



# Land Disturbance Field Manual

Prepared for  
City of Moberly, Missouri

April 2019



# Land Disturbance Field Manual

April 2019

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**Contact information:**

*For City requirements, use this manual and contact the City of Moberly Public Utilities Department:*

Stormwater Coordinator or Stormwater Inspectors City Hall  
101 West Reed Moberly, MO 65270  
Phone: (660) 263-4420

*For State requirements, contact:*

Missouri Department of Natural Resources Northeast Regional Office  
1709 Prospect Drive  
Macon, MO 63552  
Phone: (660) 385-8000  
Fax: (660) 385-8090

*For Federal requirements working in or near streams or wetlands, contact:*

U.S. Army Corps of Engineers - Kansas City District Missouri State Regulatory Office  
221 Bolivar Street, Suite #103  
Jefferson City, MO 65101 Phone: (573) 634-2248  
Fax: (573) 634-7960

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## 1.0 Introduction

### 1.1 Land Disturbance Field Manual

This *Land Disturbance Field Manual* is designed to assist with field compliance throughout construction and close-out of the Land Disturbance Permitting Program. The Land Disturbance Permitting Program is designed to promote and enforce erosion and sediment controls during land disturbance activities on public and private construction projects within the City of Moberly (City). The City's Land Disturbance Program complies with the Federal Clean Water Act (40 CFR, 122.26) and the Missouri Department of Natural Resources State Operating Permit No. MO-R040030 for Regulated Small Municipal Separate Storm Sewer Systems (MS4).

The *Land Disturbance Field Manual* is meant to be used in conjunction with the City's *Land Disturbance Manual* and when applicable, *Post-Construction Stormwater Manual*. The *Land Disturbance Field Manual* is authorized by the City's Land Disturbance Ordinance (Chapter 34, Article III of the City's Code of Ordinances) and enforced by the City's Public Utilities Department. The manual may be revised at any time.

### 1.2 Land Disturbance Field Process Overview

The purpose of the *Land Disturbance Field Manual* is to assist Land Disturbance permittees with compliance during the construction and construction close-out phases of the Land Disturbance Process. Steps 10a-18 of Table 1-1 provide a brief overview to the steps applicable to the construction and construction close-out phases of the land disturbance process. The following sections in this manual provide general construction practices and inspection procedures applicable to the construction and construction close-out phases. For more detail on the process, refer to the City's *Land Disturbance Manual* and *Post-Construction Manual*.

**Table 1-1 Land Disturbance Process Overview**

Phase	Step No.	Land Disturbance (LD) Step Description	Land Disturbance Manual Section No.
Pre-Application	1	<b>Applicability:</b> Confirm that a Land Disturbance Permit is required.	1.2
	2	<b>Pre-Submittal Meeting:</b> <ul style="list-style-type: none"> <li>Contact the City of Moberly Public Utilities Department (City) to schedule a pre-submittal meeting.</li> <li>Meet with City to discuss applicable permits and stormwater pollution prevention plan (SWPPP) requirements.</li> </ul>	2.1
	3	<b>Prepare SWPPP:</b> Prepare a SWPPP in accordance with Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i> .	3.1 - 3.3
Application	4	<b>Submit SWPPP and Land Disturbance Application:</b> Submit Land Disturbance Application, SWPPP, and other required documents to City for review. An application fee shall be included with this submittal.	4.1
	5	<b>SWPPP Review – Completeness Check:</b> The City shall conduct a pre-review of SWPPP to check the basic level of completeness based on compliance with Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i> . If deemed incomplete, the submittal shall be returned to the Applicant for modification and resubmission.	4.2
	6	<b>SWPPP Review – Detailed Review:</b> Once the submittal is deemed complete, the City shall conduct a detailed review of the SWPPP and supporting documents for compliance with Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i> . If deficiencies are noted, the City shall provide written comments to the Applicant; such comments may include questions, requests for additional information, and/or requests for modifications to the SWPPP in order to comply with applicable requirements. If such comments are received, the Applicant shall address each comment and resubmit revised documents along with a summary of how each comment was addressed.	
	7	<b>SWPPP Acceptance:</b> <ul style="list-style-type: none"> <li>When City has found the SWPPP to meet the requirements of Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i>, the SWPPP will be accepted.</li> <li>The Applicant shall post the required fiscal security and submit at least 3 copies of the SWPPP to the City to be signed and returned.</li> </ul>	4.2

Phase	Step No.	Land Disturbance (LD) Step Description	Land Disturbance Manual Section No.
Pre-Construction	8	<p><b>On-Site Pre-Construction Meeting:</b></p> <ul style="list-style-type: none"> <li>• Contact the City to schedule an on-site pre-construction meeting.</li> <li>• Prepare for and attend on-site pre-construction meeting. Required attendees at this meeting shall include, but are not limited to, the Applicant's Land Disturbance Manager.</li> </ul>	4.3
	9	<p><b>Land Disturbance Permit Issuance:</b> If <i>Applicant</i> is in compliance with the requirements of Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i>, the City shall issue a Land Disturbance Permit.</p>	4.4
Construction	10a	<p><b>Land Disturbance Compliance:</b> Ensure compliance with requirements of the Land Disturbance Permit.</p>	5.1
	10b	<p><b>Install BMPs:</b> Ensure installation of temporary BMPs prior to land disturbance or construction activities and permanent BMPs at the appropriate times in accordance with the accepted SWPPP and stormwater designs, requirements of Ch. 34, Art. III of the City's Code of Ordinances, and guidance provided in the <i>Land Disturbance Manual</i> and the <i>Post-Construction Stormwater Manual</i>.</p>	5.3
	10c	<p><b>Land Disturbance Inspections:</b></p> <ul style="list-style-type: none"> <li>• Contact the City to schedule applicable land disturbance inspections.</li> <li>• Permittee's Land Disturbance Manager shall attend scheduled City land disturbance inspections.</li> <li>• Correct deficiencies as requested by the City.</li> </ul>	5.4

Phase	Step No.	Land Disturbance (LD) Step Description	Land Disturbance Manual Section No.
Construction Close-Out	11	<p><b>Initial Close-Out Inspection:</b></p> <ul style="list-style-type: none"> <li>• Prepare site for initial close-out inspection.</li> <li>• Contact the City to schedule initial close-out inspection.</li> <li>• Permittee's Land Disturbance Manager shall attend initial close-out inspection.</li> <li>• Correct deficiencies as requested by the City and, if requested, contact the City of schedule a follow-up inspection.</li> </ul>	6.1
	12	<p><b>Initial Close-Out Acceptance:</b> Once site is in compliance with the requirements of Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i>, City shall issue initial close-out acceptance.</p>	6.1
	13	<p><b>Revegetation:</b></p> <ul style="list-style-type: none"> <li>• Perform monthly inspections during the revegetation process.</li> <li>• Correct deficiencies in on-site BMPs and control weeds as deemed necessary during inspections or as requested by City.</li> </ul>	6.1.4
	14	<p><b>Vegetation Acceptance Inspection:</b></p> <ul style="list-style-type: none"> <li>• Contact the City to schedule vegetation acceptance inspection when vegetative growth has reached the required coverage.</li> <li>• Permittee's Land Disturbance Manager shall attend vegetation acceptance inspection.</li> <li>• Correct deficiencies as requested by the City and, if requested, contact the City to schedule a follow-up inspection.</li> </ul>	6.1.4
	15	<p><b>Vegetation Acceptance:</b> Once site is in compliance with the requirements of Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i>, City shall issue vegetation acceptance.</p>	6.1.4
	16	<p><b>Final Close-Out Inspection:</b></p> <ul style="list-style-type: none"> <li>• Prepare site for final close-out inspection, including removal of temporary BMPs.</li> <li>• Contact the City to schedule the final close-out inspection.</li> <li>• Permittee's Land Disturbance Manager shall attend final close-out inspection.</li> <li>• Correct deficiencies as requested by the City and, if requested, contact the City of schedule a follow-up inspection.</li> </ul>	6.1.6
	17	<p><b>Final Close-Out Acceptance:</b> Once site is in compliance with the requirements of Ch. 34, Art. III of the City's Code of Ordinances and guidance provided in the <i>Land Disturbance Manual</i>, City shall issue final close-out acceptance.</p>	6.1.6
	18	<p><b>Fiscal Security Release:</b> Submit a Fiscal Security Release Form to the City to be signed and returned.</p>	6.3
Post-Construction	19	<p><b>Stormwater Operating Permit Compliance:</b> Ensure compliance with the Stormwater Operating Permit as applicable.</p>	Refer to the <i>Post-Construction Stormwater Manual</i>



## 2.0 General Construction Practices

### 2.1 Documents to Remain On Site

Documents to remain on site throughout construction<sup>1</sup> include:

- A copy of the SWPPP, including all amendments;
- Inspection records;
- Results of any monitoring or analysis; and
- All project permits.

### 2.2 Land Disturbance Best Management Practices (BMPs)

**Prior to any Land Disturbance activity** at the project site, the following BMPs shall be employed:

- Delineate (flag, stake, etc.) "Do Not Disturb" areas, including, but not limited to, limits of construction, environmentally sensitive areas, and buffers (refer to Sections 3.3.1 and 3.3.2 of the *Land Disturbance Manual*);
- Install all BMPs necessary to prevent soil erosion (refer to Sections 3.3.4, 3.3.5, and 3.3.8 of the *Land Disturbance Manual*);
- Install sediment control BMPs along site perimeters that will receive pollutant discharges (refer to Sections 3.3.6 and 3.3.7 of the *Land Disturbance Manual*);
- Designate a stabilized staging area (away from drainage ways and storm sewer inlets) that will include portable toilets;
- Install a vehicle-trackout BMP at all construction entrances, and, where applicable, install storm drain BMPs (refer to Sections 3.3.9 and 3.3.10 of the *Land Disturbance Manual*).

General construction BMPs shall include, but are not limited to:

- Implement effective sediment perimeter controls and effective erosion controls, as applicable (refer to Section 3.0 of the *Land Disturbance Manual*);
- Stabilize soils in a timely manner (refer to Section 3.3.5 of the *Land Disturbance Manual*);
- Protect steep slopes (refer to Section 3.3.8 of the *Land Disturbance Manual*);

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<sup>1</sup> Adapted from the Records section in the Missouri State Land Disturbance Permit (No. MO-RA00000).

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- Properly store, handle, apply, and dispose of potential pollutants (refer to Section 3.3.10 of the *Land Disturbance Manual*);
  - Do not wash equipment and machinery on site;
  - Provide a concrete washout area in the stabilized staging area, when applicable; and
  - Provide solid and hazardous waste management, including proper disposal.

Specifically, for pesticides, storage areas shall be protected from the elements, warning labels and signage shall be properly displayed, and properly disposed of through a licensed firm or facility. Petroleum products require more stringent guidelines that include:

- Protect product from the elements;
- Line the storage area with plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity 100% of the largest container's capacity;
- Clearly label all products;
- Store tanks off the ground;
- Securely fasten lids;
- Properly dispose of oily and oily wastes, such as cans, rags, etc.;
- Do not mix used oil for recycling with degreasers, solvents, antifreeze, or brake fluid; and
- Fuel and maintain vehicles in stabilized staging areas.

## **2.3 Spill Response**

### **2.3.1 Spill Response Procedures**

All hazardous wastes that are transported, stored, or used for maintenance, cleaning, or repair shall be managed according to the provisions of the Missouri Hazardous Waste Laws and Regulations. Spill response procedures shall be posted in a conspicuous place, and persons trained in spill handling shall be on site and/or on call at all times. Materials for cleaning up spills should be kept on site and made easily available. Spills should be cleaned up immediately, and the contaminated material should be properly disposed of.

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### 2.3.2 Spill Reporting

It is required by state law that spills of a petroleum product in excess of 50 gallons be reported to the Missouri Department of Natural Resources. Spills shall be reported to the following number:

**Missouri Department of Natural Resources**  
**(573) 634-2436**

Federal law requires the responsible party to report any release of oil if it reaches or threatens a sewer, lake, creek, stream, river, groundwater, wetland, or area like a road ditch that drains into one of the above. If applicable, report oil releases to:

**National Response Center**  
**(800) 424-8802**

In the event of a spill that is reported to the state or federal government, the City Public Utility Department and City Fire Department shall also be notified:

**City Public Utility Department**  
**(660) 263-4420**

**City of Moberly Fire Department**  
**(660) 269-8705**

Failure to report and clean up any spill shall result in issuance of a Stop Work Order (Section 3.5). Spills released onto soil should be dug up and properly disposed of, while spills on pavement should be absorbed with sawdust, kitty litter, or another product designed for that purpose.

## 3.0 Inspections and Violations

### 3.1 Land Disturbance Inspections

During the construction phase, erosion and sediment controls will be inspected regularly by the Land Disturbance Manager to consider the following:

- Overall effectiveness of the controls for reducing erosion and trapping sediment on the site; and
- Proper installation and maintenance of the controls.

The site must be inspected according to one of the following schedules<sup>2</sup>:

- At least once per 7 calendar days, as well as no later than 48 hours after a 2-year, 24-hour rainfall event (2.94 inches); or
- At least once per 14 calendar days, as well as no later than 28 hours after a rainfall event of 0.25 inches in 24 hours.

If problems are found on the site, they must be corrected within 48 hours. It is recommended that inspections are performed by Wednesday each week so that problems can be fixed by Friday of the same week.

Appendix A contains the Land Disturbance Inspection form. All inspection forms must remain on site with the SWPPP.

### 3.2 Mandatory City Inspections

The permittee(s) shall contact the City to schedule the following mandatory inspections:

- Pre-construction meeting/inspection of initial BMPs;
- Topsoil inspection after topsoil is stripped and stockpiled;
- Anytime during construction when a new Land Disturbance Manager or Alternate Land Disturbance Manager is chosen;
- Initial close-out inspection;
- Vegetation acceptance inspection;
- Final close-out inspection;

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<sup>2</sup> Adapted from Item 15 of the Requirements section in the Missouri State Land Disturbance Permit.

- Two years after final inspection, or when grass has reached the required vegetative cover in accordance with Section 6 of the *Land Disturbance Manual*, prior to removal of on-site BMPs; and
- For staged and phased SWPPPs where more than 40 acres need to be disturbed, and where work occurs in multiple grading phases.

Refer to the *Land Disturbance Manual* for detail regarding each inspection. All inspection requests need to be called into the City by 3:30 pm the day before the inspection, with the exception of the pre-construction meeting. The City requires notice at least 3 business days prior to the inspection for the pre-construction meeting.

### **3.3 Quality Assurance Inspections**

The City will perform quality assurance by performing random inspections in addition to mandatory City inspections to ensure the Land Disturbance Manager is performing the required quality control inspections. During these quality assurance inspections the City Inspector will also perform his/her own inspection of the Land Disturbance BMPs. If sediment appears to be leaving the site; or the City takes stormwater samples when less than 3.51 inches of rainfall has fallen in a 24-hour period reading greater than 280 nephelometric turbidity units (NTUs), the City will require the Land Disturbance Manager to request a revision to the SWPPP by the design engineer.

### **3.4 Re-Inspection Fees**

To offset the cost of additional inspections on noncompliant sites, the City requires that re-inspection fees be paid in person at the City Public Utilities Department office prior to receiving subsequent inspections. Re-inspection fees shall be charged for all projects that are deficient due to the following:

- Permittee(s) fails to properly install all initial BMPs prior to the scheduled pre-construction meeting;
- Required attendees fail to attend the scheduled pre-construction meeting;
- Permittee(s) fails to have the SWPPP on site during the pre-construction meeting;
- Permittee(s) receives a Stop Work Order (fee consists of new permit fee in this case);
- Permittee(s) fails to obtain vegetation acceptance from the City prior to requesting a final release of fiscal security;
- Permittee(s) removes any BMPs prior to receiving authorization by the City; and
- Land Disturbance Inspector finds violations of Land Disturbance Permit requirements during routine inspections.

Failure to cancel any inspection before 3:30 pm the day prior to a scheduled inspection in the event that a site is not ready for an inspection.

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## 3.5 Violations

Failure to comply with any term, condition, limit, deadline or other provision of the Land Disturbance Permit or failure to obtain a Land Disturbance Permit, constitutes a violation of the City's Land Disturbance Ordinance and may constitute a violation of state and federal laws as well.

Level I Violations have the most severe impact on people and the environment while Level III Violations have the least severe impact.

### 3.5.1 Level I Violation

Level I Violations result in an immediate issuance of a Stop Work Order. Example Level I Violations include the following:

- Clearing, grubbing, or grading without a Land Disturbance Permit;
- Failure to schedule a pre-construction meeting;
- Failure to be able to contact the Land Disturbance Manager or Alternate Land Disturbance Manager during any level of violation;
- Failure to restrict operations to approved limits of construction;
- Failure to clean up the tracking of material onto roadways and adjacent paved areas;
- Exporting material to, or importing material from, a non-permitted site;
- Exporting/importing soil material without a variance;
- Failure to follow an approved phasing plan; and/or
- Failure to correct Level II Violations per the directives of the Land Disturbance Inspector.

**Stop Work Orders.** The City is authorized to order work to be stopped on any project that disturbs the land and is not in compliance with the requirements of the Land Disturbance Permit. The posted Stop Work Order will specify what corrective actions need to be taken before land disturbance activities can continue. Safety-related items (e.g., backfilling of holes and trenches) as well as corrective actions may be completed; however, the permittee(s) shall inform the Land Disturbance Inspector of such activities.

When placed on a permitted site, a Stop Work Order will either suspend or revoke the Land Disturbance Permit for that site. If the permit is suspended, the permittee(s) must perform the tasks stated in the Stop Work Order and obtain a signed Stop Work Order Release Form from the City before land disturbance activities can continue. An inspection may be required for the City to determine if sufficient corrective actions have been taken. If the permit is revoked, the following steps must be taken:

- Correct the deficient practices that caused the Stop Work Order;
- Reapply for a Land Disturbance Permit and pay the permit fee;

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- Call the City to schedule a site inspection; and
  - Obtain a new Land Disturbance Permit after approval of the corrected work from a Land Disturbance Inspector.

If the property owner chooses to stop work and not renew a permit after it has been revoked, then the site topography and vegetation must be returned to its original condition within the timeframe stated in the Stop Work Order. If the site is not reestablished within the stated time frame, it is considered a direct violation of the City Land Disturbance Code.

Any person violating any provision of the City Land Disturbance Code shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this division is committed, continued, or permitted shall constitute a separate offense.

### **3.5.2 Level II Violations**

Level II Violations are viewed by the City to pose a moderate immediate risk to the health, safety, or welfare of people and/or the environment; however, if not immediately corrected, may pose a serious risk. Remediation for Level II Violations shall commence immediately after the permittee(s) is notified of the violation(s). Example Level II Violations include the following:

- Tracking of material onto roadways and adjacent paved areas;
- Failure to make required plan revisions;
- Failure to perform BMP maintenance as directed by the City Land Disturbance Inspector; and
- Failure to correct Level III Violations per the directives of the Land Disturbance Inspector.

### **3.5.3 Level III Violations**

Level III Violations are viewed by the City to pose a low immediate risk to the health, safety, or welfare of people and/or the environment; however, if not corrected quickly, may pose a more serious risk. Level III Violations shall be corrected within 48 hours of inspection unless otherwise specified in writing by the Land Disturbance Inspector. Example Level III Violations include the following:

- Failure to provide routine maintenance for erosion and sediment controls;
- Installation of non-City-accepted erosion and sediment control BMPs;
- Failure to provide temporary inlet protection within 48 hours of pouring of an inlet;
- Failure to provide inlet protection within 48 hours of placement of asphalt or concrete pavement;
- Staging of equipment outside of the stabilized staging area;
- Failure to have accepted Land Disturbance Permit, SWPPP, and inspection forms on site; and
- Failure to follow schedule of installation of BMPs in SWPPP for interim and final BMPs.

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## 4.0 Revisions

This section is intended to provide a location for any revisions and updates to the information in this Manual that may be made available by the City prior to the complete republishing of the Manual.

Any revisions will be dated and will refer back to the section modified. It is suggested that revisions be kept in chronological order within this section.

<b>Date</b>	<b>Section</b>	<b>Revision</b>



## **Appendix A**

### **Land Disturbance Inspection Form**

# Land Disturbance Manager Inspection Report

**Moberly, MO** City of 

**Level I violations** shall result in issuance of a Stop Work Order and revocation of the Land Disturbance Permit, **Level II violations** shall be corrected immediately upon receipt of this inspection form, and **Level III violations** shall be corrected within 48 hours unless otherwise directed by the City Stormwater Coordinator.

Failure to complete the Level II or Level III violations, as directed below, may result in issuance of a Level I violation and Stop Work Order. This inspection report shall be kept on site and made available to the Stormwater Coordinator upon request until final acceptance is granted.

Project:	Date of Inspection:
Contractor:	Report No:
Owner/Permittee:	Permit No:

Others Present (List title; print and sign name):

- 1.
- 2.
- 3.

Plans on site:

Weekly inspections on site:

Weekly inspections up to date:

# of BMPs currently installed:

BMP Description	Maintenance Required?		Course of Action Required	Date Items to be Completed	Date Completed
	Yes	No			

Comments:

  
  
  
  

Land Disturbance Manager : \_\_\_\_\_

and/or Alternate Land Disturbance Manager : \_\_\_\_\_

*Name* *Signature*