



## **EROSION CONTROL GUIDELINES (INLAND) 3<sup>rd</sup> Edition**

[gordonpeabody@gmail.com](mailto:gordonpeabody@gmail.com) By Gordon Peabody, 2022. [www.SafeHarborEnv.com](http://www.SafeHarborEnv.com) It is important to understand Erosion Control Performance Standards when working near wetland areas. It is incumbent upon Contractors to install Erosion Control Systems capable of performing with zero discharge of silt and sediment beyond the Limit Of Work. This goal is easily met with three simple rules: 1. Use proper materials, suited to slope and flow; 2. Properly install these materials; 3. Properly inspect and maintain these systems. ***Here are some of the materials we use, in our EC systems:***

**1. Silt fencing**, a semi permeable geotextile filter fabric, is now available in 24-inch height and comes with factory staking 10 ft O.C.. Effective installation is critical to increase performance. We recommend additional stakes (5' OC). The lower edge of fabric is easily inserted 4-6" into grade using either a lawn edger or shovel tip. Cape Cod is no place for 36" silt fencing that acts like a sail, 24" wide is ideal. Staple fencing fabric onto the extra stakes. The staples should be vertical for maximum effectiveness. We use Arrow T 50 3/8" staples. Hold the stapler tightly against the fabric and stake



***Images by G. Peabody.***

The outdated, 36-inch height silt fencing frequently blows out, requiring constant and time consuming repairs.







**2. Canvas Gaskets**, vertically stapled, will secure the silt fencing fabric in 50 mph winds. Any heavy cloth can be useful for gaskets. First, the silt fence stakes are driven into the grade (ground). Drive in stakes until about an 8" flap of fabric remains on the grade/ground. Use a lawn edger or shovel tip to vertically insert the edge of the 8" flap of fabric into grade 4-6". In root bound spots, secure fabric flap with ground staples, 6" O.C.. Flap area can also be covered with several inches of sand. Enhance performance by adding extra stakes, every 5'. Extra stakes should be alternated on either side of the silt fencing fabric for more support.

**3. Biolog** sediment barriers use straw filled rolls of jute netting, secured with 6" Corn Starch or metal ground staples 1' O.C.. This system is recommended for maintaining zero discharge performance standards on gently sloping or side slope, inland sites.



*Images by G. Peabody*



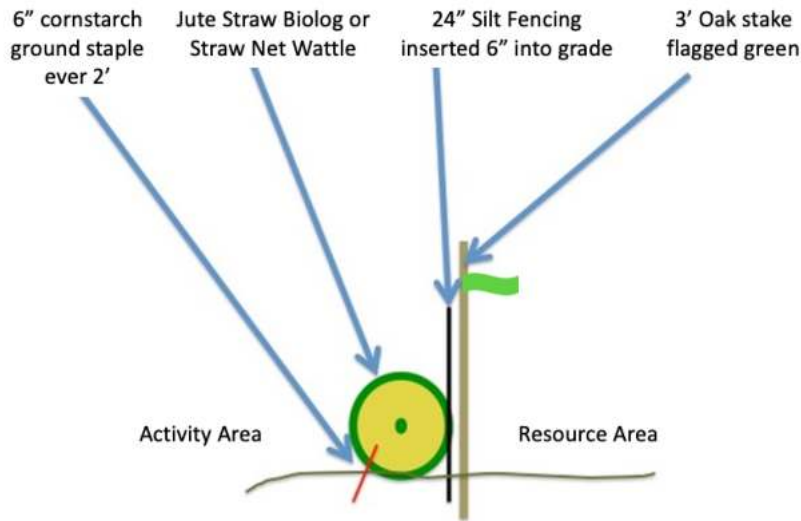


We use affordable and easy to work with Jute Netting to build Biologs. Jute Netting is unrolled along silt fencing, inside/along the Limit of Work. Biologs can also be created in 20-30 ft moveable sections. The back of the Jute Netting is hung on the stakes of Silt Fencing. Straw is broken up from bales and spread evenly along the Jute Netting. This system can be used with Straw Bales or packaged bales of “clean boiled straw”. Produces 30-40 ft of biolog/bale of straw. The lower edge of Jute Netting is picked up and folded over the top of the Straw. A 12 inch diameter Biolog lasts for a year. A 16” Biolog can last for two years. Biologs are easily refreshed with new straw. We often reuse Biologs on other projects



**Image by G. Peabody.** Completed Silt Fence-Biolog. Successfully tested in 50yr rainfall event.





**4. Straw Bales.** On steep slopes, straw bales may replace a Biolog but we only recommend them in conditions of potentially extreme flow. Straw bales create dead zones beneath them and also over-nitrify the habitat area. Bales should be double staked.



Recognize the difference between affordable, absorbent Straw, shown here, and Hay. Straw is composed of almost all stems with few seeds. Hay, (not shown), is full of seeds and sold for livestock food. Basically, we don't want non-native seeds in native habitat

**Sometimes an upslope Limit of Work (LOW) may not require erosion control**

Bales should never be considered for uphill runs of erosion control systems.

The image on left by G. Peabody, shows unnecessary bales going upslope and native vegetation cut away unnecessarily for very expensive EC system.



IF you ever see water flowing uphill, contact Safe Harbor



*Images by G. Peabody*

Biologs with Cornstarch staples can be left in place. Biologs decompose and become part of the leaf-stem-root system.



**5. Straw Wattles** are six inch diameter straw filled plastic mesh tubes. Other than the fact that the plastic does not degrade and often traps snakes, the system is often a good fit, along with silt fencing, for large projects.



**6. Cloth Filter Socks** are ten inch diameter cloth tubes which are filled with wood chips and or straw. These are suitable for heavy slopes and long term projects. Often used with silt fencing.





**7. Contractor Fencing** comes in 4 foot wide, bright orange rolls of plastic webbing. This is an appropriate addition outside of any EC system when demolition in windy areas is a factor. We recommend 10 ft spacing of 5 ft stakes, either interlaced or stapled, as a means of attachment.



**8. Sand Fencing** uses 24 inch high lengths of 4 ft sand fencing in sand environments. 4 ft fencing creates kill zones for small mammals and predators. Other materials are not effective in blowing sand conditions. Several rows of the short fencing can be spaced 12" apart and easily installed with a rubber mallet, without any stakes. We chain saw 4 ft sand fencing rolls in half.

