Other Evils

- Paint Clean up
- Stucco Clean up

- Do not allow painters to clean brushes and buckets at the standpipe at the curb
- Stucco equipment should be cleaned away from the curb
- Run off cannot be allowed to flow onto the street

GEORGIA/TENNESSEE STORM WATER TRAINING PROGRAM

National Pollutant Discharge Elimination System

Signature Builder NPDES Module

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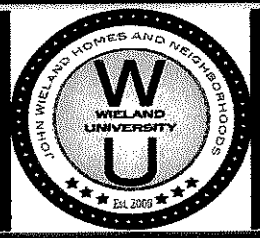
NPDES Governing Structure

- EPA – Federal, Developed the NPDES Phase II General permit to regulate storm water discharge of pollutants into state waters.
- EPD – State, Was granted authority by the EPA to develop NPDES permits for Georgia under the EPA, GSWCC, CWA, and E & S act Guidelines
- Local Municipalities – County or city, enforce under the guidelines of the EPD, GSWCC and Georgia General permits



Duty to Mitigate

- Permittee shall take all reasonable steps to minimize or prevent any discharge violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment.

Duty to Comply

- Permittee must document in the records any and all known violations within seven days of his/her knowledge of the violation. A summary of these must be submitted to EPD with in fourteen days of his/her discovery of the violation.

Management Practices and Permit Violations

- Best Management Practices are required for all construction activities, and must be implemented in accordance with the design specifications in the Manual for Erosion and Sediment Control in Georgia.
- Proper design, installation, and maintenance of BMP's shall constitute a complete defense to any action by the director or to any other allegation of noncompliance

Management Practices and Permit Violations

- *Failure to properly design, install, or maintain BMPs shall constitute a violation of this permit on each day on which such failure occurs. BMP maintenance as a result of routine inspections shall not be considered a violation.
- •If during the course of routine inspections BMP failures are observed which have resulted in sediment deposition into state waters BMP's failures need to be corrected immediately and a summary of the violations sent to the EPD with in fourteen days of discovery.

Management Practices and Permit Violations

- Discharge of storm water runoff from a site where BMPs have not been properly designed, installed, and maintained constitutes a violation for each day that turbidity increases the receiving water(s) by more that 10 or 25 NTU (Nephelometric Turbidity Unit) whichever is applicable.
- For sites where BMPs have not been properly designed, installed, and maintained and where the permittee elected to monitor outfall(s) the discharge exceeding the value selected for appendix B of the GA. permit applicable to the facility or common development and water drainage area, shall constitute a separate violation for each day on which such a condition exist.

Areas of Enforcement

- Sediments into Waters of the State, buffers, or wetland areas
- Not designing, installing, and maintaining BMPs
- Failure to comply with inspections and reporting, of the NPDES Permit.
- Failure to obtain permit coverage (NOI's)

Areas of Enforcement

- Failure to prepare & implement ESPCP or CMP
- Insufficient frequency of sampling
- Incomplete record keeping and reporting
- Improper BMPs or Turbidity Numbers
- Non - Representative Sampling or reporting

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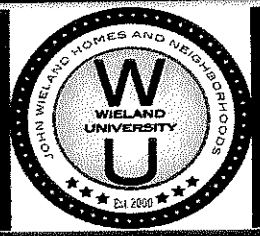
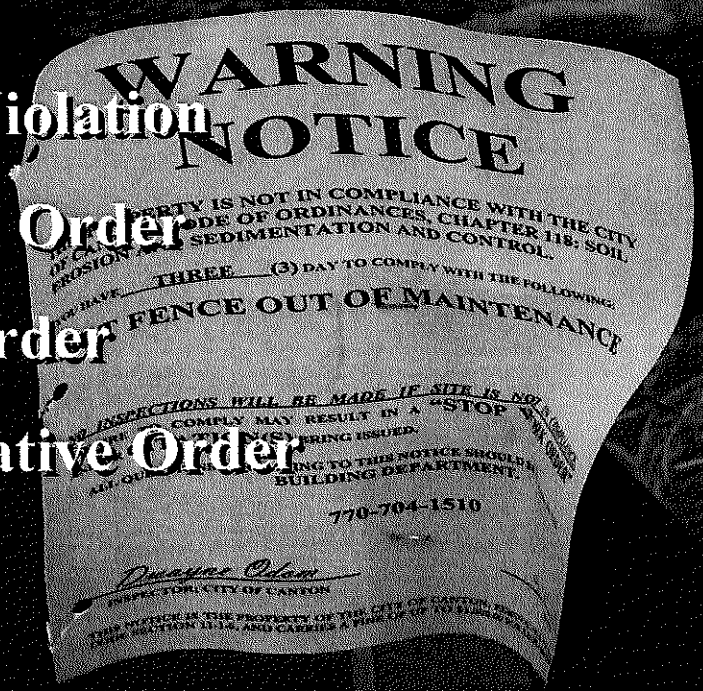


Penalties

- Notice of Violation
- Stop Work Order
- Consent Order
- Administrative Order



Onsite Documentation

- Current NOI's dated after August 13, 2003
- All inspection reports weekly, post rainfall, daily, violation summaries and monitoring reports.
- Current Erosion, Sedimentation, & Pollution Control Plan (ESPCP)

Site Inspections and Reporting

- **Builder Responsibilities**
- Fill in the actions taken, initial, and date all the weekly and post rainfall reports
- Check rain gauges daily
- Report qualifying rain events immediately to GC environmental specialist
- Daily rainfall and inspections reports completed and turned into GC Environmental Specialists no later than the third business day of the following month
- Update ESPCP plans (redlining)

Site inspections and Reporting

- Inspections at least once every 7 days, within 24 hours of the end of every 0.5 or greater rainfall, and once per month all stabilized areas until the NOT has been submitted - GC
- Required and additional water monitoring – GC
- Submit Primary NOI at least 14 days before LDA. – Land Development

Site inspections and Reporting

- On site reports (Log Books)- Inspection logs, Rainfall Data, and Monitoring – Maintained by GC
- Summary of monthly monitoring results - GC
- Summary of violations - GC
- Submit NOT after all LDA have stopped. – Environmental Officer
- Retain records for 3 years from date of final stabilization - GC

Best Management Practices

- Always install BMP's according to the engineered plan. BMP specifications may be found in the erosion control notes.
- QP 's must redline any additional BMP's that are added for extra protection on the ESPCP / SWPPP plans.
- Any additional BMP's to the ESPCP plans that change the hydrological flow (diversion channels, swales ect.) need to be signed off on by the engineer and redlined on the plan
- Only use DOT approved materials which are listed in the GA. DOT Qualified Product List

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Best Management Practices

- **Silt fences:**
- **Installation:** All silt fences with the exception of type B, which is not typically used by JWH&N shall be trenched into the ground no less than 6" and 28" of fabric exposed from ground level to the top of the fabric with posts driven into the ground no less than 1.5'. Drainage area is not to exceed ¼ acre per 100 feet of silt fence.
- **Maintenance:** Design life of fabrics are approximately six months. Check fabrics for deterioration or damage and replace as needed. Remove sediment from barriers when ½ full, relocate and stabilize with mulch and vegetation.

National Pollutant Discharge Elimination System

Best Management Practices

- **Sediment Barriers:**
- **Silt fences:**
- **Type A commercial, 1" x 4' wood stakes 8' O.C. with non-monofilament silt fence tape fabric. Not approved in the *"Georgia Manual for Erosion and Sediment Control"*.**
- **Type A DOT, 2" x 4' wood stakes 6' O.C. with 36" single strand polypropylene monofilament fabric. For projects lasting longer than six month and a slope gradient steeper than 3:1**

National Pollutant Discharge Elimination System

Best Management Practices

- **Sediment Barriers:**
- **Silt fences:**
- **Type C, 12 gauge wire field fence, 1.25" x 4 or 5' steel posts 4' O.C. with 36" DOT Approved fabric. Used where fill slopes exceed a vertical height of twenty feet and slope gradient is steeper than 3:1 and perimeter of site.**
- **GA. DOT C, 12 gauge wire field fence, 1.25" x 4 or 5' steel posts 4' O.C. with 36" double polypropylene monofilament fabric. Used where fill slopes exceed a vertical height of twenty feet and slope gradient is steeper than 3:1. Typically required along state waters buffers and perimeter of site.**

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Best Management Practices

- Inlet Sediment Traps:
- Type C Silt fence with staked haybales or rip-rap
- Silt Savers
- Gabions (Rock Bags)
- Pigs in a blanket
- Coconutlogs or Wattles

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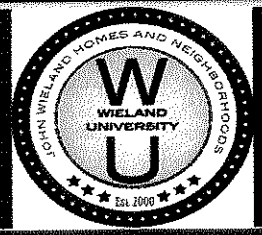
Best Management Practices

- **Construction Entrances and Exits:**
- **Installation:** Excavate footprint three inches. Install geotextile fabric under entire pad. Use 1.5”-3.5” stone. Add stone to the fabric at a thickness of no less than 6”, width of twenty feet, and a length of fifty feet. Lot pads 20’ x 35 ‘ are accepted by the EPD but must be installed using stone at a 6” depth.
- **Maintenance:** Maintain in a condition that will prevent tracking or flow of mud onto public right of ways. Periodically refresh stone.



Best Management Practices

- **Buffer Zones and Wetland areas:**
- **Maintenance:** Clean up any sediment that has migrated offsite and into these areas immediately. Proper clean up is done by using shovels to scrape as much sediment from the surface as possible and relocate away from area back onsite. Once you have done your best to remove as much of the sediment as possible use permanent vegetation and mulch to help stabilize and reestablish the area back to its natural state. Make your best effort not to disturb any more area by digging down into the natural ground; and never use equipment to ease clean ups in these areas.

Best Management Practices

- **Sediment Basins:**
- **Installation:** For common drainage locations Sd3's shall provide 1800 cubic feet of storage per acre drained until final stabilization of the site.
- **Maintenance:** When sediment fills to a volume of 1/3, the sediment shall be removed and properly disposed to restore the Sd3's original design volume

Best Management Practices

- **Storm Drain Outlet Protection (Outfalls):**
- **Installation:** Place geotextile fabric between rip-rap and the ground. Minimum thickness of apron should be at least 1.5 times the maximum stone diameter. Extend the apron length at least six times the outlet pipe diameter, and apron width up the channel banks to an elevation of one foot to the top of the bank.
- **Maintenance:** Inspect after heavy rains for sediment accumulations and dislodged stones and make all necessary repairs immediately. Relocate any sediment and stabilize with mulch and vegetation.

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Best Management Practices

- **Disturbed Area Stabilization (Mulch Only):**
- A temporary cover of mulch applied to exposed areas for six months or less to help reduce storm water runoff, erosion, sedimentation and dust. Used in areas where seeding is not practical.
- **Installation:** Mulch shall be applied to all disturbed areas left inactive for fourteen days. Apply straw uniformly over exposed areas to a depth of no less than 2"
- **Maintenance:** Add mulch as needed to maintain the suggested depth and coverage of straw.

Best Management Practices

- **Disturbed Area Stabilization (Temporary Seeding):**
- A temporary vegetative cover applying fast growing seeds (Annual Rye or Millet) to help reduce storm water runoff, erosion, sedimentation and dust.
- Installation: Temporary cover shall be applied to all disturbed areas left idle for fourteen days and for areas left idle for six months permanent vegetation shall be applied. Grading or shaping are not required if slopes can be hydroseeded. Fertilize soils prior to or during application at least 500 pounds per acre of 10-10-10 fertilizer. Apply seed by hand or hydroseeder and cover with mulch.
- Maintenance: Re-seed in areas where there is an inadequate stand of vegetation

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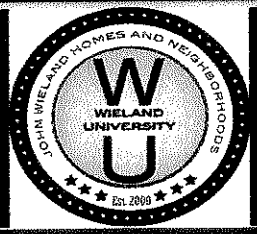
Best Management Practices

- Disturbed Area Stabilization (Permanent seeding):
- Installation: Apply to areas that are to final grade. Fertilize and add lime according to soil tests. Apply seed by hand or hydroseeder and cover with mulch.
- Maintenance: Re-seed in areas where there is an inadequate stand of vegetation. Periodic applications of fertilizer and lime may be needed.



Best Management Practices

- **Erosion control Matting and Blankets:**
- **Installation:** Install on slopes steeper than 2.5:1 and greater than 10 feet in height. Trench matting at least three feet from edge of top of slope and 6" into the ground. All matting should be staked and installed according to the manufacturers specifications.
- **Maintenance:** Inspect until vegetation is completely established. Eroded or exposed areas should be reseeded and rematted as quickly as possible. Severely eroded areas may need to be re-graded before repairs are made.

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Best Management Practices

- **Temporary Downdrain Structure:**
- **Installation:** Grade a swale at top of slope to help direct water flow toward Dn1 inlet. Typical inlet configuration is that of a silt fence inlet sediment trap with rip rap around the pipe. Install heavy duty nonperferated corrugated pipe 12" for 0.5 acre of drainage and 18" for 1.0 acre. Anchor pipe on slope using stakes at intervals not to exceed 10 feet. Extend the pipe beyond the toe of the slope and direct outlet uphill. Stabilize outlet with rip rap plunge pool.
- **Maintenance:** Inspect drain and diversion after every rainfall for damages and sediment accumulations.

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Questions?

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