

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VII

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901 NORTH FIFTH STREET  
KANSAS CITY, KANSAS 66101

ENVIRONMENTAL PROTECTION  
AGENCY-REGION VII  
REGIONAL HEARING CLERK

BEFORE THE ADMINISTRATOR

IN THE MATTER OF )

Robert A. Washam Construction, Inc. )  
2058 NW South Outer Road )  
Blue Springs, Missouri 64015 )

Respondent )

Proceedings under Section 309(a) of the )  
Clean Water Act, 33 U.S.C. § 1319(a) )

) Docket No. CWA-07-2005-0386

) FINDINGS OF VIOLATION,  
) ORDER FOR COMPLIANCE

Preliminary Statement

1. The following Findings of Violation and Order for Compliance (“Order”) are made and issued pursuant to the authority of Section 309(a)(3) of the Clean Water Act (“CWA”), 33 U.S.C. § 1319(a)(3). This authority has been delegated by the Administrator of the United States Environmental Protection Agency (“EPA”) to the Regional Administrator, EPA, Region VII and further delegated to the Director of Region VII’s Water, Wetlands and Pesticides Division.

2. Respondent is Robert A. Washam Construction, Inc., a company incorporated under the laws of Missouri and authorized to conduct business in the State of Missouri.

Statutory and Regulatory Framework

3. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants except in compliance with, inter alia, Section 402 of the CWA, 33 U.S.C. § 1342. Section 402 of the CWA, 33 U.S.C. § 1342, provides that pollutants may be discharged only in accordance with the terms of a National Pollutant Discharge Elimination System (“NPDES”) permit issued pursuant to that Section.

4. The CWA prohibits the discharge of “pollutants” from a “point source” into a “navigable water” of the United States, as these terms are defined by Section 502 of the CWA, 33 U.S.C. § 1362.

5. Section 402(p) of the CWA, 33 U.S.C. § 1342(p), sets forth requirements for the issuance of NPDES permits for the discharge of storm water. Section 402(p) of the CWA, 33 U.S.C. § 1342(p), requires, in part, that a discharge of storm water associated with an industrial

activity must conform with the requirements of an NPDES permit issued pursuant to Sections 301 and 402 of the CWA, 33 U.S.C. §§ 1311 and 1342.

6. Pursuant to Section 402(p) of the CWA, 33 U.S.C. § 1342(p), EPA promulgated regulations setting forth the NPDES permit requirements for storm water discharges at 40 C.F.R. § 122.26.

7. 40 C.F.R. § 122.26(a)(1)(ii) and 122.26(c) requires dischargers of storm water associated with industrial activity to apply for an individual permit or to seek coverage under a promulgated storm water general permit.

8. 40 C.F.R. § 122.26(b)(14)(x) defines “storm water discharge associated with industrial activity,” in part, as construction activity including clearing, grading, and excavation, except operations that result in the disturbance of less than five (5) acres of total land area which are not part of a larger common plan of development or sale.

9. The Missouri Department of Natural Resources (“MDNR”) is the state agency with the authority to administer the federal NPDES program in Missouri pursuant to Section 402 of the CWA, 33 U.S.C. § 1342. EPA maintains concurrent enforcement authority with delegated states for violations of the CWA.

10. The MDNR issued a General Permit for the discharge of storm water under the NPDES, Permit No. MO-R109D40 (“Permit”). The Permit became effective on March 8, 2002, and expires on March 7, 2007. The Permit governs storm water discharges associated with construction or land disturbance activity (e.g., clearing, grubbing, excavating, grading, and other activity that results in the destruction of the root zone). The Permit also applies to land disturbance activities near valuable resource waters.

#### Factual Background

11. Respondent is a “person” as defined by Section 502(5) of the CWA, 33 U.S.C. § 1362(5).

12. At all times relevant to this action, Respondent was the owner and/or operator of a construction site known as Whispering Park 1<sup>st</sup> Plat located at the NW corner of Duncan Road and Dillingham Road, Grain Valley, Missouri (“Site”). Construction activities occurred at the Site including clearing, grading and excavation which disturbed five (5) or more acres of total land area or which disturbed less than five (5) acres of total land area that was part of a larger common plan of development or sale.

13. Storm water, snow melt, surface drainage and runoff water leaves Respondent’s facility and flows south into Swiney Branch. From the southeast corner of the site, Swiney Branch flows approximately 2.2 miles south east into Sni-A-Bar Creek. The runoff and drainage from Respondent’s facility is “storm water” as defined by 40 C.F.R. § 122.26(b)(13).

14. Storm water contains “pollutants” as defined by Section 502(6) of the CWA, 33 U.S.C. § 1362(6).

15. Respondent’s storm water runoff is the “discharge of a pollutant” as defined by CWA Section 502(12), 33 U.S.C. § 1362(12).

16. The Site was a “point source” which caused the “discharge of pollutants” as defined by CWA Section 502, 33 U.S.C. § 1362.

17. Respondent discharged pollutants into Swiney Branch, a tributary of Sni-A-Bar Creek. Swiney Branch and Sni-A-Bar Creek are “navigable waters” as defined by CWA Section 502, 33 U.S.C § 1362.

18. Respondent’s discharge of pollutants associated with an industrial activity, as defined by 40 C.F.R. § 122.26(b)(14)(x), requires a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

19. Respondent applied for and was issued NPDES permit coverage under the General Permit described in paragraph 10 above. MDNR assigned Respondent Permit No. MO-R109D40, which was issued on June 25, 2004.

20. On March 21 and 22, 2005, contractors for EPA performed an inspection of the Site under the authority of Section 308(a) of the CWA, 33 U.S.C. § 1318(a). The purpose of the inspection was to evaluate Respondent’s compliance with Sections 301 and 402 of the CWA.

### Findings of Violation

#### Count 1

#### **Failure to Maintain Pollution Control Measures**

21. The facts stated in paragraphs 11 through 20 above are herein incorporated.

22. Part 7 of the Requirements and Guidelines section of Respondent’s Permit requires Respondent to maintain all pollution control measures and systems in good order to achieve compliance with the terms of the General Permit.

23. The inspection referenced in paragraph 20 above revealed that Respondent’s pollution control measures, including silt fences, were not properly maintained. Specifically, several silt fences near the drain inlets and outlets that lead to Swiney Branch between Lots 40 and 41 and Lots 4 and 5 were down and full of sediment.

24. Respondent’s failure to properly maintain its pollution control measures is a violation of Respondent’s General Permit, and as such, is a violation of Sections 301(a) and 402(p) of the CWA, 33 U.S.C. § 1311(a) and § 1342(p).

## Count 2

### **Failure to Install Appropriate Best Management Practices**

25. The facts stated in paragraphs 11 through 20 above are herein incorporated.

26. Part 8.e. of the Requirements and Guidelines section of Respondent's Permit states that storm water runoff from disturbed areas which leave the site boundary shall pass through an appropriate impediment to sediment movement, such as a sedimentation basin, sediment trap, silt fence, etc., prior to leaving the construction site.

27. The inspection referenced in paragraph 20 above revealed that Respondent did not install appropriate impediments to sediment movement for storm water to pass through prior to leaving the construction site in the following areas.

- a. Part 8.d. of the Requirements and Guidelines section of Respondent's Permit states that where soil disturbing activities cease in an area for more than 14 days, the disturbed areas shall be protected from erosion by stabilizing the area with mulch or other similarly effective control Best Management Practices ("BMPs"). At the time of inspection, soil disturbing activities had ceased on the Site for a minimum of 81 days, and Respondent failed to stabilize the Site with mulch or other similarly effective erosion control BMPs, resulting in erosion and sediment runoff.
- b. Respondent's Stormwater Pollution Prevention Plan ("SWPPP") includes placement of a temporary sediment basin upstream of the drain inlet between Lots #40 and #41. At the time of inspection, the temporary sediment basin was not in place, resulting in erosion and sediment runoff.
- c. Part 7 of the Requirements and Guidelines section of Respondent's Permit states that BMPs must be selected, installed, used, operated, and maintained in accordance with, inter alia, MDNR's "Protecting Water Quality: A field guide to erosion, sediment, and storm water best management practices for development sites in Missouri." The guide specifies that a rock outlet should be used where concentrated storm water outlet velocity creates potential for downstream erosion. At the time of inspection, the concentrated storm water outlet between lots 4 and 5 was unprotected and discharged directly down the soil bank of Swiney Branch.
- d. Respondent's SWPPP includes placement of straw bales perpendicular to the swale area. At the time of inspection, no straw bales were in place, resulting in erosion and sediment runoff.

- e. Respondent's SWPPP includes placement of approximately 600 feet of silt fence along the southern perimeter where the Site slopes toward Swiney Branch. Respondent's SWPPP also includes placement of approximately 600 feet of silt fence along the western boundary of the Site. At the time of inspection, the silt fences were not in place, resulting in erosion and sediment runoff.

28. Respondent's failure to install appropriate impediments to sediment movement is a violation of Respondent's General Permit, and as such, is a violation of Sections 301(a) and 402(p) of the CWA, 33 U.S.C. § 1311(a) and § 1342(p).

### **Count 3**

#### **Failure to Perform and Document Site Inspections**

29. The facts stated in paragraphs 11 through 20 above are herein incorporated.

30. Part 10 of the Requirements and Guidelines section of Respondent's Permit requires that regular inspections be performed at a minimum of once per week on disturbed areas which have not been finally stabilized. In addition, it requires that any deficiencies be noted in a report and corrected within seven calendar days of the inspection. The report is to be kept at a site which is readily available from the permitted site until final stabilization is achieved.

31. The inspection referenced in paragraph 20 above revealed that Respondent did not perform site inspections at a minimum of once per week, note any deficiencies in a report, correct the deficiencies within seven calendar days of the inspection, or keep the report at a site which is readily available from the permitted site. Specifically, the inspection revealed that Respondent failed to perform and document inspections after December 2004. In addition, Respondent's inspection reports from June to December 2004, failed to document the actions taken or necessary to correct the pollution control deficiencies. The reports also failed to identify areas where land disturbance operations had permanently or temporarily ceased.

32. Respondent's failure to perform and document site inspections is a violation of Respondent's General Permit, and as such, is a violation of Sections 301(a) and 402(p) of the CWA, 33 U.S.C. § 1311(a) and § 1342(p).

### **Count 4**

#### **Failure to Develop an Adequate SWPPP**

33. The facts stated in paragraphs 11 through 20 above are herein incorporated.

34. Part 8.a. of the Requirements and Guidelines section of Respondent's permit states the SWPPP shall contain sufficient information to be of practical use to contractors and site construction workers to guide the installation and maintenance of the BMPs.

35. The inspection referenced in paragraph 20 above, revealed that Respondent's SWWPP failed to contain sufficient information to be of practical use to contractors and site construction workers. Specifically the SWPPP failed to include:

- a. When each BMP will be installed in relation to each phase of the land disturbance procedures. (Part 8.c.)
- b. A description of stabilization devices that will be installed where the soil disturbing activities have ceased in an area for more than 14 days. (Part 8.d.)
- c. Additional Site Management BMPs. (Part 8.i.)
- d. Permanent Storm Water Management, such as outlet control devices. (Part 8.j.)

36. Respondent's failure to develop an adequate SWPPP is a violation of Respondent's General Permit, and as such, is a violation of Sections 301(a) and 402(p) of the CWA, 33 U.S.C. § 1311(a) and § 1342(p).

#### Order For Compliance

37. Based on the Findings of Fact and Findings of Violation set forth above, and pursuant to the authority of Sections 308(a) and 309(a)(3) of the CWA, 33 U.S.C. §§ 1318(a) and 1319(a)(3), Respondent is hereby ORDERED to take the actions described in paragraphs 38 through 40.

38. Within thirty (30) days of the effective date of this Order, Respondent shall take whatever corrective action is necessary to correct the deficiencies and eliminate and prevent recurrence of the violations cited above, and to come into compliance with all of the applicable requirements of the permit.

39. Within thirty (30) days of the effective date of this Order, the Respondent shall submit a written report detailing the specific actions taken to correct the violations cited herein and explaining why such actions are anticipated to be sufficient to prevent recurrence of these or similar violations.

40. In the event that Respondent believes complete correction of the violations cited herein is not possible within thirty (30) days of the effective date of this Order, the Respondent shall, within those thirty (30) days, submit a comprehensive written plan for the elimination of the cited violations. Such plan shall describe in detail the specific corrective actions to be taken and why such actions are sufficient to correct the violations. The plan shall include a detailed schedule for the elimination of the violations within the shortest possible time, as well as measures to prevent these or similar violations from recurring.

## **Submissions**

41. All documents required to be submitted to EPA by this Order, shall be submitted by mail to:

Cynthia Sans  
Water, Wetlands and Pesticides Division  
U.S. Environmental Protection Agency - Region VII  
901 North Fifth Street  
Kansas City, Kansas 66101.

42. A copy of documents required to be submitted to MDNR by this Order, shall be submitted by mail to:

Mr. Kevin Mohammadi, Chief  
Enforcement Section  
Water Pollution Control Program  
Missouri Dept. of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102.

## General Provisions

### **Effect of Compliance with the Terms of this Order for Compliance**

43. Compliance with the terms of this Order shall not relieve Respondent of liability for, or preclude EPA from, initiating an administrative or judicial enforcement action to recover penalties for any violations of the CWA, or to seek additional injunctive relief, pursuant to Section 309 of the CWA, 33 U.S.C. § 1319.

44. This Order does not constitute a waiver or a modification of any requirements of the Clean Water Act, 33 U.S.C. § 1251 *et seq.*, all of which remain in full force and effect. The EPA retains the right to seek any and all remedies available under Sections 309(b), (c), (d) or (g) of the Act, 33 U.S.C. § 1319(b), (c), (d) or (g), for any violation cited in this Order. Issuance of this Order shall not be deemed an election by EPA to forgo any civil or criminal action to seek penalties, fines, or other appropriate relief under the Act for any violation whatsoever.

### **Access and Requests for Information**

45. Nothing in this Order shall limit EPA's right to obtain access to, and/or to inspect Respondent's facility, and/or to request additional information from Respondent, pursuant to the authority of Section 308 of the CWA, 33 U.S.C. § 1318 and/or any other authority.

**Severability**

46. If any provision or authority of this Order, or the application of this Order to Respondent, is held by federal judicial authority to be invalid, the application to Respondent of the remainder of this Order shall remain in full force and effect and shall not be affected by such a holding.

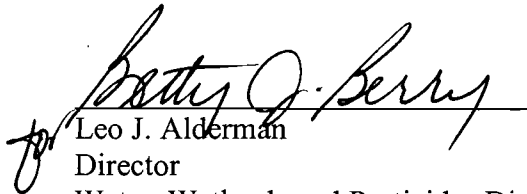
**Effective Date**

47. The terms of this Order shall be effective and enforceable against Respondent upon its receipt of an executed copy of the Order.


**Termination**

48. This Order shall remain in effect until a written notice of termination is issued by an authorized representative of the U.S. Environmental Protection Agency. Such notice shall not be given until all of the requirements of this Order have been met.

Issued this 3<sup>rd</sup> day of October, 2005.

  
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Leo J. Alderman

Director  
Water, Wetlands and Pesticides Division  
U.S. Environmental Protection Agency  
Region VII  
901 North Fifth Street  
Kansas City, Kansas 66101

  
\_\_\_\_\_  
Jonathan W. Meyer  
Assistant Regional Counsel  
U.S. Environmental Protection Agency  
Region VII  
901 North Fifth Street  
Kansas City, Kansas 66101



CERTIFICATE OF SERVICE

I certify that on the date noted below I hand delivered the original and one true copy of this Findings of Violation and Administrative Order for Compliance to the Regional Hearing Clerk, United States Environmental Protection Agency, 901 North Fifth Street, Kansas City, Kansas 66101.

I further certify that on the date noted below I sent a copy of the foregoing Order for Compliance by first class certified mail, return receipt requested, to:

Robert A. Washam Construction, Inc.  
Registered Agent: Robert A. Washam  
Project Manager: Roger G. Carstens  
2058 NW South Outer Road  
Blue Springs, MO 64105.

I further certify that on the date noted below I sent a copy of the foregoing Order for Compliance by first class mail to:

Mr. Kevin Mohammadi, Chief  
Enforcement Section  
Water Pollution Control Program  
Missouri Dept. of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102.

10/4/05  
Date

Clara A. Zaragoza

**REPORT OF CONSTRUCTION STORMWATER INSPECTION**

**OF THE**

**WASHAM CONSTRUCTION, INC.  
WHISPERING PARK 1<sup>st</sup> PLAT**

**CONSTRUCTION SITE**

**IN**

**GRAIN VALLEY, MISSOURI**

**NPDES PERMIT NUMBER: MO-R109D40**

**MARCH 21-22, 2005**

**BY**

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
Region VII  
Environmental Services Division**

**INTRODUCTION**

At the request of the Water, Wetlands and Pesticides Division, Water Enforcement Branch (WENF), I performed a Construction Stormwater Inspection at the Washam Development LLC., Whispering Park 1<sup>st</sup> Plat construction site in Grain Valley, Missouri on March 21, 2005. Section 308(a) of the Federal Water Pollution Control Act, as amended, provided the authority for the inspection. The procedures we used to inspect the facility were in accordance with EPA Region VII SOP 2332.1A NPDES Compliance Evaluation Inspection. This narrative, report and attachments present the results of this inspection.

**PARTICIPANTS**

Washam Construction Inc.:

Roger Carsten, Site Superintendent

U.S. Environmental Protection Agency (EPA):

Lorenzo P. Sena, Environmental Protection Specialist

Norman Rodriguez, Life Scientist

## **INSPECTION PROCEDURES**

The EPA Region VII, WWPD/WENF branch requested that ENSV/EMWC perform Compliance Evaluation Inspections (Storm Water) at several targeted metropolitan areas within EPA Region VII in 2004. Eastern Jackson County, Missouri was one of these target areas. Mr. Rodriguez and I arrived in Jackson County on March 22, 2005. The week prior to the inspection, Ms. St. Germain, (an EPA inspector) performed drive-by inspections (reconnaissance inspections) of construction sites in Jackson County. Candidates for a full inspection were selected from this drive-by reconnaissance effort.

The Whispering Park 1<sup>st</sup> Plat construction site was selected because the Best Management Practices (BMPs) used onsite were not visible from Dillingham Road.

Neither Washam Construction Inc., nor their contractors were notified prior to the inspection. Upon arrival to the construction site on March 21, 2004 at 12:45 pm, Mr. Rodriguez and I met with Mr. Carsten. We presented our credentials and explained the purpose and the procedures of the inspection.

This inspection consisted of a walk-through inspection of the construction site and a review of the records which the permittee is required to maintain by the NPDES permit.

## **FACILITY DESCRIPTION**

The Washam Construction Inc., Whispering Park 1<sup>st</sup> Plat construction site is located just northwest of the intersection of Duncan and Dillingham Road in Grain Valley, Missouri (See Attachment #1). On June 25, 2004, the Missouri Department of Natural Resources (MDNR) issued a construction stormwater permit to Washam Construction, Inc. for the construction of Whispering Park 1<sup>st</sup> Plat (See Attachment #2).

The MDNR forms E and G (permit application, included as Attachment #3) state that the Whispering Park construction site occupies a total of 17 acres and states that of the total acreage, 6.8 acres will be disturbed. Whispering Park 1<sup>st</sup> Plat is a 48 lot, single family residential subdivision.

Mr. Carsten said that grading activities onsite began on July 15, 2004. At the time of the inspection, rough grading was not complete and approximately 15 acres of the site were completely devoid of vegetation. Mr. Carsten said that the clearing, grubbing, storm drain installation and the first part of the rough grading was completed in 2004. He said that since the end of December 2004 (to the time of the inspection), the only activity onsite has been roughing up and re-packing the road bed to prepare it for paving.

The entire site slopes to the south. Swiney Branch is located at the south end of the site (See Attachment #4). From the south east corner of the site, Swiney Branch flows approximately 2.2 miles south east at a slope of approximately 1 foot of drop per 160 feet of horizontal distance, to the point where it flows into Sni-A-Bar Creek.

## **FINDINGS AND OBSERVATIONS**

The following findings and observations were noted during the site and record review. A complete summary of this review is given in the NPDES Industrial Stormwater Worksheet (Construction) and is included as Attachment #6.

On March 24, 2005, I mailed (via certified mail) a Notice of Potential NPDES Permit Violations (NOPV) to Washam Construction, Inc. for the Whispering Park 1<sup>st</sup> Plat construction site. The NOPV is included as Attachment #7. The concerns listed in the NOPV are further explained in the following paragraphs.

**1. At the time of the inspection, Mr. Rodriguez and I observed that sediment had left the site and had been deposited in Swiney Branch (See Attachment #4, Photos #16, #17 and #18). The sediment was deposited in Swiney Branch by the drain outlet located just south of lots #4 and #5 and is shown in Photo #13 and #14. At the time of the inspection, approximately 8 acres of bare earth drain to this outlet and into Swiney Branch. Photos #1-10 show the area which drains to this outlet. Photo #10 shows a small section of downed silt fence strung across the swale which runs through the site then enters the drain inlet and flows to Swiney Branch. This inlet structure and the curb drain inlets connect and then drain to the outlet shown in Photos #13 and #14. After the runoff flows out of the drain, it flows into an un-stabilized ditch and through two small (approximately 6 foot) sections of downed silt fence and then flows directly into Swiney Branch (See Photos #13, #14, #15, and #16).**

The NPDES permit [Requirements and Guidelines (1.)] states: “**The discharge of stormwater from these facilities shall not cause a violation of water quality standards , 10 CSR 20-7.031, which states, in part, that no water contaminant, by itself or in combination with other substances , shall prevent the waters of the state from meeting the following conditions:**

- a. **Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.**
- d. **Waters shall be free from substances or conditions in sufficient amounts to have a harmful effect on human, animal or aquatic life.”**

2. As mentioned above, Mr. Carsten said that nothing onsite had changed from the time work

stopped onsite at the end of December to the time of the inspection, with the exception of the packing of the road bed. At the time of the inspection, the entire site was bare and was not stabilized in any way. **This means that site activity ceased at the end of December 2004 and had still not continued by the time of this inspection. During this period of time (81 days from January 1, 2004 to March 22, 2005), the site remained bare and un-stabilized.**

The site NPDES permit [Requirements and Guidelines (8.) (d.)] states: **“Where soil disturbing activities cease in an area for more than 14 days, the disturbed areas shall be protected from erosion by stabilizing the area with mulch or other similarly effective erosion control BMPs”.**

**3. The site grading plans show that a temporary sedimentation pond/ basin is to be constructed just upstream of the drain inlet shown in photo #10 (in the area shown in Photo #8 and #9). As can be seen in the photos, a temporary sediment basin was not constructed in this area. At the time of the inspection there were no sedimentation basins onsite.**

I asked Mr. Carsten why the sedimentation basin had not been installed during the rough grading stage and he said that grass will be planted in the swale and overlaid with geo-textile fabric. He said that this would be installed after the rough grading was complete. I explained that the purpose of the sedimentation basin is to capture sediment before it flows into the receiving stream and explained that most of the sediment leaves a construction site during the rough grading phase since the entire site is cleared grubbed and completely devoid of vegetation.

**The site NPDES permit Requirements and Guidelines (7.), states the following: “The permittee shall select, install, use, operate, and maintain the BMPs in accordance with the concepts and methods described in the following documents:”**

**b. Protecting Water Quality: A field guide to erosion, sediment and stormwater best Management practices for development sites in Missouri.**

**Chapter 5, page 201 of the field guide to erosion, sediment and stormwater best Management practices for development sites in Missouri shows a temporary sediment basin and lists the minimum requirements and they are as follows: “Prior to start of construction, sediment traps should be designed by a registered design professional. Plans and specifications should be referred to by field personnel throughout the construction process. The sediment traps should be built according to planned grades and dimensions.**

**Drainage Area:** Less than 5 acres in size. If the drainage area is larger, construct a sediment basin (see *Sediment Basin*).

**Structure life:** Limited to 2 years

**Sediment storage:** A minimum of 1800 feet<sup>3</sup> per disturbed acre”.

As mentioned earlier, the site grading plans (Attachment #5) show that a very small temporary sediment pond/basin is to be constructed just upstream of the drain inlet located between lots # 40 and #41. Following the inspection, I calculated that the drainage area entering this drain

(excluding the area flowing to the drain through the curb drain inlets) to be approximately 8 acres. Since the drainage area at the time of the inspection was approximately 8 acres, according to the MDNR field guide, a temporary sediment trap will not work and a sediment basin should be installed. **When the streets and curbs are installed, approximately 10.3 acres (450,000 ft<sup>2</sup>) of drainage area will flow into the drain outlet which discharges to Swiney Branch.** Any sediment basins or similarly effective devices which are installed in this area must be designed and installed as required by the above mentioned MDNR field guide or an equivalent.

The site SWPPP (See Attachment #5) Erosion Control Notes states the following: **“Erosion and siltation control methods shall be in place prior to commencement of any grading and/or excavation of the site.** All erosion control measures shall remain in place until final grade and sod is completed by the Builder, and shall also be maintained throughout the project until the acceptance of the work by the City”.

The site NPDES permit Requirements and Guidelines (8.)(h.) Sedimentation Basins states the following: **“The SWPPP shall require a sediment basin for each drainage area with 10 or more acres disturbed at one time. The sediment basin shall be sized to contain a 0.5 inch of sediment from the drainage area and to be able to contain a 2-year , 24 –hour storm.”.**

The following paragraph in the same section states the following: **“Where use of a sediment basin of this size is impractical, the SWPPP shall evaluate and specify other similarly effective BMPs to be employed to control erosion and sediment delivery.”.**

The site SWPPP (Attachment #5) does not evaluate and specify any other similarly effective BMPs.

4. As mentioned above, the drain outlet shown in Photo #10 is un-stabilized and flows into an un-stabilized ditch to Swiney Branch.

The site NPDES permit Requirements and Guidelines (7.), states the following: **“The permittee shall select, install, use, operate, and maintain the BMPs in accordance with the concepts and methods described in the following documents:”**

**b. Protecting Water Quality: A field guide to erosion, sediment and stormwater best Management practices for development sites in Missouri.**

**Chapter 5, page 151 of the field guide to erosion, sediment and stormwater best Management practices for development sites in Missouri shows a rock outlet and states the following: “A structure constructed to control erosion at the outlet of a channel or conduit. A rock outlet is an apron constructed of rock riprap designed to prevent scour at stormwater outlets, and to minimize the potential for downstream erosion by reducing the velocity and energy of concentrated stormwater flows.**

This practice applies where the discharge velocity of a pipe, box culvert, diversion or other water conveyance structure exceeds the permissible velocity of the receiving area.”

**At the time of the inspection, the slope of the site was such that the drain outlet needed some type of device (either temporary or permanent) to reduce the velocity of the discharge from the time it was installed.** Mr. Carsten said that they plan on constructing a concrete box at the end of the drain which will divert the water upward, the water will then overflow at the top of the outlet and thus reducing the velocity. I explained to him that until the box could be installed there should have been some type stabilization practice used at the drain outlet. As mentioned earlier, the drain was installed in late 2004.

5. During the inspection, I asked Mr. Carsten to provide me with a copy of the site Stormwater Pollution Prevention Plan (SWPPP) along with copies of the site inspection reports, the MDNR Forms E and G, grading plans/ erosion control drawings, and a copy of the first page of the NPDES permit. I picked up the copies of the above mentioned documents on the following day.

- a. SWPPP – The site SWPPP is a part of the site Grading Plans (see Attachment #5). The facility NPDES permit Requirements and Guidelines (7.), (8.) list the requirements of the SWPPP. **I reviewed the content of the SWPPP and found numerous deficiencies. A complete review of the SWPPP is included as Attachment #6.**
- b. Site Inspection Reports – The site inspection reports are included as Attachment #7. The inspection reports do not include all of the requirements listed in the site NPDES permit Requirements and Guidelines (10.). **The site inspection reports do not include the actions taken or necessary to correct the deficiencies and they do not have a listing of areas where land disturbance activities have permanently or temporarily stopped. Mr. Carsten began conducting site inspections on June 28, 2004 and stopped on December 27, 2004 (See Attachment #8). He has not conducted any inspections of the site from December to the time of this inspection.**
- c. MDNR forms E & G – Forms E&G are included as Attachment #3. Question (7.) on Form G asks for the total area of land disturbed. **The applicant listed 6.8 acres as the area to be disturbed. Using the facility grading plans, I calculated the disturbed area to be approximately 680,000 ft<sup>2</sup> which is equal to 15.6 acres.**

6. The site SWPPP shows that straw bales will be placed perpendicular to the swale. **At the time of the inspection, there were no straw bales in the swale (See Attachment #4, Photos #1 - #9).**

The site NPDES permit Requirements and Guidelines (7.), states the following: **”The permittee shall fully implement the provisions of the SWPPP required under this part as a condition of this general permit throughout the term of the land disturbance project”.**


## **RECOMMENDATIONS**

The permittee **must address all of the concerns listed in the paragraphs above as well as the concerns listed in the NPDES Industrial Stormwater Worksheet (Construction)** which is included as Attachment #6.

1. The BMPs used onsite must be selected, installed and maintained as required by the site NPDES permit Requirements and Guidelines (7.).
2. The permittee must modify the existing SWPPP to meet all of the requirements listed in the site NPDES permit Requirements and Guidelines (7.).
3. The site inspection reports must include all of the information required by the site NPDES permit Requirements and Guidelines (10.).

### **General Recommendations**

1. **If a sediment control device is determined to provide insufficient sediment capture, it must be repaired or replaced**, and the changes should be shown in the SWPPP, as well as the site inspection reports, as required by the site NPDES permit.
2. **All the conditions of the SWPPP and the NPDES permit must be strictly adhered to.** Upon completion of the SWPPP all contractors must be notified of its existence. The contractors must also be notified of how their operations could affect the structural sediment control devices and or the quality of the stormwater runoff from the site. They must also be notified of the procedures which they are to use to be in compliance with the SWPPP and the NPDES permit.
3. If any changes are made to the site, which could affect the amount of runoff or sediment leaving the site, the SWPPP must be modified to include any structural or non structural sediment control devices which are used to address the problem.

  
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Lorenzo P. Sena  
Environmental Protection Specialist

Date: 3/29/05

Activity Number: LPS121

### **ATTACHMENTS**