

Route 460 Location Study

HAZARDOUS MATERIALS TECHNICAL REPORT



May 2005

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S.0 EXECUTIVE SUMMARY

S.1 BACKGROUND

Three Candidate Build Alternatives (CBAs) for the Route 460 Location Study are proposed. The study area extends from Petersburg to Suffolk (hereinafter referred to as "the subject property"). Figure 1 is a site map, which shows the subject property, adjoining property and Recognized Environmental Conditions (RECs).

The purpose of this Phase I ESA, is to address the "innocent landowner defense" provision of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 and "all appropriate inquiry" into the ownership and uses of the property in preparation of due diligence investigations under the Superfund Amendments and Reauthorization Act (SARA) of 1986.

S.2 SCOPE OF SERVICES

This Phase I ESA is in general accordance with ASTM Standard E 1527-00.

S.3 PROPERTY DESCRIPTION

The subject property consists of the area just east of Petersburg and extends to Suffolk, including the following localities: Disputanta, Waverly, Wakefield, Dendron, Ivor, Zuni and Windsor, a small northern portion of Suffolk, the majority of Isle of Wight, and western portions of Surry, Rushmere and Smithfield. The study area currently consists of primarily agricultural and residential tracts with some industrial and commercial property. Based on the aerial photography, it appears that 5%-10% of the study area is industrial and commercial. The densest development and the majority of commercial and industrial properties are located proximal to each of the localities. Several secondary roadways and waterways and one railway lie within the study area, as does U.S. 460. Three known airfields exist within the study area, including: Garner Airport landing strip (between Suffolk and Windsor), the Wakefield Municipal Airport and a landing strip between Waverly and Disputanta (just east of U.S. 460), and vacant land. Table 3 includes information and more detailed property descriptions for parcels potentially exhibiting hazardous or petroleum product use. A site map showing the subject property and adjacent property is included as Figure 1.

The subject property is bound by the City of Petersburg to the west, the City of Suffolk to the east, and the Counties of Prince George, Surry, Sussex, Surry, Southampton and Isle of Wight to the north, and the Counties of Prince George, Surry, Sussex, Southampton and Isle of Wight to the south.

S.4 PHASE I FINDINGS AND CONCLUSIONS

Hazardous Materials Sites Identified

The database occurrences identify sites that could potentially affect the three CBA corridors. If a known or potential hazardous waste site affects an alternative, information about the site, the potential involvement, impacts, public health concerns and proposed mitigation measures are addressed.

Table 1 lists the number of mapped occurrences identified for each CBA considered. A total of 192 sites are located within the corridor. There are 131 mapped sites and 61 unmapped sites. The unmapped sites were not located. There is a potential that the unmapped sites are no longer in existence. Additionally, it is possible that the unmapped sites are the same as some of the mapped sites, with only a change of name. Only five of these unmapped sites are LUSTs. Of the total number of sites identified within the corridor, 26 are LUSTs. Some of the LUSTs may affect more than one alternative. In addition to the LUSTs identified in the database search, there are a number of former and potential former gasoline stations, some with

evidence that USTs are still in the ground. As there is greater potential for older tanks to leak, the former and potential former gasoline stations may affect construction.

The majority of the total occurrences identified are within or near CBA 2. Some of the LUSTs may affect more than one CBA, and are listed as such. There are fewer total occurrences for CBA 1 and CBA 3 as these areas are generally less developed and consist of more agricultural and private homes than commercial use.

Occurrences near a corridor, but not within the boundaries of the corridor, could result in potential contamination of the study area, depending on the site characteristics. Subsurface exploration or some other form of subsurface analysis would be required to assess the extent of any potential contamination.

**Table 1
NUMBER OF HAZARDOUS MATERIALS OCCURRENCES IDENTIFIED BY CBA**

Alternative Candidate Build Alternative	Number of Occurrences	
	LUST Sites	All Sites ¹
1	10	34
2	10	104
3	3	29

Source: Environmental Data Resources, Inc., June 2004.

Notes:

¹ The total number of sites identified include USTs and LUSTs and may also include sites identified in the following databases: CERCLIS, NPL, CERCLIS-NFRAP, RCRIS-SQG, RCRIS-LQG, ERNS, SWF/LF, AST, VRP, FINDS.

Hazardous Material Sites Identified for Further Evaluation

Fifteen sites may warrant additional evaluation because the proximity of the site to the corridor and the type of hazardous materials contained at the site have the greatest potential to affect property acquisition and construction activities associated with the CBAs. These 15 sites are listed in Table 2.

Mitigation

In order to develop mitigation measures for identified hazardous materials additional evaluations will be required during final design of the proposed project. The level of detail required for the additional evaluations will be dependent upon specific design criteria (i.e., limits of cut and fill and the vertical and horizontal profile) of the selected alternative. CBA 2 has hazardous materials site occurrences within the corridor boundaries. These sites provide potential sources of contamination that could have an adverse impact on both property acquisition and construction activities. Accordingly, some sites may require some form of mitigation. The selection of mitigation measures for specific sites would include avoidance, minimizing impacts through redesign or alignment shift, and remediation/closure. Any site remediation/closure would be performed in accordance with applicable State and Federal laws. Performance of such measures would occur prior to or during the course of construction, depending on site conditions.

Fatal Flaws

Fatal flaws are those sites that would add considerable cost, delay and/or influence the selection of an alternative. Examples of potential hazardous materials fatal flaws include superfund sites, solid waste landfills and ordinance ranges. No fatal flaw sites were identified in any of the three CBAs.

Table 2.
HAZARDOUS MATERIALS SITES IDENTIFIED FOR FURTHER EVALUATION

CBA	Hazardous Materials Site #	Description
1	24	Thomas Wright, ERNS site. LUST case.
2	30	Windsor Veterinary Hospital – appears to be a former gas station.
	35	Pangle’s Auto Repair.
	37	Pearl Line Press – three vent pipes on west side of structure.
	38	Possible former gas station –one vent pipe and pump island.
	40	Former gas station, corner of Route 644 and Route 460 –pump island and bays, vent pipe behind structure.
	41	Former gas station, Route 460 – appears to have former pump island.
	43	Former gas station, 37262 Route 460 – pump island and four vent pipes.
	70	Adams Peanuts. Appears to be a former gas station – pump island and two vent pipes.
	93	Waverly Glass. Appears to be a former gas station.
	97	Van Cleef. Former gas station – pump island and two USTs.
	98	B&B Motors. Auto body repair and junkyard –potential hazardous materials.
	99	John’s Auto Body. Appears to have former pump island & UST.
	101	Vacant former gas station.
129	East Coast Gas Station. Open LUST case.	

Recognized Environmental Conditions

“Recognized Environmental Conditions” have been identified based on a review of “reasonably ascertainable” and “practically reviewable” records (standard historical, physical setting and environmental sources), interviews with persons knowledgeable of the subject property, and an on-site visual inspection of the subject property.

This Phase I ESA investigation has revealed the following RECs (Table 3) on or adjoining the subject property. See Figure 1.

**Table 3
RECOGNIZABLE ENVIRONMENTAL CONDITIONS (RECS)**

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
1	0.35 mi NE of CBA 1	Glenn Martin Chevrolet/C hrysler	2584 Pruden Boulevard Suffolk	LUST	Yes	No	
2	0.01 mi NE of CBA 1	Holiday Inn	2864 Pruden Boulevard Suffolk	LUST, UST	Yes	No	
3	0.01 mi NE of CBA 1	Sentry Food Mart #8	2865 Pruden Boulevard Suffolk	LUST	Yes	Yes	No
4	0.03 mi NW of CBA 2	Williams Jesse L Jr/ Pine Pasture Farm	2925 Pruden Boulevard Suffolk	LUST, UST	Yes	No	
5	0.07 miles NW of CBA 2	Virginia State Police	2900 Pruden Blvd Suffolk	UST	Yes	No	
6	CBA 2	Miller Mart #55	2872 Pruden Boulevard	UST	Yes	No	
7	CBA 3	Highway Related	General Early Drive		Yes	No	
8	0.31 mi NE of CBA 1	Mount Zion Elementary School	3264 Pruden Boulevard Suffolk	LUST	Yes	No	
9	CBA 1, 3	J.R. Wills and Sons Inc	1236 Kings Fork Road	UST	Yes	No	
10	0.40 mi NE of CBA 1, 0.41 mi NE of CBA 2	Aston Property	Kings Fork Road and Pruden Boulevard Suffolk	LUST	Yes	No	
11	0.45 mi NE of CBA 1	Hollands Mini Mart	Routes 460 & 604 Suffolk	LUST	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
12	CBA 2, 3	Windsor Auto Repair	Route 460	Auto repair	No	No	
13	CBA 2, 3	Windsor Café	Route 460	Appears to be possible former gas station	No	Yes	No
14	CBA 2, 3	Fern's Auto Repair	Route 460	1 bay, no USTs observed	No	Yes	No
15	0.45 mi NE of CBA 1	Dixie Guano	37 Windsor Boulevard Windsor	LUST	Yes	No	
16	CBA 1	Possible Former Gas Station	Corner of Route 610 and Route 636	Appears to be former gas station, pump island, no USTs observed	No	Yes	No
17	CBA 1	Southern Food Stores	Route 460	3 USTs (gasoline and kerosene)	No	No	
18	0.40 mi NE of CBA 1	Sentry Food Mart #52	24 W Windsor Boulevard Windsor	LUST	Yes	No	
18	CBA 1	BP	Route 460	3 USTs (gasoline) and 1-275-gallon AST	No	No	
19	0.41 mi NE of CBA 1	Berle Real Estate LLC	57 W Windsor Boulevard Windsor	LUST	Yes	No	
20	CBA 1	Exxon Station	Route 460 and Route 258	3 USTs	No	No	
21	CBA 1	Shell Station	Route 460 and Route 258	3 vents and 3 USTs, 1-500-gallon AST (Kerosene)	No	No	
22	CBA 1	Windsor Middle School		1-1000-gallon AST	No	No	
23	0.11 miles SW of CBA 2	Windsor Elementary School	23320 North Court Street Windsor	UST	Yes	No	
24	0.03 mi S of CBA 1	Thomas Wright	9584 Beartrap Circle Windsor	ERNS	Yes	Yes	Yes
25	0.03 mi S of CBA 1	Wright Dredging Co. Inc	9584 Beartrap Circle Windsor	LUST	Yes	No	
26	CBA 2	Roy's Radiator Repair	Route 460		No	No	
27	CBA 2	Citgo Gas	Route 460	4 vent pipes	No	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
		Station					
28	0.01 mi SW of CBA 2	Southern States Gas Station	Route 460 (9242 Windsor Boulevard Windsor)	6 USTs (diesel and gasoline)	Yes	No	
29	0.01 mi SW of CBA 2	Tide-water Petroleum	Route 460 (9242 Windsor Boulevard Windsor)	RCRA	Yes	No	
30	CBA 2	Windsor Veterinary Hospital	Route 460	Appears to be former gas station	No	Yes	Yes
31	CBA 1	VDOT Windsor Area Headquarters	22516 Buckhorn Drive	2 USTs	Yes	No	
32	CBA 1	Dewitt Automotive	Route 258	Auto repair facility	No	Yes	No
33	0.44 E of CBA 3	Butler Camp-ground	Windsor	Landfill/ Solid Waste Disposal facility	Yes	No	
34	0.39 mi SW of CBA 2	Carr Trucking 0.39 SW of CBA 2	20245 Silo Lane (VA Route 644) Zuni	CERC-LIS, UST	Yes	Yes USTs	Yes
35	CBA 2	Pangle's Auto Repair	Route 460		No	Yes	Yes
36	CBA 1	Zuni Presbyterian Homes	5279 Homegrown Lane	UST	Yes	No	
37	CBA 2	Pearl Line Press	Route 460	3 vent pipes on west side of structure	No	Yes	Yes
38	CBA 2	Possible Former Gas Station	Just east of Zuni on Route 460	1 vent pipe, 1 pump island	No	Yes	Yes
39	CBA 2	Citgo/ Kitchen's Mini Mart	Corner of Route 644 and Route 460	4 USTs	No	No	
40	CBA 2	Former Gas Station	Corner of Route 644 and Route 460	Pump island and bays, vent pipe behind structure	No	Yes	Yes
41	CBA 2	Former gas station	Route 460	Appears to be a former pump island	No	Yes	Yes
42	CBA 2	Carr Trucking	20245 Silo Lane (VA Route 644)	NFRAP	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
43	CBA 2	Former Gas Station	37262 Route 460	Pump island and 4 vent pipes	No	Yes	Yes
44	0.38 miles SW of CBA 2	Larison Barbara Residence	38207 General Mahone Boulevard Ivor	LUST	Yes	No	
45	CBA 2	All American Auto Parts	Route 460		No	No	
46	CBA 2	SPSA Ivor Transfer Station	Ivor	Landfill/ Solid Waste Disposal facility	Yes	No	
47	CBA 1, 2	Southampton Sand Co	Route 460	No tanks observed	No	No	
48	CBA 1, 2	Prescription Fertilizer	Route 460	Structures with bays	No	No	
49	CBA 1, 2	Exxon (Ivor)	Route 460	2 bays, 4 USTs (kerosene and gasoline) 1-275-gallon used oil AST, 1-500-gallon diesel AST, 1-500-gallon heating oil AST	No	No	
50	CBA 1, 2	Pure Gas Station/ Kitchen's Mini Mart	Route 460	3 gasoline USTs behind structure	No	No	
51	CBA1, 2	Former Gas Station	8265 Route 616	1 diesel gas pump observed 1-500-gallon AST observed behind structure	No	Yes	No
52	CBA 1, 2	Possible Former Gas Station	Corner of Route 616 and Route 460	2 bays	No	Yes	No
53	CBA 1, 2	Possible Former Gas Station	5328 Route 460		No	No	
54	< 0.5 mi SW of CBA 1	Ivor Farm Pit	State Route 622 .72 miles W of 616	CERC-LIS	Yes	No	
55	CBA 1, 2	Ivor Volunteer Rescue Squad	Route 460	1-500-gallon AST	No	No	
56	CBA 2	Royster Clark	Route 460 (611 Factory Street)	Possible fuel tanks UST	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
			Windsor				
57	CBA 2	Timberland Contracting	Route 460	1-1000-gallon diesel AST	No	No	
58	0.38 mi N of CBA 3	Rollings, Mary Estate	1084 White Marsh Road Wakefield	LUST	Yes	No	
59	CBA 2, 3	Pittman Supply Hardware		Several 275-gallon heating oil ASTs, all appear to be abandoned	No	No	
60	CBA 2, 3	BP Gas Station	Corner of Route 460 and Route 31	3 USTs on the east side of the structure	No	No	
61	CBA 2, 3	7-11	Corner of Route 460 and Route 31	3 USTs in front of structure (gasoline)	No	No	
62	CBA 2, 3	Indmar Coatings Corp		Several 55 gallon drums, 2 large ASTs (possibly tar tanks)	No	No	
63	CBA 2, 3	Pepco	Route 460	5 USTs (gasoline and kerosene)	No	No	
64	CBA 2, 3	Britt's Service Center/Judy's Pit Stop	Corner of Route 460 and Route 647	3 USTs	No	No	
65	CBA 2, 3	Wakefield Farm Service	Route 460	2-500-gallon ASTs (gasoline and diesel), 1-1000-gallon diesel AST	No	No	
66	CBA 2, 3	Former Gas Station	Route 460 (Wakefield)	2 bays	No	Yes	No
67	CBA 2, 3	Plantation Peanuts	Route 460	Appears to be former gas station	No	Yes	No
68	CBA 2, 3	Parker Fuels	Route 460	5 USTs (kerosene, off-road diesel, and gasoline)	No	No	
69	CBA 2, 3	Exxon (in Wakefield)	Intersection of Route 714 and Route 460	5 USTs (off-road diesel, diesel, gasoline and kerosene)	No	No	
70	CBA 2	Adam's Peanuts	9243 Route 460	Appears to be former gas station; pump island, 2 vent pipes in front of structure 2-275 gallon heating oil ASTs behind structure	No	Yes	Yes

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
71	CBA 3	A.L Bailey Farms	35664 Owens Grove Road	UST	Yes	No	
72		Waverly Equipment Service		Maintenance bays	No	No	
73	0.01 mi SW of CBA 2	Georgia Pacific Lumber Yard	10242 Route 460	LUST, RCRA, UST	Yes	Yes, LUST	Yes
74	CBA 2	Wake-field Municipal Airport	10163 Route 460	2 USTs	No	No	
75	CBA 2	Tri-City Tire Site	10108 General Mahone Highway Wakefield	CERC-LIS	Yes	No	
76	0.01 mi NE of CBA 2	Julian Adams	Route 460 Waverly	LUST	Yes	No	
77	CBA 2	Community Oil	Highway 40 Wakefield	LUST, UST	Yes	No	
78	CBA 2	Scott's	7601 General Mahone	1-500-gallon AST located behind main structure, UST	Yes	No	
79	CBA 2	VDOT Waverly Residency and Area Headquarters	7051 Route 460 (in Waverly)	2 USTs	No	No	
80	CBA 2, 3	S&J Convenience Store	349 Route 40	Active gas station, 2 vents and 2 USTs	No	No	
81	0.08 miles NE of CBA 2, CBA 3	Waverly Health Care	456 E Main Street Waverly		No	No	
82	0.48 mi SW of CBA 3, 0.31 mi SW of CBA 2	Waverly State Police	438 E Main Street Waverly	LUST	Yes	No	
83	CBA 2, 3	Former Gas Station	Corner of Route 606 and Route 40 (350 Route 40)	2 vent pipes and 2 UST fill ports	No	Yes	No
84	CBA 2, 3	Glenn's Automotive		Pump island 1-500 gallon AST	No	Yes	No

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
		Service (former gas station)		on west side of structure			
85	0.43 mi NE of CBA 2 CBA 3	Scarboro Darrell Residence	105 N Beaverdam Road Waverly	LUST	Yes	No	
86	CBA 2, 3	Texaco Gas Station	Route 460 (in Waverly)	3 USTs 7 pumps, tank farm behind pump island area (several above-ground tanks ranging in size from 275-gallon to 10,000-gallon) stressed vegetation and 2 monitoring wells observed at facility	No	No	
87	CBA 2, 3	7-11 Gas Station	Route 460 near Route 40	3 USTs	No	No	
88	CBA 2, 3	Rural Waste-water Systems	West of Route 29; 128/Route 460	Appears to be former gas station	No	Yes	No
89	CBA 1	Jackson's Bus Service	Route 40	Drums, junk cars, 1-500 gallon rusty AST with no secondary containment	No	Yes	No
90	0.40 mi N of CBA 1	Particle Board Division of Nevamar Company	721 Route 40 South, Waverly	1 large AST (50,000+ gallons); CORRACTS	Yes	No	
91	CBA 1	Chevron Food Mart	Route 40	3 USTs (2 gasoline and 1 kerosene)	No	No	
92	CBA 2	Waverly Hardwoods		Several large ASTs	No	No	
93	CBA 2	Waverly Glass	6351 Route 460	Appears to be former gas station	No	Yes	Yes
94	CBA 2	Liberty Gas Station (north of Route 460 in Waverly)		3 vent pipes and USTs, 2-500 gallon kerosene ASTs manifolded together	No	No	
95	CBA 2	Exxon Gas Station (south of Route 460 in		2 vent pipes on west side of structure	No	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
		Waverly)					
96	CBA 2	NAPA Store		1-500 gallon gasoline AST	No	No	
97	0.02 mi SW of CBA 2	Van Cleef (former gas station), adjacent NAPA Store	5556, 5578, 5584 4Route 460	Inactive pump island 2 USTs, 1 pump labeled diesel 1-500 gallon AST (un-known), UST	Yes	Yes	Yes
98	CBA 2	B&B Motors	4362 Route 460	Auto body repair and junkyard	No	Yes	Yes
99	0.02 mi SW of CBA 2	John's Auto Body	Route 460 (4216 General Mahone Waverly)	Appears to have former pump island, UST	Yes	Yes	Yes
100	0.01 mi SW of CBA 2	Spurlock Adhesives Inc.	5090 General Mahone Hwy	UST	Yes	No	
100	0.01 mi SW of CBA 2	Spurloch	5090 General Mahone Hwy	UST	Yes	No	
100	CBA 2	Borden Chem Inc	5090 General Mahone Hwy, Waverly	RCRA	Yes	No	
101	CBA 2	Vacant Former Gas Station	Route 460	No visual evidence of tanks	No	Yes	Yes
102	CBA 2	Sussex Service Authority (Pump Station)	Route 460	1-500 gallon diesel AST	Yes	No	
103	0.01 mi SW of CBA 2	Carrolls Foods of Virginia Inc.	HWY 460 West, Waverly	RCRA	Yes	No	
103	CBA 2	Carrolls Food Feed Mill	27404 Gen Mahone Hwy	UST	Yes	No	
104	CBA 2	Cavalier Quick Stop (former gas station)	Route 460	2 vent pipes on west side of structure, stressed vegetation, petroleum odors, UST	Yes	No	
105	CBA 2	PG/Sussex Communication Tower	Route 460	UST	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
106	CBA 2	Former Gas Station	Route 460		No	Yes	No
107	CBA 2	Brian's Automotive (appears to be a former gas station)	Northeast corner of 625 and 460 (10054 County Drive)	Possible former pump island, no visible evidence of tanks	No	Yes	No
108	CBA 2	Disputanta Volunteer Fire Department	1000 County Drive	1-550 gallon diesel AST	No	No	
109	CBA 2	Russell Padgett	13103 Hines Rd	UST	Yes	No	
110	0.07 miles SE of CBA 2	Harrison Elementary School	2900 E Quaker Rd Prince George	UST	Yes	No	
111	CBA 2	Walden's Barber Shop and Beauty Salon	9718 County Drive	Old pump island, 1 vent pipe west side of building	No	Yes	
112	CBA 2	Former Texaco Gas Station	Intersection of 618S and 460	4 USTs (3 larger and 1 smaller)	No	Yes	No
113	CBA 2	Kitchen's Stop and Shop	9901 County Road	UST	Yes	No	
114	0.11 miles SW of CBA 2	Prince George Golf	8401 Golf Course Drive Prince George	UST	Yes	No	
115	CBA 2	Shell Gas Station	SE Corner Routes 460 and 156	7 vent pipes and 7 USTs	No	No	
116	CBA 2	Seiberts 460 Texaco Truck Stop	7201 County Drive, Disputanta	RCRA, UST	Yes	No	
117	CBA 2	Standard Motor Products, Inc.		2 large ASTs, RCRA	Yes	No	
118	0.06 mi SW of CBA 2	JEJ Moore Middle School		No tanks observed, UST	Yes	No	
119	CBA 2	Food Lion Distribution Center	Between Routes 460 and 630	1-50,00+ gallon AST; LUST; ERNS, UST	Yes	No –closed LUST case	
120	CBA 2	Prince George Emergency Crew	10800 Route 156	1-500 gallon AST (½ diesel, ½ gasoline); 2 nd vent pipe at building	No	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
		Rescue Squad		between bays			
121	CBA 2	Spencer Propane Company	PO Box 1538	1500-gallon AST	No	No	
122	0.06 miles NE of CBA 2	Petersburg Jail Farm	6104 County Drive Disputanta	UST	No	No	
123	0.12 mi SW of CBA 2	Country Classics	6103 Country Drive Disputanta	LUST; 275-gallon AST east of building, UST	Yes	No	
124	CBA 2	Truck Service of Virginia		1-500 gallon AST behind building, 1-used oil AST behind shed	No	No	
125	CBA 2	Agri-nutrients	5114 Route 460	Large AST	No	No	
126	CBA 2	B and D Collision Center	5112 Route 460, Disputanta	Appears to be former gas station, no tanks observed RCRA	Yes	No	
127	0.03 mi NE of CBA 2	Southside Ford Tractor	Highway 460 E Petersburg	UST	Yes	No	
128	0.03 mi NE of CBA 2	McLean Tom's	Petersburg	UST	Yes	No	
129	CBA 2	East Coast Gas Station	Disputanta	UST, LUST	Yes	Yes from LUST	Yes
130	0.07 mi NE of CBA 1	Triangle Market Former	4605 County Drive Disputanta	LUST	Yes	No	
131	0.99 SW of CBA 3	Boehringer Ingleheim Chemicals Inc.	Petersburg	CORRACTS	Yes	No	
Unmapped							
	CBA 1	Swift Agri Chem Corp.	Suffolk	CERCLIS	Yes	No	
	<1 mi CBA 1	MR Industries Will Roy Industries PK Site 63	Suffolk	COR-RACTS	Yes	No	
	CBA 2	State Route 460 East	Wakefield	ERNS	Yes	Yes	
	CBA 2	Plant Food Products	3460 General Mahone Blvd, Ivor	ERNS	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
	Unmapped	Gray Lumber Company	Main Street Waverly	Landfill/Solid Waste Disposal, LUST, UST	Yes	No	
	Unmapped	Nottoway County Landfill	Waverly	Landfill/Solid Waste Disposal	Yes	No	
	Unmapped	Southampton County Landfill – Ivor #2	Ivor	Landfill/Solid Waste Disposal	Yes	No	
	Unmapped	Suffolk City Landfill	Hozier Road Suffolk	Landfill/Solid Waste Disposal	Yes	No	
	Unmapped	GTE Facility	High St Wakefield	LUST, UST	Yes	No	
	Unmapped	Seberas Country Store	Route 106 Prince George	LUST, UST	Yes	No	
	Unmapped	Sussex Bulk Oil Facility	Route 460 & 714 Wakefield	LUST	Yes	Yes	
	Unmapped	West Main Street Pump Station	West Main Street Waverly	LUST	Yes	No	
	CBA 2	Zuni Amoco	Route 460	UST	Yes	No	
	CBA 2	Zuni Peanut Co	Route 460	UST	Yes	No	
	Unmapped	Bank of Isle of Wight	Route 460 Wakefield	UST	Yes	No	
	Unmapped	Beale Boys	Route 40 Waverly	UST	Yes	No	
	Unmapped	Brandon Plantation	23105 Brandon Road Spring Grove	UST	Yes	No	
	Unmapped	Chips Market	Route 460 Waverly	UST	Yes	No	
	Unmapped	Clantons Electric	Main Street Waverly	UST	Yes	No	
	Unmapped	Cobbs Automotive	Route 760 Wakefield	UST	Yes	No	
	Unmapped	DL Magee	Waverly	UST	Yes	No	
	Unmapped	East End Service	W Main Street Waverly	UST	Yes	No	
	Unmapped	Express Mart #4	Route 40 W Waverly	UST	Yes	No	
	Unmapped	Former Harrups Super-	Ivor Road Ivor	UST	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
		market					
	Unmapped	Gladys Walker	Country Drive Disputanta	UST	Yes	No	
	Unmapped	Good-man and Holland	Route 610 Windsor	UST	Yes	No	
	Unmapped	HW Wade	Highway 616 Ivor	UST	Yes	No	
	Unmapped	Hilltop Truck Stop	Route 460 Ivor	UST	Yes	No	
	Unmapped	JE Nash and Son	Route 460 Ivor	UST	Yes	No	
	Unmapped	JR Andrews Farm	Highway 617 Wakefield	UST	Yes	No	
	Unmapped	James T Jones	Route 2 Box 50 Windsor	UST	Yes	No	
	Unmapped	John D Nurney	Route 3 Box 106 Windsor	UST	Yes	No	
	Unmapped	John D Crocker	Route 2 Box 163 Ivor	UST	Yes	No	
	Unmapped	LA Brantly Farm	Highway 616 Ivor	UST	Yes	No	
	Unmapped	L Frank Byrum Jr	Route 2 Box 2663 Windsor	UST	Yes	No	
	Unmapped	Lanier Felix B	Main Street Wakefield	UST	Yes	No	
	Unmapped	Larry Lee Neave Farm	Route 1 Box 86 Ivor	UST	Yes	No	
	Unmapped	Leonards	Route 460 Ivor	UST	Yes	No	
	Unmapped	Midway Chevron	Route 460 Wakefield	UST	Yes	No	
	Unmapped	Mike Spain; Nottoway Farms	Jerusalem Plank Road Waverly	UST	Yes	No	
	Unmapped	Oberry Farm Supply	Route 3 Box 100 Windsor	UST	Yes	No	
	Unmapped	Padgett Brothers	Waverly	UST	Yes	No	
	Unmapped	Prince George Emergency Crew Building	Prince George Dr Prince George	UST	Yes	No	
	Unmapped	Rolley Firewood Sales	Country Drive W Disputanta	UST	Yes	No	
	Unmapped	SS Kea and Son	Route 460 Ivor	UST	Yes	No	

Location ID	CBA	Location	Address	REC	Listed in Database	May represent an impact to the subject property	Close or on CBA (for those that may represent an impact)
	Unmapped	SP Roeder	Highway 460 W Waverly	UST	Yes	No	
	Unmapped	Scott Truck Lot	Route 258 S Windsor	UST	Yes	No	
	Unmapped	Stanley Turner	Route 3 Box 62 Windsor	UST	Yes	No	
	Unmapped	Stephenson Farms	Highway 628 Wakefield	UST	Yes	No	
	Unmapped	Sussex Farm Equipment	Highway 460 E Waverly	UST	Yes	No	
	Unmapped	Tidewater Farm and Garden Supply	PO Box 147 Windsor	UST	Yes	No	
	Unmapped	Wagon Wheel	Highway 460 Ivor	UST	Yes	No	
	Unmapped	Wakefield Chevron	555 County Drive Wakefield				
	Unmapped	Wakefield Texaco	Highway 460 Wakefield				
	Unmapped	Windsor Truck-stop	Route 460 Windsor				
	Unmapped	Woodys Chevron	Route 460 Wakefield				
	Unmapped	Ye Old Tobacco Shop	Route 460 Windsor				
	Unmapped	Ivor Furniture Company	Route 460 Ivor				
	Unmapped	Windsor Shell	Windsor Blvd Windsor				
	Unmapped	Windsor Peanut Company	Route 460 Windsor				
	Unmapped	Windsor Inn	Route 460 Windsor				

*If not located at that CBA, the REC is closest to CBA(s) noted.

Unmapped sites could not be geolocated either because the sites are no longer there or have since changed names and potentially affect all alignments.

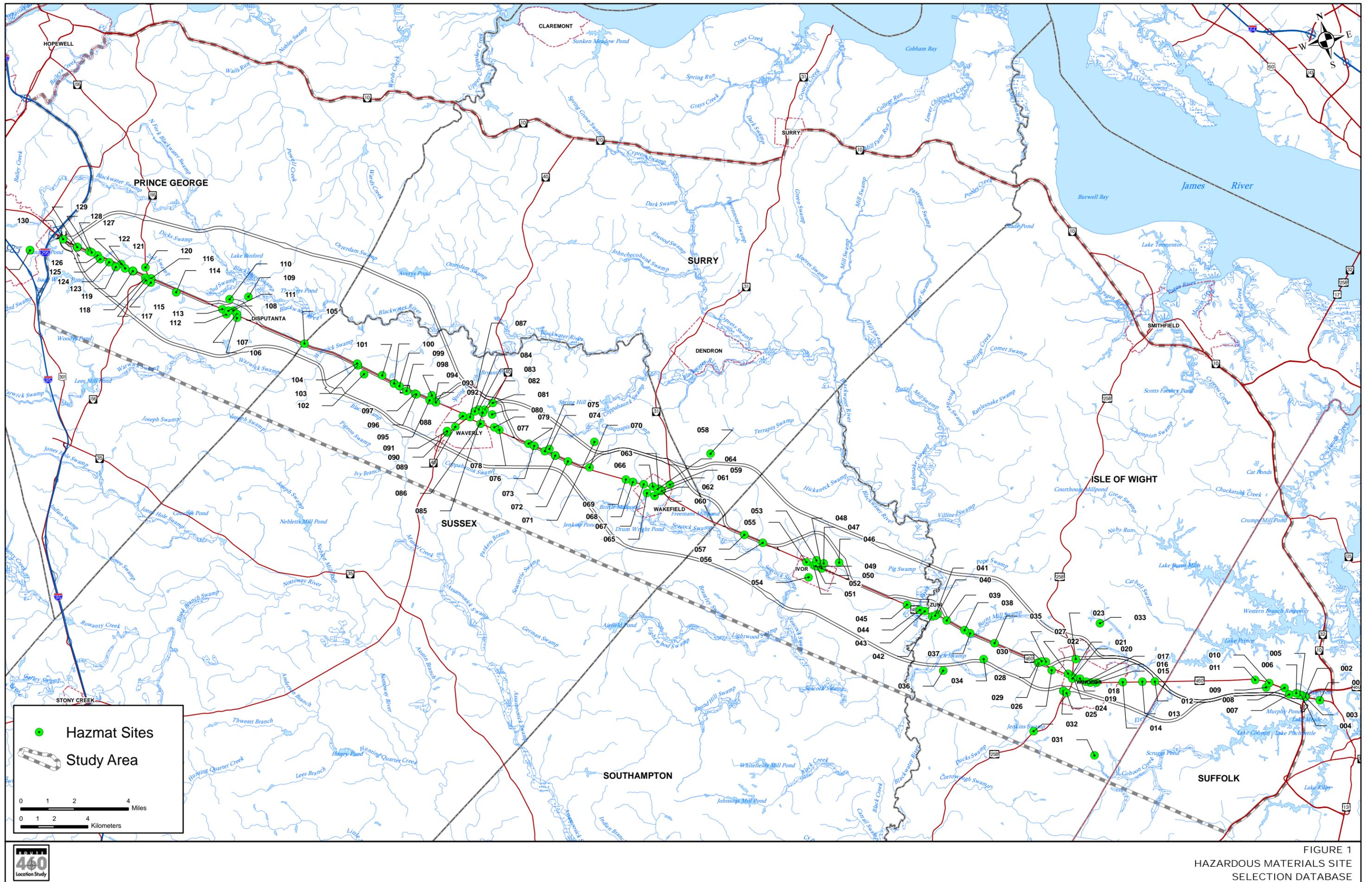


FIGURE 1
HAZARDOUS MATERIALS SITE
SELECTION DATABASE

S.5 RECOMMENDATIONS

Based on the findings and conclusions of this Phase I ESA, once the preferred alignment is selected, Phase II ESA soil and groundwater sampling is recommended at the above-listed locations (with a Yes in the last column) that will affect the construction of the selected alignment.

The USTs located where property is to be transferred to construct the alignment should be removed per VDEQ and local regulations by the property owner prior to purchase. All on-site ASTs should be pumped out and disposed prior to demolition of the on-site structures.

Limitations on the subject property precluded a complete inspection of the residential and private properties for evidence of USTs. Therefore, it is possible that USTs exist on the residential and private properties. The contractor should use caution during demolition and excavation and handle any USTs (if discovered) per VDEQ and local regulations.

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this Phase I ESA is to address the "innocent landowner defense" provision of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 and "all appropriate inquiry" into the ownership and uses of the property in preparation of due diligence investigations under the Superfund Amendments and Reauthorization Act (SARA) of 1986.

This Phase I ESA was performed to identify, to the extent feasible, RECs in connection with the subject property pursuant to ASTM Practice E 1527-00. The term "recognized environmental conditions" is defined in ASTM Practice E 1527-00 at Section 1.1.1 as:

"the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, groundwater, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

1.2 PROCESS, PROCEDURES AND METHODOLOGIES

An ASTM Phase I ESA has four components: 1) a records review, entailing the examination of Federal, State, and local database records pertaining to RECs within an approximate minimum search distance of the subject property, a historical records review involving the examination of aerial photographs, maps, real estate records and fire insurance maps, 2) an on-site visual reconnaissance of the subject property, 3) interviews with the owner(s), occupant(s) and key site manager(s) of the subject property (where applicable), and 4) a report of findings. The purpose of these components is to obtain information identifying RECs on or adjoining the subject property.

Special terms discussed in this report, that are not defined, may be found in ASTM Practice E 1527-00 at Section 3.

1.3 LIMITATIONS

This Phase I ESA was conducted in accordance with ASTM Practice E 1527-00.

Limitations encountered on the subject property, which precluded a complete visual inspection of the subject property, included:

- Interior inspections were not conducted for the majority of the on-site buildings because of the residential and confidential nature of the project.
- Dense vegetation, parked vehicles and privacy fences precluded a visual inspection of a majority of the property.

As of this writing, the Chain of Title information was not available. Should a future review of the Chain of Title show any RECs, an addendum to this report will be forwarded.

As set forth in ASTM Practice E 1527-00 at Section 4.5.1:

"No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice

intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and...[this] practice recognize[s] reasonable limits of time and cost.”

This investigation only evaluated RECs at the time of the assessment, and does not address conditions at any given time in the future. Site conditions can change over time with variations of on-site and surrounding land use(s). The findings presented within this Phase I ESA report were based on a review of reasonably ascertainable and practically reviewable records (standard historical, physical setting and environmental record sources), interviews with persons knowledgeable of the property and an on-site visual inspection, pursuant to ASTM Practice E 1527-00.

The scope of work for this Phase I ESA excluded assessment of wetlands and radon and lead in drinking water at the subject property. No sampling or laboratory testing of soil, water, air, or building materials was performed as part of this investigation. Also excluded was any assessment of circumstances not specified in ASTM Practice E 1527-00, which did not represent RECs, but which may impose limitations on the use of the subject property such as land use regulations and local ordinances, with the exception of any findings that may influence construction or demolition on the subject property.

Certain individuals were interviewed during the course of this Phase I ESA. Written Records of Communication (ROCs) were generated as a result of each of these contacts. A summary of these interviews are included in Chapter 4.

Uncertainty is inherent in the review of historic aerial photographs, which are used to corroborate information contained in other standard historical sources. All statements pertaining to the identity of physical features and land uses portrayed in the aerial photographs reviewed for this Phase I ESA are merely inferences based on knowledge of physical features and land uses in existence today within the area portrayed in the photograph and on previous experience in reviewing aerial photographs.

Subject property improvements were photographed and each suspect condition of environmental impairment observed on-site as well as on adjoining properties. All photographs taken during visual and physical inspection of the subject property are available for viewing in the Virginia Beach office of LandMark Design Group, 5544 Greenwich Road, Suite 200, Virginia Beach, VA, during normal business hours.

Tax records were not obtained from the various locales since there are so many properties within the study area. Therefore, tax records are not included in this report.

Please note that, as set forth in ASTM Practice E 1527-00 at Section 4.6: “An environmental site assessment meeting or exceeding [this] practice and completed less than 180 days previously is presumed to be valid.” Any such Phase I ESA older than 180 days is usable only to the extent allowed pursuant to Sections 4.7.1 through 4.7.5 of the Standard.

This Phase I ESA represents the professional opinion of LandMark regarding the subjects discussed herein. No warranties are made, either expressed or implied, regarding this Phase I ESA. This Phase I ESA has been prepared for VDOT and is intended solely for their use, and when authorized, their advisors.

2.0 RECORDS REVIEW

In accordance with National Environmental Policy Act (NEPA) requirements, alternatives considered for the Route 460 Location Study include the No-Build, Mass Transit, Transportation System Management (TSM), and Candidate Build Alternatives (CBAs). Each alternative has been evaluated with respect to its potential impacts and its ability to address the project's purpose and need.

2.1 PHYSICAL SETTING SOURCES

2.1.1 Topographic Maps

A review of the United States Geological Survey (U.S.G.S.), 7.5 minute, topographic maps of the Prince George Quadrangle (1969, photorevised 1990), Disputanta North Quadrangle (1969, photorevised 1990), Disputanta South Quadrangle (1968, photorevised 1981), Templeton Quadrangle (1969, photorevised 1974), Waverly Quadrangle (1969, photorevised 1990), Manry (1969), Ivor (1968, photorevised 1981), Raynor Quadrangle (1968), Zuni Quadrangle (1969, photorevised 1980), Windsor Quadrangle (1965, photorevised 1980) and Chuckatuck Quadrangle (1965, photorevised 1980) revealed that the subject property ranges in elevation from approximately 50 feet to 150 feet above mean sea level (west to east). Surface drainage on the subject property flows toward the many tributaries and farm ditches located throughout the area.

2.1.2 Geologic Maps

The subject property is located within the Atlantic Coastal Plain Physiographic Province of Virginia. A review of the Geologic Map of Virginia (V.D.M.R., 1993) shows that the geology in the area of the subject property is comprised of unconsolidated sediments of the Atlantic Coastal Plain. In particular, the subject property consists of the Charles City Formation, a lower Pleistocene light to medium gray and light to dark yellow and reddish brown sands silts and clays; the Windsor Formation, a lower Pleistocene or upper Pliocene gray and yellow to reddish brown sand, gravel, silt and clay; the Shirley Formation, a middle Pleistocene light to dark gray, bluish gray and brown sand, gravel, silt, clay and peat; the Bacon's Castle Formation, an upper Pliocene gray, yellow orange and reddish brown sand, gravel, silt and clay; and the Chesapeake Group, an upper Pliocene to lower Miocene fine to coarse quartzose sand, silt and clay.

2.1.3 Groundwater Maps

A review of the Ground Water Map of Virginia (V.W.C.B., 1985) shows that the subject property is located within the Coastal Plain Ground Water Area. This area is composed of unconsolidated sediments of Cretaceous to recent age overlying a bedrock basement. The sediments thicken from a featheredge at the fall zone eastward, to about 7,000 feet on the Eastern Shore. Sediments dip gently eastward and are subdivided into four major aquifers from the land surface downward. The aquifers are separated by confining beds that restrict, but do not prevent vertical water flow between aquifers.

Apparent drainage patterns in the region encompassing the subject property, as ascertained through review of the above listed U.S.G.S. quadrangles, suggest that shallow groundwater flow in the vicinity of the subject property is influenced by the many surface water bodies and depends on where each CBA is located with respect to those waters.

2.1.4 Soil Surveys

A review of the Soil Survey of Isle of Wight County, Virginia (U.S.D.A., 1986) revealed that the soils located within the subject property in this County are comprised of Alaga fine sand, Chipley sand, Emporia fine sandy loam (0-2 and 2-6 percent slopes), Kenansville loamy sand, Kinston loam, Myatt fine sandy loam, Nawney loam, Slagle fine sandy loam (0-2 and 2-6 percent slopes), Uchee loamy sand (0-2 and 2-6 percent slopes), Uchee-Peawick complex (2-6 percent slopes), Udorthents loamy, and Yemassee fine sandy loam.

Alaga fine sand is a somewhat excessively drained, nearly level to gently sloping soil. Chipley sand is a very deep, moderately well drained, nearly level to gently sloping soil on ridges and depressions adjacent flood plains. Emporia fine sandy loam (0-2 percent slopes) is a very deep, well drained and nearly level soil on broad ridgetops. Emporia fine sandy loam (2-6 percent slopes) is a very deep, well drained and gently sloping soil on upland ridges and side slopes. Kenansville loamy sand is a very deep, well drained and nearly level to gently sloping soil on low ridges. Kinston loam is a very deep, poorly drained and nearly level to gently sloping soil in drainage way and depressions. Myatt fine sandy loam is a very deep, poorly drained and nearly level soil on broad flats and in depressions. Nawney loam is a very deep, very poorly drained and nearly level soil on flood plains. Slagle fine sandy loam (0-2 percent slopes) is a very deep, moderately well drained and nearly level soil on broad upland flats. Slagle fine sandy loam (2-6 percent slopes) is a very deep, moderately well drained and gently sloping soil on toe slopes, in saddles, on side slopes and along drainageways. Uchee loamy sand (0-2 percent slopes) is a very deep, well drained and nearly level soil in broad, interstream areas. Uchee loamy sand (2-6 percent slopes) is a very deep, well drained, and gently sloping soil on low ridges. Uchee-Peawick complex (2-6 percent slopes) consists of very deep and gently sloping soils on side slopes and toe slopes. Udorthents loamy are very deep and well drained to moderately well drained soils. Yemassee fine sandy loam is a very deep somewhat poorly drained soil on broad flats and along shallow drainageways.

A review of the Soil Survey of City of Suffolk, Virginia (U.S.D.A., 1981) revealed that the soils located within the subject property in this County are composed of Dogue fine sandy loam (0-2 percent slopes), Eunola fine sandy loam (0-2 and 2-6 percent slopes), Goldsboro fine sandy loam (0-2 percent slopes), Kenansville loamy sand (0-4 percent slopes), Levy silty clay loam, Lynchburg fine sandy loam, Nansemond fine sandy loam (0-2 percent slopes), Rains fine sandy loam and Suffolk loamy sand (0-2 percent slopes).

Dogue fine sandy loam (0-2 percent slopes) is a deep, nearly level and moderately well drained soil on broad low ridges and stream terraces. Eunola fine sandy loam (0-2 percent slopes) is a deep, nearly level and moderately well drained soil on narrow upland ridges. Eunola fine sandy loam (2-6 percent slopes) is a deep, gently sloping and moderately well drained soil on narrow to broad ridges and side slopes. Goldsboro fine sandy loam (0-2 percent slopes) is a deep, nearly level and moderately well drained soil on broad upland flats. Kenansville loamy sand (0-4 percent slopes) is a deep, nearly level to gently sloping and well drained soil on broad ridges. Levy silty clay loam is a deep, nearly level and very poorly drained soil on floodplains and in swamps along drainageways. Lynchburg fine sandy loam is a deep, nearly level and somewhat poorly drained soil adjacent to broad uplands and in small areas along streams. Nansemond fine sandy loam (0-2 percent slopes) is a deep, nearly level and moderately well drained soil on broad ridges. Rains fine sandy loam is a deep, nearly level and poorly drained soil on low-lying upland flats and in depressions. Suffolk loamy sand (0-2 percent slopes) is a deep, nearly level and well drained soil in long, narrow areas on broad flats.

A review of the Soil Survey of Southampton County, Virginia (U.S.D.A., 1986) revealed that the soils located within the subject property in this County are composed of Alaga loamy sand (0-6 percent slopes), Craven fine sandy loam (2-6 percent slopes), Emporia fine sandy loam (0-2 and 2-6 percent slopes), Myatt loam (0-2 percent slopes), Nansemond loamy fine sand (0-2 and 2-6 percent slopes), Rumsford, Kenansville and Uchee soils (0-6 percent slopes), Slagle fine sandy loam (0-2 and 2-6 percent slopes), Uchee loamy sand (0-6 percent slopes) and Yemassee fine sandy loam (0-2 percent slopes).

A review of the Soil Survey of Surry County, Virginia (U.S.D.A., 1986) revealed that the soils located within the subject property in this County are composed of Ackwater silt loam (0-2 percent slopes), Burrowsville loamy sand (2-6 percent slopes), Caroline silt loam (2-6 percent slopes), Chipley fine sand (0-4 percent slopes), Craven fine sandy loam (2-6 percent slopes), Jedburg loam (0-2 percent slopes), Kenansville sand (2-6 percent slopes), Montross silt loam (2-6 percent slopes), Nansemond sandy loam (0-4 percent slopes), Nevarc-Remlik complex (6-10 percent slopes), Rains fine sandy loam (0-2 percent slopes), Slagle fine sandy loam (0-2 and 2-6 percent slopes) and Uchee fine loamy sand (2-6 percent slopes).

A review of the Soil Survey of Prince George County, Virginia (U.S.D.A., 1986) revealed that the soils located within the subject property in this County are comprised of Ackwater silt loam (0-2, 2-6 and 6-10 percent

slopes), Aycock silt loam (2-6 percent slopes), Emporia fine sandy loam (2-6 and 6-10 percent slopes), Emporia soils (15-45 percent slopes), Emporia and Slagle soils (6-15 percent slopes), Lynchburg loam (0-2 percent slopes), Montross silt loam (0-2 and 2-6 percent slopes), Rains loam (0-2 percent slopes), Slagle sandy loam (0-2, 2-6 and 6-10 percent slopes).

2.2 STANDARD HISTORICAL SOURCES

2.2.1 Chain of Title

As of this writing, the Chain of Title information has not yet been provided. Should a future review of the Chain of Title show any RECs, an addendum to this report will be forwarded.

2.2.2 Fire Insurance Maps

A fire insurance map search was not conducted for the subject property by Infomap Technologies. No fire insurance maps were located at the various locales along the corridor.

2.2.3 Aerial Photographs

Aerial photographs reviewed for this Phase I ESA were obtained from VDOT for the years of 2002, 2001, 1999, 1980, 1979, 1965, 1963, and 1954. A summary of findings is as follows:

- 2002: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same as at the time of the site visit. This photograph displayed the area from I-295 to Route 602. No photographs further east than Route 602 were available for this year.
- 2001: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same as at the time of the site visit. This photograph displayed the area from Waverly (Route 622) to Zuni (Route 635). The photograph from Zuni to Suffolk revealed that the subject property and adjoining property appeared the same as at the time of the site visit.
- 1999: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same in the 2002 photograph. This photograph displayed the area from I-295 to just east of Route 156.
- 1980: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same as at the time of the site visit except that the area was less developed and primarily agricultural and wooded. This photograph displayed the area from Suffolk to Wakefield.
- 1979: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same as in the 1980 photograph, except not as developed as in the 1990s and 2000s. This photograph displayed the area from Petersburg to the Prince George Sussex County line.
- 1965: A review of this aerial photograph revealed that the subject property and adjoining property appeared to be mostly agricultural and wooded. This photograph displayed the area from I-95 to Route 604 (east of Waverly).
- 1963: A review of this aerial photograph revealed that the subject property and adjoining property appeared the same as in the 1965 photograph. This photograph displayed the area from New Bohemia to Suffolk.
- 1954: A review of this aerial photograph revealed that the subject property and adjoining properties consist primarily of agricultural, small communities and woodlands. This photograph displayed the area from Petersburg to Disputanta.

1954: A review of this aerial photograph revealed that the subject property and adjoining properties consist primarily of agricultural, small communities and woodlands. This photograph displayed the area from Wakefield to the Isle of Wight County line.

1954: A review of this aerial photograph revealed that the subject property and adjoining properties consist primarily of agricultural, small communities and woodlands. This photograph displayed the area from the Isle of Wight County line to Suffolk.

2.2.4 Tax Files

Tax records were not reviewed at the various City and County offices since there are such a large number of properties on and adjacent each of the proposed alignments.

2.2.5 Zoning/Land Use

Zoning maps were reviewed and County planners contacted. The majority of the area, as it is agricultural, is zoned for agricultural use.

2.2.6 Street Directories

Based on the rural nature of the subject property and immediate vicinity, as well as the sheer number of sites, street directories were not reviewed for this Phase I ESA.

In summary, a majority of the subject property consists of agricultural land, single and multi-family residential units, and a small percentage consists of commercial and industrial site.

2.3 STANDARD ENVIRONMENTAL SOURCES

Information from the following standard environmental record sources, as specified by ASTM Practice E 1527-00, was provided by InfoMap Technologies. Any incident or facility identified within its approximate minimum search distance is, by definition, a REC (ASTM Section 1.1.1). These records were reviewed and mapped to identify past activities that could potentially result in RECs at the subject property or within an "*approximate minimum search distance*", as specified in ASTM Practice E 1527-00.

Table 2.3-1 contains the names and/or locations of reported hazardous waste sites, treatment, storage and disposal facilities, pollution and hazardous waste spills (including LUSTs) and landfills in Virginia. The database information provided by InfoMap Technologies identified the following entries within their specified search distance from the subject property.

**Table 2.3-1
STANDARD ENVIRONMENTAL RECORD SOURCES**

Source	Search Distance (miles)
Federal and State Equivalent – National Priorities List (NPL)	1.0
Federal and State Equivalent - Comprehensive Environmental Response, Compensation and Liability System (CERCLIS)	0.5
Federal and State Equivalent - Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS), No Further Remedial Action Planned (NFRAP)	Subject and Adjoining Properties
Federal List of Treatment, Storage and Disposal (TSD) Facilities Subject to Corrective Action (CORRACTS) under the Resource Conservation and Recovery Act (RCRA)	1.0
Federal RCRA Non-CORRACTS	0.5
Federal RCRA Generators List	Subject and Adjoining Properties
Federal Emergency Response Notification System (ERNS) List	Subject Property Only
State Landfill and/or Solid Waste Disposal Site Lists	0.5
State Leaking Underground Storage Tanks (LUST) List	0.5
State Registered Underground and Aboveground Storage Tanks (USTs/ASTs) List	Subject and Adjoining Properties

2.3.1 Federal and State Equivalent NPL Database

The Federal NPL database is a compilation of uncontrolled or abandoned hazardous waste sites identified for priority remedial action under the Superfund Program. A site must meet or exceed a predetermined hazard ranking system score, be chosen as a State’s top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the Environmental Protection Agency (EPA) in order to become a NPL site. Review of this database revealed the following entries within a one-mile radius from the subject property:

NONE FOUND

2.3.2 Federal and State Equivalent CERCLIS Database (Comprehensive Environmental Response, Compensation and Liability Information System)

The Federal CERCLIS Database is a compilation of sites of which the EPA has investigated or is currently investigating for release or threatened release of hazardous substances pursuant to CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act). A review of this database revealed the following entries within a one-half mile radius from the subject property:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Tri-City Tire Site 10108 General Mahone Highway Wakefield, VA 23888	on CBA 2
2) Carr Trucking 20245 Silo Lane (VA Route 644) Zuni, VA 23898	0.39 SW of CBA 2
3) Ivor Farm Pit State Route 622	< 0.5 mi SW of CBA 1 .72 miles W of 616

Ivor, VA 23866

- | | | |
|----|---|--------------------|
| 4) | Sussex County Tire Fire
Route 460
Wakefield, VA 23888 | CBA 1, 2 and/or 3 |
| 5) | Swift Agri Chem Corp.
Box 1609
Suffolk, VA 23434 | CBA 1, 2, and/or 3 |

Removal and a removal assessment was completed for Facility number 1. Facilities numbered 2, 3, 4 and 5 have a status of “No Further Remedial Action Planned (NFRAP)”. Therefore, it appears that none of the above listed facilities represent a source of impairment to the subject property.

2.3.3 Federal CORRACTS (Resource Conservation and Recovery Act Information System Corrective Action Sites) Database

The Federal CORRACTS Database is a compilation of treatment, storage or disposal facilities, which are subject to corrective action pursuant to RCRA Section 3008 (h), where there has been a release of hazardous waste or constituents into the environment from a RCRA facility. A review of these databases revealed the following entries within a one mile radius from the subject property:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Boehringer Ingleheim Chemicals Inc. 2820 North Normandy Drive Petersburg, VA 23805	0.99 SW of CBA 3
2) Nevamar Co LLC 721 West Main Street Waverly, VA 23890	0.40 mi N of CBA 1 0.80 mi S of CBA 2
3) MR Industries Will Roy Industries PK Site 63 Suffolk, VA 23434	<1 mi CBA 1

Facility number 1 manufactures pharmaceutical preparations and treats and stores hazardous materials, operates a land disposal facility and an incinerator. This facility has had numerous violations of their RCRA Permit, however, all violations have been resolved. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 2 manufactures wood products and is an RCRA treatment, storage, and disposal facility, which operates an incinerator and a land disposal facility. This facility has had several violations of their RCRA Permit, however, all violations have been resolved. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 3 is an RCRA non-CORRACTS site that operates a treatment, storage and disposal facility. There are no violations listed for this facility. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

2.3.4 Federal RCRA Generators Database

The Federal RCRA Generators database is a compilation of facilities, which report the generation of hazardous waste (large or small quantity generators). Small quantity generators are classified as facilities, which generate between 100 kilograms (kg) and 1,000 kg per month of hazardous waste, or meet other applicable requirements of RCRA. Large quantity generators generate more than 1,000 kg per month, or

meet other requirements of RCRA. A review of this database revealed the following entries within the subject and adjoining properties:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Seiberts 460 Texaco Truck Stop 7201 County Drive Disputanta, VA23842	on CBA 2
2) B& D Body Shop Inc. 5112 County Drive Disputanta, VA 23842	on CBA 2
3) Borden Chem, Inc. 5090 General Mahone Hwy. Waverly, VA 23890	on CBA 2
4) Carrolls Foods of Virginia, Inc. HWY 460 West Waverly, VA 23890	on CBA 2
5) Tidewater Petroleum 9242 Windsor Blvd. Windsor, VA 23487	on CBA 2
6) East Coast Oil #58 4707 County Drive Disputanta, VA 23842	on CBA 2
7) Georgia-Pacific Corp US Hwy 460 Wakefield, VA 23888	on CBA 2

Facility number 1 above is a Small Quantity Generator and no violations have been found in association with it. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility numbers 2-7 are Conditionally Exempt Small Quantity Generators and no violations have been found in association with these facilities. Therefore, it does not appear that these facilities represent a source of impairment to the subject property.

2.3.5 Federal ERNS (Emergency Response Notification System) List

The Federal ERNS database is maintained by the Environmental Protection Agency (EPA) and contains information of reported CERCLA hazardous substances releases or spills in quantities greater than the reportable quantity, as maintained by the National Response Center. This information is compiled from reports made to the EPA, U.S. Coast Guard, National Response Center and/or the U.S. Department of Transportation. A review of this database revealed the following entries within the subject property:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Thomas Wright 9584 Bear Trap Road Windsor, VA 23487	on CBA 1
2) State Route 460 East Wakefield, VA 23888	on CBA 2
3) Plant Food Products 3460 General Mahone Blvd.	on CBA 2

Ivor, VA 23866

- 4) Food Lion
6500 Enterprise Drive
Disputanta, VA 23842

on CBA 2

The ERNS at facility number 1 was caused by a leaking UST, which, according to the database has been leaking waste oil and lubricants for years. The leak affected the soil, the Black River and surrounding wetlands. Therefore, this facility may represent a source of impairment to the subject property.

Trinity Tire Company was the responsible party for the ERNS at facility number 2 above. Several 55-gallon drums of flammable solvents and paints were found to be leaking at an abandoned facility. The drums were stabilized, overpacked and removed from the facility. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

The ERNS at facility number 3 above occurred when an AST valve burst and spilled 1,000 gallons of liquid ammonia to the surrounding land. Ninety-eight percent of the spilled ammonia was recovered. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Numerous ERNS have been reported at facility number 4 above. None of the ERNS have affected surface water bodies or groundwater and all of them were properly cleaned up. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

2.3.6 State Landfill and/or Solid Waste Disposal Site Lists

The State landfills or solid waste disposal database is maintained by the Virginia Department of Environmental Quality (VDEQ) and contains the names and locations of solid waste landfills, incinerators and/or transfer stations. A review of this database revealed the following entries within a one-half mile radius from the subject property:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) SPSA Ivor Transfer Station Ivor, VA 23866	on CBA 2
2) Gray Lumber Company Main Street Waverly, VA 23890	CBA 1, 2, and/or 3
3) Nottoway County Landfill Waverly, VA 23890	CBA 1, 2, and/or 3
4) Southampton County Landfill – Ivor #2 Ivor, VA 23866	CBA 1, 2, and/or 3
5) Suffolk City Landfill Hozier Road Suffolk, VA 23434	CBA 1, 2, and/or 3
6) Butler Campground Windsor, VA 23487	0.44 NE of CBA 3

Facility number 1 has an active permit to operate as a transfer station. Household waste it brought to the facility and is then taken to a landfill. Based on the nature of this facility, it does not appear to represent a source of impairment to the subject property.

Facility number 2 was permitted as an industrial waste landfill in 1977 and closed in 1984. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 3 was permitted in 1978 as a sanitary landfill. The facility is currently closed. Based on its status, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 4 was permitted in 1982 as a sanitary landfill. The landfill closed in 1989 and the owner is currently seeking to end post closure monitoring. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 5 was permitted in 1980 as a sanitary landfill. The landfill is no longer accepting waste and is in the process of being closed. Based on its status, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 6 was permitted in 1971 and stopped accepting waste in 1978. This facility is closed. Based on its status and the fact that this facility ceased operation over 20 years ago, it does not appear that this facility represents a source of impairment to the subject property.

2.3.7 State LUST (Leaking Storage Tank) List

The LUST database, maintained by the VDEQ, contains information on all known or suspected LUSTs in the State. Review of this database revealed the following entries within a one half-mile radius from the subject property:

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Rollings, Mary Estate 1084 White Marsh Road Wakefield, VA 23888	0.38 miles N of CBA 3
2) Waverly State Police 438 E Main Street Waverly, VA 23890	0.48 miles SW of CBA 3
3) Holiday Inn 2864 Pruden Boulevard Suffolk, VA 23434	0.01 miles NE of CBA 1
4) Sentry Food Mart #8 2865 Pruden Boulevard Suffolk, VA 23434	0.01 miles NE of CBA 1
5) Wright Dredging Co. Inc. 9584 Beartrap Circle Windsor, VA 23487	0.03 miles S of CBA 1
6) Triangle Market Former 4605 County Drive Disputanta, VA 23842	0.07 miles NE of CBA 1
7) Williams Jesse L Jr 2925 Pruden Boulevard Suffolk, VA 23434	0.03 miles NW of CBA 2
8) East Coast #58 Mapco Express 4707 County Drive Petersburg, VA 23805	on CBA 2
9) Mount Zion Elementary School 3264 Pruden Boulevard Suffolk, VA 23434	0.31 miles NE of CBA 1

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| 10) Glenn Martin Chevrolet/Chrysler
2584 Pruden Boulevard
Suffolk, VA 23434 | 0.35 miles NE of CBA 1 |
| 11) Aston Property
Kings Fork Road and Pruden Boulevard
Suffolk, VA 23434 | 0.40 miles NE of CBA 1 |
| 12) Sentry Food Mart #52
24 W Windsor Boulevard
Windsor, VA 23487 | 0.40 miles NE of CBA 1 |
| 13) Berle Real Estate LLC
57 W Windsor Boulevard
Windsor, VA 23487 | 0.41 miles NE of CBA 1 |
| 14) Dixie Guano
37 Windsor Boulevard
Windsor, VA 23487 | 0.45 miles NE of CBA 1 |
| 15) Hollands Mini Mart
Routes 460 & 604
Suffolk, VA 23434 | 0.45 miles NE of CBA 1 |
| 16) Georgia Pacific
10242 General Mahone Hwy.
Wakefield, VA 23888 | 0.47 miles NE of CBA 1 |
| 17) 7 Eleven 21468
Route 460
Waverly, VA 23890 | on CBA 2 |
| 18) Community Oil
Highway 40
Wakefield, VA 23888 | CBA 1, 2, and/or 3 |
| 19) GTE Facility
High Street
Wakefield, VA 23888 | 0.5 miles NE CBA 1 and SW of CBA 2 |
| 20) Seberas Country Store
Route 106
Prince George, VA 23875 | CBA 1, 2, and/or 3 |
| 21) Sussex Bulk Oil Facility
Route 460 & 714
Wakefield, VA 23888 | 0.5-1.0 miles SW of CBA 2 |
| 22) West Main Street Pump Station
West Main Street
Waverly, VA23890 | CBA 1, 2, and/or 3 |
| 23) Food Lion Distribution Center 2
6500 Enterprise Drive
Disputanta, VA 23842 | on CBA 2 |
| 24) Julian Adams
Highway 460
Waverly, VA 23890 | 0.01 miles NE of CBA 2 |
| 25) Country Classics
6103 Country Drive
Disputanta, VA 23842 | 0.12 miles SW of CBA 2 |

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| 26) Waverly State Police
438 E Main Street
Waverly, VA 23890 | 0.31 miles SW of CBA 2 |
| 27) Aston Property
Kings Fork Road and Pruden Boulevard
Suffolk, VA 23434 | 0.41 miles NE of CBA 2 |
| 28) Scarboro Darrell Residence
105 N Beaverdam Road
Waverly, VA 23890 | 0.43 miles NE of CBA 2 |
| 29) Eley Mary Residence
22507 Courthouse Way
Windsor, VA 23847 | unmapped (CBA 1) |
| 30) Gray Lumber Company
Main Street
Waverly, VA 23890 | unmapped (CBA 1) |
| 31) Larison Barbara Residence
38207 General Mahone Blvd
Ivor, VA 23866 | 0.38 miles SW of CBA 2 |

The LUST cases at facility numbers 1, 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31 have been closed by VDEQ. Therefore, it does not appear that these facilities represent a source of impairment to the subject property.

The LUST cases at facility numbers 4 (PC #99-2304), 8 (PC #03-4333) and 21 (PC #94-1954) each have open VDEQ cases. Therefore, these LUSTs may represent a source of impairment to the subject property.

2.3.8 State Registered UST/AST (Underground Storage Tank/Above Ground Storage Tank) List

Underground and aboveground storage tanks regulated under Subtitle I of RCRA must be registered with the State agency responsible for administering the UST program. In Virginia, the Department of Environmental Quality maintains the database of all registered USTs in the State. Review of the UST database revealed the following entries within the subject and adjoining properties.

<u>Site Name and Address</u>	<u>Distance and Direction</u>
1) Carr Trucking Hwy 460 Zuni, VA 23898	on CBA 2
2) Zuni Amoco Rt. 460 Zuni, VA 23898	on CBA 2
3) Zuni Peanut Company Rt. 460 Zuni, VA 23898	on CBA 2?
4) Disputanta Fire House 1000 County Drive Prince George, VA 23875	on CBA 2
5) Scotts Plant 1505 8101 General Mahone Hwy Wakefield, VA 23888	on CBA 2

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| 6) Seiberts 460 Texaco Truck Stop
7201 County Drive
Disputanta, VA 23842 | on CBA 2 |
| 7) Carroll's Food Feed Mill
27404 General Mahone Hwy.
Waverly, VA 23890 | 0.01 miles SW of CBA 2 |
| 8) Southern States Tidewater Petroleum
9242 Windsor Boulevard
Windsor, VA 23487 | 0.01 miles SW of CBA 2 |
| 9) Spurlock Adhesives Inc.
5090 General Mahone Hwy
Waverly, VA 23890 | 0.01 miles SW of CBA 2 |
| 10) John's Auto Body & Painting
4216 General Mahone Hwy.
Waverly, VA 23890 | 0.02 miles SW of CBA 2 |
| 11) Van Cleef Auto Parts and Trucking
5556 General Mahoney Hwy.
Waverly, VA 23890 | 0.02 miles SW of CBA 2 |
| 12) McLean Toms Inc.
Petersburg, VA 23875 | 0.03 miles NE of CBA 2 |
| 13) Southside Ford Tractor Inc.
Highway 460 E
Petersburg, VA 23842 | 0.03 miles NE of CBA 2 |
| 14) Pine Pasture Farm
2925 Pruden Boulevard
Suffolk, VA 23434 | 0.03 miles NW of CBA 2 |
| 15) PB/Sussex Communications Tower
Route 460
Graves, VA 23890 | 0.04 miles SW of CBA 2 |
| 16) Moore Junior High School
1103 Prince George Drive
Prince George, VA 23875 | 0.06 miles SW of CBA 2 |
| 17) Holiday Inn
2864 Pruden Blvd
Suffolk, VA 23434 | 0.01 miles NE of CBA 1 |
| 18) Sentry Food Mart #8
2865 Pruden Boulevard
Suffolk, VA 23434 | 0.01 miles NE of CBA 1 |
| 19) Wright Dredging Co. Inc.
9584 Beartrap Circle
Windsor, VA 23487 | 0.03 miles S of CBA 1 |
| 20) East Coast #58
Mapco Express
4707 County Drive
Petersburg, VA 23805 | on CBA 2 |
| 21) Bank of Isle of Wight
Route 460 | unmapped CBA 2 |

Wakefield, VA 23888	
22) Beale Boys Route 40 Waverly, VA 23890	unmapped
23) Brandon Plantation 23105 Brandon Road Spring Grove, VA 23881	unmapped
24) Britts Wakefield Shell Highway 460 Wakefield, VA 23888	unmapped
25) Cavalier Quick Stop Highway 460 Waverly, VA 23890	unmapped
26) Chips Market Highway 460 Waverly, VA 23890	unmapped
27) Clantons Electric Main Street Waverly, VA 23890	unmapped
28) Cobbs Automotive Route 760 Wakefield, VA 23888	unmapped
29) DL Magee Waverly, VA 23890	unmapped
30) East End Service W Main Street Waverly, VA 23890	unmapped
31) Express Mart #4 Route 40 W Waverly, VA 23890	unmapped
32) Former Harrups Supermarket Ivor Road Ivor, VA 23866	unmapped
33) Gladys Walker Country Drive Disputanta, VA 23842	unmapped
34) Goodman and Holland Route 610 Windsor, VA 23487	unmapped
35) Gray Lumber Company Main Street Waverly, VA 23890	unmapped
36) HW Wade Highway 616 Ivor, VA 23866	unmapped
37) Hilltop Truck Stop Route 460	unmapped

Ivor, VA 23866	
38) JE Nash and Son Route 460 Ivor, VA 23866	unmapped
39) JR Andrews Farm Highway 617 Wakefield, VA 23888	unmapped
40) James T Jones Route 2 Box 50 Windsor, VA 23487	unmapped
41) John D Nurney Route 3 Box 106 Windsor, VA 23487	unmapped
42) John D Crocker Route 2 Box 163 Ivor, VA 23866	unmapped
43) LA Brantly Farm Highway 616 Ivor, VA 23866	unmapped
44) L Frank Byrum Jr Route 2 Box 2663 Windsor, VA 23487	unmapped
45) Lanier Felix B Main Street Wakefield, VA 23888	unmapped
46) Larry Lee Neave Farm Route 1 Box 86 Ivor, VA 23866	unmapped
47) Leonards Route 460 Ivor, VA 23866	unmapped
48) Midway Chevron Route 460 Wakefield, VA 23888	unmapped
49) Mike Spain; Nottoway Farms Jerusalem Plank Road Waverly, VA 23890	unmapped
50) Oberry Farm Supply Route 3 Box 100 Windsor, VA 23487	unmapped
51) Padgett Brothers Waverly, VA 23890	unmapped
52) Prince George Emergency Crew Building Prince George Dr Prince George, VA 23875	unmapped
53) Rolley Firewood Sales Country Drive W	unmapped

Disputanta, VA 23842	
54) Royster Clark 611 Factory Street Windsor, VA 23487	unmapped
55) SS Kea and Son Route 460 Ivor, VA 23866	unmapped
56) SP Roeder Highway 460 W Waverly, VA 23890	unmapped
57) Scott Truck Lot Route 258 S Windsor, VA 23487	unmapped
58) Stanley Turner Route 3 Box 62 Windsor, VA 23487	unmapped
59) Stephenson Farms Highway 628 Wakefield, VA 23888	unmapped
60) Sussex Farm Equipment Highway 460 E Waverly, VA 23890	unmapped
61) Tidewater Farm and Garden Supply PO Box 147 Windsor, VA 23487	unmapped
62) Wagon Wheel Highway 460 Ivor, VA 23866	unmapped
63) Wakefield Chevron 555 County Drive Wakefield, VA 23888	unmapped
64) Wakefield Texaco Highway 460 Wakefield, VA 23888	unmapped
65) Windsor Truckstop Route 460 Windsor, VA 23487	unmapped
66) Woodys Chevron Route 460 Wakefield, VA 23888	unmapped
67) Ye Old Tobacco Shop Route 460 Windsor, VA 23487	unmapped
68) GTE Wakefield Facility High Street Wakefield, VA 23888	unmapped
69) Ivor Furniture Company	unmapped

Route 460 Ivor, VA 23866	
70) Windsor Shell Windsor Blvd Windsor, VA 23487	unmapped
71) Windsor Peanut Company Route 460 Windsor, VA 23487	unmapped
72) Windsor Inn Route 460 Windsor, VA 23487	unmapped
73) VDOT Windsor AHQ 22516 Buckhorn Drive Windsor, VA 23487	unmapped
74) Country Classics 6103 Country Drive Disputanta, VA 23842	0.12 miles SW of CBA 2
75) Windsor Elementary School 23320 North Court Street Windsor, VA 23487	0.11 miles SW of CBA 2
76) Prince George Golf 8401 Golf Course Drive Prince George, VA 23842	0.11 miles SW of CBA 2
77) Waverly Health Care 456 E Main Street Waverly, VA 23890	0.08 miles NE of CBA 2
78) Harrison Elementary School 2900 E Quaker Rd Prince George, VA 23875	0.07 miles SE of CBA 2
79) Virginia State Police 2900 Pruden Blvd Suffolk, VA 23434	0.07 miles NW of CBA 2
80) Petersburg Jail Farm 6104 County Drive Disputanta, VA 23842	0.06 miles NE of CBA 2
81) Georgia Pacific 10242 General Mahone Hwy Wakefield, VA 23888	0.01 miles SW of CBA 2
82) Food Lion Distribution Ctr 2 10242 General Mahone Hwy Wakefield, VA 23888	CBA 2
83) Community Oil 9243 General Mahone Hwy Waverly, VA 23890	CBA 2

Facility number 1 above has three 1,000-gallon diesel USTs, which are currently in use and six, which were removed. These active USTs are bare steel and were installed in 1976. Based on the age and construction of the USTs, this facility may represent a source of impairment to the subject property.

Facility number 2 above has three 2,000-gallon gasoline USTs which have been closed in the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 3 has three 3,000-gallon gasoline USTs which have been removed from the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 4 has one 550 gallon gasoline UST which is currently in use. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 5 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 6 has three USTs currently in use and six USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 7 has three USTs currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 8 has seven USTs currently in use, six USTs permanently out of use, and three USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 9 has three ASTs which are currently in use. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 10 has three USTs which have been removed from the ground. Therefore, it does not appear that the USTs at this facility represents a source of impairment to the subject property.

Facility number 11 has two USTs currently in use and two USTs which have been removed from the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 12 has one UST which has been closed in the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 13 has one UST which has been removed from the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 14 has five USTs which have been removed from the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 15 has one UST which has been removed from the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 16 has one UST which is currently in use and one UST which has been removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 17 has one 10,000-gallon heating oil UST which has been removed from the ground. Therefore, it does not appear that this facility represents a source of impairment to the subject property.

Facility number 18 has four fuel USTs in use and two 10,000-gallon diesel USTs which have been removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 19 has one UST closed in the ground. Therefore, it does not appear that the UST at this facility represent a source of impairment to the subject property.

Facility number 20 has six USTs currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 21 has one UST currently in use. Therefore, it does not appear that the UST at this facility represent a source of impairment to the subject property.

Facility number 22 has one UST closed in the ground and four USTs which have been removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 23 has six USTs currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 24 has three USTs currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 25 has four USTs currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 26 has seven USTs currently in use and two closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 27 has one UST which has been removed from the ground. Therefore, it does not appear that the UST at this facility represent a source of impairment to the subject property.

Facility number 28 has one UST currently in use and two closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 29 has two USTs temporarily out of use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 30 has one 550-gallon bare steel kerosene UST currently in use. Based on its construction, the UST at this facility may represent a source of impairment to the subject property.

Facility number 31 has four USTs, three 8,000 gallon gasoline and one 4,000 gallon kerosene, currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 32 has three USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 33 has five USTs which were closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 34 has four USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 35 has nine USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 36 has three USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 37 has seven USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 38 has three USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 39 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 40 has four USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 41 has three USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 42 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 43 has one UST which is currently in use. Therefore, it does not appear that the UST at this facility represent a source of impairment to the subject property.

Facility number 44 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 45 has one UST which is closed in the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 46 has one UST which is currently in use. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 47 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 48 has three USTs which are closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 49 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 50 has two USTs which are currently in use and one UST closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 51 has three USTs which are temporarily out of use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 52 has one UST which is currently in use and one UST removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 53 has one USTs which is closed in the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 54 has one UST which was removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 55 has one UST which is currently in use. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 56 has two USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 57 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 58 has one UST which is closed in the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 59 has four USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 60 has two USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 61 has three USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 62 has four USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 63 has five USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 64 has two USTs which were closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 65 has five USTs which were closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 66 has three USTs which were closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 67 has one UST which was removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 68 has one UST which was removed from the ground. Therefore, it does not appear that the UST at this facility represent a source of impairment to the subject property.

Facility number 69 has one UST which was removed from the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 70 has five USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 71 has three USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 72 has four USTs which were removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 73 has three USTs which are currently in use, one UST permanently out of use and one UST removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 74 has one UST which is permanently out of use. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 75 has one UST which is closed in the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 76 has one UST which is closed in the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 77 has one UST which was removed from the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 78 has one UST which was removed from the ground. Therefore, it does not appear that the UST at this facility represents a source of impairment to the subject property.

Facility number 79 has one UST which is currently in use and one UST which was removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 80 has two USTs which are currently in use. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 81 has five USTs which are currently in use and one UST closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 82 has one USTs which is currently in use and five USTs removed from the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

Facility number 83 has one USTs which is currently in use and one UST closed in the ground. Therefore, it does not appear that the USTs at this facility represent a source of impairment to the subject property.

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3.0 SITE RECONNAISSANCE

3.1 METHODOLOGY

Visual inspections of the subject property and adjoining property occurred on June 21, 23, and July 1, 2004. Information obtained through prior review of reasonably ascertainable, practically reviewable, standard historical, physical setting and environmental record sources and interviews was compiled and used as a field guide during the on-site reconnaissance of the subject property. The subject and adjoining properties were viewed from public thoroughfares.

3.2 LIMITATIONS OF THE SITE RECONNAISSANCE

Limitations encountered on the subject property, which precluded a complete visual inspection of the subject property, included:

- Interior inspections were not conducted for the majority of the on-site buildings because of the residential and confidential nature of the project.
- Dense vegetation, parked vehicles, and privacy fences precluded a visual inspection of a majority of the property.

3.3 PAST AND CURRENT USES OF THE SUBJECT PROPERTY

The subject property consists of the area just east of Petersburg and extends to Suffolk, including the following localities: Disputanta, Waverly, Wakefield, Dendron, Ivor, Zuni and Windsor, a small northern portion of Suffolk, the majority of Isle of Wight, and western portions of Surry, Rushmere and Smithfield. The study area currently consists of primarily agricultural and residential tracts with some industrial and commercial property. Based on the aerial photography, it appears that 5%-10% of the study area is industrial and commercial. The densest development and the majority of commercial and industrial properties are located proximal to each of the localities. Several secondary roadways and waterways and one railway lie within the study area, as does U.S. 460. Three known airfields exist within the study area, including: Garner Airport landing strip (between Suffolk and Windsor), the Wakefield Municipal Airport and a landing strip between Waverly and Disputanta (just east of 460), and vacant land. Table 1 includes more detailed property descriptions. .

3.4 INTERIOR AND EXTERIOR OBSERVATIONS

3.4.1 General Description of Structures

The subject property currently contains numerous structures. Please refer to Table 1, for details on the use of these structures.

3.4.2 Roads and Parking Areas

The subject property can be accessed by Route 460 and intersecting Routes. The subject property contains numerous on-site parking areas in the vicinity of the on-site structures.

3.4.3 Hazardous Substances and Petroleum Products Containers

No hazardous substances were observed on the subject property during the on-site inspection. Petroleum products containers were observed on the subject property as noted above in Table 1.

3.4.4 Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs)

The USTs and ASTs observed on the subject property during the on-site inspection include those listed in Table 1. Of these, USTs which may represent a source of impairment to the subject property include those in Table 1 marked "Yes" in the last column.

3.4.5 Polychlorinated Biphenyls (PCBs)

Numerous electrical transformers, the majority of which are pole-mounted, were observed on the subject property during the on-site inspection. Of these electrical transformers observed, none were labeled with "Non-PCB containing labels", however no evidence of leaks or spills was observed in their vicinity. Therefore, these electrical transformers are not believed to represent a source of impairment to the subject property.

3.4.6 Solid Waste

Solid waste was observed on the subject property at the time of the on-site inspection at the SPSA Ivor transfer station as well as along the roadside at many residences.

3.4.7 Pools of Liquid

No pools of liquid were observed within the subject property during the on-site inspection.

3.4.8 Odors

Petroleum odors were detected on the subject property at the time of the on-site inspection at the Cavalier Quick Stop former gas station on Route 460. The petroleum odors and two vent pipes observed at the structure indicate that this REC may represent a source of impairment to the subject property.

3.4.9 Stained Soil or Pavement

No stained soil was observed within the subject property during the on-site inspection.

3.4.10 Stressed Vegetation

Stressed vegetation was observed within the subject property during the on-site inspection at the following locations:

- Cavalier Quick Stop (former gas station) on Route 460. The stressed vegetation, petroleum odors and two vent pipes indicate that this REC may represent a source of impairment to the subject property.
- Texaco Gas Station on Route 460 (in Waverly). The stressed vegetation, three USTs, several stored ASTs (area where the stressed vegetation exists), and two monitoring wells indicate that this REC may represent a source of impairment to the subject property.

3.4.11 Stormwater and Wastewater

Stormwater on-site is allowed to flow via overland flow toward on-site and adjacent ditches and curb drop inlets. Wastewater generated on-site within the larger more populated areas is transported via sanitary sewer lines to local wastewater treatment plants, such as the Rural Wastewater Systems (west of Route 29; 128/Route 460) or the Hampton Roads Sanitation District from the Suffolk area. Based on the field inspection, septic systems are located at many of the residential properties.

3.4.12 Pits, Ponds or Lagoons

No pits or ponds were observed on the subject property during the on-site inspection. Lagoons associated with hog farms were observed adjacent to the subject property during the on-site inspection.

3.4.13 Wells

Wells were observed at several residences on the subject property at the time of the on-site inspection.

3.4.14 Interior Utilities and Equipment

The interiors of buildings were not inspected during the on-site inspection; therefore, the condition of interior utilities and equipment is unknown.

3.5 CURRENT LAND USES OF ADJOINING PROPERTIES

The subject property is bound by the City of Petersburg to the west, the City of Suffolk to the east, and the Counties of Prince George, Surry, Sussex, Surry, Southampton and Isle of Wight to the north, and the Counties of Prince George, Surry, Sussex, Southampton and Isle of Wight to the south.

4.0 INTERVIEWS

Interviews were conducted with the following individuals:

- Mr. Bill Richardson, Resident Engineer, VDOT Waverly Residency
- Walter Green, Director of Planning and Zoning, Sussex County

A summary of these interviews is as follows:

- Mr. Richardson stated that he believed most service stations had replaced their storage tanks, but that the Waverly Residency has monitoring wells that a consultant checks weekly. He further stated that Prince George Electric, adjacent the residency, may have storage tanks and that there is a former service station at Route 602. He was unaware of any other indication of hazardous materials along the proposed CBAs, except for service stations and those stated.
- Mr. Green stated that he has no knowledge of hazardous material or petroleum releases along the proposed CBAs. He further stated that his primary concerns with the proposed project were wetlands impacts and economic impacts to towns.

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