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COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
www.deq.virginia.gov

David K. Paylor
Director

Robert J. Weld
Regional Director

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3019 Peters Creek Road
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**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
CAMPBELL COUNTY
FOR
CAMPBELL COUNTY LANDFILL**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and Campbell County, regarding the Campbell County Landfill, for the purpose of resolving certain violations of State Water Control Law and the applicable regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
2. "BRRO-L" means the Blue Ridge Regional Office of DEQ, located in Lynchburg, Virginia.
3. "County" means Campbell County, a political subdivision of the Commonwealth of Virginia. The County is a "person" within the meaning of Va. Code § 62.1-44.3.
4. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.

5. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
6. "Discharge" means, when used without qualification, a discharge of a pollutant, or any addition of a pollutant or combination of pollutants, to state waters or waters of the contiguous zone or ocean other than a discharge from a vessel or other floating craft when being used as a means of transportation.
7. "Landfill" means the Campbell County Landfill, located in Campbell County, Virginia, owned by Campbell County.
8. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
9. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.
10. "Pollutant" means any substance, radioactive material, or heat which causes or contributes to, or may cause or contribute to pollution. 9 VAC 25-210-10.
11. "Pollution" means such alteration of the physical, chemical or biological properties of any state waters as will or is likely to create a nuisance or render such waters: (i) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (ii) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (iii) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses; provided that (a) an alteration of the physical, chemical, or biological property of state waters, or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to state waters by other owners is sufficient to cause pollution; (b) the discharge of untreated sewage by any owner into state waters; and (c) contributing to the contravention of standards of water quality duly established by the board, are "pollution." Va. Code § 62.1-44.3; 9 VAC 25-210-10.
12. "Regulations" means the Virginia Water Protection Permit Program Regulations, 9 VAC 25-210 *et seq.*
13. "Restoration" means the reestablishment of a wetland or other aquatic resource in an area where it previously existed. Wetland restoration means the reestablishment of wetland hydrology and vegetation in an area where a wetland previously existed. Stream restoration means the process of converting an unstable, altered or degraded stream corridor, including adjacent areas and floodplains, to its natural conditions
14. "Significant alteration or degradation of existing wetland acreage or function" means human-induced activities that cause either a diminution of the areal extent of the existing

wetland or cause a change in wetland community type resulting in the loss or more than minimal degradation of its existing ecological functions.

15. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code. Article 2.2 (Va. Code §§ 62.1-44.15:20 through 62.1-44.15:23) of the State Water Control Law addresses the Virginia Water Resources and Wetlands Protection Program.
16. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3 and 9 VAC 25-210-10.
17. "Surface water" means all state waters that are not ground waters as defined in Va. Code § 62.1-255.
18. "USACE" means the United States Army Corps of Engineers.
19. "Va. Code" means the Code of Virginia (1950), as amended.
20. "VAC" means the Virginia Administrative Code.
21. "VWP Permit" or "Virginia Water Protection Permit" means an individual or general permit issued under Va. Code § 62.1-44.15:20 that authorizes activities otherwise unlawful under Va. Code § 62.1-44.5 or otherwise serves as the Commonwealth's certification under § 401 of the federal Clean Water Act (33 United States Code ("USC") § 1344).
22. "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. 9 VAC 25-210-10.

SECTION C: Findings of Fact and Conclusions of Law

1. At all times relevant to the facts specified below, Campbell County owned and operated the Landfill, a solid waste management facility operating under Solid Waste Management Permit No. 285, issued by the Virginia Waste Management Board.
2. On November 17, 2009, Department and USACE staff inspected the Landfill to make a preliminary jurisdictional determination for the planned expansion areas between the currently permitted Phases III and IV at the Landfill. During a meeting on November 1, 2010, Corps and DEQ representatives told Landfill officials that permitting of the planned

expansion area could not be considered until a jurisdictional determination was made in the proposed impact areas at the Landfill and an appropriate VWP Permit was issued.

3. In 2007 the County of Campbell together with the Counties of Appomattox and Nelson and the City of Lynchburg and the City of Bedford entered into an agreement forming the Region 2000 Services Authority ("Authority") for the purpose of combining solid waste management operations under a regional authority. The Landfill was to be transferred to the Authority; however, that was not done because of pending litigation. Instead, the County of Campbell and the Authority entered into a Lease Agreement for certain improvements to be made at the Landfill pending the issuance of a separate permit by DEQ for the acceptance of solid waste at the newly permitted facility and transfer of that portion of the facility to the Region.
4. In pursuance of the plan for regional solid waste to be accepted at the Landfill, the Authority had contracted with Draper Aden Associates ("DAA") to design and with Counts and Dobyons to construct certain improvements in the area between expansion Phases III and IV of that portion of the Landfill to be transferred to the Authority.
5. In November of 2010, wetlands were delineated by DAA for construction design purposes for the construction of cells 6 and 7 in the northwest corner of Phase III.
6. On Friday, June 3, 2011, Counts and Dobyons notified DAA late in the day that wetlands may have been accidentally disturbed and the contractor immediately stopped activities and moved its equipment from this area.
7. On Monday, June 6, 2011, DAA's project engineers provided its wetlands specialist with a map of the probable areas of disturbance in this area.
8. On June 7, 2011, DAA submitted to the Army Corp of Engineers (USACE) and DEQ a map of the probable area of wetlands disturbance in this area.
9. On June 13, 2011, photographs were forwarded to the USACE and DEQ and notification was given that the contractor had applied millet grass and straw mulch to stabilize the area of disturbance.
10. On June 21, 2011, Department and USACE staff inspected the Landfill for compliance with the requirements of the State Water Control Law and the Regulations. The DEQ inspector observed that a significant alteration to approximately 0.0138 acres of wetlands had occurred as a result of a recent discharge of sediment (a pollutant as defined at 9 VAC 25-210-10) from clearing and grubbing activities in forested wetlands at the Landfill.
11. Va. Code § 62.1-44.15:20 and the Regulations at 9 VAC 25-210-50 prohibit dredging or filling of surface waters without a VWP Permit issued by the Director. The County does not have a VWP Permit for the above activities.

12. On October 4, 2011, DEQ issued NOV No. 11-08-BRRO-L-001 for the violation of Va. Code § 62.1-44.15:20 and 9 VAC 25-210-50.
13. On November 3, 2011, DAA submitted a Corrective Action Plan ("CAP") on behalf of the County demonstrating how restoration of the wetlands identified in the NOV would take place. In a letter dated December 5, 2011, DAA proposed modifications to the CAP in response to comments from DEQ.
14. On November 7, 2011, Department staff met with representatives of the County, DAA, and the Authority to discuss the violations.
15. In a letter dated November 23, 2011, DAA responded to the NOV on behalf of the County. In this submittal, DAA indicated that 1,158 square feet (0.03 acres) of wetlands were impacted, not 600 square feet (0.0138 acres) as originally estimated on June 21, 2011.
16. In a letter dated December 7, 2011, the DEQ approved the CAP, as modified by the letter from DAA dated December 5, 2011, submitted by DAA on behalf of the County. The approved CAP, including a schedule of monitoring, is attached to this Order as Appendix B.
17. The unpermitted filling of approximately 0.03 acres of wetlands without a Permit is a violation of Va. Code § 62.1-44.15:20 and 9 VAC 25-210-50.
18. Based on the results of the June 21, 2011 inspection, the November 7, 2011 meeting, and the documentation submitted on November 23, 2011, the Board concludes that the County has violated Va. Code § 62.1-44.15:20 and 9 VAC 25-210-50, as described in paragraphs C(6) through C(15), above.
19. In order for the County to complete its return to compliance, DEQ staff and representatives of the County have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 62.1-44.15, the Board orders the County, and the County agrees to:

1. Perform the actions described in Appendix A and Appendix B of this Order; and
2. Pay a civil charge of \$2,730.00 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

The County shall include its Federal Employer Identification Number (FEIN) [(xx-xxxxxxx)] with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF).

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of the County for good cause shown by the County, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, the County admits the jurisdictional allegations, findings of fact, and conclusions of law contained herein.
4. The County consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. The County declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by the County to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. The County shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. The County shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. The County shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
 - a. the reasons for the delay or noncompliance;
 - b. the projected duration of any such delay or noncompliance;
 - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
 - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

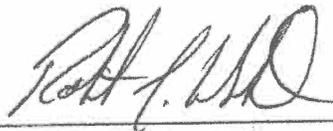
Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and the County.
11. This Order shall continue in effect until:
 - a. the Director or his designee terminates the Order after the County has completed all of the requirements of the Order;
 - b. the County petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to the County.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve the County from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by the County and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of the County certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind the County to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of the County.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, the County voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 28th day of September, 2012.



Robert J. Weld, Regional Director
Department of Environmental Quality

Campbell County voluntarily agrees to the issuance of this Order.

Date: 6/7/2012 By:  County Administrator
(Person) (Title)
Campbell County

Commonwealth of Virginia
City/County of Campbell

The foregoing document was signed and acknowledged before me this 7 day of June, 2012, by R. David Sturrell who is County Administrator of Campbell County on behalf of the County.

Beverly D. Eubank
Notary Public

7205344
Registration No.

My commission expires: July 31, 2016

Notary seal:



APPENDIX A SCHEDULE OF COMPLIANCE

1. The County shall complete the approved CAP (attached herein as Appendix B) in accordance with the schedule contained therein and complete the CAP in accordance with its terms. Any changes to the approved CAP or schedule shall not be initiated without advance notice to and approval by DEQ.
 - a. If the performance criteria specified in the Plan are not achieved at the end of the applicable monitoring period, then the County shall so advise DEQ in the applicable monitoring report for that monitoring period and shall describe why it appears the criteria could not be achieved. If DEQ thereafter so directs, the County shall submit to DEQ for review and approval an alternative CAP within 60 days of DEQ's letter requiring the same. The DEQ-approved alternative CAP shall then be implemented by the County in accordance with the schedule set forth in the alternative CAP.
 - b. The approved CAP consists of three drawings, designated "Wetland Replanting Plan-Limits of Disturbance Campbell County Landfill-Cells 6 & 7 Construction Campbell County, Virginia" made by Draper Aden Associates dated October 31, 2011, Figure 1-RP, 2-RP and 3-RP, including the notes thereon and planting details contained in Appendix C of the Riparian Buffers Guidance Manual attached thereto. That document is attached to this Order as Appendix B.
 - c. If the performance criteria specified in the CAP or any alternative CAP are not achieved by the end of the last monitoring period and DEQ determines that additional corrective action cannot sufficiently address the reasons for such failures, then the County shall submit to DEQ for review and approval, within 30 days of such determination, a proposal to purchase mitigation bank credits or contributions to an in-lieu fee fund to address any remaining corrective action required in the CAP or, as applicable, any previously submitted alternate CAP. The County shall respond to any DEQ notice of deficiency to the proposal in accordance with the terms of the notice. The County shall purchase mitigation bank credits or make contributions to an in-lieu fund, as approved by DEQ in accordance with this paragraph, within 30 days of DEQ approval.
2. Unless otherwise specified in this Order, the County shall submit all requirements of Appendix A of this Order to:

Robert Steele
Enforcement Specialist Sr.
VA DEQ -- Blue Ridge Regional Office
3019 Peters Creek Road

Consent Order
Campbell County Landfill
Page 11 of 23

Roanoke, VA 24019
(540) 562-6777 (phone)
(540) 562-6725 (fax)
Robert.Steele@deq.virginia.gov (email)

APPENDIX B CORRECTIVE ACTION PLAN

The Corrective Action Plan consists of the following documents: A one-page cover letter from DAA to the USACE dated November 3, 2011 with five pages of attachments (including three pages of drawings submitted by DAA dated October 31, 2011 and two pages from the Riparian Buffers Guidance Manual), and a three-page letter from DAA to DEQ dated December 5, 2011 with a two-page attachment. Together these documents constitute Appendix B of this Order.



Draper Aden Associates

Engineering • Surveying • Environmental Services

8090 Villa Park Drive
Richmond, Virginia 23228
(804) 264-2228 • Fax: (804) 264-8773
www.daa.com

November 3, 2011

Ms. Jeanne Richardson
U.S. Army Corps of Engineers – West Central Field Office
P.O. Box 3160
Lynchburg, Virginia 24503-0160

RE: Campbell County Landfill – Region 2000 – Cell 6 & 7
Wetland Restoration/Reforestation Plan
DAA Project No. B09107R-46

Dear Ms. Richardson:

Enclosed with this letter is the proposed wetland restoration/reforestation plan for impacts to 1,158 square feet of palustrine forested wetland. The area of impact is located adjacent to the Cells 6 & 7 construction in Phase III of the landfill operation. The impacts were a result of the contractor incorrectly marking the limits of clearing as shown on the construction documents.

The enclosed plan requires that twelve woody stem plants be planted, in an effort to reestablish the woody vegetation in this area. As discussed during the June 21, 2011 site visit, 70% of the planted species will be a canopy tree, and the remainder will be shrubs. Several species of trees and shrubs were listed in the plan that are native to this area and are suited for growing in aquatic moisture regimes. The final selection of species will be provided to you prior to installation.

If you feel that a meeting would be beneficial, please contact me to arrange a suitable time for a site visit. If I may be of further assistance, please call me at 804-264-2228, or contact me via email (bsearcey@daa.com).

Sincerely,
DRAPER ADEN ASSOCIATES

Brandon A. Searcey, PWD
Ecological Services

CC: Mr. Clif Tweedy, P.E., Campbell County Deputy Administrator
Mr. David Shreve, Campbell County Attorney
Mr. Clarke Gibson, P.E., Director, Region 2000 Services Authority
Mr. Mark Bushing, DEQ – BRRO
Mr. Pete Dalton, Counts and Dobyns, Inc
Ms. Lynn Klappich, CSI, CCCA, DAA
Mr. Mike Cavell, P.E., DAA



Draper Aden Associates
Engineering - Surveying - Environmental Services

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Richmond, VA 23228
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Billsboro, VA
Charlottesville, VA
Hempden Road, VA

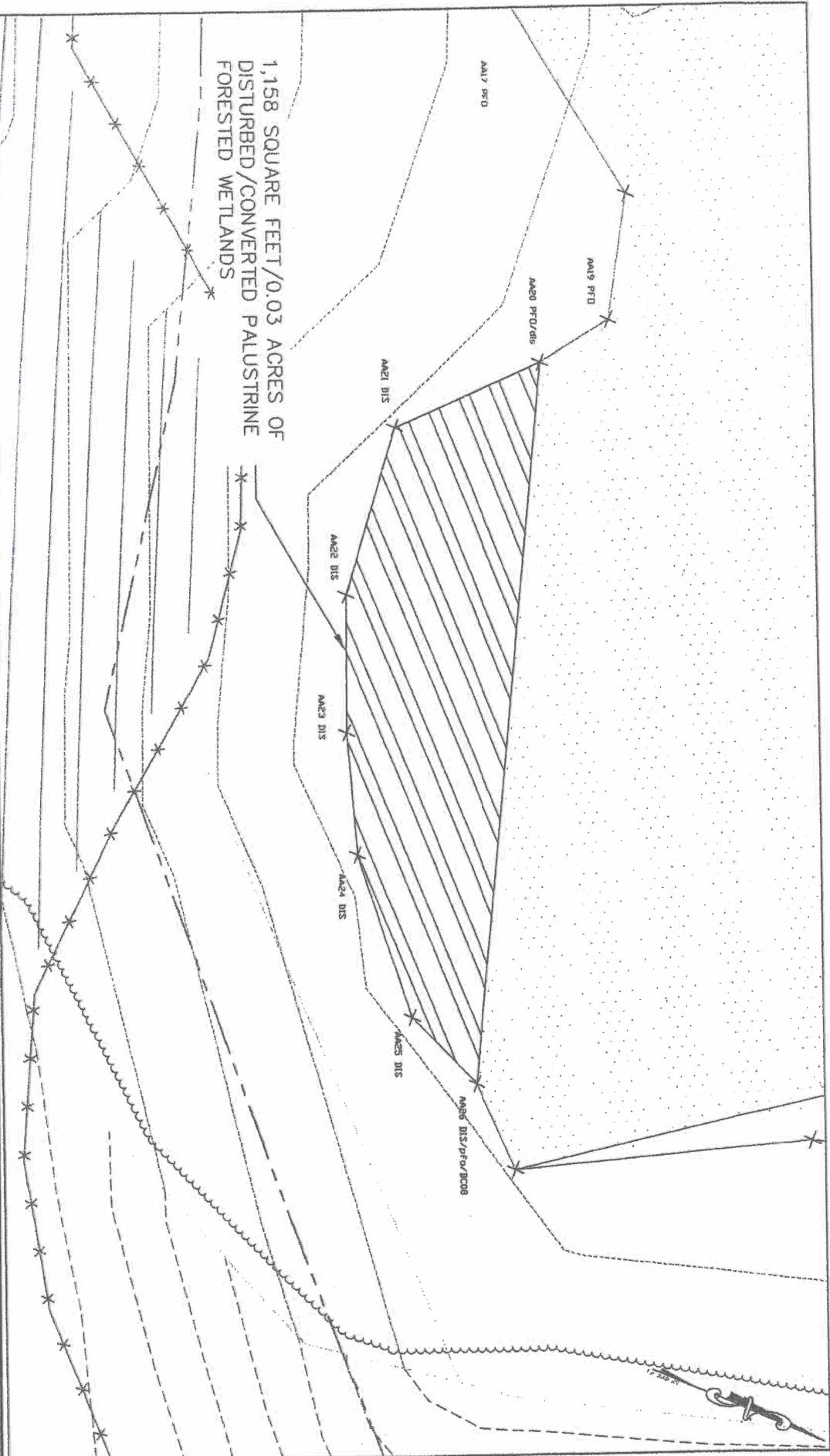
DESIGNED BY BAS
DRAWN BY BAS
CHECKED BY LPK
DATE 10/31/11

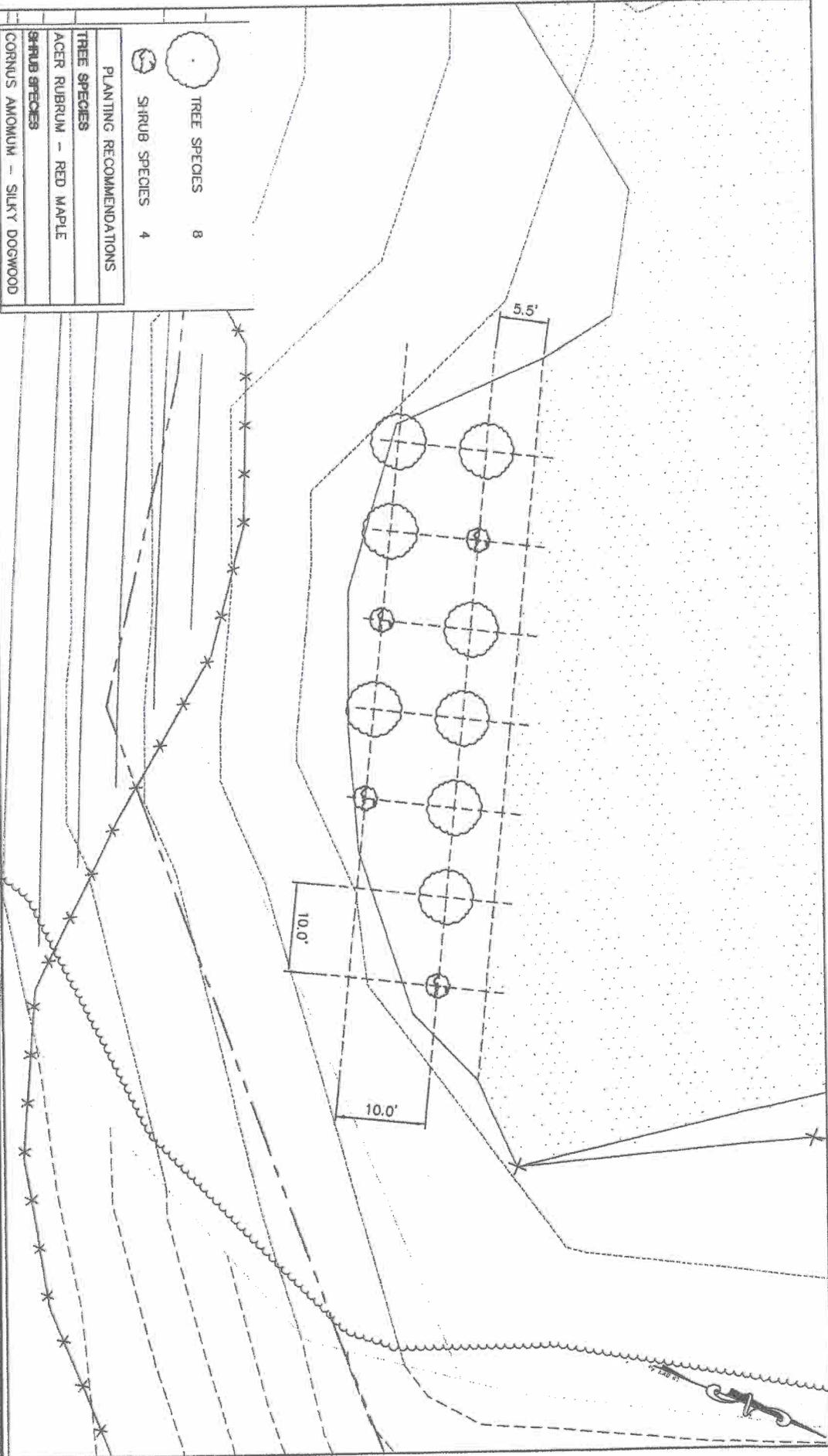
WETLAND REPLANTING PLAN - LIMITS OF DISTURBANCE
CAMPBELL COUNTY LANDFILL-CELLS 6 & 7 CONSTRUCTION
CAMPBELL COUNTY, VIRGINIA

SCALE: 1" = 10'
PROJECT: B09107R-46

FIGURE
1-PP

1,158 SQUARE FEET/0.03 ACRES OF
DISTURBED/CONVERTED PALUSTRINE
FORESTED WETLANDS





TREE SPECIES	8
SHRUB SPECIES	4
PLANTING RECOMMENDATIONS	
TREE SPECIES	
ACER RUBRUM - RED MAPLE	
SHRUB SPECIES	
CORNUS AMOMUM - SILKY DOGWOOD	

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 Chesapeake, VA
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 Hampton Roads, VA

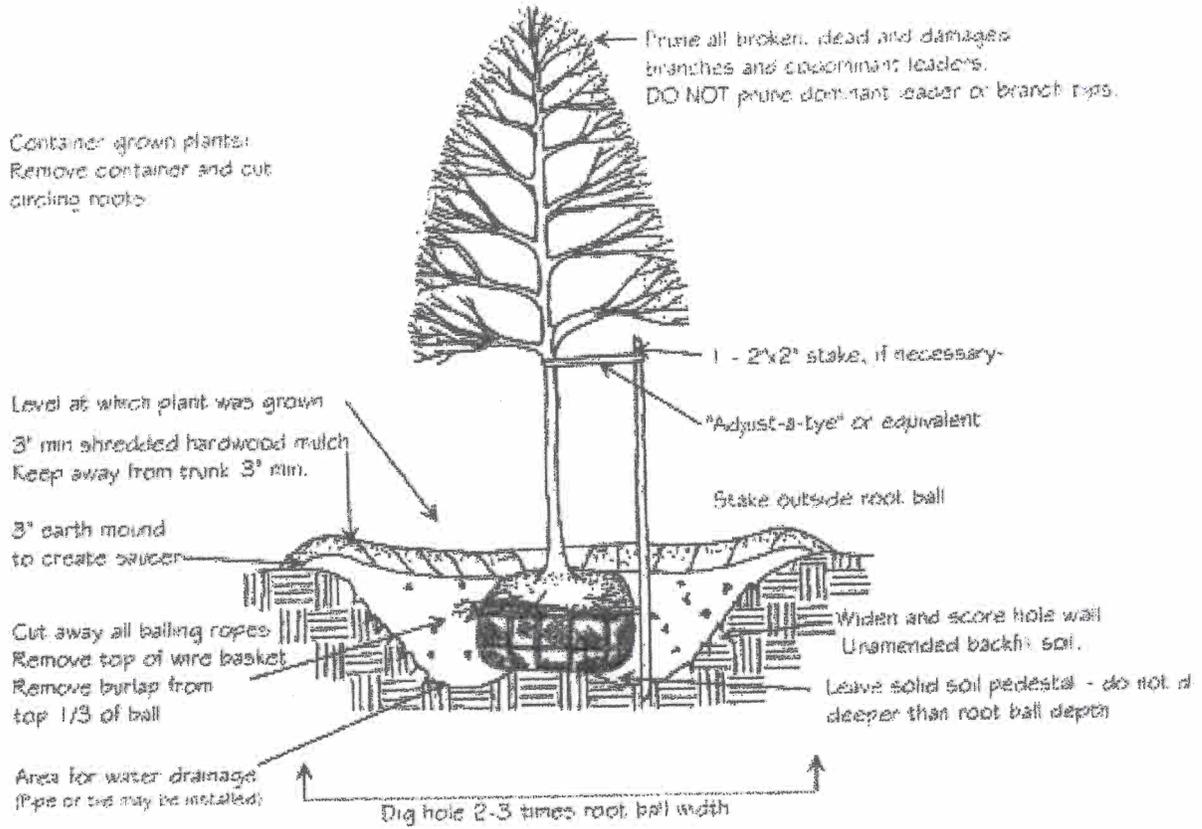
DESIGNED BAS
 DRAWN BAS
 CHECKED LPK
 DATE 10/31/11

WETLAND REPLANTING PLAN - PROPOSED REPLANTING
 CAMPBELL COUNTY LANDFILL-CELLS 6 & 7 CONSTRUCTION
 CAMPBELL COUNTY, VIRGINIA

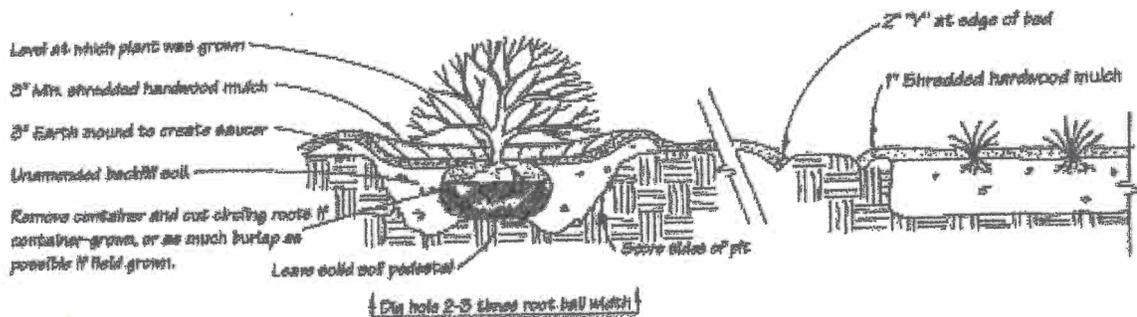
SCALE: 1" = 10'
 PROJECT: B09107R-46

FIGURE
 2-RP

APPENDIX C - PLANTING DETAILS



Tree Planting Detail



Shrub and Groundcover Planting Detail

BARE ROOT SEEDLINGS AND YEAR TRANSPLANTS

(Taken from Section VII of *The Chesapeake Bay Riparian Handbook*. Palone, Roxanne S. and Albert H. Todd, eds. 1998)

Generally, seedlings and year transplants should have the following characteristics when planted:

1. They should be at the same level that they were grown at the nursery. Look for the root collar to determine depth.
2. The roots should be straight down or spread out, but not curved, bent or doubled back to form a "U" or "J" shape.
3. The plant should be firmly tamped in removing any air pockets around the roots.
4. The plant should be in an upright position, even with the ground, not in a hole or on a mound of soil.

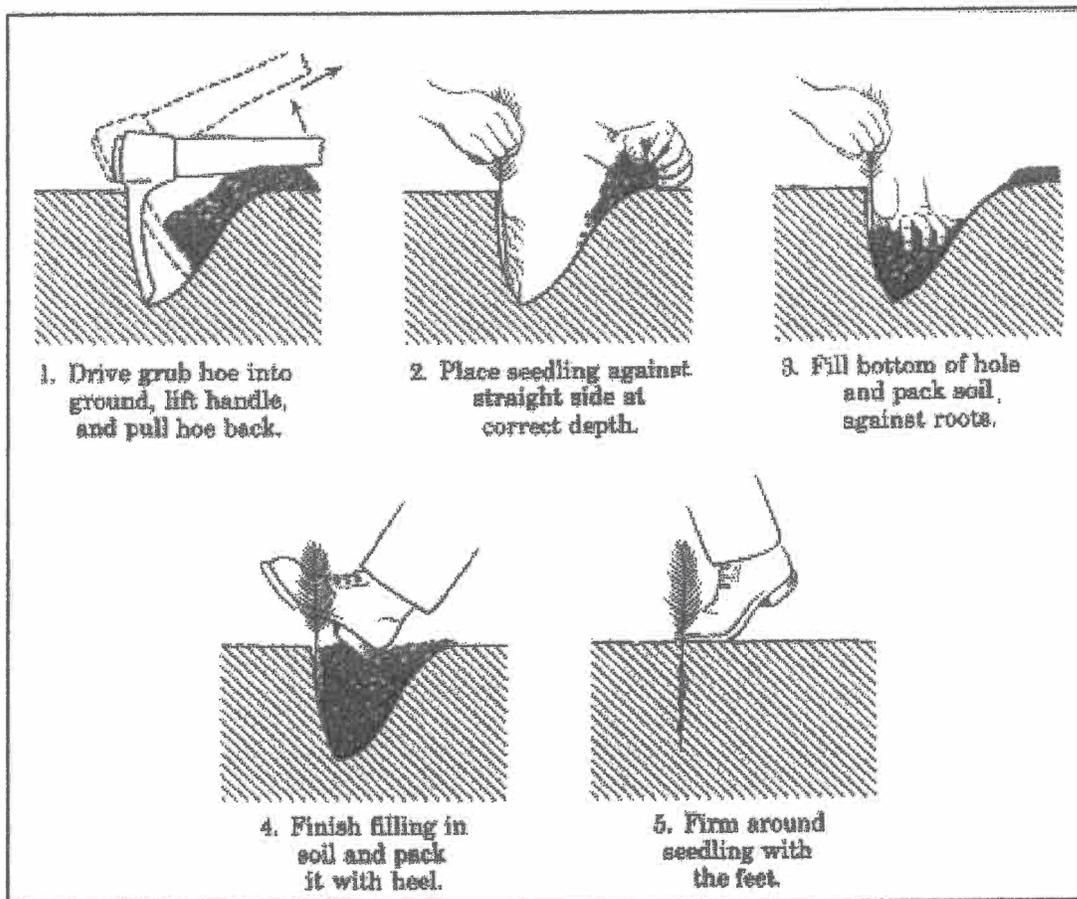


Figure 7 - 8. The Side-Hole Method of Planting. (Sketch adapted from U.S. Forest Service and *The Practice of Silviculture*, Smith, 1986.)



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December 5, 2011

Mr. Mark Busing
Virginia Department of Environmental Quality
Blue Ridge Regional Office
7705 Timberlake Road
Lynchburg, VA 24502

RE: Campbell County Landfill – Region 2000 – Cell 6 & 7
Wetland Restoration/Reforestation Plan – Comments
DAA Project No. B09107R-46

Dear Mr. Busing:

This letter is in response to comments received from your office on November 14, 2011, regarding aspects of the proposed Wetland Replanting Plan. We hope that the provided information satisfies your request and will assist you in final plan approval. Your original comment is listed below in standard text format and the response follows in italics.

1. The planting sheets are standard language and I need more specific information for this site. Since there are only going to be 12 woody plants put into the restoration area, and all of the listed tree and shrub species are acceptable, which of the 7 trees and 5 shrubs are you going to use? In the meeting on November 7, I thought you indicated only red maple (tree) and silky dogwood (shrub). If that is what you are proposing, that is acceptable. What diameter plants are you going to use? Is tubing to be used around the trunks?
 - a. *On Figure 2-RP of the planting plan, Red Maple and Silky Dogwood are listed as the recommended plant species. The list of plant species on Figure 3-RP was simply to provide alternative species that the contractor could select from in case one or more of the recommended species are not available. The proposed planting plan calls for 8 trees and 4 shrubs.*

It is our intent to use bare root seedlings to replant this area. To my knowledge there are no established DEQ and/or COE rules or guidance that establishes a protocol for plant size selection for this type of situation. However, bare root seedlings are acceptable for the purposes of establishing a wetland mitigation bank as outlined in the Mitigation Banking Instrument template. Given that the site is to be monitored over a ten year period, we feel that bare root seedlings should be acceptable. This does not limit the contractor from utilizing larger

more mature plant species. Once a source for the plant material is located, a list of the selected plants and sizes will be provided to you prior to installation.

Tree protection tubing will be utilized. The plans will be modified to include language in the notes under Plant Installation as well as provide a detail showing typical tree protection tubing and installation procedures. The revised Figure 3-RP(Notes) and tree protection detail are attached to this letter.

2. Is this site going to be grading? A grading site plan was not included in the submittal, however in your Planting Procedure (2), it indicates that planting will be done within 7 days of final grading, and if that is not met, a wetland seed mix will be distributed in the area. Has a wetland seed mix been sown in this area?

- a. *This language is not necessarily appropriate for this situation; however, it seemed prudent to leave it in the notes at the time of submittal. Grading of the site should not be necessary because it does not appear that the activities which disturbed the site have caused any adverse disruption to the native top soil. There was no evidence that any new soil was placed in the disturbed area nor was soil removed. The disturbance consisted of clearing the vegetation from the area. Some minor rutting was evident, but does not appear to be affecting the hydrologic regime of the area.*

Immediately following the activities that caused the disturbance, the site was stabilized with straw mulch and millet seed. It was observed during subsequent site visits that the millet was becoming established and had helped to stabilize the soils in this area, but additionally native herbaceous plants were also growing. We believe that since the top soil is still intact with a native seed bank, this area will become suitably populated by herbaceous vegetation without having to use a wetland seed mix.

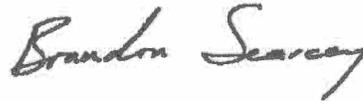
3. Under Goals, number 3 – first year monitoring. For this site I do not need the 80% survival rate for planted vegetation. You may take that out, but I still require the 80% cover with herbaceous species.

- a. *The goal of 80% survival of planted vegetation has been removed.*

Mr. Mark Bushing
December 5, 2011
Page 3 of 3

We hope that our responses and the revisions to the planting plan have helped to clarify the proposed remedial actions. It is our intent to begin planting prior to the ground freezing as wintertime temperatures set in for this area. If you feel that a meeting would be beneficial, please contact me to arrange a suitable time for a site visit. If I may be of further assistance, please call me at 804-264-2228, or contact me via email (bsearcey@daa.com).

Sincerely,
DRAPER ADEN ASSOCIATES



Brandon A. Searcey, PWD
Ecological Services

Attachments:

CC: Mr. Clif Tweedy, P.E., Campbell County Deputy Administrator
Mr. David Shreve, Campbell County Attorney
Mr. Clarke Gibson, P.E., Director, Region 2000 Services Authority
Mrs. Jeanne Richardson, U.S. Army Corps of Engineers
Mr. Pete Dalton, Counts and Dobyms, Inc
Ms. Lynn Klappich, CSI, CCCA, DAA
Mr. Mike Cavell, P.E., DAA

INDIGENOUS PLANT MATERIAL LIST
WETLAND REFORESTATION (1,158 SQUARE FEET/0.03 ACRES)

TREES

COMMON NAME	SCIENTIFIC NAME	SPECIFICATION	R-INDICATOR
RED MAPLE	ACER RUBRUM	10' CENTERS BARE ROOT	FAC
SWAMP WHITE OAK	QUERCUS BICOLOR	10' CENTERS BARE ROOT	FACW
WATER OAK	QUERCUS NIGRA	10' CENTERS BARE ROOT	FAC
PINE OAK	QUERCUS PALUSTRIS	10' CENTERS BARE ROOT	FACW
IRON WOOD	CARPINUS CAROLINIANA	10' CENTERS BARE ROOT	FAC
WILLOW OAK	QUERCUS PHELLOS	10' CENTERS BARE ROOT	FAC
BLACK GUM	NYSSA SYLVATICA	10' CENTERS BARE ROOT	FAC

SHRUBS

COMMON NAME	SCIENTIFIC NAME	SPECIFICATION	R-INDICATOR
SILKY DOGWOOD	CORNUS AMOMUM	10' CENTERS BARE ROOT	FACW
RED OSIER DOGWOOD	CORNUS SERICEA	10' CENTERS BARE ROOT	FACW
BUTTON BUSH	CERIALANTUS OCCIDENTALIS	10' CENTERS BARE ROOT	FAC
SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	10' CENTERS BARE ROOT	FACW
HIGH BUSH BLUEBERRY	VACCINIUM CORTAMBOSUM	10' CENTERS BARE ROOT	FAC

THIS TABLE OF SUGGESTED PLANT SPECIES IS FOR THE PURPOSES OF SELECTING INDIGENOUS PLANT SPECIES SUITABLE FOR GROWING IN THESE WETLANDS. THESE SPECIES IS REQUIRED TO COMPLY WITH A 40% TREES PER ACRE DENSITY. NONE OF THE PLANTED SPECIES WILL BE TREES AND 20% WILL BE SHRUBS.

MONITORING:

- 1) PERMANENT PHOTOGRAPHIC STATIONS SHALL BE ESTABLISHED UPWELL FROM THE PLANTING PERIOD AND 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000, 6500, 7000, 7500, 8000, 8500, 9000, 9500, 10000, 15000, 20000, 25000, 30000, 35000, 40000, 45000, 50000, 55000, 60000, 65000, 70000, 75000, 80000, 85000, 90000, 95000, 100000, 150000, 200000, 250000, 300000, 350000, 400000, 450000, 500000, 550000, 600000, 650000, 700000, 750000, 800000, 850000, 900000, 950000, 1000000, 1500000, 2000000, 2500000, 3000000, 3500000, 4000000, 4500000, 5000000, 5500000, 6000000, 6500000, 7000000, 7500000, 8000000, 8500000, 9000000, 9500000, 10000000, 15000000, 20000000, 25000000, 30000000, 35000000, 40000000, 45000000, 50000000, 55000000, 60000000, 65000000, 70000000, 75000000, 80000000, 85000000, 90000000, 95000000, 100000000, 150000000, 200000000, 250000000, 300000000, 350000000, 400000000, 450000000, 500000000, 550000000, 600000000, 650000000, 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Taken from *A Case Study of The Difficult Run Riparian Project: A Guide for Riparian Restoration Projects.* (December 1998) Judith A. Okay, Virginia Department of Forestry, Appendix C, p. 16.

Installing Tree Protectors

3) The flared end of a Supertube is the top. Gently guide the Supertube down over the seedling, making sure the seedling doesn't get caught under the tabs.

4) Fasten the tabs loosely around the stake. Do not tighten them yet.

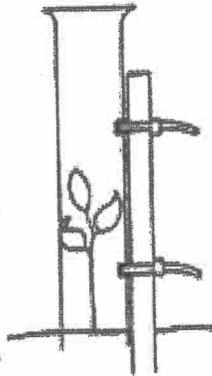
5) Place your gloved hand over the top of the Supertube and push down until the base of the tube sits 1/2" - 1" deep in the soil.

This is easiest to do right after planting when the soil is loose.

6) When the soil is loose, if the soil is packed or dry, try this: Place a board on top of the Supertube (the board should be at least 6" x 6"). Pound the board with a mallet or hammer, to push the base of the Supertube 1/2" - 1" into the soil.

It is essential that the base of every Supertube be well seated in the soil.

6) Check the ties tight.



Installing Protective Net

The plastic net included with your shipment of Supertubes (1" and taller) prevents birds from entering the Supertube and harming themselves or the tree.

The net breaks down over 18 months in the sun. It is designed to allow birds to grow through. However, birds can get caught on the net. Each time you are checking your trees, remove the net from those Supertubes where the tree is a few inches from the top or has already emerged. Bird entry is not a problem after the tree emerges.

1) Expand the bottom of the net.

2) Pull the net 7-8" down the Supertube.

3) Adjust the net so that the ends of the net are just touching.

