

# CONSTRUCTION SITE COMPLIANCE CONNECTION

## A Look at Sediment Control Tools WATTLES AND FILTER SOCKS

### What are wattles and filter socks?

Wattles are synthetic or fiber netting tubes filled with straw, coconut fibers, or excelsior. Filter socks are synthetic mesh or netting tubes filled with compost or mulch. Both come in various lengths and widths. Wattles and filter socks are used to impound sediment-laden runoff on the upslope side of the tubes. They allow sediment to settle out of the runoff. They also slow flows to help reduce scouring and erosion.

### How to use wattles and filter socks

They can be used as perimeter controls and ditch checks and to break up slope length. The spacing between wattles or filter socks on slopes and in ditches is dependent on steepness. On steeper slopes these practices need to be spaced closer together. For example, on a 4:1 slope, 9" wattles should be spaced 20 feet apart, but on a 2:1 slope, 9" wattles should be spaced 10 feet apart. Recommended wattle and filter sock spacings can be found in Iowa Statewide Urban Design Standards and Specifications (SUDAS) Chapter 7. It is recommended that wattles and filter socks be doubled-up at locations near waterbodies. Maintenance is required when they are half full of sediment and /or are torn. They need to be replaced when run over and flattened, a common issue, or are undersized for the drainage area.

### Placement methods

Place wattles and filter socks in a shallow depression. Stake in place following following SUDAS guidance, with stakes no more than 4' apart for wattles, and no more than 10' apart for filter socks. When placed on slopes or used as ditch checks, upturn both ends to allow for ponding of runoff and to prevent scouring along the ends. Break up runs of wattles or filter socks that are longer than 20' using J-hooks. Ends of two sections should overlap. The hooks impound runoff and reduce the potential for overwhelming practices further downslope. Iowa DOT research has shown that erosion control blankets placed beneath wattles and filter socks in ditches can help reduce scouring beneath these practices.



Ends of this filter sock are upturned to impound runoff. Stakes are placed in the center of the socks.



Stakes can be driven into the center or the teepee method can be used. Blankets can be used beneath both practices to reduce scouring.



Overlap ends of two sections. The stakes at this site should have been driven into the practices or the teepee method could have been used.

