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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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BEFORE THE ADMINISTRATOR

EIFUR. APPÉALS BOARD

In the Matter of	
Vico Construction Corporation &) Amelia Venture Properties, LLC)	Docket No. CWA-03-2001-0021
)	
Respondents)	

INITIAL DECISION UPON REMAND

I. Introduction

This Initial Decision Upon Remand involves a 117-acre tract identified as the "Lewis Farm Site" ["the Site"]. On May 21, 2001, EPA filed a Complaint against the Respondents, charging two violations of Section 301(a) of the Clean Water Act ("CWA" or "Act") on the grounds that they had discharged fill material into wetlands on that Site, that those wetlands were "waters of the United States," that they had done so without a permit under Section 404 of that Act, and additionally that storm water associated with Respondents' construction activities had been discharged to such waters of the United States without a permit under Section 402. Following a hearing, United States Administrative Law Judge Carl Charneski issued an Initial Decision on December 13, 2004, finding the Respondents liable for the violations. On appeal the Environmental Appeals Board ("EAB" or "Board") upheld Judge Charneski's decision. 12 E.A.D. 298 (2005).

The Board's decision was appealed to the United States Circuit Court of Appeals for the Fourth Circuit. While that appeal was pending, the United States Supreme Court issued its opinion in Rapanos v. United States, 126 S. Ct. 2208 (2006)("Rapanos"). As that opinion addressed the scope of the phrase "waters of the United States" and those "wetlands" which are covered by the Clean Water Act, the Fourth Circuit granted the parties' joint motion to remand this matter to the Board to assess the impact, if any, of the Rapanos decision. The EAB then decided that the facts required to decide the case using the CWA jurisdictional tests set forth in Rapanos were either not present or not fully developed in the record and remanded this matter to the administrative law judge to hear additional evidence as to CWA jurisdiction in light of Rapanos and then to rule on the jurisdictional question. Remand Order (E.A.B. Dkt. No. 05-01,

An Amended Complaint was filed on November 19, 2001.

Oct. 6, 2006). Before the remand hearing took place, Judge Charneski accepted a position as a judge with a different federal agency, and the undersigned (the "Court") then was assigned to preside in the matter. The hearing upon remand was conducted on May 24, 25, 29, and 30, 2007 and August 7, 2007 in Virginia Beach, Virginia. For the reasons that follow, the Court upholds the violations and the penalty imposed.

H. Background.2

• Lewis Farm, the site of the alleged violations, is located on a peninsula³ that is bounded to the west by the Nansemond River and to the east by the Western Branch of the Elizabeth River in Chesapeake, Virginia. The Site has a trapezoidal shape with the smaller portion of the trapezoid to the north. The Site is bordered on the east by Interstate 664 ("I - 664") and on the north by an unnamed tributary to Drum Point Creek, which was also described as the "western tributary to Drum Point Creek." To the north/northwest there are 36 acres of wetlands adjoining the Site.

Judge Charneski found that there is a forested wetland complex on the Site and that this wetland complex physically abuts and is adjacent to the western tributary to Drum Point Creek. The judge found that this waterbody was formed within the wetland complex and that it has been identified as a geographic feature for at least seventy years, conveying flow at least part of every non-drought year to traditionally navigable tidal waters less than half a mile east of the Site. Initial Decision ('I.D.') at 3-4 & 22. The judge, having determined that the Lewis Farm wetlands were physically adjacent and contiguous to the western tributary to Drum Point Creek, also found that the western tributary flows east from the Lewis Farm Site to Drum Point Creek, and in turn to the Western Branch of the Elizabeth River, then to the James River and ultimately to the Chesapeake Bay. I.D. at 23-24.

There was a great deal of evidence to support Judge Charneski's findings regarding the presence at the Site of both the wetlands and the western tributary to Drum Point Creek. For example, he noted that a "wetlands delineation," that is, a wetlands mapping, was performed on the Site in 1991. This delineation was commissioned by Amelia Venture and performed by Needham Environmental, Inc. for the Respondents. Later, the U.S. Army Corps of Engineers confirmed this determination.⁴ Charles Wolfe, one of the Respondents' wetlands experts,

²Essentially all of the background information in this section is derived from findings made by Judge Charneski in his initial decision.

³LF remand 917 and 918, within CX LF 254 are useful to examine because one gains the perspective of the Site's overall location in the peninsula where it is located. In both, one gains an appreciation of the water and wetlands which surround the Site. Tr. 321.

⁴A wetlands' delineation is significant because it means that, using maps and a field visit, a wetland location and its extent has been made for a given site and this process has been made

testified that wetlands were present at the Site. While the foregoing was more than sufficient, the National Wetlands Inventory Map also depicts wetlands on the Site, (CX 43, Fig. 12; RX 39), and EPA witness Peter Stokley, an expert in aerial photographic interpretation, made the same conclusion.

As Judge Charneski further noted, the overwhelming weight of the evidence established that wetlands are present on the Lewis Farm site. Referring to Respondents' witnesses Robert Needham and Charles Wolfe, the judge observed that those experts agreed that wetlands were present on the site and that those views were in accord with EPA's witnesses at the initial hearing in this matter.⁵

It was in this setting of wetlands and the western tributary to Drum Point Creek that EPA filed its Complaint concerning activities conducted by the Respondents. As set forth in Judge Charneski's decision, Amelia Venture Properties contracted with Vico Construction Corporation in 1997 to construct a T-shaped drainage ditch ("T-ditch") on the Site. That ditch was dug in wooded uplands, along the wetlands' perimeter, at the northeastern upland-wetland boundary of the property, for the purpose of draining water from adjoining wetlands. The T-ditch was some 1600 feet long and 8 feet wide, and a path of about 12-15 feet in width was cut through the wooded area to prepare for its construction, with the T-ditch itself then created down the middle of the path. The following year the same parties entered another contract, this time for the construction of "Tulloch" ditches to be dug in wetlands at the Site. As with the T-ditch, Tulloch ditches are intended to drain water from wetlands in order to convert them to uplands. A notable difference is that Tulloch ditches are dug in the wetlands themselves, not uplands. Such ditches are deemed lawful as long as only "incidental fallback" is discharged into the wetlands as they are dug.

EPA maintained that in the process of constructing the Tulloch ditches the Respondents violated the Clean Water Act. In grinding clearing paths for the Tulloch ditches, the judge found that the Respondents deposited wood chips onto the Site's wetlands. Finding that the wood chips, being biological material, were "pollutants" within the meaning of Sections 301(a) and

according to the Army Corps of Engineers 1987 Wetland Delineation Manual.

⁵In this regard, Judge Charneski cited the testimony of EPA witnesses Jeffrey Lapp, Gregory Culpepper, Peter Stokely and Lenore Vasilas. Respondents' wetlands experts Needham, also acknowledged that the Tulloch ditches on Lewis Farm were intended to be constructed in wetlands. This is not a surprise, as Amelia Venture's admitted purpose for digging the Tulloch ditches at issue here was to drain the wetlands on site.

⁶The same "T-ditch" was referred to as a "rim ditch" and "Ditch Five" at the initial hearing. It was also referred to as the "east west ditch." Tr. 762. EPA witness Martin explained that this ditch was originally used as a connector, and that it was dug in non-hydric soils (i.e. "uplands"), for the purpose of draining part of the property. Tr. 161-162.

502(6) of the Clean Water Act and constituted fill material, the Judge upheld Count I, finding a violation of Section 301(a) of the Clean Water Act because the Respondents discharged fill material onto wetlands that are waters of the United States without having a Section 404 permit from the Corps. 8

Although the Respondents also made the more fundamental argument that there was no Clean Water Act jurisdiction over the Lewis Farm wetlands, Judge Charneski addressed this contention foursquare. While the focus of this Initial Decision Upon Remand is to re-evaluate whether, in light of the Rapanos decision, the Site's wetlands and the western tributary to Drum Point Creek are within the CWA's jurisdiction, Judge Charneski's original findings on these points are here noted. In particular, Judge Charneski spoke to the contention that the Site contained isolated wetlands not adjacent to, nor with a significant nexus to, navigable waters or tributaries to navigable waters. The judge found that the evidence supported EPA's position that the wetlands on Lewis Farm were adjacent to "waters of the United States" and fell within the coverage of the Clean Water Act. He observed that the western tributary to Drum Point Creek was depicted as a dotted blue line on Complainant's Exhibit 73, the U.S. Geological Service Bowers Hill Quadrangle topographic map and that it also was marked on Respondents' Exhibit 7 by Corps environmental scientist Culpepper, who stated that the streams interact with wetlands and convert into wetlands up in the western reaches of the Site. The judge also found that the western tributary to Drum Point Creek separates the Gateway Commerce Park, just to the north of the Amelia Venture property, from the Lewis Farm site and that fingers of wetlands extend from that tributary in a contiguous way to a large wetland area encompassing the Lewis Farm property. Further, the judge noted that Respondents' wetland expert Charles Wolfe agreed that the wetlands identified on Complainant's Exhibit 66 "hug" the western tributary to Drum Point Creek. When Wolfe was asked by EPA Counsel if the wetlands at the Lewis Farm property were adjacent to the intermittent drainage which drains to Drum Point Creek north of the property, he answered affirmatively.

Judge Charneski cited other evidence to support his conclusions in this regard, finding that surface water from the Site drains northward and enters into the intermittent western tributary. He noted that Lapp, EPA's wetlands team leader, testified that the team followed a drainage ditch in a wetland area on Lewis Farm which led to the western tributary. Wolfe, he observed, also stated that the rainfall on the Site would have a tendency to move in a downhill direction to drainage ways or to percolate down through the soil and run off the site. With the

⁷The judge found the "point source" element of the violation from the Kershaw used to grind the "slash" in the cleared paths and the use of a stump grinder.

⁸The Judge also upheld Count II, finding that the Respondents violated Section 301(a) of the Clean Water Act, by discharging pollutants associated with storm water without having obtained a National Pollutant Discharge Elimination permit pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

connection between the Site's wetlands and the western tributary to Drum Point Creek established, Judge Charneski then found, in terms of further connectivity, that the water flow in the western tributary to Drum Point Creek proceeds east, passing under Gum Court, Interstate 664, and Gum Road, through box culverts. From there it then flows into Drum Point Creek which is itself at a point approximately 2000 feet east of Lewis Farm. Although the western tributary is not tidally influenced, Drum Point Creek is subject to the ebb and flow of the tides near the point of convergence between the western and northern tributaries to it. Drum Point Creek, in turn, flows into the Western Branch of the Elizabeth River, which then flows into the James River, eventually reaching the Chesapeake Bay. The Judge noted that the Western Branch of the Elizabeth River, the James River and the Chesapeake Bay are navigable-in-fact and thus constitute "waters of the United States." and that portions of Drum Point Creek are navigable-in-fact and are tidally influenced and have marina docks. He concluded that there was water flow, albeit intermittent,9 from the non-tidally influenced, non-navigable tributary adjacent to wetlands on the Lewis Farm to the tidally influenced navigable Drum Point Creek and that the flow continues to navigable stream and river systems and ultimately on to the Chesapeake Bay. Last, Judge Charneski credited testimony that the wetlands on the Lewis Farm site performed important and valuable water quality functions within the tributary system and the Chesapeake Bay watershed.

Although this will be discussed in some detail *infra*, Judge Charneski's determinations, including the presence of wetlands and the western tributary to Drum Point Creek, their connection, ultimately, to waters that are navigable in fact, and the important role the wetlands and western tributary play are all upheld, as is the penalty assessed.

III. The Scope of the Remand

EPA, looking to the EAB's Remand Order, observes that the Respondents contested only the *legal* determinations made in Judge Charneski's Initial Decision, not his factual findings. Thus, it notes that their appeal to the EAB did not contest "the *factual* determination that discharges occurred in wetlands that are connected to downstream traditionally navigable waters" but rather whether under those facts, the wetlands in issue were outside of CWA jurisdiction. EPA Br. at 13-14. These factual determinations, not challenged in the appeal to the EAB, are

⁹As explained *infra* in this Decision Upon Remand, the Court agrees with Judge Charneski's conclusion that the fact that the western tributary to Drum Point Creek flows intermittently does not defeat Clean Water Act jurisdiction.

¹⁰This was noted by the EAB as well. "First, Appellants do not contest on appeal the accuracy of the wetland delineation, or otherwise argue that the land upon which the ditch digging activities occurred was not wetlands. Second, although Appellants purport to "reserve argument" on the question of whether the wetlands at issue are "waters of the United States" under the CWA, they have not challenged as a factual matter the connectedness of wetlands directly to adjoining tributary to Drum Point Creek, or indirectly to other downstream navigable-in-fact waterbodies."

significant.11

For its part, Respondents maintain that EPA requested the remand, asserting that it would be beneficial to have further development of the record to address the new tests introduced by the Supreme Court when analyzing CWA jurisdiction. Respondents also state that the EAB in its remand observed that "the facts required to decide this matter [under Rapanos] are either not present or not fully developed in the [then present] factual record . . . [and for that reason] it is appropriate to remand th[e] matter . . . to hear additional evidence as to CWA jurisdiction" R's Reply at 1. However, Respondents concede that the directive to take additional evidence was not open-ended, as it was limited to issues that "relate directly to the issue of jurisdiction." *Id.* at 2.

With this view in mind, Respondents contend that, prior to *Rapanos*, it was only necessary to show that property was "hydrologically connected to navigable waters" a situation that, it concedes, was present at Lewis Farm, because there was such a connection to navigable waters, eventually, through the constructed ditches. ¹² However, Respondents take issue with

EPA Br. at 14, citing 12 E.A.D. at 314.

¹¹The unchallenged findings include that the "Site does contain some wetlands that are highelevation hydric soil, flat wetlands, with some ravines." Respondents Initial Post-Hearing Proposed Finding of Fact No. 21; [t]he wetlands delineation of the Site is Complainants Exhibit 75. Respondents Initial Post-Hearing Proposed Finding of Fact No. 9. An intermittent waterbody north of the Site flows into Drum Point Creek at a point east of the Site." Respondents Initial Post-Hearing Proposed Finding of Fact No. 23. Drum Point Creek flows into the Western Branch of the Elizabeth River. The Western Branch of the Elizabeth River is navigable-in-fact. Portions of Drum Point Creek at a point east of the Site are navigable-in-fact. Respondents Initial Post-Hearing Proposed Finding of Fact Nos. 24, 25, 26; Water from the Site drains into an intermittent stream, and from there in an easterly direction under Gum Court through a manmade concrete culvert, under Interstate 664 through a man-made concrete culvert, and then under Gum Road through a third concrete man-made culvert." Respondents Initial Post-Hearing Proposed Finding of Fact No. 29. EPA Br. at 15. Accordingly, EPA observes that the "Respondents neither contested the presence of wetlands on the Site nor the fact that water from those wetlands drained through the western tributary to Drum Point Creek to downstream traditionally navigable waters." Id. The Court agrees with this observation.

¹²It should be noted that the Respondents agree that "there are some wetlands on the Property and that the Tulloch ditching was performed in wetlands, [nor are Respondents] contesting the accuracy of the delineations, or that the wetlands were hydrologically connected through the constructed ditches to the unnamed tributary to Drum Point Creek." Respondents' Post-Trial Reply Brief at 3. Judge Charneski did not constrain his finding that the Site's wetlands connection to the western tributary was only via the Respondents' ditches. Nor does this Court so limit the connection.

what they describe as EPA's apparent position that "anything [EPA] characterizes as fact is binding on this case and cannot be disturbed on remand." *Id.* Rather, it is Respondents' position that "any prior findings of fact . . . should be considered . . [but that they] should be considered in light of *Rapanos*" Respondents add that the remand order "expressly permits the parties to raise "new issues" "directly related to jurisdiction." *Id.* at 3. Accordingly, Respondents deny that they seek "to change the facts asserted below." Instead, their objection is to "EPA's conclusions drawn from these facts or its 'recharacterization' of these facts."

The Court is guided by the plain directions from the EAB which expressed that the facts required to decide the case using the CWA jurisdictional tests set forth in *Rapanos* were either not present or not fully developed in the record. Because of that, it remanded the matter to the administrative law judge to hear additional evidence as to CWA jurisdiction in light of *Rapanos* and then to rule on the jurisdictional question. As five days were provided for such additional evidence and the parties agreed that they were provided such full opportunity, this part of the remand directive was achieved.¹⁴

While the Court notes that the focus of the Remand is to take additional evidence as to CWA jurisdiction in light of *Rapanos*, nothing in the Board's Remand suggested that the findings of fact from Judge Charneski's initial decision were to be disturbed; only that additional evidence be received as to CWA jurisdiction in light of *Rapanos*. However, to avoid the risk of another remand, the Court allowed the parties leeway in their respective presentations. In any event, even after considering *all* of the evidence presented during the five days afforded for testimony, the concerns expressed by the parties are academic, because the Court reaches the same conclusions about the facts as Judge Charneski. While these findings are discussed, the key

Respondent's witness Mr. Wolfe admitted that water from the wetlands flows to the western tributary to Drum Point Creek. Respondents assert Wolfe said nothing of the sort, only stating that the subject wetlands are not *fed* by any waterbody. *Id.* at 3. In his decision Judge Charneski stated that Wolfe "agreed that the wetlands identified on Complainant's Exhibit 66 'hug' [the] unnamed tributary (*i.e.*, the western tributary) to Drum Point Creek." Initial Decision at 18, citing Tr. 1403-1404, 1421; RX 39C. When Wolfe was asked if the wetlands at the Lewis Farm property are adjacent to the intermittent drainage which drains to Drum Point Creek north of the property, he stated: "Yes, . . . I would say that." *Id.*, citing Tr. at 1413. EPA did not purport to quote Wolfe. Rather it was a characterization of Wolfe's testimony and, in the Court's view, was a fair inference to draw from his words.

¹⁴At the hearing the Court expressed that it might later decide that some of the evidence received during the remand testimony could be found to be outside of the scope of the remand because the prior findings of fact made by Judge Charneski at the time he issued the original decision in this matter are binding. However, rather than risk another remand, it was decided to have a broad, inclusive approach to the remand testimony and to sort out any surplusage when the decision was issued.

difference in this Decision Upon Remand is the application of those facts to the various views expressed by the Justices in *Rapanos*.

IV. The Evidence Upon Remand

In light of *Rapanos*, the significance of the testimony upon remand relates to the issues of the Site's wetlands' connectivity to other waters and to the functions the Site's wetlands provide. Thus, while there was much testimony provided on the issue of the exact extent of wetlands on the Site and the exact location of drainages from those wetlands to the western tributary to Drum Point Creek, the findings that there are wetlands on the Site and that those wetlands connect via drainages to the western (or 'unnamed') tributary to it, were well supported in the Judge Charneski's Initial Decision in this matter. While noted, they are not revisited or revised in this Decision Upon Remand.

A. The Site's Connectivity to Other Waters.

EPA witness Steve Martin, who testified at the initial hearing in this matter, was first at the Site in September 1999 when the activity in issue was being performed, as the corridors for the ditches were being prepared at that time. In 2002 he looked at the Site from the standpoint of connectivity and it was then that he followed the westernmost tributary of Drum Point Creek down to the tidal waters and thereby established to his satisfaction that it was a continuous tributary or waterbody. Tr. 224. Martin stated that the Site drains to the western tributary to Drum Point Creek and that the Creek itself becomes tidally influenced about a third to a half mile from the Site. Tr. 116.

Martin acknowledged that there are some areas on the Site that are not wetlands and he identified the approximate location of those upland areas, marking "W"s and "U"s, for wetlands and uplands respectively, on CX 43 at Figure 2. In this way he identified the nonwetland area as being within the northern portion, depicted as a purple hue. May 24, 2007 Remand Tr. at 18.

¹⁵The Court reviewed the entire record and the parties post-hearing submissions. However, as noted, upon such review it was determined that a number of issues raised by the parties were not pertinent to the scope of the remand. Although not intended as an all encompassing list, these included things such as whether the hydrologic digit code used in comparing wetlands should have had eight digits, whether the wood chips impacted the water quality, whether blue lines on maps should have been solid or dashed, how much sand was in the wetland soils, the impact of the draft HGM report, the significance of the Shoulders Hill Preservation site for comparison purposes, whether a given NWI map overstated or understated parts of the wetlands at the Site, and whether wetland hydrology requires saturation to the surface or within 12 inches of the surface. Suffice it to say that, in the Court's view, the initial decision upon remand discusses all of the pertinent issues.

CX LF 295.¹⁶ Tr. 40, 42. As Martin noted, CX LF 95, at 054, which is the same exhibit as CX LF 295 but without the W and U markings, includes an added outline of the Farm and shows what were variously described as "drainage paths," "drainage features" or "watercourses." He identified three such courses on that exhibit with each of them being located in the northern third of the Site. In this regard he noted that in the northern part of the Site and off it, there is a drainage feature that runs from west to east. This is the drainage that EPA labeled the "western tributary to Drum Point Creek." "Fingers" also flow north to south into that off-Site drainage feature. Martin did not agree that the northern portion of the Site is markedly drier than the rest of the Site: Tr. 173.

Martin stated that there is a point at which Drum Point Creek itself becomes perennial and that, substantially further downstream from that, it also becomes tidally influenced. Tr. 150. Examining CX LF 73, a topographic map, he estimated that the distance from the Site where the western tributary to Drum Point Creek, or Drum Point Creek itself, becomes perennial as "within 500 feet east of the crossing of Interstate 664." Tr. 151. The Site is immediately adjacent to I 664 at that location.¹⁸

Martin has, during his visits to the Site, observed surface water flowing from the Site. Tr. 152. One example of such flow is depicted in the photograph at CX LF 106, which shows a drainage course on the east side of Lewis Farm. This watercourse flows north and east to the western tributary of Drum Point Creek, eventually emptying into a culvert that flows under Interstate 664 and then flows north into the western tributary of Drum Point Creek. Tr. 79-80. The northwest corner of the Site, as depicted in CX LF 116, shows a tributary waterway or drainage to the westernmost tributary to Drum Point Creek draining into the westernmost tributary of Drum Point Creek, making it a tributary of a tributary. Tr. 106-108. CX LF Remand 920, and photographs at CX LF 116, 117, 118, and 119, and Tr. 108.

Both in connection with this case, as well as in other matters, Martin has had numerous opportunities to view this "western tributary to Drum Point Creek." Tr. 25 - 27 and CX LF 286. He has observed flow in April, and August of 1999, September and December of 2000, February of 2001, May, and December of 2002, in March and July of 2003, and in January, April, and May of 2007. CX LF 286 and Tr. 28. Martin characterized the western tributary to Drum Point Creek

¹⁶One must look closely at CX 295 to see the W and U markings on this exhibit.

¹⁷ For ease of reference, the Court also will use the "western tributary to Drum Point Creek" or simply the "western tributary," as the descriptor when referring to this particular watercourse to the north of the property.

¹⁸Prior to the point where it becomes tidally influenced, at a point west of Interstate 664, Drum Point Creek flows under Gum Road. Tr. 44. To the east of I 664 there is a double box culvert with a weir in it. Tr. 51. Obviously, culverts are constructed for the purpose of dealing with water flow.

as an "intermittent" waterbody. Tr. 148. By using that descriptive term, Martin explained that its flows were "not directly associated with immediate precipitation events . . . [rather, the] flows persist quite a ways after given precipitation events . . . [f]lows are seasonal in nature instead of [being] tied to a specific precipitation event. Tr. 148. Thus, he stated that the western tributary flows part of the year, but not other parts of the year. *Id.* Martin characterized both the westernmost tributary of Drum Point Creek and a tributary to that, as streams. ¹⁹ Tr. 185.

The Court takes note that over a number of years, Mr. Martin has observed flow in each and every quarter of the year. In each of the first, third and fourth quarters of a year, he has seen flow on three separate occasions. ²⁰ Id. Photos taken by Martin document flow in this western tributary to Drum Point Creek. Tr. 29. CX LF 79 and 80. A significant statement made by Martin, and particularly noted by the Court among these findings of fact, is that wetlands at the Site and adjacent wetlands off the Site, ²¹ to the west and north, coalesce into a number of drainage features that drain to the north and form and drain to the western tributary of Drum Point Creek. Tr. 35. This observation was not simply a matter of map interpretation, as Martin has personally observed this and the Court specifically finds this to be the fact. Tr.35-36.

Thus, it is accurate to say that Martin is quite familiar with this watercourse, having viewed it on a number of occasions in connection with other, unrelated, matters as well as for this litigation. Tr. 25-33. Based on these personal observations, he informed that the upper headwater of the western tributary to Drum Point Creek forms on the Gateway Commerce Park, which is adjacent, and to the west of, the Site. These wetlands, that is from the west of the Site and adjacent to the Commerce Park are contiguously connected wetlands in that area and accordingly they are part of the same wetland system. Not only did Martin personally observe these connected wetlands, he also walked from the point of the western tributary's formation all the way to the point where that stream becomes tidally influenced. Tr. 43. Accordingly, Martin emphasized that the wetlands at the Site do not stop at its boundaries. Rather, the wetlands extend west and north from the Site all the way to the railroad tracks. Tr. 35, and CX LF 95 at LF remand 054. As noted, these wetlands coalesce "into a number of drainage features that drain to

¹⁹In contrast, he stated that the features on the eastern side of the Site are a "wetland drainage area," not a stream. Tr. 184.

²⁰A testament to the honesty of this highly credible witness, Martin stated that in July 1999, June of 2001, June of 2002, October of 2002, and July of 2003, on a single occasion for each of those months, he did not observe flow in the western tributary to Drum Point Creek. That said, flow was observed a week earlier, July 2003.

Immediately adjacent to the Site to the west, is the Gateway Commerce Park property ("Gateway Park"). Martin noted and confirmed that a wetlands delineation was made at Gateway Park, and that it and the Site share continuous wetlands. Tr. 36. In fact, Martin walked the wetland delineation lines. Tr. 37.

the north and form and drain to that western tributary."²² Tr. 35. The Court finds these observations to be facts as well.

Respondents' witness Dr. Robert J. Pierce testified as a wetlands' expert on the issue of the Site's connectivity, among other issues, and produced a report based on his evaluation of the Site. May 29, 2007 at Tr. 502. Respondents' Exhibits 74 and 75²³ are two versions of that report²⁴ which Dr. Pierce wrote in collaboration with Dr. William T. Straw and Mr. William B.

These drainage features appear as blue lines in CX LF 95 at LF remand 054. The blue lines are wetlands but Martin stated that those lines are surrounded by areas of uplands non-hydric soil. Tr. 35. Although Martin had stated that there was a break in the wetlands, he explained that this remark referred to an area at the tributary on the east side of the Site that drains to the Hampton Roads Sanitation District ("HRSD") right of way and then underneath route 664 where a wetland drainage cuts through an area of nonhydric soils but he added that wetlands are in this area. Tr. 192-193, CX 43 at Figure 2. Therefore, he maintained that the wetlands there are continuous and while there is narrowing at one point, it is not an isolated strip. Tr. 193. Rather it is in that pinched area that there are nonhydric soils on either side.

²³Exhibit 75 is an annotated version of Exhibit 74. Tr. 506.

²⁴Despite the format utilized in his lengthy resume, listing his name and others who joined him in some 29 publications, curiously, Pierce's name does not appear on his report for this litigation. Respondents' Exhibits 74 and 75. Pierce described this as simply an oversight. Tr. 607: The report was sloppy in the sense that there were numerous errors, including references to a nearby site which involved litigation separate from this proceeding. See for example, Tr. 590, 599-600. A potential indicator for its lack of trustworthiness, a paragraph in the report for the Site and a paragraph in the report for a separate site involved with litigation in another matter, but nearby geographically, was identically worded in both reports except that in one Lewis Farm appeared while in the other Smith Farms was listed. That was not the only instance of verbatim carry-over between the reports produced by Dr. Pierce for this Site and the report produced for the companion, but distinct litigation, for Smith Farms. See Tr. 638-639. Smith Farms Enterprises, 2008 WL 713741, CWA 03-2001-0022, March 7, 2008. Pierce also admitted that of the 39 samples listed in his report, 36 of them were taken by Mr. Parker in 2002 but only three were taken in 2007. Dr. Pierce did not become involved in this case until 2007. Further, the report lists that 44 samples were taken, instead of 39. Tr. 611. In 2002, that is, before he became involved, 36 of the samples taken at the Site were hydric. Tr. 630. While Pierce admitted that he found hydric soils during his January 2007 visit to the Site, he did not record them in his report nor in the appendix to that report. Tr. 631. Nor did Pierce and his group record the dominant tree at the Site, nor record the shrub stratum. Tr. 632. In addition, while there is an implication to the contrary in the Report's language, Pierce agreed that "navigable in fact" includes traditional navigable waters and tidal waters. Tr. 612. Referring to page 36 of the report, coauthor Dr. Straw admitted that "Lewis" farm should have appeared where the report referred to "Smith" farm. Tr. 790.

Parker. Dr. Pierce conceded that the northern reach of the Site has a tributary to Drum Point Creek that borders the property line. Tr. 505. He described the flow of that tributary as intermittent and he noted that the USGS topographical map shows it as an intermittent flow. Tr. 508. It was Dr. Pierce's view that neither wetlands nor any other water bodies on, or immediately adjacent to, Lewis Farm have a continuously flowing connection to waters of the United States, Tr. 511. Pierce identified non-hydric soils on the east side of the Site which he believed connect around the northwest part of the Site and also wrap under Route 664. Tr. 522. Pierce believed that prior to the construction of the ditches there was no surface connection to the unnamed tributary to Drum Point Creek from the Site's wetlands that were further south. Tr. 529-530.

At any rate, the bottom line for Pierce's sampling was that "within those [areas] marked as wetlands both by NWI and Mr. Stokley, there are areas that have non-hydric soils and that the ditches that were connected to the tributary to Drum Point Creek were all or were both cut through non-hydric soil." Tr. 567. Pierce had the engineering firm of Hoggard-Eure conduct a topographic survey at the Site, documenting the minimal elevation variances. Tr. 570. All of this was to support Pierce's position that "there is virtually no way that water can flow across the surface because [there are] a series of depressions that are bounded by higher elevation lands." Tr. 575. Pierce conceded only that prior to the Respondent's ditching at the Site, there was a "minor amount" of coarse particulate that could enter the tributary to Drum Point Creek at the northern end of the property. Tr. 601. Accordingly, he maintained that after the ditching, the only connection from the Site to the western tributary to Drum Point Creek was through the excavated ditches. Tr. 613.

At this point it should be noted that the Court, relying on the more credible testimony of witnesses such as Martin and Havens, does not credit Pierce's view. Pierce, while credentialed, was not an objective observer. As discussed, the biased methodology he employed in assessing the Site in 2007 clearly demonstrates this to be the case. Further, when asked if, in legislative testimony before a Congressional subcommittee on water resources and environment, he called the Section 404 CWA permit program "harassment," he stated "I don't know." When the Court

²⁵The Court also notes that Dr. Pierce strayed, more than once, into areas beyond his expertise by offering his take on legal concepts expressed in *Rapanos*. His personal view of a "significant nexus," in terms of CWA jurisdiction, involves examining "the degree of connectivity itself and whether that connectivity was a significant contribution to the receiving navigable water body. [and considering] the functions of the landscape [at the Site] and how that related to the functions of the navigable water body." Tr. 513. Ll Pierce's personal interpretation of "significant nexus" is that there must be a "causal connection." It was his notion that, for jurisdiction to exist, any contribution to a receiving navigable water must be significant in its own right. Tr. 525.

²⁶However, Pierce admitted that it is common for there to be non-hydric inclusions in hydric soils and vice versa. Tr. 694.

inquired further, noting that the term was an "inflammatory" descriptor of the permit process and that it would be unlikely that one would not remember using such a description, Pierce still maintained that as it was six years earlier, he could not recall whether he used that description or not. Tr. 674. The Court noted that it would take official notice of this testimony. Tr. 677. While Pierce was critical of the government reports for the Site and for the nearby Smith Farm site, in that he described them as "virtually identical," he conceded, as set forth *supra*, that his own report, RX 74, RX 75, had portions that were identical in describing the two sites as well. Tr. 680-684.

Report co-author Dr. Straw also supported Pierce's view that water on the Site would stay on it. His support for this was derived from his assessment that the Site is essentially flat, having only a "very slight slope." Tr. 749-750. In his view the lack of appreciable slope and the rough surface at the Site, would make it "very difficult to conceive of [] water flowing off the site." Tr. 751, 762. Although he noted that there is an equation which assesses this, known as the "Manning" equation, he later conceded that he never put the equation to use. He added that he saw no signs of overland flow from the cleared corridor areas toward the east, 28 and he

²⁷In fact, Dr. Pierce, in testimony before Congress on October 3, 2001, did so describe the permit program as "harassment." See http://www.wetlandtraining.com/pdfs/wppiiwf.pdf

²⁸As additional support for his view that virtually no water would leave the Site, Straw noted that there had been significant precipitation, "upwards of five inches" a few days before EPA visited the Site in 1999. Tr. 778. Based on Dr. Calhoun's findings from the previous trial, Dr. Straw concluded that, in terms of any significant nexus, there was very little water leaving the Site in the water column. Tr. 780. Straw also arrived at a different conclusion than Mr. Stokley regarding the drainage feature Stokley identified on a 1994 aerial photograph and whether there was in fact drainage from the property. Tr. 782. This testimony related to the blue drainage features on CX 42 at Figure 3. Straw concluded that the drainage feature does not in fact exist and he noted that EPA's Stokley subsequently agreed that it did not exist. Tr. 784. Here again the Court must note that while there was some quibbling about particular drainage features, the preponderance of the credible evidence shows that there were several watercourses from the Site and from adjacent wetlands at the Gateway Commerce Park feeding the western (or, "unnamed") tributary to Drum Point Creek. Even Straw conceded that "there is a water body that flows from west to east that's near, if not adjacent to, portions of the Lewis site." Tr. 846. Further, in his collaborative report, Straw states that the Site's "northern boundary is formed by an unnamed tributary of Drum Point Creek ... " Tr. 846 (emphasis added). He also agreed that on RX 28, there is a broken blue line shown which depicts the western tributary to Drum Point Creek which line continues on to the other side of I 664, flowing east and eventually to Drum Point Creek. Tr. 847. Accordingly, Straw agreed that the tributary to Drum Point Creek exists. Further, EPA's Dr. Havens did not agree with the claim that there is no evidence that water leaves the Site via drainageways as opposed to via ditches, an opinion the Court adopts, as Havens, a completely credible witness, personally observed such drainageway flows from the Site. Tr. 1004. Thus, the Court expressly rejects the notion that water on the Site was trapped there as well as the idea that

characterized Lewis Farm's water features as "intermittent." Tr. 763. Straw also maintained that he did not find any rills or channels when he visited the Site. Tr. 796. In RX 75 at page 27, a portion of Straw's contribution to the Respondents' Report states that a thorough examination of the landscape east of I 664 indicates no distinct channels likely existed to the Lewis Farm from the east. Tr. 866. Yet, Figure 11 of RX 74 shows a distinct channel entering the Site prior to the creation of I 664. Straw's response to this was to maintain that there was only a swale in this area. Tr. 868. Based on the wealth of record evidence to the contrary, the Court rejects Dr. Straw's opinion that this was merely a swale.

B. The Site's Wetland Functions.

The experience of EPA's Martin's also qualified him to recognize field indicators of wetland functions. Tr. 152. With regard to the Site, he observed the presence of various such indicators. These included depressions within the wetlands, providing flood storage. There were also indications that denitrification³¹ was taking place at the Site. Tr. 153. Martin also saw some

it would migrate only through underground seepage. Tr. 849.

²⁹Straw, referring to a USGS document entitled "Water Basics," read the definition of "intermittent stream" from that as "[a] stream that flows only when it receives water from rainfall runoff or springs or from some surface source such as melting snow." Tr. 792. However, Straw expressed that the definition is inconsistent with the definitions he has seen and used for "intermittent." Tr. 793. Straw distinguished an intermittent stream from a seasonal one, with the former applying to a stream that runs apart from "seasonality," as it runs after a rain and for a while after the groundwater has been recharged from a rain. In fact, Straw stated that he would never use the term "seasonal" to describe any stream, and that USGS does not employ the term either. Tr. 795. R's Ex. 78. Semantics aside, the record establishes the flow of the western tributary to Drum Point Creek and that such flow has been documented in each quarter of the year.

³⁰These are created by the flow of water over the landscape.

Denitrification is the conversion of nitrates to nitrogen gas or nitric oxide that occurs in waterlogged soils. Tr. 153-154. Respondents attempted to show that not much of this process occurs at the Site in terms of wetland functions. This argument had two aspects to it, neither of which has merit because they are irrelevant considerations. One was that in its own right the Site's function was minuscule in the larger scheme of things. The other was that even uplands can perform similar functions. While Respondents tried to show that the soil was very sandy and therefore that this function would be lessened, Martin did not agree that the sandier a soil is, the lower the rate of denitrification, because that assessment depends on other elements in the soil, such as organic matter, silts, clays and fine materials. Tr. 173. While it is true that, if one focused solely on the sand component, soil with more sand potentially would denitrify less, such a characterization did not apply to the Site. Tr. 173.

carbon sequestration,³² which was evidenced by water with a tea or tanic-color to it. He also stated that, in terms of wildlife, the depressional areas holding water provide a breeding area for salamanders. Tr. 157.

Charles Rhodes also testified at the Remand hearing. He was qualified as an expert in wetlands ecology and testified regarding his evaluation as to whether the Site performed ecological functions and if so, whether such functions were being delivered to navigable waters. May 25, 2007. Tr. 384. His evaluation was based upon examining the data that had been compiled for the Site and he also visited the Site on two occasions, with the most recent visit occurring in January 2007. His evaluation included taking sample plots, at which locations there was sampling of the vegetation, digging a soil pit and measuring the microtopography. Tr. 389-391. Field indicators were used to assess the Site's wetlands. Tr. 393-394. The field indicators inform about the particular wetland's functions. Tr. 396.

Dr. Rhodes arrived at a consistent conclusion from his study of the information about the Site and from his visits to it. His considered opinion was that the wetlands at the Site do perform ecological functions and that those functions are delivered downstream to navigable waters. The functions he identified were: flood flow alteration, flow modification (i.e. desynchronization), which involves water storage on the wetlands with gradual release downstream; water quality improvement; primary production; and habitat/ecosystem support. Tr. 403. The water storage function also impacts the force or energy of water released downstream. Without that storage function, the energy released by the force of the water during precipitation is stronger, causing increased erosion with the effect that banks and the creek bed are steepened. Tr. 407. During his visit to the Site, Rhodes personally observed field indicators which confirmed that the Site has these flow alteration and modification qualities. Tr. 409. Regarding water quality improvement, Rhodes stated that the Site's hydric soils impede the movement of water through those soils. Bacteria in these soils use nitrates for their metabolism, converting it to a reduced form of nitrogen. This denitrification is helpful because nitrates have an adverse effect on water quality. Tr. 411. Other activities are carbon production and primary production, both of which can be discerned from field indicators. Tr. 417. Dissolved organic material, as evidenced by tea colored water, essentially provides a "food factory" for the downstream food web. Tr. 418. This is used by organisms which, in turn, is then used by other communities of organisms in the food chain. As to the habitat and ecosystem support function, Rhodes explained that the whole structure of the forested wetland provides a habitat for a variety of animals. Tr. 403, 420.

Rhodes described the western tributary to Drum Point Creek as a first order or low order stream but he noted that another expert, Dr. Brinson, has concluded that first or low order streams, do perform a major ecological function, as they are a first line of defense between terrestrial and aquatic environments. Tr. 428-429. The analogy was made to the human circulatory system and the comparison that these small headwater wetlands are like capillaries to

³²Carbon sequestration is the transforming of carbon from a particulate form to a more dissolved form. Tr. 156.

the human blood circulation system. Both are small but vital and critical to the function of the respective systems. Tr. 430. Accordingly, Rhodes was of the view that the coastal plain hardwood flats at the Site operate in a similar, critical, manner by contributing downstream to receiving waterbodies. Tr. 431.

In contrast, it was Dr. Pierce's view that wetlands at the Site, prior to any of the Respondent's activities, served no significant functions³³ related to navigable waters. Tr. 527. Pierce discerned no appreciable difference between the functions performed by wetlands at the Site versus the functions performed by non-wetlands. Tr. 528. As to the Site's impact on animal species, he offered that he did "not find any evidence that there were suitable habitat for animal species that would be of importance to navigable waters." Tr. 528. Pierce also asserted that his samples showed sandy loam soil, making it more permeable and a soil in which less denitrification would occur. Tr. 558. Yet Pierce's group did not conduct any analysis at the Site to determine if denitrification was occurring. Tr. 595. Instead, it was his view that the soil was so sandy, any denitrification would be only at a minimum level. Tr. 596.

On the subject of functions, Dr. William Thomas Straw, was of the view that the ditching on the Site increased the flood storage capacity at the Site. Tr. 701. However, the Court finds that this is irrelevant because, even if it were assumed for the moment to be true, that is not the test for assessing a wetland's function. The evaluation of function is not about a comparison of the relative function of a wetland before or after ditching. Rather, it is about an assessment of a wetland's function, apart from any effect of ditching.³⁴

Dr. Straw also expressed that denitrification occurred at the Site within ponded water "[o]nly of whatever ammonia is available and perhaps not all of it." Tr. 706. He noted that there is no denitrification in the water itself, as the process only occurs in the soil below the ponded water. Tr. 706. Straw also stated that sandy soils are much less effective in having denitrification occur. Tr. 707. Although he stated that the soil at the Site varied in its sand content, he asserted that such sand content was as high as 85 percent. Tr. 708.

³³Pierce also tried to show that the Site itself is but a small piece of a larger hydrologic unit which encompasses 272,000 acres. By such a comparison, the Site's 53 acres of wetlands is only 0.02 percent of those 272,000 acres. Tr. 534. Such a comparison, from Pierce's view, puts the Site into perspective. Tr. 534. He also considered other extraneous factors, such as that the City of Chesapeake designated the Site for office research and commerce, a factor he considered important, as he noted that states have primary responsibility and authority regarding land use functions for both land and water, under Section 101 of the CWA. Tr. 535- 537. Rather than being persuasive, the Court's view of these arguments is that they demonstrate that Dr. Pierce's perspectives are misguided and agenda-driven.

³⁴On this issue, the Court agrees with Dr. Havens' perspective, as discussed infra.

EPA witness Dr. Kirk Havens, PH.D., is the Assistant Director for the Center for Coastal Resources Management and the Director of the Coastal Watershed Program at the Virginia Institute of Marine Sciences. August 7, 2007 at Tr. 975. He has taught courses in hydrology, wetlands ecology, and wetland soils and he was qualified as an expert in wetland function, wetland ecology and wetland hydrology in the Virginia coastal plain. Tr. 981. The doctor was asked, in early 2007, to provide an opinion as to the functional attributes of the Site. Tr. 982. Havens formed no opinion about the Site prior to his visit and he only examined Respondents' expert report (RX 74) prior to his visit. He found the Respondents' report somewhat confusing because of what he perceived to be inconsistencies within it. For that reason he didn't know what to expect prior to his visit to the Site. Tr. 983.

During his spring 2007 visit Havens walked the Site. He also took soil samples and photographs.33 Havens saw wetlands at the Site and his opinion was that they are functioning wetlands, both in terms of habitat and water quality considerations. Tr. 986, CX 279 at LF Remand 1244. In the course of his visit to the Site, Havens took photographs. Among others, the photos showed water flowing, suggesting that water was moving off site; and a cavity within a tree, indicative that amphibians or mammals can use such for habitat function. He also found oxidized rhizospheres, an indicator that there has been sufficient anaerobic function sufficient to form iron plaque around a living plant, which is indicative of reduced soils and which reflect denitrification. His photos also included ponded water, which showed flood storage and potential habitat. Tr. 990. In addition he took a photo of a standing dead tree, another example of habitat function. Tr. 991. Based on his visit, as documented by the photographs he took, Havens concluded that his observations conflicted with the description of the property in Respondents' Exhibit RX 74, since he observed flowing water, evidence of hydrology, evidence of reduced conditions at the Site and evidence of function. Tr. 995. Nor did Havens agree with Dr. Straw's view that constructing a ditch through wetlands would improve flood storage and desynchronization function of the wetlands. This represented a fundamental disagreement because he took issue with the implicit assertion underlying Dr. Straw's opinion that by removing an area's ability to provide a function, such activity enhances its capacity. Tr. 996. Dr. Havens pointed out that a wetland's flood storage provides both a function and a value, in the sense that storage protects downstream properties by causing water to be released slowly. In contrast, he stated that digging a ditch in a wetland modifies its flood storage capacity by shunting water past the wetland to the receiving waters. As a consequence those receiving waters would receive the waters more rapidly. Further, constructing a ditch disrupts a wetland's ability to function as a sponge. Tr. 998. As noted, the Court agrees with Dr. Havens' perspective.

Responding to the testimony from Respondent's witnesses that it was unlikely that the Site was performing significant denitrification because the soils there were sandy loam or had a high sandy content, Havens stated that soil texture is only one factor when analyzing denitrification, and that other variables, such as the content of carbon or organic matter, play a

³⁵It had rained over an inch within a couple of days prior to Dr. Havens' visit. Tr. 987.

factor. Tr. 1001-1002. He stated that denitrification in land soils, ³⁶ plays a role for downstream waters by removing nitrogen from the soil and reducing the amount of nitrogen moving to downstream receiving waters. Tr. 1002. Havens also did not agree with the view of Respondents' experts that there are no significant sources of nitrogen at the Site because atmospheric deposition of nitrogen is a major contributor of nitrogen and this occurs on land as well as on the oceans. Nor did Havens agree that the presence of Loblolly pines at the Site meant that there were no wetlands, nor that the presence of such pines would indicate that the wetlands were not performing any kind of function. Tr. 1003- 1005. Last, Havens maintained that an upland forest would *not* provide the same quality of habitat for a species that was water-dependent as a wetland would provide. Tr. 1041.

V. The Arguments of the Parties

A. EPA's Contentions

EPA begins by reminding that it was already found that the wetlands at the Site where the discharges occurred physically abut, and are adjacent to, the western tributary to Drum Point Creek. EPA Br. at 20. Characterizing it as "undisputed evidence," EPA points to the natural stream, running north of the Site, which forms the western tributary to Drum Point Creek. Further, EPA asserts that the wetlands complex, of which Lewis Farm is a part, physically abuts the western tributary to Drum Point Creek at numerous locations, having western, northern and eastern connections. It maintains that the western tributary to Drum Point Creek forms on the adjacent Gateway Commerce property, within the wetlands complex there. Various small drainages combine there and result in the formation of that western tributary. Thus, there is a transition from the wetland to the start of a stream within that wetland system. The Court adopts EPA's summary description of this western connection which notes that "as one travels from the transitional area from wetlands to stream on the Gateway Commerce property downstream and eastward, various tributaries and drainages form in and flow from the wetlands complex to the stream forming tributary depicted by USGS as the western tributary to Drum Point Creek by the time it flows north of the Lewis Farm Site." EPA Br. at 24.

^{36 &}quot;Land soils" were distinguished from soils which are below oceans.

³⁷This stream is reflected on the U.S. Geological Service topographic map for the Bowers Hill Quadrangle as a dotted line. CX 73.

³⁸EPA identifies a host of evidence in support of this contention: CX 70-1A, 70-2, 70-3, 70-6, 70-7, 70-8, 70-10, 70-10A, 70-10B, 70-11, 70-11A, 70-12, 70-12A, 70-13; CX 71A, 71B, 71C, 71D; 2003 Tr. 231-35 (Culpepper); 2003 Tr. 345-47, 353-55, 361-66 (Martin); CX 71 (Photos A-L); 2003 Tr. 238-45 (Culpepper); see also 2003 Tr. 410-11 (Stokely); CX 43 (Figure 12), noting that "many of these tributary branches are mapped as broken blue lines or as topographic expressions on the U.S.G.S topographic map." EPA Brief at 22.

Key points highlighted by EPA are that the western tributary to Drum Point Creek forms in a wetlands complex and that the Lewis Farm wetlands are part of that complex. In particular there are at least two unbroken drainages flowing through the Site's wetlands to the western tributary to Drum Point Creek. Both Respondent's witness Needham and EPA's witness Stokley identified these. RX 6, RX 7, CX 75, CX 43 and 2003 Tr. 411-413. More conclusive than the interpretations of the aerial photographs, these drainages were also confirmed in the field. See photographs at CX 116 and CX 117 and Martin Remand testimony at Tr. 107-108. One of the drainages identified by EPA flows from the Site north to the western tributary to Drum Point Creek, which drainage EPA has characterized as the "Northern Connection." CX 279, EPA Br. at 25. EPA also identified an "Eastern Connection," which it described as "a drainage conveying flow from the wetlands on the east side of the Lewis Farm site through wetlands and then through a culvert under Interstate Highway 664 [which drainage then] picks up on the other side of Interstate 664 and flows northeast to a point where it joins with the western tributary to Drum Point Creek on the east side of Interstate 664." EPA Br. at 26. EPA points out that the USGS has mapped these drainages for decades.³⁹ CX 73, CX 95, CX 43, CX 83. While Stokley at first backtracked over his interpretation of the scope of the eastern drainage, scaling back his original view of its extent, later, after he conducted "ground truthing," walking the drainage pattern, he returned to his original interpretation. The larger point is that these two drainage paths flow through areas which Respondents' witness, Needham, agreed were wetlands. 2003 Tr. 831-832. Other evidence supports this conclusion. CX 106, CX 118, CX 119, CX 120, CX 125, CX 279, LF 1256 and 1257 and Martin Testimony at Remand Tr. 79-81, 91-92, 109-111, and 128-129.

On the basis of the evidence from both hearings, EPA contends that the Western Tributary to Drum Point Creek is a relatively permanent body of water forming a geographic feature which is connected to traditionally navigable waters which are within a half-mile downstream from the Lewis Farm Site. This Western Tributary flows east from the Site, joining other tributaries which, about 2000 feet from the Site, collectively form Drum Point Creek. Drum Point Creek, in turn, flows into the Western Branch of the Elizabeth River, with the latter being a navigable water. This flow continues to the James River, which is also navigable, and from there to the Chesapeake Bay. EPA notes that along this chain of waters, navigability actually begins before the Western Branch of the Elizabeth River-link, as permits for docks and marinas have been issued for portions of Drum Point Creek. 2003 Tr. at 226. ven Respondent conceded that the tidal portion of Drum Point Creek is navigable. EPA Br. at 31, citing 2003 Tr. 1292-93 (Wolfe); RX 39C (2003) and Respondents' Post-Trial Proposed Finding of Fact No. 26. In this context EPA asserts that the western tributary to Drum Point Creek is a longstanding geographic and hydrologic feature, and that it has been recognized as such for more than 70 years at the time of the Respondents' discharges of wood chips into the surrounding wetlands. Also supporting this contention is the presence of box culverts which were constructed to

³⁹Among other evidence to support EPA's claim that these drainages have been detected long before the 1960's is Stokley's interpretation of aerial photographs as far back as the 1930's. EPA Br. at 27, citations omitted.

accommodate the flow of the western tributary to Drum Point Creek, both at a location where it does not flow year round, and further downstream of the location where its flow becomes perennial. As stated earlier in this decision at n.18, the Court takes notice that culverts are not constructed by government entities on a lark; they are built to accommodate the flow of water.

Further, while EPA agrees the USGS Survey topographic map depicts the portion of the western tributary to Drum Point Creek that flows north of the Lewis Farm Site as a broken blue line, indicating intermittent flow or flow for only part of the year, it points out that flow in the western tributary to Drum Point Creek becomes perennial or year-round flow east of Interstate 664 approximately 500 feet from the Site, east of Interstate 664 but before it flows under Gum Road and that witness Martin observed positive flow in the western tributary to Drum Point Creek near the Lewis Farm Site at various times of the year including on April 14, 1999, August 19, 1999, September 20, 2000, December 27, 2000, February 7, 2001, May 30, 2002, December 18, 2002, March 19, 2003, July 17, 2003, January 2007, April 2007, and May 2007. EPA Br. at 32-33. CX 286; Remand tr. 26-28.

With these facts in mind, addressing a critical issue on this remand, EPA contends that the wetlands on the Lewis Farm Site and the Western Tributary to Drum Point Creek meet Justice Kennedy's test for jurisdiction because they have a significant nexus to traditionally navigable waters less than half a mile downstream, as they perform important hydrologic, water quality and ecological functions, which functions are connected to and affect the physical, chemical and biological integrity of downstream, traditionally navigable waters, through runoff storage and flood flow desynchronization, denitrification, and delivery of organic carbon. EPA Br. at 34-35. The Court agrees.

In support, EPA notes that field indicators inform whether a wetland is performing such functions. During January 2007, EPA witnesses, led by witness Martin, who brought sixteen years of experience with mineral flat wetlands, set about to assess the functions that the wetlands likely provided prior to the disturbance and in the course of that visit, they took three representative samples, designed to constitute the range of conditions one would expect to find in a mineral flat wetland. A soil sample and plant species documentation were done at each of the

⁴⁰Martin forthrightly testified that the western tributary to Drum Point Creek was not flowing on July 7, 1999, June 11, 2001, June 14, 2002, October 19, 2002, and July 25, 2003. This did not surprise Martin, as his experience was that he would not expect to see flow in mid or late July. Remand Tr. 198.

locations. 41 Further, EPA witness Charles Rhodes, 42 an expert in wetlands ecology, stated that the characteristics of the wetlands at the Lewis Farm Site are consistent with research describing the classifications of hardwood flats and headwater wetlands. Remand tr. 386-87, 403 (Rhodes). Rhodes expressed that the wetlands on the Lewis Farm site perform ecological functions that are delivered to traditionally navigable waters, and that these functions include flood flow alteration and flow modification, water quality improvement, primary production, and habitat and ecosystem support, a view shared by EPA witness Martin, 43 who, as noted, also has extensive experience in assessing the functions being performed by wetlands. Remand tr. 152-157. Rhodes further stated that the Lewis Farm wetlands impact the integrity of downstream traditionally navigable waters by acting like a sponge, absorbing and holding water and then releasing it slowly into receiving waters, thus performing a storage function and moderating the volume and velocity of flood peaks.44 EPA witnesses observed depressional areas holding ponded water at the Site and the microtopography they observed was that of a "rough surface consistent with the flood storage function." EPA Br. at 39. EPA also contends that the preponderance of the evidence supports the conclusion that the Site's wetlands perform denitrification, 45 a water purification process in the sense that, by converting nitrates to atmospheric nitrogen, those nitrates, a pollution source, are reduced with less of it being transported downstream. EPA further asserts that the Site's wetlands also perform a "primary production" function, by converting atmospheric carbon dioxide to organic plant matter. Such organic carbon is then used by "lower trophic aquatic organisms." Field indicators support this contention, as evidenced by the tannic or tea colored water observed by EPA witnesses at the Site.

In its Reply Brief, EPA asserts that "the wetlands on the Lewis Farm Site are part of a larger wetlands complex [] [which wetlands complex] extend[s] unbroken to the western tributary to Drum Point Creek. . . [and that] the tributary itself actually forms within the wetlands complex. . . . [the Site's] wetlands are connected by drainages and "fingers" of wetlands extending north and east. [Furthermore] [t]he western tributary to Drum Point Creek is

⁴¹Upon locating a sample location, Complainants' site investigators would identify a plot center and microtopography, or surface roughness, was also measured. They also estimated the percent of ground surface that had standing water or blackened leaves, with the latter being an indicator of standing water. Remand tr. 63-65 (Martin); Remand tr. 391-93 (Rhodes). Complainants' sampling data site recorded by this visit appears at CX 256.

⁴²The Court finds Mr. Rhodes to have been a highly credible witness.

⁴³The Court found Mr. Martin to have been a particularly forthright and credible witness.

⁴⁴The technical term for this is "desynchronization," also identified more plainly as "flood flow alteration" and "flow moderation"

⁴⁵Mottling, that is, contrasting spots of color in the soils, is a field indicator of denitrification.

a relatively permanent body of water forming a geographic feature and flowing (less than half a mile) to a traditionally navigable water." EPA Reply at 8.

Continuing with its analysis of jurisdiction under Rapanos, EPA argues that "the wetlands on the Lewis Farm Site and the western tributary to Drum Point Creek to which they are adjacent are within the jurisdiction of the Clean Water Act regardless of which judicial interpretation [from the Supreme Court's Rapanos decision⁴⁷] is applied." EPA Reply at 2. EPA acknowledges that its claim of jurisdiction is "premised upon . . . [the idea that] wetlands adjacent to a tributary to traditionally navigable waters" are within CWA jurisdiction. EPA Reply at 6. It is expressly noted here that the Court agrees that such circumstances are within the Clean Water Act's jurisdiction. EPA interprets the view of the four Justices led by Justice Scalia as requiring a "continuous surface connection" from wetlands to bodies that are waters of the United States; that is to say that the wetlands "physically abut the other regulated body of water" or, to express the obverse, there must be "no clear demarcation between waters and wetlands" for jurisdiction to exist. EPA expresses that, for Justice Kennedy, jurisdiction is expressed differently, as a requirement that there be a "significant nexus," a phrase meaning that for wetlands attached to non-navigable tributaries, those wetlands must be performing "important functions for the integrity of aquatic systems that include traditionally navigable waters." Id. at 6.

As EPA interprets the Respondents' initial brief, it considers Respondents' chief challenge to jurisdiction to be whether there is a *connection* between the wetlands and the western tributary to Drum Point Creek⁴⁸ and Drum Point Creek itself, and not that the discharges

⁴⁶EPA contends that, in many instances, evidence cited by the Respondents, when examined, contains contradictory and misleading testimony. EPA notes, as examples, Dr. Straw's references to numerous hydrology equations but the Respondents failure to mention that those equations were not applied to data collected from the Site; that Dr. Pierce's use of the term "meaningfully distinct" in his report and during his testimony, was borrowed from a court case which he did not understand; that references in the Respondents' expert report to 'excavated ditches in both east and west directions' at the Site actually referred to another CWA case at a different location, not to this case; that Dr. Pierce's reference to "wetlands adjacent to wetlands," was a term for which he had no definition; and that the assertion in Respondents' expert report that Mr. Stokely "simply used the exact wetland boundaries for Lewis Farm that were developed by NWI," was a claim that Dr. Pierce retracted during his testimony. EPA Reply at 2.

⁴⁷EPA also maintains that "nothing from the various expressions in *Rapanos* purport to strike, modify, or even to criticize the Corps' methodology for identifying wetlands as described in the [1987] *U.S. Army Corps of Engineers Wetlands Delineation Manual* . . . [nor] its accompanying guidance [as set forth in] . . . []CX 33[]. EPA Reply at 5-6.

⁴⁸ EPA remarks that while the parties use different names to describe it, Respondents agree that there is a waterbody which is north of the Site and which contributes flow downstream to Drum

occurred in wetlands at the Site. EPA calls this western tributary a "natural stream" and maintains that the Respondents do not "seriously contest" that description, as its own witness, Mr. Calhoon, referred to it as natural stream running along the Site's northern boundary. EPA Reply at 7-8, citing 2003 transcript at 1141-1142. Further, EPA reminds that it is not contested by the Respondents "that the western tributary to Drum Point Creek flows to Drum Point Creek, which in turn flows to the Western Branch of the Elizabeth River, the James River, and the Chesapeake Bay . . . [nor that] portions of Drum Point Creek downstream from the Lewis Farm Site are traditionally navigable, as are the Western Branch of the Elizabeth River, the James River, and the Chesapeake Bay [and finally, there is no dispute] that the wetlands on the Lewis Farm Site and the western tributary to Drum Point Creek are within the Chesapeake Bay watershed." *Id.* at 8. Given this connection between these waters, EPA maintains that the western tributary to Drum Point Creek and the subject wetlands at the Site meet the jurisdictional requirements articulated by the four Justices led by Justice Scalia.

Speaking to the Respondents' claim that there is no CWA jurisdiction on the grounds that the western tributary does not flow year round, EPA concedes that it is the case that the flow is not every day in a given year, but it asserts that daily flow is not required, even upon applying the view expressed by the four Justices led by Justice Scalia. While Respondents latched upon the terms "intermittent" and "ephemeral," EPA notes that even the Scalia led group declined to define those terms. In fact, those four Justices did not assert that seasonal rivers which flowed during some months, but had no flow during dry months, would be outside of the CWA's jurisdiction. *Id.* at 9. Here, EPA contends, the evidence is that the western tributary to Drum Point Creek is a "relatively permanent geographic feature that flows seasonally, i.e., [during] part of every non-drought year." *Id.* at 11. There is significant evidence to support this claim, as EPA points out that this same western tributary to Drum Point Creek has been "mapped and documented for decades" and the same flow was sufficient to prompt the local government to install double-box culverts to handle that flow. As noted earlier, EPA witness Martin personally observed the flow on many occasions over a number of years and that generally it is flowing from December through May in a given year. *Id.* at 12.

EPA also asserts that, per the Justice Scalia-led group expressing the view of four Justices, "the wetlands on the Lewis Farm Site have a continuous surface connection (in fact, numerous surface connections) to the western tributary to Drum Point Creek." *Id.* at 13. On this point, EPA calls attention again to the fact that the wetlands on the Site are part of a larger complex and that even Respondents' witness, Dr. Pierce, agreed that jurisdictional determinations have to take a broad view and consider the whole wetlands complex, and not simply analyze a wetland as if it was in fact bounded by a Site's property lines. In this instance, the wetlands extend north, and west of the Site. Citing RX 6 and testimony of Respondent's

Point Creek. The Respondents call it an "unnamed tributary to Drum Point Creek," while EPA calls it the "western tributary to Drum Point Creek." In this regard, EPA notes that the Respondents do not challenge that this "western" or "unnamed" tributary has been mapped by the USGS for over 70 years, nor that it has been visible on aerial photographs since 1937.

witness, Needham. In fact, EPA asserts that the evidence of record shows without contradiction that the western tributary to Drum Point Creek begins within the same wetlands complex to the west and north of the Site in what was identified as the Gateway Commerce Park property. This evidence, EPA maintains, shows the clear surface connection between the wetlands and the tributary. *Id.* at 14. The Court agrees.

In contrast, EPA objects to the myopic analysis Respondents offer, because their evaluation was limited to the Site, a limitation which is at odds with the reality that these wetlands are all a connected complex. It is in the context of this real world, broader picture, of the wetlands complex at hand, that EPA, although agreeing that there is a band of non-hydric soils just north of the Site, maintains that those soils do not create a break between the Site's wetlands and the western tributary to Drum Point Creek at the point just north of the Site because they are connected via narrow finger bands of wetlands. These bands include wetlands drainages, which are channels containing flowing water. EPA points out that these non-hydric soils are not some new discovery, as their presence was acknowledged during the first hearing. More importantly, they do not create a disruption to the surface connection between the wetlands and the western tributary as it was Respondents' own witness, Mr. Needham, who identified these surface connections on his own delineation map as wetland "fingers." *Id.* at 15, citing RX 6. In addition, both the NWI mapping and EPA witness Stokley identified this surface water connection as drainage, and all of this was confirmed yet again, through Mr. Martin's on-site visits. The Court agrees wholeheartedly with these points.

⁴⁹Thus, putting the issue in perspective, EPA notes that Dr. Pierce's testimony only confirmed what was already known; that there is such a non-wetlands area, as depicted in the NWI mapping, but EPA counters that it does not serve to isolate the Site. EPA points to the preponderance of other evidence conflicting with Dr. Pierce's conclusions. Further, even taken by themselves, EPA asserts that Dr. Pierce's findings fall short for a number of reasons. For example, when he visited the area in January 2007 he was looking for non-hydric soils, and even for these, he did not fully describe the soil samples he took, recording only their location with a GPS device. While he admitted finding hydric soils, he did not make a record of the number, nor the locations of those. Even the doctor's soil sample numbers did not agree, as his report lists 39 such samples but his Figure 12 of RX 74 lists 44 such samples. Nor do Mr. Parker's samples taken in 2002 aid the Respondents' case, because Parker's focus then was over the presence or absence of wood chips, not whether the soils were hydric or not. So too, while most of Parker's samples were hydric in 2002 and those samples were selected using a "transect system" which Parker described as an unbiased method for sampling, he abandoned that system for his 2007 visit with Dr. Pierce. Further, his review was selective and limited, as he described only three of the more than 40 non-hydric soils that Pierce assertedly found, and those descriptions were not correlated to the locations of the wetland fingers and drainages identified by other witnesses. Therefore, EPA contends that, at best, such evidence may show that there were some non-hydric soils. However the presence of some non-hydric soils does not disrupt the conclusions reached by the wetlands delineation, nor does it upend the evidence establishing that the wetlands have a surface connection to the western tributary to Drum Point Creek. The Court agrees.

EPA also rejects the Respondents' claim that the "T-shaped" ditch severed any connections between the Site's wetlands and the western tributary to Drum Point Creek. It contends that Dr. Straw misread the draft hydrogeomorphic guidebook. It points out that one of the guidebook's preparers, Dr. Havens, testified that such a ditch may affect abutting wetlands hydrology, but that is not the same as eliminating it. In fact, Respondents' well monitoring data shows that the ditch did not uniformly affect nearby wetland hydrology. So too, EPA contends that Respondents' claim that they saw little evidence of erosion from overland flow, rather than establishing that there is no connection between the Site's wetlands and the western tributary to Drum Point Creek, actually shows that the wetlands at the Site are doing their job of holding and absorbing water. Besides, on the issue of establishing a connection, EPA notes that its witnesses produced photographs showing overland flow from the Site. 50 EPA Reply at 18-19.

As alluded to earlier, EPA contends that both the western tributary to Drum Point Creek and the wetlands on the Site meet Justice Kennedy's "significant nexus" standard. In further support of this, EPA points to the evidence it presented to show that the wetlands "are performing functions such as flood water retention, denitrification, and carbon production and that [] those functions [are delivered] through a tributary that flows 500 feet downstream to perennial waters and less than half a mile to traditionally navigable waters[.] [Further, as noted earlier, the Site's wetlands] are part of a larger complex of streams and wetlands that contribute functions to those traditionally navigable waters . . . "EPA Reply at 21. EPA refers to Justice Kennedy's expression that a significant nexus is present where the "wetlands 'either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as "navigable." Id. at 21, citing Justice Kennedy's opinion in Rapanos at 2248. Significantly, EPA takes exception to the Respondents' view that, to be within the CWA's jurisdiction, a wetland must be "unique or critical" to traditionally navigable waters. Quite the opposite, EPA looks at the jurisdiction question as excluding only those wetlands which have a mere speculative or insubstantial effect on water quality would be outside of that Act.

In sum, EPA does not take the position that "any function" being performed by a wetland creates jurisdiction, nor that jurisdiction is established upon showing that the wetland is "doing something." Id. at 23. Rather, EPA contends that jurisdiction exists where the evidence shows

⁵⁰Accordingly Dr. Straw's models designed to show, mathematically, that there would be little or no such overland flow, were usurped by the reality of witnesses observing and documenting the fact of such flow. Thus, there is no need to engage in an extended discussion of Dr. Straw's touting the Manning equation, nor to point out that he never actually assigned numbers to that equation and run it. This omission may be understandable as EPA witness Havens then actually did apply numbers. Using conservative figures for the exercise, the Manning equation showed there would be a positive flow for the Site.

⁵¹As previously discussed, EPA asserts that, when remanded, the case was beyond the point of argument over the location or quantity of wetlands, as the Respondents own experts had already

that the wetlands at the Site are performing significant functions.⁵² As applied here, it asserts that the capacity of wetlands for flood storage and flood water control itself constitutes a significant nexus and that it was established that the Site's wetlands are storing water that would otherwise be released downstream.⁵³ EPA Reply at 27.

B. Respondents' Contentions

Respondents begin their analysis with a given, as it is true that there are no navigable-infact waters or tidal waters on the Site itself nor is the Site adjacent to any navigable waters. Although this is the case, it is Respondents' next contention, whether the property is "connected to any navigable waters by any continuous chain of wetlands or through a continuously flowing stream or river," that is a critical issue in this matter. Respondents incorrectly characterize EPA's jurisdictional assertion as a broad claim that "wetlands on the Property should themselves be considered "waters of the United States" subject to CWA jurisdiction."54 R's Initial Br. at 2 In contrast, Respondents assert that simply showing that "wetlands are capable of doing something or may even be established to be doing something does not mean the such wetlands are 'significant,' as that would mean that "every []wetland in the United States would [] be significant." Id. at 2. Respondents counter that the standard for wetlands included under the CWA is much narrower. Far from being significant wetlands at the Site, Respondents contend that the additional five days of trial "failed to differentiate unique wetlands functions in this case from non-wetlands functions or much less what these particular wetlands do that is critical to navigable waters [and accordingly that] EPA simply failed to carry its burden to prove that there was anything unique or significant about any wetlands on the Property." Id.

amply established those facts themselves. EPA Reply at 23-24, citations to the record omitted. Beyond the de facto admissions by the Respondents on these matters, EPA's own detailed analysis by Stokley and Martin, which included ground-truthing, provided more than enough information to separately establish the drainages and to delineate the Site's wetlands. As noted earlier, the Court agrees.

⁵²Some of Respondents' arguments intended to show that the Site's functions are insubstantial do not deserve much discussion. For example, the argument that the Site has not been reserved for conservation purposes by the local authorities is not probative of the jurisdictional issue at all.

⁵³Indeed, EPA argues that the Respondents admit this function occurs as they referenced evidence presented by EPA that the Site has hummocky areas which hold water. The best the Respondents can offer in this regard is to claim that uplands can also retain flood water.

⁵⁴The previous discussion of EPA's arguments refutes the Respondents' characterization.

Respondents maintain that under what they describe as the Rapanos Plurality Test,55 the wetlands at the Site are exempt from the CWA. They note that the Amended Complaint asserts that the wetlands at the Site are "adjacent to an unnamed tributary to Drum Point Creek"56 and claims that both those wetlands and the unnamed tributary are waters of the United States. In contrast, Respondents contend that this unnamed tributary does not qualify as a water of the United States because "it is a 'channel through which water flows intermittently." In their view, that is insufficient because the plurality opinion requires "relatively permanent, standing or continuously flowing bodies of water" generally recognized as "streams[,] . . . oceans, rivers [and] lakes" that are connected to traditional navigable waters [and consequently such] [e]phemeral and intermittent connections do not suffice." Id. at 3. The plurality, Respondents assert, requires that "relatively continuous flow is a necessary condition for qualification" as a water of the United States and that EPA did not meet its burden on that because "intermittency of the unnamed tributary to Drum Point Creek was undisputed, and there was no evidence introduced that established continuous flow of water. 57 Id. at 4, quoting from Scalia-led view, representing the opinion of four Justices at 126 S.Ct. 2208, 2223 n.7. As Respondents view it, EPA's position effectively disregards the unnamed tributary's intermittency, while "the plurality" requires that it have continuous flow. 58 The Court notes that, apart from the chronic expansion

⁵⁵As explained *infra*, Respondents make the serious mistake of melding the view of the four Justices with the plurality opinion itself by *repeatedly* ascribing the view of those four as if it were identical to the actual expression of the plurality. *It is not*.

⁵⁶Respondents accede to this description but only for ease of reference. Otherwise, they would simply call it "the drainage [] at the northern boundary of the Property." Respondent's Br. at 3.

So Respondents also take issue with EPA's assertion that *Rapanos* does not strike or overturn the Corps' regulations defining waters of the United States. They claim that the "plurality" took issue with the Corps' regulations, stating that its "expansive interpretation of 'waters of the United State' is [] not 'based on a permissible construction of the statute.'" Respondent's Reply at 4, citing *Rapanos* at 126 S. Ct. at 2225. Referring to remarks by the dissent in *Rapanos* and by other courts dealing with CWA issues subsequent to that decision, Respondents contend that it is clear that the Corps' regulations "go too far" and that the *Rapanos* decision does "alter the regulations." In addition to the Respondents' chronic mischaracterization of the views of four Justices as "the plurality" view, Respondents do not identify specific regulations which have been altered, as a consequence of *Rapanos*, either for this litigation or even generally. *Id*.

⁵⁸For the reasons set forth by this Court in its *Smith Farm* decision, Respondents' use of language employed by the four justices whom Justice Kennedy joined for *extremely limited purposes*, represents a gross mischaracterization of the *Rapanos* decision. For example, Respondents' counsel assert that the "*plurality's holding* that intermittent waters do not qualify is also made clear in its *remand charge*." The terms of the remand say nothing of the sort, as Respondents' Counsel blurs the words expressed by four Justices by ascribing them to Justice Kennedy as well. Nothing could be further from the truth. While Respondents' counsel cite extensively from the

from the true extent of the plurality, even the Respondents' effort to highlight the views of the four justices, as led by Justice Scalia, mischaracterizes their view. This occurs through Respondents' practice of selectively employing bold lettering to highlight the appearance of words such as "continuously" or "permanent." In contrast, the Scalia-led four conceded that they do not "necessarily exclude" waters that may dry up in extraordinary circumstances such as during a drought, nor "seasonal rivers" which may have no flow during dry months. Rather, the distinction drawn by those four Justices was between a "wash" and a "seasonal river."

Addressing EPA's claim that the same unnamed tributary flows seasonally, Respondents argue that is "wrong both legally and factually." *Id.* Respondents maintain that EPA stretched the Scalia led foursome's comment about the distinction between "a wash and a seasonal river" into the erroneous notion that a stream that flows for three months is within the CWA. Although, according to the Respondents, three months of flow is not sufficient for CWA jurisdiction, they assert that the evidence does not even establish that much flow. Instead, they believe that all EPA presented on this issue was "spotty observations... on certain days in certain years" and that such a showing is inadequate to demonstrate "flow that was continuous during any period or time." *Id.* at 5, (emphasis in brief). Accordingly, Respondents contend that, even if it were accepted that three months of flow was sufficient, EPA would need to "chronicle[]" the presence of continuous flow for that time but it did not do so. Respondents' Reply at 10. With evidence this thin, Respondents contend that the Court would be required to extrapolate that the flow was continuous for a season, and that such an extrapolation would be impermissible because it would be unsupported by testimony or other evidence.

Instead, they contend that the record only establishes "scattered observations" of flow, and flows "near the Site," but that these do not add up to showing "that flow was present continuously for a season." Rather than establishing this critical showing, Respondent argues that EPA spent most of its argument showing "connections" from the wetlands on the property to the unnamed tributary to Drum Point Creek. *Id.* at 10. In this regard, Respondents maintain that the eastern and the western "connections" are off the Site and EPA only *assumed* that there are linked wetland connections. Apart from whether it is proper to consider off-Site wetlands as linked to wetlands on the Site, even if they are considered, Respondent contends all that wetlands adjacent to wetlands amounts to is a "continuous 'wetlands complex," which does not inform about "objective and quantifiable measurements of flow." *Id.* at 11

views of the four justices, which views Justice Kennedy clearly did not join, the views of those four carry no more weight in terms of guidance from the Supreme Court, than the views expressed by the four dissenters. Again, the fundamental point, which seems to be chronically misunderstood by Respondents' counsel, is that the "plurality" agreed only that the matter should be sent back for additional findings. Everything else asserted by Justice Scalia and the three justices who joined his views, adds up to the views of four, not five, justices, except for the limited and narrow basis upon which Justice Kennedy joined those four.

Beyond that alleged fatal shortcoming with EPA's case, Respondents also claim that the wetlands at the Site lack the required "continuous surface water connection' with water bodies such that the wetland and covered water are 'indistinguishable,' [whereas here] [i]t is not difficult to determine where the 'water' ends and the 'wetland' begins on this Property [as there is no] continuous surface connection [between the wetlands and] bodies that are 'waters of the United States' in their own right . . ." Id. at 5-6. Rather, Respondents contend that the unnamed tributary does not abut wetlands. To the contrary, Respondents assert that it is isolated from that unnamed tributary by non-hydric soils or drained soils. They assert that this was the situation prior to the Respondents' work at the Site and that before any work was done the wetlands "were isolated and separated from the tributary by a band of non-hydric soil." Thus the Respondents dismiss the idea that the "drainage fingers," identified by witnesses at the hearing, reach streams but rather contend that they end "in areas of non-hydric soil." Id. at 6.

With regard to the "T-ditch" which, it will be remembered, was constructed before the Tulloch ditching, Respondents contend that ditch is on an "uplands side of the wetlands border." They point to the testimony of their witnesses, Parker and Pierce, to support their view that there were no hydric soils within this T-ditch area, which they described as "the non-hydric band area." *Id.* at 7. Essentially, it is the Respondents' contention that the water within the wetlands is stuck there, unable to escape via surface flow because of "slight elevation differences." Respondents maintain that any surface flow would be precluded because the water would go "into the soil along [the] dry edge created by the drainage effect of the T-ditch." On this basis, Respondents' witnesses contended that it was unimaginable that surface water could flow off the Site. *Id.*

Respondents also assert that, even applying Justice Kennedy's "significant nexus" test, the wetlands at the Site still fail to qualify for CWA jurisdiction.⁶¹ Respondents believe that

⁵⁹Respondents describe the fingers as "the southern ends of the catchments [] to the unnamed tributary." *Id.* at 6.

⁶⁰Respondents state that Judge Charneski and the EAB "specifically" found that the T ditch was constructed in "wooded uplands." That is the case as to the T ditch, but this action was brought against the Respondents because of their activities concerning the Tulloch ditching, not for the T ditch.

⁶¹As with the Respondent's argument in the companion *Smith Farms* case, Respondents here assert that the Supreme Court's decision in *Marks* instructs that the view expressed by the four Justices, led by Justice Scalia, should be followed. For the reasons expressed by this Court in *Smith Farms*, Respondents seriously misapply *Marks* here. The key to *Marks* is to apply the judgment of the plurality. When one does that in *Rapanos*, one realizes that the judgment that Justice Kennedy joined was a single sentence. The balance of what the Respondents call the "plurality" is nothing more than the views of four justices, not five, and is entitled to no more weight than the corresponding views of the four justices which disagreed the Scalia-led

Justice Kennedy rejected the idea that "any water feature with an [ordinary high water mark] is a 'tributary' supporting CWA jurisdiction. Yet, they believe that the decision by the prior administrative law judge in this case, Judge Charneski, did just that. In contrast, Respondents maintain that it is not sufficient to have wetlands which are merely in the vicinity of water bodies that eventually connect to navigable waters. Similarly, on the issue of a wetland's function, merely showing that particular wetlands perform a function does not amount to establishing that the function is a significant, and Respondents contend that showing a significant function is an essential element. 'Accordingly, showing that a wetland has any function or merely some function does not establish that it has a significant function or significant nexus. In contrast to this required showing, Respondents contend that EPA established, at most, only a very insubstantial nexus. ⁶²

From the Respondents' perspective, to establish the presence of a "significant nexus," one must "determine the location and quantity of any wetlands at the Property and their precise relationship to navigable waters." *Id.* at 9. Respondents contend that EPA failed to make such a showing, as it only took a few samples at the 117 acre site, and relied upon National Wetlands Inventory (NWI) mapping and EPA witness Stokley's analysis of that mapping. Such reliance was deficient, they assert, because NWI mapping is not accurate on a small scale "as it both undermaps and overmaps wetlands." Further, Stokley conceded errors in his analysis of the maps and aerial photographs and he admitted that he had overdesignated the amount of wetlands actually present, and that his depiction of the property bounds was not the same as the actual bounds. In addition, EPA assumed, but did not establish, that water from the wetlands actually leaves the property, as it failed to measure "the volume of water emanating from the wetlands [nor for that matter] the volume of water leaving the Property [from wetland and upland sources]." *Id.* at 10. The Court has already addressed these contentions and they do not warrant further discussion.

Respondent asserts that to show a "significant nexus," that is, to show that "the wetlands bear a significant relationship to navigable waters," one must first determine "the extent and location of wetlands and any connectivity" and then assess the functions of such wetlands. *Id.* Speaking to the wetlands' functions, ⁶³ Respondents contend that EPA failed to show that these

expression of the CWA's jurisdiction.

⁶²However, Respondents do concede that "the Property [is] eventually hydrologically connected to navigable waters" Respondents' Initial Br. at 9, n.11.

⁶³It is noted that on the subject of functions, the Respondents raise several points that are irrelevant. These include their contention that the functioning of wetlands, as compared to uplands at the Site, are the same; that the locality, Chesapeake, did not value the land highly enough to conclude that it should be preserved, as it approved the land for development; and that the federal government has determined that the development of other land "immediately contiguous" to the Great Dismal Swamp "would have no significant impact on natural

wetlands "provide habitat important to navigable waters." *Id.* at 11. While Respondents do not claim an absence of wildlife at the Site, they note there was no evidence that the activities in issue harmed them, nor was there evidence that the wildlife or "their habitats affect navigable water." *Id.* at 12. Rather, EPA's evidence as to habitats was slim and speculative, and the Respondents note that the same animals could be found on non-wetlands.

Addressing the issue of the wetlands ability to provide flood storage, Respondents assert that EPA showed no difference between the performance of the subject wetlands and the functions that the uplands would provide. Thus Respondents contend that the non-wetlands provide the same water-storing benefits. ERespondents also assert that EPA failed to show that the wetlands at the Site provided denitrification which would be significant to navigable waters. In this regard, Respondents note that rain is the only source of nitrates at the Site and, as such, this nitrate deposit would be the same whether the rain was falling on wetlands or nonwetlands. Further, as the soil at the Site has a significant sand component, less denitrification would occur. Given these factors, Respondents conclude that the Site's contribution regarding detnitrification is minimal or non-significant. Another potential factor, whether the wetlands contribute carbon to navigable waters, is answered in a similar fashion by the Respondents, as they contend that the wetlands here do not make any significant carbon contribution to navigable waters. They contend that any carbon primary production at the Site would be indistinguishable when comparing such contribution between wetlands and nonwetlands.

In an attempt to turn the Respondents' conduct of depositing wood chips onto the Site's wetlands from a violation to a virtue, Respondents view the wood chips as a source of carbon. Applying this perspective, Respondents assert that the wood chips would be a net gain for the environment based on the fact that the wood chips would be a source of carbon, increasing the amount of carbon in the soil, and also that the deposition of the wood chips would add to surface roughness and thus slow any overland flow of water, and last, that any decomposition of the chips would not adversely affect water quality because the amount would be "vanishingly small." In support of this novel view, Respondents point to the testimony of their water quality expert, Dr. Cahoon, and his view that water leaving the Site was pure, with low turbidity and of excellent quality.

resources." Being completely irrelevant, the Court rejects the idea that these matters have any bearing on the jurisdiction question and, accordingly they are rejected. Similarly, Respondents' contention that nearby uplands could provide the same flood storage ability is immaterial to determining CWA jurisdiction.

⁶⁴Respondents do not agree with EPA's contention that the ditching would result in water moving through the ditches at a higher rate of speed, producing downstream erosion. Respondent contended that only rainfall falling directly in the ditches would impact the water volume and speed. Thus, Respondents assert that EPA's claim about the negative effects of the ditching is speculative.

So too, Respondents view EPA's evidence under Justice Kennedy's test⁶⁵ as wanting. It contends that EPA's case is built on generalities about the good things wetlands can provide, but that its evidence falls short in terms of the needed specifics. Instead, it interprets EPA's position as simply asserting that each and every wetland is significant and that no wetland would be outside of the CWA's jurisdiction. Instead, Respondents submit that EPA had a duty to place this wetland in a comparative context, so that the Court could "measure or weigh the significance of these particular wetlands in comparison to any other wetland." Id. at 12. Further, relying upon EPA's arguments in its initial brief, Respondent contends that EPA has conceded that there is no habitat function in this instance between the Site and navigable waters. In terms of the other benefits that may be derived from wetlands, Respondents likewise contend that the evidence is wanting. They maintain that none of the record evidence establishes flood storage function for this Site. In fact, Respondents state that, as there was no evidence of downstream erosion, the ditching that was performed could not have adversely affected the existing flood storage capacity. In the same fashion, they assert that the claims about denitrification were general pronouncements about that process, not an analysis of such a process at the Site. Accordingly, Respondents conclude that the Site's wetlands were not significant in any respect and consequently are not jurisdictional wetlands under the CWA.

In sum, Respondents contend that under either the Justice Kennedy approach or that of the four Justices led by Justice Scalia, there is no CWA jurisdiction because "EPA failed to establish that the wetlands on this Property bear any significant relationship with navigable water." Further, from an evidentiary basis, they claim that EPA failed to establish jurisdiction, as it "took no water samples [] measured neither sediment, turbidity, nutrient levels nor pollutant levels, [] performed no wildlife evaluations, [nor any] systematic assessments to quantify the value of the wetlands." In the absence of such evidence, reliance on "non-quantifiable generalizations and speculation" is insufficient to establish jurisdiction. *Id.* at 17.

⁶⁵ Respondents also do not agree that "only pre-disturbance conditions" should be considered when determining jurisdiction. Rather, Respondents contend that Justice Kennedy's view includes considering "the impact fill could have on the functioning of a wetland as related to navigable waters." *Id.* citing *Rapanos* at 2251. Thus, it is Respondents' contention that the state of the Property *after* the alleged activities is relevant for the reason that "it indicates the lack of impact." Here, Respondents contend that if the activities were "conducted with no ill effects" it would "truly be unjust" to uphold jurisdiction. *Id.* Under this view of CWA jurisdiction, it is the Respondent's apparent position that if the activity produced no "ill effects" then the CWA should not apply. The Court rejects this contention completely as it would turn the CWA on its head.

VI. The Supreme Court's Decision in Rapanos v. United States Army Corps of Engineers, 547 U.S. 715 (2006), 126 S. Ct. 2208. 66

A. Overview.

As framed by Justices Scalia, the Chief Justice, Justice Thomas and Justice Alito, Rapanos presented the question of whether wetlands, which lie near ditches or man-made drains that eventually empty into traditional navigable waters, constitute "waters of the United States" within the meaning of the Clean Water Act. That question is not answered however, because while the four named Justices announced the judgment of the Court, the opinion was issued by those four justices without Justice Kennedy's concurrence and with four other Justices, Justice Stevens, Justice Breyer, Justice Souter, and Justice Ginsburg dissenting. Thus, a decision was issued only because Justice Kennedy joined Justices Scalia, the Chief Justice, Justice Thomas and Justice Alito on the limited agreement that the case should be remanded.

The key point is that, with no group able to muster the agreement of five Justices, the necessary number to have a precedential opinion, *Rapanos* leaves the scope of the CWA in a state of uncertainty. The text of the judgment which Justice Kennedy joined was extremely brief, as it was limited to vacating "the judgments of the Sixth Circuit in both No. 04-1034 [Rapanos] and No. 04-1384, and remand[ing] both cases for further proceedings."

As the remand "for further proceedings" contained no specific mandate to the lower court, there is a real question of what one can say authoritatively about the *Rapanos* decision. One could reasonably conclude that, beyond the five justices' terse agreement to remand the matter, the decision reveals no majority view at all, and is expressive only of four justices who have a more restrictive view of the reach of the Clean Water Act, four who have a more expansive view, and one justice who has another perspective about the Act's scope which does not fit comfortably within either of the other two groups.

⁶⁶With some critical editing improvements, designed to clarify and highlight the very important distinction between the extremely narrow expression constituting the *actual* plurality with the markedly distinct views expressed by *only four* of the Justices who were a part of the plurality, this portion of the Initial Decision Upon Remand is taken from the Court's earlier decision in the matter of *Smith Farm Enterprises*, 2008 WL 713741, CWA 03-2001-0022, March 7, 2008, a companion Clean Water Act case arising out of similar circumstances and geographically near to Lewis Farm. The Court's analysis of the *Rapanos* in its *Smith Farms* decision is equally applicable to this case.

⁶⁷The second docket number applies to the other case affected by the Court's judgment, Carabell et al v. United States Army Corps of Engineers et al., 391 F.3d 704 (6th Cir. Mich., 2004)

B. The Perspective of Four Justices within the Plurality in Rapanos

This Court's discussion will first examine the views expressed by four Justices, as authored by Justice Scalia. It does not take one long to get a sense of where the Scalia-four are coming from on the issue of the scope of the Clean Water Act as, by the second paragraph of their opinion, they have described the Corps of Engineers as "an enlightened despot," and from there they proceed first to discuss not the law at issue, but the significant costs incurred in obtaining permits to deposit fill in waters of the United States.

When the four Justices turn to the legal issue, the CWA's use of the phrase "the waters of the United States," they note that in United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985), ("Riverside Bayview"), the Supreme Court upheld the Corps of Engineers interpretation of that phrase to "include wetlands that 'actually abut[ted] on' traditional navigable waters." Thus, the Scalia-four express that Riverside Bayview only spoke to "wetlands abuting navigable-in-fact waters." The four Justices note that in the Court's subsequent decision in Solid Waste Agency v. United States Army Corps of Eng'rs, 531 U.S. 159 (2001)("SWANCC"), that decision referred back to Riverside Bayview, and in their view it "was the significant nexus between the wetlands and 'navigable waters' that informed [its] reading of the CWA" in that case, with the conclusion that the Corp's jurisdiction did not extend to ponds that are not adjacent to open water, and consequently that nonnavigable, isolated, intrastate waters were not included within waters of the United States.

It is important to take note that the four accept that the terms 'navigable waters' and 'waters of the United States' are not limited to waters that are navigable in fact or susceptible of being rendered so. They note that the CWA uses the phrase 'navigable waters' as a defined term but that the Act's own definition does not support the idea that it literally means "navigable-in-fact." Instead, the definition simply offers that 'navigable waters' means 'the waters of the United States.' The Scalia-four offer additional support to their conclusion that navigable waters are not limited to waters that are navigable in fact with their acknowledgment that Section 1344(g)(1) of the CWA includes, in referring to navigable waters, waters other than those actually used to transport commerce as well as those that are susceptible to being improved so that they could transport commerce. Significantly, this provision, cited by the four, refers to such a broader meaning of 'navigable waters,' and expressly includes wetlands that are adjacent to this acknowledged broader meaning for such waters. Given the Act's defintion and the cited statutory provision, the Scalia-four also note that even Riverside Bayview and SWANCC, dismiss the idea that the term "navigable waters" is to be taken literally. That the Scalia-four concede

⁶⁸Because the description is cumbersome to repeat, as a shorthand expression and for the purpose of emphasizing that the views of the four Justices, as authored by Justice Scalia, do not in fact represent the plurality view, this Court will respectfully refer to the views of those four Justices as the "Scalia-four" or simply the "four." Distinct from the views of the four Justices, are the views of Justice Kennedy and the four dissenting Justices (the dissent or the "dissenters").

this is significant, as they also acknowledge that the CWA's purpose "is 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Notwithstanding these concessions, the Scalia-four maintain that 'navigable' is "not devoid of significance," but they defer deciding "the precise extent" of the term for another day, and turn instead to a discussion of what the term "waters" means under the Act. As their starting point, the four state that it can't be "the expansive meaning that the Corps would give it." In this regard, they first note that navigable waters is not defined as "water of the United States, but rather that the definite article "the" is employed so that the phrase used is "the waters of the United States." With that observation and by resorting to the dictionary, the Scalia-four state that "the waters "refers to waters as "found in streams and bodies forming geographical features such as oceans, rivers, [and] lakes,' or 'the flowing or moving masses, as of waves or floods, making up such streams or bodies." From that aforementioned article (i.e. "the") and the dictionary, the four state that "the waters of the United States' include only relatively permanent, standing or flowing bodies of water." Applying their definition of "the waters United States," the Scalia-four's definition includes a range of terms that are encompassed within waters, a gamut that starts with "streams" and ends with rivers, lakes and, ultimately, the oceans. 69

As the Scalia-four place emphasis on the dictionary for support, it is noted that "streams," being among waters accepted by them, is itself defined as a rather minor class of waters, to include "[a] flow of water in a channel or bed, as a brook, rivulet or small river." American Heritage Dictionary 1776 (3d ed. 1992). Thus, one sees that, much like the interconnected water ecosystem that Congress was intent upon restoring, a chain of connected words also flows in the dictionary itself from the term "stream," to include a "brook" and a "rivulet." A "brook," for example, refers one to "creek," which is defined as "[a] small stream, often a shallow or intermittent tributary to a river." *Id.* at 243, 439. Similarly, a "rivulet" is defined as "[a] small brook or stream; a streamlet," and "streamlet," to continue this chain, refers to "a small stream." *Id.* at 1777 (emphasis added). Accordingly, by the Scalia-four's adoption

⁶⁹The Scalia-four also include "bodies of water' 'forming geographical features,'" within its definition.

The four do not accurately describe the dictionary definition of a stream because they add, through connotation, a "continuous flow" requirement which does not appear in the definition. While the four state that the "principal definition . . . includes reference to such permanent, geographically fixed bodies of water," the definition they cite does not include that, providing only that a stream is "[a] current or course of water or other fluid, flowing on the earth, as a river, brook, etc." The "continuous flow" element only appears, as the four acknowledge, with "[t]he other definitions of 'stream,' and even there the dictionary definition cited by the four speaks in terms of "a steady flow" and "[a]nything issuing or moving with continued succession of parts." 126 S.Ct. at 2221 n. 6. (emphasis added). Thus, even the other definitions emphasize that a stream is like a chain stretching from one point to another point but that is a distinct concept from continual flow.

of "streams" as within "the waters" of the United States, small, shallow, even intermittent waters are included and while streams are often a tributary to a river, the definition does not state that is always the case.

Apart from the inclusive nature of the term "stream," as set forth in the dictionary, the Scalia-four then narrow that broad dictionary definition by attaching its own limitation that "the waters of the United States' include only relatively permanent, standing or flowing bodies of water . . . [which] connote continuously present, fixed bodies of water, as opposed to ordinarily dry channels through which water occasionally or intermittently flows." Thus, the four, in conflict with the dictionary, assert that "streams' connote[] continuously present, fixed bodies of water, as opposed to ordinarily dry channels through which water occasionally or intermittently flows." Employing its connotation, the four maintain that the dictionary suggests or implies that "streams' connotes a continuous flow of water in a permanent channel . . . " While this would suggest a significant restriction as to the scope of "the waters of the United States," the illustrative comparison the Scalia-four employ is not particularly restrictive as they suggest that the proper comparison of the extremes would be between a "continuous flow of water in a permanent channel" on one hand and "transitory puddles or ephemeral [i.e. something which lasts for "a remarkably brief time] flows of water," on the other. Few would maintain that puddles or flows which only last for a remarkably brief time, are within the Clean Water Act. Even so, as Justice Kennedy suggests, the choices offered by the Scalia-four are an inadequate depiction of the spectrum of circumstances that can arise. The four seem to recognize this too, since they add, in a footnote, that by using the descriptor "relatively permanent," they do not "necessarily exclude streams, rivers or lakes that might dry up in extraordinary circumstances, such as drought . . . [nor do they] necessarily exclude seasonal rivers." In sum, the Scalia-four maintain that "channels containing merely intermittent" or ephemeral flow" are not within the phrase "the waters of the United States," a conclusion they find buttressed by resorting to the "traditional" application of the phrase "navigable waters."73

The Scalia-four postpone to another day articulating "exactly when the drying-up of a stream bed is continuous and frequent enough to disqualify [it as a water of the United States]." For now, the four assert that "streams whose flow is '[c]oming and going at intervals . . . [b]roken, fitful' . . . or 'existing only, or no longer than a day; diurnal . . . short lived . . . are not."

⁷²EPA notes that in *United States. v. Moses*, 2007 U.S. App. LEXIS 18483 at *12 - *17 (9th Cir. Aug. 3, 2007), the Ninth Circuit, upon considering *Rapanos*, concluded that decision did not alter the conclusion that "seasonally intermittent stream which ultimately empties into a river that is a water of the United States" is itself a water of the United States, concluding that "the Supreme Court unanimously agreed that intermittent [seasonal] streams can be waters of the United States." EPA Br. at 32, citing *Moses* at *17.

⁷³This is a surprising source of support for the Scalia-four to rely upon, given that earlier in its opinion it acknowledged that the traditional definition does not apply as used in the CWA. Yet, the four Justices do that, stating that the phrase "navigable waters" must carry "some of its

The four then turn to the issue of "whether a wetland may be considered 'adjacent to' remote 'waters of the United States' because of a mere hydrologic connection to them." For them, Riverside Bayview informs only that the Corps could reasonably conclude that a wetland adjoining waters of the United States is part of those waters. The Scalia-four state that this deference, articulated in Riverside Bayview, was attributable to the "inherent ambiguity in drawing the boundaries . . . at which water ends and land begins," and represents a conclusion which was reached because of the "significant nexus between the wetlands and 'navigable waters." The four then assert that this means "only those wetlands with a continuous surface connection to bodies that are 'waters of the United States' in their own right . . . are 'adjacent to' such waters and covered by the [CWA]." This coverage only applies in instances where it is difficult to determine where the 'water' ends and the 'wetland' begins. Thus, as applied to the circumstances in Rapanos (and the companion case, Carabell), the four would require a wetland that has a continuous surface connection with an adjacent qualifying channel. To be a qualifying channel, it must contain a relatively permanent body of water and the channel itself must be connected to traditional interstate navigable waters. Hence, a "mere hydrologic connection" between a wetland and a remote water of the United States is insufficient. Rather, for those four Justices, a continuous surface connection between the wetland and a qualifying channel is required for CWA coverage of a given wetland.74 Accordingly, the Scalia-four assert that it is a wetland's physical connection to covered waters that must be present for CWA coverage, and that the Act does not concern itself with the ecological relationship between a water and a wetland. (126 S.Ct. 2229.)

C. The Perspective of Justice Kennedy

Before examining the particulars of Justice Kennedy's views of the jurisdictional reach of the Clean Water Act, from a broader perspective, it should be noted that in contrast to the Scalia-four's word-driven analysis of jurisdiction, his analysis is fundamentally guided by Congress' expressed purpose under the Act of restoring the water quality of the Nation's waters,

original substance." (emphasis in original). In Rapanos the Scalia-four identify only some of that original substance, informing that "at bare minimum [it means] the ordinary presence of water." The four also identify "open waters," a term used in Riverside Bayview and SWANCC as another descriptor of "navigable waters," advising that "typically dry channels" are not "open waters." Similarly, the four express that "channels that sometimes host ephemeral flows of water" are not "waters of the United States."

⁷⁴The Scalia-four express that, without such a continuous surface connection between the water and the wetland, it is not difficult to determine where water ends and a wetland begins. In those situations the four maintain that such wetlands are outside the CWA. They believe that ecological concerns only come into play under the CWA where there are boundary-drawing problems, but if there is no continuous surface link between the water and the wetland the boundary is clear, the two are separate, and the CWA does not apply. Accordingly, they would hold that no continuous surface link between the water and wetland spells no CWA coverage.

which quality in turn is connected to wetlands as they are a vital part of the aquatic ecosystem.

Citing the Court's decision in *SWANCC* and its holding that a "water or wetland must possess a 'significant nexus' to waters that are or were navigable in fact or that could reasonably be so made," Justice Kennedy describes the issue in *Rapanos* as "whether the term 'navigable waters' in the Clean Water Act extends to wetlands that do not contain and are not adjacent to waters that are navigable in fact." To resolve that question, Justice Kennedy agreed that a remand was appropriate in order for the lower court to apply the *SWANCC* "significant nexus" test, something that he believed neither the Scalia-four nor the dissent had applied.⁷⁵

At the outset, Justice Kennedy observes that statute itself provides that "[t]he 'objective' of the Clean Water Act [] is 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). Wetlands, he points out, are "defined as 'those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions [and they] generally include swamps, marshes, bogs, and similar areas.' "Id., citing 33 C.F.R. § 328.3. He also noted that the United States Army Corps of Engineers, ("Corps"), Wetlands Delineation Manual elaborates that wetlands require: (1) a prevalence of plant species typically adapted to saturated soil conditions, (2) hydric soil, and (3) wetland hydrology. Justice Kennedy also observed that the trial court in Rapanos found that each of the wetlands parcels in issue had a surface water connection which flowed to tributaries of a river and, ultimately, to navigable waters.

In his review of prior CWA decisions by the Court, Justice Kennedy states that in *Riverside Bayview* the Court deferred to the Corps' judgment where the relationship between open waters and adjacent wetlands was involved. Consequently, he agreed with the Scalia-four that the Corps' authority to make such judgments for wetlands that did not fit that description was not decided. Further, he characterizes *SWANCC*, as the Court's rejection of classifying isolated ponds as "navigable," a conclusion that placed them outside of the scope of "waters of the United States." Such isolated ponds, he stated, were not waters of the United States because they lacked a significant nexus between wetlands and navigable waters, the principle articulated in *Riverside Bayview*. Thus he expressed that a close connection between "a nonnavigable water or wetland and a navigable water" provides such a significant nexus and conversely, where there is "little or no connection," the significant nexus is absent.

⁷⁵Justice Kennedy stated that the lower court "did not consider all the factors necessary to determine whether the lands in question had . . . the requisite nexus."

⁷⁶Applying the Corps' three-part test, the District Court found that two other parcels were not shown to be wetlands, but those parcels were not in issue on appeal. Regarding the other case, *Carabell*, the District Court granted summary judgment for the Corps.

Justice Kennedy took note that the Scalia-four agreed that Congress intended by the CWA to regulate "at least some waters that are not navigable in the traditional sense." From that point of agreement however, Justice Kennedy departs from the Scalia-four's restrictive reading that "navigable waters" are limited "relatively permanent, standing or flowing bodies of water," a phrase which the four apply to rivers which flow continuously except during dry months but which does not encompass "intermittent or ephemeral streams." As to wetlands, Justice Kennedy also departed from the four's view that they are covered under the CWA "only if they bear a continuous surface connection to bodies that are waters of the United States in their own right." For both of the Scalia-four's interpretations of the statute, Justice Kennedy pointed out that such a construction makes little practical sense in the context of a remedial statute concerned with downstream water quality. With that observation in mind, Justice Kennedy asserted that nothing in the statute suggests that Congress intended to exclude irregularly flowing waterways and, like the Scalia-four's reliance upon the dictionary, his own consultation of that source led him to conclude that it is reasonable for the Corps to have determined that the CWA covers the paths of impermanent streams.

Regarding wetlands, Justice Kennedy also departed from the Scalia-four's view that "wetlands lacking a continuous surface connection to other jurisdictional waters" are not covered by the CWA. Riverside Bayview, he notes, upheld "the Corps' authority to regulate 'wetlands adjacent to other bodies of water over which the Corps has jurisdiction," as such wetlands "have significant effects on water quality and the aquatic ecosystem." Further, Justice Kennedy observed that although in some instances a clear boundary between a waters' edge and the beginning of land may be discernable, that does not necessarily mean that wetlands outside such a boundary are beyond the Corps' jurisdiction. The Justice's point is that the relationship between navigable waters and jurisdictional wetlands may be more complicated than merely finding a continuous surface connection. Because of this potential for more involved, less obvious, connections, Justice Kennedy posited that wetlands holding moisture disconnected from adjacent water-bodies may constitute jurisdictional waters and he took note that neither Riverside Bayview nor SWANCC suggest otherwise. Put differently, Justice Kennedy's point is that it should not be required that wetlands contain moisture which is continually connected to neighboring waterways. Further, because of the difficulty, in some situations, of determining the more complex associations between wetlands and waters, deference to the Corps is appropriate, at least where the Corps' determination has been made from a reasonably based finding that a particular wetland has significant effects on water quality and the aquatic ecosystem. He noted, for example, that wetlands may perform filtering and runoff control functions which are not measurable by simply examining whether there is a surface water connection between the wetland and waters in issue.

⁷⁷To appreciate that the limited basis of Justice Kennedy's concurrence with the judgment of the Scalia-four was only to remand for "further proceedings," one need look no further than his statement that their opinion represents an "unprecedented reading of the [Clean Water] Act."

Justice Kennedy's exceptions were not limited to the Scalia-four's perspective as he also took exception to what he considered to be the dissent's disregard of the principle that navigable waters must mean something under the CWA. Although it is now a given that "navigable waters" nonintuitively includes waters that are not navigable, Justice Kennedy could not abide by the dissent's willingness to place no limit on that term, by its inclusion of wetlands, regardless of how remote and insubstantial they are. From his perspective, that approach is problematic because it affords unbounded deference to the Corps' determinations. Given these competing concerns, for Justice Kennedy the dividing line is the presence of a significant nexus, a shorthand expression meant to include those wetlands which "may function as integral parts of the aquatic environment even when the moisture creating the wetlands does not find its source in the adjacent bodies of water."

Accordingly, attaching meaning to the term "navigable waters" is accomplished where there is a showing of a significant nexus and whether there is a significant nexus is evaluated with an eye toward the Act's goals and purposes. For wetlands, such a nexus exists where they function as "integral parts of the aquatic environment" and this may be demonstrated where they "perform critical functions related to the integrity of other waters . . . such as pollutant trapping, flood control, and runoff storage." Thus, when wetlands, either acting "alone or in combination with similarly situated lands in the region, ... significantly affect the chemical, physical, and biological integrity of other covered waters," they have the requisite nexus and fall within the meaning of "navigable" under the Act. In contrast, Justice Kennedy did not accept the dissent's position that all "non-isolated wetlands" are within the Act's jurisdiction, because such a view does not evaluate wetlands that are remote and insubstantial. Although a wetland's adjacency to navigable-in-fact waters is conclusive by itself to show an ecological connection, adjacency to tributaries which are not navigable-in-fact is a more involved determination which is not susceptible to a blanket pronouncement. Consequently, apart from wetlands that are adjacent to major tributaries, which may be indistinguishable for jurisdictional purposes from wetlands adjacent to navigable waters, for other tributaries the issue will be resolved on the basis of whether the wetland in issue plays "an important role in the integrity of an aquatic system comprising navigable waters as traditionally understood."78

In sum, Justice Kennedy's test for Clean Water Act jurisdiction is the same in all instances. However, the application of the test is streamlined where wetlands are adjacent to navigable-in-fact waters or adjacent to major tributaries, since in those instances the significant nexus, that is, the important role in the integrity of an aquatic system may be presumed to exist. For the remaining, non-presumptively jurisdictional situations, the functions related to the

⁷⁸Although Justice Kennedy expressed that the same evidence introduced in the trial below may show the required significant nexus with navigable-in-fact waters, the analysis applied by the court below was insufficient in that it only determined that the wetlands in issue had "surface water connections to tributaries of navigable-in-fact waters." This analysis in Justice Kennedy's estimation was too superficial as he apparently does not consider a mere hydrologic connection as a proxy for establishing the required nexus.

integrity of waters such as pollutant trapping, flood control, and runoff storage, must be determined on a case-by-case basis.

D. The Perspective of the Dissent

The four Justices who wrote in dissent, described the issue in *Rapanos* as "whether wetlands adjacent to tributaries of traditionally navigable waters are 'waters of the United States' subject to jurisdiction of the Army Corps" and the issue in *Carabell* as whether a man-made berm separating a wetland from an adjacent tributary affects the Corps' jurisdiction. Unlike Justice Kennedy and the Scalia-four, the dissent maintained that these issues were resolved long ago by Congress and the Court. Writing for the dissent, Justice Stevens expressed that the Corps' determination that wetlands which are adjacent to tributaries of traditionally navigable waters have a role in preserving the quality of our Nation's waters. Such a determination is a classic example of the Executive Branch's reasonable interpretation of a statute to which deference is owed.⁷⁹ The dissent noted that in *Riverside Bayview* the issue was described as whether the CWA "authorizes the Corps to require landowners to obtain permits from the Corps before discharging fill material into wetlands adjacent to navigable bodies of water *and their tributaries*." Dissent at *2255, quoting *Riverside Bayview*, 474 U.S. at 123. Thus, the dissent expressed that the only reservation expressed in *Riverside Bayview* was whether the Corps had jurisdiction over truly isolated waters.

Significantly, the dissent noted that Congress decided in 1977 not to limit the Corps' jurisdiction over wetlands. SWANCC, it points out, did not address wetlands but rather spoke to isolated waters, that is, waters "that are not part of a tributary system to interstate waters or to navigable waters of the United States, the degradation or destruction of which could affect interstate commerce." Dissent at 2256, emphasis in dissent. Rather than requiring a case-by-case wetland determination, the dissent asserted that the Corps' exercise of jurisdiction is reasonable upon the Corps' determination that wetlands adjacent to tributaries "generally will have a significant nexus to the watershed's water quality." Dissent at 2258.

⁷⁹Justice Breyer joined in the dissent and also wrote separately, stating that the Corps' authority under the CWA extends to the limits of Congress' power to regulate interstate commerce. While the Corps had not yet done so, it has the power through regulations to define "waters of the United States" and if it does so those regulations will require the Court's deference to the Corps' regulatory expression of the scope of the term.

⁸⁰Accordingly, not having to make a case-by-case determination, once the Corps makes a general determination that such wetlands serve to perform some of the traditional water quality functions CWA jurisdiction is established.

E. The Precepts from Rapanos 81

Based on the foregoing discussion and the uncertainty remaining in the wake of the divided Court in *Rapanos*, competing jurisdictional tests need to be applied when confronted with wetlands which lie near streams, ditches or man-made drains that eventually empty into traditional navigable waters.

1. Applying the perspective of Four Justices within the plurality, jurisdiction requires showing relatively permanent, standing or flowing bodies of water. Such relatively permanent waters include small, shallow and intermittent waters, as long as they are more than ordinarily dry channels through which water only occasionally or intermittently flows. A transitory puddle, which lasts for a remarkably brief time is an example of a water that is outside of the CWA's coverage.

For wetlands where it is difficult to determine where the water ends and the wetland begins, to be covered under the Act, the Scalia-four would require that there be a continuous surface connection between the wetland and a qualifying channel and ultimately to bodies that are 'waters of the United States' in their own right.

2. Applying Justice Kennedy's perspective, ⁸² intermittent, impermanent or ephemeral streams are within the Act. Where wetlands are the issue, they need not have a continuous surface connection to bodies that are waters of the United States in their own right but where such wetlands are not adjacent to waters that are navigable in fact, there must be a "significant nexus" present. In such instances, a close connection between the wetland and a navigable water

Respondent's view of *Rapanos* is that "CWA jurisdiction is limited to those 'relatively permanent, standing or continuously flowing bodies of water' generally recognized as 'streams|,] ... oceans, rivers [and] lakes' that are connected to traditional navigable waters [and accordingly that] [f]ederal jurisdiction over wetlands abutting these water bodies is permitted only when the water feature and the wetlands contain a continuous surface water connection such that the wetland and the covered water are 'indistinguishable,' [with the consequence that] [e]phemeral and intermittent connections do not suffice." R's Br. at 6. On this assumption, Respondent contends that no CWA jurisdiction was established as "[t]he Property is not adjacent to any navigable waters... [nor] connected to any navigable waters by any continuous chain of wetlands or through a continuously flowing stream or river... [nor can] ... [t]he drainages or ditches on the Property ... be considered 'waters of the United States'... [as] [t]hey are not relatively permanent, standing or continuously flowing bodies of water [which are] generally recognized as streams, oceans. rivers or lakes." R's Br. at 6 - 7. For the reasons set forth in this decision, the Court does not agree with Respondent's interpretation of *Rapunos* nor with its take on the facts.

⁸²The four dissenting Justices' view is not separately applied simply because there would have been no remand in this matter under their interpretation of the reach of the CWA.

provides such a nexus. Further, wetlands holding moisture disconnected from adjacent water-bodies may constitute jurisdictional waters, as where they perform filtering and runoff control functions or otherwise function as integral parts of the aquatic environment. Pollutant trapping, flood control, and runoff storage are examples of such functions related to the integrity of other waters. Deference to the Corps' assessment has its place too, where it makes a finding that a wetland has significant effects on water quality and the aquatic ecosystem.

Conclusion.

As did Judge Charneski, this Court finds that there is a forested wetland complex on the Lewis Farm Site and that this wetland complex physically abuts and is adjacent to what has been described as the western tributary to Drum Point Creek. So too, this Court finds that this waterbody, the western tributary to Drum Point Creek, was formed within this wetland complex and that it has been identified as a geographic feature for at least seventy years, and that it conveys flow at least part of every non-drought year to traditionally navigable tidal waters which are less than half a mile east of the Site. It is further found that this western tributary flows east from the Lewis Farm Site to Drum Point Creek and in turn to the Western Branch of the Elizabeth River, then to the James River and ultimately to the Chesapeake Bay. To make it clear, nothing in the remand testimony undercuts the starting point of the analysis, which is that wetlands are present at the Site. Respondents own witnesses from the first hearing acknowledged this and the purpose of digging the ditches, the activity that generated the filing of the Complaint, was to drain the Site's wetlands. The Respondents, while challenging some particulars of the exact extent of the Site's wetlands, admit to the presence of wetlands.

However, Respondents have challenged the connection between the Site's wetlands and the western tributary to Drum Point Creek, whether that tributary flows sufficiently in the course of a year to come within the Clean Water Act and, if the flow is sufficient, whether the wetland's contribution is so minimal, in the scheme of things, that it is outside the Act's coverage. To each of these issues, the Court finds that the connections between wetlands and stream exist, that the flow in the stream is sufficiently frequent and that the wetland's functions themselves are sufficiently significant to come within the Act. Thus, both the connectivity of the Site's wetlands to other waters and the Site's wetland functions satisfy the jurisdictional requirements of the Clean Water Act under any of the three distinct pronouncements of the scope of that Act as set forth in the opinions expressed in *Rapanos*.

Although the Respondents tried to establish that the Site's wetlands are ringed by nonhydric soil, and otherwise isolated from the western tributary to Drum Point Creek, this Court rejects that assertion, as did Judge Charneski in the initial hearing. One need not look far to make this conclusion, as Respondents' own wetlands expert, Mr. Wolfe, admitted that the Site's wetlands hug, that is are adjacent to, the western tributary to Drum Point Creek. Witness Lapp, EPA's team leader in this matter, also testified at the first hearing that his team followed a drainage ditch in a wetland area on Lewis Farm which led to the western tributary. The EAB, when first addressing the matter upon appeal, noted that the factual determination that discharges

occurred in wetlands that are connected to downstream traditionally navigable waters was not being contested. Instead the appeal was limited to whether, given those facts, the wetlands in issue were outside of the CWA. Thus, the Board observed that the Respondents did not challenge factually the connectedness of the Site's wetlands directly to the adjoining western tributary to Drum Point Creek nor did they challenge that there was a connection to downstream waterbodies that later transitioned into navigable in fact waters. Apart from the limited issues raised by the Respondents in their first appeal to the EAB, they really do not take issue with this, as they view the state of the law prior to *Rapanos* as requiring the less demanding requirement that one need only show that there is such a hydrological connection. Therefore, tacitly and otherwise they have conceded the hydrological connection.

Although the foregoing is sufficient in its own right, the credible testimony from the remand proceeding only served to affirm this conclusion. EPA witness Steve Martin, who has viewed the Site on numerous occasions, beginning in 1999 and through 2007, and whom the Court found to be a highly credible witness, walked the Site in 2002 from its wetlands, following the water connection from wetland to tributary to tidal waters. It was not seriously contested that this water connection from the site to the tributary becomes perennial in fact only some 500 feet from the Site. The presence of a box culvert near the Site independently supports the believability of Martin's testimony. Not surprisingly, the wetlands at the Site do not stop at its boundaries. Rather the Site's wetlands extend to the west and the adjacent Gateway Commerce Park, which together constitute the same, larger, wetlands system. It is at that Gateway Park location where Martin observed the upper headwaters, that is to say the origination point, of the western tributary to Drum Point Creek. As the earlier detailed discussion reveals, the idea presented by the Respondents that, somehow the Site's wetlands are ringed with nonhydric soils which make the Site isolated from connections to the western tributary is a fanciful assertion, which is unsupported by any credible testimony.

While the wetland to western tributary and subsequent connections have been well established, both at the initial hearing and in the remand proceeding, the Respondents contend that the western tributary doesn't flow frequently enough to meet its reading of Rapanos. The Court does not agree. As noted, in-person visits by credible witnesses to the Site, at various times, made over the course of many years, established the presence of flow in the western tributary in every quarter of the year. It is true, and EPA does not contend otherwise, that the western tributary does not flow continuously every day of the year. However, as discussed, the four Justices, led by Justice Scalia did not dictate such a requirement for CWA jurisdiction. Respondents argument that, at a minimum, EPA must be continuously present at a given site or otherwise document flow there every day for an entire quarter of a year in order to establish jurisdiction is rejected. In the first place, such a requirement would grind EPA's enforcement of CWA cases such as this to a halt because of the enormous tax on its financial and personnel resources that would be required. Second, it is unreasonable. As noted, the evidence of record, eyewitness testimony covering extended periods of time, which was well-documented with photographic and aerial mapping support, established that flow occurs in each quarter of the year. Having made this showing, it is most reasonably up to the land owner to rebut such

evidence by showing that flow is a rare event, and that what exists are ordinarily dry channels through which water occasionally or intermittently flows. Certainly the evidence in the record does not support a claim that the western tributary is a mere transitory puddle or that it produces flows for only a remarkably brief period of time.

Thus, this Court concludes that, even applying the perspective of the four Justices led by Justice Scalia, the record in this case amply supports their view that the Site in issue has the type of wetland-to-waters connection required for jurisdiction under the CWA. So too, the facts support Justice Kennedy's view of the requirements for jurisdiction. Justice Kennedy's analysis was guided by the overarching purpose behind the Act of restoring the water quality of the Nation's waters and it recognized the vital role wetlands play in the aquatic ecosystem. To be within the Act, a "significant nexus" must be established. With downstream water quality as an important guiding principle for jurisdictional determinations, Justice Kennedy rejected the idea that irregularly flowing waterways or impermanent streams are not covered by the Act. Although the evidence in this case establishes a surface connection between the wetlands and tributaries and ultimately to waters that are navigable in fact, in recognition that the water ecosystem must be viewed beyond a "connect-the-dots" analysis that literally requires a surface water connection from wetland to navigable waters, Justice Kennedy would not require such a continuous surface connection to navigable waters. He noted that wetlands can perform filtering and runoff control benefits and that these functions cannot be evaluated by assessing only any surface connections which may exist. Because the wetland/ecosystem analysis can be more complex in some cases, the Justice would defer to the Corps' expertise in those instances. Thus, while the evidence supports the more onerous test suggested by the Scalia-led four Justices, it also supports the significant nexus test of Justice Kennedy. Having met these tests, obviously the evidence supports the jurisdictional test of the four dissenting Justices.

In terms of the other major issue upon remand, the wetland's function analysis, the Court credits the testimony of Martin, Rhodes and Havens in reaching the conclusion that the preponderance of the credible evidence amply supports EPA's contention that the Site's wetlands do perform significant functions. As set forth earlier in this decision, these include flood storage function, water quality improvement, through denitrification and carbon sequestration, and habitat support. The Court rejects the Respondents' contention that a site which contributes only in a small way to these functions is outside of the CWA's coverage. As witness Rhodes noted in his apt analogy, a single wetland, viewed only as that entity, can be compared to a piling supporting a pier. Removal of one piling likely will not cause the pier to collapse, but at some point, after enough pilings have been removed, the integrity of the pier will be threatened. Viewed from that perspective, the Site in issue, a coastal plain hardwood flats, does contribute downstream to the receiving waterbodies, along with other such flats. It is collectively that their significant impact is felt, but each is significant in its own right, even though the individual contribution may be small. Thus, the Court agrees with EPA's statement that "[t]he wetlands on the Lewis Farm Site performed and continue to perform and deliver to downstream traditionally navigable waters by way of the western tributary to Drum Point Creek various flood control and water quality functions." EPA Br. at 1.

Accordingly, on the basis of the foregoing, the Court finds that, in terms of the Site's connection to other waters and in terms of its wetland functions, the preponderance of credible evidence supports EPA's contentions.

ORDER83

It is held that Amelia Venture Properties. LLC, and Vico Construction Corporation violated Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a), as alleged in Count I, by discharging fill material into "waters of the United States" without having obtained a permit from the U.S. Army Corps of Engineers, pursuant to Section 404 of the Act. 33 U.S.C. § 1344. It is further held that respondents violated Section 301(a) of the Clean Water Act, as alleged in Count II, by discharging pollutants associated with storm water without having obtained a National Pollutant Discharge Elimination permit pursuant to Section 402 of the Act. 33 U.S.C. § 1342.

For the Section 301(a) violation involving the Section 404 permit, Amelia Venture Properties, LLC, and Vico Construction Corporation are assessed a civil penalty of \$100,000. For the Section 301(a) violation involving the Section 402 permit, Amelia Venture Properties, LLC, and Vico Corporation are assessed a civil penalty of \$26,800. 33 U.S.C. § 1319(g). Respondents are to pay this combined \$126,800 penalty within 60 days of the date of this order. Unless an appeal is taken to the Environmental Appeals Board pursuant to 40 C.F.R. 22.30, this decision shall become a Final Order as provided in 40 C.F.R. 22.27(c):

William B. Moran

United States Administrative Law Judge

September 8, 2008 Washington, D.C.

⁸³The Order in this Decision Upon Remand adopts the language from the Order in Judge Charneski's Initial Decision.

In Remand Vico Construction Corporation & Amelia Venture Properties, LLC Docket No. CWA-03-2001-0021

CERTIFICATE OF SERVICE

I certify that the foregoing **Prehearing Order**, dated September 8, 2008, was sent this day in the following manner to the addressees listed below:

Original and one Copy by Pouch Mail to:

Lydia Guy Regional Hearing Clerk U.S. EPA / Region III 1650 Arch Street Philadelphia, PA 19103

Copy by Facsimile and Certified Mail to:

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Knolyn R. Jones

Legal•Staff Assistant

Dated: September 8, 2008