

Talecris Mitigation Plan
UT to Neuse River
WBS No.59002 Division 4
April 26, 2010

The North Carolina Department of Transportation will perform on-site mitigation for impacts associated with Talecris access road project, Division 4 WBS No. 59002 in Clayton NC. An alternative access road is proposed from SR 1901 Powatan Road across the NovoNordisc property to the eastern side of the Talecris property. The mitigation site encompasses approximately 1160 feet of an unnamed tributary (UT) to the Neuse River and occurs on the Talecris property.

NCDOT proposes that the mitigation site will provide 1160 feet of stream enhancement, 75,000 sq ft of buffer restoration, and 1 acre of wetland enhancement. Onsite mitigation is proposed to offset impacts due to the roadway project of 21 sq ft to Buffer Zone 1 and 1360 sq ft to Buffer Zone 2, for a total debit of 2103 sq feet of buffer mitigation.

Existing Conditions

This project is located in Johnston County near Clayton at the Talecris Biotherapeutic facility on Hwy 70 (Figure 1). Within the site, the UT to the Neuse River was previously ponded by a dam at the northern end of the site. Currently, the UT enters the site from the south at a stone culvert under the railroad. It flows in a northerly direction approximately 1200 feet before to its confluence with another unnamed tributary. The UT then exits the site across the breached dam of the old pond. The drainage area is 350 acres. The UT is approximately 8 feet wide and 2 feet deep. The slope varies from .01 to .02 ft/ft. The banks along the entire channel are fairly stable but are covered only with herbaceous vegetation. The buffer along the portion of the channel within the old pond bed is composed of herbaceous vegetation with pines along the outer edge. One acre of wetland was delineated along this portion of the channel. The buffer along the upper reach of the channel is wooded.

Proposed Conditions

NCDOT will construct the Talecris access road from Powatan Road across the NovoNordisc property to the Talecris facility. The access road will enter the Talecris property from the east and cross the UT of the Neuse River at the location of the old pond dam. The proposed crossing will be in a baffled culvert on a slope of .02 ft/ft.

NCDOT will enhance approximately 1160 feet of the UT by planting the banks of the channel with live stakes of silky dogwood (*Cornus amomum*) and buttonbush (*Cephalanthus occidentalis*) on three foot centers. Approximately 75,000 sq feet of buffer will be restored along both banks of the channel by planting a minimum of 50 feet with bare root seedlings on 8 foot centers. Bottomland hardwood species will be planted as available including at least three of the following: water oak (*Quercus nigra*), tulip

poplar (*Liriodendron tulipifera*), green ash (*Fraxinus pennsylvanica*), willow oak (*Quercus phellos*), sycamore (*Platanis occidentalis*), water tupelo (*Nyssa aquatica*), swamp chestnut oak (*Quercus michauxii*).

A two foot sill will be constructed at the culvert inlet to prevent a headcut through the old pond sediment and stream channel. The site will be protected by placing it in a conservation easement granted to NCDOT. See the attached Figure 2 for the conservation easement , stream enhancement, and buffer restoration boundaries.

Monitoring

The site will be visually monitored and documented with photo points for channel stability and vegetation survival for three years. The conservation easement will be held in perpetuity and recorded on the Talecris deed. The mitigation site and conservation easement boundary will also be placed on the Natural Environment Unit's Mitigation Geodatabase for long term stewardship.