## **Technical Report Documentation Page**

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
IHRB Project TR-508			
4. Title and Subtitle		5. Report Date	
Design Guide and Construction Specifications for National Pollutant Discharge Elimination System (NPDES) Site Runoff Control		July 2006	
		6. Performing Organization Code	
7. Author(s)		8. Performing Organization Report No.	
Larry J. Stevens		CTRE Project 03-167	
9. Performing Organization Name and Address		10. Work Unit No. (TRAIS)	
Center for Transportation Research and Education			
Iowa State University		11. Contract or Grant No.	
2711 South Loop Drive, Suite 4700			
Ames, IA 50010-8664			
12. Sponsoring Organization Name and Address		13. Type of Report and Period Covered	
Iowa Highway Research Board		Final Report	
Iowa Department of Transportation		14. Sponsoring Agency Code	
800 Lincoln Way			
Ames, IA 50010			

## 15. Supplementary Notes

Visit www.ctre.iastate.edu for color PDF files of this and other research reports.

## 16. Abstract

According to the 1972 Clean Water Act, the Environmental Protection Agency (EPA) established a set of regulations for the National Pollutant Discharge Elimination System (NPDES). The purpose of these regulations is to reduce pollution of the nation's waterways. In addition to other pollutants, the NPDES regulates stormwater discharges associated with industrial activities, municipal storm sewer systems, and construction sites.

Phase II of the NPDES stormwater regulations, which went into effect in Iowa in 2003, applies to construction activities that disturb more than one acre of ground. The regulations also require certain communities with Municipal Separate Storm Sewer Systems (MS4) to perform education, inspection, and regulation activities to reduce stormwater pollution within their communities.

Iowa does not currently have a resource to provide guidance on the stormwater regulations to contractors, designers, engineers, and municipal staff. The Statewide Urban Design and Specifications (SUDAS) manuals are widely accepted as the statewide standard for public improvements. The SUDAS Design manual currently contains a brief chapter (Chapter 7) on erosion and sediment control; however, it is outdated, and Phase II of the NPDES stormwater regulations is not discussed.

In response to the need for guidance, this chapter was completely rewritten. It now describes the need for erosion and sediment control and explains the NPDES stormwater regulations. It provides information for the development and completion of Stormwater Pollution Prevention Plans (SWPPPs) that comply with the stormwater regulations, as well as the proper design and implementation of 28 different erosion and sediment control practices.

In addition to the design chapter, this project also updated a section in the SUDAS Specifications manual (Section 9040), which describes the proper materials and methods of construction for the erosion and sediment control practices.

17. Key Words		18. Distribution Statement	
construction—erosion control—pollution—sediment control		No restrictions.	
19. Security Classification (of this report)	20. Security Classification (of this page)	21. No. of Pages	22. Price
Unclassified.	Unclassified.		NA

Form DOT F 1700.7 (8-72)

Reproduction of completed page authorized