

January 16, 2025



Plan, Prepare, Apply

Achieving the Most from Your Hydromulching Efforts



Presented by: Dan Ray, CPESC, CESSWI



“It’ll Make Grass Grow on Rocks”





Agenda

- » Key planning elements of site planning
- » Preparing soil conditions
- » Applying seeding and mulching methodologies for successful revegetation

Overview

Hydromulching Overview

- » Mitigate erosion
- » Protect seed
- » Encourage moisture retention



PLANNING

Begin With the End in Mind

Planning: Step One (Pre-Construction)

» SWPPPs

» BMP plans

» Revegetation plans



Texas Commission on Environmental Quality
P.O. Box 13087, Austin, Texas 78711-3087



GENERAL PERMIT TO DISCHARGE UNDER THE
TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This permit supersedes and replaces
TPDES General Permit No. TXR150000,
effective March 5, 2018, and amended January 28, 2022

Construction sites that discharge stormwater associated with construction activity located in the state of Texas may discharge to surface water in the state only according to monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the Commission of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, on March 5, 2028.

EFFECTIVE DATE: March 5, 2023

ISSUED DATE: February 27, 2023


For the Commission

Planning: Step One (Pre-Construction)

» SWPPP Contents

- Based on CGP and local regulations
- Provide schedule and timeline of project phases
- Identify on maps (hydromulch, restoration areas)
- Preserving topsoil (stockpiling, segregation, vehicular access)
- Minimizing soil compaction
- Provide seed mixes

Planning: Step One (Pre-Construction)

Choosing a seed mix

- » Start with permit, local ordinances and project documents
- » Consult local agencies (NRCS)
- » Consult seed suppliers



Planning: Step Two (Construction)

- » Project kick-off
- » Coordination with contractors and subcontractors
- » Discuss topsoil preservation



Planning: Step Three (Construction)

- » Water source
- » Staging and access
- » Topsoil preservation
- » Supplemental watering



PREPARING

Prepare the Soil

Preparing the Soil

- » Depleted soils
 - Soil amendments
 - Biotic Soil Media (BSM)



Preparing the Soil

- » Lay of the land
 - Replace native soil if stockpiled
 - Remove rocks, roots, debris
 - Smooth and compacted
 - Rough and decompacted



Photo Credit: http://www.landandwater.com/features/vol46no1/vol46no1_2.html

APPLYING

Applying Seed and Mulch

Planting a Seed

- » There are multiple ways to seed
 - » Hydroseeding, broadcast, drill seeding, cultipacker



Applying Hydromulch

- » Follow manufacturer rates
- » Apply from multiple angles if possible



Applying Hydromulch



3,000 lb/acre

4.1 mm thickness



3,500 lb/acre

4.8 mm thickness



4,000 lb/acre

5.5 mm thickness



Photo Credit: [Microsoft PowerPoint - Draft - Contractor FGM guide \(geosolutionsinc.com\)](https://www.geosolutionsinc.com/)

How to Apply Hydromulch



How Not to Apply Hydromulch



Key Takeaways

- » Planning
- » Preparing
- » Applying



Questions



Dan Ray, CPESC, CESSWI

Environmental Specialist

903-851-3892

Daniel.Ray@powereng.com