General Notes on Vegetation Monitoring

Vegetation Monitoring

The majority of the vegetative monitoring was done between June and October. USACE representatives were contacted in most cases before monitoring each site.

Tree Density

To determine tree density, 50' x 50' plots are installed immediately following planting. The actual numbers of planted trees, which occur within the plot, are counted. This number is equated to the number within each plot, which represents 680 trees per acre (average). The survival monitoring number is compared to the planted number to obtain survival percentage. This percentage is applied to the 680 trees per acre to obtain an estimated tree per acre for the site. (Density = monitoring count / planted trees x 680).

Nuisance Species

It was noted in last year's comments from the agencies that certain naturally occurring species may be a problem in some sites. Species that the regulatory agencies consider a nuisance, such as red maple, sweetgum, and loblolly pine are noted in the site notes of each report if they are found on site. The presence of these species does not necessarily indicate a problem with the desired vegetation on site. Gurley Swamp, Huskanaw, Mildred Woods, and Bull Farm were all visited by NCDOT and regulatory personnel this past spring to examine this issue. If planted and/or desired vegetation is living and the plot data supports success NCDOT does not consider these species (red maple and sweetgum) to be a problem. Portions of a site that exhibit monoculture stands of these species or that do not exhibit required success criteria will need to be examined and quantified on a site-by-site basis.

Target Species

When an as-built plan is prepared, the tree species that are specified to be planted in each planting zone are provided. During monitoring it is sometimes discovered that different species other than those specified have been inadvertently planted. When these species are found in our test plots they will be added to the planting list provided in the report. These species will be highlighted to identify which ones were added.

Tree Counts

One problem NCDOT has continuously encountered is tree counts that change from year to year. Positive identification of young tree seedlings is difficult.

Young seedlings, especially willow, water, and laurel oaks, have many leaf variations from year to year. As these trees mature positive identification becomes easier. Another factor as to why these counts change is the difficulty in finding seedlings when there is heavy competition in the site. Trees are tagged each year during monitoring. Some trees may be found one year and not the next. They are then identified the subsequent year. We appreciate the fact that the success criteria relies on 5-year old trees being present in the site at the end of the monitoring period. We will make every effort to ensure an accurate count of these trees.

Photo Points

Efforts are made to record photos at the same location each monitoring period. The location of each photo taken will be shown on the attached map.

Miscellaneous Comments

Comments such as “beaver activity”, “standing water in plot”, or “nuisance species in plot” are noted from year to year only as an observation. These issues will be further addressed only if remedial action is necessary.

Site notes are observations made during the monitoring period, usually a one or two day event. They describe conditions of the site observed by the monitoring team. These observations are in no way a complete visual study of the site. Unusual or interesting features of the site are noted in the report. Regulatory personnel are encouraged to contact NCDOT for a site visit if further observations are required.