STATE WATERS BUFFER STATEMENT:

NPDES Permit Part IV.

(i). Except as provided in Part IV, (iii), below, no construction activities shall be conducted within a 25 foot buffer along the banks of all state waters, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, except where the Director has determined to allow a variance that is at least as protective of natural resources and the environment in accordance with the provisions of O.C.G.A. 12-7-6, or where a drainage structure or a roadway drainage structure must be constructed, provided that adequate erosion control measures are incorporated in the project plans and specifications and are implemented, or along any ephemeral stream. The buffer shall not apply to the following land disturbing activities, provided that they occur at an angle, as measured from the point of crossing, within 25 degrees of perpendicular to the stream; cause a width of disturbance of not more than 50 feet within the buffer; and adequate erosion control measures are incorporated into the project plans and specifications are implemented: (1) stream crossings for water lines or (2) stream crossings for sewer lines;

(ii). No construction activities shall be conducted within a 50 foot buffer, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, along the banks of any state waters classified as "trout streams" except where approval is granted by the Director for alternate buffer requirements in accordance with the provisions of O.C.G.A. 12-7-6, or where a roadway drainage structure must be constructed; provided, however, that small springs and streams classified as "trout streams" which discharge an average annual flow of 25 gallons per minute or less shall have a 25 foot buffer or they may be piped, at the discretion of the permittee, pursuant to the terms of a valid variance procedure promulgated by the Board of Natural Resources including notification of such to EPD and the local issuing authority to the location and extent of the piping and prescribed methodology for minimizing the impact of such piping and for measuring the volume of water discharged by the stream. Any such pipe must stop short of the downstream permittee's property, and the permittee must comply with the buffer requirement for any adjacent trout streams. The buffer shall not apply to the following land disturbing activities, provided that they occur at an angle, as measured from the point of crossing, within 25 degrees of perpendicular to the stream: cause a width of disturbance of not more than 50 feet within the buffer; and adequate erosion control measures are incorporated into the project plans and specifications and are implemented: (1) stream crossings for water lines or (2) stream crossings for sewer lines; and

(iii). Except as provided above, for buffers required pursuant to Part IV. (i) and (ii), no construction activities shall be conducted within a buffer and a buffer shall remain in its natural, undisturbed, state of vegetation until all land disturbing activities on the construction site are completed. During coverage under this permit, a buffer cannot be thinned or trimmed of vegetation and a protective vegetative cover must remain to protect water quality and aquatic habitat and a natural canopy must be left in sufficient quantity to keep shade on the stream bed.

POLLUTION REDUCTION PRACTICES FOR STORM WATER DISCHARGES:

STABILIZATION (VEGETATIVE) MEASURES:

ALL STABILIZATION (VEGETATIVE) MEASURES SHALL BE IMPLEMENTED AS STATED IN THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA (LATEST EDITION).

(Bf) Buffer Zone - A strip of undisturbed, original vegetation; enhanced or restored existing vegetation; or re-establishment of vegetation surrounding disturbed areas or bordering wetlands, ponds, lakes, streams, rivers or coastal water to provide a protective zone for one or more of the following purposes: reduce storm runoff velocities; act as visual screen; reduce construction noise; improve aesthetics on disturbed land; filtering and infiltrating runoff; cooling rivers/streams by creating shade; provide food and cover for wildlife; berm protection; or protect channel banks from scour and erosion.

(Ds1) Disturbed Area Stabilization (with Mulching Only)- Applying plant residues or other suitable materials, produced on site if possible, to the soil surface in order to reduce runoff, conserve moisture, prevent surface compaction or crusting, control undesirable vegetation, modify soil temperature, or increase biological activity in the soil. This practice is applicable where establishing disturbed/denuded areas is not practical utilizing seeding or planting.

(Ds2) Disturbed Area Stabilization (with Temporary Seeding)- Establishing temporary vegetative cover with fast growing seedlings for seasonal protection on disturbed/denuded areas in order to reduce runoff and sediment damage of downstream resources, protect the soil surface from erosion, improve wildlife habitat, improve aesthetics, improve tilth, infiltration and aeration as well as organic matter for permanent plantings. This practice is applicable for up to six months or until permanent vegetative cover can be installed. It should be coordinated with permanent measures to assure economical and effective stabilization.

(Ds3) Disturbed Area Stabilization (with Permanent Vegetation)- Planting of perennial vegetation such as trees, shrubs, vines, or legumes on exposed areas for final permanent stabilization in order to protect the soil resistive from erosion, reduce damage from sediment and runoff to downstream areas, improve wildlife habitat and visual resources, and improve aesthetics. It will apply on cut and fill slopes, earth spillways, borrow areas, spoil areas and severely eroded or gullied lands.

(Ds4) Disturbed Area Stabilization (with Sodding)- Establishing an immediate and permanent vegetative cover using sods in order to reduce runoff and erosion, improve aesthetics and land value, reduce dust and sediments, stabilize waterways and critical areas, trap sediments, nutrients, reduce downstream corrosions, reduce likelihood of legal action, enhance likelihood of work stoppage due to legal action, and increase "good neighbor" benefits.

(Du) Dust Control on Disturbed Areas- Controlling surface and air movement of dust on construction sites, roads, and demolition sites in order to prevent surface and air movement of dust from exposed soil surfaces, reduce the presence of airborne substances which may be harmful or injurious to human health, welfare, or safety, or to animals or plant life, and livelihood and materials which can be used include mulches, vegetative cover, spray-on adhesives, mechanical manipulation of existing soil surfaces, irrigation, barriers, chemicals, and stone surface covers.

(Fl-Co) Flocculants and Coagulants- Formulated to assist in the solid/liquid separation of suspended particles (which are characteristically very small) in solution. The suspended particles of such particles (colloidal complex) is due to both their small size and the electrical charge between particles.

(Sb) Streambank Stabilization (Using Permanent Vegetation)- Using native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems in order to lessen the impact of rain directly on the soil, trap sediment from adjacent land, form a root mat to stabilize and reinforce the soil on the streambank, provide wildlife habitat, enhance stream appearance, and lower summertime water temps.

(SpB) Spoil Berm- A linear control device constructed as a diversion (perpendicular to the direction of the runoff) to enhance dissipation and infiltration of runoff while using intermediate dikes to create multiple sacrificial storage chambers allowing smaller storms to seep out while diverting larger flows to a sediment storage area.

(Sr) Temporary Stream Crossing- A temporary structure installed across a flowing stream or watercourse for use by construction equipment without moving sediment into streams. Damaging this streambed or channel, or causing flooding. The structure may consist of a pipe, bridge, or other suitable device permitting vehicular traffic to cross streams or watercourses.

(Tac) Tackifiers- Substances used to anchor soil, conrcrete, seed, straw, hay or mulch by causing organic material to bind together and discourage it from drifting downslope. Tackifiers also conserve moisture, prevent surface compaction, increase soil infiltration, soil fertility, enhanced seed germination, increased soil cohesion, extended soil stabilization, reduced stormwater runoff turbidity and reduction in loss of lossoil.

STRUCTURAL PRACTICES:

ALL STRUCTURAL PRACTICES SHALL BE IMPLEMENTED AS STATED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (LATEST EDITION).

(Cd) Check Dam- A small temporary barrier, grade control structure, or dam constructed across a swale or drainage ditch which drains five (5) acres or less (not to be used in a live stream) in order to reduce erosion by slowing the velocity of concentrated storm water flows.

(Ch) Channel Stabilization- Improving, constructing or stabilizing an open channel for water conveyance. Open channels are to be non-erosive, with no sediment deposition and able to provide adequate capacity for flood water, drainage, other water management practices, or any combination thereof.

(Co) Construction Exit- A stone stabilized pad located where traffic leaves a construction site to a public right-of-way, street, alley, sidewalk, parking, etc. (i.e. bare soil to paved area) in order to reduce/eliminate depositing construction area mud onto public rights-ofway by motor vehicles or by runoff.

(Cr) Construction Road Stabilization- Roads, parking areas, and other on-site transportation routes that are stabilized with coarse aggregate between the time of initial grading and final stabilization in order to provide a fixed route for construction traffic, reduce erosion, reduce subsequent re-grading of permanent roadbeds, and provide a stable base for paving.

(Dc) Stream Diversion Channel- A temporary channel that diverts a live stream and allows work "in the dry" while protecting streambed(s) from erosion. This diversion is used when h-v-steam work is unavoidable, as with linear projects such as utilities or roads that frequently cross and impact live streams and create a potential for excessive sediment loss by both the disturbance of the approach areas and by the work within the streambed and banks.

(Di) Diversion- An earth channel with a compacted supporting ridge on the lower side; constructed above, across, or below a slope to reduce slope lengths, break-up concentrations of runoff, intercept runoff, and move water to stable outlets at non-erosive velocities.

(Dn1) Temporary Downdrain Structure- A flexible conduit of heavy-duty plastic or other material used as a temporary structure to convey storm water down the face of a cut or fill slope without causing slope erosion and allowing the establishment of vegetation on the slope. Flexible downdrains are removed once the permanent water disposal system is installed.

(Dn2) Permanent Downdrain Structure- A permanent paved chute, pipe or sectional conduit of prefabricated material designed to safely conduct surface runoff from the top to the bottom of a slope thus minimizing erosion. Downdrain structures are to be used where concentrated water will cause excessive erosion of cut and fill slopes.

(Fr) Filter Ring- A temporary stone barrier used in conjunction with other sediment control measures and constructed at storm drain inlets and pond outlets, in order to reduce flow velocities, prevent failure of other sediment control devices, and prevent sediment from leaving the site or entering drainage systems, prior to permanent stabilization of the disturbed areas.

(Gb) Gabion- Large, multi-celled, wire mesh boxes, filled with rocks, which form flexible monolithic building blocks used in channel revetments, retaining walls, abutments, check dams, etc. to prevent erosion and sediment damage by a hydraulic structure. When properly wired together, they can be used to stabilize steep or highly erosive slopes.

(Gr) Grade Stabilization Structure- Structures of concrete, rock masonry, steel, aluminum, treated wood, etc. that are installed to stabilize the grade in natural or artificial channels and to prevent the formation or advance of gullies and to reduce erosion and sediment pollution.

(Lv) Level Spreader- A storm flow outlet device structure constructed at zero grade across a slope where concentrated runoff may be intercepted and diverted as non-erosive sheet flow velocities onto undisturbed areas stabilized by existing vegetation.

(Rd) Rock Filter Dam- A permanent or temporary stone filter dam, which can be used in conjunction with a temporary sediment trap, installed across small streams, drainageways with a drainage area of 50 acres or less and outlets for sediment traps in order to serve as a sediment-filtering device and to reduce storm water flow velocities. This structure is not intended to substantially impound water and may require a US Army Corps of Engineers permit.

(Re) Retaining Wall- A constructed wall of concrete, masonry, reinforced concrete, cribbing, treated timbers, gabions, stone dry wall, rip-rap or other durable material in order to stabilize cut or fill slopes where maximum permissible slopes of earth are not obtainable without the use of the wall.

(Ri) Rip-Rap- A device or structure, such as half round corrugated metal pipe or similar, placed in front of a permanent stormwater detention pond outlet or roadway drainage structure to serve as a temporary sediment filter, thus allowing permanent stormwater detention basin structures to function as temporary sediment retention basins for land-disturbing projects and allow roadway drainage to be used for temporary sediment storage.

(Sd1) Sediment Barrier- A temporary structure constructed of silt fence, straw, hay bales, brush piles, mulch berms, compost filter sock, gravel or other filtering materials (typically supported by steel or wood posts), that are used to minimize and prevent sediment carried by sheet flow from leaving the site until final stabilization. Silt fence shall not be installed across streams, waterways, or other concentrated flow areas.

(Sd2) Inlet Sediment Trap- A temporary protective device formed at or around a storm drain inlet to trap sediment in runoff water from small, disturbed areas and prevent sediment from entering a storm drainage system prior to permanent stabilization of the disturbed area draining to the inlet. Clean out of these facilities is normally required after each heavy rainfall.

(Sd3) Temporary Sediment Basin- A basin created by construction of an embankment, barrier or dam containing a principal spillway pipe and an emergency spillway that are normally situated within natural drainageways and at the lowest point on a construction site. Structure size will vary depending on the size of the drainage area, soil type, volume of sediments to be trapped, rainfall pattern(s), structure location, etc. Permanent sediment basins are designed to fit into the overall plan of the completed development. SDb's are designed to retain runoff waters and trap sediment from sensitive areas in order to protect downstream properties.

(Sd4) Temporary Sediment Trap- A small temporary pond (with no pipe or riser) that drains a disturbed area so that sediment can settle out. SdH's are designed to collect and store sediment from small tributary areas with no unusual drainage features that have been cleared and/or graded for construction.

(Sk) Floating Surface Skimmer- A buoyant device that drains surface water of sediment ponds, traps or basins and releases it at a controlled rate of flow. It "skims" the water surface where sediment concentrations are at a minimum instead of draining from the bottom where sediment concentrations are higher, and drains to a riser or the backside of a dam.

(Sr) Temporary Stream Crossing- A temporary structure installed across a flowing stream or watercourse for use by construction equipment without moving sediment into streams. Damaging this streambed or channel, or causing flooding. The structure may consist of a pipe, bridge, or other suitable devices permitting vehicular traffic to cross streams or watercourses.

(Ss) Slope Stabilization- A protective covering used to prevent erosion and establish vegetation on steep slopes, shore lines, or channels in order to stabilize the soil and act as a rain drop impact dissipater while providing a microclimate which protects young vegetation and promotes its establishment.

(St) Storm Drain Outlet Protection- A paved or short section of rip-rap channel placed at the outlet of a storm drain system in order to reduce the velocity of water flows below storm drain outlets, and to prevent erosion from uncontrolled flow.

(Su) Surface Roughening- Providing a rough soil surface with horizontal depressions created by operating a tillage or other suitable implement on the contour, or by having slope of a roughhead condition by rot tine-grading them. In order to aid in establishment of vegetative cover with seed, to reduce runoff velocity and increase infiltration and to reduce erosion and provide for sediment trapping.

(Tc) Turbidity Curtain- A floating or staked barrier installed within the water in order to minimize turbidity and silt migration from work occurring within the water and to provide perimeter control BMPs at the water's edge. Silt or turbidity is confined to the area within the boundary created by the installation, such that suspended particles do not settle out of the water column over time.

(Tp) Topsoiling- Stripping off the more fertile top soil, storing it, then spreading it over the disturbed area after completion of construction activities in order to provide a suitable medium for vegetative growth on areas where other measures will not produce or maintain a desirable stand.

(Wt) Vegetated Waterway or Stormwater Conveyance Channel- Outlets for diversions, terraces, berms, or other structures. They may be natural or constructed channels shaped to the dimensions, and planted or vegetated for disposal of storm water runoff. For waterways to be successful, it is essential that a protective cover of vegetation and adequate water disposal measures be implemented.

GSWCC EROSION CONTROL NOTES:

1. The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities.
2. Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
3. Any disturbed area left exposed for a period greater than 14 days shall be mulched with mulch or temporary seed.
4. Any amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.

MEASURES INSTALLED DURING CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT MAY REMAIN AFTER CONSTRUCTION IS COMPLETE.:

1. Fl-Co	4.	7. Ds2	10. Lv	13. Sl
2. Sb	5. Cr	8. Ga	11. Rd	14. Wt
3. Ds3, Ds4	6. Di	9. Gr	12. Re	

WASTE DISPOSAL, SANITARY SEWER, SEPTIC TANK REGULATIONS (ES&PC PLAN COMPLIANCE):

Construction Debris such as: Waste materials deemed practical by Owner/Contractor. All waste generated from the development of this site,including but not limited to, solid waste, liquid waste, chemical waste, construction waste, sanitary sewer discharge, septic tank and septic systems waste, shall be collected and disposed of in a manner that follows all local, state, and federal laws and regulations for collection and disposal of each type of waste. All required signage, notification, documentation, and training of personnel on correct handling of waste shall be done in a manner that follows all local, state, and federal laws and regulations. Owner/Contractor is responsible for obtaining the services (and facilities) of a licensed Waste Management Company in the state of Georgia to adequately and safely handle waste collection and disposal. Solid materials, including building materials, shall not be discharged to waters of the State, except as authorized by a Section 404 permit.

BMP'S FOR PETROLEUM SPILLS AND LEAKS:

1. Fix any leaks immediately, maintain and clean equipment regularly
2. Designate areas for equipment maintenance and fueling that are located on level ground and away from any water sources.
3. Park and service equipment on top of bags to insure any spills or leaks do not get into the ground.
4. Store all fluids and containers in a leak-proof, locked container to insure safe storage.
5. Collect and remove all leftover lubricants, containers, and trash, especially tires, batteries, pieces or parts of equipment, and all fluid containers
6. Maintain a spill-containment and clean up kit. At a minimum, a kit for petroleum products should include:
   a. A leak proof container to catch leaking fluid.
   b. A shovel, rakes, and other hand tools to create dirt berms.
   c. Absorbent pads, absorbent substances such as cat litter or oil drying agents, that will absorb fluids before soaking into ground.
   d. Various sizes, plugs, and clamps to control a hydraulic line break. A variety of locking "vise grips" pliers can be used in emergency.
   e. Large plastic bags to store any contaminated materials for disposal.
7. Temporary fueling areas shall be installed and operated in compliance with Georgia E.P.D. regulations

POSSIBLE POLLUTANT SOURCES FOR THIS PROJECT:

Sediment Loss, Construction Debris, Petroleum Products, Concrete Products, Grazes and Grouts, Fertilizers (Overuse), Tac applications (Overuse), Paint Products, Asphalt Products. Contractor shall maintain a clean working environment at all times and reduce and contain the pollution generated by these and other pollutants that are to be utilized for the construction of this project. Contractor shall follow all local, state, and federal laws in handling all polluting products.

NON-STORM WATER DISCHARGES ALLOWED UNDER PERMIT:

1. Fire fighting activities
2. Fire hydrant flushing
3. Potable water sources including water line flushing
4. Irrigation drainage
5. Air conditioning condensation
6. Springs
7. Uncontaminated Ground Water
8. Foundation or footing drains where flows are not contaminated with process materials or pollutants.

Each of these discharges shall be treated for storm water pollutants in BMPs applied on the site. Discharge from each of these shall be routed to a temporary sediment basin within the same drainage area.

PRODUCT SPECIFIC PRACTICES:

All pollutants from waste disposal practices, soil additives, remediation of spills and leaks of petroleum products, concrete truck washout, etc., should any of these occur, shall be controlled by the implementation of appropriate best management practices. the site shall be in compliance with all applicable state and local waste disposal, sanitary sewer or septic system regulations.

Petroleum Based Products - Containers for products such as fuels, lubricants, and tars shall be inspected daily for leaks and spills. This includes onsite vehicles and machinery daily inspections and preventative maintenance of such equipment. Equipment maintenance areas shall be located away from State Waters, drainage inlets, and storm water drainage inlets. In addition, temporary fueling facilities shall be located within secondary containment prior to prevention/mitiga site contamination. Discharge of oils, fuels, and lubricants is prohibited. Proper disposal methods includes collection in a suitable container and disposal as required by local and State regulations.

Paints/Finishes/Solvents - All products shall be stored in tightly sealed original containers when not in use. Excess product shall not be discharged to the storm water collection system. Excess product materials used with these products, and proper disposal procedures is the discussed of according to manufacturer's specifications and recommendations.

Fertilizer/Herbicides - These products shall be applied at rates that do not exceed the manufacturer's specifications or above the guidelines set forth in the crop establishment or in the GSWCC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials will be under roof in sealed containers.

Building Materials - No building or construction materials shall be buried or disposed of onsite. All such material shall be disposed of in proper waste disposal procedures.

Concrete Truck Washing - NO concrete trucks shall be allowed to wash out or discharge surplus concrete or drum wash water onsite. Concrete wash down of tools, concrete mixer chutes, hoppers and the rear of vehicles will only be allowed in a designated area provided for that purpose, as shown on the drawings, the following best management practices will be followed:

(1) Certain all wash water on soil, in a bowl shaped area created in the designated wash area to prevent the wash water from flowing from the washout area.

(2) Use the minimum amount of water to wash down the tools, concrete mixer chutes, hoppers and the rear of vehicles:

(3) Remove any concrete sediment from the area surrounding the washout area before it hardens; and

(4) Remove all concrete residue from the designated area once it has hardened.

NON-EXEMPT ACTIVITIES:

Where applicable, non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.

ANY REFERENCE TO PERMIT IS REFERRING TO NPDES PERMIT NO. GAR100001.

ANY REFERENCE TO ANY PART IS REFERRING TO A PART OF NPDES PERMIT NO. GAR100001

This plan has been prepared to meet the requirements under the State of Georgia, Department of Natural Resources, Environmental Protection Division (EPD), General Permit No. GAR100001 for authorization to discharge under the National Pollutant Discharge Elimination System (NPDES), Stormwater Discharges Associated with Construction Activity for Storm Alone Construction Projects. Daily, weekly and monthly inspections as required by Permit No. GAR100001 shall be performed by certified personnel provided by the Contractor. Sampling requirements as required by Permit No. GAR100001 shall be performed by certified personnel provided by the Contractor.

Contractor shall make sure construction is in accordance with the regulations of the NPDES Permit No. GAR100001. This includes but is not limited to:

*Site stabilization practices	*Vegetative and structural erosion control practices
*BMP maintenance and Inspections	*Pollution prevention plan and practices
*Spill control practices	*Material management practices for spill prevention plans
*Waste control practices	*Wetland and state water protection practices
*Monitoring plans and practices	*Reporting practices

REQUIRED INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE:

NPDES Permit Part IV.D.4. Inspections.

a. Permittee requirements

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect the inspections must be conducted until a Notice of Termination is submitted):

(a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment;

(b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking;

(2). Measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization and established a crop of adequate vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by primary permittee) shall inspect the following at least once every seven (7) calendar days and within 48 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday, any non-working Saturday, non-working Sunday or non-working Federal holiday, in which case inspections shall be completed by the end of the next business day and/or working day, whichever occurs first):

(a) disturbed areas of the primary permittee's construction site (that have not undergone final stabilization);

(b) areas used by the primary permittee for storage of materials that are exposed to precipitation (that have not undergone final stabilization);

(c) structural control measures. Erosion and sediment control measures identified in the plan and applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of the site that have undergone final stabilization or established a crop of adequate vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(3) to these inspections, but must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the time that a permit is valid a Notice of Termination is received by EPD(or the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the recommended Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the plan(i.e. Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Such modifications shall be made as soon as practical but in no case later than seven (7) calendar days following the inspection.

(6). A report of each inspection that is conducted by the permittee(s) of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5), of the permit shall be made and retained at the site or made readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination has been submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall include: a summary of the scope of the inspection, name(s) and qualifications of personnel making the inspections, the date(s) of the inspections, major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). Major observations must include: locations of discharges of sediment from the site, locations of BMPs that need maintenance, locations of BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed that did not exist at the time of inspection. Actions taken must be described, and the time period in which they were completed must be indicated. Incidents of non-compliance shall be reported as specified in Part IV.G.2 of this permit.

ADDITIONAL EROSION CONTROL NOTES:

1. Minimum cut slopes are 2:1, 2 parts horizontal to 1 vertical, unless otherwise noted.
2. Minimum fill slopes are 3:1, 3 parts horizontal to 1 vertical, unless otherwise noted.
3. All buffer, tree save areas, and/or limits of disturbance shall be clearly marked in the field by the contractor by flagging or fencing and signage, prior to commencement of any land disturbing activities or clearing/grubbing activities. Buffers, tree save areas, and areas beyond limits of disturbance are to be left undisturbed in their natural state.
4. Contractor shall not disturb underground utilities while installing Erosion, Sedimentation and Pollution Control Practices. Contractor shall have all utilities field located before proceeding with any work.
5. Contractor shall notify design professional 48 hours before beginning each phase of construction.
6. Contractor shall notify (Local Issuing Authority) inspectors 24 hours before beginning each phase of construction.
7. Construction debris and/or waste shall not be buried or burned on site. All construction debris and/or waste shall be taken to a state approved landfill.
8. All buffers and tree save areas shall be clearly identified by flagging and/or fencing prior to commencement of any land disturbance activities.
9. The installation of erosion and sedimentation control measures and practices shall occur prior to land disturbing activities and construction on the site and shall be maintained until permanent ground cover is established to 90%.
10. All initial phase Erosion, Sedimentation and Pollution Control best management practices shall be installed prior to any grading.
11. All Erosion, Sedimentation and Pollution Control best management practices shall be inspected and repaired of damage daily. Any accumulated silt shall be removed and spread on site and controlled with temporary mulching and/or grassing.
12. Erosion, Sedimentation, and Pollution Control best management practices shall be maintained at all times. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OR AS REQUIRED BY ENGINEER OR LOCAL JURISDICTION INSPECTOR.
13. Maintenance of all soil erosion and sedimentation control measures and practices whether temporary or permanent shall be the responsibility of the contractor.
14. Any discrepancy within these plans shall be referred to the design professional by the contractor for clarification before proceeding with work.
15. Sediment storage maintenance indicators must be installed in sediment storage structures, indicating the 1/3 full volume.
16. Contractor shall provide temporary diversion berms and down drains on fill slopes to prevent erosion prior to stabilization.
17. Contractor shall remove accumulated sediment from detention basin at end of construction when all disturbed areas have been fully stabilized.

INITIAL INSPECTION AND REPORTING:

5. For land alone projects that begin construction activity after the effective date of this permit, the primary permittee must retain the design professional who prepared the Erosion, Sedimentation and Pollution Control Plan, except when the primary permittee has requested in writing and EPD has agreed to an alternate design professional, to inspect the installation of the initial sediment storage requirements and perimeter control BMPs which the design professional designed within seven (7) days after installation. The design professional shall determine if these BMPs have been installed and are being maintained as designed. The design professional shall report the results of the inspection to the primary permittee within seven (7) days and the permittee must correct all deficiencies within two (2) business days of receipt of the inspection report from the design professional unless weather related site conditions are such that additional time is required.

ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE SAMPLES:

NPDES Permit Part IV.D.6. Sampling Requirements.

a. *Sampling Requirements* shall include the following:

(1) A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1 :24000 map showing the location of the site or the stand alone construction;

(a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which this storm water is discharged and

(b) the receiving water and/or outfall sampling locations. When the permittee chooses to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the stormwater(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2) A written description of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location;

(3) When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU bin(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

b. *Sample Type*. All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved). The guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.

(1). Sample containers should be labeled prior to collecting the samples.

(2). Samples should be well mixed before transferring to a secondary container.

(3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.

(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers could be collected no later than the next business day after their accumulation, unless flow through automated analyses is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.

(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. *Sampling Points*.

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the storm water outfalls using the following minimum guidelines:

(a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first storm water discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other storm water discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.

(b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last storm water discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other storm water discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the downstream turbidity value.

(c). Ideally the sample should be taken from the horizontal and vertical center of the receiving water(s) or the storm water outfall channel(s).

(d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water channel.

(e). The sampling container should be held so that the opening faces upstream.

(f). The samples should be kept free from floating debris.

(g). Permittees do not have to sample shoreline but these sites onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater (unless a lesser percentage is specified elsewhere in the permit) or landscaping materials (i.e. planted landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region).

(h). All samples pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether storm water runoff from the construction site is in compliance with the standard set forth in Parts 111.D.3. or 111.D.4, whichever is applicable.

d. *Sampling Frequency*.

(1.) The permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within in forty-five (45) minutes or as soon as possible.

(2). However, where manual and automatic samplings are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the storm water discharge. (3). Sampling by the permittee shall occur:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations. In the drainage area of the location selected as the sampling location, whichever comes first;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective actions shall be defined and implemented within two (2) business days, and a sample shall be taken from that discharge point in accordance with (a) and (b) above. Any subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected sampling location is attained, or until post-storm evaluations determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with (e) below, must include a written justification in the inspection report of why sampling was not performed. Providing this justification shall not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above, and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the permittee may choose to meet the requirements of (a) and (b) above by conducting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

HAZARDOUS WASTES:

All hazardous waste materials will be disposed of in the manner specified by local, state, and federal regulations and by the manufacturer of such products. The job site superintendent, who will also be responsible for ensuring that these practices are followed, shall maintain a complete set of Material Safety Data Sheets (MSDS) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper disposal, treatment of products that may have hazardous properties. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the ES&PC Plan file. Employees who work with hazardous materials will be trained in accordance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the hazardous material that they will be using, particularly regarding spill control techniques.

The contractor will implement a Spill Prevention Control Countermeasures (SPCC) plan within the ES&PC Plan and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials and/or toxic waste will be allowed to come in contact with storm water collection systems or storm water discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with federal regulations are taken to dispose of such contaminated stormwater. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.

SANITARY WASTES:

A minimum of one temporary sanitary unit shall be provided for every ten (10) workers on the site. All sanitary waste will be collected from the portable units a minimum of one time per week by a licensed portable facility provider and disposed of in accordance with local and state regulations.

Sanitary waste units will be located in areas where the likelihood of the unit contributing storm water discharge is negligible. Additional containment BMP's must be implemented, such as gravel bags or specially designed plastic sacks placed around the base to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified