

New Permit & Database Updates for Construction

State Operating Permit MO-0137910





New Permit & EPG Updates for Construction

- New Stacked Permit
 - Section I Transportation Separate Storm Sewer System (TS4) Permit Conditions
 - Regulatory Requirement
 - Stormwater Management Plan
 - Minimum Control Measures (MCMs)
 - MCM 1 MoDOT Community & Public Outreach and Education on Stormwater Impacts
 - MCM 2 MoDOT Community & Public Involvement/Participation Program
 - MCM 3 Illicit Discharge Detection and Elimination
 - MCM 4 Construction Stormwater Runoff Control
 - MCM 5 Post-Construction Stormwater Management in New Development & Redevelopment
 - MCM 6 Pollution Prevention /Good Housekeeping
 - Annual Report
- Break



New Permit & EPG Updates for Construction

- Section II Area Wide Land Disturbance Stormwater Permit Conditions
 - Area-wide Land Disturbance Permit Program;
 - Support Activities & Common Plan Concept
 - Prohibited Discharges;
 - BMP Installation & Maintenance;
 - Track Out;
 - Project Specific SWPPPs;
 - SWPPP Requirements;
 - Site Maps;
 - Site Description;
 - Surface Waters;
 - Description of BMPs;



New Permit & EPG Updates for Construction

- SWPPP Requirements cont.
 - Stabilization of Disturbed areas;
 - Good Housekeeping / Pollution Prevention Measures;
 - Dewatering
 - Amending/Updating the SWPPP;
- Site Inspections
 - Inspection Frequencies;
 - Deficiencies;
 - Inspection Observations;
- Water Quality Criteria;
- Public Notification Sign;
- Copies of the SWPPP;



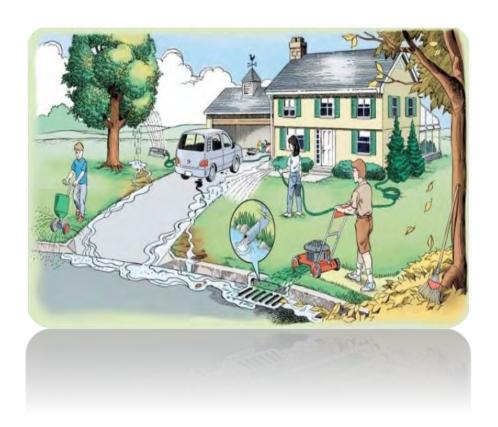
Stormwater Database Changes

- Phase III Changes
 - Stormwater Inspection Frequency Changes;
 - 2-year, 24-Hour Storm Frequency;
 - Inspection Questions;
- Land Disturbance Page;
- Quick Reference Guides;
- Questions about Phase I, II, or III changes?



New Land Disturbance Permit MO-0137910

 Section I - Transportation Separate Storm Sewer Permit (TS4)

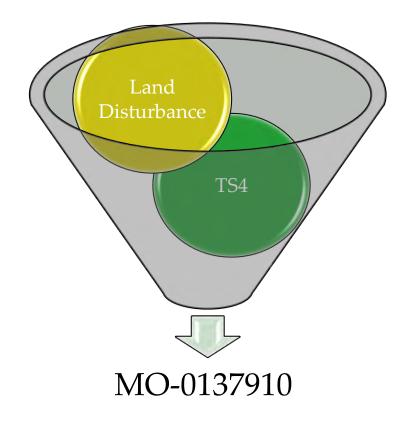


 Section II - Area-Wide Land Disturbance Stormwater Permit Conditions



New Stacked Permit MO-0137910

- Incorporated TS4 and Land Disturbance under one individual permit;
- Saves MoDOT money;
- Allowed customization;
- Helps align National Pollution Discharge Elimination System (NPDES) requirements.



Regulatory Requirement

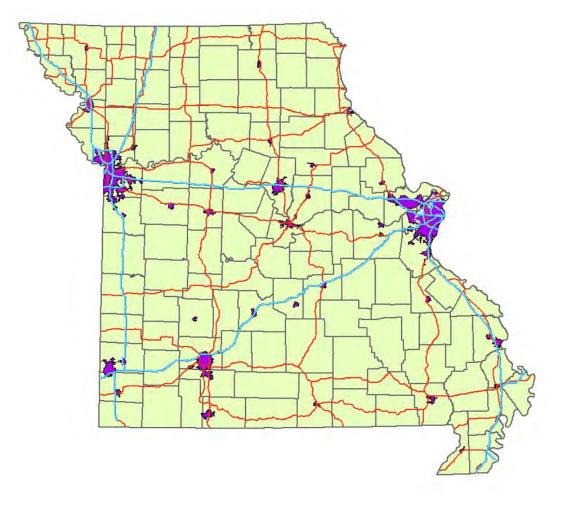
- MS4 –Municipal Separate Storm Sewer System (40 CFR 122.26(b)(8))— a conveyance or a system of conveyances (*Including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains*):
 - Owned or operated by a state, city, town, county, or other public body that discharges into water of the United States.
 - Design or used for collecting or conveying stormwater;
 - Which is not a combined sewer, and;
 - Which is not part of a publicly owned treatment works (POTW)
- TS4 is an MS4 for Transportation Agencies

Regulatory Requirement cont.

- Large, Medium, & Small MS4s
 - Large Urbanized areas with population ≥ 250,000
 - Medium Urbanized areas with population between 100,000 250,000;
 - Small Urbanized areas with population of at least 50,000 or an unurbanized area with population of 10,000 or more and a population density of at least 1,000 people per sq. mile.

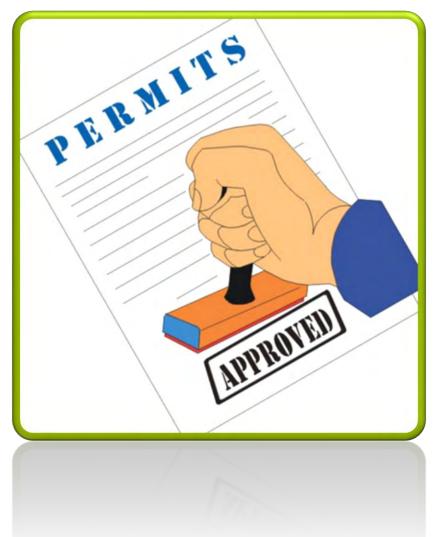


MS4 Communities in Missouri



Regulatory Requirement cont.

- MoDOT's TS4 permit authorizes stormwater discharges located in:
 - Urbanized areas;
 - Regulated MS4s not located in urbanized areas;
 - Watersheds subject to an approved and effective Total Maximum Daily Load (TMDL);
 - Outstanding National Resource Waters;
 - Outstanding State Resource Waters and;
 - Statewide as established for illicit discharges and bridge washing

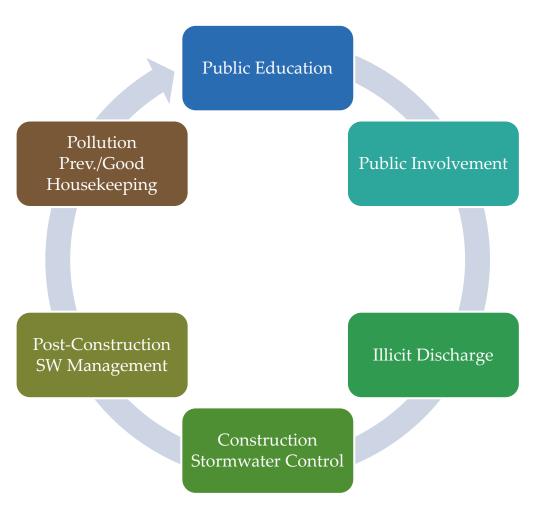


Storm Water Management Program (SWMP)

- Plan for reducing the discharge of pollutants;
 - Must contain Best Management Practices (BMPs) with purpose of reducing stormwater;
 - Must contain measurable goals for each BMP that are quantifiable;
 - Outline a person responsible for the SWMP;
 - Iterative process must be outlined to determine effectiveness of BMPs.
 - Visit <u>www.modot.org/stormwater</u>



Permit Minimum Control Measures (MCMs)



- 6-focus areas
- Programs for each MCM
- Program obligations only apply in areas where TS₄ are applicable (Except for Illicit Discharge

MCM #1 - Public Education and Outreach

- Educate MoDOT community and public on discharge impacts to waterbodies;
- Steps that MoDOT community can take to reduce pollutants;
- Outreach opportunities MoDOT uses:
 - Earth Day
 - State Fair
 - Other education engagements.



MCM #2 - MoDOT Community & Public

Involvement

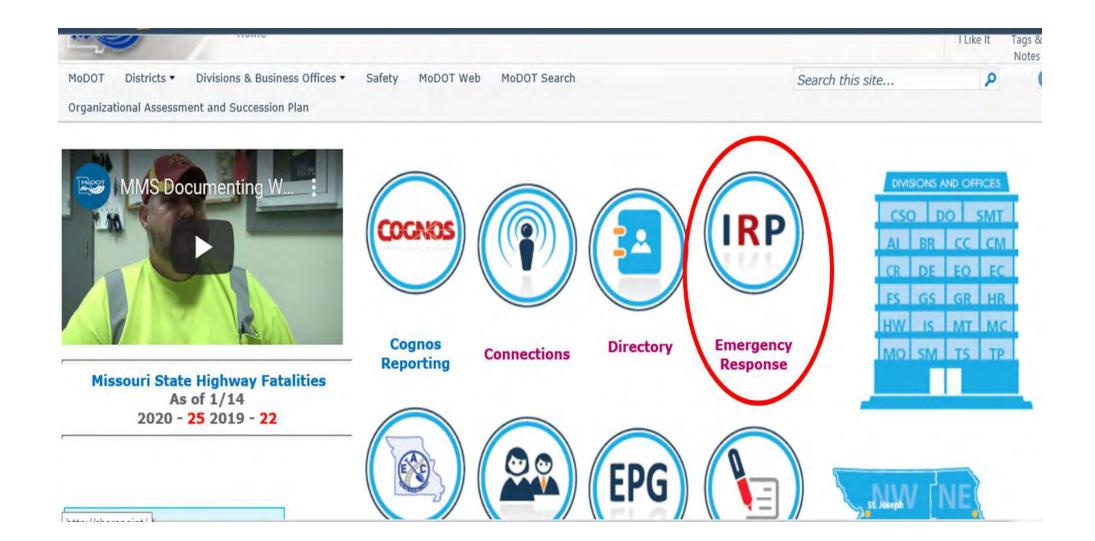
- Involvement in SWMP development;
- Application renewals;
- Public notice periods,
- Provide Plan to target stakeholders;
- Availability for citizen volunteers to assist with right-of-way clean up efforts



MCM #3 - Illicit Discharge Detection & Elimination (IDDE)

- Plan to detect and eliminate illicit discharges into the TS4;
- Map all outfalls that receive discharges from the TS4;
- Standard operating procedure for notification to appropriate agencies;
- Detection schedule;
- Report a stormwater concern form;
- Vehicle accidents are not considered illicit discharges unless spill enters waters of the state.





MoDOT INCIDENT RESPONSE PLAN (IRP)

PRIVACY STATEMENT

Public disclosure of this document would have a reasonable likelihood of threatening public safety by exposing a vulnerability to terrorist attack. Accordingly, the Department of Transportation (MoDOT) is withholding this document from full public disclosure and is treating it as a confidential document. Note that a public agency that receives a confidential public

record from another public agency is requir Director.

FORWARD

CHAPTER 1: Command and Management

CHAPTER 2: Preparedness

CHAPTER 3: Resource Management

CHAPTER 4: Communications and Information

CHAPTER 5: Supporting Technologies

CHAPTER 6: Ongoing Management and Mainte

ANNEXES - SUPPLEMENTAL PLANS

A. Continuity of Operations Plan (COOF

Appendix A - Leadership Succ

Appendix B - Drive-Away Kits

Appendix C - Implementation

Appendix D1 - Critical Functio

Appendix D2 - Supplemental

vere Weather Response Plan

C. Hazardous Materials Response Plan

Padiological Response Plan

E. Terrorism Response Plan

F. Pandemic Influenza Response Plan

ANNEXES - SUPPLEMENTAL PLANS

A. Continuity of Operations Plan (COOP)

Appendix A - Leadership Succession

Appendix B - Drive-Away Kits

Appendix C - Implementation Checklist

Appendix D1 - Critical Function Summary

Appendix D2 - Supplemental Critical Functions for Pandemic Influenza

5. severe Weather Response Plan-

C. Hazardous Materials Response Plan

Padiological Response Pla

E. Terrorism Response Plan

F. Pandemic Influenza Response Plan

Appendix A - Federal Government Response Stages

Appendix B - MoDOT's Pandemic Influenza Communications Plan

Attachment 1 - Detailed guidelines for what triggers a media alert in the event roads are closed due to pandemic influenza

MCM #4 - Construction Stormwater Runoff Control

- Program to reduce pollutants from construction activities oneacre or greater within the TS4 area;
- Program is developed around land disturbance permit requirements;
 - Good housekeeping requirements;
 - Inspection procedures;
 - Plan reviews;
 - Sanctions to insure compliance.
- TS4 program is not any different than what we do for any project.



MCM #5 - Post-Construction Runoff Control

- Applicable to New Development or Redevelopment projects in TS4 area one-acre or grater;
- New Development development where transportation facility previously did not exist. (EPG 127.29)
- Redevelopment non-maintenance work to existing facility which provides an increased through lane of travel. (EPG 127.29)
- Post-construction BMPs must be considered to mimic pre-existing runoff condition in new development



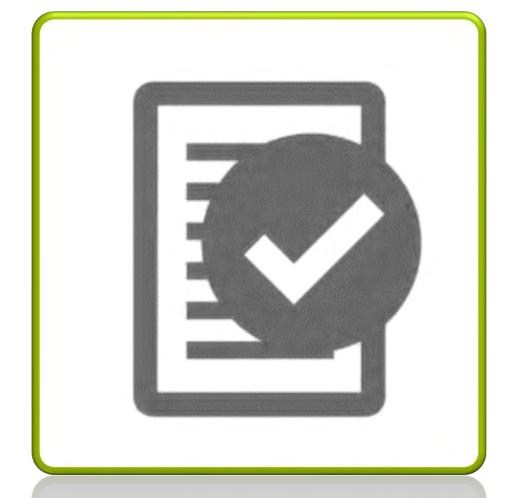
MCM #6 – Pollution Prevention/Good Housekeeping



- Program to address runoff from MoDOT's operations and maintenance areas within the TS4 area.
- Training to reduce or prevent pollution from:
 - Welcome centers, rest areas, & commuter lots;
 - Maintenance buildings;
 - New construction and land disturbance;
 and
 - Bridge washing/cleaning activities
- Inspection frequencies for structural BMP implementation (FRCP)

Annual Report

- Submit no later than February 28;
- Outlines BMPs, quantifiable
 measurable goals, and results of
 compliance effort for the year, and
 consideration for each BMP and
 measurable goal through the iterative
 process to determine effectiveness for
 future use.
- Documentation is key if it is not documented it did not happen.



Questions over TS4??





Break Time

Let's take a break!! Be back in 10 min.



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Section II - Area-Wide Land Disturbance Stormwater

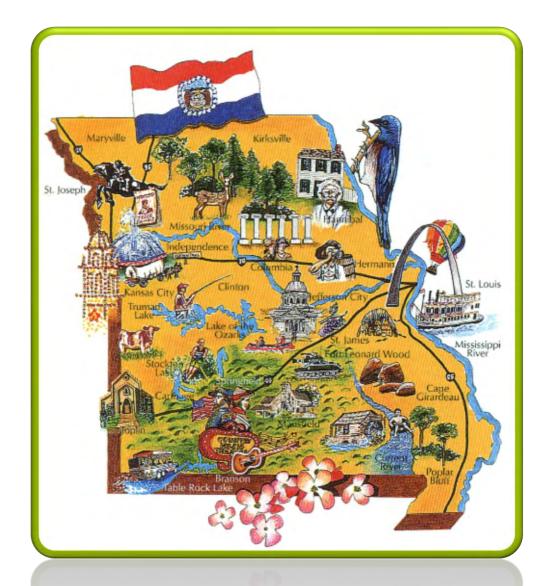
Permit Conditions

Land Disturbance Permit Program

The program is for land disturbance projects performed by MoDOT or land disturbance projects under contract by MoDOT within a permitted site.

Permitted site – areas within the site boundary where work is performed or contracted by MoDOT:

- Area within MoDOT R/W
- Easements and



Support Activities & Common Plan Concept

- Support activities are concrete or asphalt plants, borrow sites, waste disposal sites, staging or equipment areas on or off MoDOT Right-of-Way used to construction the project;
- MoDOT policy contractors to get their own permit when off MoDOT R/W; unless permitted by a commercial operation or an operation that will continue beyond the completion of the project.
- Permit considers off-site support activities common plans with MoDOT permitted site;
- Will place more projects under permit obligation;
- Permits for off-site support activities must be documented in the project specific SWPPP.



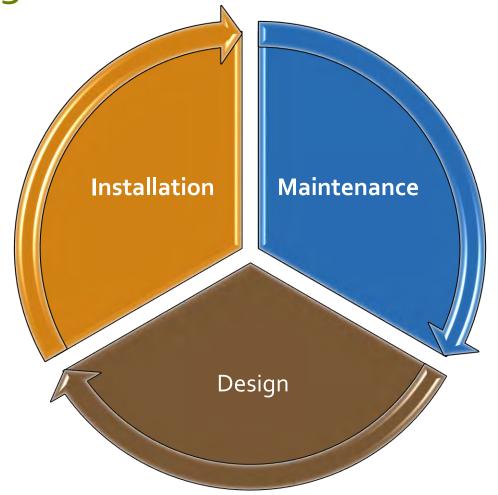
Prohibited Discharges

- Any hazardous material, oil, lubricant, fuels, etc.;
- Soaps or solvents used in vehicle washing;
- Concrete wash or rinse water from concrete mixing equipment (must be captured and shall not discharge to surface or subsurface waters);
- Wash water from clean out of stucco, paint, form release oils, curing compounds etc.;
- Domestic wastewater, including grey water; or
- Industrial stormwater runoff from other than construction.



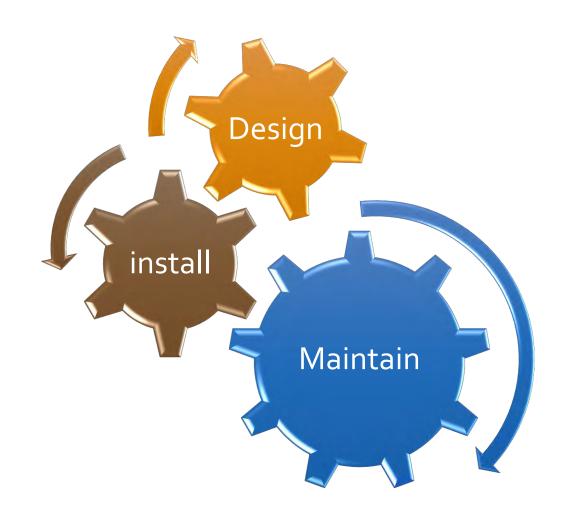
Permit Obligations

- To ensure the design, installation, and maintenance of effective erosion and sediment controls minimize the discharge of pollutants by:
 - Controlling stormwater volume and velocity within the site;
 - Controlling stormwater discharges, including peak flow rates and total stormwater volume, to minimize erosion at outlets
 - Address factors such as amount, frequency, intensity, and duration of precipitation, to minimize sediment discharges from the site



Permit Obligations cont.

- Provide and maintain 50 ft. natural buffers around surface waters or provide BMPs to provide equal protection;
- Direct stormwater to vegetated areas to maximize infiltration and filtering;
- Minimize soil compaction, preserve topsoil; and
- Install sediment controls along any perimeter of the permitted site where stormwater has the potential to leave the site.



BMP Installation and Maintenance

- BMPs shall be installed at the project boundaries where stormwater has the potential to leave the site prior to the start of all phases of construction;
- BMPs shall remain in effective operating condition in disturbed areas during the duration of the project;
- Maintenance of BMPs shall be conducted per the manufacturers specifications or **before** it is 50% full.



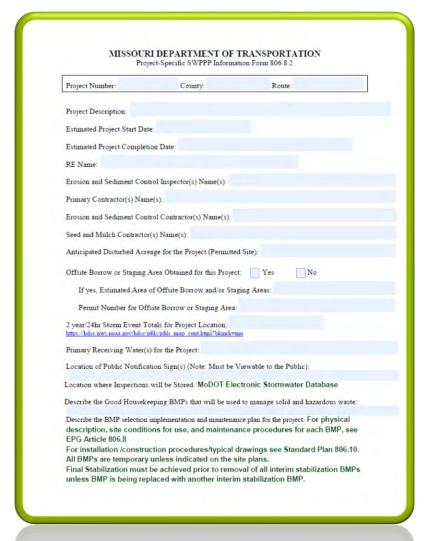
Track-Out

- Vehicle traffic should be restricted to designated exit points;
- Use appropriate stabilization techniques at all exit points onto paved roads (large gravel or commercially available items);
- Sediment tracked out shall be removed within the same business day, or by the end of the next business day if track out occurs on a non-business day.



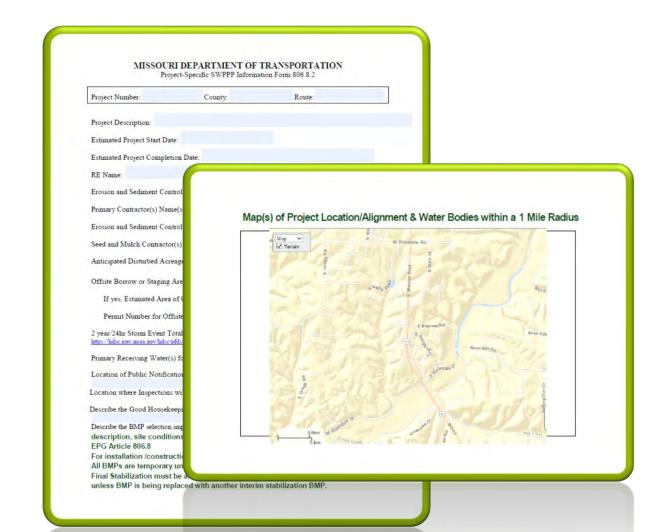
Project Specific SWPPP

- SWPPPs shall be developed specifically for each land disturbance site prior to any land disturbance activities;
- Each SWPPP must:
 - List and describe all points of discharge to receiving water(s);
 - Incorporate good housekeeping requirements;
 - Incorporate erosion control practices;
 - Provide for maintenance;
 - Discuss if additional permit are necessary such as 404 and 401 certifications;
 - Name the person responsible for inspections, operation, and maintenance of BMPs;
 - List subcontractors responsible for erosion & sediment control and of offsite support activities are being used.



SWPPP Requirements

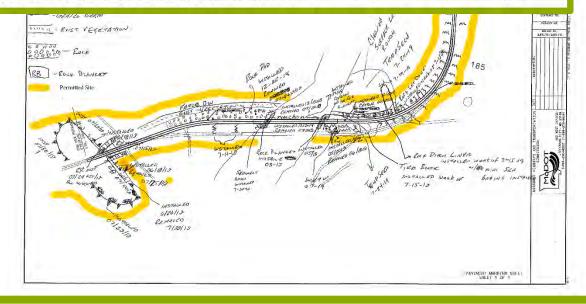
- Nature of the Construction Activity
 - Function of the project;
 - Intended sequence and timing of activities that disturb soil;
 - List sub-contractors responsible for erosion and sediment control at the site,
 - Estimated areas of disturbance (including off site areas);
 - General Map (portion of a city or county map or US geological survey quadrangle map) with enough detail to identify the site location and all waters of the state within one mile of the site.
 - Site maps



Site Maps

- Site maps of each site must contain legible map showing permitted site boundaries, location(s) of public notification signs, and points of discharge to receiving waters as well as:
 - Direction of stormwater flows,
 - Approximate slopes of all phases of construction;
 - Areas of disturbance and nondisturbance,
 - Locations of support activities (waste, borrow, etc.)
 - Location of permanent and temp BMPs
 - Where stabilization is expected to occur;
 - Locations of waters of the state,
 - Locations where stormwater discharges to other MS4s.

- (b) Site Map: The SWPPP of each site must contain a legible site map showing the permitted site boundaries, location of public notification sign(s), and points of discharge to receiving water(s) and identifying:
 - i. Direction(s) of stormwater flow and approximate slopes for all phases of construction activities;
 - ii. Areas of soil disturbance and areas that will not be disturbed (or a statement that all areas of the site will be disturbed unless otherwise noted);
 - iii. Location of permanent and temporary structural and non-structural BMPs identified in the SWPPP;
 - iv. Locations where stabilization practices are expected to occur;
 - v. Locations of material, waste, borrow, or equipment storage areas;
 - vi. Locations of all waters of the state (including wetlands);
 - vii. Locations where stormwater discharges to a water, including any discharges to waters within and at the perimeter of the permitted site;
 - viii. Locations where stormwater discharges to another regulated MS4; and
 - ix. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.



New SWPPP Form

- Located in EPG and on Land Disturbance Page www.modot.org/LD;
- Required information incorporated in the form;
- ALL projects under permit obligation must have this SWPPP form as well as the general location map, copies of typical sections, and erosion & sediment control plans (site maps). These items make up your project specific SWPPP.

Project-Specific SWPPP Information Form 806.8.2 Project Number County Route: Project Description Estimated Project Start Date: Estimated Project Completion Date: RE Name Erosion and Sediment Control Inspector(s) Name(s): Primary Contractor(s) Name(s): Erosion and Sediment Control Contractor(s) Name(s): Seed and Mulch Contractor(s) Name(s) Anticipated Disturbed Acreage for the Project (Permitted Site): Offsite Borrow or Staging Area Obtained for this Project: If yes, Estimated Area of Offsite Borrow and/or Staging Areas: Permit Number for Offsite Borrow or Staging Area: 2 year/24hr Storm Event Totals for Project Location https://hdsc.nws.noaa.gov/hdsc/pfds/pfds map_cont.html?bkmrk=mo Primary Receiving Water(s) for the Project: Location of Public Notification Sign(s) (Note: Must be Viewable to the Public): Location where Inspections will be Stored: MoDOT Electronic Stormwater Database Describe the Good Housekeeping BMPs that will be used to manage solid and hazardous waste: Describe the BMP selection implementation and maintenance plan for the project: For physical description, site conditions for use, and maintenance procedures for each BMP, see FPG Article 806.8

MISSOURI DEPARTMENT OF TRANSPORTATION

Surface Water Buffers

- Old permit 25 feet.
- New Permit is 50 feet undisturbed natural buffer;
- If infeasible, BMPs to equal sediment reduction of 50 ft. natural buffer shall be provided.
- 50 feet buffer not required if 404 permit and 401 water quality certification is obtained.



Description of BMPs

- Permit requires description of both structural and nonstructural BMPs used one or more times at the site; providing:
 - Physical description of the BMP;
 - Site conditions necessary for effective use of BMP;
 - Installation procedures, including typical drawings;
 - Operation and maintenance procedures for BMPs.
- SWPPP shall provide information for each specific instance where BMP is installed

iess Dini is being replaced with and	other interim etabilization RMI	
Project Specific SWPPP Form 806.8.2 (Effective 12/9/2019)		d on this project (Check all that apply): Mulching and Crimping
	Type B Temporary Berm	Temporary Slope Drains
	Interception Ditches	Letdown Structures
	Energy Dissipaters	Temporary Seed and Mulch
	Permanent Seeding and Mulch	
	Erosion Control Blankets	Turf Reinforcement Mats
	Sediment Basins	Sediment Traps
	Rock Ditch checks	Alternate Ditch Checks
	Silt Fence	Rock/Mesh Sediment Control Fence
	Inlet Controls	Type C Berm
	Compost Filter Socks	Compost Filter Berms
	Mulch Berms	Brush Pile Check/Barriers
	Straw Bales (Diamond Grinding	Straw Bales (Diamond Grinding Only)
	Other (Describe below):	

Stabilization of Disturbed Areas

Site maps or maps defining sloped areas for all phases of the project must be included in the SWPPP;

- Steep slopes 3:1 <
 - Establish interim stabilization in 7 days;
- All other locations
 - Initiate interim stabilization within 7 days, complete within 14 days;
- Grading has permanently ceased
 - Final stabilization initiated within 7 days and completed within 14.

Interim stabilization shall consist of wellestablished and maintained BMPs that are reasonably certain to protect waters of the state over a period of time.



Good Housekeeping/Pollution Prevention

- Containers for regular site cleanup and proper disposal of solid waste, scrap building materials, cups, etc.;
- Minimize the exposure of construction materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, etc. to precipitation and stormwater;
- Minimize discharge of pollutants from spills and leaks and implement chemical spill and leak prevention procedures (containment berms, drip pans, etc.)
- Releases of hazardous substances must be reported to DNR.
 - o REs follow Incident Response Plan Annex C Hazardous Materials Response Plan.



Dewatering

- Discharges from dewatering are prohibited unless treated by an appropriate control;
- If water is being moved via pump, regardless of facility, that is dewatering;
- Appropriate controls shall be detailed in the SWPPP;



Site Inspections

Inspection Frequencies

- Inspections only required during project's normal workday;
- 7- Day Inspections
 - Post-runoff inspections within 48 hrs. following event greater than or equal to 2-year, 24-hour storm event.
- 14-Day Inspections
 - Post-runoff events every 24 hours an event produces 1/4 in. of rain or the occurrence of snow melt.
- 30 Day Inspections

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- Only available to projects with temporary stabilization over entire project while other work continues.
- All inspection frequency changes must be documented in your project specific **SWPPP**



Site Inspections

Deficiencies

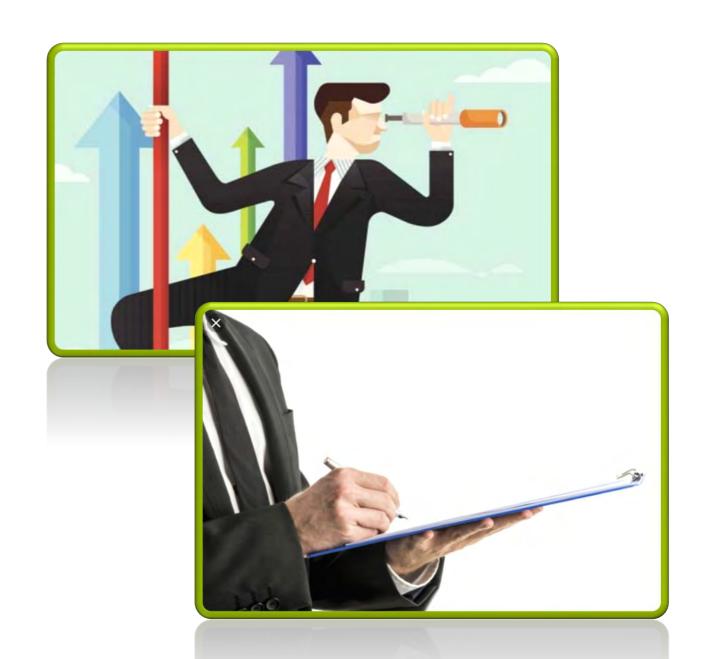
- Structural or Maintenance issues;
- Deficiencies corrected as soon as possible but not later than 7 days from inspection;
- Utilize halt as soon as you know conditions are not favorable for correction;
- New items or items shown in the erosion & sediment control plans are SWPPP amendments or part of the SWPPP and are to be installed as requested;
- New inspection is not required to clear out deficiencies;



Site Inspections

Inspection Observation

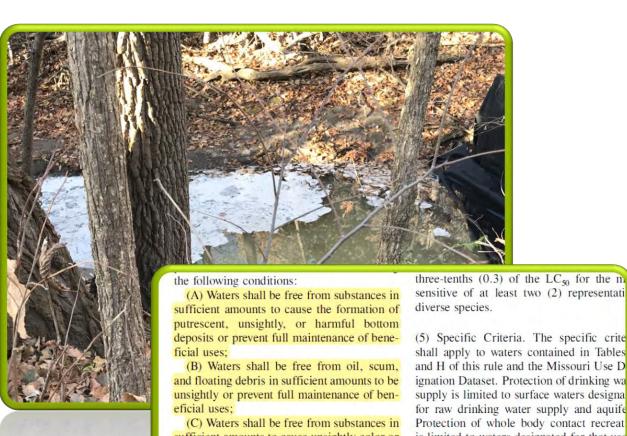
- Inspections are not just to identify deficiencies;
- Observations are required to document the effectiveness of BMPs;
- Should be more than "all BMPs are working effectively;"
- Documents necessary changes to SWPPP.



Water Quality Criteria

10 CSR20-7.031

- 2.5 ml/L no longer applicable;
- Water Quality Criteria and DNR subjectivity will rule;
- Free from oil, scum, unsightly turbidity, that results in toxicity to human and aquatic life.
- Consider this when omitting BMPs;



sensitive of at least two (2) representati diverse species.

- sufficient amounts to cause unsightly color or turbidity, offensive odor, or prevent full maintenance of beneficial uses;
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life. However, acute toxicity criteria may be exceeded by permit in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit in mixing zones;
- (E) Waters shall maintain a level of water quality at their confluences to downstream waters that provides for the attainment and maintenance of the water quality standards of

(1/29/19)

(5) Specific Criteria. The specific crite shall apply to waters contained in Tables and H of this rule and the Missouri Use D ignation Dataset. Protection of drinking wa supply is limited to surface waters designa for raw drinking water supply and aquife Protection of whole body contact recreat is limited to waters designated for that use

(A) The maximum chronic toxicity crite in Tables A1, A2, B2, and B3 shall apply waters designated for the indicated uses give in the Missouri Use Designation Dataset a Tables G and H. All Table A1, A2, B2, B3 criteria are chronic toxicity criter except those specifically identified as ac criteria. Water contaminants shall not car or contribute to concentrations in excess these values. Table A1 values listed as hea advisory levels shall be used in establish discharge permit limits and managem strategies until additional data becomes ava

JOHN R. ASHCROFT Secretary of State

CODE OF STATE REGULATIONS

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Public Notification Sign

- Must be accessible to public;
- If route is closed, place signs at each end of the project;
- Must stay posted until final stabilization is achieved;
- Question is on Inspection, inspectors should verifying during each regularly scheduled inspection.



STORMWATER DISCHARGES FROM THIS LAND DISTURBANCE SITE ARE AUTHORIZED BY THE MISSOURI STATE OPERATING PERMIT NUMBER:

M0-0137910

IF YOU HAVE QUESTIONS OR CONCERNS ABOUT STORMWATER DISCHARGES FROM THIS SITE, PLEASE CONTACT THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AT

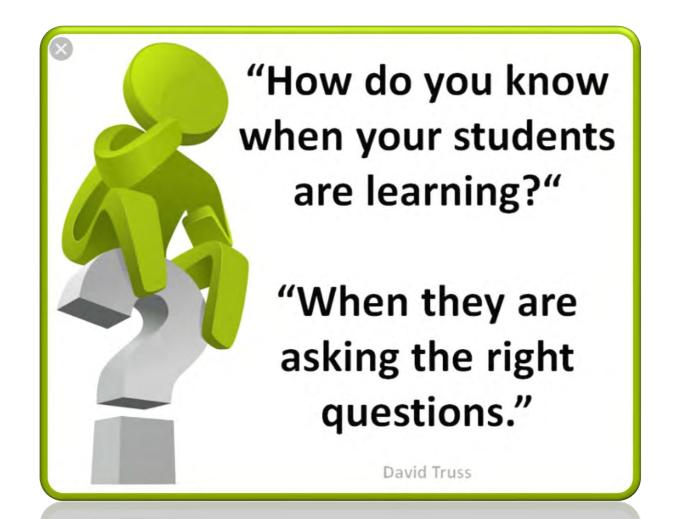
1-800-361-4827

Copies of the SWPPP

- Permittee MoDOT representative;
- Those responsible for BMP installation;
- Those responsible for maintenance of BMPs;
- Shall have CURRENT copy with them when on site.



Questions about the Permit/SWPPP??





Stormwater Database Changes

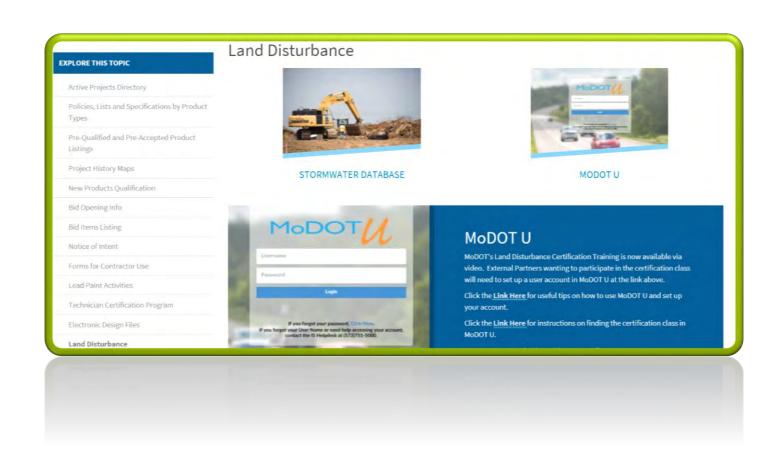




LETS GO LIVE!

Land Disturbance Page

- www.modot.org/LD
- One Stop Shop for Land Disturbance;
- QRG's;
- SWPPP Form;
- Public Notification Sign;
- WPCM List;
- N.O.A.A Atlas 14 (2-year, 24-hour rain amount frequencies)



Questions about Phase I, II, or III Database Changes

