

SECTION 01412
STORM WATER POLLUTION PREVENTION PLAN LEGACY LAKE DREDGING
Contract No.

PART 1 - GENERAL

1.1 SECTION INCLUDES:

- A. Requirements for compliance with the Project's Stormwater Pollution Prevention Plan (SWPPP) and its revisions, Laws and Regulations, and permit(s) applicable to the Project, including:
 - 1. Contractor's general responsibilities for stormwater discharges associated with construction activity.
 - 2. SWPPP Revisions.
 - 3. Inspection, during construction, stormwater controls and temporary erosion and sediment controls, and associated repair and maintenance.

1.2 SCOPE:

- A. Contractor shall provide all labor, materials, tools, equipment, services, and incidentals necessary and required to fulfill Contractor's responsibilities under this Section, including complying with the applicable NPDES general permit for stormwater discharges associated with construction activity ("stormwater permit") administered by the DNR for the Project. Contractor shall fulfill responsibilities for compliance with all other applicable SWPPP and erosion control provisions, including state and local regulations.
- B. General Responsibilities
 - 1. Submitting NOI
 - 2. Preparing SWPPP Revisions and other documents that are Contractor's responsibility, in accordance with this Section.
 - 3. Installing and maintaining structural and non-structural items used in complying with the SWPPP and its revisions.
 - 4. Other administrative Work required by this Section.
 - 5. Clean-up, disposal, and repairs following precipitation events or spills caused by Contractor.
 - 6. Implementing and maintaining "best management practices", as defined in applicable permits and Laws or Regulations, to comply with requirements that govern storm water discharges at the Site.
 - 7. Complying with other requirements of this Section

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.1 SITE DESCRIPTION – (NPDES GP2 PART IV.D.1.A-C.)

- A. This project consists of hydraulic dredging within Legacy Lake to maintain lake's capacity for irrigation and fire protection needs. The sediment slurry will be routed towards a sediment disposal area to the northeast of the lake where it will be disposed and stored in areas that will be surrounded by earthen berms for the sediments to settle. The discharge from the temporary storage areas will drain towards an existing drainage way that outlets at Legacy Lake. Construction work includes dredging and grading. All exposed areas are to be restored, and vegetation re-established upon completion of the project.
- B. Total site area = 145 acres
Total approximate disturbed area = 14 acres

- C. Proposed drainage patterns will match existing drainage patterns to the extent practicable. Existing land use will be restored upon completion of the project with no change to impervious surface.

3.2 SITE PLAN/MAP – (NPDES GP2 PART IV.D.1.D.)

- A. Refer to E-sheets of the project plans for site characteristics and erosion control measures.
- B. SITE MAP Refer to C-sheets.

3.3 RECEIVING WATERS – (NPDES GP2 PART IV.D.1.E)

- A. Legacy Lake is the receiving water.

3.4 CONTROLS – (NPDES GP2 PART IV.D.2.A-D)

- A. Stabilization Practices:
 - 1. Permanent seeding and mulching shall be installed over all site areas within the permanent seeding dates.
 - 2. Temporary stockpiles or other areas with exposed soil where earth disturbing activities have permanently ceased or temporarily ceased and will not resume for a period exceeding 14 calendar days shall be stabilized with permanent or temporary seed immediately.
- B. Structural Practices:
 - 1. Silt fence and/or 12” dia. filter sock is to be installed at the base of slopes, perimeter of stockpiles, and at the back of sidewalks at the edge of the construction limits.
 - 2. Stabilized construction entrances are to be installed where the contractor wishes to enter/exit street right-of-way. If a stabilized construction entrance does not provide adequate removal of mud from vehicles, vehicle tires shall be washed prior to entering paved roads. Wash water shall be disposed of to allow sediment to settle and be removed.
 - 3. Flotation silt curtains consisting of heavy-duty filter fabric shall be installed within a pond or lake to prevent the migration of suspended sediment within a water body.
 - 4. Wattles and check dams shall be installed to reduce velocities on a slope or drainage way.
- C. Topsoil Protection:
 - 1. Contractor shall use stabilized construction entrances for ingress/egress of project areas to minimize topsoil compaction.
 - 2. Contractor shall minimize disturbance to areas of the site which are subject to concentrated stormwater flows until contractor is prepared to expeditiously complete grading and stabilize those areas.
 - 3. Contractor shall utilize earthen dikes or other means to manage the impacts of off-site runoff moving through the site.
- D. Storm Water Management:
 - 1. This project consists of storing dredged material to allow for settling to occur and restoring the storage areas to existing conditions. As such, the pollutants in the stormwater discharge after construction activities have been completed will match existing drainage patterns.
- E. Effluent Management:
 - 1. Effluent testing, monitoring, and reporting shall comply with Part III Table A of MO-G690000 Permit.

PART III. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

TABLE A		FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
THE FACILITY IS AUTHORIZED TO DISCHARGE FROM OUTFALL(S) WITH SIC CODE(S) AS SPECIFIED IN THE APPLICATION FOR THIS PERMIT. THESE FINAL EFFLUENT LIMITATIONS SHALL BE EFFECTIVE AT ISSUANCE OF THE MASTER GENERAL PERMIT. SUCH DISCHARGES SHALL BE CONTROLLED, LIMITED, AND MONITORED BY THE FACILITY AS SPECIFIED BELOW:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
RETURN WATER AND/OR PROCESS WASTEWATER DISCHARGE (SEE NOTE 1 AND NOTE 2) LIMIT SET: DW						
FLOW	MGD	*		*	ONCE/WEEK	24 HR. ESTIMATE
SETTLABLE SOLIDS	ML/L/HR	1.5		1.0	ONCE/WEEK	GRAB
pH**	SU	6.5 – 9.0		6.5 – 9.0	ONCE/WEEK	GRAB
OIL AND GREASE	MG/L	15		10	ONCE/WEEK	GRAB
TOTAL SUSPENDED SOLIDS	MG/L	*		*	ONCE/WEEK	GRAB
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT’S eDMR SYSTEM. SHOULD A WAIVER TO eDMR BE GRANTED BY THE DEPARTMENT, PAPER REPORTS SHALL BE SUBMITTED IN A TIMELY MANNER TO THE APPROPRIATE REGIONAL OFFICE. THE FIRST REPORT IS DUE <u>MONTH 28, YEAR</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring requirement only.

** pH is measured in standard units and is not to be averaged.

Note 1: Samples shall be collected at least once per week and tested for the parameters listed in Table A. Report as no discharge (using the permissive value of "C") if a discharge does not occur or enter the value "AB" for operational shutdown if the facility is seasonally not in operation.

Note 2: The monitoring requirements in Table A apply to land-based discharges at deposition sites only.

- Equipment – The Contractor shall provide a certification, attesting to the accuracy of his testing equipment and procedure. The Contractor shall also provide a duplicate of the standard used to calibrate his testing instrument as well as a complete set of operation instructions for the testing equipment. This standard shall be used throughout the project to maintain the calibration of the equipment.
- Testing – Contractor and Engineer are to agree on testing location prior to start of dredging. Whenever there is doubt as to the adequacy of the testing or validity of the results, additional tests might be required at no additional cost to the Owner.
- Monitoring Reports – Provide monitoring reports. The reports shall document the time and date the sample was taken, depth of water body, depth of sample, weather conditions, tide stage and direction of flow, dredge or disposal location, water sample location, wind direction and velocity.
- Notifications – If effluent exceeds parameters noted in Table A at any point source discharge, the Contract shall immediately notify the Owner. In addition, all dredging or disposal activities shall cease immediately and all measures to reduce parameters shall be taken. Dredging or disposal shall not resume until corrective measures have been taken and parameters have returned to acceptable levels.
- Work Delay – Delays due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable.

F. Other Controls:

- Waste Disposal – The contractor shall be responsible for disposal of any construction waste generated from construction activities. The use of solid waste dumpsters may be implemented for proper disposal of waste material.
- Street sweeping/cleaning – The contractor shall be responsible to remove any excess materials from street pavements generated from the construction activities outlined in the plans.
- Dust control – The contractor shall implement the use of dust control in the event the project areas become dry and the typical construction activities are generating dust.
- Sanitary facilities – The contractor shall provide portable sanitary facilities as needed on the project sites to ensure proper disposal of sanitary waste.

5. Confine construction activities to the project limits and staging areas. Ensure that any sediment or waste from the staging area is confined to the staging area. Ensure that storage containers are regularly inspected for leaks, corrosion, support or foundation failure, or any other signs of deterioration. Contractor to train employees and subcontractors in proper handling and storage practices.
6. Refer to the Missouri DNR's Environmental Emergency Response Plan for procedures regarding spill prevention and containment.
 - a. Spill Hotline (24/7): 573-364-2436
7. Perform on site fueling and maintenance in accordance with all environmental laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Vehicle/equipment service areas to be designated away from drainage facilities.
8. Potential allowable non-storm water discharges that may result from this project include, but are not limited to:
 - a. Landscape irrigation;
 - b. Waters used to wash vehicles and equipment;
 - c. Water used to control dust;
 - d. Pavement wash waters;
 - e. Construction dewatering water.
9. Ensure that any non-storm water discharges are not routed to areas of exposed soil on site and comply with any applicable NPDES requirements and requirements of this SWPPP.

3.5 MAINTENANCE – (NPDES GP2 PART IV.D.3)

- A. The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the measures have lost 50% of their capacity.

3.6 INSPECTIONS – (NPDES GP2 PART IV.D.4)

- A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days and within 24 hours of a 0.5 inch rainfall event.
- B. Review erosion and sediment control measures within the disturbed areas for the effectiveness in preventing impacts to receiving waters. Identify corrective actions required to maintain or modify erosion and sediment control measures.
- C. Utilize stormwater inspection report for site inspections.
- D. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection.
- E. Update the SWPPP whenever there is a change in design, construction, operation or maintenance which has a significant effect on the discharge of pollutants from the project site.
- F. Weekly SWPPP reports will include:
 1. Date of the inspection;
 2. Summary of the inspection;
 3. Name and qualifications of the personnel making the inspection;
 4. Major observations related to the implementation of the SWPPP;
 5. Any required corrective actions.

3.7 RECORD KEEPING

- A. Description of where the Notice of Intent (NOI), (NPDES GP2 Part V), and the required contents to attain the NOI, the SWPPP documents, and weekly inspection reports are to be located on the project site for at least three years after submittal of the Notice of Discontinuation (NOD). LOCATION TO BE DETERMINED BY CONTRACTOR.

3.8 CERTIFICATIONS AND NOTIFICATIONS – (NPDES GP2 PART IV.7)

- A. The owner, contractor(s) and/or subcontractor(s) who are responsible for the permit requirements, the implementation of erosion and sediment control practices, execution of land disturbance activity, and/or generating onsite runoff activity shall identify each measure they are to be responsible for implementing on a signed certification statement.

END OF SECTION

STORM WATER INSPECTION REPORT

Owner: _____
Site: _____
Project: _____
Contractor: _____

Date of Inspection: _____
Day of Week: S M T W T F S
Sheet No. _____ of _____ sheets

If pertinent to the Operation	
Weather:	
Temperature:	

This inspection and maintenance form is to be used when the Work is subject to a Storm Water General Permit for Construction Activity. Inspections shall be performed not less than once every seven calendar days; for sites that are stabilized and temporarily shut down inspections may be reduced to once per month. Each erosion and sediment control measure installed on the Site is to be inspected and the Contractor must complete all required maintenance within two calendar days from the date of inspection.

Reason for this inspection:

- ☐ Pre-construction Site assessment
- ☐ Seven calendar day inspection
- ☐ Monthly inspection (when Site is stabilized and shut down)
- ☐ Post-construction inspection prior to Notice of Termination

Key for erosion and sediment control measures to be inspected: [Use the following designations in the table below] (1) mulch, (2) seed and mulch, (3) check dams, (4) hay bale/straw bales, (5) silt fence, (6) sediment trap, (7) turbidity curtains, (8) pipe slope drains, (9) drainage structure inlet protection, (10) rolled erosion control products, (11) soil stabilizers, (12) construction entrances, (13) pipe inlet/outlet protection, (14) water diversion structures, (15) sedimentation basins, (16) cofferdams, (17) Other_____.

ID	Location	Disturbance		Measure		Remarks (Evaluate integrity of measure, describe evidence of erosion)	Approximate Sediment Accumulation (% of Depth)	Maintenance Required? (Y or N) (If Yes, Describe Below)
		Existing? (Y or N)	Next 14 Days? (Y or N)	Code #	Temp or Perm? (T, P or NA)			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

ID	Location	Disturbance		Measure		Remarks (Evaluate integrity of measure, describe evidence of erosion)	Approximate Sediment Accumulation (% of Depth)	Maintenance Required? (Y or N) (If Yes, Describe Below)
		Existing? (Y or N)	Next 14 Days? (Y or N)	Code #	Temp or Perm? (T, P or NA)			
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

DESCRIPTION OF REQUIRED MAINTENANCE AND ANY EXISTING DEFICIENCIES IN THE SWPPP:
Specify for each location using row ID number from the table above.

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein may be punishable by Law.

Signature _____	Prepared _____	Copy to Contractor _____
Resident Project Representative	(Date)	(Date)
Qualified Professional Name _____		
(w/Firm Name, if Consultant)		

STORM WATER PERMIT CERTIFICATION STATEMENT

Contract Number: _____

Project: _____

Owner _____

Each Contractor and Subcontractor identified in the Storm Water Pollution Prevention Plan (SWPPP) must certify that they understand the permit conditions and their responsibilities. Every Contractor and Subcontractor performing an activity that involves soil disturbance shall sign this certification and submit it to the Engineer prior to performing the Work. This certification shall be signed by an owner, principal, president, secretary, or treasurer of the firm.

I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction Site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that my firm and its employees and Subcontractors shall comply with the terms and conditions of Owner's general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards, Laws, or Regulations.

Firm: _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Name (Print): _____ **Signature:** _____ **Date:** _____

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REVISION

Owner: _____

Date of Inspection: _____

Site: _____

Sheet No. _____ of _____ sheets

Project: _____

Contractor: _____

This form shall be used when revisions to the current Storm Water Pollution Prevention Plan (SWPPP) are required by the Storm Water General Permit for Construction Activity or the Contract Documents.

Reason for the Revision(s): Revisions were requested by State: ☐ Yes ☐ No

Describe the Revision(s) to the SWPPP:

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein may be punishable by Law.

Signature: _____

Prepared: _____
(Date)

Submitted: _____
(Date)

Copy to: ☐ Engineer ☐ Contractor: _____