

DETAILED OFFSITE SEDIMENT-SOLIDS LOSS ANALYSIS AND PROPOSED
REMOVAL-REMEDICATION-MITIGATION PLAN
SUBMITTAL AND IMPLEMENTATION INFORMATION

Rev February 20, 2018

- A. In recognition that sediment removal/remediation activities are site specific in nature and conditions can change during project implementation, ADEM reserves the right to require the submission of additional information or require additional management measures to be implemented as necessary, on a case by case basis, in order to ensure the protection of water quality.
- B. The Operator/Owner/Developer (Operator) should contact ADEM prior to disturbance activity or at any time as needed with any questions, clarification, or to discuss.
- C. It is the Operator's responsibility to conduct a complete and comprehensive pre-disturbance inspection of the entire proposed site and to document with dated electronic photographs the condition of all ditches, stormwater conveyances, and all potential sediment discharge locations, downstream receiving waters and stream banks, and as needed upstream waters, to determine if there are any pre-existing areas of concern.
- D. It is the Operator's responsibility to communicate directly with the Nashville District or Mobile District U.S Army Corps of Engineers (COE) to ensure full compliance with applicable Federal law and COE regulations regarding dredge and fill activities prior to conducting removal/remediation activities in wetlands and/or other waterbodies. Documentation of coordination with the Corps must be retained and made available to ADEM upon request.
- E. It is the Operator's responsibility to communicate directly with the US Fish & Wildlife Service (USF&W) and/or the Alabama Department of Conservation and Natural Resources (ADCNR) to ensure full compliance with applicable Federal/State law and regulations regarding potential impacts to threatened-endangered plant-animal species prior to conducting removal/remediation activities in wetlands and/or other waterbodies. Documentation of coordination with USF&W-ADCNR must be retained and made available to ADEM upon request.
- F. Sediment removal/remediation should not begin until ADEM has reviewed and accepted the proposed plan. The submission of plans, specifications, and other technical data in the plan shall be in a format acceptable to ADEM. Additional information may be required if necessary to achieve compliance with the AWPCA, ADEM Rules, and NPDES permit requirements. Any proposed modification or alteration of plans, specifications, or technical data previously submitted, must also be submitted for ADEM review.
- G. ADEM acceptance of the sediment removal/remediation plan neither precludes nor negates an Operator's responsibility or liability to apply for, obtain, or comply with other applicable ADEM, federal, state, or local government permits, certifications, licenses, or other approvals. ADEM acceptance does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, and in no way purports to vest in the Operator title to lands now owned by the State of Alabama nor shall it be construed as acquiescence by the State of Alabama of lands owned by the State of Alabama that may be in the applicant's possession.
- H. ADEM may require that sediment be removed in alternate locations (mitigation) if sediment removal cannot be accomplished in the immediate offsite and/or instream vicinity of the project.
- I. Removal of offsite sediment either by equipment and/or manually by hand can be accomplished in an environmentally safe manner and is considered the primary approach and standard expectation.
- J. Removal of sediment deposited instream will improve downstream water quality and protect habitat for fish/wildlife and plant species. In almost all situations, sediment can be safely removed in an environmentally protective manner utilizing effective sediment and turbidity management practices during mechanical excavation, suction dredge, manual removal, or other approved methods.

- K. Stabilization in-place of sediment as remediation on a significant slope or in a drainage way/feature will only be considered under unique circumstances as a last resort.
- L. Leaving sediment in-situ in a waterbody for natural attenuation will only be considered under unique circumstances as a last resort (physical impossibility, direct impact that removal might cause to listed endangered/threatened species that exceeds potential acute and chronic impacts of leaving sediment in-place, etc.), along with concurrent sediment removal from an alternate location designed to improve water quality.
- M. Accepted sediment remediation activities must ensure immediate permanent in-place stabilization and the prevention of future erosion or movement of sediment.
- N. A detailed, comprehensive plan acceptable to ADEM for the analysis and proposed subsequent removal/remediation of sediment and other pollutants deposited offsite and/or in State waters, should include, but is not limited to:
1. Detailed pre-removal/remediation color photographs from all angles.
 2. A copy of a detailed, comprehensive offsite and instream sediment loss analysis to include a detailed (RUSLE, MUSLE or other methodology acceptable to ADEM) soil loss modeling printout for all potential/projected sediment losses, including all assumptions and modeling choices, in a format acceptable to ADEM.
 - a. Provide detailed description and breakout of sediment (combined settleable, suspended, turbid, and colloidal solids) lost offsite but have not reached a waterbody, and sediment-solids that reached/entered a waterbody.
 - b. Sediment is considered "offsite" if it was discharged, or has moved downgradient of the last best management practice (BMP) for the disturbed area.
 - c. A BMP is a single management practice or a combination of management practices that is highly effective in preventing discharges of sediment offsite. (*Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, September 2014. <https://alconservationdistricts.gov/resources/erosion-and-sediment-control/>)
 - d. BMP effectiveness at retaining pass-through settleable solids, suspended solids, and turbid solids is very dependent on the specific type of BMP, proper design location, proper implementation, and continual effective maintenance.
 - e. A sediment control management practice deployed inconsistent with its intended design location and/or maximum treatment effectiveness is not a BMP.
 - f. Percent solids removal for an implemented BMP that is improperly located, installed, or poorly maintained will have little to no effective sediment retention, and can be as low as 0% sediment retention.
 - g. Sediment that erodes but is deposited on-site should not be included in the off-site sediment estimate.
 - h. Calculations and diagram/map showing locations of field measurements of viewable/discernible settleable/suspended sediment deposited offsite and/or instream.
 - i. Calculations/estimates of sediment lost downstream (combined settleable, suspended and turbid solids) that was unable to be recovered.
 - j. A ten percent (10%) additive safety factor shall be added to the final offsite sediment loss calculation/estimate.

- k. A detailed color aerial photograph or site map/diagram showing exact locations of sediment loss, sediment removal, and any proposed in-place sediment stabilization.
 - l. Types of fill material brought on-site (clay, sand, loam, mixture, etc.) The amount of fill material (in cubic yards) brought on-site. Please indicate if fill material was not brought on-site.
3. Provisions for a QCP/QCI to be present during the removal/remediation.
 4. Provisions for a QCP to certify that all work was performed in accordance with the plan as accepted by ADEM after completion of the removal/remediation. The QCP will document any deviation and detailed reasons for the deviation from the ADEM accepted plan.
 5. Proposed dates/times of sediment removal so that, if desired, ADEM can be present during removal activities. Notification of commencement of removal/remediation activities shall be communicated/submitted to ADEM 48-hours prior to beginning removal/remediation activities.
 6. A detailed schedule of compliance indicating who will perform the work, what work will be done, where the removal will occur, how long it will take, how sediment will be removed (mechanized, manually, etc.), transported, and disposed, including disposal locations.
 7. Detailed description of BMPs to be implemented to prevent/minimize instream turbidity and sediment movement/transport during sediment removal and/or related activities.
 8. Detailed description of BMPs that will be implemented immediately after sediment removal/remediation to stabilize the removal area and ensure permanent revegetation as appropriate.
 9. If the QCP recommends stabilizing sediment in place, then detailed justification for this recommendation must also be included in the plan. The inability to remove sediment mechanically is not by itself justification to not remove accumulated sediment. Provide in-place sediment remediation locations on map as detailed above.
- O. Upon review and acceptance of the plan by the Department:
10. Obtain color photographs showing the work in-progress.
 11. Obtain detailed post-removal/remediation color photographs from all angles of areas where sediment was removed/recovered.
 12. Obtain copies of cost accounting invoices/receipts for equipment, labor, trucks, etc. used in the removal/remediation process.
- P. Sediment removal/remediation shall be accomplished in accordance with applicable requirements of ADEM. Admin. Code Chapter 335-6-6 [National Pollutant Discharge Elimination System (NPDES)], Chapter 335-6-10 (Water Quality Criteria), and Chapter 335-6-11 (Water Use Classifications for Interstate and Intrastate Waters).
- Q. The Operator shall ensure that any agent, contractor, subcontractor, or other person employed by, under contract, or paid a salary by the Operator complies with applicable regulatory requirements.
- R. The Operator shall make a reasonable effort to obtain any required permissions or authorizations prior to conducting offsite sediment removal/remediation. If due to circumstances beyond the Operator's control, necessary permissions and/or authorizations cannot be obtained, the Operator shall provide to the Department suitable documentation that they are not able to gain legal access to property necessary to accomplish removal/remediation.
- S. Removal/remediation activities may require additional NPDES permit coverage or modification of existing NPDES permit coverage.

- T. Detailed documentation of effective sediment removal/remediation shall be retained for three years and submitted to ADEM upon request. ADEM, upon written notice, may extend record retention beyond three years.

- U. This document is intended to provide helpful information to operators, land owners, permittees, and their qualified credentialed professional (QCP) regarding submittal of a detailed offsite sediment loss analysis and proposed sediment removal/remediation plan and implementation schedule for ADEM review. Constructive input regarding this information document is welcome at any time. The information in this document is subject to continuous revision/update/correction as needed. Periodic review of this information document will be conducted and modification of this document will be undertaken as necessary to ensure consistency with applicable statutory/regulatory requirements. This document is not a legal document and is not to be construed with and does not replace, modify, or impose additional regulatory restrictions on current applicable statutory authority or existing ADEM administrative authority. This document is also not designed nor intended to detail every potential requirement, option, procedure, priority, or related issue, and does not purport to provide the reader with a complete understanding of related/linked supplementary/complementary ADEM requirements and procedures.