

**Clearview Acres  
Section 3**

**Rutherford County, TN**

**STORM WATER POLLUTION PREVENTION PLAN  
(SWPPP)  
OPERATION & MAINTENANCE**

ON BEHALF OF

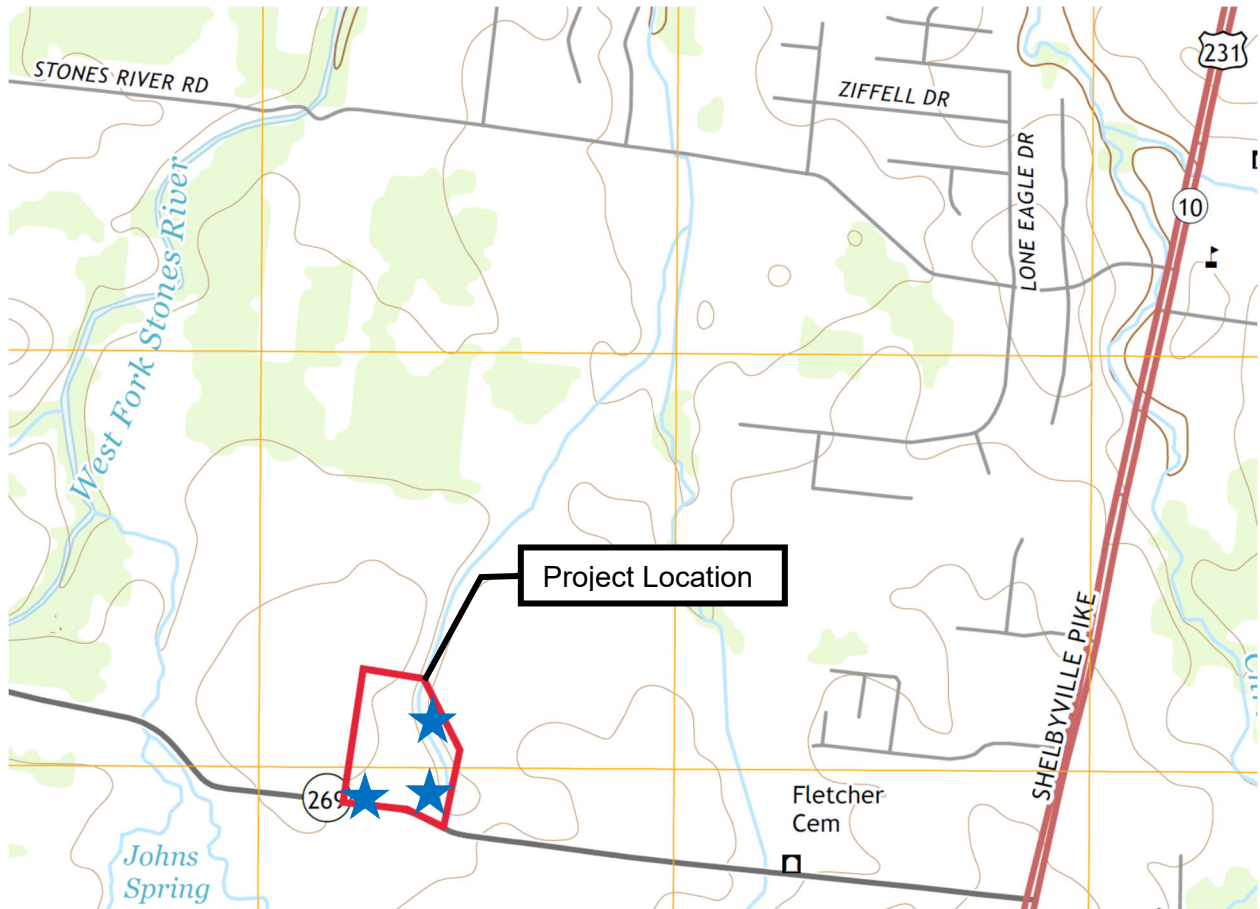
3BC, LLC.  
702 Prince Edward Ct.  
Murfreesboro, TN 37130  
Contact: Bud George

**Prepared By:**

**SEC, Inc.**

Site Engineering Consultants, Inc.  
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SEC Project No. 14300

## Fosterville, TN Quadrangle USGS TOPO



★ Outfall

Drawing Scale: N.T.S



## General Information

This Storm Water Pollution Prevention Plan (SWPPP) is developed in accordance with the Tennessee General NPDES Permit (TNR 100000) for Storm Water Discharges Associated with Construction Activity (TNCGP), and is prepared using sound engineering practices. SEC, Inc. personnel involved with the development of this plan have completed the *Design of Vegetative and Structural Measures for Erosion Prevention and Sediment Control* course available from the State of Tennessee.

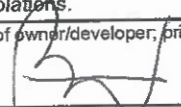
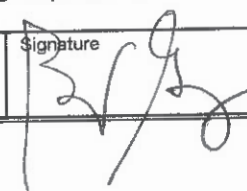
As instructed by the TNCGP, this plan and all attachments are hereby submitted to the local Environmental Field Office (EFO), along with the complete, correctly signed Notice of Intent (NOI). Construction will not be initiated prior to 30 days from the date of submittal of this document, or prior to receipt of a Notice of Coverage (NOC) from the Tennessee Department of Environment and Conservation (TDEC).

Owner/Developer: 3BC, LLC.

702 Prince Edward Ct

Murfreesboro, TN 37130

Contact: Bud George

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
Representative of owner/developer, print or type  Bud George	Signature 	Date 11-12-2020

Primary Contractor:

Contact Person:

Contact Phone Number:

I certify under penalty of law that I have reviewed this document and any attachments. Based on my inquiry of the construction site owner/developer identified above, and/or my inquiry of the person directly responsible for assembling this Storm Water Pollution Prevention Plan, I believe the information submitted is accurate. I am aware that this Plan, if approved, makes the above described construction activity subject to the NPDES permit number TNR_____, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements.		
Company name of primary contractor, print or type	Signature	Date

The individual responsible for installation, maintenance, and inspections of erosion and sediment control measures will be \_\_\_\_\_. \_\_\_\_\_ has completed the *Fundamentals of Erosion Prevention and Sediment Control* course offered by the State of Tennessee. \_\_\_\_\_ mobile telephone number is \_\_\_\_\_.

It is the intention and goal of the TNCGP and this SWPPP that any discharge from the property described in this document have no objectionable color contrast to the water body that receives it. The construction activity will be carried out in such a manner as will prevent any discharge that would cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of the waters on the property or downstream of the property for fish and aquatic life, livestock watering and wildlife, recreation, irrigation, navigation, or industrial or domestic water supply.

## **Record Keeping Requirements**

Current versions of this SWPPP, the NOI, and the NOC will be kept on the site from the date construction commences to the date of termination of permit coverage. These items will be available for the use of all operators and site personnel involved with the erosion and sediment controls and will be available to TDEC personnel visiting the site.

A notice will be posted near the construction entrance (accessible to the public) during construction, containing:

- 1.) A copy of the NOC with the tracking number assigned by the EFO,
- 2.) The name, company name, email address, the telephone number and address of a contact person of the project site owner/operator,
- 3.) A brief description of the project, and
- 4.) The location of the SWPPP

The notice must be maintained in a legible condition.

The contractor shall also provide the following items/information in an appropriate location on-site:

- 1.) A rain gauge
- 2.) A copy of the twice weekly inspection reports
- 3.) A copy of the site inspector's Fundamentals of Erosion Prevention and Sediment Control Level 1 certification

The following records shall be maintained on-site:

- 1.) Dates when major grading activities occur
- 2.) Dates when construction activities temporarily or permanently cease on all or a portion of the site
- 3.) Dates when stabilization measures are initiated
- 4.) Daily Rainfall records

The permittee shall retain copies of the SWPPP and all of the inspection reports, and all related reports and documentation for a period of at least three years from the date the notice of termination is submitted.

Prior to initiating earthwork on any areas that are not within the scope of the project, additional information will be provided to TDEC in support of this document.

Any new contractor on the project that will have any responsibility to install, inspect, or maintain erosion and sediment control measures will sign the contractor's certification on a copy of the NOI (Appendix A) and will submit it to the local EFO. Any correspondence with TDEC or any EFO will reference the tracking number assigned by TDEC to the project. A Notice of Termination (NOT; Appendix B) will be submitted after construction is completed, and the complete installation and successful establishment of the final stabilization activities at the site.

## **Existing Site Conditions**

Clearview Acres Subdivision, Section 3 shall consist of 44 residential lots and related infrastructure. The property is located along Walnut Grove Road in Rutherford County, TN. The property is located on Tax Map 159, as Parcel 6.00 which encompasses 91.50± acres in the jurisdiction of Rutherford County, TN and is currently zoned as a PUD.

The site has been designed to drain into proposed stormwater detention areas that will eventually drain into Lytle Creek which is a non-supporting stream. From the USDA-NRCS – Web Soil Survey the existing soils on site consist of the following:

Percentage	Soil Unit Symbol	Soil Type	Hydrologic Soil Group
10.2%	HcA	Harpeth Silt Loam	B
89.7%	BrA, BrB, BtC, Eg	Bradyville Silt Loam, Bradyville Rock Outcrop Complex, Egam Silt Loam	C
0.1%	GRC	Gladeville Rock Outcrop Complex	D

The existing property is row corps with a weighted SCS Curve Number of 84. The topography can best be described as moderate slopes (1-4%). The receiving waters for the project is Lytle Creek, which is a non-supporting stream. Therefore, all EPSC measures have been designed for the 2-yr, 24-hr storm event.

## **Project Description**

Clearview Acres Subdivision shall include 44 residential lots which will include roadwork, grading, and related infrastructure. The limits of disturbance will be 16.62± acres. When construction is completed, the post-development ground cover will consist of residential lots, roads and open areas as shown on the Grading & Drainage Plan, will have a weighted SCS Curve Number of 90.

There are three existing outfalls for this project: The temporary construction exit/entrance of the site, the erosion EEL northeast of the site, and erosion EEL southeast of the site.

There are three proposed outfalls for this project: The temporary construction exit/entrance of the site, pond 1/sediment basin 1, and pond 2/sediment basin 2.

## **Project Phasing**

1. Section 1 (TNR 241365): This section is completed, and a Notice of Termination has been submitted.
2. Section 2 (TNR 243434): This section is still active with a limit of disturbance of 14.82 Acres.
3. Section 3: This section will start immediately after coverage is issued. The limit of disturbance of this section is 16.62 acres.

Total active area = 31.44 Acres < 50 Acres.

### **A. Description of the intended sequence of major activities, which disturb soils for major portions of the site.**

1. Establish erosion control devices for area to be disturbed (such as silt fence, construction entrance, and sediment traps).
2. Remove topsoil in proposed lot, detention, and roadway locations.
3. Drill and blast for underground utilities (water, sewer, and storm), if required
4. Grade site to proposed subgrade elevations.
5. Install drainage culverts, and drainage structures following required construction methods.
6. Install inlet and outlet protection for the drainage structures such as filter fabric over curb inlets, turf reinforcement at outfalls, and energy dissipation devices, if required.
7. Finish fine grading of site.
8. Install erosion control to help stabilize disturbed areas such as seeding and mulching.
9. Re-grade and compact roadway areas to proposed subgrade elevations.
10. Install curb, base stone, and asphaltic binder for proposed roadway.
11. Backfill behind curbs and grade to final elevations.
12. Clean any silt from storm drainage structures or culverts.
13. Remove all silt fences once a healthy stand of grass is obtained in all disturbed areas.

### **B. Estimates of total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities.**

Total Area of Site: 91.50± acres

Disturbed Area: 16.62± acres.

### **C. Data describing the soil**

See Existing Site Conditions above.

### **D. Estimate of the runoff coefficient of the site before and after construction activities are completed.**

The existing ground conditions in the project area are best described as row crops in good condition with a weighted SCS Curve Number of 84.

The developed ground conditions in the project area would be described as residential lots, roads, and open space with a weighted SCS curve number of 90.

**E. Maps (See Attached and Construction Plans)****F. Outfall points for storm water discharges from site**

There are three (3) on-site outfall points that are to be monitored during construction as mentioned above and labeled on the Initial and Intermediate Erosion Control Plan. The site drains to Lytle Creek after draining to proposed detention ponds.

**G. Description of any discharge associated with industrial activity other than construction storm water that originates on site.**

No industrial discharge is associated with this development.

**H. Name of receiving waters.**

The site drains into Lytle Creek, which is a non-supporting stream and starts to the west of the site. According to the HD report (ID No.8778, See Appendix "D"), there are no known wetlands or streams on or adjacent to the site.

**Initial EPSC Phase**

The contractor is responsible for the implementation of all EPSC phases, as well as the removal of trapped sediment at or before 50% design capacity. The Initial Phase begins before any earth moving begins. There will be a temporary construction exit located on the southwest corner of the site onto Walnut Grove Road. A concrete washout area has been shown to be located near this construction entrance as well. Silt fence will be placed around the downstream perimeter of the project to prevent any sediment from leaving the project site during the first phases of construction. Excess material from the project will be stored onsite until its use is required. If any storage areas exist during the life of the construction, they should have the proper EPSC measures installed such as surface roughening, silt fence, and temporary seeding if stored for longer than 6 months. All silt fences will be removed upon the completion of its use to prevent it from acting as a source of pollution.

Check dams will be placed in existing ditches. Stabilization (temporary or permanent) of disturbed areas must be initiated immediately when construction activities temporarily or permanently cease on a portion of the site and will not resume for at least 14 days. Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 15 days prior to grading activities are projected to begin for that area unless the area is temporarily stabilized. Clearing and grubbing of the site shall be kept to a minimum and only in areas absolutely required for the construction activities.

**Intermediate EPSC Phase**

The Intermediate Phase will include stabilization measures required for utility installation, storm lines, and mass grading. The mass grading consists of roadway subgrade, pond grading, ditch grading, and lot grading. Temporary seeding and matting on all slopes should be accomplished as soon as practical.

After installation of the stormwater collection system, inlet protection should be installed to reduce sediment buildup in pipes. The measures shown are to remain in place throughout the life of the project until the final stabilization measures and permanent features are achieved.

During this phase, maintenance of all structural BMP's shall be maintained. The maintenance shall include removing silt as structures approach half capacity, replacing damaged BMP's, and temporary vegetative measures.

### **Final EPSC Phase**

The Final Phase will consist largely of stabilization measures as part of the grading process during the final stages of construction. These will include permanent seed, mulch, and landscaping on all grading or disturbed areas not previously stabilized. The temporary sediment control measures shown are to remain in place throughout the life of the project until the final stabilization measures and permanent site features are completed.

### **Site Assessment**

Lytle Creek is a non-supporting stream, and this project does have drainage outfalls areas with more than 5 acres, therefore site assessment and sediment basins are required.

Since this project has an outfall having drainage areas totaling more than 5 acres, this outfall should have site assessments conducted within 1 month of construction commencing at each portion of the site. The site assessment shall be performed by individuals with any of the following qualifications:

- 1.) A professional engineer or landscape architect licensed in the State of Tennessee,
- 2.) A Certified Professional in Erosion and Sediment Control (CPESC), or
- 3.) A person that successfully completed the Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites course.

The site assessment shall be performed to verify the installation, functionality, and performance of the EPSC measures that have been designed on the plans and described in the SWPPP. The inspector shall be present at the time of the site assessment. The site assessment shall also include a review and update of the SWPPP, if needed. The documentation for the site assessment must contain the printed name and signature of the individual performing the site assessment, the information included on the inspection form, and the certification as stated in Section 3.1.2 of the TNCGP.

### **Inspection Requirements**

Inspections shall be performed at least 2 times per calendar week with at least 72 hours between each inspection. Inspections will cover, at minimum, all disturbed areas that have not undergone final stabilization, sediment control structures, outfall points, and vehicle entrance and exit points. The inspections will be conducted with the purpose of determining whether erosion prevention and sediment control measures are effective in preventing impacts to receiving waters. If during these inspections it is discovered that repair or maintenance is required of any temporary or permanent control measure, the action should be taken before the next rainfall if possible but no



longer than 7 days and will be documented. If any structure is found to be at half capacity, then it should be cleaned out and the removed sediment used elsewhere onsite.

If the controls are installed and maintained correctly but are found to provide an inadequate level of protection, revisions will be made to this plan within 7 days following the inspection. Then the revisions will be implemented by the contractor within 14 days of the inspection. The inspector will certify every 72 hours (on the form found in Appendix C) that the inspection described above has been performed and whether or not all of the erosion and sediment control measures are installed in working order. The record of certifications on the form will be kept on site and made available upon request. The forms must be submitted to the division within 10 days of the request. If the records are requested by the division, the forms must contain the printed name and signature of the trained certified inspector and the permittee.

The inspector shall have completed the *Fundamentals of Erosion Prevention and Sediment Control Level I* course. A copy of the certification or training record for the inspector certification should be kept on site.

## **Spills and Non-Storm Water Contingencies**

All fueling of equipment and vehicles on site should be conducted near the construction entrance/staging areas. Any spillage should be removed immediately. Contaminated soils will be placed on heavy plastic and covered or placed into approved containers to prevent contact with storm water. All fuel tanks will be in the containment area. Oils, other vehicle fluids, paints, and solvents will be stored in the construction trailer. Any spill in excess of two gallons will be reported to a representative of the owner.

**If a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period, the contractor will immediately notify the permittee who shall then do the following: notify the National Response Center (NRC) (800-424-8802) and Tennessee Emergency Management Agency (TEMA) (emergencies: 800-262-3300; non-emergencies: 800-262-3400); as well as the local Environmental Field Office.** Also, a revision of this document will be prepared to identify measures to prevent the reoccurrence of such releases.

Concrete trucks will wash out at the designated area near the construction entrance. Each contractor is responsible to provide litter control for trash generated by his crew and must have a regularly scheduled cleanup time to prevent pollution. A dumpster for garbage will be located near the construction trailer and is limited to garbage and paper trash only. Paint cans, oil cans, used oil, and filters will be contained and disposed of by the contractor by taking them to the Rutherford County Hazardous Waste Disposal Center. Sanitary waste will be handled via portable toilets which will be kept on-site and regular maintenance performed.

The following discharges are prohibited and must be planned for accordingly:

- 1.) Wastewater from concrete washout, unless managed by an appropriate control,
- 2.) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials,
- 3.) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- 4.) Soaps or solvents used in vehicle and equipment washing.

## **Storm Water Runoff Controls**

This site has a total disturbed area greater than 5 acres; therefore, 3 separate EPSC phases have been developed. These sheets are shown in the civil plan set as Initial EPSC, Intermediate EPSC, and Final EPSC Plan. Supporting details are included in the rest of the civil plan set. Vegetative methods will be will range from sod, to plantings, to mulch. A copy of these civil plan sets has been included with this SWPPP. The measures shown on the Initial EPSC measures plan are to remain in place throughout the life of the project until the final stabilization measures and permanent site features are to be enacted. The Final EPSC measures plan is to be enacted as the grading activities provide for the ability to stabilize areas.

The ultimate goal of the storm water pollution prevention plan is to limit the release of sediment from the construction site. This information is provided as a guide for the developer and contractors, for installation, inspection, follow-up, and periodic maintenance of the items used to prevent and control erosion on this project. The design shown on the construction plans includes multiple measures taken from TDEC's Erosion and Sediment Control Handbook. The details for construction of these items are shown on the Detail Sheets of the construction plans.

Listed below are several general rules of thumb for grading work, along with stormwater rules from the Construction General Permit. These are in addition to the physical controls shown on the plans.

- Minimize clearing to reduce area of exposed soil. This can also be accomplished during construction by phasing work to minimize the exposed soil areas.
- The Contractor shall keep records of activities on-site including dates of installation, grading work, maintenance, and completion.
- Any off-site storage areas are also considered part of the project and must be protected from erosion.
- Seeding should be done as soon as work in an area is complete to minimize the area of exposed soil.
- A Notice of Termination (NOT) shall be completed when work on the project is complete. This will inform TDEC that the developer, contractor, and sub-contractors are no longer responsible for erosion control on the site.

The owner/developer should appoint responsible personnel to cover all aspects of the site operation. It is ideal that there be a pollution prevention team to accomplish the goals of the Storm Water Pollution Prevention Plan (SWPPP). The team members should perform routine inspections and inform the team coordinator of any changes in operations that may affect the SWPPP. More specific inspection recommendations are listed with each item below.

For a construction site, the pollution prevention team should include the site foreman, vehicle maintenance and fueling personnel, heavy equipment operators (grading and buffer issues), etc. SWPPP review and discussion should be a part of new employee training/certification programs.

Maintenance issues identified by inspections should be resolved as soon as possible, but definitely within 7 days or less. Best Management Practices (BMPs) that are found to be insufficient should be augmented or replaced with other BMPs that can more effectively manage the pollutant concern. Onsite personnel should contact the design engineer at 615-890-7901 if they observe that the current erosion control plan is not adequate to control sediment transport. This of course does not include regular maintenance of the controls after rain events.

This plan uses both Temporary Construction Site Management Practices (TCPs) and Permanent Erosion Prevention and Sediment Control (PESC) measures. TDEC's BMPs to be used are included below. An additional reference for erosion control is the Nashville Stormwater Management Manual (SWMM) Volume 4, "Best Management Practices.