CAMPUS SEDIMENT AND EROSION CONTROL STANDARDS

March 2018
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I. INTRODUCTION

Proper sediment and erosion control practices are very important to the success of construction projects at Indiana University. The standards which follow are intended to be used as project design guidelines and to inform contract document preparations.

II. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

All construction projects with a land disturbance of one acre or more are required to file a Notice of Intent (NOI) with the Indiana Department of Environmental Management (IDEM). The requirements for filing a NOI are defined in 327 Indiana Administrative Code (IAC) 15-5-5 and 6. A Storm Water Pollution Prevention Plan (SWPPP) must also be developed and submitted with the NOI. The SWPPP must contain all elements defined in 327 IAC 15-5-6.5 and 7. Please refer to Appendix A for a list of agencies to review a SWPPP at each IU campus. Before the SWPPP is submitted to the local review agency it will be reviewed by the IU Architect’s Office and the IU Environmental Health and Safety (EHS).

When a project site is determined to be stabilized a representative of EHS will submit a Notice of Termination to the IDEM which will terminate the SWPPP.

III. CONSTRUCTION SITE PHASING

Construction procedures that limit land clearing, provide timely installation of erosion and sedimentation controls, and restore protective cover quickly can significantly reduce the erosion potential of a site. The phasing of a construction site includes clearing a portion of land in distinct phases, with the stabilization of each phase substantially completed before the clearing of the next.

Projects will be scheduled to disturb only the portion of the project site required to perform construction activities at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding in order to re-vegetate cut and fill slopes as the work progresses.

IV. TRAINED INDIVIDUAL

A trained individual is required to conduct the self-monitoring program for the inspection and evaluation of the project site as defined in 327 IAC 15-5-7. The level of training is not defined
in the IAC. Indiana University defines *trained individual* as an employee of the site contractor responsible to implement, inspect, and maintain the SWPPP at the project site. The *trained individual* must be certified in sediment and erosion control by one of the following agencies: Certified Inspector of Sediment and Erosion Control (CISEC), Certified Professional in Erosion and Sediment Control (CPESC), or Qualified Professional Inspector (QPI) administered by the Southern Indiana Stormwater Advisory Committee. Other comparable certifications may qualify with prior written approval from EHS.

V. SITE INSPECTION

Project sites will be inspected by a certified sediment and erosion control individual employed by the site contractor in accordance with the SWPPP. Inspections will be conducted weekly and after every half inch rain event throughout the calendar year. Inspection reports will be signed, dated and considered a legal document. Inspection forms will be provided by EHS and should be uploaded onto ProjectDox when completed. In addition to contractor inspections a representative from EHS will make periodic site evaluations to determine contract compliance. Site inspections can also be made by the IDEM.

VI. STORM WATER BEST MANAGEMENT PRACTICES

In order to reduce sediment loss and erosion, storm water Best Management Practices (BMPs) must be properly designed and selected to suit the conditions of the site. This section will give the consultant and designer direction on the type of practices approved for use at IU projects. It is very important to the success of BMP selection for the consultant/designer to visit the project site prior to development of the SWPPP.

Erosion control practices will be emphasized over sediment control. Proper erosion control saves time and money and can reduce the need for sediment control practices.

Weather conditions or time of year will not change the requirement for effective BMPs.

Storm water BMPs will be inspected and maintained at a project site until the site is determined to be stabilized by IU. Early removal will require re-installation until the project site is stabilized. Should a designed BMP fail to accomplish its goal of erosion or sediment control, a more effective alternative will be considered by either the contractor or IU. Plans will be submitted by the contractor to the IU Architect’s office and EHS with a justification for the proposed change including any cost differential from the original plan. Any BMP changes will require approval from the IU Architect’s Office and EHS. All changes will be reflected in the SWPPP and any “as built” project requirements.

1. **Silt Fence** – Silt fence will not be specified for perimeter control on an entire project site just as a rule of thumb. The slope and area size will be considered as well as
areas of concentrated flow. Refer to the Indiana Storm Water Quality Manual (ISWQM) Chapter 7 for slope and area restrictions. Silt fence material of a 6 oz. non-woven fabric design will be required. Straw bales will not be approved for perimeter sediment control.

2. **Inlet Protection** – Inlet protection will be used as a component of sediment control. The following products are approved for project sites:

- curb inlets – Dandy Curb Bag;
- other storm inlets - Dandy Bag, Dandy Sack or Dandy Pop.

Other comparable products may be used with prior written permission. Straw bales will not be approved for inlet protection.

3. **Check Dams** – Check dams will be installed in areas of concentrated flow. Refer to the ISWQM for proper design specifications. Straw bales will not be approved for check dams.

4. **Concrete Washout** – Every project requiring ready mix concrete will have a concrete washout system in place to prevent storm water pollution. There are many types of acceptable designs in the ISWQM. A lined, roll-off container or dumpster is often most efficient on projects with limited space. Concrete washouts will be identified with a sign “Concrete Washout” to direct truck drivers.

5. **Construction Entrance** – Tracking mud onto streets will not be allowed. Proper construction entrance design is available in the ISWQM. If a project site does not have sufficient space for a gravel entrance pad to be effective, another BMP will be required. A wheel wash pad with proper drainage or water reuse system will be specified. The use of a rotary brush will not be acceptable to remove sediment from streets. Mud tracked onto streets will be removed in a timely manner to prevent tracking by vehicles. A street sweeper will be used for daily street clean-ups, if needed.

6. **Temporary Seeding** – Un-vegetated areas that are scheduled or likely to be left inactive for 10 days or more will be stabilized with temporary or permanent seeding. When applying temporary seed, straw mulch will be required. The straw mulch will be crimped-in to prevent removal by wind and sheet flow.

7. **Dewatering** – Dewatering an excavation may be required on some projects. Water pumped from an excavation is prohibited from being discharged directly into the storm or sanitary sewer systems. Dewatering operations will utilize a filter bag to help remove sediment from pumped water. The filter bag will be placed on a level area of gravel or vegetation. On projects with limited space a roll-off container can be used for the filter bag placement.

8. **Dust Control** – During periods of dry weather dust control will be needed to improve air quality in the vicinity of a project site. Different types of dust control methods are available in the ISWQM and will require prior approval.
9. **Construction Waste** – Construction waste and trash can be a source of storm water pollution. Trash and debris will be picked up on a daily basis and disposed of properly.

10. **Hazardous Materials Storage** – Hazardous materials such as fuels, paints, etc… will be stored in an enclosed structure with protection from the elements. Fuel storage tanks will either be double-walled or a single-walled tank inside a secondary containment system with a plugged drain. Spill equipment will be stored near hazardous material storage areas and be labelled “Spill Kit”. Contact EHS for any spill that reaches a water body and/or is too large for the spill kit on site to manage. Spills caused by contractors that reach waters of the State of Indiana shall be reported to the IDEM Emergency Spill Line 1-888-233-7745.

11. **Final Seeding and Stabilization** – The specifications for seed and fertilizer will be determined by the IU Architect’s Office. If turf seeding is specified for the final vegetative cover, crimped-in straw mulch or an acceptable equivalent will be required. In sloped areas an erosion control blanket may be specified. In areas of concentrated flow riprap or other BMP may be required.

12. **Post Construction** – Infiltration practices will be preferred for post construction BMPs when feasible. Information is available in chapter 8 of the ISWQM.

13. **Other BMPs** – A designer/consultant may specify a BMP not mentioned above with prior approval. The ISWQM will be used for reference.

VII. **REFERENCES AND CONTACT INFORMATION**

Indiana Administrative Code 327 15-5-5 through 7: [http://www.in.gov/idem/4902.htm](http://www.in.gov/idem/4902.htm)

Indiana Storm Water Quality Manual: [http://www.in.gov/idem/4899.htm](http://www.in.gov/idem/4899.htm)

Notice of Intent (State Form 47487): [http://www.in.gov/idem/5157.htm#owq_stormwater](http://www.in.gov/idem/5157.htm#owq_stormwater)


ProjectDox access will be provided through the IU Architects Office.

IU Office of Environmental Health and Safety: (812) 855 - 6311

APPENDIX A.

AGENCY RESPONSIBLE FOR REVIEW OF STORM WATER POLLUTION PREVENTION PLAN AT IU CAMPUSES

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<thead>
<tr>
<th>Campus</th>
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<tbody>
<tr>
<td>IUPUI</td>
<td>Marion County SWCD  Discovery Hall, Suite 200, 1202 East 38th Street, Indianapolis, 46205 Phone: 317-786-1776 Website: <a href="http://marionswcd.org/">http://marionswcd.org/</a> Contact: Glenn Lange, <a href="mailto:glenn-lange@iaswcd.org">glenn-lange@iaswcd.org</a></td>
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<tr>
<td>IUB</td>
<td>Monroe County SWCD  1931 S Liberty Dr., Bloomington, 47403 Phone: 812-349-2046 Website: <a href="http://monroe.iaswcd.org/">http://monroe.iaswcd.org/</a></td>
</tr>
<tr>
<td>IUN</td>
<td>Lake County SWCD  928 S Court St, Suite C, Crown Point, 46307 Phone: 219-663-7042 Fax: 219-663-7042</td>
</tr>
<tr>
<td>IUSB</td>
<td>St Joseph Engineering Dept: 574-235-9626 (actual review)  St. Joseph County SWCD  2042 E. Ireland Rd, South Bend, 46614 Phone: 574-291-7444 ext 3 Fax: 574-291-0284 Website: <a href="http://stjosephswcd.org">http://stjosephswcd.org</a> (needs copy)</td>
</tr>
<tr>
<td>IUK</td>
<td>Howard Co Surveyor Office: 765-456-2217; routs plan to Howard Co SWCD, 1103 South Goyer Rd, Kokomo, 46902 Phone: 765-457-2114 ext 3</td>
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<tr>
<td>IUE</td>
<td>Wayne County SWCD  823 S Round Barn Rd, Suite 1, Richmond, 47374 Phone: 765-966-0191 ext 3 Fax: 765-966-0455 Website: <a href="http://www.waste-not.org">http://www.waste-not.org</a></td>
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<tr>
<td>IUS</td>
<td>Floyd County SWCD  1613 E Spring St, Suite 1, New Albany, 47150 Phone: 812-945-9936 Website: <a href="http://www.floydschwcd.org/">http://www.floydschwcd.org/</a></td>
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