

**Tennessee Department of Transportation  
Statewide Stormwater Management Program**

**Procedures for Providing Offsite Waste and Borrow on TDOT  
Construction Projects**



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June 2012 Statewide Stormwater Management Plan –  
Procedures for Providing Offsite Waste and Borrow on TDOT Construction Projects

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## **1 INTRODUCTION**

This manual defines the process that the Tennessee Department of Transportation (TDOT) construction personnel and contractors must follow to use offsite waste and borrow areas for TDOT projects. This includes all offsite areas that are supplied by either the prime contractor or a subcontractor. This manual will follow the general process described in the current TDOT Standard Specifications for Road and Bridge Construction. Implementing a consistent process across the state will help ensure that offsite waste and borrow areas can be properly permitted, constructed and stabilized.

Borrow excavation is defined in the TDOT specifications as material required for the construction of embankments or other portions of the work and shall be obtained from approved sources outside of the Right-of-Way (ROW) limits, unless otherwise designated on the plans. Any material found in excavations within the project ROW that meets the specifications of the designated borrow material may be used in the project in accordance with TDOT specifications. Waste is defined by TDOT as excess material that must be disposed of onsite or offsite. When no suitable location can be found within the limits of the ROW, the Contractor is to provide a site off the ROW at no additional cost to the state. Waste material can be erodible or non-erodible material, such as asphalt, rock, or concrete. Regardless of the type of material, waste stored or disposed of off the TDOT project shall adhere to the TDOT Standard Specifications for Road and Bridge Construction and this manual.

The appendices contain a list of the sections from the current version of the TDOT Standard Specifications for Road and Bridge Construction, as well as Construction Circulars that pertain to contractor provided waste and borrow areas. The appendices also provide a general idea of the types of permits that may be required and when they are applicable. General regulatory questions from the TDOT field personnel should be directed to the Environmental Division (ED). Specific regulatory questions or guidance to the contractor should be obtained from the regulatory agencies. Also provided are checklists for guidance on the type of plan that must be developed by the contractor for the waste or borrow area, as well as contractor certification forms.

## **2 PROCEDURES FOR USING OFFSITE WASTE AND BORROW AREAS**

### ***2.1 General Procedures***

TDOT's policy is to allow the contractor to locate all offsite waste and borrow areas as needed after the project is let for construction. However, the waste or borrow site must be approved and accepted by the TDOT Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator. TDOT policies and procedures related to waste and borrow areas are defined by the current version of the Standard Specifications for Road and Bridge Construction. The Specifications state that after construction begins, the contractor and Construction Project Supervisor, or his representative, must first exhaust all excavation from within the project ROW limits. After all areas within the ROW have been exhausted, the contractor shall make his own arrangements for obtaining waste or borrow areas outside of the TDOT ROW. All costs associated with obtaining permission from landowners, permits, and compliance are to be included in the bid cost for the project. This section describes the procedures and documentation that must be submitted to document the type of waste and borrow site being used and the development of the Waste and Borrow Plan, which includes a Waste and Borrow Site Plan and Reclamation Plan. During construction, TDOT shall require the contractor to implement the Waste and Borrow Plan, including installation of the erosion prevention and sediment control (EPSC) measures, and inspection/maintenance of the EPSC measures. The waste or borrow area will be visited by TDOT personnel and/or consultants during construction to ensure that the Waste and Borrow Plan is being followed. Final inspection and signoff of the waste or borrow area is subject to TDOT's approval.

After the contractor determines the need for offsite waste or borrow areas, he is responsible for locating waste and/or borrow sites to be used for the TDOT project. The contractor shall follow the procedures in the following sections to ensure the waste and borrow area is approved by TDOT, is properly permitted, and maintains compliance with applicable permits. **Regardless of other permits, the site and the site type (see section 2.2) must be approved by the TDOT Project Supervisor, the Regional Environmental Coordinator and the Regional Stormwater Coordinator.**

For construction projects that do not require coverage under the CGP, the contractor shall use a non-exclusive or an exempt exclusive waste or borrow site or a small quantity waste site. An exclusive waste or borrow site shall not be used for construction projects that are less than one acre.

### ***2.2 Waste and Borrow Site Types***

The following site types apply to waste and borrow sites selected by the contractor. All activities disturbing one acre or more of land must obtain and maintain coverage under the Construction General Permit (CGP), regardless of the type of site.

- **Exclusive Waste and Borrow Site** – Exclusive waste and borrow sites that are used solely for one TDOT project and no other project.

- **Non-exclusive Waste and Borrow Site** – Non-exclusive waste and borrow sites are sites used for wasting or borrowing material from **multiple projects**, (i.e. commercial, private or public project sites). There are two types of non-exclusive waste and borrow sites. These types are described below as well as the documentation that must be provided to the Project Supervisor, Regional Environmental Coordinator and Regional Stormwater Coordinator.
  - 1) Existing commercial waste or borrow sites (i.e. landfill, rock quarry) permitted by TDEC prior to the award of the TDOT contract. Required documentation includes:
    - Location of site
    - Copies of approvals from the appropriate regulatory agencies for commercial use, including TDEC, the Corps of Engineers, and/or TVA.
    - Copies of documentation that the location meets all federal and state regulations and does not impact a floodway, wetland or other waters of the state or U.S. A notice of coverage (NOC) under the appropriate permit (Construction General Permit, Industrial Stormwater Permit, Solid Waste Permit, etc.) is sufficient documentation.
  - 2) Sites developed after award of the project that are privately held where 50% or less of the waste or borrow will come from or go to a TDOT project.
    - Location of site
    - Copies of approvals from the appropriate regulatory agencies for commercial use, including TDEC, the Corps of Engineers, and/or TVA.
    - Copies of documentation that the location meets all federal and state regulations and does not impact a floodway, wetland or other waters of the state or U.S. A notice of coverage (NOC) under the appropriate permit (Construction General Permit, Industrial Stormwater Permit, Solid Waste Permit, etc.) is sufficient documentation.
    - Documentation that the site is being used for multiple projects. This documentation could include bills of sale to other property or site owners for material from the site; locations of other sites where the material is being used or from where the material is being hauled; and/or quantities of material coming from or going to other sites. This information must be provided to the Project Supervisor, Regional Environmental Coordinator, and Regional Stormwater Coordinator for review.

Use of a non-exclusive site that does not have the appropriate permits is not allowed on a TDOT project.

- **Exempt Exclusive Waste and Borrow Site** –Waste and Borrow sites that meet all of the following criteria may be considered as exempt waste and borrow sites:
  - 1) The total disturbance for the waste or borrow site(s) is less than one acre **and** is not part of a larger common plan of development;
  - 2) The total volume of waste or borrow material for the site is 5000 yd<sup>3</sup> or less; **and**
  - 3) The site will only be used for the TDOT project; **and**
  - 4) The waste and/or borrow activity at the site will not impact streams, wetlands, or sinkholes.

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- 5) The sites shall have restricted access to prohibit illegal dumping of materials by the public.
- **Small Quantities Waste Site** – A waste site that meets all of the following criteria may be considered a small quantity waste site:
  - 1) Total disturbance associated with the waste sites is less than 1 acre.
  - 2) No more than 100 cubic yards of material can be placed at a single waste location.
  - 3) The waste activity for the sites will not impact streams wetlands or sinkholes.
  - 4) The sites shall have restricted access to prohibit illegal dumping of materials by the public.

### **2.2.1 Exclusive Waste and Borrow Site Procedures**

If sites are exclusive to the TDOT project then the contractor is responsible for obtaining necessary permits related to the site. It shall be the contractor's responsibility to determine if additional permits are required.

The location of all exclusive waste and borrow areas shall be subject to the approval of the Construction Project Supervisor or his representative, the Regional Environmental Coordinator and the Regional Stormwater Coordinator. Construction operations in these areas shall be scheduled and conducted by the contractor in such a manner that during and after completion of the work, siltation of rivers, streams, wetlands, sinkholes, impoundments and other Waters of the State will be avoided. In addition, the site should be located in such a way that it does not impact a floodway.

For exclusive Waste and Borrow sites that are not exempt, the contractor shall develop and submit the Waste and Borrow Plan to the Construction Project Supervisor or his representative, the Regional Environmental Coordinator and the Regional Stormwater Coordinator for review. The Waste and Borrow Plan shall contain the following items:

- 1) Portion of the county map showing the proposed area
- 2) U.S. Geological Survey (USGS) topographic quad map (8 ½" x 11") showing the proposed area (1:24,000 scale)
- 3) Waste and Borrow **Site Plan** as outlined in Section 2.3.1
- 4) Reclamation Plan for Contracted Projects (see Appendix E for borrow areas or Appendix F for waste areas for more information on the content of the reclamation plans)
- 5) Waste and Borrow Environmental Evaluation as outlined in Section 2.2
- 6) Geotechnical Report (see section 2.3.1 – note i)
- 7) Property owner agreements
- 8) The Storm Water Pollution Prevention Plan (SWPPP) for the waste or borrow area
- 9) Copies of all necessary permits for the site (including, but not limited to, the CGP- NOC, TVA 26a, and Archaeological Certification letter)

Once the Waste and Borrow Plan has been submitted to TDOT, the following procedures apply:

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- After the Waste and Borrow Plan has been submitted to the TDOT Project Supervisor, a visit to the proposed site shall be conducted. The Regional Environmental Coordinator, Regional Stormwater Coordinator, Project Supervisor or his representative and contractor shall attend the site visit. The property owner should be invited to the meeting. Additional consultation with the regulatory agencies may be required when the Waste and Borrow Environmental Evaluation indicates streams, wetlands or other waters of the state are present at the waste or borrow site.
- After the Waste and Borrow Plan has been reviewed, the contractor and property owner will be required to initial any changes that were deemed necessary during the site visit. If significant changes are made, the contractor shall submit a revised plan. Significant changes include items such as existing topographic items not shown on the survey, construction limit changes, slope changes, reconfiguration of site, etc.
- If at any point the waste or borrow area must be expanded outside the original limits, a modification of the original Waste and Borrow Plan and SWPPP shall be submitted to TDOT and other regulatory agencies, as appropriate. This will include reevaluation by the regulatory agencies (TDEC, TVA, USACE etc.) and a reevaluation of the Waste and Borrow Environmental Evaluation.
- The contractor is responsible for implementing the Waste and Borrow Plan, installing the EPSC measures, inspecting the area, and maintaining the EPSC measures.
- The TDOT EPSC inspector will evaluate the contractor's EPSC inspection reports and other documentation provided by the contractor pertaining to the exclusive waste and borrow area. The inspector will complete the TDOT Construction Waste/Borrow Site EPSC Inspection Review Report (Circular 209.01-04) weekly as part of their review. The inspector is not required to perform an on-site EPSC inspection. However, the inspector **may** conduct an on-site evaluation if they determine it is necessary.
- Through the Comprehensive Inspection Program, TDOT will conduct Quality Assurance Audits to ensure that the plan and permits are being followed and implemented in order to prevent off-site pollution.
- After work is complete at the waste or borrow area, the contractor shall place topsoil and stabilize the site as called for in the Waste and Borrow Plan to establish permanent ground cover.
- The contractor is required to ensure that 100% of the site contains a permanent ground cover of at least 70% of the preconstruction ground cover and is free of noticeable erosion. The TDOT Project Supervisor or his representative, Regional Environmental Coordinator, Regional Stormwater Coordinator, and contractor must concur that the site is stable before the contractor can file the CGP Notice of Termination (NOT) with TDEC for the site.
- After the NOT has been sent to TDEC, the contractor shall supply a copy to the TDOT Project Supervisor. The Final Acceptance of the TDOT project cannot be processed until the NOT for the Waste and Borrow Area has been submitted to TDEC and filed with the TDOT Project Supervisor.
- If the contractor wishes to continue use of the location for an additional project, then the contractor shall complete the Contractor's Release form found in Appendix I and submit it to the TDOT Project Supervisor and the TDEC Central Office. This form indicates that the borrow or waste site will no longer be associated with the TDOT project. If necessary, the contractor shall supply an updated SWPPP for the new

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project. The contractor is responsible for maintaining compliance with all permits on the waste/borrow site. After this documentation has been supplied to the Project Supervisor or his representative, the process for closing out the exclusive borrow or waste area can proceed.

### **2.2.2 Non-exclusive Waste and Borrow Site Procedures**

For sites that are not exclusive to the TDOT project, the contractor shall provide the following information to the Project Supervisor, The Regional Environmental Coordinator and the Regional Stormwater Coordinator:

- U.S. Geological Survey (USGS) topographic quad map (8 ½" x 11") showing the permitted area (1:24,000 scale); and
- A copy of the Notice of Coverage for the site under the appropriate permit –solid waste permit, construction general permit, surface mining permit, industrial stormwater discharge permit, or other permit as appropriate.
- Environmental evaluations, reclamation plans, and Waste and Borrow Site Plans are not required for non-exclusive sites. However, TDOT at their discretion may require this information.

### **2.2.3 Exempt Exclusive Waste and Borrow Site Procedures**

For exempt exclusive waste and borrow sites, the following procedures shall be followed:

- 1) The contractor shall submit the following items to the Project Supervisor or his representative, the Regional Environmental Coordinator, and the Regional Stormwater Coordinator:
  - County map of the proposed area
  - U.S. Geological Survey (USGS) topographic quad map (8 ½" x 11") showing the proposed area (1:24,000 scale)
  - Waste and Borrow Site Plan as outlined in Section 2.3.2
  - Reclamation Plan for Contracted Projects from Appendix E for borrow areas or Appendix F for waste areas
  - Property owner agreements
  - A completed Contractor's Certification for Exempt Exclusive Waste and Borrow Sites form. A Waste and Borrow Environmental Evaluation is not required.
- 2) After the Waste and Borrow Plan has been submitted to the TDOT Project Supervisor, a visit to the proposed site will be scheduled. The Regional Environmental Coordinator, Regional Stormwater Coordinator and contractor shall attend. The property owner should be invited.
- 3) After the Waste and Borrow Plan has been reviewed, the contractor and property owner will be required to initial any changes that were deemed necessary during the site visit. If significant changes are made the contractor will be required to submit a revised plan. Significant changes will include items such as existing topographic items not shown on the survey, construction limit changes, slope changes, reconfiguration of site, etc.
- 4) If at any point the waste or borrow area must be expanded outside the original limits, a modification of the original Waste and Borrow Plan shall be submitted prior to expanding beyond the original limits noted on the Waste and Borrow Site Plan. This may cause the site to no longer be considered an exempt exclusive site and be required to follow the procedures outlined on Section 2.1.2.

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- 5) The contractor will be responsible for installing and maintaining appropriate control measures, inspecting the area, and providing final stabilization of the area.
- 6) The TDOT inspector is not required to perform an on-site EPSC inspection on exempt exclusive sites. However, the inspector **may** conduct an on-site evaluation if they determine it is necessary. The TDOT EPSC inspector will perform a weekly walk through of the site. This walk through will not be a full inspection and will only assess the condition of the site.
- 7) Through the Comprehensive Inspection Program (Quality Assurance Site Audits), TDOT will ensure that the plan is being followed and implemented in order to prevent off-site pollution.
- 8) After work is complete at the waste or borrow area, the contractor shall place top soil and stabilize the area to establish permanent ground cover.
- 9) The Final Acceptance of the TDOT project cannot be processed until the waste or borrow area has been stabilized with at least 70% coverage of pre-construction vegetative cover.
- 10) The contractor may not continue use of the exempt exclusive waste and borrow areas for additional projects.

#### **2.2.4 Small Quantities Waste Site Procedures**

Prior to using any area as a small quantity waste site, the contractor shall take the following action:

- Notify the Project Supervisor of the location of the Small Quantities Waste Site. The Project Supervisor will notify the Regional Environmental Coordinator and the Regional Stormwater Coordinator of the proposed Small Quantities Waste Site location.
- Complete the form located in Appendix J to identify the landowner, acknowledge that the area will be stabilized by the contractor once the waste has been placed, certification that there are no environmental features within 60 feet of the proposed location, and identify the total volume of material to be wasted at the location.
- The Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator may visit the site to verify information submitted by the contractor. The Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator will review the information provided by the contractor and approve or deny the Small Quantities Waste Site.

### **2.3 Environmental Evaluations**

#### **2.3.1 Exclusive Waste and Borrow sites**

For exclusive waste and borrow sites, the following environmental evaluation procedures shall be followed.

- 1) A qualified environmental professional should verify the presence or absence of sensitive environmental resources on the proposed waste or borrow area. A list of TDOT pre-qualified Environmental Consultants can be found at the following link: <http://www.tdot.state.tn.us/ConsultantInfo/FirmDisciplines.pdf>. To provide the necessary environmental documentation to the Construction Project Supervisor or his representative and the Regional Stormwater Coordinator, it will be necessary for the

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contractor to engage the services of a qualified environmental consultant, such as a Qualified Hydrologic Professional certified by TDEC, to perform a Jurisdictional Determination (JD) of waters of the State or U.S. The Jurisdictional Determination will identify the presence of any wetlands and surface waters within the impact limits of the proposed waste and/or borrow areas and associated access or haul roads. A review will also be required for the presence of state or federally listed species within a four-mile radius of the site. It is intended that the species review sufficiently address downstream aquatic impacts to meet the requirements of the TN Construction General Permit for Stormwater Discharges. The Environmental Consultant must complete a field inventory of the candidate waste and/or borrow areas and submit a Waste and Borrow Ecology Report to the contractor detailing any pertinent findings. The contractor should attach the Waste and Borrow Ecology Report to the draft waste and borrow plan at the time the report is submitted to the Construction Project Supervisor. The following information should be included in the report:

- 2) General description of the candidate site, including a location map, U.S. Geological Survey (USGS) Topographic Map, and a Natural Resource Conservation Service (NRCS) soil survey map. The maps shall be printed on 8.5" x 11" paper.
- 3) General description of the vegetative communities at and adjacent to the candidate site.
- 4) Identification of jurisdictional wetlands and streams at the candidate site (including a discussion of soils, vegetation, and hydrology as well as completion of U.S. Army Corp of Engineers (USACE) wetland data sheets). Refer to the 1987 USACE Wetland Delineation Manual, most recent USACE manual for wetland delineation, or TDEC's Hydrologic Determination Protocol. The feature will be located using Global Positioning System (GPS) latitude and longitude.
- 5) Determination if streams present at the site are Exceptional Tennessee Waters (ETW), impaired due to siltation or habitat alteration (based upon the 303(d) stream list), and/or within a watershed with an approved Total Maximum Daily Loading (TMDL). For ETW or siltation-impaired or habitat alteration-impaired waters, the Waste and Borrow Plan will be required to follow the directions of Section 5.4 of the CGP. For a watershed with an approved TMDL, the report must contain the documentation discussed in Section 3.5.10 of the CGP.
- 6) For sediment or habitat alteration impaired or ETW waters, the buffer zones described in section 5.4.2 of the CGP are required.
- 7) State listed species review should be through the TDEC Division of Natural Areas (DNA). The DNA offers site-specific data of known state and federal concern plant and animal species, ecologically significant sites, and certain conservation managed lands. DNA staff will prepare and send to the requesting entity a map of rare species documented within a four-mile radius of the project area. A completed Project Review form must be submitted by the environmental consultant, along with a site map, to the DNA Data Manager. Data requests are usually filled within 10 working days and emailed or mailed to the receiving entity after payment is received. Contact the DNA Data Manager for more information. This information was taken from the TDEC Division of Natural Areas website.
- 8) The U.S. Fish and Wildlife Service (USFWS) shall be contacted to confirm the presence or absence of federally listed species or habitats. A copy of this letter shall be provided to the Project Supervisor and the Regional Stormwater Coordinator. If

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- federally listed species or habitats are present and the USFWS requires a Biological Assessment (BA), the contractor's consultant is required to provide this information and obtain approval from the USFWS. Any specific requirements from the USFWS shall be addressed by the contractor and followed.
- 9) Evaluation of potential habitat for state or federally listed species. If habitat is identified then surveys for state or federally listed species at the candidate waste and/or borrow area is required. Biological conclusions shall be rendered for each state or federally listed species concerning potential impacts of activities associated with the proposed waste/borrow area.
  - 10) Identification of jurisdictional wetlands and surface waters at the site or within a 60 ft perimeter of the site, on appropriate and relevant maps. These types of maps include USGS topographic map (1:24,000 scale) and NRCS soil maps or the project site plan. All copies of the reclamation plan shall include color topographic maps. The maps should be clear enough to allow someone unfamiliar with the locale to travel to the site and identify all points of interest discussed in the report using GPS latitude and longitude (i.e. wetlands, surface waters, and state or federally listed species). Local roads should be labeled and each map shall be prepared to scale. At least one figure should identify the boundaries of the candidate site, using GPS latitude and longitude, within a larger landscape setting. Additionally, boundaries of the candidate site shall be flagged in the field.
  - 11) For a proposed borrow area where excavation will occur, the environmental consultant shall consider impacts to adjacent wetlands and surface waters within a 200 ft perimeter of the site. If jurisdictional boundaries are identified within the proposed location, or if the 200 ft perimeter and dewatering/wet mining/excavating below the seasonal water table or adjacent streambed elevation is planned, the Contractor shall either maintain a 200 ft buffer between the land disturbing activities or obtain concurrence for the proposed activity from the USACE and TDEC. Any meeting with the USACE and/or TDEC shall include the Construction Project Supervisor or a member of his/her staff.
  - 12) As an alternative to item number 4 listed above, TDOT will accept a letter from the Water Pollution Control representative of the local TDEC Environmental Field Office responsible for the area of the state where the project is located. The contractor or their representative will meet with TDEC representative at the proposed site for a walk through of the impacted areas. The letter should specifically identify the presence or absence of Waters of the State. All remaining items listed above will need to be complied with by the contractor or their consultant.

### **2.3.2 Exempt Exclusive Waste and Borrow sites**

For exempt exclusive waste and borrow sites, a detailed environmental evaluation is not required. However, the following information must be furnished by the contractor to verify the exempt status:

- 1) The U.S. Fish and Wildlife Service (USFWS) shall be contacted to confirm the presence or absence of federally listed species or habitats. A copy of this letter shall be provided to the Project Supervisor and the Regional Stormwater Coordinator. If federally listed species or habitats are present and the USFWS requires a Biological Assessment (BA), the contractor's consultant will be required to provide this

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- information and obtain approval from the USFWS. Any specific requirements from the USFWS shall be addressed by the contractor and followed.
- 2) Section 26a of the TVA Act requires that TVA's approval be obtained prior to the construction, operation, or maintenance of any dam, appurtenant works, or other obstruction affecting navigation, flood control, or public lands or reservations along, across, or in the Tennessee River or any of its tributaries. Any such impact to TVA jurisdictional areas requires approval from TVA. Note that on TVA reservoirs, jurisdiction typically extends to the 500-year floodplain or to the upper limits of TVA's property boundaries or flowage easement rights, whichever elevation is higher. On off-reservoir streams and rivers, jurisdiction is typically applied to the limits of the 100-year floodplain.
  - 3) A copy of the Archaeological Certification letter from the TDEC Division of Archaeology shall be provided (see appendix B).
  - 4) The items listed above can be addressed through documentation from the regulating agency noting that no action is needed or detailing the actions required.

## **2.4 Waste and Borrow Site Plan Requirements**

The following sections outline the level of detail required in site plans for exclusive and exempt exclusive borrow and waste sites. No site plans are required for small quantities waste sites or non-exclusive borrow or waste sites.

### **2.4.1 Exclusive Waste and Borrow Sites**

The exclusive borrow and waste site plan must be stamped by a Professional Engineer licensed to practice Civil Engineering by the State of Tennessee. At a minimum, the exclusive waste and borrow site plan shall address the items listed below:

- 1) Property lines, easements, and ROW for the tract being considered.
- 2) Wetlands and streams with buffer zones as determined by a qualified hydrologic professional. Supporting documentation shall include the Waste and Borrow Environmental Evaluation as specified in section 2.2. Line indicating the comprehensive limits of land disturbing activity (e.g. include all areas that will experience disturbing including but not limited to the access road, staging area, clearing & grubbing, excavation area, waste area, and sediment control measures installation)
- 3) Outline of the proposed waste or borrow area
- 4) Location of access roads, haul roads and ditches
- 5) A Stormwater Pollution Prevention Plan (SWPPP) developed to meet the requirements of current TDOT standards for Erosion Prevention and Sediment Control. At a minimum, the SWPPP should be consistent with the requirements and recommendations contained in the current edition of the TDOT Design Division Drainage Manual – Chapter 10, TDOT Roadway Standard Drawings, TDOT Roadway Design Guidelines, and TDOT Standard Specifications for Road and Bridge Construction and the TN CGP.
- 6) Grading plan for the proposed site (with existing and proposed contours at 2 foot intervals). The site should be graded to drain.
- 7) Copy of Archaeological Certification letter from the TDEC Division of Archaeology (see appendix B)

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- 8) The contractor shall engage the services of a qualified professional (Registered Geologist or Professional Engineer qualified to provide the required services) to develop a geotechnical report and analysis that provides proposed slope ratios, material placement procedures, and any special drainage requirements. The report shall also identify pyritic or high iron soils. In the event that these soils are present, a design for stabilization and/or treatment specific to the soils shall be provided. The geotechnical report shall be submitted with the plan to the Construction Project Supervisor.
- 9) Color photographs of the pre-disturbed conditions for the proposed site.
- 10) For borrow areas that will be excavated below grade and not be self-draining, the engineer shall consult with the regulatory agencies regarding any special permits or conditions that must be followed. The contractor will be required to obtain these permits and comply with the regulatory requirements.

#### **2.4.2 Exempt Exclusive Waste and Borrow Areas**

At a minimum, Waste and Borrow Site Plans for exempt exclusive waste and borrow sites shall include the information listed below:

- 1) Property lines, easements, and ROW for the tract being considered.
- 2) Verification from a qualified professional that streams and wetlands are not located within the area designated as the waste and borrow site or the associated access road or stockpile areas
- 3) Outline of the proposed waste or borrow area
- 4) Outline of stockpile areas
- 5) Line indicating the comprehensive limits of land disturbing activity (e.g. include all areas that will experience disturbing including but not limited to the access road, staging area, clearing & grubbing, excavation area, waste area, and sediment control measures installation)
- 6) Location of access roads, haul roads and ditches
- 7) A SWPPP developed to meet the requirements of current TDOT standards for Erosion Prevention and Sediment Control. Grading plan for the proposed site (with existing and proposed contours at 2 foot intervals). The site should be graded to drain, and the side slopes of waste and borrow areas should be flatter than 35%.
- 8) Copy of Archaeological Certification letter from the TDEC Division of Archaeology (see appendix B)
- 9) The contractor shall engage the services of a qualified professional (Registered Geologist or Professional Engineer qualified to provide the required services) to develop a geotechnical report and analysis that provides proposed slope ratios, material placement procedures, and any special drainage requirements. The report shall also identify pyritic or high iron soils. In the event that these soils are present, a design for stabilization and/or treatment specific to the soils shall be provided. The geotechnical report shall be submitted with the plan to the Construction Project Supervisor.

## **2.5 Waste and Borrow Site Permitting Summary**

The following table summarizes the majority of the requirements found in this Waste and Borrow Manual and is intended to aid the contractor in obtaining approval from the TDOT Project Supervisor for a site's use. However, it is the responsibility of the contractor to know the requirements of this Waste and Borrow Manual as well as the Standard Specifications for Road and Bridge Construction.

**Table 2-1 Waste and Borrow Site Summary Matrix**

<b>Size</b>	<b>W&amp;B Site Type</b>	<b>Evidence of CGP (or other permit) Coverage Required?</b>	<b>Waste and Borrow Site Plan Required? (Section 2.3)</b>	<b>Reclamation Plan Required? (Appendix E or F)</b>	<b>Environmental Evaluation Required? (Section 2.2)</b>	<b>Approval by TDOT Personnel Required?</b>
≥1 ac; not exclusive to TDOT project	Non-Exclusive	Yes	No	No	No	Yes
≥1 ac; only used for TDOT project	Exclusive	Yes	Yes	Yes	Yes	Yes
<1ac disturbed; ≤ 5000 yd <sup>3</sup> of material; no streams, wetlands; only used for TDOT project	Exempt Exclusive	No; Environmental permits not required; must have USF&W letter, TVA 26a approval, and/or Archaeological Certification)	Yes; though less comprehensive than for an exclusive site	Yes	No; Contractor's Certification required (Appendix H)	Yes
<1ac disturbed; ≤ 100 yd <sup>3</sup> of material; no streams, wetlands; 1 site per TDOT project	Small Quantities Waste Site	No; Contractor's Certification required	No	No	Contractor's Certification required (Appendix J)	Yes

### **3 CHECKLIST FOR REVIEW OF EXCLUSIVE OFFSITE WASTE AND BORROW AREAS PLANS**

This section provides guidance to TDOT personnel on the plan review process for exclusive offsite waste and borrow areas. The review process begins with the Construction Project Supervisor (or his representative) responsible for the construction project. The plan will then be given to the Regional Environmental Coordinator and Regional Stormwater Coordinator for review. If further guidance is needed by the ED staff, this should be coordinated through the Regional Stormwater Coordinators. Any incomplete data will be returned to the contractor for clarification and re-submittal. After the Regional Environmental Coordinator and the Regional Stormwater Coordinator have completed his/her review, the plan will be returned to the Construction Project Supervisor. After the checklist is signed by both individuals and all revisions have been made, the plan should be given back to the contractor for distribution.

Review by TDOT is intended to verify that the plan has been developed and permits have been acquired to meet the requirements of this manual and/or other TDOT specifications. The contractor or subcontractor and their consultants are responsible for ensuring the accuracy and completeness of the plan and reports submitted.

Appendix G contains a copy of the checklist that should be completed by the Construction Project Supervisor or his representative while reviewing the contractor's Waste and Borrow Plan for exclusive waste and borrow sites. This checklist is intended to guide the Construction Project Supervisor or his representative through the Waste and Borrow Plan requirements to ensure that the submitted Plan is complete.

## **4 DISTRIBUTION OF THE WASTE AND BORROW PLAN**

Once the approved Waste and Borrow Plan has been returned to the Contractor they will be responsible for distributing 1 copy of the approved plan to each of the following individuals:

- TDOT EPSC Inspector
- Quality Assurance Site Audit Consultant
- Construction Project Supervisor
- Local TDEC Field Office (except for Exempt Exclusive Waste and Borrow Areas)
- Regional Environmental Coordinator
- Regional Stormwater Coordinator
- Property Owner

## **5 ROLES AND RESPONSIBILITIES DURING CONSTRUCTION**

### ***5.1 TDOT Responsibilities***

Regardless of the type, the TDOT Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator shall approve or disapprove the use of a borrow or waste site. All waste and borrow sites, regardless of site type, must stay in compliance with state and federal permits to continue to be used as a waste or borrow site for a TDOT project.

#### **5.1.1 Non-exclusive Waste and Borrow Areas**

If sites are **not** exclusive to the TDOT project (i.e. commercial, private, public etc.), the Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator shall review the documentation provided by the contractor to verify permit coverage and site compliance. During QA site audits, the QA consultant will review the site documentation to determine that the location is properly permitted. The CGP (or other appropriate permit as described in section 2.1.1) Notice of Coverage (NOC) is sufficient documentation.

#### **5.1.2 Exclusive Waste and Borrow Areas**

The contractor can begin use of the exclusive offsite waste and borrow area once the Waste and Borrow Plan has been signed by the TDOT Project Supervisor or his representative, the Regional Environmental Coordinator and the Regional Stormwater Coordinator **and** all permits have been acquired. The Project Supervisor or his representative will ensure that the plan and permits are being implemented by the contractor after construction begins.

During weekly EPSC inspections the TDOT EPSC inspector will evaluate the contractors EPSC inspection reports and other documentation provided by the contractor for the exclusive waste and borrow site. The inspector will complete the TDOT Construction Waste/Borrow Site EPSC Inspection Review Report weekly as part of their review. The TDOT inspector is **not** required to perform an on-site EPSC inspection. However, the inspector **may** conduct an on-site evaluation if they determine it is necessary. Problems identified shall be reported immediately to the contractors' inspector or person responsible for the area and addressed as required by the CGP and TDOT requirements for maintenance and stabilization.

During the routine QA Site Audits of the TDOT project, the exclusive waste and borrow area will also be assessed. This assessment evaluates the contractors waste and borrow area documentation, the TDOT Construction Waste/Borrow Site EPSC Inspection Review Report, and the contractor's EPSC implementation/installation at the waste or borrow area. The site assessment ensures that the Waste and Borrow Plan and permits are being followed and implemented to maintain compliance with the CGP and related permits. Any deficiencies shall be conveyed to the contractor in writing on the TDOT Construction Waste/Borrow Site QA Site Audit Form.

The results of the exclusive waste and borrow area QA Site Audit will be included in the project QA Site Audit report, and the Regional Stormwater Coordinator will discuss the

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findings with the Environmental Coordinator. Further action related to deficiencies observed on exclusive waste and borrow QA Site Audits will be addressed through the Regional Stormwater Coordinator.

The waste/borrow area must remain compliant with the TDOT Specifications and CGP at all times. If problems are noted on the waste and borrow areas, the Construction Project Supervisor or Regional Stormwater Coordinator can use liquidated damages, withhold payment, and stop work as described in the TDOT Standard Specifications to gain compliance on the site. Ultimately, work on the entire construction project can be stopped if the contractor is not properly implementing the Waste and Borrow Plan.

### **5.1.3 Exempt Exclusive Waste and Borrow Sites**

If the site is deemed generally acceptable by TDOT, the Project Supervisor or his representative, the Regional Environmental Coordinator, and Regional Stormwater Coordinator will accept exempt, exclusive waste and borrow sites once the proper documentation has been submitted, as outlined in Section 2.1.4. The TDOT EPSC Inspector will visit the site weekly to ensure adherence to the Waste and Borrow Site Plan.

The QA Site Audit consultant will review the documentation provided by the contractor, outlined in Section 2.1.4, to ensure that offsite areas have been properly documented. During each site assessment, the QA Site Audit consultant will also require the contractor and EPSC Inspector to detail any changes to the exempt exclusive waste and borrow site.

### **5.1.4 Small Quantities Waste Site**

The TDOT Project Supervisor, Regional Environmental Coordinator and the Regional Stormwater Coordinator will review the Small Quantities Waste Site information submitted and either accept or deny the location. The TDOT EPSC Inspector may visit the site to ensure adherence with the information submitted by the contractor. If at any time it appears the site has exceeded the threshold for a Small Quantities Waste Site or has impacted or has the potential to impact an environmental feature, the Contractor will be notified of the requirement to obtain the appropriate permits.

The QA Site Audit consultant will review the documentation provided for the Small Quantities Waste Site to ensure adherence to this Waste and Borrow Manual.

## **5.2 Contractor Responsibilities**

The contractor must maintain compliance with all permits for exclusive waste and borrow sites. If problems are noted on the waste and borrow areas, the Construction Project Supervisor or Regional Stormwater Coordinator can use liquidated damages, withhold payment, and stop work as described in the TDOT Standard Specifications to gain compliance on the site. Ultimately, work on the entire construction project can be stopped if the contractor is not properly implementing the Waste and Borrow Plan.

The contractor shall not knowingly use commercial, non-exclusive waste and borrow sites that are not in compliance with required permits. If the site type changes during construction, the contractor must immediately notify the Project Supervisor and stop work on the waste or borrow site until notified to restart by the Project Supervisor.

### **5.2.1 Non-exclusive Waste and Borrow Areas**

If sites are not exclusive to the TDOT project then the contractor must provide documentation listed in section 2.1.3. If at any time during the project the status of the non-exclusive waste and borrow site changes, the contractor is required to immediately notify TDOT. If the site becomes an exclusive waste and borrow site, the information in Section 2.1.2 must be completed by the contractor and submitted to TDOT for acceptance.

### **5.2.2 Exclusive Waste and Borrow Areas**

The contractor is responsible for securing all necessary permits for the site, implementing the Waste and Borrow Plan, implementing the SWPPP, inspecting the waste and borrow area, and maintaining the EPSC and other pollution prevention measures. This includes the following:

- Ensure that streams, wetlands and other environmentally sensitive areas identified in the Environmental Evaluation and in the Waste and Borrow Plan are identified and delineated in the field, and buffer zones are marked and maintained. The contractor shall flag the buffer zones in the field so that they are not disturbed, used for parking, or used as storage areas.
- Implement the SWPPP and maintain the EPSC measures as required by the TDOT Specifications and CGP. This includes temporary and permanent erosion prevention and sediment control.
- Make modifications to the SWPPP and the installed EPSC measures if they are inadequate.
- Perform and document the EPSC inspections as required by the CGP. If applicable, site assessments as required by Section 3.1.2 of the CGP shall be conducted (note that the site assessment required by the CGP is different than the TDOT QA Site Audit).
- Reestablish permanent ground cover so that all areas previously disturbed have at least 70% coverage with a permanent groundcover prior to completion of the project.

### **5.2.3 Exempt Waste and Borrow Areas**

The contractor shall maintain the exempt status of the waste and borrow area by adhering to the Waste and Borrow Site Plan. Any change to the Waste and Borrow Site Plan, project parameters, or exemption of the site must be conveyed to the TDOT Project Supervisor or his representative, the Regional Environmental Coordinator, and the Regional Stormwater Coordinator prior to the change. Such changes may change the exempt site status.

### **5.2.4 Small Quantities Waste Site**

To maintain the Small Quantities Waste Site status, the contractor shall adhere to the requirements found in section 2.1.5. If at any time the contractor finds that the waste site will exceed the waste threshold or that environmental features will be impacted by this activity, work shall immediately stop and steps taken onsite to prevent damage to environmental features. The contractor shall also notify the Project Supervisor and take steps to gain coverage under the appropriate permits immediately.

## **6 PROCEDURES FOR FINAL INSPECTION AND SIGNOFF OF WASTE AND BORROW AREAS**

### ***6.1 TDOT Procedures for Exclusive Sites***

After the **exclusive** waste and borrow areas are no longer needed, the contractor shall ensure that the disturbed areas are stabilized with permanent groundcover so that all disturbed areas have at least 70% coverage with a permanent groundcover. After the area has been stabilized, the contractor shall request a meeting with the Construction Project Supervisor or his representative, Regional Environmental Coordinator, Regional Stormwater Coordinator, and property owner to perform a final inspection. The following items will be reviewed:

- 1) Compare the final condition of the area to the Waste and Borrow Plan and amend the plan or waste and borrow area if differences are noted.
- 2) Good professional judgment should be utilized to verify permanent vegetation has been established and stable. (previously disturbed areas have at least 70% coverage with a permanent groundcover and be free of noticeable erosion)
- 3) If a borrow area will not be self-draining then verify that permit conditions have been complied with. Any special conditions required by the regulatory agencies should be contained in the permits for the site.
- 4) Verify the topsoil meets the current TDOT specifications for depth and quality. This is a key component for a permanent stand of vegetation that can be maintained.
- 5) Verify that no standing pools of shallow water exist that would prevent vegetation from growing (except for a permitted permanent pool or wetland).
- 6) Verify that all temporary EPSC measures have been removed.
- 7) Verify that the slopes have been constructed in accordance with the Waste and Borrow Site Plan supplied by the contractor and appear stable.
- 8) Verify concerns of the property owner have been addressed.
- 9) Once the offsite area has been deemed acceptable, the contractor is responsible for filing the Notice of Termination, NOT, for the waste or borrow area with TDEC. Once a copy of the submitted NOT has been received by the TDOT Project Supervisor or his representative, the process for final acceptance of the TDOT project can begin.
- 10) If the contractor wishes to continue use of the location for a separate project, then the contractor shall submit a letter to TDOT indicating the intended use and supply an updated SWPPP for the new project, if necessary. The contractor shall provide a completed form to the TDOT Project Supervisor or his representative to provide verification that the waste or borrow area will be used for another project and that all TN CGP or ARAP permit compliance requirements will be met. After this documentation has been supplied to the Project Supervisor or his representative, the process for closing out the project can proceed.

The contractor may not continue use of an exempt exclusive waste and borrow area for other projects. Exempt sites must be permanently stabilized as part of the site's Notice of Termination process.

## ***6.2 Small Quantities Waste Site, Exempt Exclusive Waste and Borrow***

Small quantity and exempt exclusive borrow and waste sites shall be permanently stabilized before the project is closed out.

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## **7 APPENDICES**

## ***7.1 Appendix A: Current TDOT Specifications***

The following sections of the current version of the TDOT Standard Specifications for Road and Bridge Construction discuss further responsibilities or requirements of the contractor for the offsite waste and borrow area.

- Section 104.11 – Final Cleanup
- Section 105.15 – Acceptance
- Section 107.08 – Protection of Streams, Lakes, and Reservoirs
- Section 109.07 – Final Payment
- Section 203 – Excavation and Undercutting
- Section 206 – Final Dressing
- Section 209 – Project Erosion and Siltation Control

## **7.2 *Appendix B: Construction Circular 105.06-05 – Notification to Contractor concerning Archaeological Certification of Borrow Pits***

### **CIRCULAR LETTER**

**Section: 105.06 Planning of Operations - Preconstruction Conference**

**Number: 105.06-05**

**Subject: Notification to Contractor concerning Archaeological  
Certification of Exclusive Borrow Pits**

**Date:**

It is apparent that the archaeological certifications of exclusive borrow pits are not being requested until the Contractor is ready to move the borrow material. To expedite the process, the Contractor shall be notified at the preconstruction conference that he shall obtain an archaeological certification for any exclusive borrow pit located outside the project rights-of-way, according to Section 107.06 of the Specifications.

The Contractor shall make his request for certification in writing to:

State Historic Preservation Office  
Division of Archaeology  
1216 Foster Ave  
Cole Building #3  
Nashville, TN 37243  
615-741-1588, ext.113  
Fax: 615-532-9942

and should include the following:

- 1) Name and address of Contractor;
- 2) Description of construction project, including Project number and Contract number;
- 3) Cubic yards of material to be excavated;
- 4) Precise location and area of proposed borrow pit - preferably shown on a USGS topographic quadrangle map; and
- 5) Current and previous land use.

The Contractor may submit alternate borrow pit locations to expedite the certification process, should the primary location(s) be rejected.

### **7.3 Appendix C: TDEC – Permits for Commercial Quarries**

If the location is a commercial quarry for sand, limestone, gravel, dimension stone, chert or marble the site may need the following permits

- Water Pollution Control – Individual CGP-NPDES Permit
- Water Pollution Control – Surface Mining Permit  
(In all counties mining of the following minerals requires a permit: clay, stone, phosphate rock, metallic ore and any other solid material or substance of commercial value found in natural deposits on or in the earth. This does not include limestone, gravel, sand, chert, marble, coal, or dimension stone. In Shelby County, a permit is also required for mining gravel and sand.)
- Tennessee Storm Water Multi-Sector General Permit for Industrial Activities (TMSP) Sector J – Applies to dimensional stone only
- Air Pollution Control – Construction Permit (if processed on site)
- Air Pollution Control – Operating Permit (if processed on site)

This information was taken from the following TDEC website. Please see the website below for additional information:

<http://tennessee.gov/environment/permits/whoami.php>

## **7.4 Appendix D: Permits for Construction Activities**

### **Permit Issuing Agencies**

Several State and Federal Agencies issue permits for impacts to Waters of the United States and Waters of the State of Tennessee. These agencies have regulatory authority over TDOT. These agencies and the permits the agencies issue are described in the following paragraphs. Included are links to the agencies' website. The following agencies issue the permits for various environmental impacts.

#### **Tennessee Department of Environment and Conservation (TDEC)**

The following is a link to TDEC's permit website:

<http://www.state.tn.us/environment/permits/>

#### **Aquatic Resource Alteration Permit (ARAP)**

Many impacts to wetlands and streams considered Waters of the State of Tennessee are covered by one of the previously issued "**General**" permits (road crossings, wet weather conveyances, bank stabilization, utility line crossings, etc.). Impacts to Waters of the State of Tennessee not covered by one of the General ARAP's require an "**Individual**" permit. The "Individual" permit is also referred to as a "**Section 401 Water Quality**" permit. Typically, Individual permits are required for channel changes and wetland impacts greater than 0.25 acres of isolated wetlands or 0.1 acres of non-isolated wetlands. Individual permits require a 30-day public notice before they can be issued.

Individual Federal permits, (Corps of Engineers and Coast Guard) require a "**401 Water Quality Certification**" from TDEC. Typically, a 401 certification is similar to an Individual ARAP. It is usually issued under one of the federal permits that use the federal public notice process. This is typically required for impacts to Waters and wetlands of the United States.

#### **Construction General Permit (CGP)**

As part of the National Pollutant Discharge Elimination System (NPDES) program, the CGP controls water pollution by regulating point sources (i.e. ditches, pipes) that discharge construction related discharges into Waters of the State of Tennessee. The contractor will be responsible for obtaining coverage under this permit and developing the Storm Water Pollution Prevention Plan (SWPPP) and the "Notice of Intent" (NOI), which is required when the disturbed area for a project is one acre or more, or less than one acre if the project is part of a larger common plan of development.

#### **Class V Injection Well Permit**

This permit is required for any project that fills or affects a sinkhole or cave within the vicinity of the site. This permit is also required for any project that may affect the ground water via a sinkhole. A geotechnical report may also be needed with the application for this permit.

### **Tennessee Wildlife Resources Agency (TWRA)**

The following is a link to the TWRA's permit website:

<http://www.state.tn.us/twra/index.html>

### **Reelfoot Watershed Management Permit**

The Reelfoot Watershed Management permit is required for all projects that effect water flowing within the drainage basin of Reelfoot Lake. This permit requires a joint application to the TWRA and TDEC.

### **United States Army Corps of Engineers (USACE)**

The following is a link to the USACE's permit website:

<http://www.usace.army.mil/inet/functions/cw/cecwo/reg/index.htm>

### **Section 404 Permit**

Permits for Section 404 include environmental impact to Waters of the United States (including Waters of the State of Tennessee). The permit will be either a "Nationwide" or an "Individual" Permit, as described below.

#### **Nationwide Permits**

This permit is required for environmental impacts to Waters of the United States (including Waters of the State of Tennessee). Many impacts are covered under previously issued general or "**Nationwide**" Permits (minor road crossings, categorical exclusions, bank stabilization, isolated waters and headwaters, etc.). TDEC ARAP permits **are required** to accompany most Nationwide Permits.

#### **Individual Permits**

Impacts to streams and wetlands considered Waters of the United States (including Waters of the State of Tennessee), not covered by one of the nationwide permits require an "**Individual**" permit. These are generally impacts to streams or wetlands larger than 0.5 acres. TDEC 401 Water Quality Certification is required along with the Individual Section 404 Permits.

### **Section 404 – Federal Emergency Management Agency (FEMA) Requirements**

All projects with either the Nationwide or Individual Section 404 Permits must conform to FEMA standards. If the project is located within a flood study area where either base flood elevations or a designated floodway has been determined, the contractor will be required to hire a professional Engineer familiar with the requirements of a FEMA Flood Study area. The use of FEMA Flood Study Areas as waste or borrow areas is discouraged.

The permit submission will require the appropriate coordination information for Flood Study streams (i.e. "no-rise" certification and letter to corresponding officials, Conditional Letter of Map Revision (CLOMR), FEMA map name and number, FEMA Flood Insurance Study Name, etc.).

Waste and borrow areas should not be constructed where they will impact Corps of Engineers reservoirs.

### **Section 10 Permit**

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A Section 10 permit is required for streams considered navigable by the Corps of Engineers, but not covered by a Coast Guard Bridge Permit. With a Section 10 Permit, TDEC will require a 401 Water Quality Certification.

### **Coast Guard Bridge Permit**

The following is a link to the Coast Guard's Bridge permit website:

<http://www.uscg.mil/hq/g-o/g-opt/g-opt.htm>

This permit is required for projects that impact streams or rivers deemed navigable by the Coast Guard. TDEC will require a 401 Water Quality Certification with this permit.

### **Tennessee Valley Authority**

The following is a link to TVA's permit website:

<http://www.tva.gov/river/26apermits/>

### **Section 26a Permit**

Section 26a of the TVA Act requires that TVA's approval be obtained prior to the construction, operation, or maintenance of any dam, appurtenant works, or other obstruction affecting navigation, flood control, or public lands or reservations along, across, or in the Tennessee River or any of its tributaries. TVA jurisdiction under Section 26a is implemented through Section 26a regulations (18 C.F.R. part 1304). TVA's Section 26a geographical jurisdiction extends to the limits of the Tennessee River watershed. On TVA reservoirs, jurisdiction typically extends to the 500-year floodplain or to the upper limits of TVA's property boundaries or flowage easement rights, whichever elevation is higher. On off-reservoir streams and rivers, jurisdiction is typically applied to the limits of the 100-year floodplain. In particular situations, jurisdiction may extend to higher elevations. With regard to the range of construction and development activities along the shoreline, an obstruction is any manmade physical condition that during its continuance after completion impounds, checks, hinders, restricts, retards, diverts, or otherwise interferes with the movement of water or of objects on or in the water. By way of example only, such obstructions may include boat docks, piers, boathouses, buoys, floats, boat launching ramps, fills, water intakes, devices for discharging effluent, bridges, aerial cables, culverts, and pipelines.

## **7.5 Appendix E: Reclamation Plan for Contracted Projects: Borrow Area**

**Reclamation Plan for Contracted Projects  
Borrow Area**

Date: \_\_\_\_\_

Contract Number: \_\_\_\_\_ PIN: \_\_\_\_\_

Project Number: \_\_\_\_\_ County: \_\_\_\_\_

NPDES TNR Number: \_\_\_\_\_

Contractor: \_\_\_\_\_

Responsible Person: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

Property Owner: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Property Owner  
Mailing Address: \_\_\_\_\_

Property Address: \_\_\_\_\_

Total Acreage of  
Proposed Site: \_\_\_\_\_ Expected Depth  
Of Excavation: \_\_\_\_\_

Present use of Land: \_\_\_\_\_

Proposed use After  
Reclamation: \_\_\_\_\_

Proposed sequence of excavation (include amount of clearing and proposed slope rates):

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Did the Borrow and Waste Environmental Evaluation indicate the presence of any wetlands or state/federally listed species (If yes, briefly list findings and indicate physical means by which buffer zones will be delineated): \_\_\_\_\_

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Did the geotechnical report indicate pyritic or high iron content soils? If yes, include a detailed plan describing steps to be taken to protect water quality and adjacent properties from problematic runoff.: \_\_\_\_\_

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Is the site adjacent to Exceptional TN Waters as defined by TDEC (If yes, note how the devices have been designed to meet the TDEC requirements): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is the attached archaeological certification attached and conditions complied with? (check one)

Yes ( )      No ( )

Describe the intended plan for the reclamation and subsequent use of all affected lands, and indicate the general methods to be used in reclaiming this land, including any stockpile areas, haul roads, and ditches. Describe the sequence for reclaiming the pit. Attach a site plan showing the location and design of all temporary and permanent erosion control devices. All features must comply with the appropriate specifications, standards, and reflect Best Management Practices (BMPs). The plan must indicate setbacks to adjacent properties, buffer zones, wetlands, streams, etc. and if dewatering is required. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Will excavation extend below the water table? (If yes, see a & b below) \_\_\_\_\_

Specify how dewatering will be accomplished. Show any dewatering structures, construction details, and calculations on the plan. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If water is to remain in the pit after completion, state the estimated depth of the water. It must have a minimum depth of 4 feet. Indicate the water table depth prior to beginning excavation and the method used to obtain this information. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe the proposed schedule of permanent seeding and mulching. Detail the frequency of permanent seeding and mulching. Note that a permanent stand of vegetation is required prior to a final inspection. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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NOTE: By signing below, the Contractor and Property Owner(s) are permitting inspections and allowing access as needed to accomplish any repair work as may become necessary. Failure to comply with the requirements of the Construction General Permit or the Waste and Borrow Plan will result in not being able to use this site and/or the possibility or being shut down on the entire construction project.

**Signatures:**

Contractor's Representative:

\_\_\_\_\_ (authorized to sign supplemental agreements/data)

Contractor's Representative:

\_\_\_\_\_ (Printed name)

Owners of Record

Witness

Owner

\_\_\_\_\_ (signature/date)

\_\_\_\_\_ (signature/date)

\_\_\_\_\_ (signature/date)

\_\_\_\_\_ (signature/date)

\_\_\_\_\_ (signature/date)

\_\_\_\_\_ (signature/date)

Construction Project Supervisor:

\_\_\_\_\_ (signature/date)

**Exceptions:**

**Concurrence with exceptions**

Property Owner: \_\_\_\_\_

\_\_\_\_\_ (signature/date)

Contractor: \_\_\_\_\_

\_\_\_\_\_ (signature/date)

Attachments: Site map with details, Borrow and Waste Ecology Report, SWPPP, all permits and the Geotechnical report

Cc:

**7.6 *Appendix F: Reclamation Plan for Contracted Projects: Waste Area***

## **Reclamation Plan for Contracted Projects**

### **Waste Area**

Date: \_\_\_\_\_

Contract Number: \_\_\_\_\_ PIN: \_\_\_\_\_

Project Number: \_\_\_\_\_ County: \_\_\_\_\_

NPDES TNR Number: \_\_\_\_\_

Contractor: \_\_\_\_\_

Responsible Person: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

Property Owner: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Property Owner  
Mailing Address: \_\_\_\_\_

Property Address: \_\_\_\_\_

Total Acreage of  
Proposed Site: \_\_\_\_\_ Expected Depth Of Waste: \_\_\_\_\_

Present use of Land: \_\_\_\_\_

Proposed use After  
Reclamation: \_\_\_\_\_

Expected type of waste that will be placed in the site (examples: concrete, soil, stone, etc). If soil, does the soil contain pyrite or have a high iron content? If so, include a detailed treatment plan:

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Proposed sequence of placing waste (include proposed slope rates):

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Did the Environmental Evaluation indicate the presence of any wetlands or state/federally sited species (if yes, briefly list findings and indicate physical means by which area will be delineated):

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Is the site adjacent to Exceptional TN Waters as defined by TDEC? (If yes, note how the devices have been designed to meet TDEC requirements)

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Describe the intended plan for the reclamation and subsequent use of all affected lands, and indicate the general methods to be used in reclaiming this land, including any stockpile areas, haul roads, and ditches. The proposed slopes will be based upon the recommendations of the geotechnical report supplied by the contractor. Describe the sequence for reclaiming the site. Attach a site plan showing the location and design of all temporary and permanent erosion control devices. All features must comply with the appropriate specifications, standards, and reflect Best Management Practices (BMPs). The plan must indicate setbacks to adjacent properties, buffer zones, wetlands, streams, etc.

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Describe the proposed schedule of permanent seeding and mulching. Detail the frequency of permanent seeding and mulching. Note that a permanent stand of vegetation is required prior to a final inspection.

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NOTE: By signing below, the Contractor and Property Owner(s) are permitting inspections and allowing access as needed to accomplish any repair work as may become necessary. Failure to comply with the requirements of the Construction General Permit or the Waste and Borrow Plan will result in not being able to use this site and/or the possibility or being shut down on the entire construction project.

**Signatures:**

Contractor's Representative:

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(authorized to sign supplemental agreements/data)

Contractor's Representative:

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(Printed name)

Owners of Record

Witness

Owner

---

(signature/date)

---

(signature/date)

---

(signature/date)

---

(signature/date)

---

(signature/date)

---

(signature/date)

Construction Project Supervisor:

---

(signature/date)

**Exceptions:**

**Concurrence with exceptions**

Property Owner: \_\_\_\_\_  
(signature/date)

Contractor: \_\_\_\_\_  
(signature/date)

Attachments: Site map with details, Borrow and Waste Ecology Report, SWPPP, all permits and the Geotechnical report

Cc:

**7.7 *Appendix G: Exclusive Waste and Borrow Area Plan Review Checklist***

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**Exclusive Waste and Borrow Area Plan Review Checklist**

Date Received: \_\_\_\_\_

Borrow Pit ( )

Waste Site ( )

Contract Number		Construction Project Supervisor	
		Address:	
PIN Number			
Project Number		Phone Number	
Property Owner			
Address		Pit Address	
		(if different)	
Description			

	Yes	No	N/A	Comments
1) Is the site non-exclusive?				
2) If the site is non-exclusive, has the NPDES permit number or other appropriate permit documentation been provided?				
NPDES Permit Number: _____				Note: If the site is commercial and the NPDES permit number has been supplied, no further verification is needed.
a. For Shelby County, has the mining permit number been provided?				
3) If there is no permit number				
a. Is site <1 acre, less than 5000yd <sup>3</sup> and impacts no streams or wetlands ?				
b. Is the site exclusive to the TDOT project?				
4) Has the reclamation plan been submitted?				
Completed Appendix E or F				
Site Plan				

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	Yes	No	N/A	Comments
5) Are all required signatures on Appendix E or F questionnaire?				
6) Does map include vicinity map?				
7) Has initial site inspection been made (Property owner invited)?				
8) Are all questions satisfactorily answered on the Appendix E or F questionnaire?				
9) Is the archaeological Certification Letter attached and any required conditions complied with?				
10) If this is a waste site, has the type of debris and the amount of cover been addressed?				
11) Are site plan items includes?				
Name of contractor				
Name of property owner				
North arrow				
County				
Project number				
Scale				
Date prepared				
Stamped and signed by a professional engineer				
12) Has the Borrow and Waste Environmental Evaluation been completed and submitted with the plan?				
Are wetlands present?				
Have streams been identified?				
Are Exceptional TN Waters present?				
Are sediment or habitat impaired streams present, based upon the 303d list?				

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	Yes	No	N/A	Comments
Are buffer rules applicable (60' on sediment and habitat impaired streams, 30' on all others)?				
Are applicable buffers shown?				
Has the SW coordinator reviewed the plan?				
13) Has a geotechnical report been submitted?				
Are slope rates indicated? (<35% slope)				
Are pyritic or high iron content soils present at the borrow site or in the material to be wasted? If so, a plan to specifically address soils management, treatment and stabilization must be included in the W&B Plan and Reclamation Plan.				
14) Will water remain in the pit?				
Is the current water table elevation indicated?				
Is the proposed depth of water in the pond indicated?				
Are there special conditions in the permits for the ponds?				
15) Will the excavation require temporary dewatering?				
Are dewatering structures shown?				
16) Are haul roads shown in the plan?				
17) Are construction exits shown and detailed on the plan?				
Is the sight distance adequate where trucks will enter an existing roadway?				
Has the method of maintenance been described?				
18) Are temporary and permanent seeding required and/or discussed?				

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	Yes	No	N/A	Comments
19) Is maintenance of the site by the property owner or contractor, after final acceptance, accounted for?				
20) Have submittals been signed?				
21) Have approved plans been sent and distributed?				
Contractor and/or sub – w/2 copies				
EPSC inspector - w/1 copy				
Regional Construction Engineer – w/1 copy				
Local TDEC EFO – w/1 copy				
SW Coordinator – w/1 copy				
Property Owner – w/1 copy				

### Comments:

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Reviewed by: Construction Project Supervisor

Reviewed by: SW Coordinator

Date:

Date:

Reviewed by: Environmental Coordinator

Date:

## **7.8 Appendix H: Contractor's Certification for Exempt Exclusive Waste and Borrow Sites form**

*The contractor must use this form when submitting information to verify that a Waste/Borrow site being used for a TDOT Construction project meets all the requirements of the “Exempt Exclusive Waste and Borrow Site” criteria. The form must be signed by the contractor, the Project Supervisor, the Regional Environmental Coordinator, and the Regional Stormwater Coordinator.*

## **Contractor's Certification for Exempt Exclusive Waste and Borrow Sites**

*Exempt Exclusive Waste and Borrow sites must meet all of the following conditions:*

- 1) *The total disturbance for the waste or borrow site(s) is less than one acre **and** is not part of a larger common plan of development;*
- 2) *The total volume of waste or borrow material for the site is 5000 yd<sup>3</sup> or less; **and***
- 3) *The site will only be used for the TDOT project; **and***
- 4) *The waste and/or borrow activity at the site will not impact streams, wetlands, or sinkholes*

I certify that this site meets all of the conditions noted above and agree to operate the waste or borrow site in accordance with the attached Waste and Borrow Site Plan. In addition, I understand that should the scope of the waste and borrow change such that the Waste and Borrow Site Plan is no longer applicable or appropriate or the site no longer meets the criteria for an exempt exclusive site, I am responsible for immediately notifying the Project Supervisor and modifying the Waste and Borrow Site Plan as well as obtaining appropriate permits for the site. I further understand that I am responsible for maintaining compliance at the exempt exclusive Waste/Borrow site. I acknowledge that any violations or non-compliance issues at the Waste/Borrow site could result in TDOT assessing liquidated damages, withholding payment, or shutting the construction project down.

---

Contractor's representative printed name, date

---

Contractor signature

---

Contractor company name

This exempt Waste/Borrow site is being used for the following TDOT project:

PIN Number: \_\_\_\_\_

Environmental Coordinator: \_\_\_\_\_  approve  do not approve

Regional Stormwater Coordinator: \_\_\_\_\_  approve  do not approve

As the project Supervisor, I  approve  do not approve the use of this site as proposed.  
(check the appropriate box)

Project Supervisor: \_\_\_\_\_

---

Project supervisor signature

---

Date

## ***7.9 Appendix I: Contractor's Release from Exclusive Waste and Borrow Site form***

*This form must be completed by the contractor when an exclusive waste or borrow site is no longer needed for the TDOT Construction project and the contractor intends to continue use of the site in some other form, separate from the TDOT project.*

*Items that must be submitted with the completed form include:*

- *Original Borrow/Waste Site Plan*
- *Location map*
- *Revised SWPPP, if necessary*

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## **Contractor's Release from Exclusive Waste and Borrow Site**

For:  Borrow Site  Waste Site Date Submitted: \_\_\_\_\_

Site location: \_\_\_\_\_ County: \_\_\_\_\_

*Attach the original Waste and Borrow Site plan and location map.*

From \_\_\_\_\_ to \_\_\_\_\_, the ( ) borrow site ( ) waste site

was operated in support of the following TDOT project:

PIN Number: \_\_\_\_\_ Roadway Name: \_\_\_\_\_

County:

This site will no longer be operating in support of the TDOT project noted above. As the contractor responsible for the Waste/Borrow site, we are notifying TDOT and TDEC of the activity change. This Exclusive Waste/Borrow site is now being operated as follows:

*Describe the proposed site activities (i.e., continued borrow or waste for a different project, conversion to commercial development).*

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The existing SWPPP ( ) does ( ) does not apply to this site.

If the existing SWPPP does NOT apply to the site, include the revised SWPPP with this package.

I realize that my company is responsible for maintaining compliance with all permits on the site.

Contractor Company Name:

Address:

Phone:

Contractor's representative name – printed

Contractor's representative signature

TDOT Project Supervisor signature

## **7.10 Appendix J: Contractor's Certification for Small Quantity Waste Site**

*The contractor must use this form when a Small Quantity Waste Site will be used on a project. The form must be signed by the landowner, contractor, Environmental Coordinator, Stormwater Coordinator and the Project Supervisor.*

## **Contractor's Certification for Small Quantity Waste Site**

*A Small Quantity Waste Site must meet all of the following conditions:*

- 1) *Total disturbance associated with the waste sites is less than 1 acre.*
- 2) *No more than 100 cubic yards of material can be placed at a single waste location.*
- 3) *The waste activity for the sites will not impact streams wetlands or sinkholes.*
- 4) *The sites shall have restricted access to prohibit illegal dumping of materials by the public.*

I certify that this site(s) meets all of the conditions noted above. I understand the following:

- Should the site(s) no longer meet the criteria for a small quantity waste site, I am responsible for immediately notifying the Project Supervisor and taking action to obtain appropriate permits or providing the appropriate documentation for the site.
- I am responsible for maintaining compliance at the small quantity waste site(s).
- I am responsible for stabilizing the area(s) with a permanent cover.
- I acknowledge that any violations or non-compliance issues at the site(s) could result in TDOT assessing liquidated damages, withholding payment, or shutting the construction project down.

---

Contractor's representative printed name, date

Contractor signature

---

Contractor company name

Volume of Material to be wasted: \_\_\_\_\_

Landowner name \_\_\_\_\_ Attach location map(s) for site(s)

**This small quantity waste site(s) is/are being used for the following TDOT project:**

PIN Number: \_\_\_\_\_

Environmental Coordinator: \_\_\_\_\_  approve  do not approve

Stormwater Coordinator: \_\_\_\_\_  approve  do not approve

As the project Supervisor, I  approve  do not approve the use of this site as proposed.

*(check the appropriate box)*

Project Supervisor: \_\_\_\_\_

---

Project supervisor signature

Date

## **8 GLOSSARY**

**ARAP.** Aquatic Resource Alteration Permit.

**Code of Federal Regulations** (CFR). Document containing all rules of the executive departments and agencies of the federal government and divided into fifty title volumes. Title 40 of the CFR (40 CFR) lists environmental regulations and is available from bookstores operated by the Government Printing Office and on the CFR website at <http://www.epa.gov/epahome/cfr40.htm>.

**CGP.** Construction General Permit.

**DNA.** TDEC Division of Natural Areas

**ED.** TDOT Environmental Division.

**EPSC.** Erosion Prevention and Sediment Control.

**GPS.** Global Positioning System

**NOC.** Notice of Coverage.

**NOT.** Notice of Termination.

**NPDES.** National Pollutant Discharge Elimination System.

**NRCS.** Natural Resource Conservation Service

**QA.** TDOT Comprehensive Inspection Program

**ROW.** Right-of-Way.

**SWPPP.** Storm Water Pollution Prevention Plan

**TDEC.** Tennessee Department of Environment and Conservation.

**TDOT.** Tennessee Department of Transportation.

**TMDL.** Total Maximum Daily Load

**US.** United States

**USACE.** U.S. Army Corps of Engineers.

**USFWS.** United States Fish and Wildlife service

**USGS.** United States Geological Survey