



Installation Manual

SOX EROSION SOLUTIONS

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Materials Needed for Installation

1. 1/4" Diamond braided poly propylene rope w/ poly core
2. Sledge hammer
3. Needle nose pliers
4. Utility knife
5. Bow rake
6. Round point shovel
7. Square point shovel
8. 8" x 8" or 12" x 12" Hand tamper
9. Scissors
10. 65 lb braided fishing line
11. Large sewing needles (straight & curved)
12. Stakes **appropriate** for established stability, CSP is responsible for determining the appropriate stakes/anchors to provide stability to the SOX Systems
 - a. If the stakes are wood:
 - i. 2" x 2" wood sticks should be cut into 2-3' lengths depending on soil/substrate
 - ii. A 45 degree angle should be cut on one end of the stake
 - iii. A 1/2" diameter hole should be drilled into the other end (3" from the end)
 - b. WOOD STAKES ARE NOT APPROPRIATE FOR:
 - i. Shale
 - ii. Granite
 - iii. Some clay's
 - iv. Loose soils / gravel
 - v. Lateral anchoring

Shoreline Preparation

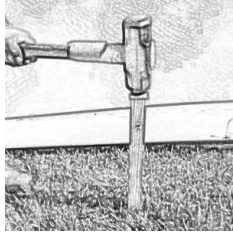
- Area needs to be cleared of any debris, tree stumps, pipes, etc. Anything that may penetrate through the Dredgesox material must be removed.
- It is ideal for the area to be clear and flat, however large trees may remain with proper installation. You must stake the material around the tree and sew the cut material together.
- Irrigation pipes must be extended, buried, or moved.
- Before installing anchor stakes, determine what is solid ground and what is unstable ground. Soft ground may require the use of longer stakes.

DredgeSOX Installation

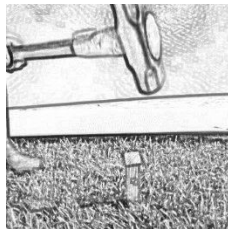
Wooden Stake Installation:

Begin by pounding the bottom row of wooden stakes into the ground.

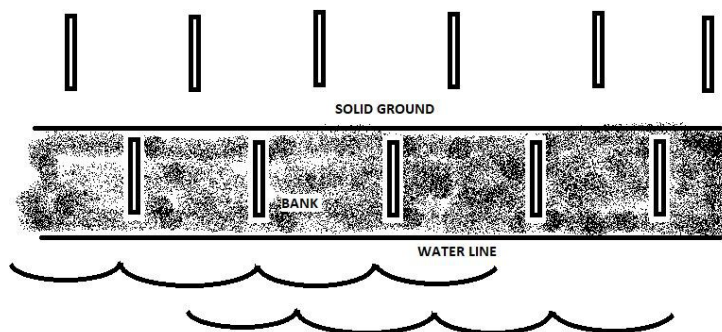
1. Stakes should go into the ground bevel side first, bevel facing water body



2. Pound stake into the ground without burying the drilled rope hole



3. Stakes should be placed approximately 3 feet apart
4. Stakes should be perpendicular to the solid ground
5. Stakes should be installed approximately 1-2 feet above the water line.



Next, the TOP row of wooden stakes should be installed.

6. Stakes should go into the ground bevel side first, bevel facing water body
7. Stakes should be installed approximately 2-3 feet above the bottom row depending on the incline.
8. Stakes should be approximately 3 feet apart
9. Pound into the ground without burying the drilled rope hole
10. Stakes should be perpendicular to the solid ground
11. Upper stakes should be centered (offset) between the lower stakes

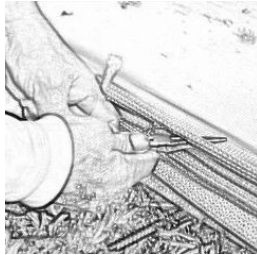
Prepare Material for Installation

1. Begin by unrolling the SOX material along the perimeter of the installed stakes (Finished side down, unfinished side up)
2. Drag the entire length of material down just past the bottom row of stakes located near the water line. Most of the material should now be lying in the water.

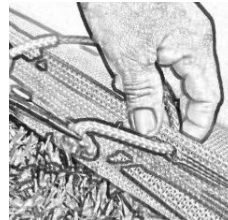
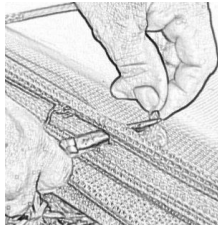
Securing the DredgeSOX Material to the BOTTOM row of Stakes (12' SOX Installation)

The purpose of the bottom row of stakes is to prevent any dredged materials from flowing under the SOX.

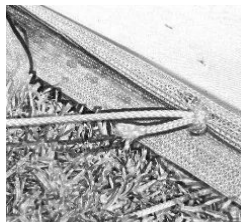
1. Make sure the channel rope is tied securely at the start of the material to the first stake.
2. Tie the SOX material to the stakes every 3 feet (see instructions below).
3. Then pull the channel rope tight and secure the end.
4. The stakes must now be tied to the SOX material.
5. Use the needle nose pliers to poke through the material (just under the rope in the anchor channel).



6. Grab the rope with the pliers and pull it back through the hole approximately 6".



7. Tie the rope to itself to secure it to the material



8. Feed the open end of the rope through the hole in the stake.



9. Pull the rope through tightly.

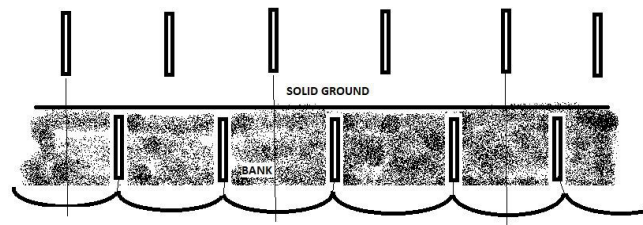


10. Wrap the rope around the stake making sure the wrapped rope is under the lead rope then tie three knots to secure.



Extra Support for the bottom of the DredgeSOX Material

1. After the bottom row of stakes is tied, the bottom of the material will need extra support.
2. Between each tied stake on the bottom row, you will now add another piece of rope.
3. This rope will be secured to the material and then brought up to every other stake on the top row.



4. Now you will pound in the entire bottom row of stakes to below ground level.

Securing the DredgeSOX Material to the TOP row of Stakes

1. The top of the material must now be secured to the top row of stakes.
2. Repeat the same process to secure the material to every other stake. Do not use this process on the stakes that already have a rope through the hole.
3. For the stakes that have a rope already through the hole: wrap the new rope around the stake underneath the existing rope and tie it to the existing rope.
4. **DO NOT** pound in top row of stakes at this time. The top row will be pounded flush below the ground after the Dredgesox has been filled with the dredged material.

Sewing the ENDS of the Dredgesox

1. Use the needles and fishing line to sew the complete ends of the DredgeSOX.
2. When sewing ends together make sure you **DO NOT SEW INTO THE CHANNEL ROPE, ONLY INTO THE MESH INSIDE THE SEAM**. Rope needs to be able to move freely for tension purposes.
3. After sewing the ends of the DredgeSOX, use the same anchoring method to secure the middle of each end that was just sewn.

4. If a job requires more than one length of SOX, material should be sewn to the next length of material to create a seam. Stakes should also be used along the seam to secure. **DO NOT SEW INTO THE CHANNEL ROPE, ONLY INTO THE MESH INSIDE THE SEAM.** Rope needs to be able to move freely for tension purposes.

Filling the Dredgesox

The DredgeSOX must be filled properly with sustainable material. Start at one end and fill directly into the top opening near the stakes. After completely filling, allow a minimum of 2 hours for the material to compact and settle before finishing.

Prepping SOX prior to planting:

1. Use hand or mechanical tamper and grade to desired slope.
2. Any excess dredged material in front of the SOX can be shoveled and placed on top of the finished SOX to use as backfill for a smooth transition between the SOX and the existing embankment.
3. Top row of stakes are now ready to be pounded to below ground level.

Vegetating the SOX:

Sod, seed or ground cover may now be laid on top of the filled DredgeSOX

1. When Sodding
 - i. Start at water line and use two chopsticks on first row to avoid sod slipping. The first row of sod will be laid vertically, the following rows of sod after the first row will be laid horizontally.
 - ii. Sod one foot past the top row of stakes, tying the new sod into the existing sod on the embankment.
2. When Seeding
 - i. Either apply the seed into the SOX prior to pounding stakes below grade or seed the exterior. “Reseeding may be necessary due to environmental conditions out of your control”

3. When Planting

- i. With a utility knife cut a small “X” into the SOX material to the size of the plant after the completion of the installation.
- ii. For 1 gallon or larger plants which require a larger cut into the SOX material, once installed the cut SOX material will have to be laid flat and sewed together.