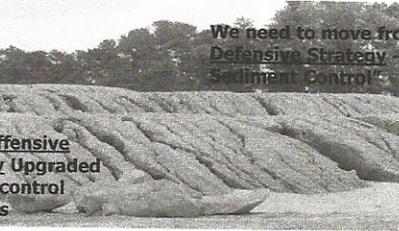


EROSION CONTROL WORKSHOP

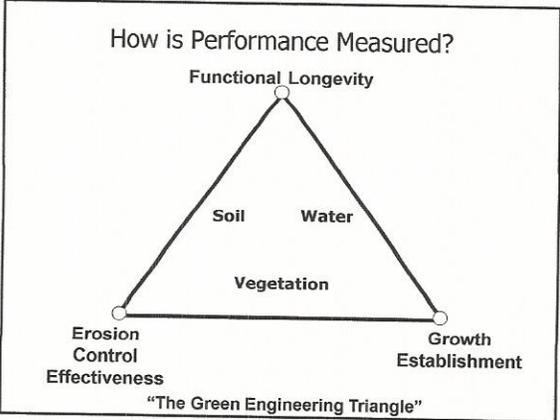
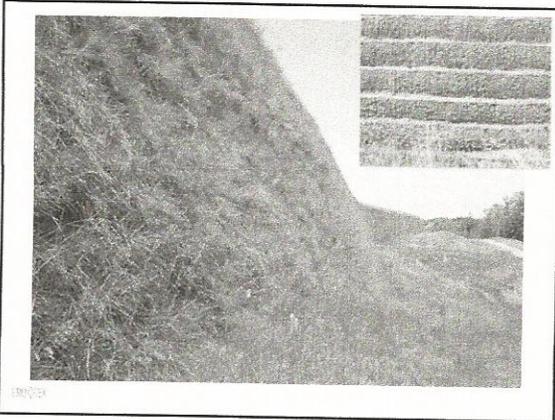
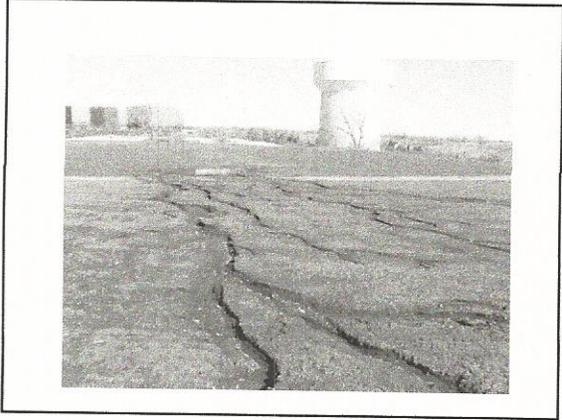
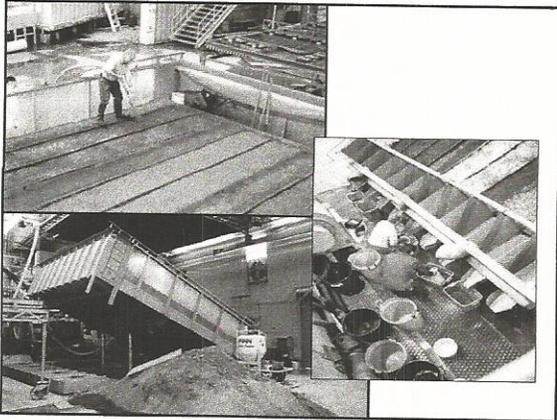
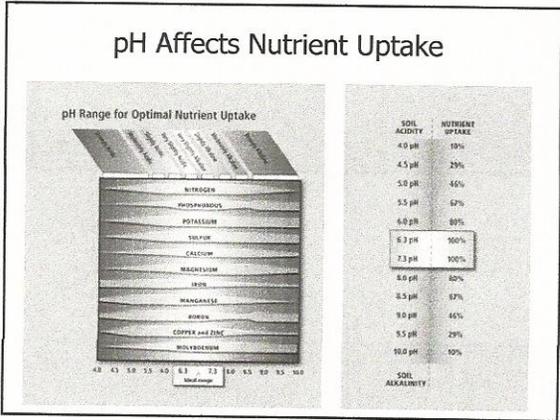
The Challenge on any Land Disturbing Activity is...
Controlling Soil Loss

To an Offensive Strategy Upgraded erosion control practices



We need to move from a Defensive Strategy - Sediment Control

There is a very real expectation that we get better, but the decision to change is ours!



Problems that we face with stabilization:

1. Sheet flow
2. Concentrated flow
3. Time of the year
4. Vegetation type
5. Soil quality
6. Protection layer
7. Wind and wildlife
8. How long will the protection need to last
9. Installation problems

ERDC

Seed installation:

- Soil test
- Prepare seedbed
- What type of seeder is going to be used
- Be aware of the season you are planting in
- Use recommended seed mixtures and seed rates
 - PLS -tags
- Use recommended fertilizer types and rates
- Protect your seed with something
- Redo any areas that are failing

ERDC



ERDC

Prescriptive Agronomic Formulations Soil Test?



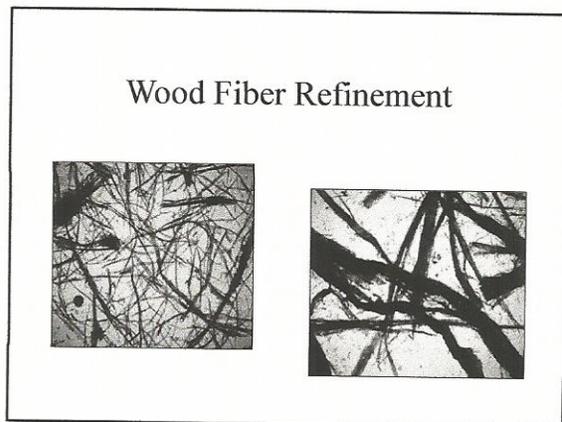
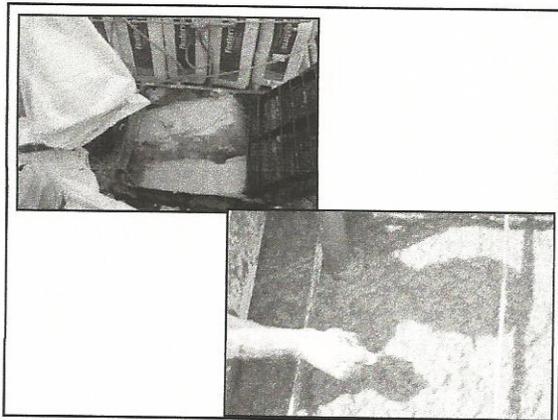
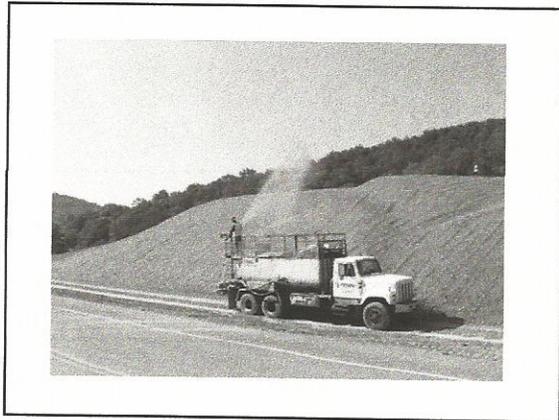
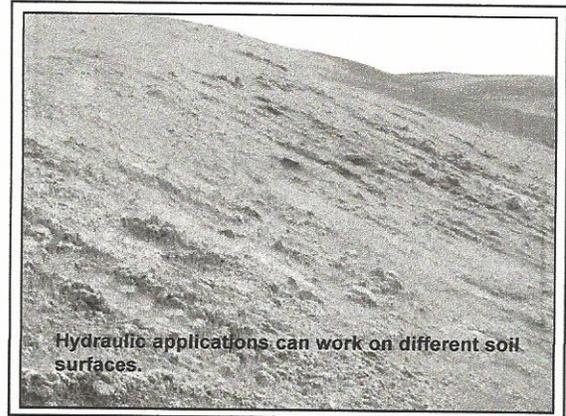
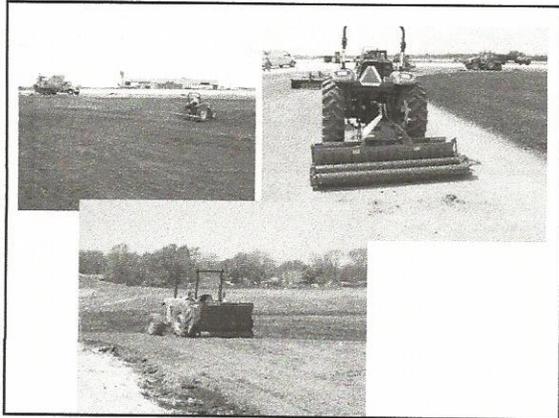
- Soil Neutralizers
 - Raise or lower pH of soil/soil solutions
- Growth Stimulators & Enhancers
 - Achieve faster germination & establishment
 - Sustain long-term plant life
- Organic Fertilizers
 - Slow release of nutrients

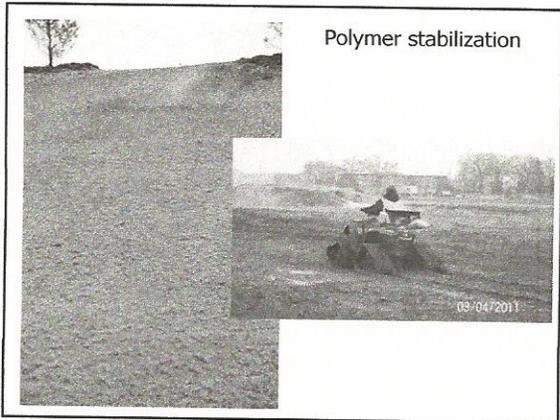
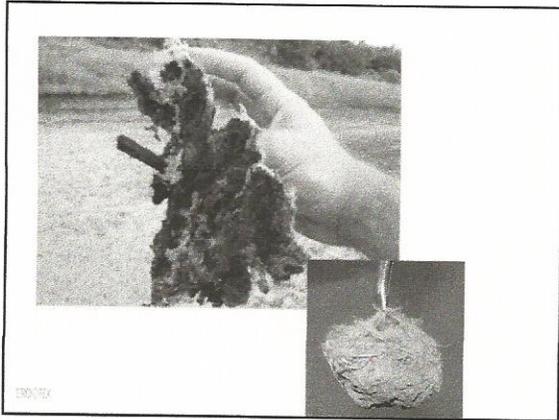
Reasons Why Grass Plantings Fail:

- Soil compaction
- Poor soils- PH, Salt, Organics
- Unfavorable soil temperatures
- Insufficient soil moisture
- Improper seed placement
- Freezing (Late fall seeding)
- Cooking (Mid summer seeding)
- Poor drainage- Shoreline work
- No erosion control

Seeding Techniques - it is important to have the seed in direct contact with the soil.

- Hand seeding
- Drill seeding
- Mechanical seeding
- Hydraulic seeding



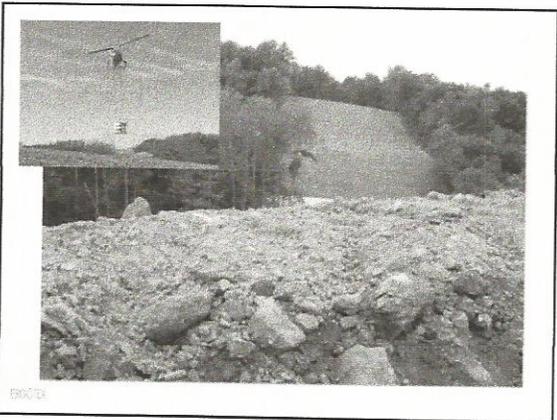
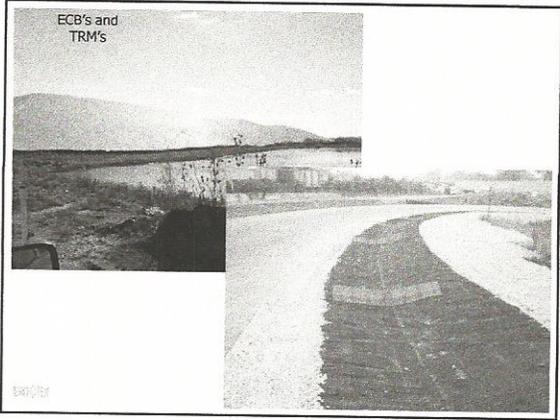


Applying the material:

- Use a fan-type nozzle (50-degree tip) whenever possible for best soil surface coverage.
- Apply from opposing directions to soil surface reducing the shadow effect and assuring a minimum of 98% soil surface coverage.

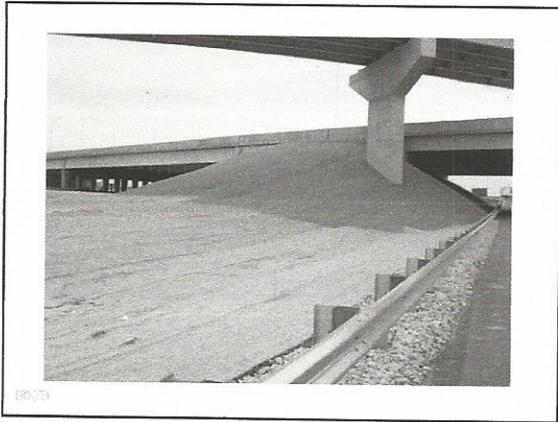
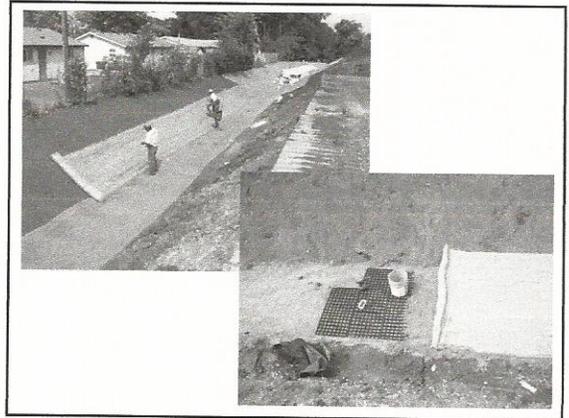
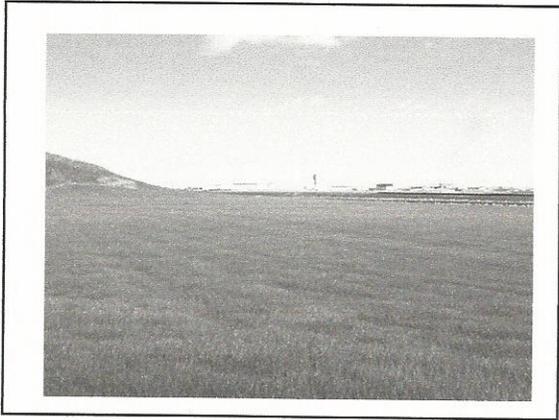
Proper Application

Improper Application

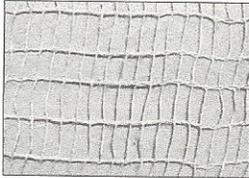


What to think about:

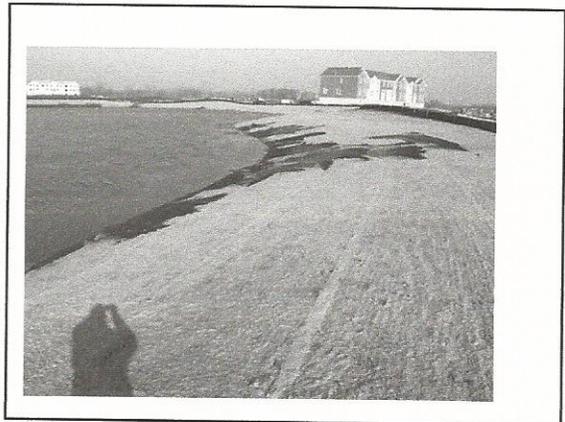
<p>ECB</p> <ul style="list-style-type: none"> -Performance level -Netting type -Even coverage -Stitch spacing -Thread type -LBS per square yard -Does it control soil loss -Does it grow grass -Staples per square yard 	<p>TRM</p> <ul style="list-style-type: none"> -Performance level -Netting type - Is it soil filled- protection layer is what -Even coverage -Stitch spacing -Thread type - LBS per square yard - Does it control soil loss and grow grass - Staples per square yard
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Nets



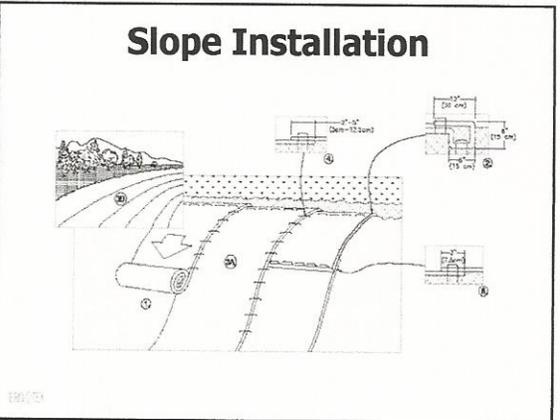
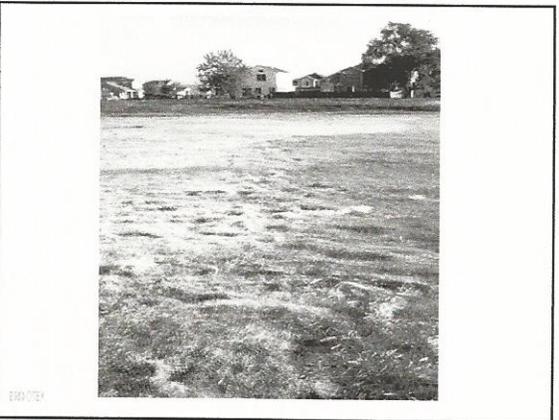
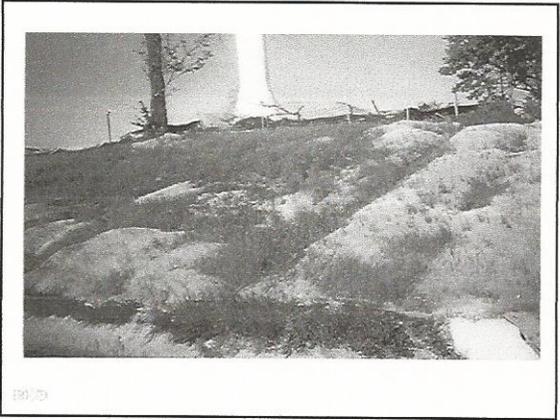
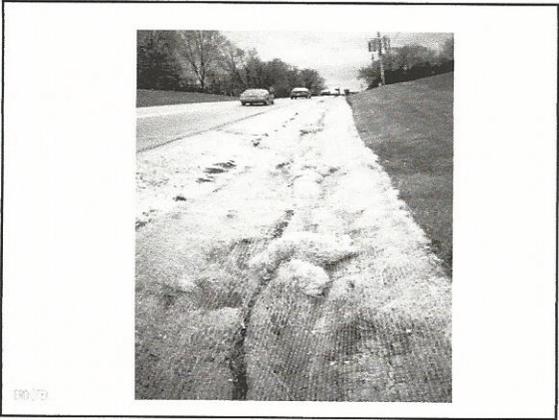
- Bio Nets
- Green nets
- Clear or white nets
- Black nets





Erosion Control Blanket

- Anchored on summit of slope
- Unrolled parallel to primary direction of flow
- Overlapped in the direction of flow
- Direct contact with soil



Staples

North American Green's EcoSTAKES™

North American Green Metal Staples

ERM/TEX

Soil filled Mats

TRM'S are not made for slope reinforcement!

ERM/TEX

THE LATEST IN BIODEGRADABLE TECHNOLOGY

BioNet Long-Term Biodegradable Blankets

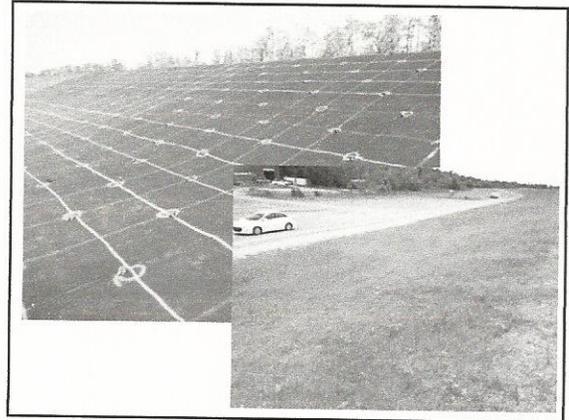
700 gram coir top net, jute bottom net, coconut fiber matrix

- >1:1 Slope Protection
- Channel shears up to 3.0 lbs/sf
- High tensile strength
- Longevity up to 5 years

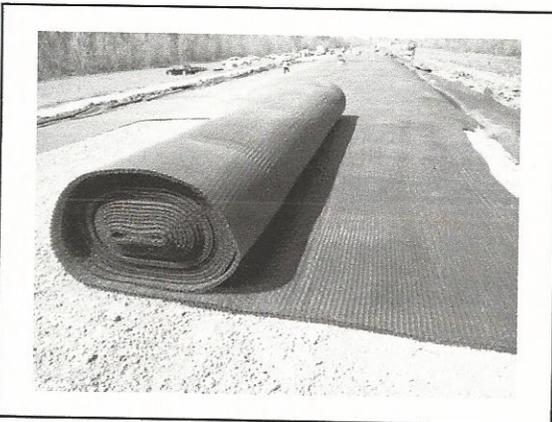
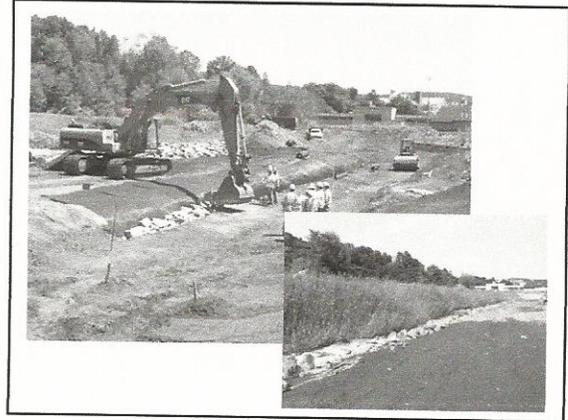
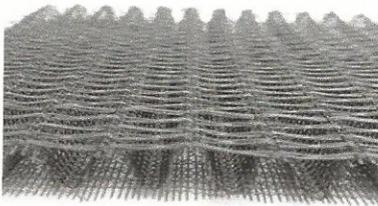
BioNet Long-Term Biodegradable Blankets

•C700BN Applications

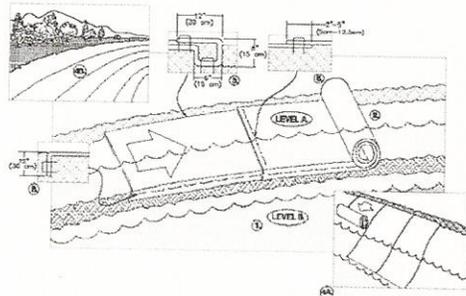
- Channels/shorelines/slopes where long term (>36 month) protection is required but 100% biodegradability desired
- Fabric incorporates high tensile coir netting outer wrap with coconut fiber blanket inner-layer ideal for wrapped soil wall construction



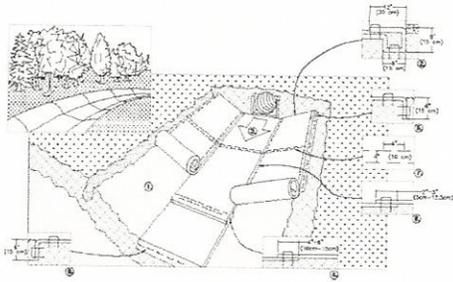
Woven High Performance TRM



Shoreline Installation

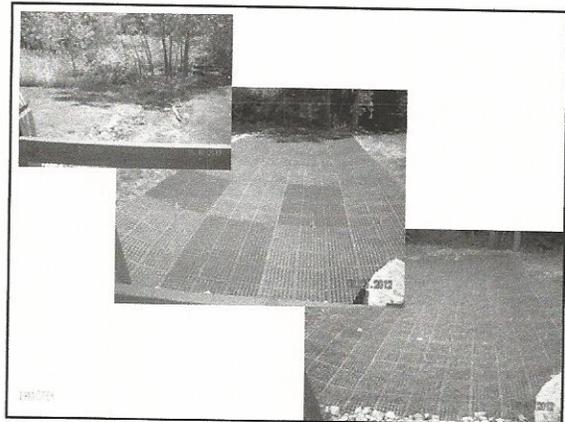
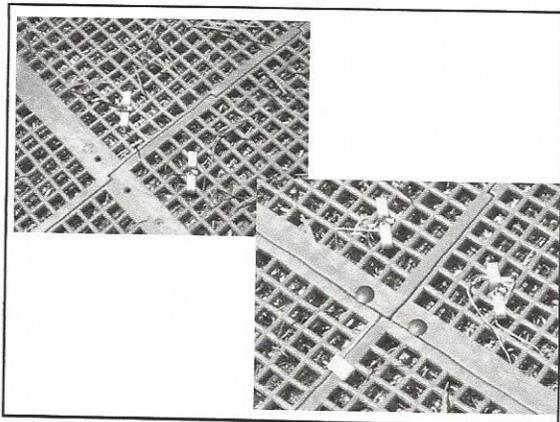
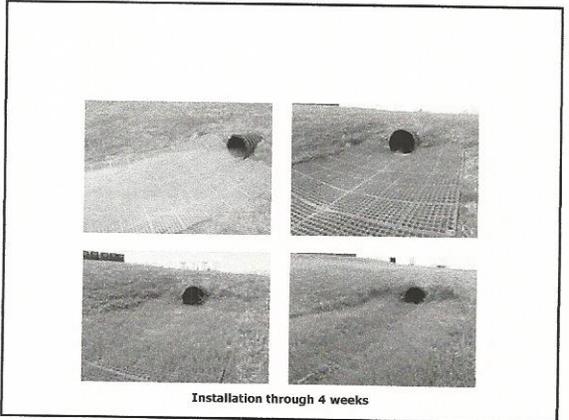
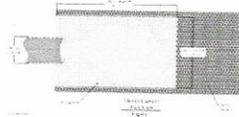


Channel Installation



Transition Mats

- Shoreline, Channel, Culvert
- Typically installed with staples, rebar, or earth anchors
- Culvert designs
 - » Width
 - » Length



Questions?

