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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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DAVID McCOY
ACTING SECRETARY

June 17, 1999

Doug Huggett
Division of Coastal Management
P.O. Box 27687
Raleigh, NC 27611-7687

Re: Colington Mitigation Sites, Dare County, TIP Project No. B-2024; State Project No. 8.2050301; COE Action ID No. 199103381.

Dear Mr. Huggett,

The North Carolina Department of Transportation (NCDOT) has monitored the referenced mitigation site since 1995. No hydrologic monitoring was required on this site. Vegetation monitoring has been conducted for three growing seasons.

The sites are located at Bridges No. 5 and No. 6 along SR 1217 in Dare County. They consist of approximately 1.27 acres of marsh total and include the following communities:

- Brackish Marsh on-site (creating approx. 0.50 ac)
- Brackish Marsh off-site (creating approx. 0.63 ac)
- Brackish Marsh off-site (restoring approx. 0.14 ac)

The sites were planted in July 1995. No plots were established. Sites 1 and 2 known as Colington Cut and Site 3 known as Colington Creek were both planted with *Juncus roemerianus*. Site 3 was also planted with *Spartina alterniflora* and *Scirpus*. Vegetation monitoring began in August 1995. The success criteria established requires a 50% survival rate of planted species and 50% aerial coverage for at least three consecutive years.

At the time the 1996 Annual Report (1st year of monitoring) was prepared, the vegetation results were as follows:

Site	% Coverage
1	85%
2	85%
3	95%
Average	88.3%

Sites 1 and 2 had heavy infestation of *Phragmites*; however, *Juncus* was still present. Site 3 had been established and was blending in well with the adjacent marsh. It had a cover of approximately 80% *Spartina*, 15% *Scirpus*, and 5% *Juncus*. By visual observation, it had been determined that approximately 75% of the planted species had survived, covering approximately 88% of the sites.

As of the 1997 Annual Report (2nd year), the vegetation results were as follows:

Site	% Coverage
1	20%
2	20%
3	100.0%
Average	46.7%

Sites 1 and 2 continued to be infested with *Phragmites*, but a small area of *Juncus* still remained at the site. Proposed remedial action by NCDOT included plans to treat the *Phragmites* infestation of sites 1 and 2 with an appropriate herbicide application in 1998. Site 3 had a cover of approximately 90% *Spartina*, 5% *Scirpus*, and 5% *Juncus*. It continued to blend in well with the adjacent marsh. By visual observation, the sites averaged approximately 47% cover with a continued 75% survival of the species planted.

During the third year of vegetation monitoring in 1998, the vegetation results were as follows:

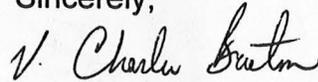
Site	<i>Juncus roemerianus</i>	<i>Scirpus</i>	<i>Spartina alterniflora</i>	% Coverage (3 years)
Colinton Cut (Sites 1&2)	1%	NA	NA	1%
Colington Creek (Site 3)	20%	5%	75%	100%

By visual observation, the planted area at Colington Cut was averaging 1% aerial coverage of *Juncus* which was growing around the fringes of the site. This low percentage rate was due to the continued heavy competition of *Phragmites* and is below the required success criteria. In response to this problem the infested areas were mowed and treated with herbicide to help control the *Phragmites*. The planted area at Colington Creek, however has done exceptionally well. The entire planted area has become established predominately with *Spartina alterniflora* mixed with *Juncus roemerianus* and *Scirpus*. As of the 1998 Annual Report, by visual observation this site had an aerial coverage of 100% with a 75% survival rate. Over the three year monitoring period Colington Creek has maintained an area coverage and survival rate of plants well above the minimum criteria.

Due to remaining *Phragmites* infestation, Colington Cut will continue to be monitored. A plan to resolve this problem is forthcoming. It was concluded in the 1998 Annual Monitoring Report that Colington Creek has met the vegetation criteria. At this time, NCDOT would recommend discontinuing monitoring of the Colington Creek mitigation site. If you should have any questions about what has been presented,

please call Shannon Simpson, Natural Systems Specialist, at 733-7844 ext. 330. Thank you for your continued support and cooperation.

Sincerely,



V. Charles Bruton, Ph.D.
Assistant Branch Manager,
Project Development and Environmental
Analysis Branch

cc: Mr. David Franklin, USACE
Mr. Mike Bell, USACE
Mrs. Kelly Williams, DCM
Mr. David Cox, WRC
Mr. John Dorney, NCDENR
Mr. Gordon Cashin, NCDOT



**Collington Bridges
Mitigation Sites**

**FIGURE 1
SITE LOCATION MAP**