**SECTION 01 57 19**
**TEMPORARY ENVIRONMENTAL CONTROLS**

SPEC WRITER NOTES:
1. Use this section only for NCA projects.
2. Refer to and edit this Section per the environmental protection actions required and identified in the specific project mitigation memorandum on file with the Project Manager.
3. Delete or add information between //----// and any other items applicable to project. Renumber the paragraphs as applicable. Also delete any other items not applicable to the project and renumber the Paragraph's.

**PART 1 GENERAL**

**1.1 DESCRIPTION**

A. This section specifies the control of environmental pollution and damage that the Contractor must consider for air, water, and land resources. It includes management of visual aesthetics, noise, and solid waste, as well as other pollutants and resources encountered or generated by the Contractor. The Contractor is obligated to consider specified control measures with the costs included within the various contract items of work.

B. Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which:
   1. Adversely effect human health or welfare.
   2. Unfavorably alter ecological balances of importance to human life.
   3. Affect other species of importance to humankind.
   4. Degrade the utility of the environment for aesthetic, cultural, and historical purposes.

**1.2 DEFINITIONS OF POLLUTANTS**

A. Chemical Waste: Petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.

B. Debris: Combustible and noncombustible wastes, such as leaves, tree trimmings, ashes, and waste materials resulting from construction or maintenance and repair work.

C. Sediment: Soil and other debris that has been eroded and transported by runoff water.

D. Solid Waste: Rubbish, debris, garbage, and other discarded solid materials resulting from project construction activities.

E. Surface Discharge: The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers, creeks, and/or "waters of the United States" and require a permit to discharge water from the governing agency.

F. Rubbish: Combustible and noncombustible wastes such as, but not limited to, paper, plastic, metal and plastic containers and cans, boxes, metal and lumber scrap.

G. Sanitary Wastes: Domestic Sanitary Sewage.

**1.3 QUALITY CONTROL**

A. Establish and maintain quality control for the environmental protection of all items set forth herein.

B. Record on daily reports any problems in complying with laws, regulations, ordinances and note any corrective action taken.

**1.4 REFERENCES**

A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

SPEC WRITER NOTES:
1. Remove reference citations that do not remain in Part 2 or Part 3 of edited specification.
2. Verify and make dates indicated for remaining citations the most current at date of submittal; determine changes from date indicated on the TIL download of the section and modify requirements impacted by the changes.

B. U.S. National Archives and Records Administration (NARA):

33 CFR 328 Definitions, Waters of the United States.

C. Federal Environmental Regulatory Requirements: Comply with applicable regulations. The following is for Contractor's information only:

1. Storm water permits; refer to The Office of Wastewater Management, NPDES Storm Water Program: http://www.epa.gov/npdes/stormwater
2. Dredge and fill (Section 404) permits; refer to U.S. EPA Office of Wetlands, Oceans, and Watersheds (OWOW): http://www.epa.gov/owow/
3. RCRA hazardous and non-hazardous solid waste requirements; refer to EPA’s Office of Solid Waste and Emergency Response: http://www.epa.gov/epaoswer/osw/laws-reg.htm

4. Oil spill requirements for construction activities; refer to EPA Oil Program web site: http://www.epa.gov/oilspill/
5. Hazardous substances (Superfund Liability) requirements for construction activities; refer to EPA's Superfund website: http://www.epa.gov/superfund/index.htm
6. Polychlorinated Biphenyl (PCB) waste requirements; refer to EPA's Polychlorinated Biphenyl (PCB) Homepage: http://www.epa.gov/pcb/
7. Air quality requirements for construction activities; refer to EPA'S Air Program Mobile Sources Page: http://www.epa.gov/ebtpages/airmobilesources.html
8. Asbestos requirements for construction activities; refer to EPA's Asbestos Management and Regulatory Requirements Website: http://www.epa.gov/fedsite/cd/asbestos.html
9. National Environmental Policy Act (NEPA) requirements for construction activities
10. Endangered Species Act; refer to The US Fish and Wildlife Service Endangered Species Program: http://endangered.fws.gov/
11. National Historic Preservation Act

C. State and Local Environmental Regulatory Requirements: Comply with applicable regulations. The following is for Contractor's information only:
1. State Office/Department of Environmental Quality.
2. Local Office/Department of Environmental Quality.
3. The Construction Industry Compliance Assistance Center: http://www.cicacenter.org/index.cfm
4. The National Environmental Compliance Assistance Clearinghouse: http://cfpub.epa.gov/clearinghouse/

**1.5 SUSTAINABILITY REQUIREMENTS**

A. Materials in this section may contribute towards contract compliance with sustainability requirements. See Section 01 81 11, SUSTAINABLE DESIGN REQUIRMENTS, for project // local/regional materials, // low-emitting materials, // recycled content, // certified wood // _____// requirements.

B. Biobased Material: For products designated by the USDA's BioPreferred® program, provide products that meet or exceed USDA recommendations for biobased content, subject to the products compliance with performance requirements in this Section. For more information regarding the

product categories covered by the BioPreferred® program, visit http://www.biopreferred.gov.

**1.6 SUBMITTALS**

A. In accordance with Section, 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES, the Contractor shall furnish the following:

1. Environmental Protection Plan: After the contract is awarded and prior to the commencement of the work, meet with the Resident Engineer/Contracting Officer's Representative (RE/COR) to discuss the proposed Environmental Protection Plan and to develop mutual understanding relative to details of environmental protection. Not more than 20 days after the meeting, prepare and submit to the RE/COR // for approval//, a written and/or graphic Environmental Protection Plan including, but not limited to, the following:

a. Name(s) and qualifications of person(s) within the Contractor's organization who is (are) responsible for:

1) Ensuring adherence to the Environmental Protection Plan.

SPEC WRITER NOTES:
1. Edit below as required.

2) Manifesting hazardous waste to be removed from the site.

3) Training the Contractor's environmental protection personnel.

b. Description of the Contractor's environmental protection personnel training program.

c. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, noise control and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.

d. Methods for protection of features to be preserved within authorized work areas including trees, shrubs, vines, grasses, ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, and archeological and cultural resources.

e. Procedures to provide environmental protection that complies with the applicable laws and regulations. Describe the procedures to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures as described in the Environmental Protection Plan.

f. Permits, licenses, and the location of the solid waste disposal area.

g. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, // stream crossings, // material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.// Include as part of an Erosion Control Plan approved //by the District Office of the U.S. Soil Conservation Service// and/or mandated state agency,// and the Department of Veterans Affairs.

h. Environmental Monitoring Plans for the job site including land, water, air, and noise.

i. Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of construction limits or protected areas. Plan should include measures for marking the limits of use areas. This plan may be incorporated within the Erosion Control Plan.

B. Within 20 days after the date of its submittal, the RE/COR shall approve the Contractor’s Comprehensive Environmental Protection Plan, or respond with an explanation for its rejection and resubmittal.

C. Approval of the Contractor's Environmental Protection Plan will not relieve the Contractor of responsibility for adequate and continued control of pollutants and other environmental protection measures.

SPEC WRITER NOTES:
1. Coordinate these specifications and the drawings and ensure that details for straw waddles, fiber rolls, etc. are indicated to secure bare areas awaiting the 1 year maturity of any hydroseeding or soil stabilization.

**1.7 PROTECTION OF ENVIRONMENTAL RESOURCES**

A. Protect environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire period of this contract and after the project is complete, based upon leaving the site that has yet to mature of hydroseeding. Confine construction activities to areas defined by construction limits, the specifications and drawings.

B. Protection of Land Resources: Prior to construction, identify all land resources to be preserved within the work area. Do not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, land forms, wetlands or wetland buffers

without prior approval from the RE/COR. Do not fasten or attach ropes, cables, or guys to trees for anchorage unless specifically authorized, or dictated by special emergency use.

1. Work Area Limits: Prior to any construction, mark/fence/protect the areas that require work to be performed under this contract. Prior to construction, mark/fence/protect monuments, works of art, and any other markers to remain. Convey to all personnel the purpose of marking and protecting all marked and protected objects.
2. Protection of Specific Regulated Elements: Wetlands and wetland buffers and other landscape features shown on the drawings to be preserved by marking, fencing, or using any other approved protective techniques.
   a. Protect trees and shrubs to remain on site to protect from damage per contract details.
   b. All damage to existing trees and shrubs shall be immediately repaired by trimming, cleaning, and painting with antiseptic tree paint. See Section 02 41 19.
   c. Do not store building materials or perform construction activities closer to existing trees or shrubs than the farthest extension of their limbs.
3. Reduction of Exposure of Unprotected Erodible Soils: Plan and conduct earthwork to minimize the duration of exposure of unprotected soils. Clear areas only as needed to use to work the area to be developed. Form earthwork to final grade as shown as quickly as possible to minimize potential erosion damage. Immediately protect side slopes and back slopes upon completion of rough grading or clearing with appropriate material as defined in the Sediment and Erosion Control Plan.
4. Temporary Protection of Disturbed Areas: Construct diversion ditches, benches, check dams and berms to retard and divert runoff from the construction site to protected drainage areas as intended under paragraph 208 of the Clean Water Act.

SPEC WRITER NOTES:
1. The design year storm is determined by the downstream environment to be protected and defined in State or Local Regulations. Implement appropriate protection based on the estimate of damage to the downstream environment versus the design year

storm that will cause damage. If permanent sediment basins are necessary for the particular project, include these permanent facilities in the project design and the contract documents. If permanent basins are not required, delete reference thereto.

a. Sediment Basins: Trap sediment from construction areas in temporary or permanent sediment basins that accommodate the runoff of a local //_____// (design year) storm. After each storm, pump the basins dry and remove the accumulated sediment. Control overflow/drainage with paved weirs or by vertical overflow pipes, that drain from the surface of the basin.

b. Reuse or conserve the collected topsoil sediment as directed by the RE/COR. Topsoil use and requirements are specified in Section 31 20 11, EARTH MOVING //short form//.

c. Institute effluent quality monitoring programs as required by Federal, State, and local environmental agencies.

5. Erosion and Sedimentation Control Devices: Construct or install all temporary and permanent erosion and sedimentation control features // shown. // on the Environmental Protection Plan to avoid violating water quality in accordance with federal and state regulations. // Maintain temporary erosion and sediment control measures such as berms, dikes, drains, sedimentation basins, grassing, and mulching, straw waddles, fiber rolls, until permanent drainage and erosion control facilities are completed and operative.

SPEC WRITER NOTES:
1. Coordinate the following two paragraphs with the drawings, details and notes to clearly indicate how the Contractor shall accomplish these tasks.

6. Manage and control borrow and spoil areas on // and off // Government property to minimize erosion and to prevent soil and/or sediment from entering nearby water courses or lakes.
7. Protect adjacent areas from despoilment by temporary excavations and embankments.
8. Handle and dispose of solid wastes in such a manner that will prevent contamination of the environment. Place solid wastes (excluding clearing debris) in containers that are emptied on a regular schedule. Transport all solid waste off Government property

and dispose of waste in compliance with Federal, State, and local requirements.

9. Store chemical waste away from the work areas in corrosion resistant containers and dispose of waste in accordance with Federal, State, and local regulations.
10. Handle discarded materials other than those included in the solid waste category as directed by the RE/COR.

C. Protection of Water Resources: Keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters and sewer systems. Implement management techniques to control water pollution by the listed construction activities that are included in this contract.

1. Washing and Curing Water: Do not allow wastewater directly derived from construction activities to enter water areas. Collect and place wastewater in sediment basins prior to entering retention/detention ponds, allowing the suspended material to settle, the pollutants to separate, or the water to evaporate.
2. //Control movement of materials and equipment at stream crossings during construction to prevent violation of water pollution control standards of the Federal, State, or local government.//

SPEC WRITER NOTE:
1. Specify additional operations unique to this contract.

3. Monitor water areas, wetlands and wetland buffers affected by construction.

D. Protection of Fish and Wildlife Resources: Keep construction activities under surveillance, management, and control to minimize interference with, disturbance of, or damage to fish and wildlife. Prior to beginning construction operations, list protected species that require specific attention along with measures for their protection.

E. Protection of Air Resources: Keep construction activities under surveillance, management, and control to minimize pollution of air resources. Burning is not permitted on the job site. Keep activities, equipment, processes, and work operated or performed, in strict accordance with the State of // insert Name of State and title of State Air Pollution Statue, Rule, or Regulation // and Federal emission and performance laws and standards. Maintain ambient air quality standards

set by the Environmental Protection Agency, for those construction operations and activities specified.

1. Particulates: Control dust particles, aerosols, and gaseous by-products from all construction activities, processing, and preparation of materials //from asphaltic batch plants if onsite, or other onsite material processing operations// at all times, including weekends, holidays, and hours when work is not in progress.
2. Particulates Control: Maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, //plant sites,// spoil areas, borrow areas, and all other work areas within or outside the project boundaries free from particulates which would cause a hazard or a nuisance. Sprinklering, chemical treatment of an approved type, light bituminous treatment, or other methods are permitted to control particulates in the work area as approved in the Environmental Protection Plan.
3. Hydrocarbons and Carbon Monoxide: Control monoxide emissions from equipment to Federal and State allowable limits.
4. Odors: Control odors of construction activities and prevent obnoxious odors from occurring.

F. Noise Control: Minimize noise using every action possible. Perform noise-producing work in less sensitive hours of the day or week as directed by the Resident Engineer/COR. Maintain noise-produced work at or below the decibel levels and within the time periods specified.

SPEC WRITER NOTE:
1. Revise hours and sound levels in accordance with local standards and regulations as necessary.

1. Perform construction activities involving repetitive, high-level impact noise only between //6:00 //___//a.m. and //6:00//____//p.m unless otherwise permitted by local ordinance or the RE/COR. Repetitive impact noise on the property shall not exceed the following Decibel A-scale (dBA) limitations:

| Time Duration of Impact Noise | Sound Level in dBA |
|---|---|
| More than 12 minutes in any hour | 70 |
| Less than 30 seconds of any hour | 85 |
| Less than three minutes of any hour | 80 |

| | |
|---|---|
| Less than 12 minutes of any hour | 75 |

SPEC WRITER NOTE:
1. Insert additional information as needed when unique to a particular NCA site.
2. See 2. below. Will BLASTING be allowed in contract?

2. Provide sound-deadening devices on equipment and take noise abatement measures that are necessary to comply with the requirements of this contract, consisting of, but not limited to, the following:

a. Maintain maximum permissible construction equipment noise levels as measured with an A-scale decibel measuring device at 15 m (50 feet) (dBA):

| CATEGORY OF EQUIPMENT | | | |
|---|---|---|---|
| EARTHMOVING | | MATERIALS HANDLING | |
| EQUIPMENT STYLE | SOUND LEVEL dBA | EQUIPMENT STYLE | SOUND LEVEL dBA |
| FRONT LOADERS | 75 | CONCRETE MIXERS | 75 |
| BACKHOES | 75 | CONCRETE PUMPS | 75 |
| DOZERS | 75 | CRANES | 75 |
| TRACTORS | 75 | DERRICKS IMPACT | 75 |
| SCAPERS | 80 | PILE DRIVERS | 95 |
| GRADERS | 75 | JACK HAMMERS | 75 |
| TRUCKS | 75 | ROCK DRILLS | 80 |
| PAVERS, STATIONARY | 80 | PNEUMATIC TOOLS | 80 |
| PUMPS | 75 | BLASTING | //--// |
| GENERATORS | 75 | SAWS | 75 |
| COMPRESSORS | 75 | VIBRATORS | 75 |

b. Provide soundproof housings or enclosures for noise-producing machinery.

c. Use efficient silencers on equipment air intakes.

d. Use efficient intake and exhaust mufflers on internal combustion engines that are maintained so equipment performs below noise levels specified.

e. Line hoppers and storage bins with sound deadening material.

f. Conduct truck loading, unloading, and hauling operations so that noise is kept to a minimum.

3. Measure sound level for noise exposure due to the construction at least once every five successive working days while work is being performed above 75 // ____ // dB(A) noise level. Measure noise exposure at the property line or 15 m (50 feet) from the noise source, whichever is greater. Measure the sound levels on the A weighted sound level of a General Purpose sound level meter at slow response. To minimize the effect of reflective sound waves at buildings, take measurements at 900 to 1800 mm (three to six feet) in front of any building face. Submit the recorded information to the Resident Engineer/COR noting any problems and the alternatives for mitigating actions.

G. Restoration of Damaged Property: If any direct or indirect damage is done to public or private property resulting from any act, omission, neglect, or misconduct, the Contractor shall restore the damaged property to a condition equal to that existing before the damage at no additional cost to the Government. Repair, rebuild, or restore property as directed or make good such damage in an acceptable manner.

H. Final Clean-up: On completion of project and after removal of all debris, rubbish, and temporary construction, Contractor shall leave the construction area in a clean condition as approved by the RE/COR. The site shall be left meeting the requirements of the local and state environmental requirements associated with the (SWPPP) Storm Water Pollution Protection Plan as submitted. Cleaning shall include off-cemetery disposal of all items and materials not required to be salvaged, as well as all debris and rubbish resulting from demolition and new work operations, clearing, logging and general construction in accordance with state and local regulations and the contract.

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