Amending Soils for Establishing Vegetation

Affordable – Effective - Sustainable
How much $$$ is erosion costing you and your clients?

- Remobilizing
- Regrading
- Reseeding
- Lost Time
- Notice of Violations (NOVs)
- Aesthetically Unappealing
- Inability To Close Out Sites
Issues

- Establishing Adequate Vegetation
- Existing Soils
- Seed Mixtures
- Inadequate Amendments
- Contractor
- Specifications
- Knowledge On Site
Solution - The Answer Is Clear!

- Establishing Adequate Vegetation The First Time
- Soil Testing
- Soil Preparation
- Timeliness
- Communication
- Experienced & Knowledgeable Seeding/Erosion Control Contractor

Compost Blanket VS. Hydroseed
Successful Application Methods

- Permanent Soil Amending
- Seed & Straw
- Hydraulic Growth Medium (HGM)
- Compost Blanket
Permanent Soil Amending

- One of the most important aspects of establishing healthy vegetation.
- Carbon (biochar) based products create optimum conditions in soils.
- Half-life of Carbon is 800 years.
- Provides nutrients and pH buffer.
- Enhances soil structure.
- Creates pore spaces and aerates the soil.
- Houses water, nutrients, and biology in the soil so they are available for plant uptake.
Seed & Straw

- Spread and incorporate soil amendments.
- Broadcast or drill seed.
- Blow or place straw and crimp in to place.
- Good for flat areas and moderate slopes.
- Keeps the seed moist and warm which helps the germination process.
- Keeps the soil and seed in place during rain events.
Hydraulic Growth Medium (HGM)

- Adequately prepare the soil for seeding.
- Mix all seed, amendments, and mulch into hydroseeder.
- Spray HGM through canon or hose.
- Good for flat, moderate, and steep slope applications with the right mulch.
- Wood/paper mulch, Stabilized Mulch Matrix, Bonded Fiber Matrix, or Flexible Growth Medium depending on slope.
- Quick and easy application.
- Hydroseed slurry offers a good growing medium for the seed.
Compost Blanket

- Lightly prepare soils.
- Pneumatically blown in place.
- 60 - 80 tons of soil amendment per acre.
- Add 5% - 10% by volume Carbon amendment for optimum results.
- Good for all applications in poor soils.
- Provides immediate stabilization.
- 100% soil contact.
- EPA, USDA, NCDOT, NCDEQ Approved!
- USCC Seal of Testing Assurance Compost.
- Quickest establishment of vegetation.
What To Look For In A Contractor

- Properly Licensed and Insured
- Past Experience
- Certified Professional in Erosion and Sediment Control
- International Association of Hydroseeding Professionals Certified Hydroseeding Professional
- NCDOT Level I Certified Erosion & Sediment Control/Stormwater Installer
- NCDOT Level II Certified Erosion & Sediment Control/Stormwater Site Manager
- North Carolina Certified Stormwater BMP Inspection & Maintenance Professional
- North Carolina Licensed Landscape Contractor
- North Carolina General Contractor’s License
Project Examples

- Seed & Straw
  - Elm City Solar
- Hydraulic Growth Medium
  - Camp Lejeune Solar
  - Orange County Landfill
- Compost Blanket
  - NCDOT Wilmington Bypass
  - Duke Energy Sutton Plant
  - MV22 & P705-P710
- Other Applications
  - Living Walls
  - Living Edge
Elm City Solar Farm

Mirimichi Green’s CarbonizPN and Nutri-Release was utilized on this 350 acre site to establish permanent vegetation. Having the proper equipment is essential for success.

Installation of CarbonizPN and Nutri-Jump to permanently amend and increase biology in the soils. Grass establishment starts in the soils!
Elm City Solar Farm

The big bale blower is utilized on larger sites for quicker application and establishment.

The proper amount of straw is essential in controlling erosion and getting the vegetation establishment required.
Camp Lejeune Solar Farm

The Hydraulic Growth Medium was utilized on this solar farm due to the poor soils on site. Mirimichi Green’s CarbonizPN and Nutri-Release were used to establish a quick and thick stand of vegetation. The EPC, Department of the Navy, and Duke Energy were all very excited about the results of this 80 acre project.

Right before seeding application and 4 weeks after.
Orange County Landfill

Mirimichi Green’s CarbonizPN and Nutri-Jump were utilized in this Hydraulic Growth Medium application. They replaced traditional lime and fertilizer requirements on the entire project.

Hydroseeding long slopes  
Lush turf 4 weeks after installation
Wilmington Bypass

The Compost Blanket was specified on this project due to the sandy soils the NCDOT knew they would encounter. Pictures show the extremely sandy material, Compost Blanket installation, and thick vegetative cover results.
Duke Energy Sutton Plant

Due to the extremely poor sandy soils on site the Compost Blanket was chosen for stabilization and vegetation establishment on this 50 acre project. CarbonizPN was added to the Compost Blanket to ensure optimum results the first time.

Compost Blanket Installation

Grass Establishment
Due to the poor soil conditions on site, the Compost Blanket was chosen for stabilization and vegetation establishment on both of these projects around the apron and taxiways. FOD or Foreign Object Debris was also a concern because there was active air traffic on the military base. The Compost Blanket was able to eliminate that concern where as other methods such as straw mulching would have been an issue.
Structural Living Walls are great alternatives to traditional retaining walls as they offer a more aesthetically pleasing end product.

Before Construction

During Construction
Structural Living Wall cont.

After Construction

After Grass Establishment Initiated
Living Edge
Solutions for existing pond or stream edges that have eroded over time. Custom landscaping, native grasses, and ornamental plants can be added for a great focal point.

Before

After
QUESTIONS?

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