U.S. Army Corps of Engineers – Charleston District - Regulatory Division

# JURISDICTIONAL DETERMINATION REQUEST

For Identifying Waters of the U.S., Including Wetlands and Tributaries

Project Name: Chester Technology Park Date: 8-13-2010				
County: Chester	Total Acreage of Tract: 163.2			
Property Owner : County of Chester	Agent: S&ME, Inc. (c/o Chris Daves, P.W.S.)			
Address: (c/o Karlisa Parker)	Address: 134 Suber Road			
Address: Post Office Box 580	Address: Columbia, SC 29210			
Phone: Chester, SC 29706	Phone: (803) 561-9024			
Email: (803) 385-6157	Email: cdaves@smeinc.com			
Information Required to Accompany Request - Check available. At a minimum, the first two items must be forw	k the items submitted - forward as much information as is varded:			
🗷 Accurate Location Maps (from County Map, USGS Qu	uad Sheet, etc.)			
Survey Plat or Tax Map of the Property in Question				
Soil Survey Sheet (from USDA-NRCS) or Aerial Photo Property boundaries should be shown on the soil surv				
☐ Topographic Survey				
Conceptual Site Plan for the Overall Development				
■ Description of the proposed use of the property (resident	ential, commercial, <mark>industrial,</mark> silvicultural, agricultural, etc.)			
Status of the project (on-going site work for development	ent, development in planning stages no plans at this time, etc.)			
Type of Determination Requested - Choose one:				
	whether wetlands or other waters are present on the site and will ination is likely to be made more quickly and require less			
	ether wetlands or other waters are present on the site and will stype of determination is likely to take longer and require more			
IMPORTANT NOTE: Legible printed name and signature required. The person signing this form <u>must</u> be the present property owner or have the specific authority of the property owner to authorize Corps of Engineers employees or their agents to enter onto the property for on-site investigations if such is deemed necessary. <u>Do not sign</u> this form unless you are the owner, or have the specific authority of the property owner.				
PRINTED NAME of person signing this form, below:	Chris Daves, P.W.S.			
Signature of Property Owner or Authorized Agent:_	Chris Daves			

HQ and South Branch 69-A Hagood Avenue Charleston, SC 29403 843-329-8044 Northeast Branch 1949 Industrial Park Rd, Room 140 Conway, SC 29526 843-365-4239 Northwest Branch 1853 Assembly St., Room 865-B Columbia, SC 29201 803-253-3444



August 13, 2010

U.S. Army Corps of Engineers Columbia Regulatory Field Office Strom Thurmond Federal Building 1835 Assembly Street, Room 865 B-1 Columbia, South Carolina 29201

**Attention:** Watershed 5 Project Manager

Reference: Request for Jurisdictional Determination

Chester Technology Park – 163.2 Acres Chester, Chester County, South Carolina

S&ME Project No. 1614-10-257

Dear Watershed 5 Project Manager:

On behalf of Chester County and Alliance Consulting Engineers, S&ME, Inc. (S&ME) has completed a wetland delineation at the above-referenced site. The approximately 163.2-acre site is located south of the intersection of S.C. Highway 9 and Ballymena Road just east of Chester in Chester County, South Carolina as depicted on Figure 1 (Vicinity Map) and Figure 2 (Topographic Map) in Appendix A. The site is located in the Catawba River watershed (HUC 03050103) and USACE Watershed Group 5).

#### WETLAND DELINEATION

S&ME Biologist Chris Daves conducted the wetland delineation on July 14 and August 10, 2010. Please refer to the tables below for information regarding the on-site features included in the delineation. Please refer to Figure 3 (Aerial Map) in Appendix A for the approximate locations of the delineated features.

#### **JURISDICTIONAL WATERS**

#### Wetlands

One jurisdictional wetland (Wetland A) was observed on the northern portion of the site. Wetland A abuts Stream 2.

Table 1 – Jurisdictional Wetlands

Wetland,ID	, Photo ID	Feature Type	Approximate Acreage (ac)
A	1-2	Forested	0.91

#### Streams

Three jurisdictional linear features (Streams 1-3) were observed on the site. Stream 1 appears to be a Perennial Relatively Permanent Water (P-RWP) flowing east from an impoundment just west of the site. Stream 2 appears to be a Seasonal RPW (S-RPW) flowing north from Wetland A. Stream 3 also appears to be a S-RPW flowing east into an impoundment located just east of the site. Stream 3 is a second-order stream formed by the junction of two Non-RPWs (Non-RPWs 2 and 5).

Table 2 – Jurisdictional Linear Features

ID	Photo ID	Linear Feature Type	Approximate Linear Footage (lf)	Approximate Acreage (ac)
Stream 1	7	P-RPW	270	0.025
Stream 2	8	S-RPW	100	0.007
Stream 3	9	S-RPW	90	0.008
		Total	460	0.040

#### **NON-JURISDICTIONAL WATERS**

# Wetlands/Upland-Dug Pond

Wetlands B and C were observed on the northern portion of the site. These depressional wetlands appear to be isolated with no hydrologic connections to other jurisdictional waters. An upland-dug pond was also observed on the southeastern portion of the site. The upland-dug pond is fed by Non-RPW 4 as well as overland flow from the surrounding fields during heavy rain events. Mapping from the USGS and the U.S. Department of Agriculture-National Resource Conservation Service (USDA-NRCS) depict a linear, blue-line feature (Non-RPW 5) extending east from the pond indicating a surface connection between these two features. However, our field reconnaissance did not indicate this to be accurate. No riser pipe, culvert, or dam seepage was observed to indicate a surface connection between the upland-dug pond and Non-RPW 5. In the event the upland-dug pond exceeds its capacity, the overflow is directed to an earthen spillway on the southeastern side of earthen dam. The overflow then dissipates in the field southeast of the upland-dug pond. Over 500 feet separate the upland-dug pond from Non-RPW 3 located to the east. Based on these observations, the upland-dug pond appears to be a non-jurisdictional feature.

Table 3 – Isolated, Non-Jurisdictional Wetlands/Pond

ID	Photo ID	Feature Type	Approximate Acreage (ac)
Wetland B	3-4	Depressional	0.005
Wetland C	5-6	Depressional	0.005
Upland-Dug Pond	10	Upland-Dug Pond	1.38
		Total	1.39

# Ephemeral Drainages/Non-RPWs

Six ephemeral/Non-RPW drainage features were observed on the site. These features lacked flow, and in most locations, lacked ordinary high water marks (OHWM) as well as bed and bank channel features.

Table 4 – Non-Jurisdictional Linear Features

ID	Photo ID	Linear Feature Type	Approximate Linear Footage (lf)	Approximate Acreage (ac)
Non-RPW 1	11	Non-RPW	250	0.017
Non-RPW 2	12	Non-RPW	1,350	0.093
Non-RPW 3	13	Non-RPW	715	0.042
Non-RPW 4	14	Non-RPW	350	0.021
Non-RPW 5	15	Non-RPW	720	0.049
Non-RPW 6	16	Non-RPW	300	0.021
		Total	2,385 lf	0.254

#### **UPLANDS**

Upland areas (Photographs 17-20) on the site are predominantly open fields and mixed hardwood forestland. Vegetation was dominated by upland species and no evidence of hydrology was observed. The upland areas of the site consist of non-hydric soil series such as Iredell and Wilkes listed in the USDS-NRCS Web Soil Survey (Figure 4 – Soils Map). These areas are considered upland as all three wetland criteria (wetland vegetation, soils, or hydrology) were not observed.

# **ENCLOSURES**

Included in Appendices A and B, please find the following information for your review:

#### Appendix A

Figure 1 - Vicinity Map, Figure 2 - Topographic Map, Figure 3 - Aerial Map, Figure 4 - Soils Map, Figure 5 - NWI Map, Site Photographs

# **Appendix B**

Wetland/Upland Datasheets

# CLOSING

Thank you for your time and attention to this project. If you require a field visit to verify the delineation, we look forward to meeting you on-site. If we can provide additional information, please do not hesitate to contact Chris Daves at 803-561-9024.

Sincerely,

S&ME, Inc.

Amanda White

**Biologist** 

Chris Daves, P.W.S.

**Biologist** 

Senior reviewed by Tom Behnke, P.G., Environmental Department Manager

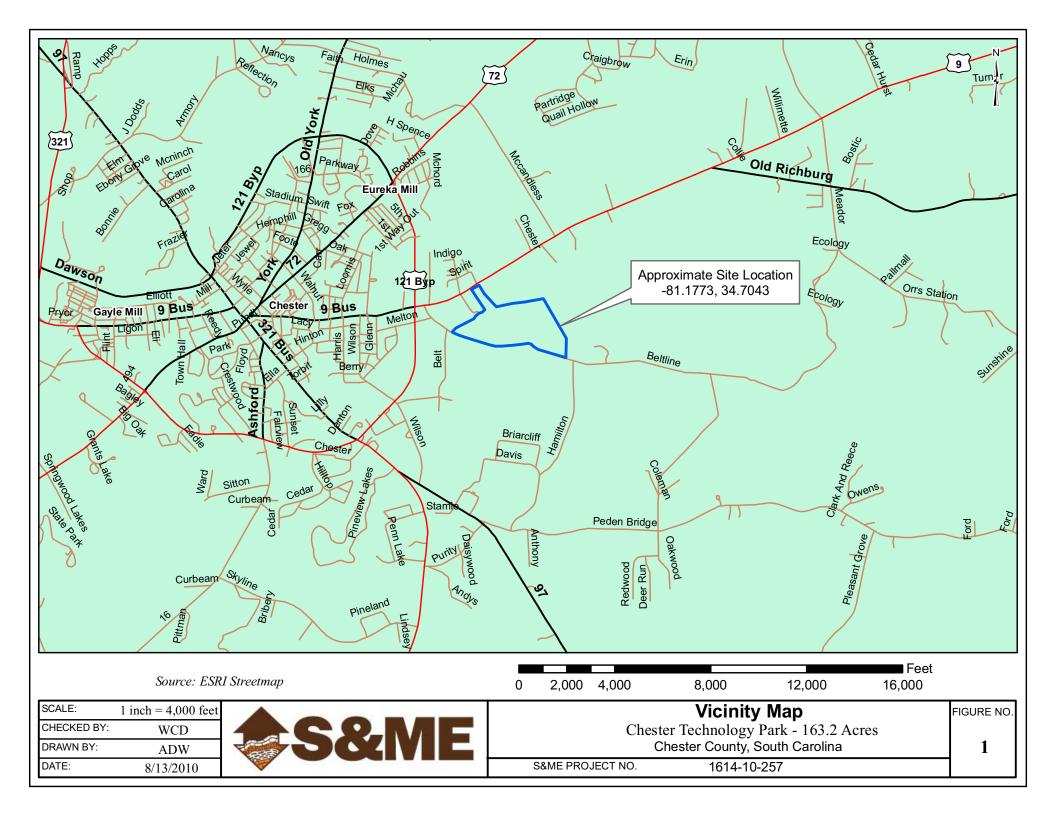
cc: Mr. Kyle Clampitt, P.E.

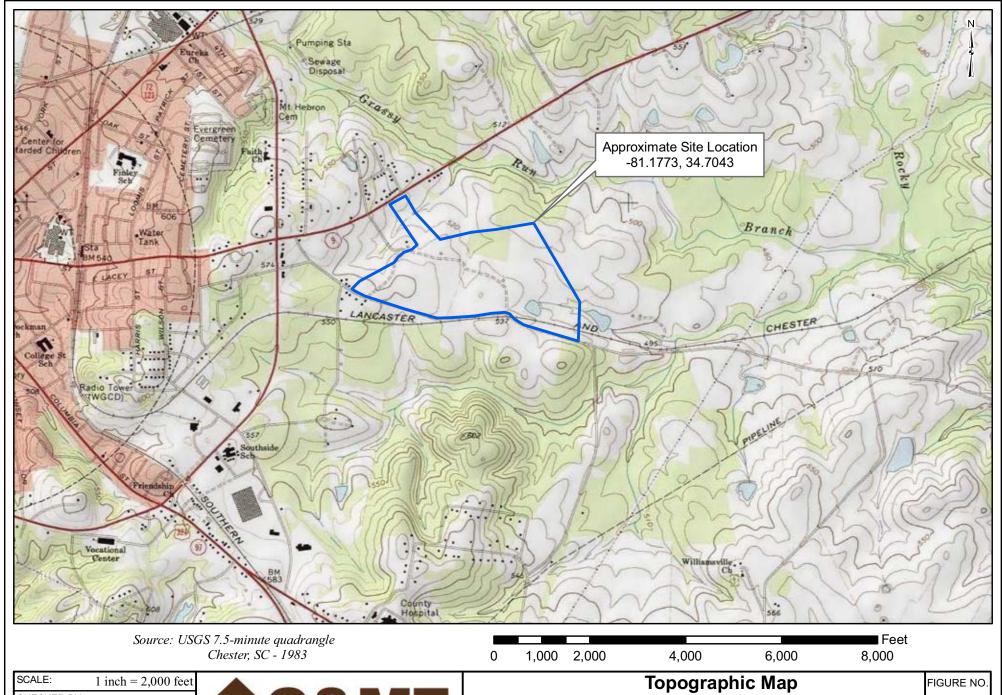
amande White

S:\ENVIRON\1 6 1 4 - 010 JOBS\1614-10-257 Chester Tech. Park\Wetlands

# Appendix A

Vicinity Map
Topographic Map
Aerial Map
Soils Map
NWI Map
Site Photographs





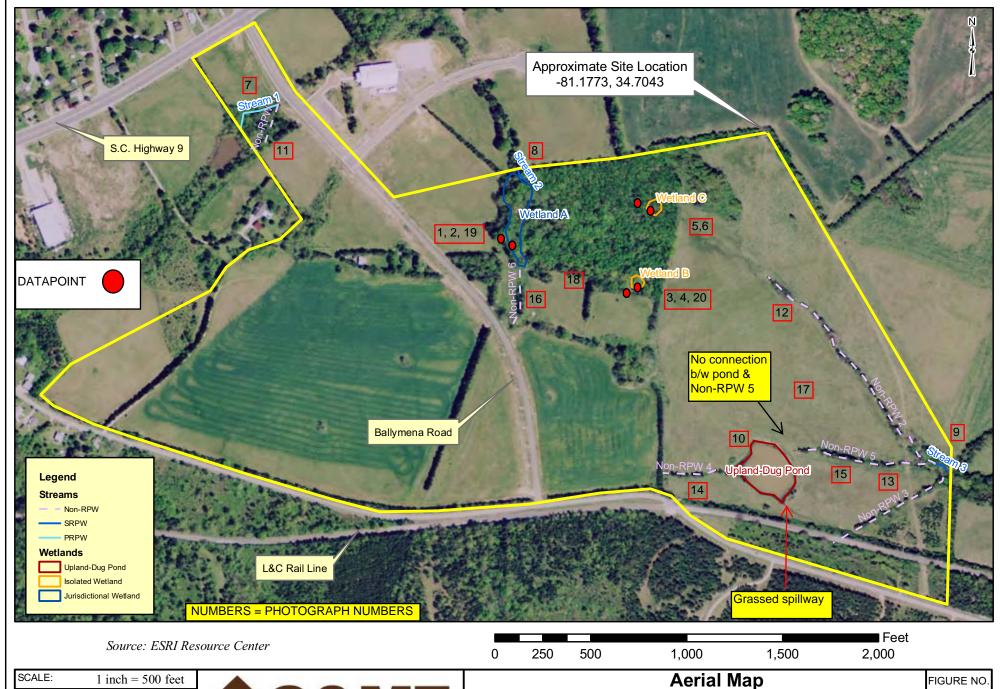
SCALE: 1 inch = 2,000 feetCHECKED BY: WCD DRAWN BY: **ADW** DATE: 8/13/2010



Chester Technology Park - 163.2 Acres Chester County, South Carolina

S&ME PROJECT NO. 1614-10-257 FIGURE NO.

2



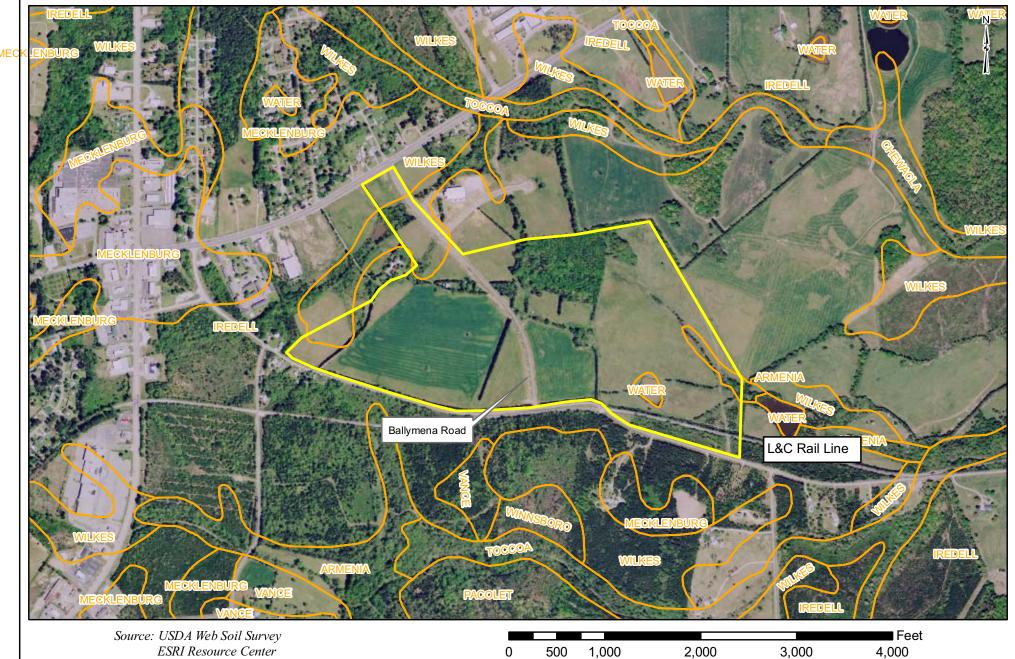
SCALE: 1 inch = 500 feetCHECKED BY: WCD DRAWN BY: ADW DATE: 8/13/2010



Chester Technology Park - 163.2 Acres Chester County, South Carolina

S&ME PROJECT NO. 1614-10-257 FIGURE NO.

3



ESRI Resource Center

2,000 0 500 1,000 Soils Map

SCALE: 1 inch = 1,000 feetCHECKED BY: WCD DRAWN BY: ADW DATE: 8/13/2010



Chester Technology Park - 163.2 Acres
Chester County, South Carolina

S&ME PROJECT NO. 1614-10-257 FIGURE NO.



# U.S. Fish and Wildlife Service

# National Wetlands Inventory

FIG.5 - NWI MAP

Jul 9, 2010

# Wetlands

Freshwater Emergent

Freshwater Forested/Shrub

Estuarine and Marine Deetwater

Estuarine and Marine

Freshwater Pond

Lake

Riverine

Other

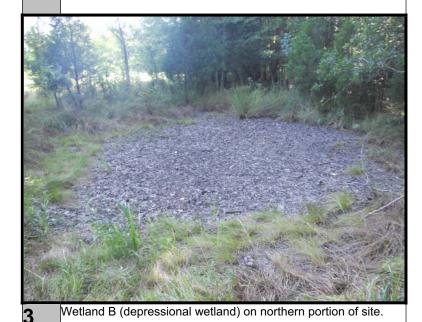
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

**User Remarks:** 

**CHESTER TECHNOLOGY PARK** 



Wetland A (forested wetland) with drainage patterns on northern portion of site..





Hydric soils (10YR 4/2) in Wetland A.



Hydric soils (10YR 3/1) in Wetland B.



Wetland C (depressional wetland) on northern portion of site.





Hydric soils (10YR 4/2) in Wetland C.



Stream 2 (S-RPW) on northern portion of site.



9 Stream 3 (S-RPW) on eastern portion of site. Stagnant pools with non-flowing water were observed during site visit.



10 Upland-dug pond on southeastern portion of site. Pond does not have a hydrologic connection to other jurisdictional waters.



Non-RPW 2 on eastern portion of site.





Non-RPW 3 on southeastern portion of site.



Non-RPW 5 on southeastern portion of site. Photo taken facing east just below upland-dug pond.



Non-RPW 4 on southeastern portion of site.



Non-RPW 6 on northern portion of site.





Typical open field on site.





Typical mixed hardwood forestland on northern portion of site.



20 Upland soils adjacent to Wetland B (10YR 5/3).

# Appendix B

Wetland/Upland Datasheets

#### ROUTINE WETLAND DELINEATION

# (1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circums	tances exist on the site?>	Yes	Community ID	Wet A (PFO1)
Is the site significar	ntly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a poten	tial problem area?>	No	Lat/Long:	34.7059/ -81.1775

#### **VEGETATION**

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Celtis laevigata	Tree	FACW	9	Ligustrum sinense	Shrub	FAC
2	Ulmus americana	Tree	FACW	10	Toxicodendron radicans	Herb	FAC
3	Quercus phellos	Tree	FACW-	11			
4	Carya glabra	Tree	FACU	12			
5	Juniperus virginina	Tree	FACU-	13			
6	Celtis laevigata	Sapl.	FACW	14			
7	Carya glabra	Sapl.	FACU	15			
8	Juniperus virginina	Sapl.	FACU-	16			
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 60%							
Rema	Remarks: Hydrophytic vegetation present						

# HYDROLOGY

X Recorde	ed Data (describe in re	marks)	Wetland Hydrology Indicators:	
			Primary Indicators:	
	Steam, lake or t	ide gauge	Inundated>	
х	Aerial photograp	ohs	Saturated in upper 12 inches>	x
	Other		Water Marks>	x
No Rec	orded Data Available		Drift lines>	x
			Sediment deposits>	
			Drainage patterns>	x
Field Observati	ions:		Secondary Indicators:	
Depth o	of surface water:		Oxidized root channels in upper 12 inches>	x
Depth to	o free water in pit:		Water-stained leaves>	x
Depth to	o saturated soil:	12-14 in.	Local soil survey data>	
			FAC neutral test>	
			Other (explain)	
Remarks:	Wetland hydro	logy present	Several drainage patterns and abundant drift lines.	

# SOILS

Map Unit Name:		IdB			Drainage Class:	Mod. Well	
(Series and Phase):		Iredell fsl		Field Observations			
Taxonomy (subgrou	p):	Typic hapludalfs		Confirm Mapped Type?			
Profile Descriptions:							
Depth	Horizon	Matrix Color	Mottle	Color	Mottle Abundance	Texture	
1-16"	Α	10 YR 4/2				Sandy Ioam	
Hydric Soil Indicators	s:	+					
Histosol		>		Concr	etions	>	
Histic epipedon		>		High o	igh organic content in the surface layer		
Sulfidic odor				of sar	sandy soils>		
Aquic moisture regin	ne	>		Organ	Organic streaking in sandy soils>		
			Listed	_isted on local hydric soils list>			
Gleyed or low chroma colors>		Х	Listed on national hydric soils list>				
				Other	(explain)		

Hydrophytic Vegetation Present?	Yes	Is this sampling point within a wetland?
Wetland Hydrology Present?	Yes	Yes
Hydric Soils Present?	Yes	
Remarks: Wetland		

#### ROUTINE WETLAND DELINEATION

# (1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circumsta	ances exist on the site?>	Yes	Community ID	Upland A
Is the site significant	tly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a potenti	al problem area?>	No	Lat/Long:	34.7059/ -81.1775

# VEGETATION

	Dominant Plant Species	Stratum	Indicator	[	Dominant Plant Species	Stratum	Indicator		
1	Carya glabra	Tree	FACU	9					
2	Juniperus virginina	Tree	FACU-	10					
3	Carya glabra	Sapl.	FACU	11					
4	Juniperus virginina	Sapl.	FACU-	12					
5	Ligustrum sinense	Shrub	FAC	13					
6	Asplenium platyneuron	Herb	FACU	14					
7	Lonicera japonica	Herb	FAC-	15					
8				16					
Percei	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 14%								
Rema	Remarks: Hydrophytic vegetation not present								

# HYDROLOGY

X Recorded D	ata (describe in remarks)	Wetland Hydrology Indicators:
		Primary Indicators:
	Steam, lake or tide gauge	Inundated>
Х	Aerial photographs	Saturated in upper 12 inches>
	Other	Water Marks>
No Recorde	ed Data Available	Drift lines>
		Sediment deposits>
		Drainage patterns>
Field Observations:	:	Secondary Indicators:
Depth of sur	rface water:	Oxidized root channels in upper 12 inches>
Depth to fre	e water in pit:	Water-stained leaves>
Depth to sat	turated soil: > 24 in	Local soil survey data>
		FAC neutral test>
		Other (explain)
Remarks:	Wetland hydrology not pres	sent.

# SOILS

Map Unit Name:		IdB		Drainage Class:	Mod. Well		
(Series and Phase):		Iredell fsl		Field Observations			
Taxonomy (subgrou	p):	Typic hapluda	alfs	Confirm Mapped Type?			
Profile Descriptions:							
Depth	Horizon	Matrix Color	Mottle Color	Mottle Abundance	Texture		
1-16"	Α	10 YR 4/4			Sandy Ioam		
Hydric Soil Indicator	s:						
Histosol		>	Con	cretions	>		
Histic epipedon		>	High	High organic content in the surface layer			
Sulfidic odor		>	of s	of sandy soils>			
Aquic moisture regin	ne	>	Org	Organic streaking in sandy soils>			
Reducing conditions		>	Liste	Listed on local hydric soils list>			
Gleyed or low chroma colors>			Liste	Listed on national hydric soils list>			
			Oth	er (explain)			

Hydrophytic Vegetation Present?	No	Is this sampling point within a wetland?
Wetland Hydrology Present?	No	No
Hydric Soils Present?	No	
Remarks: Upland A		

#### ROUTINE WETLAND DELINEATION

# (1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circumsta	ances exist on the site?>	Yes	Community II	Wet B (PEM)
Is the site significant	tly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a potenti	al problem area?>	No	Lat/Long:	34.7050/ -81.1754

# VEGETATION

	Dominant Plant Species Stra		Indicator	[	Dominant Plant Species	Stratum	Indicator	
1	Juncus effusus	Herb	FACW+	9				
2	Eleocharis obtusa	Herb	OBL	10				
3				11				
4				12				
5				13				
6				14				
7				15				
8				16				
Percei	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%							
Remarks: Hydrophytic vegetation present								

# HYDROLOGY

Х	Recorded Da	ata (describe in remar	ks)	Wetland Hydrology Indicators:	
				Primary Indicators:	
		Steam, lake or tide	gauge	Inundated>	
	Х	Aerial photographs		Saturated in upper 12 inches>	x
		Other		Water Marks>	x
	No Recorded	Data Available		Drift lines>	
	_			Sediment deposits>	
				Drainage patterns>	
Field C	Observations:			Secondary Indicators:	
	Depth of surf	ace water:		Oxidized root channels in upper 12 inches>	x
	Depth to free	water in pit:		Water-stained leaves>	x
	Depth to satu	urated soil: 1	0-12 in.	Local soil survey data>	
				FAC neutral test>	x
				Other (explain)	
Remar	rks:	Wetland hydrology	present.	-	

# SOILS

Map Unit Name:	IdB			Drainage Class:	Mod. Well		
(Series and Phase):	Iredell fsl			Field Observations			
Taxonomy (subgrou	p):	Typic haplud	alfs		Confirm Mapped Type?		
Profile Descriptions:							
Depth	Horizon	Matrix Color	Mottle (	Color	Mottle Abundance	Texture	
1-16"	Α	10 YR 3/1				Sandy Ioam	
Hydric Soil Indicator	e.						
Histosol		>		Concr	etions	>	
Histic epipedon		>		High o	High organic content in the surface layer		
Sulfidic odor		>		of sar	of sandy soils>		
Aquic moisture regin	ne	>		Organ	ic streaking in sandy soils	>	
Reducing conditions		>		Listed on local hydric soils list>			
Gleyed or low chroma colors>			Х	Listed on national hydric soils list>			
				Other	(explain)		

Hydrophytic Vegetation Present?	Yes	Is this sampling point within a wetland?
Wetland Hydrology Present?	Yes	Yes
Hydric Soils Present?	Yes	
Remarks: Wetland B		

#### ROUTINE WETLAND DELINEATION

(1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circumst	ances exist on the site?>	Yes	Community ID	Upland B
Is the site significan	ntly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a potent	ial problem area?>	No	Lat/Long:	34.7050/ -81.1754

#### **VEGETATION**

	Dominant Plant Species	Stratum	Indicator	[	Dominant Plant Species	Stratum	Indicator		
1	Juniperus virginiana	Tree	FACU-	9					
2	Ulmus alata	Sapling	FACU+	10					
3	Lonciera japonica	Herb	FAC-	11					
4				12					
5				13					
6				14					
7				15					
8				16					
Percer	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%								
Remarks: Hydrophytic vegetation not present									

# HYDROLOGY

X Recorded Data (describe in remarks)			arks)	Wetland Hydrology Indicators:		
				Primary Indicators:		
_		Steam, lake or tide	e gauge	Inundated>		
	Х	Aerial photograph	s	Saturated in upper 12 inches>		
_		Other		Water Marks>		
	No Recorded	Data Available		Drift lines>		
				Sediment deposits>		
				Drainage patterns>		
Field O	bservations:			Secondary Indicators:		
	Depth of surf	ace water:		Oxidized root channels in upper 12 inches>		
	Depth to free	water in pit:		Water-stained leaves>		
	Depth to satu	ırated soil:	> 24 in.	Local soil survey data>		
				FAC neutral test>		
				Other (explain)		
Remark	Remarks: Wetland hydrology not present.					

# SOILS

Map Unit Name:		IdB		Drainage Class:	Mod. Well	
(Series and Phase):		Iredell fsl		Field Observations		
Taxonomy (subgrou	axonomy (subgroup): Typic hapludalfs		Confirm Mapped Type?			
Profile Descriptions:						
Depth	Horizon	Matrix Color	Mottle Color	Mottle Abundance	Texture	
1-16"	Α	10 YR 5/3			Loamy clay	
Hydric Soil Indicator	s:				•	
Histosol		>	Cond	retions	>	
Histic epipedon		>	High	organic content in the surfac	e layer	
Sulfidic odor		>	of sa	of sandy soils>		
Aquic moisture regin	ne	>	Orga	Organic streaking in sandy soils>		
Reducing conditions>		Liste	Listed on local hydric soils list>			
Gleyed or low chroma colors>		Liste	d on national hydric soils list>			
			Othe	r (explain)		

Hydrophytic Vegetation Present?	No	Is this sampling point within a wetland?
Wetland Hydrology Present?	No	No
Hydric Soils Present?	No	
Remarks: Upland B		

#### ROUTINE WETLAND DELINEATION

(1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circumsta	ances exist on the site?>	Yes	Community ID	Wet C
Is the site significant	tly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a potenti	al problem area?>	No	Lat/Long:	34.7065/ -81.1751

# VEGETATION

	Dominant Plant Species	Stratum	Indicator	Dominant Plant Species Stratum		Indicator	
1	Campsis radicans	Herb	FAC	9			
2				10			
3				11			
4				12			
5				13			
6				14			
7				15			
8				16			
Percer	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%						
Remar	Remarks: Hydrophytic vegetation present						

# HYDROLOGY

X Recorded Data (describe in remarks)	Wetland Hydrology Indicators:	
	Primary Indicators:	
Steam, lake or tide gauge	Inundated>	
X Aerial photographs	Saturated in upper 12 inches>	x
Other	Water Marks>	x
No Recorded Data Available	Drift lines>	
	Sediment deposits>	
	Drainage patterns>	
Field Observations:	Secondary Indicators:	
Depth of surface water:	Oxidized root channels in upper 12 inches>	x
Depth to free water in pit:	Water-stained leaves>	x
Depth to saturated soil: 12-14 in.	Local soil survey data>	
	FAC neutral test>	
	Other (explain)	
Remarks: Wetland hydrology present	t.	

# SOILS

Map Unit Name:		IdB			Drainage Class:	Mod. Well	
(Series and Phase):		Iredell fsl			Field Observations		
Taxonomy (subgrou	p):	Typic hapludalfs		Confirm Mapped Type?			
Profile Descriptions:							
Depth	Horizon	Matrix Color	Mottle (	Color	Mottle Abundance	Texture	
1-16"	Α	10 YR 4/2				Loamy clay	
Hydric Soil Indicator	s:	ļ.					
Histosol		>		Concr	etions	>	
Histic epipedon		>		High o	organic content in the surfa-	ce layer	
Sulfidic odor		>		of sar	of sandy soils>		
Aquic moisture regir	ne	>		Organic streaking in sandy soils>		>	
Reducing conditions>		>		Listed	Listed on local hydric soils list>		
Gleyed or low chroma colors>		>	Х	Listed	on national hydric soils list	>	
				Other	(explain)		

Hydrophytic Vegetation Present?	Yes	Is this sampling point within a wetland?
Wetland Hydrology Present?	Yes	Yes
Hydric Soils Present?	Yes	
Remarks: Wetland		

#### ROUTINE WETLAND DELINEATION

(1987 COE WETLANDS DELINEATION MANUAL)

Project/ Site:	Chester Technology Park		Date:	7/14/2010
Applicant/Owner:	Chester County		County:	Chester
Investigator:	Chris Daves - S&ME, Inc.		State:	S.C.
Do normal circumsta	ances exist on the site?>	Yes	Community ID	Upland C
Is the site significant	tly disturbed (atypical situation)?>	No	Plot ID:	1
Is the area a potenti	al problem area?>	No	Lat/Long:	34.7065/ -81.1751

# VEGETATION

	Dominant Plant Species	Stratum	Indicator	[	Dominant Plant Species	Stratum	Indicator
1	Juniperus virginiana	Tree	FACU-	9			
2	Carya glabra	Tree	FACU	10			
3	Quercus alba	Tree	FACU	11			
4	Quercus stellata	Sapl.	FACU	12			
5	Oystra virginiana	Sapl.	FACU-	13			
6	Quercus marilandica	Sapl.	NI	14			
7	7 15						
8	8 16						
Percer	Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0%						
Remai	Remarks: Hydrophytic vegetation not present						

# HYDROLOGY

X Recorded Data (describe in remark	ks)	Wetland Hydrology Indicators:	
		Primary Indicators:	
Steam, lake or tide of	gauge	Inundated>	
X Aerial photographs		Saturated in upper 12 inches>	
Other		Water Marks>	
No Recorded Data Available		Drift lines>	
		Sediment deposits>	
		Drainage patterns>	
Field Observations:		Secondary Indicators:	
Depth of surface water:		Oxidized root channels in upper 12 inches>	
Depth to free water in pit:		Water-stained leaves>	
Depth to saturated soil:	> 24 in.	Local soil survey data>	
		FAC neutral test>	
		Other (explain)	
Remarks: Wetland hydrology	not pres	ent.	

# SOILS

Map Unit Name:				Drainage Class:	Mod. Well	
(Series and Phase):				Field Observations		
Taxonomy (subgroup	Taxonomy (subgroup): Typic hapludalfs		Confirm Mapped Type?			
Profile Descriptions:						
Depth	Horizon	Matrix Color	Mottle Color	Mottle Abundance	Texture	
1-16"	Α	2.5YR 5/3			Loamy clay	
Hydric Soil Indicators	s:					
Histosol		>	Con	cretions	>	
Histic epipedon		>	Higl	High organic content in the surface layer		
Sulfidic odor		>	of s	of sandy soils>		
Aquic moisture regin	ne	>	Org	Organic streaking in sandy soils>		
Reducing conditions>		>	List	Listed on local hydric soils list>		
Gleyed or low chroma colors>		>	List	ed on national hydric soils list.	>	
			Oth	er (explain)		
Remarks:	Hydric soils n	ot present	Į ·	,		

Hydrophytic Vegetation Present?		Is this sampling point within a wetland?
Wetland Hydrology Present?	No	No
Hydric Soils Present?	No	
Remarks: Upland C		