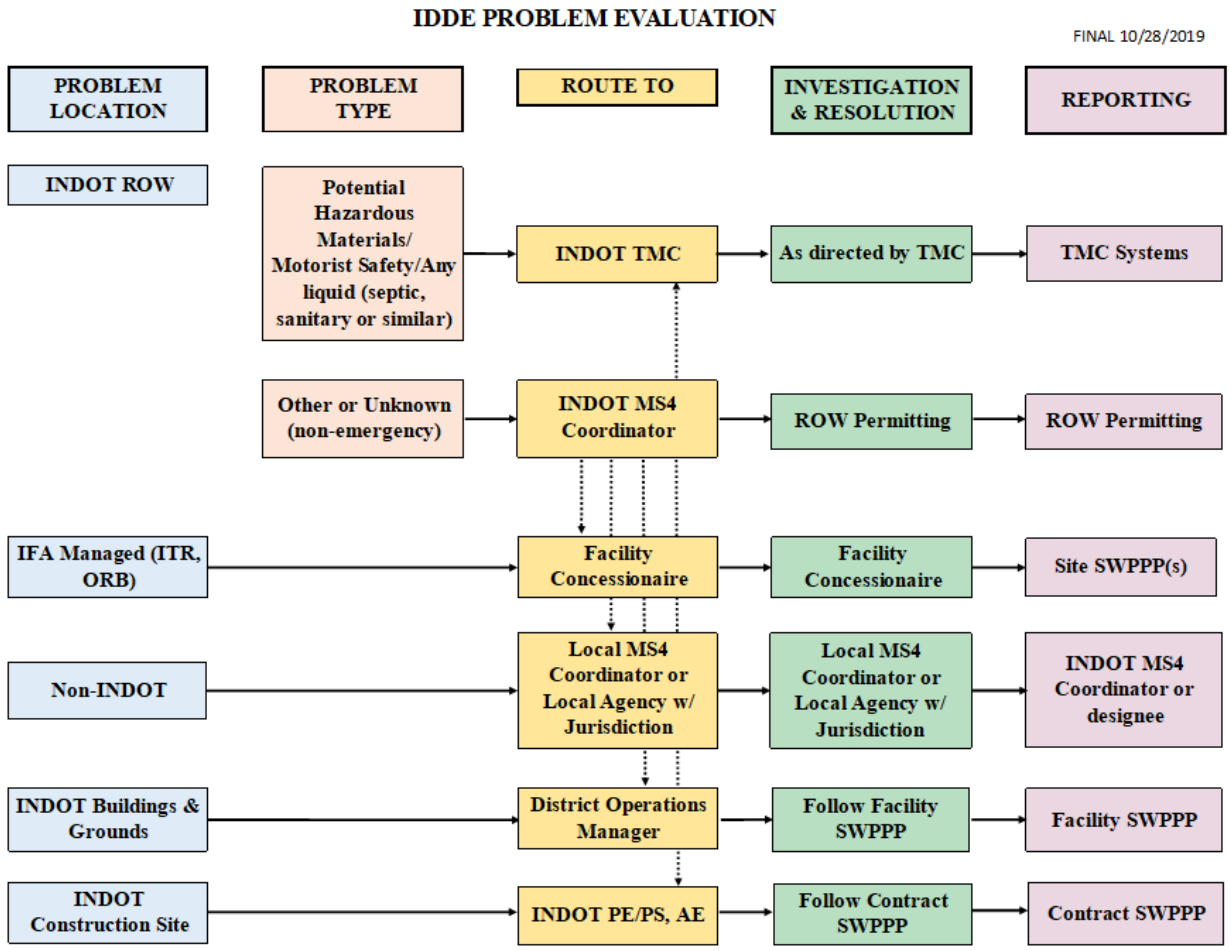
3C-IDDE Reporting

INDOT shall develop a standard reporting format and phone and website contacts for all complaints and reports of illicit discharges. The completion of this goal will be measured by including a copy of the reporting form and a summary of complaints received and actions taken in the annual report. The information will be kept in the MS4 Coordinator's files.

The IDDE Intake Flow Chart was developed for the IDDE plan. The plan was finalized in December 2019. The flow chart documents existing procedures for the collection, reporting, recording and evaluation of IDDE reports from all potential reporting sources.



The IDDE Problem Evaluation flow chart was developed as part of the IDDE plan. It provides a process for evaluating problems based on the location and type. It provides the lead for investigation and resolution and a reporting path.



3D- IDDE Staff Training

INDOT shall develop a training program and provide it annually to appropriate staff and contractors. Training shall include identification and reporting of illicit discharges and illegal dumping. The completion of this goal will be measured by including a copy of the training material, a summary of the individuals that received training (number, contractor, INDOT, etc.) in the annual report. The information will be kept in the MS4 Coordinator's files.

IDDE staff training was not provided in this reporting period. IDDE will be discussed in the new on-line storm water training in development. An online training module is proposed for development in 2021.

3E- Facilities Mapping

Complete GIS mapping of all INDOT facilities other than roadways (i.e. district, sub district and maintenance offices, salt storage, rest areas, etc.) statewide. The completion of this goal will be

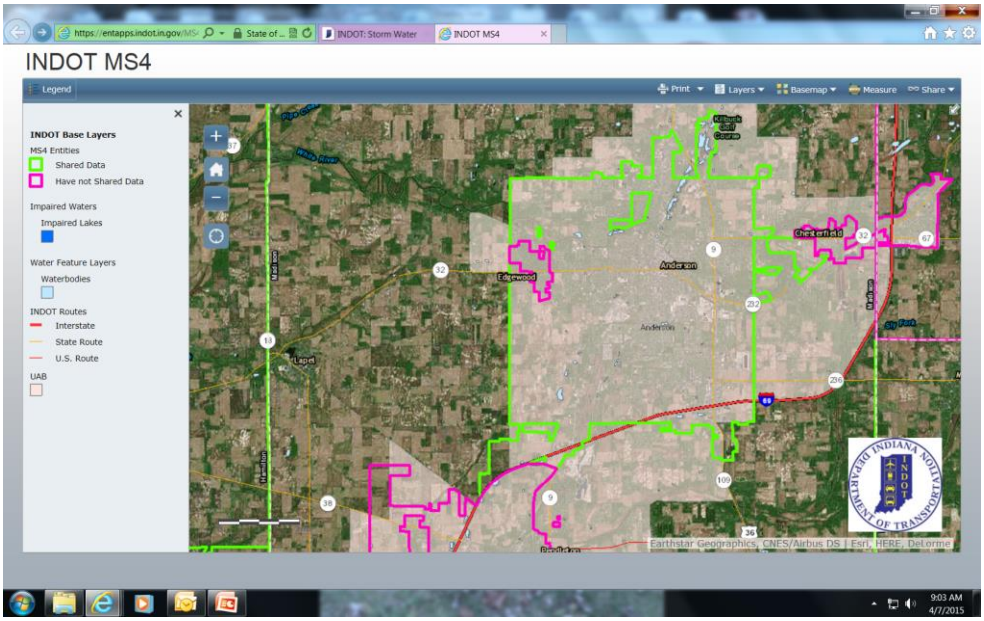
measured by including the number and type of additional facilities mapped in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 operator.

INDOT is currently completing the required facility mapping as part of the facility SWPPP development. As of April 2020, 136 INDOT facilities have completed their SWPPP. The two outstanding SWPPPs will be completed this summer. WVC from the Ohio River Bridges project has provided INDOT their maintenance building SWPPP, mapping, and inspection reports. They can be found in the MS4 Coordinator's files.

3F- Outfall Mapping GIS

Develop a GIS database for mapping of conveyances and outfalls within UA. Database tracking and reporting is described in measures 3H-3K. The completion of this goal will be measured by the completion of 3H, 3I and 3K and will be discussed in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 operator.

INDOT's GIS-based asset management system currently contains the results of field investigations performed in 2019 to locate the pipes, ditches, and similar structures that make up INDOT's storm water system. INDOT's asset management program will continue to add and refine storm water assets as part of this agencywide effort. INDOT has also developed a GIS layer of UABs, which is up to date as of summer 2019 and can be accessed at http://www.in.gov/indot/2892.htm



3G- Outfall Mapping SOP (07/15/14)

Develop SOP for as built outfall data collection and for incorporating data into GIS when the collection tools and procedures are implemented. The completion of this goal will be measured by including a copy of the SOP in the annual report. The information will be kept in the MS4 Coordinator's file.

INDOT has drafted a unique special provision (USP) that requires the contractor to collect spatial data on all new assets that were built during the contract and existing assets within the project boundaries. This will include storm water facilities, signs, pavement cores, guard rail etc. The asset data collected by the contractor will be integrated with INDOT's statewide GIS asset management system.

3H- Outfall Mapping 1Q (10/01/15)

Map first 25% of conveyances and outfalls within UA. Collect existing outfall data from local MS4s to minimize redundancy. Verify accuracy of MS4 information. Maps will be housed in the INDOT GIS system and can be made available to IDEM and other MS4s. The completion of this goal will be measured by either MS4, county, road mile or other measurable unit and will be discussed in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 Coordinator.

Collecting data from other MS4s has been difficult. Many MS4s refused to share data with INDOT. In addition, the data is incompatible with INDOT technology and mapping programs. A map of the old data collected in previous years from other Indiana MS4s is located on https://entapps.indot.in.gov/MS4/ INDOT is in the process of collecting their own data statewide as part of the asset inventory described above. Once INDOT has completed asset data collection, the data will be housed in INDOT's asset management system.

3I- Outfall Mapping 2Q

Complete mapping of 50% of conveyances and outfalls within UA. Collect existing outfall data from local MS4s to minimize redundancy. Verify accuracy of MS4 information. Maps will be housed in the INDOT GIS system and can be made available to IDEM and other MS4s. The completion of this goal will be measured by either MS4, county, road mile or other measurable unit and will be discussed in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 operator.

Statewide INDOT mapping for structures and pipes is underway. See 3G for an update on this effort.

3J- Outfall Mapping 3Q

Complete mapping of 75% of conveyances and outfalls within UA. Collect existing outfall data from local MS4s to minimize redundancy. Verify accuracy of MS4 information. Maps will be housed in the INDOT GIS system and can be made available to IDEM and other MS4s. The completion of this goal will be measured by either MS4, county, road mile or other measurable unit and will be discussed in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 operator.

Statewide INDOT mapping for structures and pipes is underway. See 3G for an update on this effort.

3K- Outfall Mapping 4Q

Complete mapping of 100% of conveyances and outfalls within UA. Collect existing outfall data from local MS4s to minimize redundancy. Verify accuracy of MS4 information. Maps will be housed in the

INDOT GIS system and can be made available to IDEM and other MS4s. The completion of this goal will be measured by either MS4, county, road mile or other measurable unit and will be discussed in the annual report. The information will be stored in the INDOT GIS system and accessible to the MS4 operator.

Statewide INDOT mapping for structures and pipes is underway. See 3G for an update on this effort.

Construction Site Stormwater Runoff Control

4A-JTRP Document Updates (08/06/14)

Incorporate remaining updates from the JTRP study in 2014 Standard Specifications and Design Manual. The completion of the goal will be measured by summarizing the updates added to the design manual in the annual report. The MS4 operator will have access to the Design Manual and Standard Specification updates on the INDOT website.

INDOT is not currently working on any storm water related JTRP studies. There have been changes to our specifications that will assist construction with improved compliance and minimize issues with sediment and erosion.

Standard Drawings: Revised erosion control standard drawings. Effective as of 9/1/2019.

Drawing Series & Numbers	Drawing Title
E 205-TECD	Temporary Erosion Control
E 205-TECD-01	Temporary Erosion Control Index Sheet (**rev. 09/01/19**)
E 205-TECD-02	Temporary Inlet Protection, Filter Sock (**rev. 09/01/19**)
E 205-TECD-03	Temporary Inlet Protection, Gravel Ring (**rev. 09/01/19**)
E 205-TECD-04	Temporary Inlet Protection, Filter Bag Insert (**new 09/01/19**)
E 205-TECD-05	Temporary Curb Inlet Protection (**new 09/01/19**)
E 205-TECD-06	Temporary Check Dam, Revetment Riprap (**new 09/01/19**)
E 205-TECD-07	Temporary Check Dam, Traversable, Low Profile (**new 09/01/19**)
E 205-TECD-08	Temporary Check Dam, Traversable (**new 09/01/19**)
E 205-TECD-09	Temporary Sediment Trap (**new 09/01/19**)
E 205-TECD-10	Perimeter Protection, Filter Sock (**new 09/01/19**)
E 205-TECD-11	Perimeter Protection, Silt Fence (**new 09/01/19**)
E 205-TECD-12	Temporary Erosion Control Perimeter Construction Entrance (**new 09/01/19**)

Standard Specifications:

Section 205 - Stormwater Management revision was approved by the standards committee in January 2020. It will be required for contracts starting September 1, 2020. https://www.in.gov/dot/div/contracts/standards/sc/2020/jan/SC_Approved%20Minutes%20200116.pdf

Section 621 – Seeding and Sodding was updated. RSP 621-R-697 Seed Updates effective 3/1/2020. Establishes better vegetation for site conditions by adding two new seed mixes (floodplain and shade mixes) and by reducing the clover in the other mixtures. https://www.in.gov/dot/div/contracts/standards/rsp/sep19/600/621-R-697%20200301.pdf

ITM 803 Chapter 15, and SWQMP Check List.

Concrete Waste Water Standard Specifications. INDOT has completely rewritten the concrete washout specifications. This spec is contained in the RSP 205-R-706 (9-1-2020) for all contracts letting after 9/1/2019 the new specs apply. The contractor must provide a Concrete Waste Water plan as part of their Storm Water Quality Control Plan. More detailed requirements are contained in the ITM 803 revised 2/26/2020 document. A copy of the appropriate section of ITM 803 is in the MS4 Coordinator's files.

Construction Memorandum: 19-10, Notice of Termination, Revised 12/17/2019

Design Memorandum: 20-05, Stormwater Management, Revised 4/13/2020

4B- Certification (08/06/14)

Develop policy that requires contractors' onsite Erosion Control Supervisor and select INDOT personnel to be certified. Develop the certification program and training. Implement policy within 2 years. The completion of the goal will be measured by including a copy of the policy, certification program, and training materials in the annual report. The number of projects requiring the certification will be reported until the policy is fully implemented. The report will also provide a summary of the individuals that received training (contractor, designer, consultant, INDOT, etc.) The information will be kept in the MS4 Coordinator's files.

During the 2019-20 permit cycle INDOT continued to offer Storm Water Management Training to INDOT employees, consultants, designers, and contractors. Six classes were conducted during this permit cycle. There were 338 training attendees with 271 class and exam completions. 151 people renewed their training during this permit cycle.

Copies of the Presentation and test questions are available electronically or in the MS4 Coordinator's files in hard copy. This program is updated at least annually so that the most current INDOT information and regulatory agency requirements are available to our stakeholders. The policy for this Certification Training can be found in the new INDOT Standard Specification 205: http://www.in.gov/dot/div/contracts/standards/specprovta/

4C- Rule 5 Inspection & Tracking (08/06/14)

INDOT district representative will visit each construction site with a Rule 5 permit quarterly, complete a Rule 5 inspection and document/track findings in central database (basically an oversight program). The completion of the goal will be measured by including a summary of the number of inspections conducted in the annual report. The supporting information will be maintained electronically and accessible to the MS4 operator.

For all contracts (let after 9/1/2016) that disturb soil and use temporary storm water BMPs, contractors and consultants are required to submit the weekly/post rain event inspections electronically using our Field Assistant Application. For this permit cycle, 11,796 contractor Storm Water Inspections (weekly and post rain event) were completed; 407 INDOT quality assurance inspections submitted by INDOT PE/PS were completed. A copy of all submissions to date are included in the MS4 Coordinator's files.

4D- Inspection Form (Ongoing)

Standardized inspection form is required on all contracts let after September 1, 2012 that requires a Rule 5 permit. This inspection form is available on the INDOT website. The completion of the goal will be measured by including a copy of the form in the annual report. The form will be kept in the MS4 Coordinator's files.

INDOT has developed a standardized inspection form that is required to be used on all contracts let after September 1, 2012 with a Rule 5 permit. The name of this form is 108-c-192d. A copy of the inspection form is kept in the MS4 Coordinator's files. This form is only used in the event of a technological or network failure.

Since 2016, INDOT requires an electronic submission from the Field Assistant Application. This digital submission is like the 108-C-192d form. Information about this application is explained in 4C. Completed inspection reports are entered into the database automatically.

A list of these inspection reports can be found in the MS4 Coordinator's files.

INDOT is scheduled to start working on a replacement application for Contractor Field Assistant called iSWIM. On its implementation it will provide a more transparent interface between (sub)contractors and INDOT personnel as to when inspections are required, what deficiencies have been found and resolved, and allow inspectors and their supervisors to review submitted reports at any time.

Link to current INDOT Storm Water (Sediment and Erosion Control) "paper" inspection form

http://www.in.gov/dot/div/contracts/standards/rsp/sep13/100/108-C-192d%20130901.pdf

4E- Inspection Tracking (Ongoing)

Continue to track central office and IDEM inspections and violations in centralized database. The completion of the goal will be measured by including a summary of the inspections and violations in the annual report. The supporting information will be maintained electronically and accessible to the MS4 operator.

The inspections conducted by INDOT Storm Water Specialists and the IDEM Storm Water Inspectors are tracked with the internal computer data base Environmental Waterway Permit System (EWPS). The details of the inspections conducted by INDOT Storm Water Specialists and IDEM Storm Water Inspectors is in the MS4 operator's files. This report does not cover LPA projects.

IDEM Storm Water Inspections	Satisfactory	2
	Marginal	2
	Unsatisfactory/Permit Violation	2

District Erosion Control Specialist Inspections

DISTRICT	# INSPECTIONS
Crawfordsville	110
Fort Wayne	70
Greenfield	92
La Porte	33
Seymour	112
Vincennes	116
INDOT Total	533

4F- District Inspection Employees (03/01/15)

Each district shall have a minimum of one full time equivalent employee dedicated to water quality compliance. The completion of the goal will be measured by including documentation of the location, personnel assigned, job description and dedicated hours in the annual report. The information will be kept in the MS4 Coordinator's file.

All six INDOT districts have a full time Erosion Control Specialist on staff, with offices in each district office. These individuals have been extremely helpful to the INDOT Storm Water Program. They complete site visits, quality assurance inspections, and serve as technical advisors for INDOT staff and contractors. They work to monitor permit compliance, close out NOTs, visit LPA projects, assist with process questions, and review Storm Water Quality Control Plans.

Biweekly conference calls are used to coordinate activities, policy information and specification needs between district Erosion Control Specialists and Central Office Storm Water Specialists.

DISTRICT	ESC SPECIALIST	# INSPECTIONS INDOT	LPA
Crawfordsville	Megan Bolyard	110*	
La Porte	Donovan Wilczynski	33* **	
Fort Wayne	Jennifer Napier	62	8
Greenfield	Cory Senich	38	54
Seymour	Rachel Albert	87	25
Vincennes	Rich Montgomery	116*	

***** Tracking system does not differentiate between INDOT and LPA.

****** Unable to perform normal quantity of inspections in reporting period.

4G-Field Guide (05/13/14)

Develop a SWQ Pocket Field Guide as technical field resource. The completion of the goal will be measured by including a copy of the pocket guide, a record of the number of guides printed and distributed in the annual report. The information will be kept in the MS4 Coordinator's file.

The 2018 INDOT Storm Water Management Field Guide can be found at

http://www.in.gov/indot/files/Indiana_Storm_Water_Field_Guide.pdf

The printed copies of the **2nd edition** are being distributed at the INDOT Construction Storm Water Management trainings. Planning for the 3rd edition will be begin in Fall, 2020.

4H- Construction Staff E&SC Training (08/06/14)

Develop and implement a training program to provide INDOT construction staff an understanding regarding E&SC and waterway permitting. Recommended cycle includes initial and 3rd year review. The completion of the goal will be measured by including a copy of the training program and a summary of the individuals trained each year in the annual report. The information will be kept in the MS4 Coordinator's file.

Erosion and sediment control training for INDOT construction staff was completed via the certification training described in MCM 4B - Certification. Starting in the spring of 2016 the certification program added an on-line element as part of the INDOT University system. After attending the classroom training, participants have 30 days to enter our on-line program, read additional information and take an on-line exam. During this permit cycle of April 2019-April 2020 338 people have gone through this training program. The training is valid for 3 years and renewals are conducted online. This training is evaluated internally each year and appropriate changes/updates are made annually.

Post Construction Stormwater Runoff Control

5A- Pollutant Identification (12/15/14)

Research and determine pollutants of concern and BMP effectiveness for likely pollutants. Complete a cost benefit analysis for each BMP. The completion of the goal will be measured by including a summary of the research and the cost benefit analysis in the annual report. The information will be kept in the MS4 Coordinator's file.

This measure was addressed by a Joint Transportation Research Project (JTRP) study.

FHWA/IN/JTRP-2016/09, Lack of Data for Predicting Storm Water Pollutant Removal by Post-Construction Best Management Practices, Andrew J. Whelton, Jeffrey Gill, Li Song, Bryce Froderman, Mahboobeh Teimouri, and Hua Cai, SPR-3941 available at **https://docs.lib.purdue.edu/jtrp/**

5B- NEPA (06/15/16)

Develop policy for identifying projects in sensitive areas such as part of the Red Flag Investigation. Use GIS layer identifying these areas. The number of projects flagged will be tracked. The completion of the goal will be measured by including the revised policy and a summary of the projects flagged in the annual report. The information will be kept in the MS4 Coordinator's file.

The Urbanized Area Boundary (UAB) has been added to the Red Flag investigation as a layer on the GIS map. A link has been created for MS4s to the UAB layer on the GIS map. The Red Flag Investigation process letter was revised to explain this process to designers.

The SOP for Early Coordination letters was updated to include notifying MS4 operators when a project is within an MS4 area. This information can be found on the INDOT Environmental Policy Webpage: www.in.gov/2523.htm

A list of MS4s and their contacts is posted on the INDOT Environmental Policy Webpage: www.in.gov/2523.htm and the INDOT Storm Water Webpage www.in.gov/2892.htm. INDOT is not updating the list.

During the reporting period, 828 initial red flag investigation documents were approved. A complete list of all contracts with red flag investigations is contained in the MS4 Coordinator's files.

5C-New Impervious Pavement Policy (12/15/15)

Revise policy for post construction BMPs for projects with increased impervious area. Policy should consider water quality and quantity. The number of projects incorporating post-construction BMPs and BMP type will be tracked. The completion of the goal will be measured by including the revised policy and a summary of the project BMP data in the annual report. The post construction BMPs will be tracked

in the GIS database created in Measure 7A. The policy information will be kept in the MS4 Coordinator's file.

An INDOT committee has been formed to address post construction BMPs for both water quality and water quantity, when they should be required, and what design would best fit the requirements. This committee has members from multiple INDOT divisions. This committee will review the work products prepared by the consultant developing the post-construction BMP design manual chapter and supporting documents.

INDOT is conducting an inventory of installed Post-Construction BMPs, developing SOPs for As-Builts, developing maintenance guidelines and schedules, and a tracking data base. INDOTs mapping efforts will also record locations and types of BMPs in right of way.

5D- Evaluate design related BMPs (12/15/15)

Investigate and document stormwater quality and quantity impacts to evaluate and determine appropriate BMPs such as reduced pavement widths, eliminating curb and gutter, providing diffuse flow, etc. The investigation may consist of pilot studies, monitoring, literature research, and other appropriate resources. Documentation shall include pollutant reduction for each BMP and recommendations on incorporating these measures into the INDOT planning process. The completion of the goal will be measured by including the findings in the annual report. The information will be kept in the MS4 Coordinator's files.

INDOT re-evaluated its approach to post construction BMPs after the results of SPR 3941. Considerations are currently being reviewed for changes to the INDOT design manual to incorporate design for post construction pollution prevention and containment.

The development of the post-construction BMP chapter of the design manual will assist in incorporating pollutant reduction considerations and BMPs selection criteria into the INDOT planning process.

5E-Document updates for Post Construction (06/15/16)

Update design manual and specifications to include new and revised policies and guidance. The design manual and specifications will be housed on the INDOT website. The completion of this goal will be measured by the inclusion of a summary of the updated design manual and specifications and documentation that they have been loaded on the INDOT website in the annual report. The supporting information will be kept in the MS4 Coordinator's files.

INDOT asset management, maintenance, hydraulics, bridge, design, and environment divisions will be working with a consultant to develop the Design Manual chapter 204 for post-construction BMPs. This project will coincide with the revision of DM 202 and 203 that have overlapping components. The project also includes development of other related tools such as standard drawings and standard specifications. It is expected that a significant part of this work will be completed in CY 2020.

Operations Pollution Prevention & Good Housekeeping

6A- Facility SWPPP Review

Determine the availability of current SWPPPs. Evaluate the SWPPPs applicability to the specific district, sub district and maintenance unit location, in addition to their consistency, quality and quantity. The completion of this goal will be measured by the inclusion of a summary of the findings in the annual report. The information will be kept in the MS4 Coordinator's files.

The review was completed in the 2019-20 permit cycle and can be found in the MS4 Coordinator's files.

6B- Facility SWPPP Development

Develop and implement statewide facilities SWPPP. The SWPPP will provide statewide standard information and address requirements based on the district, sub district and maintenance unit conditions (i.e. site map showing site location in relation to nearby water bodies, classification, etc.). The SWPPP will be kept at each facility. The completion of this goal will be measured by the submittal of the facility SWPPP with the annual report and a summary of the monthly inspection reports, findings, and corrective action by district. The information will be kept in the MS4 coordinator's file.

All 136 facilities have completed their SWPPPs, and drainage maps. INDOT Office of Environmental Services and INDOT Maintenance are working together on the implementation of the facility SWPPPs. Additional training will likely be required. A working copy of all Facility SWPPPs including the maintenance building on ORB SR 265 Toll Bridges are kept in the MS4 Coordinator's files.

6C-Maintenance Guidelines

Review and revise guidelines for right-of-way maintenance to include mowing (height, frequency, fuel consumption, etc.) and weed control (herbicide use, type, amount, frequency, etc.). The completion of this goal will be measured by the submittal of the revised guidelines with the annual report and a comparative summary of the frequency of mowing annually. The information will be kept in the MS4 Coordinator's files.

Operations Memorandum Vegetation Management 14-05 which is found on INDOT intranet is a set of guidelines for vegetation management on INDOTs right-of-ways. A copy of the Operations Memo 14-05 is stored in the MS4 Coordinator's files.

6D- Recycling

Review and revise the policy for recycling practices (scrap metal, tires, plastics, aluminum, paper, etc.). The amount of recycling by type will be tracked. The completion of this goal will be measured by the inclusion of the revised policy and a summary of the recycling activity in the annual report. The information will be kept in the MS4 Coordinator's file.

Information about INDOTs recycling programs and policy can be found on http://www.in.gov/indot/2586.htm

INDOT Executive order 05-21 has the guidelines for minimizing waste and recycling at INDOT. This executive order is stored in the MS4 Coordinator's files.

INDOT facilities recycles a variety of materials, including tires, shop hazardous waste, batteries, bulbs, and ballasts. A spread sheet listing hazardous and nonhazardous materials that were collected for recycling has been requested and will be placed in the MS4 Coordinator's files when provided.

Maintenance facility assorted recyclable waste products: A spreadsheet is available in the MS4 Coordinator's files for specific recycled products , examples include: oil filters, empty aerosol, waste oil, water based paint, antifreeze, special fuel, light bulbs, batteries, and others.

6E- Snow Removal Practices

Evaluate current snow removal practices and chemical storage and research feasibility and benefits of innovations to minimize fuel, salt, and chemical usage with a consideration for public safety. The amount of material consumed (fuel, salt, and chemicals) will be tracked in comparison to mobilizations and weather factors. The completion of this goal will be measured by the conclusion of the findings, implementation progress and usage analysis in the annual report. The information will be kept in the MS4 Coordinator's files.

INDOT 2018-2019 Winter Operations Data Totals for all 6 districts
Salt NaCl = 220,015 tons **Salt Brine (23.3% NaCl) = 3,388,484 gallons** **Total of 3,603,677 lane miles**

ORB SR 265 Toll Bridges 2018-2019 Winter Season
Sodium Chloride NaCl (salt and brine) = 26.91 tons

INDOT has additional activities and initiatives to improve snow removal practices:

Automated Vehicle Location (AVL)/Integrated Mobile Operations (IMO) (connected trucks): The INDOT Winter Operations team is working with the vender to begin installation of the units and is expecting that all 1,100 trucks will be completed by winter 2020. The first phase of the project, AT&T installation of a custom cellular data network, has been completed.

Route Optimization: A snow route optimization project was initiated in Spring, 2019. The goal is to reduce travel distance and deadhead miles. The new routes will also improve material lifecycles and reduce fuel consumption. A few models have been built. The project has been put on hold due to the pandemic. The plan is to use AVL data to further optimize the models. The project is expected to be completed for the 2021-22 winter season.

Driver training: In 2019, INDOT formed a winter task force that included members from each of the districts with the goal of improving training for plow drivers and supervisors. The training for the winter 2019-20 season included new spreader calibration methods. Additional changes will be made to incorporate the use of the AVL modules and ELDT law changes into the program over the next two years.

Purdue Research project (environmental/cost analysis): A Purdue/INDOT joint effort built a model that looks at storm performance and provides quantitative environmental effects. The model is not useful for planning due to the inability to take storm severity and traffic patterns into account. It is a useful for post-season analysis to see the impact of our actions on the environment and budget.

Material research: Indiana is a "Clear-Roads" (clearroads.org) participating state. ClearRoads maintains the Pacific Northwest Snowfighters (PNS) approved products list. This process requires vendors to test new chemicals to determine if they are safe and effective to use. INDOT will only use ClearRoads approved products in winter operations. INDOT will allow selective testing in facility parking lots while the vendor seeks approval.

Project participation: The INDOT Statewide Winter Operations Manager is an active participant on state level research projects with Purdue and national level projects with ClearRoads to meet the needs of chloride reduction and increased efficiencies.

6F- Vegetation Management

Restrict pesticide and fertilizer usage to those materials approved by EPA. Pesticide and fertilizer shall be used in accordance with label restrictions. The completion of this goal will be measured by the inclusion of the policy in the first annual report and policy changes included in subsequent reports. The information will be kept in the MS4 Coordinator's files.

The purpose of INDOTs vegetation management is to:

- Enhance the safety of the motoring public
- Enhance environmental protection
- Mitigate erosion while providing adequate drainage
- Promote and preserve native wildlife habitats and native flora throughout the state

The full vegetation management guidelines can be found at:
http://www.in.gov/indot/3262.htm

6G-Vegetation Management Training

Develop and conduct training for personnel assigned vegetation management responsibilities. Training will include proper mowing techniques, use, handling and application of biological and chemical agents, spill response procedures, potential water quality impacts, etc. The completion of this goal will be measured by the inclusion of the training materials and personnel trained in the annual report. This information will be kept in the MS4 Coordinator's files.

Vegetation Management Training was provided to INDOT Maintenance staff in three trainings with 40 individuals each. This is part of INDOTs Storm Water Awareness Training for Maintenance. See MS4 Coordinators files for copy of training material.

Ongoing Water Quality Characterization/BMP Inspection & Maintenance

7A- BMP Tracking

Develop database of structural BMP locations, to include watershed, level/type of service, maintenance required, maintenance completed, cost, etc. Incorporate structural BMP information for past projects. Create SOP for tracking future projects in GIS based database. The completion of this goal will be measured by the number of structural BMP locations in the database and development of the SOP that will be included in the annual report. This information will be kept in the MS4 Coordinator's files.

Efforts are moving forward for an agency wide mapping program and database. The INDOT Central Office Storm Water team is assisting in the development of SOPs, Standard Specifications and Design Manual updates to facilitate the inclusion of post construction BMPs into INDOT contracts. A list of existing post construction mechanical devices has been completed and these BMPs will be entered into the asset management program for maintenance. No additional post construction BMPs have been installed and documented this year. The complete list of post construction BMPs that have been located is in the MS4 Coordinator’s files.

7B- BMP Inspection Manual

Develop written procedures outlining the inspection and maintenance requirements for structural stormwater BMPs. Written procedures will outline the inspection frequency, provide an inspection checklist, “how-to” instructions for regular maintenance, evaluation and reporting procedures for non-routine maintenance, and an inspection and maintenance tracking mechanism. The completion of this goal will be measured by the submission of the written procedure in the annual report with subsequent reports providing procedure updates made during the year. The written procedure will be kept in the MS4 Coordinator's files.

This will be an INDOT maintenance SOP which will be developed as part of the post construction BMP program as mentioned in 7A.

7C- Develop BMP Inspection Program

Develop and implement a BMP Inspection and Maintenance Program. The program will include development and presentation of training for appropriate INDOT staff and contractors. The completion of this goal will be measured by the submission of the training materials and number of people trained by district in the annual report. The report will also include a summary of inspection and maintenance activity by district. The training materials and training records will be kept in the MS4 Coordinator's file.

This is in process as INDOT develops a post construction BMP program.

7D- Evaluation of BMP Inspection Policies

Develop and implement a water quality sampling plan to evaluate BMP Inspection and Maintenance programs, practices, and effectiveness. Findings and recommendations will be used to improve the program. The completion of this goal will be measured by the submission of the water quality sampling plan and subsequent sampling results and recommendation response in the annual report. This information will be kept in the MS4 Coordinator's files.

This is in process as INDOT develops a post construction BMP program.

Retrofit Program

8A- Retrofit Program Assessment

Assess the feasibility and need for a retrofit program to include an analysis of the benefits (i.e. pollutants of concern, BMP effectiveness, waterway priority, TMDL, etc.), feasibility (i.e. budget, life cycle, etc.) and develop a retrofit/maintenance plan to implement program starting in 2019. The completion of this goal will be measured by a summary of the findings and retrofit/maintenance plan in the 2018 annual report and the inclusion in the permit renewal. This information summary will be kept in the MS4 Coordinator's files.

Retrofits are performed on a project by project basis when stormwater management deficiencies are found within the project area during project scoping.