

NATIONAL WILDLIFE FEDERATION · THE IZAAK WALTON LEAGUE OF AMERICA ·  
THEODORE ROOSEVELT CONSERVATION PARTNERSHIP · TROUT UNLIMITED ·  
THE WILDLIFE SOCIETY

| July 31, 2011

Water Docket  
Environmental Protection Agency  
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Washington, DC 20460  
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Re: EPA–HQ–OW–2011- 0409: NWF et al Comments on Proposed Guidance Regarding  
Identification of Waters Protected by the Clean Water Act

To Whom It May Concern:

Please accept for the record these comments on the proposed Environmental Protection Agency (“EPA”) and the Army Corps of Engineers (“Corps”) Proposed Guidance Regarding Identification of Waters Protected by the Clean Water Act (“Proposed Guidance”). 76 Fed. Reg. 24479 (May 2, 2011). The agencies extended the deadline for submitting comments to July 31, 2011, and are accepting comments through Monday August 1, 2011.

The National Wildlife Federation (NWF), The Izaak Walton League of America, Theodore Roosevelt Conservation Partnership, Trout Unlimited, and Wildlife Management Institute represent over 4 million conservation-minded hunters, anglers, and outdoor enthusiasts nationwide. Conserving our Nation’s wetlands, streams, and rivers is at the core of each organization’s mission. Our organizations also have years of experience protecting these resources and dealing with the legal and other tools available to help us protect such resources. We have been active in advocating for Clean Water Act protections since the Act was passed in 1972. Through comments to agencies, participation in the legislative and rulemaking processes regarding the Act, litigation, and in other forums, we have gained valuable expertise in the Act and how it is used to protect our waters. Additionally, we have been actively involved in recent developments concerning the question of what are “waters of the United States,” such as commenting on the Advance Notice of Proposed Rulemaking in 2003, participation as *Amici Curiae* in the *Rapanos* Supreme Court case, and participation in numerous other legal cases concerning the issue of jurisdiction under the Clean Water Act.

For the reasons set forth below, our organizations strongly support the Proposed Guidance and urge the agencies to move swiftly to finalize this guidance, withdraw the legally and scientifically flawed 2008 Guidance, and propose a revised “waters of the United States” rule.

The Proposed Guidance offers valuable field staff instruction on how to identify the “waters of the United States” subject to the Clean Water Act in light of the Supreme Court’s decisions in

*Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (“*SWANCC*”),<sup>1</sup> and *Rapanos v. United States* and *Carabell v. United States* (consolidated as *Rapanos v. United States*, hereinafter referred to as *Rapanos*).<sup>2</sup>

In *SWANCC*, the Court decided certain ponds in northern Illinois were not covered under the Act when jurisdiction was based solely on their use by migratory birds.<sup>3</sup> The *SWANCC* decision was narrow. It simply precluded the Corps from asserting jurisdiction over certain ponds based solely on their use by migratory birds. It did not overturn any regulatory provision of the Corps.<sup>4</sup> Yet, the agencies’ 2003 *SWANCC* guidance interpreted the decision more broadly and has effectively led to the withdrawal of Clean Water Act protections for an estimated 20 million acres of wetlands.

*Rapanos* dealt with a relatively narrow question regarding whether wetlands that are adjacent to non-navigable tributaries of traditionally navigable waters are protected by the Clean Water Act (“CWA” or “Act”). Importantly, the Court issued five opinions, none of which garnered a majority. The cases were ultimately sent back to the lower courts for further review because a plurality of the Court (Justices Scalia, Alito, Thomas, and Chief Justice Roberts) and Justice Kennedy, concurring separately, agreed that the cases should be remanded. However, the plurality and Justice Kennedy’s concurrence conflicted on almost every major point. While the plurality and Justice Kennedy expressed skepticism regarding the legality of the breadth of the government’s regulatory definition of waters covered by the Act, the Court did not facially invalidate any of those regulations. In addition, a four-member dissent, authored by Justice Stevens, argued for broad protection of waters under the Act as prescribed by the current regulations.

On June 5, 2007, nearly a year after the *Rapanos* decision, the Corps and the EPA issued its 2007 *Rapanos* Guidance. The agencies amended this guidance in December 2008.

As explained herein and in our 2008 Guidance Comments, the 2008 Guidance is an improper and illegal interpretation of *Rapanos* that threatens the health of our Nation’s waters by failing to assure protection for important headwater areas and other waters. Primarily, it constitutes an impermissible overturning and displacement of the current regulatory structure. This is because it creates binding requirements upon field staff to make jurisdictional determinations that are in conflict with existing regulations, the Act, and case law, including the *Rapanos* decision. The 2008 Guidance also ignores critical aspects of Justice Kennedy’s significant nexus test, particularly the portion of his opinion concerning collective or aggregated impacts. Instead it imposes an arbitrary and unprotective standard under that test that is contrary to sound science. The 2008 Guidance additionally creates an unworkable, time-consuming, expensive process that unnecessarily burdens decision makers and applicants.

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<sup>1</sup> 531 U.S.159 (2001).

<sup>2</sup> 126 S. Ct. 2208 (2006).

<sup>3</sup> 531 U.S.159 (2001).

<sup>4</sup> The Migratory Bird Rule was contained in the 1986 preamble to the Corps’ regulations, and is not a rule. 51 Fed. Reg. 41206, 41217 (Nov. 13, 1986). It is also important to note that *SWANCC* did not state migratory bird use cannot be considered as a factor in deterring the Act’s jurisdiction over waters.

The stakes related to the *SWANCC* and *Rapanos* Guidance are enormous. The 2003 *SWANCC* Guidance and the 2008 *Rapanos* Guidance have placed millions of wetland acres and tens of thousands of stream miles at risk of pollution and destruction. Given the interrelationship between waters, the existing Guidance has put all of the Nation's waters at risk by retreating from the comprehensive protections needed to achieve the Act's goals. The resources most at risk of losing the Act's protections as a result of the existing guidance are intermittent and ephemeral streams, many wetlands adjacent to such streams and other tributaries, and so-called "isolated" or "physically non-proximate" waters. In a 2009 Inspector General Report, EPA Region 5's Watersheds and Wetlands Branch Chief reported that "a lot of EPA Region 5 surface waters that would be considered Aquatic Resources of National Importance by EPA (e.g., fens, bogs, dunes/swales) are seen as non-jurisdictional to the Army Corps of Engineers due to *Rapanos* and *SWANCC*."<sup>5</sup> Most recently, EPA acknowledged in its economic analysis of this draft guidance that "[s]ince *SWANCC*, no isolated waters have been declared jurisdictional by a federal agency."<sup>6</sup>

EPA has estimated that early two million miles of the nation's streams outside of Alaska are intermittent or ephemeral.<sup>7</sup> An estimated 53 to 59 percent of the streams in the country are either non-perennial or "start reaches," making them unlikely to be traditionally navigable; these streams have untold acres of wetlands adjacent to them.<sup>8</sup> In the arid west, as much as ninety-six percent of all stream miles in some states are intermittent or ephemeral.<sup>9</sup> These headwater, intermittent, and ephemeral waters feed the public drinking water supplies of an estimated 117 million Americans.<sup>10</sup> Moreover, twenty million acres of wetlands in the lower forty-eight states are considered "isolated."<sup>11</sup>

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<sup>5</sup> See Congressionally Requested Report on Comments Related to Effects of Jurisdictional Uncertainty on Clean Water Act Implementation, Report No. 09-N-0149 at 8 (2009) (hereinafter, 2009 EPA OIG Report), at 5, available at <http://www.epa.gov/oig/reports/2009/20090430-09-N-0149.pdf>.

<sup>6</sup> U.S. Environmental Protection Agency, *Potential Indirect Economic Impacts and Benefits Associated with Guidance Clarifying the Scope of the Clean Water Act Jurisdiction* (summary) at 3 (April 27, 2011) (2011 EPA Economic Analysis) available at [http://www.epa.gov/owow/wetlands/pdf/wous\\_cost\\_benefit\\_estimate\\_summary.pdf](http://www.epa.gov/owow/wetlands/pdf/wous_cost_benefit_estimate_summary.pdf).

<sup>7</sup> Letter from Benjamin H. Grumbles, EPA Assistant Administrator for Water, to Jeanne Christie, Executive Director, Association of State Wetland Managers, at 2 (Jan. 9, 2006) (mis-dated as Jan. 9, 2005).

<sup>8</sup> *Id.*

<sup>9</sup> See, e.g., Letter from Stephen A. Owens, Director, Arizona Department of Environmental to Benjamin H. Grumbles, Assistant Administrator, Office of Water, U.S. Environmental Protection Agency (December 5, 2007) at 2 (describing the quality and function of surface waters in Arizona) (submitted as comments on the Guidance).

<sup>10</sup> U.S. Env'tl. Protection Agency, Geographic Information Systems Analysis of Surface Drinking Water Provided By Intermittent, Ephemeral, and Headwater Streams in the U.S (State-by-State) and (County-by-County), [http://water.epa.gov/lawsregs/guidance/wetlands/surface\\_drinking\\_water\\_index.cfm](http://water.epa.gov/lawsregs/guidance/wetlands/surface_drinking_water_index.cfm) (last visited 7/19/11).

<sup>11</sup> See Pianin, Eric, *Administration Establishes New Wetlands Guidelines: 20 Million Acres Could Lose Protected Status, Groups Say*, WASHINGTON POST, pg. A5 (Jan. 11, 2003) (in discussing the 2003 agency guidance concerning *SWANCC* and so-called isolated wetlands, it states, "The new [guidance] would shift responsibility from the federal government to the states for protecting as much as 20 percent of the 100 million acres of wetlands in the Lower 48 states, according to official estimates."); see also, Transcript of Oral Argument, *Rapanos v. U.S. & Carabell v. U.S. Army Corps of Eng'rs*, Nos. 04-1034 & 04-1384, at 41-42 (U.S. Feb. 21, 2006) (argument by Solicitor General Clement) ("about 20 percent of the Nation's wetlands are isolated"); Letter from Benjamin H. Grumbles, Acting Assistant Administrator for Water, U.S. EPA, to Anu Mittal, Director, Natural Resources & Environment, General Accounting Office, at 2 (Feb. 4, 2004), reprinted in General Accounting Office, *Waters and Wetlands: Corps of Engineers Needs to Evaluate Its District Office Practices in Determining Jurisdiction*, appendix IV (Feb. 2004) ("The Continental United States has lost over half of its wetlands since European settlement, with approximately

On a practical level, the 2008 Guidance has resulted in delays, confusion and uncertainty for applicants seeking permits along with increased workloads for Corps and EPA officials.<sup>12</sup> The uncertainty regarding which waters are “waters of the United States” and what evidence is required to prove jurisdiction has compromised enforcement activities under the Act in the aftermath of the Supreme Court’s opinions. The staff of EPA’s Office of Enforcement and Compliance Assurance, Wetlands Enforcement Division summarized these effects in the 2009 Office of Inspector General Report:

Overall, CWA enforcement activities [for violations on the prohibition against oil spills and limits on other pollutants like industrial waste, sewage plant effluent and filling waters] have decreased since *Rapanos* ruling. An estimated 489 enforcement cases (Sections 311, 402, and 404 combined) have been affected such that formal enforcement was not pursued as a result of jurisdictional uncertainty, case priority was lowered because of jurisdictional uncertainty, or lack of jurisdiction was asserted as an affirmative defense to the enforcement action.<sup>13</sup>

EPA’s economic analysis on this guidance reports that, “[b]ecause of difficulties establishing where the CWA applies after the Supreme Court’s decisions in *SWANCC* in 2001 and *Rapanos* in 2006, EPA enforcement managers have indicated that enforcement efforts are shifting from protecting small streams high in the watershed and instead are moving down river. In short, EPA is focusing efforts on larger streams and rivers, where there is more certainty of establishing jurisdiction.”<sup>14</sup>

Oil spill enforcement and clean up has been particularly compromised. A 2008 EPA enforcement memorandum reported over 200 oil spill enforcement actions dropped or de-prioritized in one 18-month period.<sup>15</sup> EPA’s Denver Office reported, “We literally have hundreds of OPA [Oil Pollution Act] cases in our ‘no further action’ file due to the *Rapanos* decision, most of which are oil spill cases.”<sup>16</sup> Specific examples include a pipeline spill into a seasonal creek in West Texas,<sup>17</sup> and an oil spill into a creek in Santa Barbara County, California.<sup>18</sup>

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100 million wetland acres remaining. Of those, some 20% may be wetlands that are less obviously connected to the broader aquatic ecosystem.”)

<sup>12</sup> The Corps readily admits these delays and burdens. In discussing *Rapanos* and the Guidance in 2007, it states “there will be an increase in workload for field staff” and the Corps “probably [does] not” “have enough staff to conduct jurisdictional determinations in a timely manner in light of the new requirements resulting from the *Rapanos* decision”. Questions & Answers for the *Rapanos* and *Carabell* Decision, 78, available at [http://www.usace.army.mil/cw/cecwo/reg/cwa\\_guide/qa\\_ig\\_06-05-07.pdf](http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/qa_ig_06-05-07.pdf); U.S. EPA, *Potential Indirect Economic Impacts and Benefits Associated with Guidance Clarifying the Scope of Clean Water Act Jurisdiction*, at 13-14 (April 27, 2011) available at [http://water.epa.gov/lawsregs/guidance/wetlands/upload/cwa\\_guidance\\_impacts\\_benefits.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/cwa_guidance_impacts_benefits.pdf).

<sup>13</sup> 2009 Office of Inspector General Report at 1.

<sup>14</sup> 2011 EPA Economic Analysis, *supra*, at 13.

<sup>15</sup> Nakayama, Granta Y. Memorandum to Benjamin Grumbles, Assistant Administrator for Water, U.S. EPA (March 4, 2008) at 2.

<sup>16</sup> Majority Staff, Committee on Oversight and Government Reform, and Majority Staff, Transportation and Infrastructure Committee. *Decline of Clean Water Act Enforcement Program*. Memo to Rep. Henry A. Waxman, Chairman, Committee on Oversight and Government Reform, and James L. Oberstar, Chairman, Transportation and Infrastructure Committee, U.S. Congress. (December 16, 2008) at 7.

Science has demonstrated that these waters that are losing protection are some of the most important waters to maintaining the integrity and health of larger waters and the aquatic ecosystem as a whole. If they are polluted, degraded or destroyed, the health of wildlife and people that depend on these resources will suffer. Wetlands also help combat global warming and their preservation as habitat, sources for water storage, flood control and the like will be vital to the ability of wildlife to adapt to the challenges of a warming planet.<sup>19</sup>

Since the 2001 *SWANCC* decision, depression wetlands like prairie potholes are no longer being protected. Many intermittent and ephemeral streams and their adjacent wetlands have been put at risk of losing protections and are the subject of increased risk of pollution. By all accounts, the 2008 *Rapanos* Guidance has created confusion, bureaucratic red tape, and is adding time and expense to the decision making process for CWA permits. It is also crippling Clean Water Act enforcement, further putting at risk our Nation's waters. For the reasons set forth below, our organizations strongly support the Proposed Guidance and urge the agencies to move swiftly to finalize this guidance, withdraw the legally and scientifically flawed 2008 Guidance, and propose a revised "waters of the United States" rule.

## **I. Legal Background Relating to the Guidance.**

The Clean Water Act seeks "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and eliminate water pollution by 1985.<sup>20</sup> The chief purpose of the Act is to prohibit point source discharges of pollutants into navigable waters, unless otherwise permitted by the Act.<sup>21</sup> For jurisdictional purposes, the Act defines "navigable waters" as "waters of the United States."<sup>22</sup>

The Act's chief regulatory tools exist in the form of two permitting programs for pollutant discharges into navigable waters: (1) the section 402 National Pollutant Discharge Elimination System ("NPDES") permitting program for most discharges (like sewage and industrial waste), to be administered by the EPA; and (2) the section 404 permitting program for discharges of dredged and fill material, to be administered by the Corps.<sup>23</sup> Among other programs, the Act also regulates oil spills,<sup>24</sup> requires the establishment of water quality standards for protected

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<sup>17</sup> Earthjustice, et al. *Courting Disaster: How the Supreme Court Has Broken the Clean Water Act and Why Congress Must Fix It*. (April 2009) at 32-33 available at <http://www.nwf.org/en/News-and-Magazines/Media-Center/Reports/Archive/2009/Courting-Disaster.aspx>

<sup>18</sup> Conservation Leaders Network, *Clean Water for All: County Leaders Speak Out for Clean Water* (April 2009) at 7 (EPA attorneys reported difficulty collecting clean up costs from oil company due to uncertainty over CWA jurisdiction post-*Rapanos*).

<sup>19</sup> See, e.g., Save the Bay, *Greening the Bay: Financing Wetland Restoration in San Francisco Bay*, 7, (Aug. 2007) available at <http://www.savesfbay.org/sites/default/files/GreeningTheBay.pdf> (finding that restored, healthy salt marshes capture significant amounts of carbon dioxide, a primary global warming gas).

<sup>20</sup> 33 U.S.C. §1251(a).

<sup>21</sup> *Id.* § 1311(a).

<sup>22</sup> *Id.* § 1362(7).

<sup>23</sup> *Id.* §§ 1342, 1344. Both of these programs can be delegated to states for administration. *Id.*

<sup>24</sup> *Id.* § 1321.

waters, and clean up plans for waters that do not meet those standards.<sup>25</sup> The jurisdictional definition “waters of the United States” applies to all of these programs. There is no jurisdictional distinction between different programs of the Act.<sup>26</sup>

The CWA’s structure and legislative history indicate that the scope of the Act’s protections is not intended to be limited to the conventional concept of “navigable waters,” which encompasses waters “used, or [] susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.”<sup>27</sup> This is reflected in current Corps and EPA regulations that provide protection for:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
- (6) The territorial seas;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.<sup>28</sup>

*Rapanos* is the third major case the Supreme Court has decided concerning the scope of the Act’s

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<sup>25</sup> *Id.* § 1313.

<sup>26</sup> *Id.* § 1362(7).

<sup>27</sup> *The Daniel Ball*, 77 U.S. (10 Wall.) 557, 563 (1870).

<sup>28</sup> 33 C.F.R. 328.3(a); *see also* 40 C.F.R. 230.3(s).

protections. The first time the Supreme Court considered the question of what constituted “waters of the United States” was in *United States v. Riverside Bayview Homes, Inc.*, where the Court affirmed the broad jurisdiction of the CWA by finding the Corps properly regulated wetlands adjacent to a traditionally navigable water.<sup>29</sup>

*Riverside Bayview* supported broad CWA jurisdiction based on important ecological considerations and deferred to agency expertise regarding what scope of protection was needed to achieve the goals of the Act. In *Riverside Bayview*, the Court found “the Corps has concluded that wetlands adjacent to lakes, rivers, streams, and other bodies of water may function as integral parts of the aquatic environment” and held the regulation of such wetlands was therefore appropriate.<sup>30</sup> As reasons for upholding protection of adjacent wetlands under the Act, the Court noted the ability of wetlands to “filter and purify water draining into adjacent bodies of water, ... to slow the flow of surface runoff into lakes, rivers, and streams and thus prevent flooding and erosion,” and to “serve significant natural biological functions, including food chain production, general habitat, and nesting, spawning, rearing and resting sites for aquatic ... species.”<sup>31</sup>

Sixteen years later, in *SWANCC*, the Court decided certain ponds in northern Illinois were not covered under the Act when jurisdiction was based solely on their use by migratory birds.<sup>32</sup> The *SWANCC* decision was narrow. It simply precluded the Corps from asserting jurisdiction over certain ponds based solely on their use by migratory birds. It did not overturn any regulatory provision of the Corps.<sup>33</sup>

In response to *SWANCC*, the Bush Administration issued an Advance Notice of Proposed Rulemaking to redefine jurisdiction under the Act.<sup>34</sup> However, more than forty states, countless conservation organizations, including several hunting and fishing groups, and 220 members of Congress commented in overwhelming favor of keeping the current and broadly protective rules.<sup>35</sup> Additionally, courts began construing *SWANCC* narrowly. As such, the rulemaking was abandoned in December 2003.<sup>36</sup>

The *Rapanos* case involved wetlands connected by surface flow to tributaries that eventually flowed into traditionally navigable waters.<sup>37</sup> The case involved three sites eleven to twenty miles

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<sup>29</sup> *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985). Also, in *International Paper Co. v. Ouellette*, the court affirmed the Act protected “virtually all bodies of water.” 479 U.S. 481, 492 (1987).

<sup>30</sup> *Riverside Bayview*, 474 U.S. at 135, 139.

<sup>31</sup> *Id.* at 134-35 (citations omitted) (internal quotation marks omitted).

<sup>32</sup> 531 U.S. 159 (2001).

<sup>33</sup> The Migratory Bird Rule was contained in the 1986 preamble to the Corps’ regulations, and is not a rule. 51 Fed. Reg. 41206, 41217 (Nov. 13, 1986). It is also important to note that *SWANCC* did not state migratory bird use cannot be considered as a factor in deterring the Act’s jurisdiction over waters.

<sup>34</sup> See 68 Fed. Reg. 1991 (Jan. 15, 2003).

<sup>35</sup> *Rapanos v. United States*, 126 S. Ct. 2208, 2256 n.4 (2006) (Stevens, J., dissenting); Letter from 220 Members of Congress to The Honorable George W. Bush, President of the United States (Nov. 24, 2003).

<sup>36</sup> Environmental Protection Agency, *Watershed News, No New Rule on Federal Regulatory Jurisdiction over Isolated Wetlands*, (Dec. 16, 2003) available at <http://www.epa.gov/watershed/winnews/2003/121603.html#1> (stating, “EPA and the Army Corps of Engineers announced that they would not issue a new rule on federal regulatory jurisdiction over isolated wetlands.”).

<sup>37</sup> *Rapanos*, 126 S. Ct. at 2238 (Kennedy, J. concurring).

away from the nearest traditionally navigable water.<sup>38</sup> Each site involved different tributary types, from a wide perennially flowing natural river, to intermittently flowing man-made or man-altered conveyances.<sup>39</sup> The related *Carabell* case involved a wetland that did not share a documented surface hydrological connection with its neighboring tributary, a ditch that carried an indeterminate amount of water about a mile to the navigable Lake St. Clair.<sup>40</sup>

There was no majority opinion in *Rapanos*. While a majority voted to remand the cases back to the lower court for further review, there were divergent and contradictory rationales for what standard the lower court should apply. Justice Scalia, writing for the plurality, looked mainly to a 1954 dictionary to support his analysis.<sup>41</sup> His opinion stated the Act's coverage included "those relatively permanent, standing or continuously flowing bodies of water" and "*only* those wetlands with a continuous surface connection to [other regulated waters]." <sup>42</sup> Justice Scalia included a footnote stating he does not necessarily mean to "exclude seasonal rivers" or waters "that might dry up in extraordinary circumstances, such as drought."<sup>43</sup> A recent case has indicated that seasonal can be reasonably interpreted based on geographic location.<sup>44</sup>

***Importantly, Justice Scalia's test and rationale for narrowing Clean Water Act jurisdiction was rejected by a majority of the Court.***

Justice Stevens, writing for a four-member dissent, deferred to the Corps' current categorical regulation of all tributaries and their adjacent wetlands.<sup>45</sup> He found:

[T]he Corps has concluded that [wetlands adjacent to other waters, including non-navigable tributaries] play important roles in maintaining the quality of their adjacent waters, and consequently in the waters downstream. . . . Given that wetlands serve these important water quality roles and given the ambiguity inherent in the phrase "waters of the United States," the Corps has reasonably interpreted its jurisdiction to cover non-isolated wetlands [such as those at issue in *Rapanos* and *Carabell*].<sup>46</sup>

Justice Kennedy, in a solo concurring opinion, largely agreed with Justice Stevens that broad protection under the Act is warranted.<sup>47</sup> He also rejected the plurality's jurisdictional test as being "without support in the language and purposes of the Act or in our cases interpreting it."<sup>48</sup> Yet, Justice Kennedy found that to support jurisdiction for wetlands adjacent to certain non-

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<sup>38</sup> *Id.* at 2214 (plurality opinion).

<sup>39</sup> *Id.* at 2238 (Kennedy, J. concurring).

<sup>40</sup> *Id.* at 2239.

<sup>41</sup> *Id.* at 2220-21 (plurality opinion).

<sup>42</sup> *Id.* at 2225, 2226 (emphasis in original).

<sup>43</sup> *Id.* at 2221 n.5 (emphasis omitted).

<sup>44</sup> See *United States v. Vierstra*, 2011 WL 1064426, \*4 (D. Id. 2011) (stating that "common sense and common usage forged in the Intermountain West and applied to the Government's evidence would support a finding that the Low Line Canal is 'relatively permanent'").

<sup>45</sup> *Rapanos*, 126 S. Ct. at 2252, 2265 (Stevens, J., dissenting).

<sup>46</sup> *Id.* at 2257 (citations omitted). Justice Stevens goes on to say that, "I think it clear that wetlands adjacent to tributaries of navigable waters generally have a 'significant nexus' with the traditionally navigable waters downstream." *Id.* at 2264.

<sup>47</sup> *Id.* at 2241 (Kennedy J., concurring).

<sup>48</sup> *Id.* at 2242.

navigable tributaries, a showing needed to be made that such waters have a “significant nexus” to traditionally navigable waters for jurisdiction to attach.<sup>49</sup> According to Justice Kennedy:

[W]etlands possess the requisite nexus, and thus come within the statutory phrase “navigable waters,” if 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.” When, in contrast, wetlands’ effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term “navigable waters.”<sup>50</sup>

The dissent stated Justice Kennedy’s test “will probably not do much to diminish the number of wetlands covered by the Act in the long run.”<sup>51</sup> An examination of the test helps explain why the dissent reached this conclusion. First, it is important to note how utterly Justice Kennedy rejects the plurality’s restrictive test, which is largely unconcerned with the water quality goals of the Act. Justice Kennedy accuses the plurality of being “unduly dismissive” of the interests put forth by the government.<sup>52</sup> Unlike the plurality, who see little value in protecting ephemeral waters, dry arroyos, and wet meadows (waters that the plurality characterizes in part as “puddles”),<sup>53</sup> Justice Kennedy understands that many of these waters warrant protection.<sup>54</sup> He notes at length that nowhere in the Act is there support for a jurisdictional distinction between waters with continuous flow and waters with intermittent flow.<sup>55</sup> Similarly, he notes that the Act, case law precedent, and ecology fail to support the plurality’s insistence on a continuous surface connection between wetlands and nearby water bodies.<sup>56</sup> Justice Kennedy explains that wetlands perform important ecological functions, such as pollutant filtering and flood retention and “it may be the *absence* of an interchange of waters prior to the dredge and fill activity that makes protection of the wetlands critical to the statutory scheme.”<sup>57</sup>

Importantly, in recognition of the vital ecological functions wetlands perform, Justice Kennedy wrote that wetlands that either individually or collectively impact “the chemical, physical or biological integrity”<sup>58</sup> of other navigable waters have the requisite “significant nexus” to be regulated under the Clean Water Act.<sup>59</sup> The ecological functions identified by Justice Kennedy include flood retention, pollutant trapping, and filtration.<sup>60</sup> Justice Kennedy recognized wetlands often perform these important ecological functions even though they may be intermittent or ephemeral, or lack a surface connection to other waters.<sup>61</sup> Justice Kennedy’s test allows for the

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<sup>49</sup> *Id.* at 2249.

<sup>50</sup> *Id.* at 2248.

<sup>51</sup> *Id.* at 2264 (Stevens, J., dissenting).

<sup>52</sup> *Id.* at 2246 (Kennedy, J., concurring).

<sup>53</sup> *Id.* at 2221 (plurality opinion).

<sup>54</sup> *Id.* at 2244 (Kennedy, J., concurring).

<sup>55</sup> *Id.* at 2242-43.

<sup>56</sup> *Id.* at 2244.

<sup>57</sup> *Id.* at 2245-46 (emphasis added).

<sup>58</sup> 33 U.S.C. § 1251(a).

<sup>59</sup> *Rapanos*, 126 S. Ct. at 2248.

<sup>60</sup> *Id.* at 2248.

<sup>61</sup> *Id.* at 2242-46.

aggregation of impacts of similarly situated wetlands, meaning individually less significant wetlands may be protected if they become significant when viewed collectively within a region.

Subsequent case law has indicated that this term can be interpreted broadly.<sup>62</sup>

Justice Kennedy also indicated a significant nexus to navigable waters can be assumed for certain categories of wetlands. For instance, he stated that “[a]s applied to wetlands adjacent to navigable-in-fact waters, the Corps’s conclusive standard for jurisdiction rests upon a reasonable inference of ecological interconnection, and the assertion of jurisdiction for those wetlands is sustainable under the Act by showing adjacency alone.”<sup>63</sup> Therefore, wetlands adjacent to traditionally navigable waters (TNWs) are categorically covered under Justice Kennedy’s analysis, and a case-by-case determination is not needed.<sup>64</sup> Likewise, Justice Kennedy suggested wetlands next to certain major tributaries may also be categorically covered by the CWA.<sup>65</sup> It is only in regards to wetlands adjacent to minor tributaries that Justice Kennedy refuses to allow categorical assertion of jurisdiction under the current regulations.<sup>66</sup> Justice Kennedy also accepts as “reasonable” the Corps current definition of adjacent, which includes wetlands that may be separated from other waters by dikes, berms, and other natural or manmade barriers.<sup>67</sup>

Justice Kennedy does not assert categorical regulation of tributaries is no longer permissible, or a case-by-case determination of a “significant nexus” to traditionally navigable waters is required to regulate any tributary.<sup>68</sup> On the contrary, he suggests the current definition of tributary “may well provide a reasonable measure of whether specific minor tributaries bear a sufficient nexus with other regulated waters to constitute ‘navigable waters’ under the Act.”<sup>69</sup> As to tributaries, Justice Kennedy only expresses concern about categorically extending jurisdiction to all

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<sup>62</sup> See *Precon Development Corp. v United States Army Corps of Engineers*, 633 F.3d 278, 292 (4th Cir. 2011) (“[W]e recognize that Justice Kennedy’s instruction – that ‘similarly situated lands in the region’ can be evaluated together – is a broad one, open for considerable interpretation and requiring some ecological expertise to administer”).

<sup>63</sup> *Rapanos*, 126 S. Ct. at 2249. Justice Kennedy reiterates “[w]hen the Corps seeks to regulate wetlands adjacent to navigable-in-fact waters, it may rely on adjacency to establish its jurisdiction.”

<sup>64</sup> This has been confirmed by multiple lower court decisions interpreting *Rapanos*. See *United States v. Cundiff*, 555 F.3d 200, 207 (6th Cir. 2009) (finding that under Justice Kennedy’s opinion assertion of jurisdiction over wetlands adjacent to navigable-in-fact waters may be met ‘by showing adjacency alone’); *Northern California River Watch v. Healdsburg*, 496 F.3d 993, 1000 (9th Cir. 2007) (finding same); *United States v. Bailey*, 571 F.3d 791, 799 (8th Cir. 2007) (finding same).

<sup>65</sup> *Id.* at 2248 (“[I]t may well be the case that *Riverside Bayview’s* reasoning – supporting jurisdiction without any inquiry beyond adjacency – could apply equally to wetlands adjacent to certain major tributaries.”).

<sup>66</sup> *Id.* at 2249 (“Absent more specific regulations, . . . the Corps must establish a significant nexus on a case-by-case basis when it seeks to regulate wetlands based on adjacency to nonnavigable tributaries.”).

<sup>67</sup> *Id.* at 2245.

<sup>68</sup> Justice Kennedy’s opinion limited his basis for remand to the lower court to the question of “whether the specific wetlands at issue possess a significant nexus with navigable waters.” 126 S. Ct. 2252. This contrasts with the plurality’s broader basis for remand to determine “whether the ditches and drains near wetlands are ‘waters,’” and “whether the wetlands in question” are also jurisdictional. *Id.* at 2235. This contrast is further indication Justice Kennedy may not require a case-by-case significant nexus determination for tributaries. Indeed, as the Federal District Court for the District of Idaho recently noted, “It is an open question as to whether Justice Kennedy’s concurrence applies in the tributary context.” *United States v. Mike Vierstra*, 2011 WL 1064526, \*5 (D. Id. 2011).

<sup>69</sup> *Id.* at 2249. Justice Kennedy never calls into question the significance of major tributaries to traditionally navigable waters.

wetlands that are adjacent to any waters that meet the regulatory definition of tributaries. Specifically, he writes:

[T]he breadth of this standard – which seems to leave wide room for the regulation of drains, ditches, and streams remote from any navigable-in-fact waters and carrying only minor water volumes towards it – precludes its adoption as the determinative measure of whether wetlands are likely to play an important role in the integrity of an aquatic system comprising navigable waters as traditionally understood.<sup>70</sup>

The dissent would support jurisdiction in every instance where Justice Kennedy and the plurality would.<sup>71</sup> Federal appeals courts have grappled with which test or tests to apply. However, no appeals court has found that only the plurality test applies, and only one appeals court has found that *Rapanos* precludes the government from asserting jurisdiction based on the plurality test and can only do so based on Justice Kennedy’s test.<sup>72</sup> Three circuit courts have declined to address the issue of which test applies.<sup>73</sup> Two have found that Justice Kennedy’s opinion applied in the case at hand, but did not preclude the use of the plurality opinion to assert jurisdiction in other instances.<sup>74</sup> Two have ruled that jurisdiction can be established under either Justice Kennedy’s or the plurality’s test.<sup>75</sup>

## II. The Proposed Guidance Properly Applies to All Clean Water Act Programs.

The jurisdictional definition “waters of the United States” applies to all of the Clean Water Act programs. There is no jurisdictional distinction between different programs of the Act.<sup>76</sup> The Act simply does not allow a water body to be jurisdictional if one type of activity is at issue, but not jurisdictional if another type of activity is at issue.<sup>77</sup> Thus, if a water body is not jurisdictional for

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<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 2265 (“Given that all four Justices who have joined this opinion would uphold the Corps’ jurisdiction in both of these cases – and in all other cases in which either the plurality’s or Justice Kennedy’s test is satisfied – on remand each of the judgments should be reinstated if *either* of those tests is met.”) (emphasis in original).

<sup>72</sup> *United States v. McWane*, 505 F.3d 1208, 1221-22 (11th Cir. 2007).

<sup>73</sup> *Precon Development Corp. v. United States Army Corps of Engineers*, 633 F.3d 278 (4th Cir. 2011); *United States v. Lucas*, 516 F.3d 316 (5th Cir. 2008); *United States v. Cundiff*, 555 F.3d 200 (6th Cir. 2007).

<sup>74</sup> *United States v. Robison et al.*, 505 F.3d 1208, 1219-23 (11th Cir. 2007); *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 999 (9th Cir. 2007), *cert. denied*, 128 S. Ct. 1225 (2008); *United States v. Gerke Excavating, Inc.*, 464 F.3d 723, 724-25 (7th Cir. 2006), *cert. denied*, 128 S. Ct. 45 (2007); *see also N. Cal. River Watch v. Wilcox*, 633 F.3d 766, 769 (9th Cir. 2010), amended 2011 (finding that “[i]n *City of Healdsburg* ... the court found that Justice Kennedy’s concurrence in *Rapanos* ‘provides the controlling rule of law for our [c]ase.’ We did not, however, foreclose the argument that Clean Water Act jurisdiction may also be established under the plurality’s standard.”).

<sup>75</sup> *United States v. Bailey*, 571 F.3d 791, 798-99 (8th Cir. 2009); *United States v. Johnson*, 467 F.3d 56, 65-66 (1st Cir. 2006), *cert. denied*, 128 S. Ct. 375 (2007).

<sup>76</sup> 33 U.S.C. § 1362(7).

<sup>77</sup> While the 2008 Guidance purported to be limited to CWA § 404, even then the Corps acknowledged this in a Questions & Answers posting related to the *Rapanos* decision and the 2007-08 Guidance, stating, “While the *Rapanos* case involved the CWA § 404 permitting program for discharged or dredged or fill material, the decision has implications for all CWA programs, such as § 402 National Pollutant Discharge Elimination System (NPDES) permits, § 311 oil spill prevention and cleanup, and § 303 water quality standards.” Questions & Answers for the *Rapanos* and *Carabell* Decision, *supra*, at 67.

purposes of the section 404 permit program, it is not jurisdictional for the Section 301 prohibition on the discharges of pollutants, the Section 402 NPDES program, Section 303 water quality standards, Section 311 oil spill regulations, or any other Clean Water Act program that limits its jurisdiction to “navigable waters.” The scope of jurisdiction also affects when states are able to certify whether federal permits are in compliance with state water quality standards under Section 401 of the Act. Consequently, we strongly support the agencies decision to apply the Proposed Guidance to all of these CWA programs. Proposed Guidance at 3.

### **III. The Proposed Guidance Definition of Traditional Navigable Waters is Well-Supported by Statute and Case Law.**

The agencies’ guidance properly define and interpret traditional navigable waters (TNWs) as: “[a]ll waters which are currently used, or were used in the past, or may be susceptible of use in interstate or foreign commerce, including all waters which are subject to the ebb an flow of the tide.” Proposed Guidance at 6. The Agencies’ proposed guidance regarding TNWs is well-supported by pre-Clean Water Act navigability case law and statutes, is consistent with existing regulations and with the current 2008 Guidance on TNWs, and helps restore protections for wetlands, lakes, and streams nationwide.

#### ***A. TNW determinations are key to accurate CWA jurisdictional determinations.***

The TNW term and its definition are key to determining CWA jurisdiction both because these waters have been categorically regulated as “waters of the United States” for over 30 years, and because Justice Kennedy’s *Rapanos* opinion uses TNWs as a primary reference point for determining significant nexus and therefore CWA jurisdiction.

Any failure to properly identify the nearest TNW could mean a significant nexus analysis is improperly conducted by using a water that is further away than the nearest water that could be deemed traditionally navigable – and where the significant nexus between the waters may be less apparent and more difficult to prove. Consider an example in which EPA or Corps staff is trying to determine whether a wetland that is adjacent to an intermittent tributary has a significant nexus to a TNW. Two miles downstream from where the wetland sits along the intermittent stream, there is a creek that can be canoed today, and that records show was used 100 years ago by fur trappers. The next downstream water is a major river, but it is more than 20 miles away.<sup>78</sup> Clearly, it would be easier to show that the wetland had a physical, biological, or chemical linkage – a “significant nexus” – to the creek, as compared to proving the requisite nexus between the wetland and the river 20 miles away. While the wetland may very well have similar impacts on the more distant river, that nexus “might be more difficult to demonstrate and more subtle.”<sup>79</sup>

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<sup>78</sup> This hypothetical situation is almost entirely borrowed from William W. Sapp *et al*, *The Historic Navigability Test: How to Use It to Advantage in This Post-Rapanos World*, 37 ELR 10797, 10798 (Nov. 2007).

<sup>79</sup> *Id.* at 10805.

**B. TNWs include waters currently used, used in the past, or susceptible of use in interstate commerce.**

It is clear that TNWs are protected by the Act. Case law, including that described in Appendix D of the U.S Army Corps of Engineers Jurisdictional Determination Instructional Guidebook (“Guidebook”),<sup>80</sup> makes clear that such waters include waters that can be navigated by water craft, waters that are currently used as highways in interstate commerce, waters susceptible to such use, and waters that were historically so used, even if they are not currently so used.<sup>81</sup> These include waters that may have areas difficult to navigate.<sup>82</sup> These also include certain intrastate waters.<sup>83</sup> Moreover, navigation need not be commercial in nature, but can be recreational or small craft navigation.<sup>84</sup>

There are at least three lines of cases that comprise the foundation for TNWs—1) Commerce Clause cases, including commerce,<sup>85</sup> Rivers and Harbors Act,<sup>86</sup> Federal Power Act,<sup>87</sup> and navigational servitude cases;<sup>88</sup> 2) Admiralty cases,<sup>89</sup> and 3) Equal Footing Clause cases.<sup>90</sup> All of

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<sup>80</sup> U.S Army Corps of Engineers Jurisdictional Determination Instructional Guidebook, prepared jointly by the Corps and EPA (May 30, 2007) (“Guidebook”).

<sup>81</sup> See, e.g., *United States v. Holt State Bank*, 270 U.S. 49, 56 (1926) (waters “are navigable in fact when they are used, or are susceptible of being used, in their natural and ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water; and further that navigability does not depend on the particular mode in which such use is or may be had—whether by steamboats, sailing vessels or flatboats—nor on an absence of occasional difficulties in navigation, but on the fact, if it be a fact, that the stream in its natural and ordinary condition affords a channel for useful commerce”); *U.S. v. Appalachian Elec. Power Co.*, 311 U.S. 377, 408 (1940) (“When once found to be navigable, a waterway remains so.”).

<sup>82</sup> See *Appalachian Elec. Power Co.*, 311 U.S. at 408 (navigability can exist despite “the necessity for reasonable improvements to make an interstate waterway available for traffic”).

<sup>83</sup> *Utah v. United States*, 403 U.S. 9 (1971).

<sup>84</sup> See *Appalachian Elec. Power Co.*, 311 U.S. at 416 (“Nor is the lack of commercial traffic a bar to a conclusion of navigability where personal or private use by boats demonstrates the availability of the streams for similar types of commercial navigation.”); *FPL Energy Marine Hydro LLC v. FERC*, 287 F.3d 1151, 1157-59 (D.C. Cir. 2002) (upholding navigation based on three canoe trips taken to demonstrate navigability); *Alaska v. Ahtna*, 891 F.2d 1404, 1405 (9th Cir. 1989) (use of river for commercial recreational boating sufficient to show navigability).

<sup>85</sup> *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 190 (1824); *The Daniel Ball*, 77 U.S. 557 (1870); *United States v. Steamer Montello (The Montello)*, 87 U.S. (20 Wall.) 430 (1874).

<sup>86</sup> *Economy Light & Power Co. v. United States*, 256 U.S. 113 (1921). The Corps’ RHA regulatory definition is based on such cases as *The Daniel Ball*, *The Montello*, and *Economy Light & Power*, as well as such cases as *United States v. Utah*, 283 U.S. 64 (1931) and *United States v. Appalachian Electric Power Co.*, 311 U.S. 377 (1940).

<sup>87</sup> *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-08 (1940). In *Appalachian Electric Power*, the Court ruled, inter alia, that : “[W]hen once found to be navigable, a waterway remains so.” *Id.* at 408.

<sup>88</sup> The navigational servitude extends from the “ordinary high water mark” on one bank of a navigable water of the United States to the ordinary high watermark on the other bank. A water body’s ordinary high watermark is the “line of the shore established by the fluctuations of water . . .” 33 C.F.R. §329.11(a). It is determined by “physical characteristics such as a clear, natural line impressed on the bank, . . . changes in the character of the soil; destruction of terrestrial vegetation; . . . or other appropriate means that consider the characteristics of the surrounding areas.” *Id.* See e.g., *Normal Parm Jr. et al. v. Mark Shumate*, 513 F.3d 135, 143 (5th Cir. 2007); *United States v. Rands*, 389 U.S. 121, 123 (1967).

<sup>89</sup> *Price v. Price*, 929 F.2d 131, 134 (1991).

<sup>90</sup> *Idaho et al. v. Coeur D’Alene Tribe of Idaho et al.*, 521 U.S. 261 (1996); *United States v. Utah*, 283 U.S. 64, 76 (1931) (citing *United States v. Holt State Bank*, 270 U.S. 49, 56 (1926)).

these lines of cases involve TNWs and all of these cases can and should be used to support a determination that a water is a TNW.

The statutes, federal case law, and regulatory policy noted above support the Agencies' guidance that waters will be considered TNWs if:

- They are subject to section 9 or 10 of the Rivers and Harbors Act of 1899; *or*
- A federal court has found the water body to be navigable-in-fact; *or*
- They are waters currently in use for commercial navigation, including commercial waterborne recreation; *or*
- They have historically been used for such commercial navigation; *or*
- They are susceptible to being used in the future for such commercial navigation.

It is important to note that when EPA and the Corps issued the 2007 *Rapanos* Guidance and the 2008 Revised *Rapanos* Guidance, they based their interpretation of the TNW term on many of the same cases outlined above.<sup>91</sup>

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<sup>91</sup> See Guidebook Appendix D, *supra*.

**C. *Susceptibility for future use may properly be based on capacity for use and future use for waterborne recreation.***

Susceptibility for future use may be based on such factors as physical characteristics and capacity for commercial navigation, including commercial waterborne recreation and potential future use for these purposes. The case law cited herein and in the Proposed Guidance supports the agencies' guidance that potential future use for such purposes "can be demonstrated by current boating or canoe trips for recreation or other purposes," and "[a] trip taken solely for the purpose of demonstrating a waterbody can be navigated is sufficient." Proposed Guidance at 6 and fn.iv, v; Proposed Guidance at 23-24 and fns. 51-56 *citing FPL Energy Marine Hydro L.L.C. v. FERC*, 287 F. 3d 1151, 1157 (D.C. Cir. 2002) and *Alaska v. Ahtna, Inc.*, 891 F. 2d 1401, 1405 (9<sup>th</sup> Cir. 1989).

Waterborne recreational trips are appropriately considered in determining whether a water body is a TNW. As the proposed Guidance notes, on many rivers the only commerce that will occur in the future is recreational use by paddlers in canoes, kayaks, and rafts. Based on the case law, the question to be asked in determining TNW status is whether this water body ever could be used for commercial recreational boating. If a boating trip can establish that the water is or could be made navigable for small water craft, then the water should be classified a TNW.

The July 2010 EPA Los Angeles River TNW determination demonstrates that the TNW definition in the Proposed Guidance is no more expansive than the 2008 TNW definition.<sup>92</sup> Although the determination looked at the current commercial uses of the river, as well as the historic uses of the river, an expedition of kayakers and canoeists down the Los Angeles River played a prominent role in convincing EPA that the river was a TNW. If the EPA were to conduct a similar analysis under the Proposed Guidance, it is quite likely that it would reach the same result, albeit with considerably less confusion, delay, and resources having clarified, consistent with the case law, that "[a] trip taken solely for the purpose of demonstrating a waterbody can be navigated is sufficient."

**D. *The TNW guidance could be improved by further clarifying the TNW case law and placing less emphasis on the Rivers and Harbors Act cases.***

Field implementation of the Proposed Guidance might be further improved by explicitly referencing the distinct lines of cases that are the foundation for the TNW definition and providing a framework for better understanding the legal underpinnings of this key jurisdictional term. The final Guidance should make clear that all of these lines of cases involve TNWs and all can be used to support a TNW determination. Importantly, the agencies should proceed with their "waters of the United States" rulemaking and the preamble of the proposed rule should reinforce these conclusions and include a detailed description of the TNW lines of cases.

Second, the final guidance and rulemaking should clearly distinguish the TNW tests and the types of evidence required to establish that they have been met. If, for instance, a water is found to have supported "historic commerce," that is all that is necessary to find that the water is a

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<sup>92</sup> Special Case Evaluation Regarding Status of the Los Angeles River, California, as a Traditionally Navigable Water, EPA Region 9 (July 1, 2010).

TNW, even if that commerce only involved a trapper using the creek to get his beaver pelts to market. The “susceptible to being used for future commercial navigation” test need only be applied if there is no evidence of historic commerce. And while a “susceptibility” determination may involve an inquiry into the size, depth, and flow velocity of a creek, that same inquiry has no place in a determination of the presence or absence of evidence of historic commerce. The TNW definition should be written in such a way that those applying the definition do not blend the requirements of each test together.

Third, the Rivers & Harbors Act line of TNW cases should not be held out as any more important than any other line of TNW cases. There is no indication in *Rapanos* that Justice Kennedy placed any increased significance on Section 10 waters as opposed to traditionally navigable waters generally. While such waters are certainly TNWs and perhaps easier to quickly identify than other TNWs, they represent only a small number of all TNWs and the guidance should in no way indicate that Section 10 waters are anything other than a subset of a much broader class of TNWs agency officials must work to identify when making jurisdictional determinations.

The danger of placing too much emphasis on Section 10 waters is that it will become the default for field office TNW determinations, especially given the relative administrative ease of identifying these waters compared to some other TNWs. Such a result could be very detrimental for a variety of reasons. Primarily, these waters do not include a large number of traditionally navigable waters, and, as stated above, failing to identify TNWs makes it harder to protect waters in many instances.

Also, some Corps districts have failed to accurately define their Section 10 waters, due in large measure to the fact that they have not applied the historic commerce test appropriately. Thus, this already small subset of TNWs is, in some regions, smaller than it should be. Western Resource Advocates report, for example, that historically, the Corps had determined that, of Colorado’s approximately 100,000 miles of stream, *only 15 miles* (on the main stem Colorado River from Grand Junction to the state line) were TNW.<sup>93</sup> As WRA notes, “[t]his conclusion ignores the commercial importance of many Colorado rivers and streams, from the times of the fur trappers – who congregated at Bent’s Fort on the Arkansas River near La Junta, Colorado, to commercial rafting today.”

Excessive reliance on Corps district Section 10 waters for TNW determinations would lead to missing many TNWs and, as a result, likely leaving many wetlands, lakes, and streams without Clean Water Act protection, or would increase the time, cost and effort involved in establishing a basis for CWA protection.

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<sup>93</sup> Western Resource Advocates Comments on Proposed Guidance (July 2011) *citing* Hill, John, “The Right to Float in Colorado: Differing Perspectives,” 26 Colorado Water 18 (Colorado Water Institute 2009).

#### **IV. The Proposed Guidance Definition and Treatment of Interstate Waters is Well-Supported by Statute, Regulations, and Case Law.**

##### ***A. The Clean Water Act and the agencies' rules provide for categorical protection of interstate waters.***

The agencies' proposal to assert jurisdiction over all interstate waters (IWs), including interstate wetlands, categorically and without a case-by-case significant nexus analysis, is consistent with the CWA and its legislative history. See Proposed Guidance at 25, *citing, e.g.*, CWA section 303(a)(1). The Senate Committee on Public Works stated, for example:

Through a narrow interpretation of the definition of *interstate waters* the implementation of the 1965 Act was severely limited. Water moves in hydrologic cycles and it is essential that discharges of pollutants be controlled at the source.<sup>94</sup>

The agencies' definition falls squarely within their longstanding rules "defining 'waters of the United States' to include "*interstate waters including interstate wetlands.*" Proposed Guidance at 7 and fn. 12, 25 and fn. 57. The categorical protection of these waters pursuant to these rule provisions was not questioned or even at issue in the *Rapanos* or *SWANCC* Supreme Court decisions.

The agencies' definition of "interstate waters" also carefully tracks the *statutory* definition of "interstate waters" dating back to the 1948 water pollution law that includes "*all rivers, lakes, and other waters that flow across, or form a part of, State boundaries.*" See Proposed Guidance at 7 and fn. 13; 24 and fn. xiii. Assertion of categorical jurisdiction over these waters is neither new nor an expansion of CWA jurisdiction. The 2008 guidance document, still in effect, inexplicably fails to mention or clarify the treatment of "interstate waters."<sup>95</sup>

Consider, as Western Resource Advocates comments, the headwaters states of the Rockies, where every major river system is the subject of either an interstate compact that allocates its waters or a Supreme Court of the United States decree for an equitable apportionment thereof.<sup>96</sup> According to WRA, the State of Colorado alone is party to nine interstate compacts (two on the Colorado River), one interstate agreement and two equitable apportionment decrees for rivers. Yet, the Corps has formally designated only one of these waterways as a TNW prior to this proposed Guidance. Most of Colorado's nearly 100,000 miles of streams are tributary to one of the rivers that is subject to a compact, agreement or decree.

We question, the agencies' proposal to limit interstate rivers and streams upstream and downstream of the state boundary to the "entire length that the water is of the same stream order." Proposed Guidance at 7. This limitation is not explained and seems inconsistent with the CWA, its legislative history, and the agencies' definition of "waters of the U.S."

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<sup>94</sup> S. Rep No. 92-414 at 77 (1971) 1972 Legislative History at 1495 (emphasis added).

<sup>95</sup> Robert Meltz and Claudia Copeland, *The Wetlands Coverage of the Clean Water Act (CWA) Is Revisited by the Supreme Court: Rapanos v. United States*, at 14. Congressional Research Service 7-57– (June 3, 2011).

<sup>96</sup> Western Resource Advocates Comments on the Proposed Guidance (July 2011).

**B. *The agencies’ treatment of tributaries, adjacent wetlands, and other waters in relation to interstate waters is well-supported.***

Also well-supported by law and policy is the agencies’ proposal to analyze tributaries to IWs, wetlands adjacent to IWs, and other waters relative to IWs in essentially the same manner as these waters are analyzed vis-à-vis TNWs. Proposed Guidance at 7, fn. 15, 16; 25. Congress clearly intended to protect interstate waters and their tributaries, and understood that protecting interstate waters required limiting pollution upstream. We agree that it is reasonable to apply Justice Kennedy’s significant nexus test to the tributaries, adjacent wetlands, and other waters that have demonstrated hydrological or ecological connections to IWs. As noted in the Proposed Guidance:

Justice Kennedy’s standard seeks to ensure that waters Congress intended to subject to federal jurisdiction are indeed protected, both by recognizing that waters and wetlands with a significant nexus to covered waters have important beneficial effects on those waters, and by recognizing that polluting or destroying waters with a significant nexus can harm downstream covered waters.

*Id.* at 25.

**V. *The Proposed Framework for Significant Nexus Analysis is Scientifically and Legally Sound.***

**A. *The proposed significant nexus framework is far more consistent than existing guidance with Justice Kennedy’s test and the underlying science.***

We support the agencies’ significant nexus analysis framework as an important basis for establishing Clean Water Act jurisdiction post-*SWANCC* and *Rapanos*, absent congressional action overturning these decisions. We strongly support the analysis of significant nexus using the aggregation of wetlands and other waters within a region. Compared to the 2003 *SWANCC* Guidance and 2008 *Rapanos* Guidance, this proposed significant nexus guidance, and particularly its approach to aggregation of “similarly situated” waters within a region is far more consistent with Justice Kennedy’s significant nexus standard and with the hydrology, geology, chemistry, and biology of aquatic ecosystems.

In his pivotal concurring opinion in *Rapanos*, Justice Kennedy stressed the importance of examining the collective impacts of “similarly situated” wetlands in determining whether such wetlands have a “significant nexus” to traditionally navigable waters. For instance, Justice Kennedy stated wetlands have a significant nexus to TNWs when “*either alone or in combination with similarly situated lands in the region,*” the wetlands significantly affect the chemical, physical, and biological integrity of the TNWs.<sup>97</sup> Similarly, he stated it would be appropriate to presume, once a significant nexus was determined for a particular wetland, that other comparable wetlands in the region also have a “significant nexus” to traditionally navigable waters.<sup>98</sup>

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<sup>97</sup> *Id.* at 2248.

<sup>98</sup> *Id.* at 2249.

Acknowledging, as the guidance does, that Justice Kennedy “focused on adjacent wetlands in light of the facts of the cases before him,” we agree it is reasonable for the agencies’ proposal to apply the significant nexus analysis “for tributaries and other waters such as ponds, lakes, and non-adjacent wetlands that are not themselves directly connected to a tributary system but may still have a significant nexus to a traditional navigable water or interstate water.” Proposed Guidance at 26.

To further advance the legal and scientific consistency of the proposed significant nexus framework, we urge the agencies, in both the final guidance and in the forthcoming rulemaking, to take a more functional approach in: 1) categorizing waters as “similarly situated;” and 2) delineating the watershed draining into the nearest TNW or IW.

***B. The final guidance and rulemaking should focus more on function and less on proximity in categorizing waters as “similarly situated.”***

We strongly agree with the agencies’ rationale for aggregation of similarly situated waters, based on Justice Kennedy’s standard:

Justice Kennedy’s standard allows the agencies to analyze whether *all similarly situated waters in a region* together have a significant nexus to the downstream traditionally navigable water. With this standard, Justice Kennedy has recognized that even where it is difficult to demonstrate that a particular individual wetland adjacent to a small headwater tributary has a significant nexus to a traditional navigable water, *the destruction of all such adjacent wetlands in a region could have a significant effect on the traditional navigable water and, thus, the CWA must protect those wetlands in order to protect the traditional navigable water. The same logic applies to tributaries and physically proximate other waters.* *Id.* at 26. *See also Id.* at 27 and fns. 63-65.

Indeed. Our objection – and it is a significant one – is that *the same logic also applies to many non-proximate wetlands and other waters.* The agencies’ proposal to impose “close physical proximity,” rather than function, to identify waters that are similarly situated within the watershed is an artificial distinction not rooted in science. As explained and documented more fully below, distance from a jurisdictional water is one factor, but not a determinative factor in identifying waters that are similarly situated in a watershed.

The Proposed Guidance itself makes this same point at 10:

*It is not appropriate to determine significant nexus based solely on any specific threshold of distance (for example, between a tributary and the traditional navigable water). Watershed ecosystems, and their interrelationships, are constructed from component parts that have relevance when considered collectively. Failure to protect the components can undermine the ecosystem in its entirety. Therefore, the agencies have an obligation to evaluate waters in terms of how they interrelate and function as ecosystems rather than as individual units, especially in the context of complex*

*ecosystems where their integrity may be compromised by environmental harms that individually may not be measurably large but collectively are significant.*

Justice Kennedy's logic clearly revolved around considering waters that were similarly situated in terms of aquatic ecosystem function within the region. While the science reflects some correlation between aquatic function and distance, the degree and direction of that correlation is highly variable and not a reliable surrogate for a functional analysis. See sections VII and VIII, below. Wetlands with similar characteristics, from which similar functions can be documented or inferred, is a more appropriate and science-based approach to evaluating which are similarly situated within a watershed than is the approach of first eliminating all those similar wetlands within the watershed that are not close to a jurisdictional waterbody, and then conducting the significant nexus analysis based only on those that are. As we explain and document more fully below, we believe that there is a "compelling scientific basis for treating a group" of "similarly situated" wetlands those wetlands and other waters that have similar characteristics and serve similar aquatic ecosystem functions in the same region.

***C. The single point of entry watershed is a reasonable starting point for defining the significant nexus watershed, but the guidance should provide for more flexible application where region-specific science warrants.***

***1. The single point of entry watershed approach is far more scientifically and legally sound than the 2008 Guidance's stream segment approach.***

Watersheds are the logical starting point for defining a "region." Proposed Guidance at 7-8, 26-27, fns. 60, 61. Indeed, the very restrictive focus on individual stream segments in the 2008 Guidance is its most significant legal and scientific flaw and one that must be corrected.<sup>99</sup>

The 2008 Guidance eviscerates any protective application of the "significant nexus" test to tributaries by arbitrarily mandating that a tributary be considered in the smallest possible terms – a stream reach which is all of one order.<sup>100</sup> This makes it nearly impossible under the framework created by the 2008 Guidance to protect many upper reach portions of tributary systems, as the Guidance requires field officials to analyze stream segments in isolation, without regard for the collective impacts non-navigable tributaries have on downstream waters. This approach finds no support in science. While science overwhelmingly demonstrates the cumulative significant impacts upper reach streams have on downstream water integrity,<sup>101</sup> demonstrating significance for a particular stream segment is a far more daunting task.

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<sup>99</sup> See NWF et al Comments on the 2007 *Rapanos* Guidance (January 18, 2008).

<sup>100</sup> 2008 Guidance at 5 n.21 and 9. This limited concept of "tributary" appears to be derived from the plurality's notion that the term "navigable waters" generally refers to "rivers, streams, and the other hydrographic features." *Id.* at 5 n.21 (citing *Rapanos*, 126 S. Ct. at 2222). Yet, as previously stated, Justice Kennedy rejects the plurality's notion of the limits of navigable waters, so basing an important aspect of Justice Kennedy's significant nexus test upon the plurality's concept of a "water" is not only unsupported and contradictory, but it serves to undermine the larger ecological and region-wide concerns articulated by Justice Kennedy throughout his opinion.

<sup>101</sup> See, e.g., Meyer, J. L. et al., *Where Rivers Are Born: The Scientific Imperative for Defending Small Streams and Wetlands*, American Rivers and Sierra Club, publishers (Sept. 2003) available at <http://www.americanrivers.org/site/DocServer/WhereRiversAreBorn1.pdf?docIDC=182> (describing in detail the important links between headwaters and downstream waters); Downing, Donna, Tracie-Lynn Nadeau, and Rose

Legally, this approach is without support as well. There is no indication that if Justice Kennedy meant to apply the significant nexus test on a case-by-case basis to tributaries, which he did not, he would find collective impacts to be irrelevant to such consideration.<sup>102</sup> Indeed, given his stress on ecological factors and aggregation of impacts, all inferences are to the contrary. Justice Kennedy's opinion clearly implies aggregation should take place on a broader regional scale, such as the watershed of traditionally navigable water, using solid ecology.

Second, while the 2008 Guidance allows for aggregation of wetlands, it only allows for aggregation of wetlands associated with a particular tributary,<sup>103</sup> defining tributary so narrowly that the scope of consideration will often be exceedingly small, especially in the upper reaches of the tributary system. This approach has led to many waters being unprotected that would clearly be protected if a broader, and scientifically supported, view of aggregation of wetlands were used. For example, a report noted a study that found that in eight northeastern watersheds wetlands associated with the first order streams in those watersheds accounted for ninety percent of phosphorous removal in the watersheds.<sup>104</sup> The aggregate impact of those wetlands on downstream waters is clearly significant. However, wetlands associated with only one small first order headwater stream are likely to only account for a scintilla of such benefits, and their impacts on downstream waters would be much more likely to be found insubstantial in isolation.

The flawed stream segment approach of the 2008 Guidance has an even more damaging impact in the drier Western states, where the individual benefits of a stream and its wetlands for downstream waters are likely to be even less detectable than in the wetter Northeast. The 2008 Guidance approach has put at risk an astounding number of these streams, having significant negative impacts on the downstream receiving waters as these waters are degraded or destroyed in a piecemeal fashion with no consideration of the cumulative impacts such degradation and destruction has on the health of downstream waters and the aquatic system. *See* Section VI below. In addition, the current crabbed approach to aggregation has made it excessively burdensome, expensive, and impractical to gather meaningful information on the impacts of wetlands associated with a small stream segment, or on a stream segment itself, in order to demonstrate the "significant nexus" such waters have to TNWs.<sup>105</sup> In sum, the single point of

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Kwok, *Technical and Scientific Challenges in Implementing Rapanos' "Water of the United States,"* American Bar Association, NATURAL RESOURCES AND ENVIRONMENT, 42, Vol. 22, No. 1, (Summer 2007) at 43 (stating, "The small size of headwater streams means that, in such waters, more water is in direct contact with the streambed and its associated subsurface flows (hyporheic zone), where most processing [to remove pollutants] takes place. Thus, headwaters as a category can have a disproportionate positive effect on the integrity of downstream waters.").

<sup>102</sup> Indeed, as a recent federal court noted, "It is an open question as to whether Justice Kennedy's concurrence applies in the tributary context." *Vierstra, supra*, at \*5. Additionally, the Federal District Court for the District of Oregon ruled in 2009 that "Justice Kennedy's significant nexus test is inapplicable to determining the jurisdictionality of tributaries to waters of the United States. By demanding that 'wetlands possess the requisite nexus,' Justice Kennedy limits the applicability of his legal standard to wetlands adjacent to jurisdictional waters." *Benjamin v. Douglas Ridge Rifle Club*, 673 F. Supp. 2d 1210, 1215 n.2 (D. Or. 2009) (emphasis in original).

<sup>103</sup> 2008 Guidance, *supra*, at 10.

<sup>104</sup> Meyer, et al., *Where Rivers Are Born, supra*, at 14.

<sup>105</sup> 2009 EPA OIG Report, *supra*, at 1 ("Rapanos has been a major resource drain for the program."); 2 ("It has been difficult for EPA to craft jurisdictional determination guidance that is both legal and useable for field staff."); 3 (there has been a "pretty significant increase over prior case loads."); 11 (Corps Savannah District reports

entry watershed is far more scientifically, legally, and administratively sound than the 2008 Guidance's flawed and harmful stream segment approach.

2. The single point of entry watershed approach should provide for more flexible application where region-specific science warrants.

The "single point of entry" watershed is a reasonable, albeit in our view conservative, starting point for delineating the "region" in which similarly situated waters are to be identified and assessed. We also support the allowance in the proposed guidance for some flexibility in the use of watershed-based analyses by field staff. However, we believe that an additional layer of flexibility would in many cases be scientifically justified, would in those cases be consistent with Justice Kennedy's perspective on what constitutes a "region," would lead toward greater clarity and certainty, and would provide the basis for a much more effective and efficient process.

In particular, we appreciate and agree with the guidance that, for efficiency purposes, field staff may use a watershed smaller than the "single point of entry" watershed as the region *where* it "provides sufficient science-based justification to establish jurisdiction." Proposed Guidance at 8. As the Proposed Guidance states, when significant nexus and jurisdiction is established based on a smaller watershed, "field staff need not unnecessarily expend administrative time and resources analyzing the entire single point of entry watershed." *Id.*

We question, however, the agencies' seemingly inflexible directive to limit the region to a watershed *no larger than* the "single point of entry" watershed. This single point of entry watershed size as a firm upper limit is inconsistent with Justice Kennedy's expressed concern for aggregate effects on a larger regional scale, such as the Mississippi River Basin. He illustrates the scale of that concern by describing the hypoxia event in the Gulf of Mexico, in which loss and degradation of countless small streams and wetlands in the Upper Mississippi basin have collectively contributed to increased nutrient levels in the Mississippi River that annually cause a dead zone in the Gulf which can approach the size of Massachusetts and New Jersey.<sup>106</sup>

We certainly agree that a watershed *smaller* than the "single point of entry" watershed cannot possibly provide a legally or scientifically sound basis for *denying* jurisdiction. *Id.* However, we urge the agencies to allow for additional flexibility in defining the outer boundaries of the "region" for purposes of establishing significant nexus *where the region-specific science warrants*. We believe this flexibility can be employed in a manner that will improve efficiency and certainty, while remaining true to Justice Kennedy's significant nexus standard for aggregating similarly situated waters within a "region."

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jurisdictional determinations take more time to document and to process for approval, particularly for "streams and isolated wetlands;" St. Paul District has gone from using 2 expert witnesses per case to 4, 5, or 6."); 13 (Omaha District reports much more time consuming and difficult to develop cases).

<sup>106</sup> *Id.* at 2247.

For example, we agree with Ducks Unlimited's suggestion that a combination of watersheds and physiographic or ecoregions be used to delineate groups of watersheds that could be scientifically viewed as sufficiently similar to constitute a "region."<sup>107</sup> In a significant number of situations, the "single point of entry" watershed to a TNW or IW will cause work, i.e., jurisdictional determinations, to be unnecessarily repeated for adjacent watersheds when the wetland, riverine, and other land use conditions for adjacent watersheds would be largely indistinguishable. Ducks Unlimited's comments observe that there are a number of watersheds with a single point of entry lined up north-south in Minnesota and North Dakota along the Red River. Many of these watersheds are in the same physiographic region, and in many cases their current and past land use mirrors one another. Unless there was a valid scientific and water-based reason to separate them, a significant nexus analysis of the wetlands and waters in one watershed could likely be applicable to the next.

There are likely to be numerous such examples of single point of entry watersheds that would be sufficiently similar, ecologically and hydrologically, to be grouped as conditions justify. EPA regions and Corps districts could evaluate the watersheds within their respective responsibilities to devise groupings of single point of entry watersheds that were scientifically valid to serve as "regions" for significant nexus analyses.

We recognize the added efficiency, and we support the agencies' direction that, "if a significant nexus has been established for one water *in the watershed*, then other similarly situated waters *in the watershed* would also be found to have a significant nexus." Proposed Guidance at 9. This guidance is consistent with Justice Kennedy's conclusion that "[w]here an adequate nexus is established for a particular wetland, it may be permissible, as a matter of administrative convenience or necessity, to presume covered status for other comparable wetlands in the region."<sup>108</sup>

Our point is that it would be more efficient, more consistent, more certain, and at least as scientifically and legally sound to bundle very similar watersheds within a physiographic region or ecoregion where the science establishes strong similarities and treat them as a "region." This approach would allow for significant nexus determinations to apply across these multi-watershed regions rather than needlessly replicating them watershed-by-watershed despite their similarities. This would significantly increase the efficiency, and ultimately the certainty, of the review and permitting process.

***D. The proposed significant nexus analysis is scientifically sound and closely tracks Justice Kennedy's significant nexus test.***

We strongly support the proposed guidance describing the functions in relation to TNWs and IWs that may demonstrate significant nexus and that field staff should consider and document in their significant nexus analyses. We agree with the agencies' interpretation that, in accordance with Justice Kennedy's opinion, waters have a 'significant nexus' where there is "a predictable or observable chemical, physical, or biological functional relationship between the similarly situated waters and the traditional navigable water or interstate water." Proposed Guidance at 9.

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<sup>107</sup> See Ducks Unlimited Comments on the Proposed Guidance at 13 (July 2011).

<sup>108</sup> *Id.* at 2249.

We also appreciate and strongly support the agencies' detailed description of indicators of hydrology, effects on water quality, and physical, chemical, and biological (including ecological) connections or functions that field staff should use to assess the significance of the effects of downstream TNWs or IWs. *Id* at 9-10.

We also strongly support the guidance that staff are not expected to develop new information on similarly situated waters and are encouraged to use scientific information from the literature in conjunction with site-specific information. *Id.* at 10. This approach will promote and support scientifically-sound yet pragmatic applications of science to field conditions at issue in specific jurisdiction determinations, while still requiring a sufficiently rigorous review and documentation process for each determination to allow for future review, for efficient application in the region, and for the compilation of this information into a useful body of scientific literature. In addition, because the availability of field studies is highly variable across the landscapes of the U.S., this guidance will allow the more general application of scientific literature to the extent that it is scientifically valid to apply it to other geographic situations.

***E. The agencies should move expeditiously to finalize this significant nexus guidance and proceed with rulemaking to reinforce it.***

We strongly urge the agencies to move expeditiously to withdraw the existing 2003 and 2008 guidance documents, replace them with final guidance as recommended herein, and proceed with rulemaking to reinforce such guidance. As noted above and in our 2008 comments, the 2008 guidance almost completely ignores Justice Kennedy's approach to aggregation. In doing so, it has illegally discarded one of the most protective and comprehensive aspects of Justice Kennedy's opinion and left in place a scheme for determining jurisdiction that undercuts the crux of his "significant nexus" test in *Rapanos* and has put large numbers of important waters at risk.

Our research, as well as comments submitted by Corps officials, indicate that many lower order intermittent and ephemeral streams were left unprotected following issuance of the Guidance in 2007 and 2008, likely because of the inability to aggregate streams impacts. For example, one Corps employee has commented that:

[O]ur district has determined that we can not defensibly say that most individual first order/ephemeral stream reaches have a significant effect on a TNW. EPA and the Sierra Club argue that those first order/ephemeral headwater streams should be regulated because cumulatively they greatly effect [sic] the integrity of the TNWs. We do not argue that. However, the Supreme Court ruling and the *Rapanos* guidance did not say to look at them cumulatively. Not until several first or second order streams merge into a higher order stream can we defensibly argue that a stream has a significant effect.<sup>109</sup>

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<sup>109</sup> Email from Cody Wheeler, [codywheeler68@sbcglobal.net](mailto:codywheeler68@sbcglobal.net), Corps Employee, to OW-Docket@EPA (Nov. 16, 2007).

We have also found several instances where streams, some quite sizable, are not being protected.<sup>110</sup> Some of these streams are being subjected to channelization and other projects that can have significant and harmful water quality and habitat implications.<sup>111</sup> *See also* Section VI. And failing to protect these streams leaves them vulnerable to other pollution, like the dumping of industrial and other waste, that poses clear threats to downstream water quality, not to mention the tributary itself. It is high time the agencies issued waters of the U.S. guidance and rulemaking consistent with the CWA, the Supreme Court decisions, and aquatic ecosystem science.

## **VI. The Agencies' Definition and Treatment of Tributaries is Scientifically and Legally Sound.**

We support the agencies' proposed guidance characterizing and defining tributaries, and asserting jurisdiction over tributaries under either the plurality standard or the Kennedy standard. We preface our comments, however, with the reminder that Justice Kennedy does not assert that categorical regulation of tributaries is no longer permissible, or that a case-by-case determination of a "significant nexus" to TNWs or IWs is required to regulate any tributary.<sup>112</sup> It is only in regards to *wetlands* adjacent to minor tributaries that Justice Kennedy refuses to allow categorical assertion of jurisdiction under the current regulations.<sup>113</sup> On the contrary, he suggests the current definition of tributary "may well provide a reasonable measure of whether specific minor tributaries bear a sufficient nexus with other regulated waters to constitute 'navigable waters' under the Act."<sup>114</sup> While the plurality may have questioned categorical regulation of all tributaries, the plurality opinion was not supported by a majority of the Court. It is also worth noting that since regulation of tributaries per se was not at issue in *Rapanos*, it is mere speculation to surmise how the plurality might rule on a case involving jurisdiction over a particular tributary.

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<sup>110</sup> *See, e.g.*, Approved Jurisdictional Determination Form, U.S. Army Corps of Engineers, File NWK-2007-01586-1 (Aug. 17, 2007) *available at* <http://www.nwk.usace.army.mil/regulatory/Rapanos%20JD%20Decision-5%20Jun%202007/2007-1586-JD%20Site%201.pdf> (no jurisdiction found for second order stream with 384 acres of drainage, estimated to be 8,000 linear feet in length with 626 acre watershed); Approved Jurisdictional Determination Form, U.S. Army Corps of Engineers, File NWK-2007-01586-2, (Aug. 17, 2007) *available at* <http://www.nwk.usace.army.mil/regulatory/Rapanos%20JD%20Decision-5%20Jun%202007/2007-1586-JD%20Site%202.pdf> (no jurisdiction found for a first order stream with 115 acres of drainage and a watershed size that is also 115 acres. It is estimated to be 3,800 linear feet in length); Approved Jurisdictional Determination Form, U.S. Army Corps of Engineers, File NWO-2007-2195-DEN (Nov. 1, 2007) *available at* <https://www.nwo.usace.army.mil/html/od-tl/jur/NWO20072195DEN.doc> (ephemeral stream flowing into a reservoir used for water supply not jurisdictional).

<sup>111</sup> *See* EPA Region 7, Fact Sheet, Stream Channelization, *available at* <http://www.epa.gov/region7/wetlands/ChannelizationFS04-Final.pdf> (describing water quality and habitat concerns involved with stream channelization).

<sup>112</sup> Justice Kennedy's opinion limited his basis for remand to the lower court to the question of "whether the specific wetlands at issue possess a significant nexus with navigable waters." 126 S. Ct. 2252. This contrasts with the plurality's broader basis for remand to determine "whether the ditches and drains near wetlands are 'waters,'" and "whether the wetlands in question" are also jurisdictional. *Id.* at 2235. This contrast is further indication Justice Kennedy may not require a case-by-case significant nexus determination for tributaries.

<sup>113</sup> *Id.* at 2249 ("Absent more specific regulations, . . . the Corps must establish a significant nexus on a case-by-case basis when it seeks to regulate wetlands based on adjacency to nonnavigable tributaries").

<sup>114</sup> *Id.* at 2249. Justice Kennedy never calls into question the significance of major tributaries to traditionally navigable waters.

**A. The agencies' definition of tributary is consistent with existing law and science, and does not expand Clean Water Act jurisdiction.**

The agencies' definition of "tributary" as a water that "contributes flow to a traditional navigable water or interstate water, either directly or indirectly by means of other tributaries" is consistent with existing law, science, and past practice. Proposed Guidance at 11. Also consistent is the agencies' guidance that a tributary can be "natural, man-altered, or man-made." *Id.* Both the 2008 Guidance and the Proposed Guidance define tributaries as waters – natural, man-altered, or man-made – that contribute flow to a traditionally navigable water either directly or indirectly. *Id.* 2008 Guidance at 12. There is significant case law that also supports the regulation of man-made and man-altered waters as tributaries.<sup>115</sup>

The proposed guidance also provides constructive and consistent clarification by incorporating the Corps' longstanding Ordinary High Water Mark (OHWM) as an indicator of channel boundaries.<sup>116</sup> Indeed, the proposed tributary definition is essentially the same as the Corps' working definition of tributary at the time of the *Rapanos* decision – a working definition referenced and seemingly supported by Justice Kennedy in his *Rapanos* concurring opinion. We strongly support the agencies' recognition that channel characteristics are variable and those variations must be taken into account in evaluating the presence and continuity of the channel bed and bank. We strongly support the guidance that,

A natural or manmade break (e.g., rock outcrop, underground flow, dam, weir, diversion, or similar break) in the presence of a bed and bank or ordinary high water mark does not establish the upstream limit of a tributary in cases where a bed and bank and an ordinary high water mark can be identified upstream and downstream of the break.

*Id.* at 11.

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<sup>115</sup> See, e.g., *United States v. Moses*, 496 F.3d 984 (9th Cir. 2007), *cert denied*, 554 U.S. 918 (2008) (stream impacted by man-made diversion jurisdictional); *Vierstra*, *supra*, at \*5 ("The fact that the Low Line Canal is man-made is of no moment. The canal is part of a tributary system connecting navigable waters upstream and downstream for six to eight months of the year. Its man-made nature makes it no less capable of carrying pollution to navigable and interstate waters. Moreover, there are many water-ways in the Intermountain West that have been re-routed, re-countered, and re-channeled in an effort to control, store, and use the limited water we have. Excluding these water-ways from the jurisdiction of the CWA when they might otherwise constitute tributaries of navigable waters makes little practical sense."); see also, *United States v. Gerke Excavating, Inc.*, 412 F.3d 804, 805-06 (7th Cir. 2005), *vacated and remanded* 548 U.S. 901 (2006) (ordering further consideration in light of *Rapanos*), *remanded* 464 F.3d 723, 725 (7th Cir. 2006) (remanding to district court for further fact finding to determine whether particular wetlands were jurisdictional "waters of the United States" under Justice Kennedy's significant nexus test). (Finding that, "A stream can be a tributary; why not a ditch? A ditch can carry as much water as a stream, or more; many streams are tiny. It wouldn't make much sense to interpret the [Corps'] regulation[s] as distinguishing between a stream and its man-made counterpart.").

<sup>116</sup> It is important to note that the presence/absence of either an ordinary high water mark or beds and banks is not required under existing regulations or case law for a waterway to be waters of the U.S. See, e.g., Proposed Guidance at 29 (suggesting that the agencies could decide in a forthcoming rulemaking proceeding to make the presence of an ordinary high water mark sufficient to establish that a tributary has a significant nexus to a downstream TNW or IW).

Similarly, we agree that “tributaries that have been channelized by being lined with concrete are still considered tributaries for the purposes of this guidance.” *Id.*

**B. The Proposed Guidance, like the 2008 Guidance, treats non-tidal ditches as tributaries where they clearly function as tributaries.**

Ditches that clearly function as tributaries – contributing flow and pollutants downstream – are regulated as such under both the 2008 Guidance and the Proposed Guidance. While the Proposed Guidance is much clearer and more detailed with regard to the conditions required to find a ditch jurisdictional, it is not more expansive than the existing 2008 guidance. *Compare* Proposed Guidance at 12 with 2008 Guidance at 12.

We are generally supportive of the agencies proposed guidance with respect to the jurisdictional treatment of non-tidal ditches and swales. Proposed Guidance at 12. Non-tidal ditches, including roadside and agricultural ditches, are complicated because they are sometimes carved out of upland, but are often constructed in natural streams and wetlands, are prevalent on the landscape, and where they connect directly or indirectly to the tributary system, they often contribute substantial amounts of pollution and flood water to downstream TNWs or IWs. Such ditch systems have wreaked havoc with water quality in some of the nation’s greatest aquatic ecosystems, including the Chesapeake Bay watershed and Mississippi River Basin and Gulf of Mexico.<sup>117</sup>

To maintain and restore the physical, chemical, and biological integrity of the nation’s waters, the pollution and flood waters conveyed to downstream tributaries from these tributary ditch systems must be subject to Clean Water Act regulation. The agencies have struck a reasonable balance, consistent with the CWA, the Supreme Court cases, and past practice, by treating non-tidal ditches as tributaries *where they clearly function as tributaries*: where they have a bed, bank, and OHWM, connect directly or indirectly to a TNW or IW, and otherwise function as a tributary and potential source of pollution. *See* Proposed Guidance at 12.<sup>118</sup>

EPA precedent for protecting man-made or altered waters that function as tributaries began quite early in the Act’s implementation. The agency’s General Counsel concluded in 1977 that the Arlington Canal, in Buckeye, Arizona, was a “water of the United States,” despite describing the Canal as:

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<sup>117</sup> *See, e.g.*, Dr. Robert Magnien, *Miles of Ditches have Altered Delmarva Peninsula Hydrology*, Chesapeake Bay Journal April 1999 at <http://www.bayjournal.com/article.cfm?article=2128> (last visited 7.23.11); Needleman, B.A., et al, *Drainage Ditch Management as Mitigation for Nutrient Loss in Agroecosystems*, USDA, REEIS (2007) at <http://www.reeis.usda.gov/web/crisprojectpages/197331.html> (last visited 7.23.11); Johnson, R.R. 2010. *Drained Wetland Data for Minnesota*. Unpublished. Fergus Falls, Minnesota: U.S. Fish and Wildlife Service available at <http://prairie.ducks.org/index.cfm?&page=Minnesota/restorablewetlands/home.htm> (33% of the drained wetlands in the flood-prone Vermillion River, SD watershed flowed into artificial drainage ditches, and that a quantity of water equivalent to about half of the river’s annual flow could be stored by restoring those wetlands).

<sup>118</sup> The agencies’ proposed criteria of an OHWM, a bed and bank, and additional criteria indicative of tributary function are criteria above and beyond existing regulatory requirements for what is considered a tributary.

[A]n earthen irrigation ditch which flows roughly parallel to the Gila River [which has flow that] consists primarily of groundwater pumped from wells, irrigation return flows and treated sewage effluent [and which] takes in water from the main Gila River channel only during periods of heavy flow when upstream users are not diverting all of the flow of the River.<sup>119</sup>

The opinion states that the “facts clearly support the Regional Administrator's finding that the Arlington Canal is a tributary of the Gila River, which is navigable water.”<sup>120</sup> And this conclusion was not an aberration; a separate opinion from the General Counsel two years earlier was consistent with this view.<sup>121</sup>

Since the passage of the Act, federal courts have consistently concluded that man-made channels can properly be considered “waters of the United States.” Ditches can be regulated under the Clean Water Act if they flow into other bodies of water that are protected by the Clean Water Act even if the ditches themselves are artificial.<sup>122</sup> In a case involving the discharge of raw sewage during the 1970s into a Louisiana canal that was adjacent to (and from which water was periodically pumped into) wetlands that were considered to be “waters of the United States,” the court found that the canal could be protected either as a water linked to interstate commerce or as a tributary to the wetlands.<sup>123</sup>

In the last decade – both before and after *SWANCC* – numerous federal courts of appeal have found that ditches and canals properly could be protected “waters of the United States.” Specifically, the Fourth, Sixth, Seventh, Ninth, and Eleventh Circuits found that such features were properly protected by the Clean Water Act.<sup>124</sup> Similarly, the Second Circuit rejected an

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<sup>119</sup> U.S. EPA, Office of General Counsel, In re: Town of Buckeye, Arizona, 1977 WL 28254, at \* 1 (Nov. 11, 1977).

<sup>120</sup> *Id.* (citation omitted).

<sup>121</sup> U.S. EPA, Office of General Counsel, In re: Riverside Irrigation Dist., Ltd. & 17 Others, 1975 WL 23864, at \*3-4 (June 27, 1975) (discussing objection about irrigation return canals, EPA’s regulations defining “waters of the United States” and a judicial interpretation which noted that tributaries to navigable waters were protected, and concluding, “[i]t thus appears that the waters that are the subject of these permits may well be determined by the finder of fact, applying the statutory and regulatory test to the facts of these cases, to be navigable waters within the definition in the Act.”).

<sup>122</sup> *U.S. v. Holland*, 373 F. Supp. 665 (M.D. Fla. 1974), *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F. 3d 526 (9<sup>th</sup> Cir. 2001).

<sup>123</sup> *U.S. v. St. Bernard Parish*, 589 F.Supp. 617, 620 (E.D. La. 1984).

<sup>124</sup> *See, e.g., U.S. v. Deaton*, 332 F.3d at 712 (considering effect of pollution into non-navigable tributaries, noting Corps’ interpretation that whole tributary system is protected under applicable rules, and holding, “[t]he Act thus reaches to the roadside ditch and its adjacent wetlands”); *Carabell v. U.S. Army Corps of Eng’rs*, 391 F.3d 704, 708 (6<sup>th</sup> Cir. 2004) (finding that both ends of ditch along border of the property are connected to tributaries of “waters of the United States,” making it a tributary, and thus a protected water), *vacated sub nom, Rapanos v. U.S.*, 126 S.Ct. 2208 (2006); *U.S. v. Gerke Excavating, Inc.*, 412 F.3d 804, 805-06 (7<sup>th</sup> Cir. 2005) (“A stream can be a tributary; why not a ditch? A ditch can carry as much water as a stream, or more; many streams are tiny. It wouldn’t make much sense to interpret the regulation as distinguishing between a stream and its man-made counterpart.”), *vacated* 126 S.Ct. 2964 (2006), *on remand* 464 F.3d 723 (7<sup>th</sup> Cir. 2006) (remanding to district court to apply *Rapanos*), *cert. denied* 128 S.Ct. 45 (2007); *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 533 (9<sup>th</sup> Cir. 2001) (holding that irrigation canals were “tributaries” protected as “waters of the United States”); *U.S. v. Eidson*, 108 F.3d 1336, 1342 (11<sup>th</sup> Cir.) (“There is no reason to suspect that Congress intended to regulate only the natural tributaries of

attempt to limit jurisdiction over a natural tributary that had been “channeled in some places . . . into underground pipes to make room for development. . . .”<sup>125</sup> Cases since *Rapanos* have similarly found that man-made or man-altered tributaries are jurisdictional.<sup>126</sup>

In keeping with this approach, the Bush Administration staunchly defended the protection of the entire tributary system, ditches included, before the Supreme Court. Solicitor General Clement explained “the definition of a tributary is basically any channelized body of water that takes water in a flow down to the traditional navigable water.”<sup>127</sup> Specifically, he noted that “[t]he Corps has not drawn a distinction between man-made channels or ditches and natural channels or ditches. And, of course, it would be very absurd for the Corps to do that since the Erie Canal is a ditch.”<sup>128</sup>

Even at least one opponent of the continued broad scope of the Act observed (in a 2006 email about the draft guidance sent to staff at the Council on Environmental Quality (“CEQ”)) that ditches had “long been covered under [the] CWA,” and wondered whether excluding such “artificial” waters from coverage would create legal vulnerabilities.<sup>129</sup>

**C. *The Proposed Guidance properly asserts jurisdiction over tributaries covered under the Rapanos plurality standard.***

Consistent with the plurality standard, the agencies’ proposed guidance provides that a non-navigable tributary is jurisdictional, without resort to a case-by-case significant nexus finding, when it: 1) is connected directly or indirectly through other tributaries to a downstream TNW; and 2) flow in the tributary, except during drought years, is at least seasonal. Proposed Guidance at 12-13 *citing* plurality opinion, 547 U.S. at 739.

The agencies’ definition of a “seasonal” water as one that has “predictable flow during wet seasons in most years,” is well documented, as is their recognition that length and timing of seasonal flows varies across the country and the determination of whether flow is sufficient to meet the plurality standard for “relatively permanent” should consider the length and timing of seasonal flows in the ecoregion in question. Proposed Guidance at 13, 28 and fns. 69-75. We agree that waters that have had seasonal flow on a historic basis remain jurisdictional despite man-made diversions for irrigation, water supply or other reasons that have caused a tributary, or a portion of a tributary, to flow less than seasonally. *Id.* at 28 and fn. xvi. This position has been supported by the courts. In *United*

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navigable waters. Pollutants are equally harmful to this country’s water quality whether they travel along man-made or natural routes.”), *cert. denied*, 522 U.S. 899 (1997).

<sup>125</sup> *U.S. v. TGR Corp.*, 171 F.3d 762, 765 (2d Cir. 1999).

<sup>126</sup> *See note 115, supra.*

<sup>127</sup> Transcript of Oral Argument, *Rapanos v. United States*, 126 S.Ct. 2208 (2006), at 39 (Feb. 21, 2006), available at [http://www.supremecourt.gov/oral\\_arguments/argument\\_transcripts/04-1034.pdf](http://www.supremecourt.gov/oral_arguments/argument_transcripts/04-1034.pdf).

<sup>128</sup> *Id.*

<sup>129</sup> Email from Jeff Eisenberg, National Cattleman’s Beef Ass’n, to Greg Schildwachter, CEQ, Sept. 13, 2006, at 1 (produced in response to Freedom of Information Act by Council on Environmental Quality). The message went on to convey that, despite their legal concerns, “[w]e of course are happy to have ditches excluded.”

*States v. Moses*, the Ninth Circuit Federal Court of Appeals upheld jurisdiction over a stream that flowed about two months per year, in large part due to a diversion. The court ruled that “the Supreme Court unanimously agreed that intermittent streams (at least those that are seasonal) can be waters of the United States.”<sup>130</sup>

***D. The Proposed Guidance properly asserts jurisdiction over tributaries under the Rapanos Kennedy standard.***

EPA and Corps regulations have defined “waters of the United States” to include tributaries to TNWs and IWs, and they categorically regulated them as such for over 30 years:

For more than 30 years, EPA and the Corps have interpreted the CWA to protect ‘the many tributary streams that feed into the tidal and commercially navigable waters...since the destruction and/or degradation of the physical, chemical, and biological integrity of each of these waters is threatened by the unregulated discharge of dredged or fill material.’”

Proposed Guidance at 29 and fn. 81 and 82 *citing* the preamble to the Corps’ 1977 definition of “waters of the United States.”

Neither Justice Kennedy nor the *Rapanos* dissent found the categorical regulation of tributaries no longer permissible. Nor does Justice Kennedy require a case-by-case determination of a “significant nexus” to a TNW to regulate any tributary.<sup>131</sup> As mentioned previously, he suggests the current definition of tributary may be sufficient to establish the requisite significant nexus between “specific minor tributaries” and “other regulated waters.”<sup>132</sup>

Accordingly, we strongly agree with the agencies’ guidance that “Justice Kennedy’s opinion may reasonably be read as allowing the agencies to determine that a case-by-case significant nexus determination is not necessary for tributaries possessing an ordinary high water mark.” Proposed Guidance at 28-29. We strongly support the agencies’ guidance that they “expect to assert jurisdiction over *all tributaries*” to TNWs or IWs *where*: 1) the tributary has a bed and bank and OHWM; and 2) contributes flow directly or indirectly to a TNW or IW. Proposed Guidance at 13.<sup>133</sup> As the guidance states, if these conditions are met, then the tributary “can transport pollutants, flood waters or other materials to at traditionally navigable water or interstate water,” and, as a result, “the agencies would generally expect that the tributary, along with the other tributaries in the watershed (the “similarly situated” waters), can be demonstrated to have a significant nexus” with the downstream TNW or IW. *Id.* at 13-14.

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<sup>130</sup> *Moses*, 496 F.3d at 990.

<sup>131</sup> See fn. 68, 69, *supra*.

<sup>132</sup> *Id.*

<sup>133</sup> The Federal Appeals Court for the Ninth Circuit has stated that “[t]here can be little doubt that a tributary to waters of the United States is itself a water of the United States.” *Moses*, 496 F.3d at 988 n.8

We agree with the agencies' documented rationale that this expectation is based on evidence that: 1) the presence of a bed and bank and an OHWM are physical indicators of flow; and 2) "it is likely that flows through all of the tributaries collectively in a watershed with the above characteristics are sufficient to transport pollutants, or other materials downstream to the traditional navigable waters or interstate water in amounts that significantly affect its chemical, physical or biological integrity." *Id.* at 14 and fn. 26. *See generally* Judy L. Meyer et al., *Where Rivers Are Born: The Scientific Imperative for Defending Small Streams and Wetlands* (Feb. 2007), available at <http://www.americanrivers.org/site/DocServer/WhereRiversAreBorn1.pdf?docID=182>.

***E. The proposal includes important guidance for documenting significant nexus for tributaries.***

We agree that, at least pending rulemaking reinforcing categorical jurisdiction over all tributaries, field staff should document a significant nexus through a site-specific analysis for tributaries that are not relatively permanent.<sup>134</sup> We agree that it is reasonable to consider all tributaries in a watershed to be similarly situated "because they contribute flow to the downstream traditional navigable water or interstate water and provide similar functions to those downstream waters." Proposed Guidance at 29.

We also strongly support the agencies' commitment, consistent with Justice Kennedy's opinion, to further consider through rulemaking whether the existence of an OHWM alone, or the existence of another clear indicator of tributary characteristics and function alone, is sufficient to establish a significant nexus without resort to a site-specific significant nexus analysis. *Id.* at 29.

We appreciate and support the detailed and well-documented description of the range of information and contextual factors that can and should be used by field staff to document the flow characteristics and functions of tributaries and their hydrologic relationship to the nearest TNW or IW. *See* Proposed Guidance at 14-15 and fns.27-32.

***F. The agencies' treatment of headwater and ephemeral streams is scientifically and legally sound.***

The Proposed Guidance includes the well-documented conclusion that headwater streams, including intermittent and ephemeral streams, are the most common streams in the United States, "[c]ollectively, they determine the chemical, physical, and biological integrity of downstream waters," and "they provide many of the same functions as non-headwater streams." Proposed Guidance at 30 and fns. 84-92. *See also* *Where Rivers Are Born*, *supra*. As the guidance documents, these functions include: sediment retention, nutrient cycling and removal, habitat and refuge for amphibians, fish, and other aquatic and semi-aquatic species, migratory corridors for fish, water temperature regulation, and providing food such as insects, larvae, organic material, to amphibians, fish, and mammals downstream.

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<sup>134</sup> We agree with the guidance that, where feasible, significant nexus should also be documented for relatively permanent waters in Federal Circuits where the sufficiency of the plurality standard for jurisdiction has not been firmly established in judicial precedent.

For example, intermittent headwaters streams throughout the Rocky Mountain West contribute cold, clean water to larger perennial tributaries that flow into traditionally navigable or interstate waters. Fish move through both intermittent and ephemeral streams<sup>135</sup> and fish and other aquatic species use these systems for certain life stages.<sup>136</sup>

As the agencies note, the network of headwater streams can regulate the flow of water into downstream waters, mitigating low flow and high flow extremes, reducing local and downstream flooding, and preventing excess erosion caused by flooding.” Proposed Guidance at 30 and fns. 84-92.

The continued inclusion of ephemeral streams as “waters of the United States” in accordance with the guidance as proposed is well supported by the scientific literature, the CWA, the case law, and past agency practice.<sup>137</sup> As note previously, EPA has estimated that intermittent or ephemeral streams comprise fifty-nine percent of all stream miles in the United States, excluding Alaska.<sup>138</sup>

More than 60% of streams in eastern and central Montana are ephemeral, almost 30% are intermittent and, “[i]n some areas, there are no perennial streams at all.”<sup>139</sup> Thirteen of 18 intermittent streams studied in Eastern Montana’s Charles M. Russell National Wildlife Refuge held 19 fish species, including 14 native species. Most of these streams were not flowing when they were inventoried and fish were captured from residual pools.<sup>140</sup> Dry Creek, a Missouri

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<sup>135</sup> Stefferud & Steffrud, “Fish Movement through Intermittent Stream Channels: A Case History Study” (2007), available at <http://www.usbr.gov/lc/phoenix/biology/azfish/pdf/intermittentStreams.pdf>. See also Vance, Linda, “Post-SWANCC and Rapanos Jurisdictional Determinations in Montana: Four Case Studies of Waters at Risk 15-16 (2010) (a report for Ducks Unlimited, National Wildlife Federation and Trout Unlimited) (2010 Vance Report) (conclusion with Bruce Farling, Montana Trout Unlimited, contribution documents importance of ephemeral and intermittent streams for trout and salmon) available at <http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Wildlife/2010/02-09-10-Reports-Highlight-Threats-to-Local-Waters-and-Wetlands.aspx>

<sup>136</sup> Wigington, et al. “Coho Salmon Dependence on Intermittent Streams,” (2006), available at <http://www.roguebasinwatersheds.org/files/intermittent%20streams%20and%20coho.pdf>. See also 2010 Vance Report, *supra*.

<sup>137</sup> See, e.g., *United States v. Deaton*, 332 F.3d 698, 712 (4th Cir. 2003), *cert denied*, 124 S. Ct. 1874 (2004) (“jurisdiction over the whole tributary system of any navigable waterway is warranted”); *Quivira v. EPA*, 765 F.2d 126 (10th Cir. 1985) (arroyo with continuous groundwater connection and occasional surface water connection jurisdictional under the Act); *United States v. Ashland Oil and Transportation Co.*, 504 F.2d 1317, 1325 (6th Cir. 1974) (finding “Congress knew exactly what it was doing and that it intended the Federal Water Pollution Control Act to apply, as Congressman Dingell put it, ‘to all water bodies, including main streams and their tributaries.’ Certainly the Congressional language must be read to apply to our instant case involving pollution of one of the tributaries of a navigable river. Any other reading would violate the specific language of the definition [of navigable waters as waters of the United States] and turn a great legislative enactment into a meaningless jumble of words.”) (quoting 118 Cong. Rec. 33756-57). See also, Myer et al, *supra*.

<sup>138</sup> See notes 7 and 8, *supra*.

<sup>139</sup> 2010 Vance Report *citing* Vance, Linda K. 2009 *Geographically Isolated Wetlands and Intermittent/Ephemeral Streams in Montana: Extent, Distribution, and Function*. Report to the Montana Department for Environmental Quality and the U.S. Environmental Protection Agency. Montana Natural Heritage Program, Helena, Montana.

<sup>140</sup> 2010 Vance Report, *supra*, at 16 *citing* Bramlett, R.G. and A.V. Zale. 2000. *The ichthyofauna of small streams on the Charles M. Russell National Wildlife Refuge, Montana*. Intermountain Journal of Sciences 6:57-67.

River tributary that typically does not flow from October to March, but still serves as a recruitment source for wild rainbow trout.<sup>141</sup> In western Montana, intermittent reaches of numerous tributaries serve as important corridors for migrating salmonids during the periods they flow.<sup>142</sup> Protecting the intermittent reaches in Montana's Blackfoot River drainage is necessary to conserve seasonal habitat connectivity for native salmonids.<sup>143</sup>

As Western Resource Advocates notes in its Proposed Guidance Comments (July 2011), the vast majority of river miles in the Interior West are smaller headwaters and plains streams that do not flow year-round. EPA Region 8 estimates that only 17% of the waters within its five states flow year-round.<sup>144</sup> In Colorado and Utah, respectively, only 25 and 21 percent of stream miles are perennial.<sup>145</sup>

In Arizona, an estimated 96% of the state's stream miles are intermittent or ephemeral.<sup>146</sup> Moreover, in Arizona, in the early 2000s, the State estimated that 97% of its permitted point source discharges were to headwaters, intermittent and ephemeral streams.<sup>147</sup> In its comments on the 2007 *Rapanos* Guidance, the Arizona Department of Environmental Quality (ADEQ) acknowledged that without Clean Water Act jurisdiction over its intermittent and ephemeral streams, it "will be unable to assure the general public that these discharges of effluent in the desert are not harmful to the environment, and we will be unable to achieve our overall mission to enhance and protect Arizona's environment."<sup>148</sup>

The Proposed Guidance rightfully considers that, particularly in the West, some rivers and streams that are ephemeral today used to flow with greater frequency because of water supply infrastructure that has diverted the natural flows of these rivers and streams elsewhere.<sup>149</sup> While the South Platte River in Colorado once flowed year round, today there are reaches of the South

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<sup>141</sup> *Id.* citing February 2003 personal communication with Ron Spoon, Montana Department of Fish, Wildlife, and Parks.

<sup>142</sup> *Id.* citing February 2003 personal communications with Hendrickson, U.S. Forest Service, Knotek, Montana Department of Fish, Wildlife, and Parks, Neudecker, U.S. Fish and Wildlife Service.

<sup>143</sup> *Id.* citing Pierce, R.W., R.S. Aasheim and C.S. Podner. 2007. *Fluvial westslope cutthroat movements and restoration relationships in the upper Blackfoot basin, Montana*. Intermountain Journal of Sciences Vol. 13, No. 2-3:72-85.

<sup>144</sup> 2009 EPA OIG Report, *supra*, at 8.

<sup>145</sup> See Streams Lakes and Trout Streams of Colorado,

<http://www.cotrout.org/Portals/0/pdf/legislative/State%20of%20Colorado%20Ephemeral%20Comparison.pdf>; EPA, Percentage of Surface Drinking Water from Intermittent, Ephemeral, or Headwater Streams in Utah, available at [http://www.epa.gov/owow/wetlands/science/surface\\_drinking\\_water/pdfs/surface\\_drinking\\_water\\_ut.pdf](http://www.epa.gov/owow/wetlands/science/surface_drinking_water/pdfs/surface_drinking_water_ut.pdf) (last visited 06/28/11).

<sup>146</sup> See Letter from Stephen A. Owens, Director, Arizona Department of Environmental to Benjamin H. Grumbles, Assistant Administrator, Office of Water, U.S. Environmental Protection Agency (December 5, 2007) at 2 (describing the quality and function of surface waters in Arizona) (submitted as comments on the Guidance) (2007 ADEQ Comments); See NWF, NMWF, TU, DU, *Imperiled Treasures: How Recent Supreme Court Decisions and Agency Actions Have Endangered Southwest Waters and Wildlife* (January 2008) at 16; Nadeau & Rains, Hydrological Connectivity Between Headwater Streams and Downstream Waters: How Science can Inform Policy, 43 J. Am. Water Resources Ass'n 118, Fig. 3b (2007), available at <http://www.albergstein.com/cao/Best%20Available%20Science/Headwater%20Streams/JAWRA%20Headwaters%20Issue/Headwaters%20ecological%20connectivity%20-%20science%20and%20policy.pdf>.

<sup>147</sup> *Id.* at 127.

<sup>148</sup> 2007 ADEQ Comments, *Imperiled Treasures*, *supra* note 149.

<sup>149</sup> Western Resource Advocates Comments on Proposed Guidance (July 2011).

Platte where the flow in the river can be composed entirely of effluent from point source permitted discharges.<sup>150</sup>

Because the watersheds in the West have a high concentration of ephemeral streams, the contribution of these streams to the larger tributaries is critical to maintain tributary function, including the function of providing habitat to native species. WRA notes, for example, that the White River in Eastern Utah is designated critical habitat for two Colorado River endangered fishes, the pike minnow and razorback sucker. Many White River tributaries flow only in response to precipitation events. The flushing flows that these tributaries contribute to the White River are necessary for that River to retain healthy habitat for the listed fish.<sup>151</sup>

Natural and artificial ephemeral streams, even if they carry only storm water (or effluent from point source discharges), eventually flow into intermittent or perennial tributaries or traditionally navigable or interstate waters. The pollutants in the storm water or effluent also find their way downstream. WRA offers the example that when a mining pit breached in the middle of Atchee Draw, an ephemeral tributary to the White River in Utah, the mine operator constructed a dam across the draw further downstream to prevent the mud from entering the river.<sup>152</sup>

There is agency precedent for regulating ephemeral streams. In 2007, the Arizona Department of Environmental Quality (ADEQ) commented to EPA that, “Arizona’s ephemeral streams have been considered jurisdictional waters at least since the first days of the 1972 [Clean Water Act].”<sup>153</sup> Prior to the 2007 guidance, the Los Angeles District often took jurisdiction on “dry washes,” at least where they could readily identify an Ordinary High Water Mark.<sup>154</sup> In 2007, the Kansas City District found jurisdictional a first-order, ephemeral, stream based on the presence of a “significant nexus.”<sup>155</sup> Even the 2008 Guidance extended CWA jurisdiction to “[c]ertain ephemeral waters in the arid west” where they are “tributaries and they have a significant nexus to downstream traditional navigable waters. For example, in some cases these ephemeral tributaries may serve as a transitional area between the upland environment and the traditional navigable waters.”<sup>156</sup> The 2008 Guidance failed to explain, however, why such waters outside of the arid West do not likewise provide important functions and warrant protection.

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<sup>150</sup> *Id.* citing USGS, Water Quality in the South Platte River: Colorado, Nebraska & Wyoming 1992-1995, Circular 1167 at 18 (1998).

<sup>151</sup> *Id.*

<sup>152</sup> *Id.* noting “One can see the earth disturbances on Google Earth at approximately 39°53'48.42"N and 109°19'16.05"W. The confluence of the draw with the River is approximately 39°55'36.89"N and 109°19'46.04"W.”

<sup>153</sup> 2007 ADEQ Comments, *Imperiled Treasures* at 17, *supra* note 117.

<sup>154</sup> *Imperiled Treasures* at 17.

<sup>155</sup> See U.S. Army Corps of Eng’rs, Kansas City District, Approved Jurisdictional Determination: Coffey County RWD 3, NWK-2007-02080-2, at 5 (Dec. 6, 2007) (describing multiple effects of stream), available at [http://www.nwk.usace.army.mil/regulatory/Approved\\_JD/2007-2080-JD%20Site%202.pdf](http://www.nwk.usace.army.mil/regulatory/Approved_JD/2007-2080-JD%20Site%202.pdf)

<sup>156</sup> 2008 Guidance at 11.

**F. *The 2008 Guidance has undermined protections for ephemeral streams and should be withdrawn.***

As noted previously, the 2008 Guidance has undermined protections for numerous ephemeral streams that almost certainly had a significant nexus with downstream TNWs or IWs, at least when considered in combination with other tributaries within the watershed. Summarized here are just a few examples:

- 2008 EPA correspondence describes a Kansas City District presumption that first order ephemeral streams, *as a class*, are not waters of the United States, as well as draft jurisdictional determinations that underestimated the length of stream reaches, ignored site visit data, and mischaracterized the ability of streams and associated wetlands to filter pollutants and other affect the integrity of downstream TNWs.<sup>157</sup>
- The Omaha District found an ephemeral stream to be unprotected based on lack of significant nexus, where the flow of the tributary was unlikely to reach a traditionally navigable water as a result of the intervening presence of “a water-supply reservoir with all impounded water piped to municipal water treatment plants or for re-injection into local bedrock aquifers.”<sup>158</sup> This seems completely at odds with the Corps’ Instructional Guidebook’s observation that “[g]enerally, impoundment of a water of the U.S. does not affect the water’s jurisdictional status,”<sup>159</sup> but is likely attributable to the focus in the guidance on the degree of flow to downstream waters.
- The Nashville District rejected Clean Water Act protections for three ephemeral streams, despite acknowledging the potential importance of such waters. In each case, the district based its assessment of the likelihood of a downstream effect on nothing more than distance and its unsubstantiated conclusion that such distance would attenuate the impact. As the district said in each case: “It is possible during a heavy precipitation event that the unnamed tributary to Horn Springs Branch could carry pollutants and flood waters to TNW along with transferring nutrients and oranic [sic] carbon. However, due to the fact that the water has to travel through two tributaries and between 5-10 river miles to the TNW, the impacts, if any would be very minor.”<sup>160</sup>
- The Jacksonville District declared an ephemeral tributary draining a sub-basin approximately 7 acres in size to be non-jurisdictional, with hardly any analysis; rather, the determination states, in a conclusory fashion, that “[t]he frequency and amount of

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<sup>157</sup> *Courting Disaster*, *supra*, at 24 citing EPA Memoranda dated February 27, 2008 and July 10, 2008.

<sup>158</sup> *Courting Disaster*, *supra*, at 14-15 describing and citing U.S. Army Corps of Eng’rs, Omaha District, Approved Jurisdictional Determination: Channel Work in the North Tributary of Newlin Gulch at Lagae Ranch, NWO-2007-2195-DEN, at 3 (Nov. 1, 2007), available at <https://www.nwo.usace.army.mil/html/od-tl/jur/NWO20072195DEN.doc>.

<sup>159</sup> Instructional Guidebook at 31.

<sup>160</sup> U.S. Army Corps of Eng’rs, Nashville District, Approved Jurisdictional Determinations: Horn Springs Group, 200701845, 200701844, and 200701843, at 6 (Sept. 5, 2007).

flow in the ditch is not significant enough to provide notable physical, chemical, or biological benefits to downstream waters or a TNW.”<sup>161</sup>

- The Huntington District made what appears to us to be conflicting non-jurisdictional and jurisdictional determinations for ephemeral and intermittent tributaries in Ohio. Two determinations found that there was no “significant nexus.”<sup>162</sup> On the other hand, the district concluded in a contemporaneous jurisdictional determination that an ephemeral stream was protected because the stream would carry stormwater to the tributary system and “serve to dissipate energy” to the tributary system, things that the other streams presumably would do as well.<sup>163</sup>
- The Buffalo District found three separate ephemeral tributaries to the Cuyahoga River to be non-jurisdictional based on a lack of “significant nexus,” without considering the tributaries collectively (much less similar tributaries in the region).<sup>164</sup>

Similarly, we are aware of at least one example where an ephemeral tributary that seems to have an obvious “significant nexus” was apparently the subject of internal debate among the agencies. In a December memorandum, EPA and the Corps headquarters asserted jurisdiction (indicating to us that there was a dispute in the field) over an ephemeral tributary to Canyon Lake, in California, a TNW that is listed as impaired for nitrogen, phosphorus, and pathogens.<sup>165</sup> There was evidence that, “particularly under wet conditions,” sources in the watershed in which the segment is located “contribute significant amounts of nutrients” to the lake.<sup>166</sup> In addition, modeling and analysis showed that “it is reasonable to expect pathogens . . . to be present in runoff from the land uses in the . . . sub-watershed,” and that “even if the pathogen loads from [the segment] were diluted by unpolluted flows from the rest of the watershed flowing to Canyon Lake, the resulting concentration of fecal coliform at the point of entry to Canyon Lake would likely exceed applicable state water quality standards for pathogens.”<sup>167</sup> Although the agencies ultimately reached the right result in this particular case, such an obvious decision should never have required the time, resources, and uncertainty entailed in headquarters intervention.

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<sup>161</sup> U.S. Army Corps of Eng’rs, Jacksonville District, Approved Jurisdictional Determination: SAJ-2007-4563, at 5 (Aug. 31, 2007).

<sup>162</sup> U.S. Army Corps of Eng’rs, Huntington District, Approved Jurisdictional Determination: Good Samaritan Hospital, LRH-2007-449-GMR, at 7 (Oct. 4, 2007) (finding that significant nexus was absent because, *inter alia*, stream was of low quality, lacked adjacent wetlands, was contained in a culvert over 40% of its length and does not have a developed floodplain); U.S. Army Corps of Eng’rs, Huntington District, Approved Jurisdictional Determination: North Clayton Development, LRH-2006-518-GMR, at 7 (Oct. 5, 2007) (finding lack of significant nexus because it conveys a small amount of stormwater and does not provide habitat or have significant floodplain).

<sup>163</sup> Army Corps of Eng’rs, Huntington District, Approved Jurisdictional Determination: North Clayton Development, LRH-2006-518-GMR, at 7 (Oct. 5, 2007).

<sup>164</sup> Army Corps of Eng’rs, Buffalo District, Approved Jurisdictional Determination: City of Independence, 2006-00191, Ephemeral Stream 1, at 5 (Nov. 1, 2007); *see also* Army Corps of Eng’rs, Buffalo District, Approved Jurisdictional Determination: City of Independence, 2006-00191, Ephemeral Stream 2, at 5 (Nov. 1, 2007); Army Corps of Eng’rs, Buffalo District, Approved Jurisdictional Determination: City of Independence, 2006-00191, Ephemeral Stream 3, at 5 (Nov. 1, 2007).

<sup>165</sup> Memorandum from Brian Frazer, Wetlands & Aquatic Resources Regulatory Branch, U.S. EPA & Russell L. Kaiser, Regulatory Community of Practice, U.S. Army Corps of Eng’rs, Assertion of Jurisdiction for Jurisdictional Determination SPL-261-FBV (Dec. 6, 2007).

<sup>166</sup> *Id.* at 3.

<sup>167</sup> *Id.* at 4.

## VII. The Proposed Guidance Properly Asserts Jurisdiction Over Adjacent Wetlands.

### A. *The proposed guidance properly asserts jurisdiction over adjacent wetlands covered by the Rapanos plurality standard.*

The Proposed Guidance asserts jurisdiction in accordance with the plurality decision over “wetlands with a continuous surface connection to ‘relatively permanent, standing or continuously flowing bodies of water’ connected to traditional navigable waters.” Proposed Guidance at 15 *citing Rapanos*, 547 U.S. at 739, 742. The agencies clarify that what is required under the plurality standard is:

- 1) The wetland is “adjacent” to a relatively permanent, non-navigable tributary that is connected to a downstream TNW; *and*
- 2) “A continuous surface connection exists between the wetland and a relatively permanent tributary *where the wetland directly abuts the water* (e.g., they are not separated by uplands, a berm, dike, or similar feature)....”

Our organizations appreciate and support the important clarification that a “‘continuous surface connection’ does not require the presence of water at all times in the connection between the wetland and the jurisdictional water.” As the Proposed Guidance notes at 30, the plurality standard calls for a “physical connection,” but does not require “surface water to be continuously present between the wetland and the tributary.” Proposed Guidance at 30 and fn 93, *citing* 547 U.S. at 747.<sup>168</sup>

We agree that “[u]nder the plurality standard, wetlands with a continuous surface connection to relatively permanent waters are jurisdictional *without the legal obligation to make a significant nexus finding.*” Proposed Guidance at 15 (emphasis added). However, we recommend that, at least pending rulemaking, the final guidance encourage a back up finding of significant nexus unless and until judicial acceptance of the plurality standard is assured. The 11th Circuit has explicitly rejected the plurality standard as a basis for finding jurisdiction, and only two other federal circuit courts have explicitly stated that it can serve as a basis for asserting jurisdiction over waters.<sup>169</sup>

### B. *The Proposed Guidance properly asserts jurisdiction over adjacent wetlands covered under the Rapanos Kennedy standard.*

The agencies’ find adjacent wetlands jurisdictional applying the Kennedy standard where the wetlands: 1) meet the agencies regulatory definition of “adjacent;” and 2) are adjacent to a TNW or non-wetland IW; or 3) are adjacent to a tributary, lake, reservoir, or other jurisdictional water (except another wetland) and either alone or in combination with other adjacent wetlands in the

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<sup>168</sup> While not explicitly addressed, this has support in case law. In *United States v. Cundiff*, the court concluded that under the plurality test, a continuous surface connection would not necessarily be defeated by “any interruption in flow.” *Cundiff*, 555 F.3d, at 212 n.5.

<sup>169</sup> See notes, 72-75, *supra*.

watershed has a significant nexus to the nearest downstream TNW or IW. Proposed Guidance at 16.

*1. The Agencies' guidance to include hydrological and ecological connections in determining adjacency is scientifically and legally sound.*

The agencies interpret their regulatory definition of “adjacent” to explicitly include, among others, the criteria or considerations of “unbroken surface or shallow subsurface hydrologic connection,” location “within the riparian area or floodplain of a jurisdictional water,” and “demonstrable ecological interconnection.” Proposed Guidance at 16-17. Recognition of these hydrological and ecological connections between wetlands and “bordering, contiguous, or neighboring” jurisdictional waters is warranted by the scientific literature and resource management experience, as well as “the Act’s text, structure, and purpose,” and Justice Kennedy’s concurring opinion in *Rapanos*.<sup>170</sup>

*Wetland Mosaics to be treated collectively*— We agree with the agencies’ science-based premise that “[a]ll wetlands within a wetland mosaic should ordinarily be considered collectively when determining adjacency...” and that “[w]etlands present in such systems act generally as a single ecological unit.” As the Proposed Guidance rightly notes, wetlands often occur in a “mosaic” with complex and repeated small changes in elevation such that many small non-wetland “[t]ops of ridges and hummocks” are often interspersed with wetlands having hydrophytic vegetation, hydric soils, and wetland hydrology.” Proposed Guidance at 17-18.

*Surface and sub-surface connections clarified*— The clarification that water does not have to be present continuously in either surface or subsurface connections is scientifically sound relative to the purposes of the Clean Water Act. See fn. 36. Also important is the clarification that the hydrologic connections do not themselves need to be waters of the U.S. or regulated by the CWA in order to serve as connections that establish jurisdiction for other waters. Again, this is a scientifically sound principle in relation to the purposes of the CWA.<sup>171</sup>

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<sup>170</sup> See Proposed Guidance at 16-17 and fns. 36-42, and at 31 and fns. 96-98; See also, *Rapanos*, 126 S.Ct. at 2245-48; *Northern Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 997-1001 (9th Cir. 2007) (constant ground water flow between river and pond makes pond jurisdictional under 33 C.F.R. § 328.3(b)).

<sup>171</sup> See *Healdsburg*, 496 F.3d at 1000 (citing to underground hydrologic connections as a basis for establishing a significance nexus between two bodies under Justice Kennedy’s standard); *United States v. Banks*, 115 F.3d 916, 921 (11th Cir. 1997) (finding that wetlands that were at least one half mile from navigable waters were jurisdictional due to a hydrologic connection that “was primarily through groundwater, but also occurred through surface water during storms”); *United States v. Tilton*, 705 F.2d 429 (11th Cir. 1983) (finding that wetlands with rare surface water connections, but demonstrated ecological and subsurface hydrological connections, were jurisdictional); see also, *Idaho Rural Council v. Bosma*, 143 F. Supp. 2d 1169, 1180 (D. Id. 2001) (“[T]he interpretive history of the CWA only supports the unremarkable proposition with which all courts agree – that the CWA does not regulate ‘isolated/nontributary’ groundwater which has no affect on surface water. It does not suggest that Congress intended to exclude from regulation discharges into hydrologically connected groundwater which adversely affect surface water. For these reasons, the Court finds that *the CWA extends federal jurisdiction over groundwater that is hydrologically connected to surface waters that are themselves waters of the United States.*”) (emphasis added) (citations omitted); *Quivira v. EPA*, 765 F.2d 126 (10<sup>th</sup> Cir. 1985) (arroyo with continuous groundwater connection and occasional surface water connection to downstream jurisdictional waters protected under the Act); *Washington Wilderness Coalition v. Hecla*, 870 F. Supp. 983, 990 (E.D. Wash. 1994) (“[S]ince the goal of the CWA is to protect the quality of surface waters, any pollutant which enters such waters, whether directly or through groundwater, is subject to regulation by NPDES permit.”); *Sierra Club v. Colorado Refining Company*, 838 F. Supp. 1428, 1434 (D.

*Reinforcement of long-standing interpretation regarding dikes, barriers, natural river berms, beach dunes, and the like* – We concur with the agencies’ emphasis that the presence of man-made barriers as well as natural river berms and beach dunes do not sever the hydrological and ecological interconnections between wetlands and adjacent jurisdictional waters. Proposed Guidance at 17, fn. 37, 31-32.<sup>172</sup> While this key factor in determining adjacency is explicit in the agencies’ long-standing regulatory definition of “adjacent,” it has at times been overlooked in the field, leading to inconsistent jurisdictional determinations and compromised protections for important wetland systems.<sup>173</sup> Clarification and documentation of the legal and scientific basis for this important principle of adjacency provide increased certainty and better protection for important wetland systems.

*Adjacency based on location within the riparian area or floodplain* – We agree that one sufficient condition of adjacency should be location within a riparian area or floodplain. See Proposed Guidelines at 17, fns 38-42. Supporting the Proposed Guidance with respect to both wetland mosaics and floodplains, a 2002 Corps guidebook for the Northern Rockies states, “It cannot be overemphasized . . . that the wetlands and the ecological functions they provide are inextricably embedded within the context of the floodplain mosaic.”<sup>174</sup> Another Corps report confirms that the Upper Yellowstone River drainage has many wetland mosaic complexes in the floodplain.<sup>175</sup>

We suggest that the final guidance further clarify that the “floodplain” to be considered for this purpose include at least the 100-year floodplain, or perhaps any area inundated by a flood for

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Colo. 1993) (where the Judge stated that, “I conclude that the Clean Water Act’s preclusion of the discharge of any pollutant into ‘navigable waters’ includes such discharge which reaches ‘navigable waters’ through groundwater.”) (emphasis added) (citations omitted); *McClellan Ecological Seepage Situation v. Weinberger*, 707 F. Supp. 1182, 1196 (E.D.Ca. 1988), *vacated and remanded on other grounds*, *M.E.S.S. v. Perry*, 47 F.3d 325 (9th Cir. 1995), *cert. denied*, 516 U.S. 807 (1995) (where the Court found that discharges to groundwater could be regulated under the Act if “discharges from the waste pits have an effect on surface waters of the United States” and it could be established that the groundwater was “naturally connected to surface waters that constitute ‘navigable waters’ under the Clean Water Act”).

<sup>172</sup> Courts have confirmed that severances of surface hydrological connectivity do not defeat jurisdiction or adjacency. In *Healdsburg*, the overtopping of a levee separating the pond and wetland from the nearby river were rare events and most hydrologic connection was subsurface. See *Healdsburg*, 496 F.3d at 1000. Additionally, the Federal Appeals Court for the Eleventh Circuit found that, “[M]an-made dikes and barriers separating wetlands from other waters of the United States do not defeat adjacency.” *Banks*, 115 F.3d. at 921 (emphasis added) (citations omitted). In *United States v. Tilton*, the Eleventh Circuit also found jurisdictional existed over wetlands that were separated from an adjacent river by an earthen berm at least thirty feet wide. 705 F.2d 429.

<sup>173</sup> See, e.g., *Courting Disaster* at 13 and 20.

<sup>174</sup> Hauer et al, A Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing Wetlands Functions of Riverine Floodplains in the Northern Rocky Mountains, ERDC/EL TR-02-21 at 11 (2002), available at <http://el.erd.c.usace.army.mil/wetlands/pdfs/trel02-21.pdf>.

<sup>175</sup> U.S. Army Corps of Engineers, Wetlands Regulatory Assistance Program, “Upper Yellowstone River Hydrogeomorphic Functional Assessment for Temporal and Synoptic Cumulative Impact Analyses,” ERDC TN-WRAP-01-03 (2001).

which records exist. As a practical matter, the 100-year floodplain may be the most useful scale because of the availability of these floodplain maps.<sup>176</sup>

*Adjacency based on demonstrable ecological interconnections* – We agree with the agencies' guidance that "[s]pecies, such as amphibians, certain reptiles (e.g., watersnakes), waterfowl, invertebrates, and fish (including anadromous and catadromous fish), move between an adjacent wetland and a jurisdictional water for spawning, nesting, feeding, refuge, and other life stage requirements," and that "if resident aquatic species (e.g., amphibians, aquatic turtles, fish, or ducks) rely on both the wetland and the jurisdictional waterbody for all or part of their lifecycles (e.g., nesting, resting, or feeding), that may demonstrate that the wetland is neighboring and thus adjacent." Proposed Guidance at 16-17. Such movements provide a scientific basis for demonstrating an ecological interconnection for adjacency. Proposed Guidance at 17 & n. 42.

The federally endangered razorback sucker of the Colorado River Basin is one example of an aquatic species that moves between wetlands and rivers during different life-stages:

To complete its life cycle, the razorback sucker moves between adult, spawning, and nursery habitats. Spawning occurs during high spring flows when razorback sucker migrate to cobble bars to lay their eggs. Larvae drift from the spawning areas and enter backwaters or floodplain wetlands that provide a nursery environment with quiet, warm, and shallow water.

Research shows that young razorback sucker can remain in floodplain wetlands where they grow to adult size. As they mature, razorback sucker leave the wetlands in search of deep eddies and backwaters where they remain relatively sedentary, staying mostly in quiet water near the shore.<sup>177</sup>

Courts have also found that ecological factors can serve to establish adjacency. For instance, in *Healdsburg*, the Ninth Circuit Court of Appeals found a significant nexus existed between the wetlands and pond area at issue and the nearby navigable river based on the ecological considerations. The court noted that "[t]he Pond and its wetlands support substantial bird, mammal and fish populations, all as an integral part of and indistinguishable from the rest of the Russian River ecosystem.... As the district court observed, these facts make Basalt Pond indistinguishable from any of the natural wetlands alongside the Russian River that have extensive biological effects on the River itself."<sup>178</sup> Similarly, in *Cundiff*, the District Court of Appeals in a decision upheld by the Sixth Circuit Court of Appeals noted "habitat support for plant and wildlife species" and impacts to "aquatic food webs" as justifying the existence of a significant nexus between wetlands and a downstream navigable water.<sup>179</sup> Additionally, prior to

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<sup>176</sup> See, e.g., Kusler, Jon A., *Assessing the Natural Beneficial Functions of Floodplains: Issues and Approaches; Future Directions* at 10 Association of State Wetlands Managers, Berne, NY (Draft, May 1, 2011) available at [http://aswm.org/pdf\\_lib/nbf.pdf](http://aswm.org/pdf_lib/nbf.pdf); [http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/base\\_flood.shtm](http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/base_flood.shtm).

<sup>177</sup> Upper Colorado River Endangered Fish Recovery Program, "Razorback Sucker," available at <http://www.coloradoriverrecovery.org/general-information/the-fish/razorback-sucker.html>. "Juvenile razorback suckers have been collected in recent years from Old Charley Wash, a wetland adjacent to the Green River." US Fish & Wildlife Service, "Final Programmatic Biological Opinion on the Management Plan for the Endangered Fishes in the Yampa River Basin" 30 (2005) ("Yampa PBO").

<sup>178</sup> *Healdsburg*, 496 F.3d at 1001.

<sup>179</sup> *U.S. v. Cundiff*, 480 F. Supp. 480, 495 (W.D. Ky. 2007), *aff'd*, 555 F.3d. 200 (6th Cir. 2009).

*SWANCC*, in *Tilton*, the Eleventh Circuit Court of Appeals upheld jurisdiction noting that the wetlands provided important functions such as offering habitat for a diverse array of wildlife, producing food for the food chain, filtering upland runoff before such runoff entered other waters, serving as a buffer for storm runoff, and storing storm water and thus preventing flooding damage from occurring.<sup>180</sup>

2. *The Agencies' adjacency guidance should focus less on physical proximity and more on hydrological and ecological function.*

While we generally support the proposed adjacency guidance, we challenge the agencies' emphasis on physical proximity in determining adjacency. The ecological interconnections that demonstrate adjacency are based on wetland functions that are, at most, indirectly related to physical proximity. Physical adjacency, like isolation, is largely a legal construct and an artificial distinction not grounded in hydrology or aquatic ecology.

Similarly, we urge correction of what we consider a false distinction drawn between "species that move between an adjacent wetland and a jurisdictional water" and "migratory species." These two classes of species are not mutually exclusive or distinguishable. "Migratory birds" represents a legal categorization of bird taxa that reflects their tendency to migrate from a breeding area to a wintering area, sometimes distant from one another. Other bird taxa are considered resident or non-migratory species and spend their lives within a relatively small region. However, a "migratory bird," like a non-migratory bird, will still make *within* season use of different aquatic habitats, "mov[ing] between an adjacent wetland and a jurisdictional water" to meet certain lifecycle needs.

We understand the rationale, in light of *SWANCC*, for not considering the use of a wetland "during a journey to a different area" by a *migrating* bird or other species as a basis for demonstrating ecological interconnections for purposes of demonstrating adjacency or significant nexus. However, the *within* season use of both aquatic habitats, particularly when there is at least some degree of dependency on both waters, should be a valid basis for contributing to the demonstration of ecological interconnectedness regardless of whether the species migrates from the area/region during another season or stage of its annual life cycle. There is neither a scientific nor a legal rationale for doing otherwise. Indeed, the Proposed Guidance recognizes as much when it identifies "ducks" and "waterfowl" as species whose movements between aquatic habitats can establish adjacency. Proposed Guidance at 16-17.

Ducks Unlimited's example of the wintering redheads of the Laguna Madre illustrate both these points, as well as the related absence of scientific support for drawing a hard and fast distinction between "adjacent" and "non-proximate" wetlands based on physical proximity. *See* Ducks Unlimited comments on this proposed guidance at 32:

Wintering redheads and lesser scaup provide excellent examples. Approximately 80% of the entire North American population of redheads winters in estuaries of the Gulf of Mexico, most in the Laguna Madre of Texas and Tamaulipas, Mexico (Adair et al 1996; Ballard et al 2010). They forage almost exclusively on shoalgrass

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<sup>180</sup> *Tilton*, 705 F.2d at 431 n.1.

*(Halodule wrightii)* in the hypersaline lagoon, a traditionally navigable water (Ballard et al 2010). Large numbers of lesser scaup also winter in the Gulf Coast region, and generally forage on invertebrates in the saline habitats of Texas and Louisiana (McMahan 1970). Large concentrations of diving ducks in the region, including these two species, also make heavy use of inland, coastal freshwater ponds in order to dilute the salt loads ingested while feeding in the saline habitats (Adair et al 1996; Ballard et al 2010). Activity budgets documented that redheads and scaup spent approximately 37% and 25%, respectively, of their time spent on the freshwater wetlands actively drinking (Adair et al 1996), the dominant behavior while on freshwater wetlands. While both studies found that redheads and scaup tended to make greater use of wetlands that were in closer proximity to the coast when they were available, because they require the fresh water to survive they flew farther inland during dry conditions to acquire freshwater as needed. Adair et al. (1996) found that redheads used wetlands up to 13 miles inland, and scaup used wetlands up to 33 miles from the coastal navigable waters.

This example demonstrates that these migratory bird species are dependent upon *both* the navigable saline waters of the Laguna and Gulf, *and* the inland, “physically non-proximate” freshwater wetlands during the course of day-by-day in season use. This in season movement between and in season dependence on wetlands and traditionally navigable waters located up to 33 miles from one another for a key element of survival and reproduction demonstrates an ecological interconnection that must be preserved to maintain and restore the biological integrity of the traditionally navigable Laguna Madre, and meet the goal of the Clean Water Act. This demonstrated ecological interconnection seems sufficient to demonstrate that the inland freshwater wetland is neighboring and thus adjacent.

3. *The Agencies’ significant nexus guidance for adjacent wetlands should focus less on physical proximity and more on hydrological and ecological function.*

The determination of adjacency and the determination of significant nexus are different inquiries. The latter is based on evaluating whether there is a significant nexus between a given wetland, in combination with similarly situated wetlands in the watershed, and a TNW or non-wetland IW. However, we question the agencies’ proposal to artificially distinguish between “adjacent” and “non-proximate” wetlands and other waters in a watershed context, and find only “adjacent wetlands” to be “similarly situated” within a watershed even where their functions in the watershed are indistinguishable from “proximate other waters” or “non-proximate wetlands.” See Proposed Guidance at 18.

We support the guidance that in determining significant nexus, “field staff should consider the many functions of waters such as sediment trapping, nutrient recycling, pollutant trapping and filtering, retention or attenuation of flood waters, run-off storage, and provision of habitat.” We agree with the conclusion that “[i]n general, tributaries and their adjacent wetlands function as an integrated hydrologic system, and as a unit they may affect the amount of pollutants and floodwaters that reach the downstream navigable waters or interstate waters.” Proposed Guidance at 19.

However, this “integrated hydrologic system” is not limited to “adjacent” wetlands and waters. It will often also include some “non-proximate” waters serving similar functions as part of the “integrated hydrologic system” and therefore “similarly situated” in the watershed. The scientific literature and field data and experience do not distinguish between “proximate” and “non-proximate” wetlands and other waters in documenting these important ecological functions. “Similarly situated” wetlands and waters should be categorized based on their ecological function, and not their physical proximity. Indeed, Justice Kennedy acknowledged as much: “Given the role wetlands play in pollutant filtering, flood control, and runoff storage, it may well be the absence of hydrologic connection (in the sense of interchange of waters) that shows the wetlands’ significance for the aquatic system.”<sup>181</sup>

We are concerned that the artificial distinction between physically “adjacent” and “non-proximate” will arbitrarily limit the wetland aggregation analysis within a watershed to a subset of the “similarly situated” wetlands in a manner that is inconsistent with both the science and Justice Kennedy’s significant nexus test.

***C. The 2003 SWANCC and 2008 Rapanos guidances have put millions of adjacent wetland acres at risk and must be replaced with a scientifically and legally sound set of guidance and rules.***

The 2003 and 2008 Guidances, and their application in the field, have put millions of adjacent wetlands at risk through a combination of flawed guidance and bad calls in the field. Here are just a few examples:

*Forested wetlands, Coastal South Carolina* – Corps determinations in 2002, 2003, and 2005 each found this 32-acre wetland site “isolated,” with no surface water connection to nearby tributaries, and therefore not subject to Clean Water Act jurisdiction due to *SWANCC* and the *SWANCC* Guidance.<sup>182</sup> It was not until a citizen suit challenged the Corps’ 2005 non-jurisdictional determination that the Corps and EPA conducted a series of field inspections that confirmed that the wetlands site was, in fact, adjacent to a tributary that ultimately flowed to a TNW, Collins Creek. In November 2010, the Corps ultimately found this adjacent wetland jurisdictional, documenting that this wetland, in combination with similarly situated adjacent wetlands identified along the tributary reach, had a significant nexus with a TNW-Collins Creek. This 2010 significant nexus analysis was very similar to that set forth in the Proposed Guidance except that the aggregation of wetlands was limited to the stream reach due to the constraints of the existing flawed guidance.<sup>183</sup>

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<sup>181</sup>126 S. Ct. 2251. *see also, Id.* at 2245-46 (“it may be the absence of an interchange of waters prior to the dredge and fill activity that makes protection of the wetlands critical to the statutory scheme.”).

<sup>182</sup> Charleston District, Army Corps of Engineers, Memorandum to Assert Jurisdiction for SAC 2005-41222-3JI (f.k.a. 87-2005-0575-3 Spectre LLC) (November 1, 2010) (2010 Spectre LLC Jurisdiction Memorandum) at 1. *See also, Earthjustice, et al. Courting Disaster: How the Supreme Court Has Broken the Clean Water Act and Why Congress Must Fix It.* (April 2009), at 5-6; Connolly, Kim D., *The Effects of the SWANCC and Rapanos Supreme Court Rulings on South Carolina Waters*, at 4-6 (2010) (prepared for National Wildlife Federation, Trout Unlimited, and Ducks Unlimited) available at <http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Wildlife/2010/02-09-10-Reports-Highlight-Threats-to-Local-Waters-and-Wetlands.aspx>.

<sup>183</sup> *Id.* at 2-8.

*Forested wetlands, Coastal Georgia* – Following *SWANCC*, the Corps accepted a mining company assertion that it did not need a permit to destroy over 300 wetland acres in the Satilla River basin near the Okefenokee Swamp because those wetlands were “isolated” from other wetlands by a dirt road. It was left to environmental groups to demonstrate that many of the wetlands drained into a working culvert that went under a dirt road and linked the 300 acres of wetlands to other waterways downstream. Only after months of communications and the threat of litigation did the Corps finally reverse its non-jurisdictional determination.<sup>184</sup> *See also, Courting Disaster* at 20 citing EPA and Corps Memorandum to Assert Jurisdiction for SAS-2007-670 (February 12, 2008) (Agencies ultimately reversed non-jurisdictional determination for barrier island interdunal freshwater wetlands later found to be part of a connected interdunal system and hydrologically connected to the tidal Julienton and Little Mud Rivers.) Careful implementation of the Corps’ adjacency definition and this new guidance should prevent the wasted time and resources, as well as the potential wetland loss, associated with this flawed non-jurisdictional determination.

*Sedge wetlands, Eastern Front Range, Colorado* – In 2007, the Corps found “isolated” and non-jurisdictional a series of wetlands because they were geographically cut off from their historic Little Dry Creek drainage by a small low-level dam. This example is not an isolated one, but part of a pattern of similar non-jurisdictional determinations along the eastern front range.<sup>185</sup> “[O]ften the difference between wetlands receiving CWA protection or not depends on whether they abut a RPW or a TNW. If they do not, under current Corps practices, they likely will be designated non-jurisdictional *regardless of whether they may be in the same floodplain or drainage and providing many if not all of the same functions.*” (emphasis added).<sup>186</sup> A more functional approach to adjacency as the agencies propose should require a more careful consideration of these wetlands and their likely ground water recharge, flood flow retention, and wildlife connections within the floodplain and the watershed.

*Adjacent wetland, West Tennessee* – In 2007, the Corps found non-jurisdictional a wetland that existed “only feet” from the confluence of the Reelfoot, North Reelfoot, and cane Creek streams that flow through the Reelfoot National Wildlife Refuge.<sup>187</sup> “Given the proximity of the contested wetland to the stream, the destruction of the wetland site and loss of the wetland’s water quality functions could significantly impact the stream and the refuge by introducing pollutants into the waterways.”<sup>188</sup>

### **VIII. The Proposed Guidance Properly Applies Justice Kennedy’s Significant Nexus Test to the “Other Waters” at Issue in *SWANCC*.**

The agencies properly read *SWANCC* and Justice Kennedy’s concurring opinion in *Rapanos* as supporting the application of Kennedy’s significant nexus standard to the “other waters”

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<sup>184</sup> *Courting Disaster* at 13.

<sup>185</sup> Buechler, *supra*, at 19-22.

<sup>186</sup> *Id.* at 22.

<sup>187</sup> Siedschlag, Greg, et al, *Five Case Studies on the Effects of the SWANCC and Rapanos Supreme Court Rulings on Tennessee Waterways*, at 9 (prepared for National Wildlife Federation, Trout Unlimited, and Ducks Unlimited) (January 2010) available at <http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Wildlife/2010/02-09-10-Reports-Highlight-Threats-to-Local-Waters-and-Wetlands.aspx>.

<sup>188</sup> *Id.* at 10.

included in the agencies' long-standing definition of "waters of the U.S." and at issue in *SWANCC*.<sup>189</sup>

We agree that if an "other water" is demonstrated to have a significant nexus to a TNW or IW, then it also satisfies the regulatory requirement that the water is one "the use, degradation or destruction of which could affect interstate or foreign commerce." We agree with the rationale that "[i]f a water meets Justice Kennedy's significant nexus standard, the degradation or destruction of that water could harm the traditional navigable water or interstate water and therefore could affect interstate or foreign commerce." Proposed Guidance at 32. *See, e.g.,* Kennedy concurring opinion quoting *Oklahoma ex rel Phillips v. Guy F. Atkinson Co.*, 313 U.S. 508, 524-525 (1941) ("[T]he exercise of the granted power of Congress to regulate interstate commerce may be aided by appropriate and needful control of activities and agencies which, though intrastate, affect that commerce").<sup>190</sup>

**A. *Generally speaking the agencies' treatment of physically proximate other waters is well-supported legally and scientifically.***

We appreciate the agencies' clarification that "physically proximate other waters" (e.g., "lakes, ponds, and other non-wetland waters") are "non-wetland waters that would satisfy the regulatory definition of 'adjacent' if they were wetlands." Proposed Guidance at 19. The agencies' determination that "such waters have many of the same functions and effects with respect to jurisdictional waters as adjacent wetlands" has strong scientific support. Proposed Guidance at 19, 32. As the guidance documents, "physically proximate waters can function to retain floodwaters, recharge groundwater, provide habitat for waterfowl and other species, and process and retain nutrients and pollutants that may otherwise enter tributaries; they may even be connected to a river during high floods and provide a protected habitat for eggs and young of many fish species, as well as provide refuge for spawning for some species." Proposed Guidance at 32-33 and n. 103. Justice Kennedy's conclusion that the very absence of a hydrologic connection may show the wetlands' significance applies just as much to "physically proximate other waters" as to adjacent wetlands, as the guidance notes. Proposed Guidance at 33.

**B. *Where adjacent wetlands and physically proximate other waters are "similarly situated" in the watershed, the significant nexus analysis should consider these closely related categories of waters in combination.***

We agree that the significant nexus analysis for "physically proximate waters" should be treated "in much the same manner" as adjacent wetlands, "since they stand in the same relationship to and serve many of the same functions as such wetlands with respect to the aquatic systems that

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<sup>189</sup> 33 C.F.R. § 328.3(a)(3); 40 C.F.R. § 230.3(s)(3); *see also* 40 C.F.R. § 122.2 ("waters of the U.S." (c)).

<sup>190</sup> 129 S.Ct. at 2249-2250. Justice Kennedy also indicates that regulation of waters having significant nexus are well within the Congress's authority and waters that meet the significant nexus test avoid any federalism or constitutional concerns:

In *SWANCC*, by interpreting the Act to require a significant nexus with navigable waters, the Court avoided applications—those involving waters without a significant nexus—that appeared likely, as a category, to raise constitutional difficulties and federalism concerns. *Rapanos*, 126 S. Ct. at 2246; 547 U.S. at 776.

they are near.” *Id.* at 32. However, given that these two artificially designated categories of waters “stand in the same relationship to and serve many of the same functions as such wetlands with respect to the aquatic systems that they are near,” we contend they are “similarly situated” in the watershed and should be considered in combination in determining significant nexus, in accordance with the Kennedy significant nexus standard. We see no scientific or legal basis for segregating the significant nexus analysis for adjacent wetlands from that of proximate other waters in the same point-of-entry watershed *when* these two artificially created categories are, in fact, similarly situated. *See id.* at 19, 32.

**C. *The agencies’ proposal to impose a different, more demanding significant nexus standard for non-proximate waters is not scientifically warranted.***

We agree with the agencies that “the (a)(3) provisions of our regulations remain in effect and that the SWANCC decision specifically addressed only the presence of migratory birds as a basis for asserting jurisdiction, and not the validity of the (a)(3) provisions generally.” Proposed Guidance at 20. Further, to the extent Justice Kennedy meant for the “significant nexus” test to apply on a case-by-case basis to waters other than wetlands adjacent to non-navigable tributaries, the context of his opinion infers it would apply to so-called isolated<sup>191</sup> or “not physically proximate” waters, not tributaries or other protected waters. This is largely due to the fact Justice Kennedy found the basis for the “significant nexus” test in *SWANCC*, which dealt with geographically isolated ponds.<sup>192</sup>

Justice Kennedy, in his concurring opinion in *Rapanos*, did not discount so-called isolated or “not physically proximate” waters. Instead, he stressed that hydrologically separated waters can collectively filter pollutants, prevent or reduce flooding and perform many other functions that may establish a “significant nexus” to other waters covered by the Act.<sup>193</sup> It follows from Justice Kennedy’s *Rapanos* concurrence, when read in conjunction with the Court’s *SWANCC* decision, that Justice Kennedy would not dismiss protection of so-called isolated waters out-of-hand, but at the least protect those that have a significant nexus to TNWs and IWs.

It is simply incorrect to assert the *SWANCC* Court held that any *category* of waters, other than the specific ponds at issue in the case, was outside of the government’s Clean Water Act jurisdiction. The *SWANCC* Court merely held the Corps could not assert jurisdiction over waters based solely on the migratory bird test. The Court did *not* hold isolated waters could not be regulated under the Clean Water Act when there are other bases for jurisdiction.

For these reasons, we fail to see the legal or scientific basis for the agencies’ proposal to segregate the significant nexus analysis for non-proximate waters from that of proximate other waters and adjacent wetlands. As noted above, we see no scientific or legal basis for segregating

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<sup>191</sup> “Isolated waters” is a term that is derived from the *SWANCC* opinion to describe the ponds at issue in that decision. It appears to mean waters that are not connected via hydrological flow to other waters and do not share close physical proximity to other waters. This term is not a scientific or ecological term.

<sup>192</sup> *See Rapanos*, 126 S. Ct. at 2236 (Kennedy, J., concurring) (stating, “In [*SWANCC*], the Court held, under the circumstances presented there, that to constitute “navigable waters” under the Act, 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.”).

<sup>193</sup> *See* notes 57, 181, *supra*.

the significant nexus analysis for adjacent wetlands from that of proximate other waters or non-proximate other waters in the same point-of-entry watershed *where it is demonstrated* that these artificially created categories of wetlands are, in fact, similarly situated in the watershed in terms of aquatic function. See Proposed Guidance at 19-20, 32-33.

We also fail to see the legal or scientific basis for the agencies' proposal to single out non-proximate waters for a different, more demanding significant nexus standard. As the agencies themselves recognize, "the significant nexus test articulated by Justice Kennedy is the right theoretical approach for assessing *all other waters, isolated and proximate*." Proposed Guidance at 33. There is no support in Justice Kennedy's opinion, or in science, that waters that may be geographically separate or "isolated" cannot or do not significantly impact the integrity of traditionally navigable waters.<sup>194</sup> As demonstrated elsewhere in these comments and in the administrative record, they do.

The significant nexus analysis required by Justice Kennedy and elsewhere in the proposed guidance clearly requires strong scientific evidence that all similarly situated waters within a "region" (e.g., watershed) – including so-called isolated or non-proximate waters – have an effect on a downstream TNW or IW that is more than speculative or insubstantial. Physical proximity is understood to be one factor – but not a determinative factor – in that analysis. The observation that non-proximate waters "*may* be widely scattered geographically" and *may* be physically remote from jurisdictional waters" does not justify setting a substantially higher bar for considering the effect of such waters in combination with other similarly situated waters, on a TNW or IW.

We do not support the proposed directive to field staff to consider *only* the combined effects of a subset of similarly situated waters – "a group" of "[non-proximate] waters" – and *only* consider even that subset where there is a "compelling scientific basis" for doing so. Proposed Guidance at 20, 33.

We also challenge the sweeping statement that in light of *SWANCC*, "consideration of use by migratory birds is not relevant to the significant nexus determination for such waters." Proposed Guidance at 20. First, as noted previously, *SWANCC* ruled only that use by migratory birds could not provide the *sole* basis for jurisdiction and, logically, could not *alone* establish significant nexus. We also understand that, in light of *SWANCC*, the use of a particular wetland in the course of a long-distance migration by a migrating bird may be of limited relevance for the purpose of establishing the significant nexus between that wetland and a downstream TNW or IW. However, it is by no means irrelevant and may be considered along with other ecological

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<sup>194</sup> Most so-called isolated waters are currently regulated under the provision of Corps and EPA regulations that protect "other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce." See, e.g., 33 C.F.R. § 328.3(a)(3). Many waters, such as prairie potholes, covered under this provision have enormous impacts on the chemical, physical, and biological integrity of traditionally navigable waters and, when viewed collectively, clearly have a "significant nexus" to traditionally navigable waters. See, e.g., United States Geological Survey, Northern Prairie Wildlife Research Center, *Prairie Basin Wetlands in the Dakotas: A Community Profile*, available at <http://www.npwrc.usgs.gov/resource/wetlands/basinwet/> (last modified Aug. 24, 2006) (describing the various important functions prairie potholes provide).

and hydrological factors. Also, the *within season* use of that wetland as well as aquatic habitats downstream and down gradient in the watershed, particularly where that use reflects some level of dependency on those waters for feeding, shelter, breeding, or other key lifecycle requirements, is clearly relevant to the biological integrity of the TNW and IW and the watershed as a whole.

***D. There is a “compelling scientific basis” for finding a significant nexus between many “non-proximate other waters” and associated TNWs and IWs.***

The following section incorporates most of the detailed scientific support for findings of significant nexus for other waters that is included in the Ducks Unlimited Comments on the Proposed Guidance (July 20, 2011). We also incorporate the Ducks Unlimited Comments herein by reference. Figures cited can be found in Ducks Unlimited’s Comments. References for this section are located at the end of these comments.

As Ducks Unlimited explains, the wetland types and regions focused on were selected because: they are important for waterfowl conservation; wetland loss has been significant and the remaining wetlands are highly threatened in the absence of CWA protections; there is literature that clearly demonstrates the abundance and strength of the significant nexuses that exist among these waters and with TNWs or with IWs; most of these wetland types largely fall into the category of “non-proximate other waters;” and despite being physically non-proximate, there is a compelling scientific basis for the vast majority of these waters being considered jurisdictional on the basis of Justice Kennedy’s significant nexus standard.

We recognize that more scientific studies are needed to focus on the hydrological and ecological connections between “isolated” and “navigable” waters, including examples of organisms that require both navigable waters and “isolated” wetlands; and that this scientific inquiry has not been a primary focus of study in the past. We agree that additional effort should be placed on identifying such linkages.<sup>195</sup> Nevertheless, the scientific information summarized here adds to the cumulative body of science that supports the premise that the vast majority of wetlands and other waters do indeed have a significant nexus with TNWs and IWs.

***1. Significant nexus in the Prairie Pothole Region***

The prairie pothole region (PPR) of the northern Great Plains encompasses over 300,000 sq.mi. and is perhaps best known as the most important breeding area for ducks (e.g., mallards, blue-winged teal, northern pintails, canvasbacks) in North America (Ducks Unlimited 2001). An estimated 50% of the total average annual production of ducks comes from the potholes (Dahl 1990), and in wet years 70% or more of the continent’s duck production can originate in this region (Ducks Unlimited 2001). One analysis (U.S. Fish and Wildlife Service 2001) suggested that duck production in the pothole region of the U.S. northern prairies would decline by over 70% if all wetlands less than 1 acre were lost, and another analysis (e.g., Johnson et al 2010) estimated that pre-CWA wetland loss in a five-county portion of the PPR in west central Minnesota resulted in a reduction in waterfowl productivity of over 80%. Wetland losses of this

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<sup>195</sup> Leibowitz, S.G. 2003 *Isolated Wetlands and their Functions: An Ecological Perspective*. Wetlands 23(3):517-231.

magnitude have a considerable effect on navigable waters, as well.

Prairie pothole wetlands are stereotypical examples of wetlands that would generally be characterized as being physically non-proximate, or “geographically isolated.” The region is characterized by high wetland densities, and typically contains between 15 and 150 wetlands per sq.mi. (National Wetlands Working Group 1988; Figures X - Z). The best current estimate is that only approximately 7 million acres of these wetlands remain – i.e., ~2/3 have been lost (U.S. Dept. of the Interior 1988).

In general, the PPR possesses a limited internal drainage system, so inflow and outflow to prairie potholes via streams is uncommon (Winter and Woo 1990).

*Surface water storage and flood attenuation* –The abundance and density of potholes on the landscape of the PPR, in conjunction with their general lack of direct surface water connection to streams and rivers, provide important flood water retention functions and the basis for an especially significant nexus between these wetlands and navigable waters like the Red River and the Mississippi River.

Their nature and position on the landscape is the primary reason that potholes can capture runoff and store it in non-contributing basins, i.e., wetlands and lakes (Winter et al 1984). In general, the presence of many isolated wetlands decreases runoff velocity and volume by releasing water over an extended period (Carter 1996). The net effect of this important wetland function is to abate flooding by lowering and moderating the peaks of flood stages, thereby reducing flood damages (Mitsch and Gosselink 1986). Prairie potholes store surface water and attenuate flood flows (Hubbard and Linder 1986; Gleason and Tangen 2008), and potholes in North Dakota have been estimated to hold roughly half the surface water within the state (Ripley 1990). Winter (1989) stated that for selected watersheds in Minnesota the mean annual flood increases were inversely related to the percentage of lakes and wetlands within the watersheds.

However, wetland drainage has significantly decreased the cumulative storage capacity of wetlands (Dahl 1990; Dahl and Johnson 1991), and this decrease has been linked to increases in the frequency of flooding in and around the PPR (Brun et al 1981; Miller and Frink 1984; Miller and Nudds 1996; Manale 2000). In most cases, when a pothole is drained or filled, the water that would have otherwise been retained in the basin is shunted to a ditch or other conveyance, and much more rapidly than when the wetland was intact makes its way to a navigable waterway. The significant nexus between the intact pothole and the nearest navigable water, described best as the “absence of [direct] hydrologic connection,” then becomes apparent as the altered flow pattern brings more water, carrying more sediment, nutrients and other pollutants, much more rapidly, to the navigable water and downstream communities, farms, and other riverside landowners.<sup>196</sup>

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<sup>196</sup> See, e.g., Yang et al 2008 (70% wetland loss in a northeast PPR watershed associated with a 31% increase in area draining downstream, which was associated with a 30% increase in stream flow and an 18% increase in peak flow); Johnson et al (1997) (33% of the drained wetlands in the flood-prone Vermillion River, SD watershed flowed into artificial drainage ditches, and that a quantity of water equivalent to about half of the river’s annual flow could be stored by restoring those wetlands); Hey (1992) (PPR estimated to have lost approximately two-thirds of the original potholes through drainage, resulting in the region’s loss of 20-30 million acre-feet (0.87 – 2.2 trillion cubic feet) of water storage capacity.)

A number of studies have concluded that loss of pothole wetlands has contributed significantly to flooding and increases in associated damages along the Red River of North Dakota and in portions of Minnesota and Iowa (e.g., Brun et al. 1981; Campbell and Johnson 1975; Moore and Larson 1979).<sup>197</sup>

Conversely, studies of wetlands restoration demonstrate significant nexus between prairie potholes, in the aggregate, and nearby (viewed from a regional, but nevertheless ecologically valid perspective) navigable waterways. Gleason et al (2008), based on a study covering almost 500 wetlands across Iowa, North Dakota, South Dakota, Minnesota, and Montana, conservatively estimated that wetland catchments covering ~1.1 million acres on USDA Conservation Reserve Program and Wetland Reserve Program lands can capture and store an average of 1.1 acre-feet of water per acre of wetland (a total of more than 1.2 million acre-feet of water). The clear inference that can be drawn is that if this quantity of natural wetlands were lost because of a lack of CWA protection, there would be significant impacts from more than 1.2 million acre-feet of water flowing more directly and quickly to the nearest downslope navigable waters.<sup>198</sup>

It is reasonable to predict that similar impacts of flood attenuation would be associated with similar storage volumes in natural wetlands, thereby again demonstrating the significant nexus that exists between the aggregate of these non-proximate wetlands on the landscape with navigable waters.

Although potholes are most frequently not directly hydrologically connected to other waters via surface connections, during wet periods water tables rise and surface water levels reach outlet elevations of most potholes (LaBaugh et al. 1998; Sloan 1972; USGS 1999; Winter et al. 1998). This phenomenon results in temporary but direct hydrologic connections among and between potholes, and between complexes of potholes and drainage ditches, streams, and rivers in the region, with associated impacts on regional water regimes in navigable waters and their tributaries (Leibowitz and Vining; 2003; Leitch 1981; Sloan 1972; Stichling and Blackwell 1957; Winter 1989; USGS 1999).

Ground Water Relationships – Potholes and many other physically non-proximate waters can, and very often do, contribute to groundwater recharge (and discharge), and this groundwater

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<sup>197</sup> See e.g., Ludden et al. (1983)(small basins in the Devil's Lake watershed in North Dakota could store 72% of the total runoff from a 2-year frequency flood and approximately 41% of the total runoff from a 100-year frequency flood); see also, Malcolm (1979) and Gleason and others (2007) (similar results for north central North Dakota and western Minnesota); Hann and Johnson (1968) (depressional areas in north central Iowa could store more than one-half inch of precipitation runoff within their individual watersheds.

<sup>198</sup> See also, Gleason et al (2007) (found that restoring 25% of the restorable wetlands in west central MN would increase flood storage by 27-32%, and a 50% restoration would increase storage by 53-63%. If these wetlands were natural wetlands and what was under consideration was the impact of their removal, these results provide a sense of the magnitude of impacts on downstream waters, i.e., the significance of the nexus, as a result of the lost flood storage capacity); Kurz et al (2007) (modeled peak flow reductions associated with artificial storage of precipitation on flooded agricultural lands in the Red River valley and estimated that flood stages like those of the flood of 1997 on the Red River could have been reduced by 2-5 feet at Grand Forks.)

often continues to move downslope toward intermittent or flowing streams ultimately terminating in navigable waters (Winter et al. 1998). For prairie potholes, where the water table is generally very near the land surface (Sloan 1972), pothole wetlands can serve as groundwater recharge sites (Euliss et al. 1999). In the PPR, groundwater recharge from small depressions constitutes a large proportion of the total recharge in many areas (van der Kamp and Hayashi 1998). Furthermore, because seepage contributions to groundwater are greatest where wetland shoreline is largest relative to the water volume (Millar 1971), the smallest pothole wetlands are proportionately more important to groundwater connectivity. Sloan (1972) stated that water seepage to groundwater was greater for ephemeral and temporary wetlands than for other wetland types. Thus, in the PPR (as in many other regions), the size and permanence of wetlands is not necessarily proportional to the significance of the wetlands' (in the aggregate) nexus to navigable waters.

Hubbard and Linder (1986) concluded that approximately 12% of the total storage capacity of wetlands in an area in northeast South Dakota infiltrated to groundwater as recharge, and that drainage of potholes therefore significantly reduces ground water recharge rates. Net seepage outflow into the groundwater can more typically amount to 20-30 percent of the total water loss for prairie wetlands (Eisenlohr and Sloan 1968; Eisenlohr and Sloan 1972; Shjeflo 1968; Winter and Rosenberry 1995).

Pothole wetlands are generally connected to and continuous with the groundwater in the surrounding area in relatively local groundwater flows (van der Kamp and Hayashi 2008), and these surficial aquifers can extend up to several miles. Regional aquifers are located deeper than the surface aquifers, and water flow into and through these deeper aquifers can be significant in locations in which they underlay an extensive area, and often flow to distant discharge areas (van der Kamp and Hayashi 2008). While a relatively small portion of recharge water flows to these deeper, geographically more expansive regional aquifers, this portion of the groundwater recharge from wetlands is important for sustaining groundwater resources (van der Kamp and Hayashi 2008).

To support CWA jurisdiction, it is important to note that the groundwater to which the pothole wetlands are linked subsequently provides input to lower-lying wetlands and stream valleys (van der Kamp and Hayashi 1998). Numerical simulation of regional groundwater flow systems in Stutsman and Kidder counties, North Dakota, portrayed lateral movement of groundwater flow over 27 km to discharge into Pipestem Creek, a prominent stream in the region (Winter and Carr 1980).

In another area of the PPR in northwest Minnesota, Cowdery et al (2008) demonstrated that 17-41% of the water from the surface aquifers was discharged to surface waters that left the study area, and groundwater discharge comprised 30-71% of all surface drainage flow, helping to maintain base flow. Van Voast and Novitzki (1968) concluded that groundwater and surface water interconnections (including flowing waters) were typical in the Yellow Medicine River watershed in the PPR region of southwest Minnesota.

*Water Quality Relationships*— Potholes act as a sink for nutrients, including those widely used for agricultural purposes, thereby improving the quality of runoff water (van der Valk 1989; Whigham and Jordan 2003; Davis et al 1981; Crumpton and Goldsborough 1998). Yang et al's (2008) study of the Broughton Creek watershed demonstrated that a 31% increase in nitrogen

and phosphorus load from the watershed and a 41% increase in sediment loading was associated with wetland loss in the watershed. Thus, when as a result of ditching or filling wetlands the retention time of water is shortened or eliminated and its associated biochemical processes are significantly altered, the cleansing function of the former wetland is lost or degraded and there are direct negative impacts on the quality of receiving navigable waters. Similarly, water retained in a pothole is cleansed of much of its load of pollutants before it enters groundwater and flows laterally to other areas and other waters, or downward into deeper aquifers.<sup>199</sup>

In summary, when potholes are drained or filled and no longer fulfill their water quality improvement function, the water quality of the receiving downstream navigable waters is negatively affected because the waters flowing through the drained basins are directly linked to the downstream waters. The extent to which navigable waters are impaired depends upon the scale of the altered inputs, thereby reinforcing the importance of using an appropriate scale watershed, or groupings of watersheds, to assess aggregate impacts.<sup>200</sup>

*Biological Nexus* – Although prairie potholes are significant on a continental scale due to their importance to waterfowl and other migratory birds, because of the relative paucity of internal drainage networks there has not been much research on the biological connections between the non-proximate wetlands and navigable waters. In one important study, however, Lannoo (1996) demonstrated that where PPR wetlands have been connected to navigable waters (e.g., in the Iowa Great Plains region), amphibian populations in the formerly isolated wetlands have decreased significantly. Thus, in an instance such as this, the creation (by draining and ditching) of a surface hydrological nexus where none previously existed between the wetland and navigable water had the effect of significantly affecting the biological integrity of the waters involved.

*Economics* – Some of the greatest economic impacts associated with the wetland-navigable water significant nexus considerations in the PPR are those associated with flood damages as a result of lost flood attenuation functions. For example, the estimated net benefit of artificially storing water in the Red River valley as described by Kurz et al (2007) exceeded \$800 million over 50 years in some scenarios as a result of reduced flood stages in the Red River and avoided damages and other benefits. Given the extent of seemingly increasingly frequent damaging floods along rivers in and flowing out of the Prairie Pothole region (as well as in other areas around the country), the economics associated with avoided damages through wetland protection and maintenance flood water storage functions should be an important component of significant nexus analyses. One recent study (Yang et al 2008) also estimated the value of the nutrient

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<sup>199</sup> See also, Goldhaber et al (2011); Cowdery et al (2008); Blann et al (2009).

<sup>200</sup> As indicated previously in these comments, we join Ducks Unlimited in the view that Justice Kennedy's choice of the Gulf of Mexico's hypoxic zone as an example of the type of water quality issue that the CWA is intended to address should shed some light on the scale of watersheds that should be used to assess aggregate impacts. While we do not suggest the entire Mississippi River watershed as the basis for such determinations, we again suggest that a single point of entry watershed will in many cases be too small to appropriately assess aggregate impacts of wetlands similarly situated within a region. We support the recommendation that a combination of watersheds and physiographic regions or ecoregions be used to delineate groups of watersheds that could be scientifically viewed as sufficiently similar to constitute a "region."

removal and carbon sequestration services lost since 1968 in the Broughton Creek watershed to be \$430 million.

## *2. Significant nexus and playa lake wetlands*

The science of playas (often referred to as “playa lakes”) and related waters provides another excellent demonstration of the predominance of the existence of linkages and a significant nexus between even physically remote wetlands and navigable waters, in this case via critical groundwater connections.

Playas are relatively shallow, ephemeral, closed-basin wetlands usually not proximate or adjacent to navigable waters (Figure 7). These shallow, typically circular basins often lie at the lowest points in relatively flat watersheds, and each collects runoff from the surrounding area. About 66,000 playas remain in the relatively flat topographic landscape of the southern Great Plains of Kansas, Colorado, Oklahoma, Texas, and New Mexico (Playa Lakes Joint Venture <http://www.pljv.org>; Figure 8). The Ogallala (or High Plains) aquifer underlies about 170,000 square miles and is shared by eight states, including much of the playa region. This aquifer is the primary source of water in the region with about 97% being used to support irrigated agriculture (Maupin and Barber 2005), and the water has an economic value of approximately \$20 billion (Moody 1990). The aquifer also provides drinking water for about 82% of the region’s residents (Maupin and Barber 2005).

Conceptual models have proposed for years that the playas are critical recharge zones for the Ogallala (e.g., Wood 2000). Gurdak and Roe (2009) recently provided a comprehensive synthesis of the related literature (approximately 175 studies) and concluded that playas are pathways of relatively rapid recharge and provide an important percentage of recharge to the Ogallala aquifer. Thus, playas are, in the aggregate, critical to supplying water to an important, interstate water body, and they therefore impact the water quantity of the underlying aquifer (Gurdak et al. 2009). Furthermore, Rainwater and Thompson (1994) stated that landscape changes increased water collection in playas and that infiltration had also increased. They further stated that these factors increased the contribution of playas to Ogallala aquifer recharge and that, in some areas, infiltration from playas that receive runoff are the principal source of aquifer recharge.

Understanding that the CWA has no jurisdiction over groundwater, the importance of the aquifer to human health, welfare and economic benefit is therefore not a direct, independent concern of the Act except as it is affected by condition of surface water and wetlands. However, Weeks and Gutentag (1984) stated that groundwater from this aquifer discharges naturally into flowing streams and springs, and that the aquifer and valley-fill deposits and associated streams comprise a stream-aquifer system that links the High Plains aquifer to surface tributaries of the Platte, Republican and Arkansas rivers, as well as the Pecos and Canadian rivers (Kreitler and Dutton 1984). Slade et al. (2002) showed that channel gain or loss in Beals Creek (in the Colorado River of Texas) corresponds to discharges from or recharges to the Ogallala aquifer. Thus, the significant nexus between the playa wetlands and navigable waters is created by their direct linkage through the Ogallala aquifer.

In addition to the impact that playa wetlands have on the quantity of water moving from the

wetlands, through the aquifer, and to navigable waters, they also have an impact on the quality of that water. Ramsey et al. (1994) showed that playa wetlands improve the water quality of storm runoff, demonstrating that water quality in the playa is better than that found in storm runoff before entering the wetland. They stated that this wetland function thereby contributes to improving/maintaining groundwater quality in the aquifer, as would be predicted in light of playas being the principal source of aquifer recharge in some areas (Rainwater and Thompson 1994). Thus, as a result of the relationships with navigable rivers in the region (Weeks and Gutentag 1994), playas must also improve water quality in those streams and rivers as well.

Hence, impaired water quality functions of playas would have adverse impacts on the quality of water in the aquifer and linked navigable waters. Increased agricultural application of nitrate fertilizers makes the groundwater more vulnerable to nitrate contamination (Gurdak and Roe 2009) via playa recharge. In addition, as a result of slow recharge rates, the limited ability of the aquifer to attenuate contaminants such as nitrates, and the prolonged travel times of aquifer water, any potential contamination would have very long duration (Gurdak and Roe 2009) even if corrective action were taken. Thus, the natural denitrification function of intact playas takes on added significance in relation to the quality of water in the aquifer, and ultimately, to its interconnected flowing waters.

### 3. Significant nexus functional linkages more generally

The following comments and supporting references and literature regarding the general existence of those avenues of significant nexus are organized by hydrologic and ecologic functions. Again, these are borrowed from DU's Comments, incorporated by reference. These individual wetland functions and avenues of significant nexus can and do interact in important ways.

Surface water storage and flood abatement – Wetlands in any watershed, including physically non-proximate wetlands, serve a critical function in storing and holding water and associated pollutants (including sediment) that otherwise would flow more rapidly and directly toward a navigable water. Thus, wetlands play a significant role in regional water flow regimes by intercepting storm runoff and storing and releasing those waters over an extended period, either through surface or groundwater discharge (Mitsch and Gosselink 1986). As has been all too clear during spring 2011, floods continue to be the most important natural hazard in the U.S., and has a significant negative impact on the national, regional, and local economies, as well as taking a toll on human life, health, and general welfare.

The presence of wetlands in watersheds was found to be a significant factor in the reduction of 50- to 100-year floods (Novitski 1978). In Wisconsin, Illinois, and the northeast U.S., wetland area within watersheds has been shown to be positively correlated with reduction in peak flows (Demissie et al 1988; Demissie and Khan 1993; Novitzki 1978b, 1982, 1985). *See also*, Johnston et al (1990).

The decrease of 80% of the storage capacity of the Mississippi River as a result of levees and loss of forested and other wetlands (Gosselink et al. 1981) is widely considered an important contributing factor to the increasing frequency of flooding along the Mississippi River (Belt 1975). Miller and Nudds (1996) compared U.S. and Canadian rivers and landscape changes to

provide further evidence that wetland drainage in the upper reaches of the Mississippi River watershed has increased flooding in the Cannonball and Sheyenne rivers in North Dakota, and the Moreau and Big Sioux rivers in South Dakota. Hey et al (2004) calculated that restoring 4 million acres of former wetlands in the Mississippi River floodplain could create approximately 16.5 million acre-feet of flood storage. Conversely, the loss of existing wetland acreage in the floodplain and watershed would increase flood flows on this navigable river.

Studies in landscapes with other types of non-proximate wetlands have similarly demonstrated that drainage of such non-proximate wetlands results in increased peak flows of navigable waters and their tributaries (Skaggs et al. 1980). Ogawa and Male (1983) employed a hydrologic simulation model to demonstrate that for relatively low frequency floods (those occurring with 100-year interval or greater which are also those with the greatest potential for catastrophic losses) the increase in peak stream flow was very significant for all sizes of streams when wetlands were removed from the watershed. Brody et al (2007) analyzed 383 non-hurricane flood events in Florida, and their results suggested that property damage caused by floods was significantly increased by alteration of naturally occurring wetlands. Many of these floods were presumably in association with jurisdictional waters.

As with USDA programs in the prairie pothole region, Duffy and Kahara (2011) showed that wetlands restored by the Wetland Reserve Program in the Central Valley of California provided flood storage of 3195 million cubic meters in 2008. They also documented that, in the aggregate, that the palustrine, riparian, and vernal pool wetlands in the region provided flood storage of 4159, 2182, and 2140 cubic meters, respectively. Thus, loss of wetlands in this region would ultimately increase flood flows in navigable rivers like the Sacramento and San Joaquin.

Viewed on the whole, studies like these provide examples of the general importance of wetlands to wetland functions such as flood attenuation. The aggregate contributions of individual wetlands distributed across a regional landscape, and often located within topographically higher portions of the watershed and non-proximate to other jurisdictional waters, can nevertheless exert a very significant effect on flood volumes. Thus, many physically non-proximate wetlands are in fact functionally adjacent to, and exhibit a significant nexus with, navigable waters that are clearly jurisdictional from the perspective of the Clean Water Act and federal interests such as flood and pollution control.

*Groundwater Recharge and Base Flow Maintenance: Linkages Between Wetlands and Jurisdictional Waters* – Wetlands very often contribute to groundwater recharge, and this groundwater then continues to move downslope toward flowing streams and rivers and thus ultimately contributing water to jurisdictional waters (Winter et al. 1998, Ackroyd et al 1967).

Winter (1998) provided a good overview of the interconnections between streams, lakes, and groundwater systems. He concluded, “groundwater interacts with surface water in nearly all landscapes,” and provided examples from glacial, dune, coastal, karst, and riverine systems regarding these interactions. *See also* Hayashi and Rosenberry (2002) Woessner (2000) highlighted the significant potential that exists for pollution of surface waters, such as jurisdictional waters, if groundwater becomes contaminated. Other review papers and individual studies typically demonstrate that not only do connections almost always exist between wetlands,

groundwater, and streams and rivers, but also that these interconnections are usually complex.

Ginsberg (1985) noted that in the approximately 12 million-acre sandhill lakes region of central and eastern Nebraska, its many (~1,000) wetlands and lakes are predominantly hydrologically connected to the groundwater and, in many cases, thereby supply base flows to the streams and other waters in the region. *See also*, Rundquist et al (1985); La Baugh (1986). Novacek (1986) stated that the sandhill wetlands in Nebraska (including wet meadows) are important to water table and aquifer recharge, with the region containing five principal drainage basins that all ultimately empty into the Platte and Missouri rivers. Tiner et al. (2002) indicated that most sandhill wetlands are interconnected with the local groundwater and the important Ogallala aquifer. *See also*, Slade et al. (2002).

Gonthier (1996) documented the linkage and flow of water between an extensive bottomland hardwood wetland in Arkansas (a Ramsar-designated Wetland of International Importance), local flow of groundwater, and the Cache River, up to ~2 miles away. However, the farther the wetland from the river, the more likely the water from the wetland was to enter groundwater flowing to the deeper Mississippi Alluvial Valley aquifer which discharges flows to major navigable rivers, including the Cache, White and Mississippi.

Flow of water and its chemical constituents from wetlands, via groundwater, to the water of the Great Lakes (TNWs) is extensive and important and has been frequently documented. *See*, Doss (1993). Holtschlag and Nicholas (1998) estimated that 67.3% of stream flow in the Great Lakes basin is groundwater discharge, and represents 22-42% of the Great Lakes water supply, its largest component. A significant portion of this groundwater is likely the result of recharge from wetland basins.

In the case of vernal pools in California, Hanes and Stromberg (1996) reported that wetlands with discontinuous or a weakly developed hardpan had high rates of seepage and therefore contributed to subsurface flow. Tiner et al. (2002) stated that during the wet seasons these geographically isolated wetlands formed hydrologically linked complexes that could drain into perennial streams.

Non-proximate wetlands that exist in karst topography are often directly linked to subsurface water flows of relatively high velocity, moving easily through underground channels, caves, streams, and cracks in the rock. There tend to be many springs and seeps, many with surface connections, which are the source of some large streams (Winter et al. 1998), and Winter (1998) stated that groundwater recharge in karst terrain is efficient. Entire streams can go subsurface and reappear in other areas, connect directly with wetland basins, and contaminants are easily mobilized in these regions.

A particularly interesting and relevant example of the significant nexus between physically non-proximate and traditional navigable waters is Nebraska's Platte River and its tributaries in Colorado (South Platte River) and Wyoming (North Platte), an area covering 23,000 sq. mi. As a consequence of the over-appropriation of water in the region, and acceptance as fact that wetlands and other physically non-proximate waters in this region provide groundwater recharge that in turn provides base flow to the navigable rivers, artificial groundwater recharge sites and

projects have long been a common tool for replenishing river water (Warner et al 1986; Watt 2003). Complex hydrologic models have been developed so that landowners and regulators can closely estimate how much water, and in what time frame, will be “delivered” to the river from a particular wetland or recharge site (Warner et al 1986). Through contractual agreements supported by Colorado water law, and under the auspices of the interstate federal “Platte River Recovery Implementation Program Cooperative Agreement” signed in 2006, the water in this single wetland-lake/groundwater/Platte river system is commercially exchanged on the basis of this well-established significant nexus.

Notably, recharge wetlands and other sites are typically located a mile or more away from the river and would not be considered “adjacent” by virtue of a test based on proximity, as opposed to taking a functional perspective on adjacency. Some sites are much farther away. For example, the Fort Morgan recharge sites (Warner et al 1986) and Brush Prairie wetlands/ponds are located 5-7 miles from the South Platte, and are credited with the capacity to recharge 13,000 acre-feet of water annually to the river. Thus, a significant component of the fiscal and water economy of the region is based upon the recognition of the significant nexus that exists between non-proximate waters and the Platte River and its major tributaries.

As in the case of water storage and flood abatement and the functional relationships that have been shown to constitute a significant nexus between individual or the aggregate of non-proximate wetlands and navigable waters, demonstrated linkages between wetlands, groundwater and navigable waters within a broad variety of wetland categories and across a diversity of landscapes and regions, therefore supports the contention that adjacency and significant nexus should be interpreted from a functional perspective if water quality is to be protected as intended by the CWA.

*Water quality relationships* –It is well-established that wetlands of all types have the capability to improve water quality by trapping, precipitating, transforming, recycling, and/or exporting many of its chemical and waterborne constituents (Mitsch and Gosselink 1986; van der Valk et al. 1978). They serve as a natural buffer zone between upland drainage areas and open or flowing water. They can improve water quality by removing heavy metals and pesticides from the water column, and by facilitating the settling of sediment particles to which many pollutants are attached. Wetlands remove excess nutrients, e.g., phosphorus and nitrogen compounds, by incorporating them into plant tissue or the soil structure and by fostering an environment in which microbial and other biological activity pulls these compounds out of the water, thereby enhancing its quality.

Importantly, water quality contributions by wetlands can occur no matter where the wetland occurs on the landscape, and non-proximate waters also serve as chemical and nutrient sinks, trapping and holding these compounds (Mitsch and Gosselink 1986). For example, it has been shown that when water naturally filters through Delmarva bays (a category of geographically isolated wetlands) instead of being circumvented through drainage canals to a navigable water, it flows through groundwater pathways to the Chesapeake Bay with much of its nitrogen having been removed (Laney 1988; Shedlock et al. 1991; Bachman et al. 1992; Fretwell et al. 1996). Nitrogen is one of the principal pollutants of concern in the waters of the Chesapeake Bay, and in many other waters that supply domestic, municipal, irrigation and commercial needs. In

Michigan, Whitmire and Hamilton (2005) concluded that a remarkably small area of wetland can strongly influence water quality relative to nitrate and sulfates. Some of their study wetlands were connected to the groundwater system.

Lin and Norman (2003) demonstrated that wetlands in California were able to remove an average of 69% of the selenium contained within agricultural runoff to the wetlands, thereby providing a natural mechanism for reducing the availability of this trace element which becomes toxic if bioaccumulated in the food chain. Weller et al (1996) demonstrated that riparian wetlands of all types in eight watersheds of Lake Champlain were important in reducing phosphorus loading of surface waters.

In the sandhill wetlands of Nebraska, return of too much polluted irrigation water can enter the aquifer or regional watershed through these non-proximate wetlands and degrade water quality (Winter 1998). Winter (1998) stated that “groundwater and surface-water interactions have a major role in affecting chemical and biological processes in lakes, wetlands and streams, which in turn affect water quality throughout the hydrologic system.”

The increased flood flow that is directly associated with the loss of wetlands from across watersheds and regions (e.g., Brun et al. 1981) is an important factor in streambank erosion. This kind of erosion is a significant water quality problem in many areas downstream of physically non-proximate wetlands in the United States, contributing significantly to sediment pollution loads, including navigable waters. *See also*, Bellrose et al. (1983) and Mills et al. (1966).

Fennessy and Craft (2011) estimated that wetlands conserved or restored through Farm Bill programs in the Upper Midwest reduced the region’s contribution of nitrogen, phosphorus, and sediment to the Mississippi River by 6.8%, 4.9%, and 11.5%, respectively. Given that excess nitrogen is widely accepted as the primary cause of the hypoxic zone (Moreau et al 2008), these wetlands clearly exhibit a significant nexus and provided significant benefit to the Mississippi River and Gulf of Mexico. However, it is important to recognize that if analyzed on the basis of only single point of entry watersheds, they would likely not have been determined to be jurisdictional wetlands, and this benefit to the Mississippi River and Gulf would be lost if those waters were significantly impacted by the draining or filling of the wetlands. A disproportionately high percentage of the nitrate load that the Mississippi River exports to the Gulf comes from this region (Hey 2002). *See also* Duffy and Kahara (2011) (Wetland Reserve Program wetlands in the California Central Valley removing substantial amounts of nitrate-nitrogen).

In south Texas near Galveston Bay, two recent studies (Forbes et al 2010; Wilcox et al 2011) concluded that much of the surface runoff entering the navigable Galveston Bay and other nearby waters likely passes through coastal prairie wetlands. Forbes et al (2010) also found that each wetland was capable of significantly affecting water quality on its way to the navigable waters by reducing incoming nitrate-nitrogen by approximately 98%. Thus, these wetlands are positioned within the hydrologic flows to provide substantial reduction of runoff pollution of waters that ultimately enter the estuary. The fixed carbon and nitrogen then exported from these wetlands to the navigable waters provides valuable food chain support, thereby creating a

biological nexus, as well.

There is a vast scientific literature dealing with the relationship of wetlands (including those that are physically non-proximate) and water quality, and the literature cited above is only a small sample of what is available on the topic. Taken as a whole it provides compelling evidence that to protect the nation's water quality, as intended by the CWA and amendments, the definition of adjacency and significant nexus must be evaluated from within a context of wetland and water quality *functions*, not simply physical proximity. As Whigham and Jordan (2003) concluded in a review paper, from a water quality perspective, "so-called isolated wetlands are rarely isolated" from other waters of the U.S.

*Non-Proximate Waters and Human Health Risks* –Superfund sites offer many examples of the hazards associated with the pollution of non-proximate waters, whether natural or artificial, to navigable waters. In Macomb County, Michigan, at a 100-acre site at which effluent from a waste oil reclamation facility was held in ponds (EPA Superfund ID No. MID980410823), groundwater was found to be contaminated with volatile organic compounds which flowed toward business and residences, causing residents to use bottled water for potable purposes. Fish collected in the nearby Clinton River had elevated PCB levels. The Vertac site in Arkansas (EPA RCRA ID No. ARD000023440) involved the contamination of an aquifer with dioxins, furans and other chemicals that eventually contaminated Bayou Meto, a traditionally navigable waterway. White and Seginak (1994) documented that as a result of the dioxins and furans in Bayou Meto, wood ducks breeding there experienced suppressed nest success, hatching success, and duckling production. Teratogenic effects, such as crossed-bills, were documented at the sites with the highest levels of contamination. Similar situations of contamination of navigable waters as a result of linkages to non-proximate waters and groundwater are unfortunately not uncommon.

More recently, concerns have arisen over coal ash settling ponds and their nexuses to navigable and other waters. While the question of the level of hazard associated with coal ash is not directly at issue with respect to CWA jurisdiction, we encourage the EPA to look to those situations as examples of "artificial" physically non-proximate surface waters that can provide information and perspectives on the relevant question of the many avenues of significant nexus between non-proximate and other waters that exists in regions across the country.

*Biological Nexus* –Approximately 80% of the entire North American population of redheads winters in estuaries of the Gulf of Mexico, most in the Laguna Madre of Texas and Tamaulipas, Mexico (Adair et al 1996; Ballard et al 2010). They forage almost exclusively on shoalgrass (*Halodule wrightii*) in the hypersaline lagoon, a traditionally navigable water (Ballard et al 2010). Large numbers of lesser scaup also winter in the Gulf Coast region, and generally forage on invertebrates in the saline habitats of Texas and Louisiana (McMahan 1970). Large concentrations of diving ducks in the region, including these two species, also make heavy use of inland, coastal freshwater ponds in order to dilute the salt loads ingested while feeding in the saline habitats (Adair et al 1996; Ballard et al 2010). Activity budgets documented that redheads and scaup spent approximately 37% and 25%, respectively, of their time spent on the freshwater wetlands actively drinking (Adair et al 1996), the dominant behavior while on freshwater wetlands.

While both studies found that redheads and scaup tended to make greater use of wetlands that were in closer proximity to the coast when they were available, because they require the fresh water to survive they flew farther inland during dry conditions to acquire freshwater as needed. Adair et al. (1996) found that redheads used wetlands up to 13 miles inland, and scaup used wetlands up to 33 miles from the coastal navigable waters. Thus, these researchers and others (e.g., Woodin 1994) concluded that these migratory bird species are dependent upon *both* the navigable saline waters of the Laguna and Gulf, *and* the inland, physically non-proximate freshwater wetlands. As a result, as the inland freshwater wetland habitats are adversely impacted as a result of a lack of CWA jurisdiction, the region becomes less and less able to support redhead, scaup and other diving duck populations, and the biological integrity of the traditionally navigable water of the Laguna would therefore be affected. This clearly constitutes a significant nexus.

Other avian species that spend much or most of their time on saltwater (navigable) habitats are similarly dependent upon the presence of regional freshwater wetlands for purposes of osmoregulation (Woodin 1994). We must emphasize that these examples all apply to *within*-season, local/regional habitat use, and do *not* include the period of migration. Some examples of such species include: black ducks in the northeast and mid-Atlantic coast and Chesapeake Bay that also depend upon inland freshwater wetlands (see Morton et al 1989); California gulls using hypersaline Mono Lake and freshwater wetlands in southern California (Mahoney and Jehl 1985); and white ibises using estuarine rookeries and requiring freshwater wetland-derived prey for osmoregulation (Bildstein et al 1990).

An inland situation that should be examined in more detail deals with the Platte River and Rainwater Basin region of central Nebraska. Millions of waterfowl migrate through the region every year and concentrate on the small percentage of the region's remaining wetlands (approximately 5%) that provide habitat, particularly in the spring. In addition, nearly the entire population of mid-continent sandhill cranes (~500,000 birds) stages there (Krapu et al 1982; Vrtiska and Sullivan 2009), and it is an important concentration site for the federally endangered whooping crane (Austin and Richert 2005). Austin and Richert (2005) analyzed habitat use from 1977-99, but did not appear to directly review their data relative to the question of the degree of dependence of whooping cranes on both the riverine habitat and the freshwater wetlands in the sense required to firmly establish a significant nexus as currently proposed.

We believe that, as shown clearly by the examples of the redheads and lesser scaup on the Gulf Coast, the dependence upon *both* navigable waters and non-proximate wetlands can constitute a significant nexus. In these cases, without the wetlands, the species would not occupy the region as a whole and the biological integrity of the navigable waters would therefore be impacted. Within-season use of both categories of waters by examples of other migratory (not migrating) birds demonstrates similar dependency and a similar nexus. This interdependence on both navigable and non-proximate waters should be given the same consideration for establishing a significant nexus as would the dependence upon adjacent wetlands and riverine habitats by an amphibian species, for example. Although the scale is different, they are scientifically and biologically analogous, and there is nothing in the *SWANCC* and *Rapanos* decisions that would

justify disallowing the use of this kind of situation (e.g., redheads) as a basis for the biological nexus that Justice Kennedy described.

***E. The agencies' double standard for non-proximate other waters leaves millions of acres of lakes, potholes, and wetlands at risk of pollution and destruction.***

The agencies' excessively cautious (and in our view unfounded) directive to field staff to find significant nexus and jurisdiction for non-proximate other waters only where a "compelling scientific basis" has been documented and only with formal, project-specific approval from headquarters still leaves millions of wetland acres at risk nationwide. Since the 2003 guidance was issued, we are not aware of any water body that has been protected pursuant to the (a)(3) other waters regulatory provision.<sup>201</sup> EPA acknowledged in its economic analysis of this draft guidance that "[s]ince *SWANCC*, no isolated waters have been declared jurisdictional by a federal agency."<sup>202</sup> Our review of several districts shows no indication so-called isolated waters such prairie potholes and playa lakes are receiving protection.<sup>203</sup>

Our review of Corps jurisdictional determinations has revealed that even when indicators of adjacency are documented – for instance in the case of a fifteen acre lake used for waterskiing that is located a few hundred yards from the South Platte River, or of a wetland that connects to a nearby stream and is potentially adding to the pollution of connected waters – jurisdiction is being declined.<sup>204</sup>

EPA Region 8 staff reported in 2009 that they are losing protections for prairie potholes, playa lakes, and vernal pools. They report that Army Corps Sacramento, Omaha, and Albuquerque Districts –covering Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, and 27 Tribal Nations – failed to assert jurisdiction in nearly 72% of their jurisdictional calls between June 2007 and August 2008, and that *SWANCC*, not *Rapanos*, was cited as the basis for lack of federal jurisdiction on 88% of these non-jurisdictional determinations. In numerous instances, these findings of no jurisdiction ignored important shallow sub-surface connections.<sup>205</sup>

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<sup>201</sup> See, e.g., Questions & Answers for the *Rapanos* and *Carabell* Decision, *supra*, at 83.

<sup>202</sup> U.S. Environmental Protection Agency, *Potential Indirect Economic Impacts and Benefits Associated with Guidance Clarifying the Scope of the Clean Water Act Jurisdiction*, at 3 (April 27, 2011) available at [http://www.epa.gov/owow/wetlands/pdf/wous\\_cost\\_benefit\\_estimate\\_summary.pdf](http://www.epa.gov/owow/wetlands/pdf/wous_cost_benefit_estimate_summary.pdf).

<sup>203</sup> See, e.g., Earthjustice, et al. *Courting Disaster: How the Supreme Court Has Broken the Clean Water Act and Why Congress Must Fix It*. (April 2009), at 6-7 ("isolated" but navigable-in-fact skiing lake); 8-9 (North Dakota prairie potholes); *Imperiled Treasures*, *supra*, at 11, 14, 23 (230 acres of playa lakes found non-jurisdictional in the Texas Panhandle alone; more documented in Southern California; many more likely in Texas and New Mexico).

<sup>204</sup> See, e.g., Approved Jurisdiction Determination Form, U.S. Army Corps of Engineers, File No. NWO-2007-2810-DEN (Nov. 2, 2007) available at <https://www.nwo.usace.army.mil/html/od-tl/jur/NWO20072810DEN Jackson Inlet Ditch and ski lake.doc> (ski lake near South Platte River not jurisdictional); Approved Jurisdiction Determination Form, U.S. Army Corps of Engineers, File No. NAN-2007-264-EJE-C (Oct. 17, 2007) <http://www.nan.usace.army.mil/business/buslinks/regulat/jurisdet/West/Oct07/pdf/2007-264-EJE.pdf> (wetlands fifty feet away from and flowing into nearby creek "isolated" because flow is only from the wetland to the creek although the wetland is "situated on top of a former landfill site, and may be contributing to the pollution of Annsville Creek").

<sup>205</sup> 2009 EPA Inspector General Report at 9-10.

At risk waters in the West include those that connect to TNWs and IWs through a ground water rather than a surface water connection. The “Lost” river drainages in eastern Idaho include 73 streams within a 5500 square mile area.<sup>206</sup> The rivers empty into the Eastern Snake Plain

Aquifer, an under ground water body twice the size of Lake Erie.<sup>207</sup> Eventually, the Aquifer discharges to the Snake River, itself a TNW, but also a major tributary to the Columbia River. As far back as 1985, the Walla Walla Corps District documented fishing, hunting, recreation, and agriculture connections to interstate and foreign commerce that established Clean Water Act jurisdiction over the Lost River drainages.<sup>208</sup> Based on the 2003 *SWANCC* Guidance, the Corps ultimately designated some of the Lost Rivers, including the Big Lost, but not the Little Lost, to be jurisdictional as TNWs. Others, including the Little Lost, should qualify as a TNW because of kayaking and guided recreation. The ESA-listed bull trout inhabits a number of these drainages as well.<sup>209</sup>

In the wake of the 2003 *SWANCC* Guidance, the Albuquerque Corps District has disclaimed jurisdiction over entire “isolated” or “closed” basins in New Mexico, including the Sacramento, Yseltano Canyon (Tularosa Creek and tributaries), the Mimbres, the San Augustine Plains, Santa Clara Canyon, Estancia, Jornada del Muerto, and the Tularosa River Basins.<sup>210</sup> The New Mexico Department of Game and Fish noted the *SWANCC*-induced risk to these basins in a 2003 letter to EPA noting that about 20% of New Mexico’s waters could be considered within closed basins, and “[m]ore than 84 miles of perennial and 3900 miles of intermittent waters exist within these close basins, representing over 14% of the perennial and intermittent waters in the state.”<sup>211</sup>

In 2002, based on *SWANCC*, the Corps removed from jurisdiction 88-acre Hidden Lake and its associated wetlands in Westminster, Colorado, finding that it was “neither adjacent to nor surface-connected to a waters of the U.S.”<sup>212</sup> In doing so, the Corps failed to acknowledge or record the fact that this lake did in fact “connect[] to Clear Creek [a major tributary to the Platte River TNW] via flows over a spillway .” The Corps also failed to consider the obvious: that Hidden Lake is navigable-in-fact, popular for boating and skiing, and supported excellent smallmouth bass and crappie fishing.<sup>213</sup> Only after the investigation of NWF consultant Dennis Buechler, documentation of spillway flow from the City of Westminster City Engineer, and the multiple requests of both NWF and the City, did the Corps finally reverse its previous non-jurisdictional determination in 2008. Later in 2008, the owners of the dam sought to remove

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<sup>206</sup>EarthJustice, NWF, NRDC and Sierra Club, “Reckless Abandon” 12 (2004).

<sup>207</sup>*Id.*; see also, State of Idaho, “Oversight Monitor: The Eastern Snake Plain Aquifer” (2005), available at [http://www.deq.idaho.gov/inl\\_oversight/library/newsletter\\_0505.pdf](http://www.deq.idaho.gov/inl_oversight/library/newsletter_0505.pdf).

<sup>208</sup>*Id.* at 13 citing *Initial Report on Isolated Waters in the State of Idaho Subject to Clean Water Act Jurisdiction*,” Walla Walla District, April 26, 1985.

<sup>209</sup>*Id.*; See, e.g., USFS, Bull Trout Final Critical Habitat Justification, Chapter 28 (2010), available at <http://www.fws.gov/pacific/bulltrout/pdf/Justification%20Docs/BTChapter28.pdf>.

<sup>210</sup>*Imperiled Treasures*, *supra*, at 13-14.

<sup>211</sup>*Id.* at 14; *Reckless Abandon*, *supra*, at 7 citing Letter from Larry G. Bell, Commissioner, New Mexico Department of Fish and Game, to U.S. EPA, April 15, 2003.

<sup>212</sup>Buechler, Dennis, “Five Case Studies on the Effects of the *SWANCC* and *Rapanos* Supreme Court Rulings on Colorado Wetlands and Streams” 11 (2010) (a report for Ducks Unlimited, National Wildlife Federation and Trout Unlimited) available at <http://www.nwf.org/News-and-Magazines/Media-Center/News-by-Topic/Wildlife/2010/02-09-10-Reports-Highlight-Threats-to-Local-Waters-and-Wetlands.aspx>.

<sup>213</sup>*Id.* at 10.

jurisdiction once more by artificially pumping to sever the downstream connection.<sup>214</sup> Improved guidance with respect to navigability, adjacency, and significant nexus should clarify and confirm that waters like Hidden Lake are “waters of the United States.”

In 2007, the Corps found an eight-acre playa in Colorado’s Washington County non-jurisdictional because it was “isolated, ... surrounded by uplands, ... 4000-5800 feet from any potentially jurisdictional tributary, and [prior to *SWANCC*, likely] regulated solely based upon the presence of migratory birds.”<sup>215</sup> The Corps made no effort, even though its determination was made in 2007, after *Rapanos*, to determine whether the playa, alone or aggregated with similarly situated wetlands, had a significant nexus to other waters of the United States.

Over 60% of Montana’s mapped wetlands, accounting for almost 25% of the state’s wetlands acreage, may be considered geographically “isolated” and at continued risk of losing Clean Water Act protections, even under this proposed guidance.<sup>216</sup>

We urge the agencies to move forward expeditiously with a rulemaking to “further consider, based on a review of the scientific literature, how a significant nexus analysis should be conducted for non-physically proximate other waters.” Proposed Guidance at 20. Meanwhile, in the course of Headquarters’ project-specific jurisdictional determinations, in the course of finalizing this guidance, and in the course of the coming rulemaking, we urge the agencies to consider all the scientific literature, as well as other documentation of physical, chemical, and biological connectivity, that is presented herein and in the administrative record.

We also urge the agencies to continue to solicit and compile scientific documentation that will surely be forthcoming as evidence of significant nexus mounts in the future. We are confident the science shows and will show a “compelling scientific basis” for treating many physically non-proximate waters, including but not limited to many prairie potholes and playa lakes, as being similarly situated waters in a watershed and as having a demonstrated significant nexus with jurisdictional waters. As Congress understood when it passed the Clean Water Act, “[t]he once seemingly separable types of aquatic systems are, we now know, interrelated and interdependent. We cannot expect to preserve the remaining qualities of our water resources without providing appropriate protection for the entire resource.”<sup>217</sup>

## **IX. The Proposed Guidance Continues to Exclude Waters Generally Not Considered “Waters of the U.S.”**

The proposed guidance properly identifies types of waters generally not considered waters of the U.S., relying on preamble language dating back to 1986. Proposed Guidance at 20, fn. 45. These include, for example, artificially irrigated areas that would revert to upland should irrigation cease, and artificial lakes or ponds used for activities such as irrigation, stock watering,

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<sup>214</sup> *Id.* at 13.

<sup>215</sup> Buechler (2010), *supra*, at 15.

<sup>216</sup> See Vance, Linda K. 2009 *Geographically Isolated Wetlands and Intermittent/Ephemeral Streams in Montana: Extent, Distribution, and Function*. Report to the Montana Department for Environmental Quality and the U.S. Environmental Protection Agency. Montana Natural Heritage Program, Helena, Montana.

<sup>217</sup> Senator Howard Baker, Floor Statement, 123 Cong. Rec. 26718 (1977).

or rice growing, and excavated from dry land. We also reiterate our support for the proposed guidance confirming that the Clean Water Act exemptions are preserved for certain farming, ranching, forestry, mining, and other specific land use activities. Proposed Guidance at 3 and fns. 8 and 9. These exemptions from Clean Water Act regulation include e.g., “construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches;” and “agricultural stormwater discharges and return flows from irrigated agriculture.”

We generally support the clarification that not all “wet areas” are waters of the U.S. However, we are concerned that excluding waters unless they are tributaries, “open waters,” or meet the regulatory definition of wetlands<sup>218</sup> may inadvertently exclude important natural water bodies that should remain subject to Clean Water Act jurisdiction. For example, the 20% of New Mexico waters that are estimated to be in closed basins might be broadly excluded from consideration as “waters of the United States” applying this guidance. We oppose any such broad exclusion of natural water bodies from the “waters of the United States.”

In addition, the term “open waters,” with its roots in Supreme Court opinions rather than agency expertise, needs to be more clearly defined if it is to provide helpful guidance in the field.

Recognizing that the “generally” not waters of the U.S. qualifier comes directly from the Corps’ 1986 preamble language and the 1988 EPA preamble language, we encourage the agencies to further describe the types of unusual circumstances, if any, in which these waters might be deemed jurisdictional on a case-by-case basis.

As noted previously with regard to the agencies’ treatment of tributaries, we generally support the proposed guidance regarding the exclusion of erosional features and certain ditches. However, as noted previously, ditches that contribute flow and pollutants to downstream waters are widely recognized to warrant Clean Water Act regulation. We also caution that the final guidance and field implementation take care not to exclude from jurisdiction ephemeral streams by dismissing them as gullies. For example, a “gully” or “arroyo” connected via ground water to a tributary of a TNW, and which flows in response to storm events, likely qualifies as a waters of the United States.<sup>219</sup>

## **X. The Guidance Must Provide for Well-Documented, Transparent, and Permanently Available Determinations.**

Our organizations appreciate and support the clear and comprehensive guidance for documenting both affirmative and negative jurisdictional determinations. There are two major areas of documentation that we highlight here for further consideration in the final guidance.

First, the agencies must develop a more transparent, centralized, and permanently available database of both jurisdictional and non-jurisdictional determinations (including adding past determinations to the database). At a minimum, this is important under the new guidance because a jurisdictional determination for an adjacent wetland in a watershed that drains to a TNW or IW should, under Justice Kennedy’s test, establish jurisdiction for all such wetlands in

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<sup>218</sup> See Corps and EPA rules defining the term “wetlands” at 33 C.F.R. § 238.3 (b); 40 C.F.R. § 230.3 (t).

<sup>219</sup> See, e.g., *Quivira Mining, supra*.

the watershed. *See* Proposed Guidance at 22 and fn. 47. Making these determinations readily available on a watershed basis helps to provide clarity, consistency, certainty, and efficiency in jurisdictional determinations over the resources in the region.

Second, as mentioned elsewhere in these comments, the guidance should encourage the documentation of significant nexus, even when the plurality test is met, whenever information is available to do so. This is obviously essential in the 11<sup>th</sup> Circuit pursuant to *U.S. v. Robison*, but this practice is also prudent in all circuits that have not definitively held that the plurality test is a valid way of establishing jurisdiction (which is every circuit except the First and Eighth).

## **XI. The Agencies Should Move Expeditiously to Propose a Rule Revising Their Definition of “Waters of the United States.”**

Our organizations strongly support the Proposed Guidance as an important first step toward clarifying and restoring protections for many of the Nation’s wetlands, lakes, and streams that have been placed at risk of increased pollution and destruction in the wake of the *SWANCC* and *Rapanos* Supreme Court decisions and the subsequent 2003 and 2008 Guidances.

We urge the agencies to finalize this new Guidance and move expeditiously to reinforce it through a formal rulemaking that would revise the agencies’ definition of “waters of the United States” to address the *SWANCC* and *Rapanos* decisions in a manner that is consistent with the Clean Water Act, its goals, and the applicable aquatic ecosystem science. Such a revised regulation would establish a binding rule that would provide for further restoring clean water protections, and would provide greater certainty and consistency in jurisdictional determinations for landowners, agency field staff, and the courts. Courts generally give little deference to agency guidance or pronouncements that are not formal rules.<sup>220</sup> Rule-making to address this definition was clearly called for by at least two of the Supreme Court Justices in their *Rapanos* concurring opinions: Chief Justice Roberts<sup>221</sup> and Justice Breyer.<sup>222</sup>

We urge the agencies to use their administrative records on jurisdictional determinations, their scientific reports, comments received on this Proposed Guidance, as well as comments received on the 2003 *SWANCC* Guidance and Advanced Notice of Public Rulemaking and the 2007 *Rapanos* Guidance to inform this rulemaking and to speed the process of developing a revised rule. Defining the “waters of the United States” has been the subject of extensive deliberation in the agencies, the courts, and in congress. It is time to move forward with rulemaking.

## **XII. Clarifying and Restoring Clean Water Act Protections Fosters Strong Local Economies and Millions of Jobs.**

### ***A. Even EPA’s conservative economic analysis demonstrates that this guidance clarifying and restoring clean water protections is good for the economy.***

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<sup>220</sup> *See, e.g., Precon Development Corp. v. U.S. Army Corps of Engineers*, 633 F.3d 278 290 n.10 (4th Cir. 2011) (finding that guidance documents are not entitled to the increased deference afforded rules).

<sup>221</sup> 547 U.S. at 757-58.

<sup>222</sup> 547 U.S. at 812.

EPA's economic analysis was developed for the limited purpose of providing "rough estimates of the range of possible indirect effects from a change in practice," recognizing that "its is the statute, regulations and caselaw which determine the scope of CWA jurisdiction."<sup>223</sup> EPA estimates the indirect costs and benefits of implementing the proposed guidance as compared to implementation of the existing guidance.<sup>224</sup>

EPA estimates the indirect annual cost of implementing this guidance based on the estimated increase in wetland and stream mitigation (along with administrative costs) associated with a 5% (2,517 wetland acre) increase in wetlands mitigation over baseline and a 2% (9.3 stream mile) increase in stream mitigation over baseline. The total annual cost is estimated to be \$87 to \$171 million.<sup>225</sup>

EPA's estimated benefits are based primarily on estimates of ecosystem services flowing from protected or mitigated aquatic resources derived from published studies. As EPA notes, these published studies vary widely, are usually incomplete, and only "offer a basis for a first order approximation of potential benefits." Further, while EPA includes the *costs* associated with wetland and stream mitigation, it includes the *benefits* of only wetland mitigation – another conservative calculation. EPA estimates annual indirect benefits from wetland mitigation only at \$162 to \$368 million, and concludes that "[t]his analysis indicates that potential incremental indirect benefits are likely to justify potential incremental indirect costs."<sup>226</sup>

EPA finds an incremental benefit from implementing this proposed guidance even though it seems to systematically underestimate the benefits of doing so. For example, EPA acknowledges, but apparently fails to account for, the potential benefits (in terms of avoided costs) of: 1) landowner savings associated with increased certainty; and 2) federal, state, and local government (and taxpayer and rate payer) savings stemming from better water quality, water supply, and flood damage mitigation associated with improved Clean Water Act enforcement.<sup>227</sup>

We cannot resist noting that the private sector mitigation banking industry – with its jobs and other fiscal contributions to local economies – survives and thrives on a broad and strictly enforced Clean Water Act.<sup>228</sup>

**B. Clean water and healthy habitat-dependent recreation and tourism, alone, contribute significantly to local economies.**

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<sup>223</sup> U.S. EPA, *Potential Indirect Economic Impacts and Benefits Associated with Guidance Clarifying the Scope of Clean Water Act Jurisdiction (Summary)*, at 1 and fn. i (April 27, 2011) available at [http://www.epa.gov/owow/wetlands/pdf/wous\\_cost\\_benefit\\_estimate\\_summary.pdf](http://www.epa.gov/owow/wetlands/pdf/wous_cost_benefit_estimate_summary.pdf).

<sup>224</sup> *Id.* at 1, fn. ii.

<sup>225</sup> *Id.* at 1-2.

<sup>226</sup> *Id.*

<sup>227</sup> U.S. EPA, *Potential Indirect Economic Impacts and Benefits Associated with Guidance Clarifying the Scope of Clean Water Act Jurisdiction*, at 13-14 (April 27, 2011) available at [http://water.epa.gov/lawsregs/guidance/wetlands/upload/cwa\\_guidance\\_impacts\\_benefits.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/cwa_guidance_impacts_benefits.pdf).

<sup>228</sup> See National Mitigation Banking Association website and members list available at <http://www.mitigationbanking.org/about/about-members.html>. (last visited July 28, 2011).

Healthy wetlands and streams are economic engines for local recreation-based economies. For example, the U.S Fish and Wildlife Service estimates that duck hunting in 2006 had a positive economic impact of more than \$2.3 billion, supporting more than 27,000 private sector jobs.<sup>229</sup> Birding, much of it also water-related as evidenced by waterfowl accounting for the type of bird observed by 77% of away-from-home birders, supported total trip-related and equipment expenditures of \$36 billion in 2006 (Carver 2009). These direct expenditures resulted in a total industry output of \$82 billion and created 671,000 jobs (with an average annual salary of \$41,000).<sup>230</sup> The American Sportfishing Association reports that anglers generated nearly \$125 billion in total economic activity in 2006, supporting more than 1 million jobs.<sup>231</sup>

As Western Resource Advocates comment, clarifying and restoring Clean Water Act protections as the Proposed Guidance would, will foster the local economies of the western mountain states. By acknowledging, consistent with the case law, that TNWs include waters used for commercial waterborne recreation, the agencies will be able to confirm jurisdiction for many more headwaters rivers and streams that support economically important river recreation. In some rural, mountain communities, river recreation and related activities generate the largest share of the local economy. Indeed, throughout the headwaters states, river recreation, including boating, fishing and wildlife watching, represent billions of dollars in commerce.<sup>232</sup>

In the Colorado River Basin alone, \$55M/yr. is spent directly on commercial rafting, with an additional \$141M of indirect and induced economic activity. While rafting on the main stem Colorado through the Grand Canyon is a major source of this activity, there are dozens of other rivers in the Basin where commercial rafting occurs.<sup>233</sup> The website “Rafting Colorado” lists the number of guides who take commercial trips down the following rivers in the Colorado River Basin: the Animas, Blue, Piedra, Roaring Fork, Dolores, Eagle, Gunnison, San Miguel, Uncompahgre and Yampa, in addition to the Colorado main stem (including several sites far upstream from Grand Junction).<sup>234</sup>

The most recent federal nation-wide survey available on freshwater fishing expenditures puts the total for Arizona, Colorado, New Mexico, Nevada, Utah and Wyoming at \$2.85B for 2006.<sup>235</sup> While this figure includes both guided and non-guided trips, even if only a small fraction of these costs derive from guided trips, they still represent a significant contribution to these states’ economies and to interstate commerce. And, even more so than commercial boating, guided

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<sup>229</sup> *Economic Impact of Waterfowl Hunting in the United States*, Addendum to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, November 2008. US Fish and Wildlife Service.

<sup>230</sup> Carver, E. 2009. *Birding in the United States: A Demographic and Economic Analysis*. Addendum to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. U.S. Fish and Wildlife Service, Report 2006-4, 15pp.

<sup>231</sup> American Sportfishing Association, *Sportfishing in America* (January 2008) at 2.

<sup>232</sup> Western Resource Advocates Comments on Proposed Guidance (July 2011).

<sup>233</sup> *Id.* citing Kaval, Colorado River Basin Ecosystem Service Valuation Literature Review at 3 (2011), available at <http://www.conservationgateway.org/file/ecosystem-service-valuation-colorado-river-basin-literature-review-and-assessment-total-economi>.

<sup>234</sup> *Id.* citing Colorado Whitewater River Rafting Companies in Colorado, <http://www.rafting-colorado.net/colorado-rafting-companies> (last visited 6/22/11).

<sup>235</sup> Kaval, *supra* at 71 (citing US Department of Interior, Fish and Wildlife Service, US Department of Commerce & US Census Bureau (2006)); National Survey of Fishing, Hunting and Wildlife Associated Recreation.

fishing trips occur on smaller headwaters rivers and streams.<sup>236</sup> In 2006, in Utah alone, 23% of anglers were from out-of-state, and there were an estimated 7,000 jobs created at business establishments including guide shops, gas stations, motels and restaurants to support these anglers.<sup>237</sup>

By any measure, clarifying and restoring clean water protections for America's waters is a good investment for healthy communities and a healthy economy.

## **CONCLUSION**

Our organizations strongly support the Proposed Guidance as both scientifically and legally sound. We urge the agencies to consider our comments in full, including the scientific and resource impact information cited, and our recommendations for improving the guidance. Most importantly, we urge the agencies to immediately withdraw the 2003 and 2008 Guidances, finalize this 2011 Guidance, and proceed expeditiously with a "waters of the United States" rulemaking that will provide greater long-term certainty for landowners and greater protection for streams, wetlands, and other waters.

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<sup>236</sup> *Id.*

<sup>237</sup> *Id.* citing Kaval, *supra* at 82 (citing Southwick Associates (2007)); The 2006 Economic Benefits of Hunting, Fishing and Wildlife-Watching in Utah.

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