



# INDIANA DEPARTMENT OF TRANSPORTATION

*Driving Indiana's Economic Growth*

## Design Memorandum No. 20-05 Technical Advisory

April 13, 2020

Rev. Apr. 16, 2020

**TO:** All Design, Operations, and District Personnel, and Consultants

**FROM:** /s/ Elizabeth W. Phillips  
Elizabeth W. Phillips  
Director, Standards and Policy  
Engineering Department

**SUBJECT:** Stormwater Management

**REVISES:** *Indiana Design Manual (IDM) Sections 14-2.01(07), 14-2.03(03), 14-2.04(06), and 14-2.05(03)*

**SUPERSEDES:** Design Memo 16-11 Temporary Erosion and Sediment Control

**EFFECTIVE:** As Noted

*Standard Specifications* section 205, Stormwater Management, has been revised to incorporate findings developed from an FHWA/INDOT Stormwater process review and lessons learned since the initial implementation of the Stormwater Management specifications.

### Lettings on or after June 1, 2020

*Standard Specifications* section 205, Stormwater Management, has been revised to update established prices for temporary stormwater management items. These revisions appear in RSP 205-R-706. The RSP should be included in all contracts that include a 205 pay item.

## Lettings on or after September 1, 2020

A revised version of RSP 205-R-706 will be included in all contracts with a 205 pay item. This version replaces INDOT *Standard Specifications* section 205 in its entirety and will be included on the May RSP menu.

The remainder of this memo refers to the version of RSP 205-R-706 effective with letting on or after September 1, 2020

## RSP Revision Summary for Designers

- Updated terminology. “Stormwater management measures (features)” are now “Best Management Practices (BMPs)”
- A Stormwater Quality Control Plans (SWQCP) is required only where project includes a waterway permit (IDEM 401, USACE 404), a 327 IAC 15-5 permit (Rule 5), or Construction Stormwater General Permit (Rule 5 where EPA is the NPDES permitting authority).
- A Stormwater Quality Manager Level 1 or Level 2 determination is only required where the project includes a SWQCP.
- Added sections and established unit costs for Protected Resource Signs and Protected Resource Fence.
- Deleted SWQCP Preparation and Implementation, [Level 1/Level 2] pay items. Created new separate pay items for *SWQCP Preparation* and *Stormwater Management Implementation*. Note that the Stormwater Quality Manager Level is no longer part of the pay item.

## Pay Items

Stormwater pay items are discussed below and summarized in a table the end of this memo.

### Stormwater Management Budget (unchanged from current practice)

Once the necessary BMPs are quantified, the established prices should be applied to each item and the total dollar amount entered as the Stormwater Management Budget pay item. Do not use bid history to establish unit costs for individual items.

Specialty measures that do not have established prices, such as turbidity curtains and pump arounds, will require a special provision and/or plan detail, and should be included in the contract as individual pay items, where applicable.

The Stormwater Management Budget dollar amount should be entered as the quantity and the unit price as \$1. Below is an example of how the entry will appear in the CIB schedule of pay items.

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0023	205-12108 STORM WATER MANAGEMENT BUDGET	69739.750	1.00000		69739.75	
		DOL				

**SWQCP Preparation and Stormwater Management Implementation (new)**

1. SWQCP Preparation (1). The SWQCP Preparation pay item includes all narrative information, plan sheets, and sequencing information necessary for stormwater management utilized on the contract.

The contractor is responsible for developing the SWQCP and presenting it to the Department. However, the designer is responsible for establishing the lump sum cost to be included in the cost estimate.

2. Stormwater Management Implementation (2)(3)(4). The Stormwater Management Implementation pay item includes the contract costs for the contractor’s Stormwater Quality Manager (SWQM), at the level indicated for the contract, the costs for weekly stormwater management inspections, the costs for attending SWQM progress meetings. The SWQM level is discussed below.

The following may be used for estimating purposes. The total should be entered as the lump sum amount for the SWQCP Preparation and Stormwater Management Implementation pay items.

(1) Stormwater Quality Control Plan (SWQCP)	\$20,000*
(2) Stormwater Management Inspections	\$425 per week of the contract term*
(3) Attending SWQM at Progress Meetings	\$425 per each 2-week period from beginning of the contract to the intermediate completion date. *
(4) SWQM Level 1 or Level 2	\$1000 for SWQM Level 1 \$1500 for SWQM Level 2

\* It may be appropriate to increase or decrease these dollar amounts based on the size of the project. Guidelines for various project sizes have not been established.

**Stormwater Quality Manager (SWQM)**

Contracts that include BMPs but do not have permits noted below, do not require an SWQM level to be specified.

An SWQM level must be specified as Level 1 or Level 2 for each contract that includes a waterway permit (IDEM 401, USACE 404), a 327 IAC 15-5 permit (Rule 5), or Construction Stormwater General Permit (Rule 5 where EPA is the NPDES permitting authority).

### SWQM Level Determination

Effective for Stage 2 Submittals on or after May 1, 2020

Roles and Responsibilities for SWQM Level Determination			
	Designer	ESD	Area Engineer
Stage 2	Review primary and secondary categories. Provide initial SWQM level recommendation on Transmittal Letter with brief explanation.	<ul style="list-style-type: none"> <li>Review recommendation.</li> <li>Coordinate with designer, as needed.</li> <li>Concur or recommend changes to level.</li> <li>Record level in Env. Milestones</li> </ul>	
Stage 3	Provide agreed upon level from Stage 2 on the Contract Preparation Document		<ul style="list-style-type: none"> <li>Review recommendation.</li> <li>Coordinate with designer, as needed.</li> <li>Concur or recommend changes to level.</li> </ul>
Final Tracings	Provide agreed upon level on Contract Preparation Document		
<p>ESD = Environmental Services Division                      Primary and secondary categories are included for reference at the end of the memo and will be posted to the <a href="#">Designers webpage</a>, under Environmental Services.</p>			

### Document Revisions

The following Editable Documents have been revised to reflect these changes

1. Contract Preparation Document
2. Environmental Consultation Form

These forms are available on the Department's [Editable Documents webpage](#), under Contract Administration and Environmental, respectively.

Projects beyond Stage 2 development and that let on or after September 1, 2020, should ensure that SWQM Level information is accurately reflected and use the revised forms where practical.

### **IDM Revisions**

#### **14-2.01(07) Stage 2 Review Submission [Rev. Apr. 2020]**

... [Preceding items not shown remain unchanged]

12. Initiate Stormwater Quality Manager Determination. The designer should Provide initial Stormwater Quality Manager level recommendation on Transmittal Letter with brief explanation. The SWQM level starts at Level 1 and will be elevated to Level 2 based on meeting either the primary or secondary categories. SWQM Level determination guidance is available from the Department's [Editable Documents webpage](#), under Environmental.

#### **14-2.03(03) Preliminary Field Check [Rev. Apr. 2020]**

... [Preceding items not shown remain unchanged]

4. Initiate Stormwater Quality Manager Determination. If possible, the designer should provide initial Stormwater Quality Manager level recommendation. Otherwise submit with Final Plans. See [Section 14-2.01\(07\)](#).

#### **14-2.04(06) Stage 2 Review Submission [Rev. May 2017, Apr. 2020]**

... [Preceding items not shown remain unchanged]

15. Initiate Stormwater Quality Manager Determination. The designer should Provide initial Stormwater Quality Manager level recommendation on Transmittal Letter with brief explanation. The SWQM level starts at Level 1 and will be elevated to Level 2 based on meeting either the primary or secondary categories. SWQM Level determination guidance is available from the Department's Editable Documents webpage at <http://www.in.gov/dot/div/contracts/design/dmforms/>, under Environmental.

#### **14-2.05(03) Preliminary Plans Submission [Rev. Mar. 2016, Apr. 2020]**

... [Preceding items not shown remain unchanged]

12. Initiate Stormwater Quality Manager Determination. If possible, the designer should Provide initial Stormwater Quality Manager level recommendation. Otherwise submit with Final Plans. See section [14-2.04\(06\)](#).

## Questions

Questions regarding the content of RSP 205-R-706 should be directed the Construction Technical Services Division, Kurt Pelz, at [kpelz@indot.in.gov](mailto:kpelz@indot.in.gov)

Question regarding primary and secondary categories for SWQM level determination should be directed to the Environmental Services Division, Stormwater Team, at [stormwater@indot.in.gov](mailto:stormwater@indot.in.gov).

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### SWQM Level and Pay Item Selection

If project ...	And...	SWQM Level Determination...	Include the following pay items...
Contains Best Management Practices (BMPs) [formerly Stormwater Management Measures]	Contains a waterway permit (401/404), a 327 IAC 15-5 permit (Rule 5), or Construction Stormwater General Permit (Rule 5)	Is required (Level 1 or Level 2) (1)	205-12108 Stormwater Management Budget (DOL) 205-12618 SWQCP Preparation (LS) 205-12616 Stormwater Mgmt Implementation (LS)
Contains Best Management Practices (BMPs)	Does not contain a waterway permit (401/404), a 327 IAC 15-5 permit (Rule 5), or Construction Stormwater General Permit (Rule 5)	Is not required (N/A)	205-12108 Stormwater Management Budget (DOL) 205-12616 Stormwater Mgmt Implementation (LS)
Does not contain Best Management Practices (BMPs)		Is not required (N/A)	No 205 pay items
<p>(1) The SWQM Level indicated on the Contract Preparation Document is placed on the proposal page of the Contract Information Book.</p>			

## Stormwater Quality Manager (SWQM) Level Determination

If there are no 205 pay items, an SWQM level is not required.

The SWQM level starts at Level 1 and will be elevated to Level 2 based on meeting either the Primary or Secondary Category criteria below.

For bundled contracts where one or more projects have a SWQM Level 2, all projects in the contract will have a SWQM Level 2.

### **Primary Category**

1. Disturbance of new terrain: Construction will include building a new road bed, construction occurring beyond existing roadbed, or construction which realigns existing roadbed. Other examples include new trail alignment through a park not on an existing roadway, a roundabout that shifts an intersection alignment, or a roundabout with a large area of disturbance.
2. Impacts to multiple regulated waters: Impacts to two or more regulated water resources. For example, if your project is impacting a stream and wetland. Note, when determining SWQM level, wetlands within a stream are considered part of the stream and not a separate entity.
3. Stream relocation: Physically moving or altering the stream's flow from its current alignment.
4. Potential ground disturbance involving karst feature: If construction requires ground disturbance to known karst features.
5. Construction of a building: For example, the construction of a rest area facility.

### **Secondary Category**

There may be specific cases where individual elements from the Secondary Category could raise the SWQM level determination to Level 2. For most projects, if the project includes two or more of the following elements, the project should be elevated to a SWQM Level 2.

1. High quality stream: Listed on the outstanding rivers list for Indiana.
2. Wetland impacts: High quality wetland or multiple wetlands (found in environmental document). If the project directly or indirectly affects the wetland's functionality.
3. Within the St. Joseph Sole Source Aquifer: Refer to the Sole Source Aquifer Interactive Map to determine if the project is located in the St. Joseph Sole Source Aquifer.
4. Drinking water source: Within wellhead protection area and/or source water areas.
5. Duration of contract and construction time: Two full construction seasons or more i.e. two years or more.
6. Hazardous Materials Site: Project constructed on or adjacent to a hazardous materials site. Potential chemical contamination directly or indirectly affecting the surrounding habitat or surrounding surface water resources.