

South Carolina Department of Transportation
Engineering Directive Memorandum

Number: 30

Primary Department: Construction

Referrals: None

Subject: Borrow Pit Location and Monitoring

Background

Highway and bridge projects often require borrow materials (soils) to be brought to the project site by the contractor for the construction of roadway embankments. It is the contractor's responsibility to provide the borrow materials that are required for the project. These borrow materials may be acquired from appropriately permitted, commercially operated borrow pits or from borrow pits located and established by the contractor with appropriate permits. In order to avoid or minimize the impacts of borrow pits on wetlands, the procedures outlined below shall be followed.

Definition

The term "project manager," as used in this memorandum, refers to the person that is directly responsible for the development of a project.

During Preconstruction/Project Development

1. Projects located east of I-95 that may require borrow pits shall be screened to determine if sufficient high ground (non-wetland) exists from which soils for the project may be obtained. The projects meeting the criteria below shall be screened:
 - a. Road improvement, widening, or new location roadway projects with an estimated construction cost greater than \$5 million dollars; and
 - b. New bridge or bridge replacement projects on new location with an estimated construction cost of greater than \$10 million dollars.
2. Projects that do not require screening are as follows:
 - a. Projects with an estimated construction cost less than stated above,
 - b. Projects located west of I-95, and
 - c. Any project for which it is immediately clear that roadway fill is not required. An example of such a project is the repainting of an existing bridge.

3. For projects requiring screening, it will be the project manager's responsibility to have the screening accomplished. For projects to be designed by a consultant, this work should be included in the consultant's scope of services. For projects to be designed with in-house staff, the project manager should coordinate with the SCDOT environmental manager to have this work accomplished.
4. The area within one mile of the project, in any direction, shall be screened. The screening process shall include a review of National Wetlands Inventory maps, USGS topographic mapping, current aerial photography, and development. If the review of these resources is not sufficient to make a determination, a field review shall be conducted.
5. If the screening and/or field review indicates there is sufficient high ground in the area from which borrow materials may be obtained, the project manager shall request that the following special provision be included in the contract proposal:

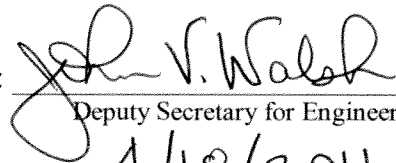
"Borrow Pit Location – Borrow material for this project shall not be obtained from wetlands, streams or rivers."

6. If the screening and/or field review indicates there is not sufficient high ground in the screened area from which borrow materials may be obtained and there are wetlands in the screened area, the project manager shall contact the SCDOT Environmental Management Office and request a review of the wetlands with Ocean and Coastal Resource Management (OCRM)/South Carolina Department of Health and Environmental Control (DHEC) and the United States Army Corps of Engineers (USACE). The Environmental Management Office will arrange a meeting with the appropriate office of OCRM/DHEC and USACE. The purpose of the review with OCRM/DHEC and USACE is to determine if, based on the quality of the wetlands, borrow pit construction should be restricted from any wetland areas within the screened area. Any restrictions on the location of borrow pits resulting from the review with OCRM/DHEC and USACE shall be included in the special provisions.
7. Contractors who use a wetland area for borrow materials must obtain all necessary permits and provide SCDOT with a copy of the permit prior to removal of borrow material. Mitigation of the impacted wetland area may be required.
8. For all projects with an estimated construction and right-of-way cost of \$30 million or greater, the special provision entitled "Special Provision for Borrow Pits on Large Projects" (copy attached) shall be included in the contract proposal. This special provision requires additional coordination efforts by the contractor with regard to the identification of wetlands for borrow pit location.

During Construction

1. The resident construction engineer (RCE) shall request and receive from the contractor a copy of all required permits and documentation prior to allowing any material from the borrow pit to be brought on to the project. (See attached flow chart for permitting.)
2. The RCE, or his/her representative, and the contractor will perform inspections of all non-commercially operated borrow pits in accordance with the National Pollutant Discharge Elimination System (NPDES), the Pollution Control Act, and the South Carolina Stormwater and Sediment Reduction Act. Reports of these inspections will be made and maintained separately from the construction project reports.
3. Contractors not complying with the permit requirements (such as failure to submit Notice of Intent, develop erosion control plan, properly install and maintain best management practices, and perform inspection as required) will be prohibited from hauling borrow material to the construction project from any site that is not in compliance. If the corrections are not made in a timely manner, the entire construction project will be shut down and the situation reported to DHEC.
4. When the borrow pit is no longer needed for the purpose of providing borrow material for the project, the contractor will reclaim the borrow pit area in accordance with the Standard Plan for the Reclamation of Excavated Areas Adopted by the South Carolina Department of Transportation (revised February 2009 – see attached copy).

Approved by:


Deputy Secretary for Engineering

Effective Date:

4/18/2011

Bureau of Water SC Department of Transportation Construction Projects

Legend

DHEC-The SC Department of Health & Environmental Control
 NOI-Notice of Intent
 NOT-Notice of Termination
 NPDES-National Pollutant Discharge Elimination System
 OCRM-DHEC's Office of Ocean and Coastal Resource Management
 SWPPP-Storm Water Pollution Prevention Plan

START

Project is regulated under SC Regulation 72-405 & NPDES Permit Program, SC Regulation 61-9.

 A SWPPP complying with SC Regulation 72-405 and NPDES requirements is submitted to the Bureau of Water

RCE must see the borrow pit's copy of the State Mining Act coverage & their NPDES Mining Permit.

Does SCDOT project have a borrow pit?

No

Yes

Is borrow material used solely for SCDOT projects?

No

Yes

Is project disturbing **1 acre or more anywhere in the state outside of the permitted area of the borrow pit** or is project **located within 1/2 mile of a receiving waterbody in one of the eight coastal counties and disturbing 1/2 acre or more outside of the permitted area of the borrow pit?** (This does not include the removal of the overburden and construction of 1 haul road)

No

Yes

Permits Required

- NPDES Construction (SCR100000)**
 - Coverage is granted based on the submittal of the SWPPP, a NPDES NOI, OCRM's Coastal Zone Consistency Certification (applicable to projects in the coastal area), & the NPDES fee of \$125 to the Bureau of Water. On a case-by-case basis, the Bureau of Water may elect to review the SWPPP before granting coverage. If the Bureau of Water reviews the SWPPP, a review fee of \$100 per disturbed acre, not to exceed \$2000, must also be paid. A coverage letter will be sent by the Bureau of Water.
 - Submit NOI when construction portion of the project has been finally stabilized.
- NPDES Mining Permit (SCG730000)**
 - Submit NOI and first year's annual operating fee of \$100 to the Bureau of Water. Construction SWPPP must be prepared before the NOI is submitted, but the SWPPP is not submitted unless specifically required by the Bureau of Water.
 - Monthly sampling of any pumped groundwater is required, but only annual reporting.
 - NPDES coverage under the industrial general permit (SCR000000) is not required since SCG730000 includes the industrial requirements.
 - Submit a letter requesting termination of the permit coverage to the Bureau of Water when mining activity has ceased & the mine has been properly reclaimed. DHEC will bill SCDOT annually for the \$100 fee until the reclamation is confirmed.
- Groundwater Capacity Use Registration** If 3 million gallons or more are pumped in any one month and the borrow pit is in one of the eight coastal counties or the Brittons Neck area of Marion County.
- Wetlands Issues**
 - If "jurisdictional" wetlands will be affected, a Corps of Engineers permit may be required. Before the Corps permit can be issued, the Bureau of Water must issue a 401 Certification (see Wetlands callout).
 - If "non-jurisdictional" wetlands will be affected, the migration of the wetlands will be addressed through either or both of the SCR100000 and SCG730000 permits.

Permits Required

- NPDES Mining Permit (SCG730000)**
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 - Monthly sampling of any pumped groundwater is required, but only annual reporting.
 - NPDES coverage under the industrial general permit (SCR000000) is not required since SCG730000 includes the industrial requirements.
 - Submit a letter requesting termination of the permit coverage to the Bureau of Water when mining activity has ceased & the mine has been properly reclaimed. DHEC will bill SCDOT annually for the \$100 fee until reclamation is confirmed.
- Groundwater Capacity Use Registration** - If 3 million gallons or more of groundwater are pumped in any one month and the borrow pit is in one of the eight coastal counties or the Brittons Neck area of Marion County.
- Wetlands Issues**
 - If "jurisdictional" wetlands will be affected, a Corps of Engineers permit may be required. Before the Corps permit can be issued, DHEC must issue a 401 Certification (see Wetlands callout).
 - If "non-jurisdictional" wetlands will be affected, the mitigation of the wetlands will be addressed through the SCG730000 permit or the SWPPP submitted under R72-405.

DHEC's Bureau of Land and Waste Management may inspect any mining operation, even if it is exempt.

COASTAL ZONE MANAGEMENT PLAN

For coastal projects, the Bureau of Water must receive a coastal zone management plan consistency certification from OCRM prior to permit issuance. It is recommended that SCDOT coordinate directly with OCRM on this matter on the front end of each project.

Wetlands
 For coastal projects, if a "Critical Area" permit is required from OCRM, the Bureau of Water provides the 401 Certification conditions to OCRM for inclusion in the Critical Area permit rather than issuing a 401 Certification.

In addition to permits issued by the Bureau of Water, the borrow pit must be permitted by DHEC's Mining Division in the Bureau of Land & Waste Management & must also get coverage under the federal NPDES Mining Permit # SCG730000

Special Provision for Borrow Pits on Large Projects

Permitting of Borrow Pits

Prior to using borrow material from commercial or other borrow pits located wholly or in part in wetland areas, the contractor shall submit written evidence that operations to obtain fill material from the borrow pit(s) have received all appropriate and necessary authorizations from federal, state, and/or local authorities.

Permitted Borrow Pits

If the appropriate federal, state, and local authorities have issued permits, the contractor shall provide to SCDOT copies of all permits issued for such borrow pit sites.

Borrow Pits Without Section 404 Permit

For borrow pit sites for which a Section 404 permit under the Clean Water Act has not been issued, the contractor shall provide SCDOT with copies of documentation provided by the contractor or its subcontractor(s) to the U.S. Army Corps of Engineers, which shall, at a minimum, clearly define the location of the borrow pits and any wetlands on the borrow pit site; describe the proposed activities and processes that will be used to prepare the site, obtain fill material from the site, and store material at the site; and request the U.S. Army Corps of Engineers to confirm in writing that no Section 404 permit is required for those operations. No operations shall take place at the borrow sites for at least thirty days from the date of the submission of confirmation request to the U.S. Army Corps of Engineers. The contractor shall also provide copies to SCDOT of any response(s) provided by the U.S. Army Corps of Engineers to its documentation.

Responsibility

SCDOT has no obligation or duty to review, assess, evaluate, or act upon such documentation and maintains no authority or responsibility to alter, amend, reject, accept, or otherwise exercise any control over the contractor or subcontractor regarding compliance with Clean Water Act Section 404 and the implementing regulations for Section 404. Documentation submitted to SCDOT is for public information and coordination purposes only. The contractor is responsible for all costs related to the selection, operation, and/or activities at any borrow pit site in wetlands including fines, additional mitigation, and impact delays related to failure to obtain any and all necessary federal, state, and local permits and approvals for borrow pits and operations. Nothing herein shall affect in any way SCDOT's right to accept or reject any fill material not meeting the required technical specifications.

SUPPLEMENTAL SPECIFICATION

February 2009

THE SOUTH CAROLINA MINING ACT

The South Carolina Mining Act enacted by the General Assembly in 1973 requires that the Department adopt reclamation standards to govern activities of the Department and any person acting under contract with the Department, on highway rights-of-way or material pits maintained solely in connection with the construction, repair and maintenance of the public road systems in South Carolina.

STANDARD PLAN FOR THE RECLAMATION OF EXCAVATED AREAS ADOPTED BY THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

Reclamation plans as stated herein shall include all areas disturbed in excavations of borrow and material pits, except planned inundated areas.

The final side slopes of areas excavated for borrow and material pits shall be left at such an angle so as to minimize erosion and the possibility of slides. The minimum slope in every case shall be not less than 3:1.

Small pools of water that are or are likely to become noxious, odious, or foul, should not be allowed to collect or remain on the borrow pit. Suitable drainage ditches, conduits, or surface gradient shall be constructed to avoid collection of noxious, odious, or foul pools of water unless the borrow pit is to be reclaimed into a lake or pond.

Borrow pits reclaimed to a lake or pond must have an adequate supply of water to maintain a water level sufficient to maintain a minimum water depth of four (4) feet on at least fifty (50) percent of the surface area of the lake or pond.

Excavated areas will be drained where feasible unless otherwise requested by the property owner where, in such instances, the property owner may wish to develop the excavated area for recreational purposes or for the raising of fish, or for other uses, in compliance with the South Carolina Mining Act.

Where material is stripped from the ground surface in relatively thin layers, the area, after excavation has been completed, will be thoroughly scarified and terraced and planted to establish satisfactory vegetation necessary to control erosion. Vegetative cover should be established on a continuing basis to ensure soil stability appropriate to the area. Conservation practices essential for controlling both on-site and off-site erosion and siltation must be established. A minimum of seventy-five (75) percent vegetative ground cover, with no substantial bare spots, must be established and maintained into the second growing season.

Excavated areas that are drained will be seeded to obtain a satisfactory vegetative cover. The side slopes of excavated area will be planted to vegetation.

The deputy secretary for engineering, or his duly appointed representative, will make a final inspection of the reclaimed area and keep a permanent record of his approval thereof. A map or sketch providing the location and approximate acreage of each pit used on the project will be provided to the resident construction engineer for inclusion in the final plans.

All applicable regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with by the contractor in the performance of the contract.

The contractor shall comply with the provisions of the plan that are applicable to the project as determined by the engineer. Seeding or other work necessary to comply with the plan on pits furnished by the contractor shall be at the expense of the contractor. Bermuda shall not be planted on ground surface pit areas. The quantity of fescue seed specified in Subsection 810.04 of the standard specifications shall be increased by fifteen (15) pounds in lieu of the deleted Bermuda seed.