A Stormwater Pollution Prevention Plan (SWPPP) Required for Major Land Disturbance Permits

All applications for Major Land Disturbance Permits shall be accompanied by a Stormwater Pollution Prevention Plan (SWPPP) prepared for the specific site by or under the direction of a Qualified Professional as directed by the County. Only the components and elements of the SWPPP that do not require engineering may be prepared by a Qualified Professional other than a Missouri Licensed Professional Engineer.

The site construction plans shall contain a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the SWPPP, and the applicant shall assume and acknowledge responsibility for compliance with the Code and the approved SWPPP at the site of the permitted activity. The SWPPP assumes St. Louis County land disturbance criteria are applied to the project. If different criteria are proposed, permission from the County must be obtained.

The SWPPP shall clearly state land disturbance criteria to be used. If the SWPPP project crosses municipal boundaries, land disturbance criteria arrangements between boundary authorities need to be stated in the SWPPP. When a County linear road project is located in a municipality(s), in whole or in part, the County land disturbance code shall be followed. A land disturbance permit from the municipality(s) shall not be required. The municipality(s) will be notified of the proposed construction and will be given opportunity to review the plans before the start of construction.

- The contractor / permit holder shall insure that what is shown on the SWPPP matches what is in the field.

- The contractor / permit holder shall insure that utility companies, subcontractors, employees, etc., are aware of and follow all SWPPP requirements.

- The SWPPP shall require existing vegetation and natural buffers around surface waters to be preserved where practical and / or as required.

- The SWPPP shall include BMPs that control volume and velocity of stormwater where practical and / or as required.

- The time period for disturbed areas to be without vegetative cover is to be minimized to the maximum extent practicable.

- Minimize sediment discharge from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity, and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle size expected to be present on the site.

- Minimize soil compaction and unless infeasible, preserve topsoil.

The SWPPP shall include the following information:

1) Name, address and telephone number of the site owner and the name, address and telephone number of the individual(s) who will be in overall responsible charge of construction and development activities at the site. If more than one individual is responsible for the site, identify the areas of the site over which each individual has control. Name of the person(s) responsible for inspection, operation and maintenance of BMPs (with updates). Only persons who are listed on the County's Special Inspector List can be responsible for inspection of BMPs.

2) The SWPPP shall have sufficient information to be of practical use to contractors and site construction workers to guide the installation and maintenance of BMPs. Temporary stabilization is to take place where soil disturbing activities will cease on any portion of the site and are not planned to resume for a period exceeding 14 calendar days.

Temporary stabilization must be initiated immediately upon knowing the duration is more than 14 days. Temporary stabilization must be completed within 7 calendar days. Slopes for disturbed areas must be defined in the SWPPP. A site map or maps, defining the sloped areas for all phases of the project, must be included in the SWPPP.

The types of BMPs used must be suited to the area disturbed, taking into account the number of acres exposed and the steepness of the slopes. If the slope of the area is greater than 3:1 (3 feet horizontal to 1 foot vertical) or if the slope is greater than 3% and greater than 150 feet in length, then the Permitee must establish temporary stabilization within 7 days of ceasing operation on that part of the site. Final stabilization of disturbed areas must be initiated immediately and completed within 7 calendar days whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site. Allowances to the 7-day completion period for temporary and final stabilization may be made due to weather or equipment malfunctions.

The use of allowances shall be documented in the SWPPP. A site map showing the outlines of the total project area, the areas to be disturbed, areas that will not be disturbed, existing land uses, locations of off-site materials, waste, borrow and equipment storage areas, locations and names of surface water bodies the site drains to, areas of final stabilization, locations of flood plains, locations of temporary and permanent Best Management Practices (BMPs), locations of outfalls, location(s) of porta-potties, gas tanks, dumpsters, etc. with updates and location changes and such other information as may be required by the County Department(s) having enforcement

authority and responsibilities.

The Permitee shall ensure the BMPs are properly installed at the locations and relative times specified in the SWPPP. Peripheral or border BMP's to control runoff from disturbed areas shall be installed or marked for preservation before general site clearing is started. Note that this requirement does not apply to earth disturbances related to initial site clearing and entry establishment, exit and access of the site, which may require that stormwater controls be installed immediately after the earth disturbance. Stormwater discharges from disturbed areas which leave the site, shall pass through an appropriate impediment to sediment movement, such as a sedimentation basin, sediment traps, silt fences, etc., prior to leaving the land disturbance site. A drainage course change shall be clearly marked on a site map and described in the SWPPP.

3) Existing contours of the site and adjoining strips of off-site property and proposed contours after completion of the proposed land disturbance and development, based on United States Geological Survey (USGS) datum, with established elevations at buildings, walks, drives, street and roads; and information on necessary clearing and grubbing, removal of existing structures, excavating, filling, materials brought to the site, spreading and compacting. Existing and proposed contours shall be shown at two (2) foot elevation intervals. Cross sections may be utilized in lieu of contours as approved by the Department of Transportation & Public Works.

4) A natural resources map identifying hydraulic A, B, C and D type soils, forest cover, and resources protected under other provisions of St. Louis County Ordinances, and a general map with enough detail to identify the location of the construction site and waters of the United States (including wetlands) within one mile of the site.

5) An estimate of the Runoff Coefficient of the site prior to disturbance and the Runoff Coefficient after the construction addressed in the permit application is completed.

6) Estimated quantity of land to be disturbed.

7) Details of the site drainage pattern both before and after Major Land Disturbance Activities.

8) Stabilized access to the construction site.

9) Include a narrative of the types and appropriate uses of the BMPs to be utilized to control erosion and sedimentation during the period of land disturbance. A table or schedule is to be provided that lists each BMP to be utilized and the quantity of each (the quantity for silt fence, etc. is to be listed in linear footage). Label each BMP in the table as temporary or permanent. List site conditions that must be met before removal of the BMP if the BMP is not a permanent BMP.

10) Identify potential sources of pollution, waste and construction materials expected to be stored on site (with updates) and a description of the BMPs to be utilized to prevent the potential pollutants (construction wastes, toxic or hazardous substances, petroleum products, paints, solids, pesticides, herbicides, site litter, sanitary wastes, etc.) from entering the natural drainage ways and / or waters of the United States during the period of construction and land disturbance.

11) Description of the BMPs that will be installed during land disturbance to control pollutants in storm water discharges that will occur after land disturbance activity has been completed. It is important to understand the relationship between temporary, construction site BMPs and permanent, post construction BMPs, to properly phase work and install BMPs. During construction, strategies shall be implemented to protect post construction BMPs from premature failure or damage.

12) Location of temporary facilities such as stabilized off-street parking, wash-down, and maintenance area for related vehicles, on-site fueling facilities, concrete or asphalt batch plants, and other similar temporary facilities.

13) Sources of off-site borrow material or spoil sites, and all information relative to haul routes, trucks and equipment.

14) The anticipated sequence of construction and Land Disturbance Activities, including installation of BMPs, removal of temporary BMPs, stripping and clearing; rough grading; construction utilities, infrastructure, and buildings; and final grading and landscaping.

Sequencing shall identify the expected date(s) on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation. Record dates of major grading activities, construction temporarily or permanently ceased, and stabilization measures initiated.

15) All erosion and sediment control measures necessary to meet the objectives of the ordinance and / or Code throughout all phases of construction and after completion of site development. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.

16) Seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.

17) Provisions for maintenance of control facilities, including easements.

18) Plans for responding to any loss of contained sediment or other pollutant to include the immediate actions the permit-holder will take in case of a containment failure. This plan must include documentation of actions and mandatory reporting to the St. Louis County Department of Transportation & Public Works.

19) Schedules and procedures for routine inspections of any structures provided to prevent pollution of stormwater or to remove pollutants from stormwater and of the site in general to ensure all BMPs are continually implemented and are effective.

20) Add note: Locate State and County Land Disturbance Permits, BMP inspection reports, etc. with the SWPPP.

21) Discuss whether or not 404/401 Permits are required for the project.

22) Discuss whether sinkholes, springs, seeps or karst features are on the construction site or not.

23) Discuss how the BMP Special Inspector will be notified when stormwater runoff occurs on the construction site.

24) Location / description of industrial activities like temporary, on site, concrete or asphalt batch plants. Add a note to the SWPPP discussing industrial activities if they are proposed or not.

25) Include and discuss endangered species and historic properties documentation in the SWPPP.

26) Identify any non-stormwater discharges in your SWPPP. You should make every effort to eliminate these discharges where possible. You should identify these sources in your SWPPP and identify pollution prevention measures to ensure that pollutants are not introduced to these discharges and carried to nearby water bodies. Add a note to the SWPPP discussing non-storm water discharges if they are proposed or not.

27) Include a description of any anticipated dewatering methods, including the anticipated volume of water to be discharged and the anticipated maximum flow discharged from these dewatering activities, expressed in gallons per minute.

Maximum flow may be stated in the SWPPP as an estimate based on the type and capacity of the equipment being used for dewatering. The SWPPP shall call for specific BMPs designed to treat water pumped from trenches and excavations and in no case shall this water be pumped off site without being treated by the specified BMPs.

When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls. Add a note to the SWPPP discussing dewatering if it is proposed or not.

28) Signed and dated certification statement that the SWPPP was prepared in accordance with the requirements and regulations of the County and the Missouri Department of Natural Resources (as follows):

SWPPP Certification

I certify under penalty of law that this Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements and regulations of St. Louis County and the Missouri Department of Natural Resources. To the best of my knowledge and belief, the information contained in this plan is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Signature:_____ Date: _____