

Stormwater Treatment Area Planting Plan

Pre-planting Site Preparation

In order to remove the current cover of exotic pasture grasses and prepare the area for planting, the following restoration strategy will be used. In the first year, the littoral area within the perimeter levees will be herbicided during the dry season (approximately March or April) when the plants are actively growing. Herbicide treatment will be done utilizing a tractor-, truck- or ATV-mounted calibrated spray system using glyphosate at 7.5 pints per acre with methylated seed oil (MSO) surfactant at a final application rate of 50-100 gallons of mixture (herbicide + MSO + water) per acre. Two months after herbicide treatment, the dead thatch will be burned. A second herbicide treatment will be performed post-burn and before seed heads on the grasses emerge using the same equipment as before but using imazapyr herbicide at 3 quarts per acre with MSO surfactant at a final application rate of 50-100 gallons of mixture per acre. The littoral area will be treated each year during the dry season for at least the following two years using Imazapyr at three (3) quarts per acre with MSO or 5% glyphosate with MSO for spot treatments. The littoral area must remain dry throughout the treatment period to ensure proper absorption of the herbicides. No planting will be done for at least six months after the last treatment with imazapyr, if the imazapyr is applied to soil, and until cover of exotic pasture grasses is deemed to be negligible.

Planting Plan

The planting plan for the littoral area (Figure 6) includes planting a mixture of Gulf Coast spikerush (*Eleocharis cellulosa*) and fragrant flatsedge (*Cyperus odoratus*) at the higher elevations adjacent to the external levees and internal ditches. A combination of bulltongue (*Sagittaria lancifolia*), pickerelweed (*Pontederia cordata*), knotted spikerush (*Eleocharis interstincta*) and giant bulrush (*Schoenoplectus californicus*), will be planted at the lowest elevations. Fireflag (*Thalia geniculata*) and soft rush (*Juncus effusus*) will be planted at mid-elevations. Cypress (*Taxodium distichum*) and common buttonbush (*Cephalanthus occidentalis*) will be used to fill a low area in the northern portion of the western levee. These species will provide the necessary vertical structure and rigidity to impede movement of floating exotic vegetation from the pond area to the adjacent LWMA and from the LWMA to the STA Project area during high-water conditions in the St. Johns River. These species are also less susceptible to herbicides that may be used for the control of any residual or colonizing exotic pasture grass. On average, mature (> 1 foot tall) plants will be planted on 3 – 4-foot centers in groups. Placement of species, planting groups and planting densities will be dependent upon site conditions at the time of planting. Planting will be deemed successful with 80% survival of plants at 30 days post-planting. Plants that die before that time will be replaced.