

FINDING NEXUS – PROXIMITY AND CAUSATION: AUTHORITY FOR CLEAN WATER ACT JURISDICTION BEYOND TRADITIONAL NAVIGABLE WATERS

I. INTRODUCTION

“An entire research field now focuses on the human dimensions of global environmental climate change, with particular emphasis on global and regional hydroclimate impacts and adjustments.”¹ The Supreme Court recognized in *Massachusetts v. Environmental Protection Agency* that serious and well recognized injuries accompanied climate change.² Central California and agriculture throughout the state will face significant challenges.³ Potential dramatic alterations in California’s hydrology may result from changes in the spatial and temporal patterns of snow accumulation and snow melt.⁴ Typically, watersheds with substantial snow pack in winter will experience major changes in the timing and intensity of runoff as average temperatures rise.⁵ Simulations for the Sacramento Basin indicate that with a four degree regional temperature rise and a twenty percent decrease in rainfall, the runoff in rivers and streams during the summer months will fall to between twenty and fifty percent of its normal value.⁶ Ensuring that navigable waters, associated wetlands, and significant isolated waters are protected from additional impact will contribute to stabilizing hydrologic cycles; the impacts to

¹ JAMES L. WESCOAT, JR. & GILBERT F. WHITE, *WATER FOR LIFE* 27-28 (Cambridge Univ. Press 2003).

² *Massachusetts v. EPA*, 127 S.Ct. 1438, 1455 (2007).

³ JOHN HOUGHTON, *GLOBAL WARMING: THE COMPLETE BRIEFING* 158 (3d ed. Cambridge Univ. Press 2004) (1994).

⁴ BRIAN JOYCE ET AL., *CLIMATE CHANGE IMPACTS ON WATER FOR AGRICULTURE IN CALIFORNIA: A CASE STUDY IN THE SACRAMENTO VALLEY*. p.vii (2006), http://www.climatechange.ca.gov/biennial_reports/2006report/index.html.

⁵ *Id.* at 2.

⁶ HOUGHTON, *supra* note 3, at 158-59.

headwaters may be disproportionately more severe than other impacts in a watershed.⁷

During the 1800s and as recently as the 1960s and 1970s, federal, state, and local policies favored the conversion of wetlands into “more productive” use.⁸ Scientific efforts to understand the effect of land use policy and practices on water resources shifted in the 1990s to study flow regimes, flushing flows, and riparian alterations conducive or destructive to aquatic species and ecosystems.⁹ In California, estimates place the historic extent of wetlands at three to five million acres.¹⁰ Current estimates place the expanse of wetlands in California at 450,000 acres, a loss of approximately eighty-five to ninety percent.¹¹ Comparatively, the loss of wetlands in California exceeds the fifty percent loss in the rest of the United States and a thirty-six percent loss in parts of Asia.¹²

This Comment will discuss the scientific and legal foundations for protecting defined water bodies, including wetlands and hydrological cycles, during global climate change. Federal jurisdiction over navigable waters has been granted by the Commerce Clause and extended by statute to certain defined waters. Clean Water Act (“CWA”) jurisdiction has been upheld for navigable waters and some associated wetlands and tributaries. In addition, this Comment suggests that CWA jurisdiction should also apply to remote water bodies where there is a significant or potentially significant threat of harm to navigable waters. Legal protection should be extended to remote bodies of waters and wetlands where there is a substantial effect to jurisdictional waters, or a showing of potential harm, in order to fulfill the intent of the CWA and to provide for current climate change needs. However, the connection between non-adjacent bodies of water and navigable waters should not be remote and speculative.

The future interpretation of CWA jurisdiction will be influenced by the Supreme Court’s varied opinions in the recently decided *Rapanos v. U.S. Army Corps*. Following the fracture of the Supreme Court into four-to-one blocks on *Rapanos*, some commentators think the key opin-

⁷ Mary C. Freeman, Catherine M. Pringle, & C. Rhett Jackson, *Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales*, 43 JOURNAL OF THE AMERICAN WATER RESOURCES ASSOC. (“JAWRA”) 6 (Feb. 2007).

⁸ California Government Homepage, California Wetlands: Wetland Management in the Past, http://ca.gov/ceres/wetlands/wetland_past.html (last visited on Aug. 13, 2006).

⁹ WESCOAT, *supra* note 1, at 28.

¹⁰ California Wetlands, *supra* note 8.

¹¹ *Id.*

¹² WESCOAT, *supra* note 1, at 35.

ion to be Justice Kennedy's and believe lower courts will treat Justice Scalia's opinion more like a dissent than a majority opinion.¹³ Justice Kennedy's opinion extends CWA jurisdiction to waters that have a "significant nexus" to waters that are or were navigable in fact, or that could reasonably be made so.¹⁴ Justice Scalia's opinion in *Rapanos* would narrow federal protection afforded under the CWA to wetlands adjacent to traditional navigable waters and waters included within the statutory phrase: "navigable waters," defined as "the waters of the United States."¹⁵ This comment proposes that a preliminary finding of impact to navigable waters by science would allow CWA jurisdiction over even remote, isolated waters.

II. HISTORIC BACKGROUND FOR JURISDICTION OVER NAVIGABLE WATERS

The origins of government control over navigable waters are found in common law.¹⁶ As early as 1215, the Magna Carta required that all fishweirs be removed from the Thames, the Medway, and throughout the whole of England, except on the seacoast, to keep the rivers free for navigation.¹⁷ Under English common law and early in the formation of the colonial United States, early rulers and governors recognized the importance of a public right to unrestricted navigation and travel on waterways.¹⁸ The colonies adopted large portions of the English Common law dealing with access to navigable waterways including treaties that invariably included the provision that fluvial navigation would remain forever free.¹⁹

¹³ Bradford C. Mank, *Implementing Rapanos-Will Justice Kennedy's Significant Nexus Test Provide a Workable Standard for Lower Courts, Regulators, and Developers?* 40 IND. L. REV. 291, 293 (2007).

¹⁴ *Rapanos v. U.S. Army Corps*, 126 S.Ct. 2208, 2236 (2006) (Kennedy, J., concurring).

¹⁵ *Id.* at 2216, 2220-21 (Justice Scalia considers that "the waters" refers more narrowly to water "as found in streams and bodies forming geographical features such as oceans, rivers, lakes," or "the flowing or moving masses, as of waves or floods, making up such streams or bodies...including only relatively permanent, standing or flowing bodies of water" in contrast to his position that the Corps expansive interpretation might be arguable if the CSA had defined "navigable" waters as "water of the United States").

¹⁶ U.S. ARMY CORPS OF ENG'RS, SUMMARY OF HISTORY, 1 (2003) <http://www.usace.army.mil/net/functions/cw/cecwo/reg/reghist.pdf> (last visited on 7/22/06).

¹⁷ THE MAGNA CARTA, 1215, 17 John, cl. 33 (Eng.), available at <http://www.bl.uk.treasures/magnacarta/translation.html> (intent in removing fish-weirs was to provide for navigable waters).

¹⁸ U.S. ARMY CORPS OF ENG'RS, *supra* note 16.

¹⁹ *Id.*

A. *The Commerce Clause of the Constitution*

The United States (“U.S.”) Constitution does not provide express Congressional authority over navigable waters.²⁰ However, the Commerce Clause gives Congress the power “to regulate commerce with foreign nations, among the several states, and with Indian tribes.”²¹ The Supreme Court addressed federal jurisdiction over navigable waters as early as 1824 in *Gibbons v. Ogden*.²² The *Gibbons* case was decided during the expansion of steam boat travel on the coasts, bays, and rivers of the country.²³ New York enacted a regulation that required a state license to operate on any waters of the State.²⁴ A violation of the license requirement would result in forfeiture of the vessel.²⁵ Contemporaneous with New York’s regulation of steam boat navigation, the adjacent states of Connecticut and New Jersey enacted similar or retaliatory legislation.²⁶ *Gibbons*, a resident of New Jersey, was the owner of a steam boat that was licensed for carrying on trade and navigated between New Jersey and New York.²⁷ The issue in *Gibbons* was a question of concurrent state and federal power over commerce, including navigation as a component of commerce.²⁸ The Supreme Court clarified in *Gibbons* that navigation was included as a component of commerce and the government had the power under the Commerce Clause to control the navigable waters, as if expressly granted.²⁹ Additionally, *Gibbons* extended federal power over navigable waters to include those waters and deep streams within the territorial boundaries of the states.³⁰

Gibbons is considered “an expansive view of the scope of Commerce Clause power.”³¹ The Supreme Court defined three broad categories of activity that Congress may regulate under its Commerce Power in a 1995

²⁰ See generally, U.S. CONST. art. I, § 8 (in the Powers of Congress there is no listed authority over navigable waters).

²¹ U.S. CONST. art. I, § 8, cl. 3.

²² *Gibbons v. Ogden*, 22 U.S. 1, 4-5 (1824).

²³ *Id.*

²⁴ *Id.* at 5.

²⁵ *Id.*

²⁶ *Id.* at 21 (C.T. and N.J. passed legislation providing for treble costs beyond the N.Y. penalties for a party who impedes another under the law of N.Y., in reprisal to N.Y. legislation the States were acting with extreme belligerent legislation).

²⁷ *Id.* at 9.

²⁸ *Id.* at 16-18.

²⁹ *Id.* at 193.

³⁰ *Gibbons*, 22 U.S. at 194-195.

³¹ ERWIN CHERMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES 243 (Aspen Publishers 3rd ed. 2006).

case, *United States v. Lopez*.³² The categories include: channels of interstate commerce; instrumentalities, persons and things in interstate commerce; and activities that substantially affect interstate commerce.³³ *Lopez* is considered a narrowing in the scope of Congress's power under the Commerce Clause where the relationship to interstate commerce was too tangential and uncertain.³⁴ Generally, in CWA violations the "discharge of fill material into the Nation's waters is almost always undertaken for economic reasons"³⁵ and would fall into the third category of *Lopez*.

B. Establishment of the U.S. Army Corps Authority

The United States Army Corps of Engineers ("Corps") was given jurisdiction over the protection of navigable waters by the Rivers and Harbors Act in 1888 and "had authority to require owners to modify obstructive bridges at the owner's expense, thus providing reasonable, free, and unobstructed navigation."³⁶ The 1899 Rivers and Harbors Act followed and provided the first general legislation giving the Corps jurisdiction and authority over the protection of "navigable waters."³⁷

The Corps jurisdiction over "navigable waters" was defined in the *The Daniel Ball* case which held that the term meant "navigable in fact."³⁸ The owners of the *Daniel Ball* were charged with failing to obtain a license to operate on navigable waters of the U.S. They argued that they were not subject to licensing requirements because their vessel operated only on the Grand River, within the state of Michigan, as a common carrier between two intrastate cities.³⁹ The vessel was incapable of navigating on Lake Michigan, and did not run in continuation with any line of vessels or railway.⁴⁰ The *Daniel Ball* court rejected the doctrine of common law which held that navigable waters applied to oceans and tidewaters below the ebb and flow of the tide.⁴¹ A river is "navigable in fact" when used, or susceptible of being used, in its ordinary condition, as a highway over which commerce may be conducted in the customary

³² *United States v. Lopez*, 514 U.S. 549, 558-559 (1995).

³³ *Id.* at 558-559.

³⁴ CHEMERINSKY, *supra* note 31, at 264-265.

³⁵ *Solid Waste Agency of Northern Cook County v. Army Corps*, 531 U.S. 159, 193 (2001) [hereinafter SWANCC] (Stevens, J., dissenting).

³⁶ U.S. ARMY CORPS OF ENG'RS, *supra* note 16.

³⁷ 33 U.S.C.A. sec. 403 (the 1899 Act was a rewrite and compilation of laws for the protection of navigable waters from following the 1890 version).

³⁸ *The Daniel Ball*, 77 U.S. 557, 563 (1871).

³⁹ *Id.* at 561.

⁴⁰ *Id.* at 561.

⁴¹ *Id.* at 563.

modes.⁴² Further, waterways constitute navigable waters of the U.S. when they form, alone or in connection with other waters, a continuous highway for commerce.⁴³

Precursor legislation to the CWA gave the Corps control in 1970 over all discharges into navigable waters and their tributaries.⁴⁴ The definition of “navigable waters” would change under the CWA.

C. Clean Water Act Legislates Federal Authority Over Navigable Waters

In 1972, Congress sought to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters and control water pollution.⁴⁵ The Clean Water Act was passed in 1977 and prohibited the discharge of any pollutant to navigable waters from any point source without a permit issued by the Corps or the EPA.⁴⁶ The CWA further defined “navigable waters” more broadly than “navigable in fact” and considered it to mean “the waters of the United States.”⁴⁷ The CWA provides for civil and criminal penalties for the discharge of pollutants by any person except when in compliance with the permit requirements of the Act.⁴⁸ The EPA’s definition of navigable waters included: all navigable waters of the U.S.; tributaries of navigable waters of the U.S.; interstate waters; intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreation or other purposes; intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and intrastate lakes, rivers and streams which are utilized for industrial purposes by industries in interstate commerce.⁴⁹ During the early years of the CWA, the Corps applied a more limited definition of navigable waters than the EPA: “those waters of the U.S. which are subject to the ebb and flow of the tide, and/or presently, or

⁴² *Id.* at 563.

⁴³ *Id.* at 563.

⁴⁴ U.S. ARMY CORPS OF ENG’RS, *supra* note 16, at 2 (Executive Order 11574 initiated Section 13 of the Rivers and Harbors Act for controlling all discharges into navigable waters and their tributaries, the Corps administered the Refuse Act Permit Program with oversight by the Environmental Protection Agency, this program was a precursor to the 1972 Federal Water Pollution Control Act which would later be renamed the Clean Water Act).

⁴⁵ Clean Water Act, 33 U.S.C. § 1251(a) (Federal Water Pollution Control Act was passed in 1972 and was renamed the CWA in 1977.)

⁴⁶ Clean Water Act, 33 U.S.C. § 1251et seq (approved Bender 2007).

⁴⁷ Clean Water Act, 33 U.S.C. §§ 1251 et seq; 33 USCS § 1362 (approved Bender 2008).

⁴⁸ 33 U.S.C.S. § 1319 (West 2008).

⁴⁹ 40 C.F.R. § 230.3(s) (2007).

have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce.”⁵⁰

In many ways the CWA has been an extraordinary success. The CWA was part of an environmental law revolution; there was no sector of the nation’s economy that was unaffected by the environmental regulatory statutes, and air and water pollution were reduced, or are no worse in significant ways, while the population and economy grew drastically since the 1970s.⁵¹

D. Case Law Defining “Navigable Waters” During the Twentieth Century

For over one hundred years, the courts interpreted navigable waters to mean those that were “navigable in fact” as defined in *The Daniel Ball*.⁵² Modernly, however, “navigable waters” came to have a broader application.⁵³ Prior to 1975, the Corps would not assert CWA jurisdiction on an upland or dry land site as such areas were above the Mean Higher High Water line.⁵⁴ In 1975, the Corps expanded jurisdiction to bring previously non-jurisdictional wetlands under Corps jurisdiction. The Corps issued regulations defining “waters of the United States” to include not only actually navigable waters but all “wetlands” that are adjacent to traditionally defined navigable waters, tributaries of these waters, and interstate waters, whether navigable or not, and their tributaries.⁵⁵ Further, the Corps expanded its jurisdiction to “other waters” of the U.S.⁵⁶ This included streams, wetlands, playa lakes, and natural ponds, if the use, degradation, or destruction of these areas could affect interstate commerce.⁵⁷

An early ruling by the Supreme Court involving the Corps’ expanded interpretation of “waters of the United States” is found in *United States v. Riverside Bayview Homes*.⁵⁸ In *Riverside Bayview*, the Corps filed suit

⁵⁰ 33 C.F.R. § 321.2 (1986).

⁵¹ Richard Lazarus, Georgetown University Law Center, Plenary Session Address at the California Environmental Law Conference: The Making of Environmental Law (Sept. 2005), in 15 ENVIRONMENTAL LAW NEWS, Fall 2006, at 5 (suggesting that the intricacies of the CWA reflect the very complex, very dynamic, and very interdependent nature of an ecosystem).

⁵² *The Daniel Ball*, 77 U.S. at 563.

⁵³ *Rapanos*, 126 S.Ct. at 2208.

⁵⁴ *Golden Gate Audubon Society, Inc. v. U.S. Army Corps of Eng’rs*, 796 F.Supp. 1306, 1309 (N.D. Cal. 1992).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 123-24 (1985).

to enjoin developers from placing fill materials on low-lying, marshy land within the development and near the shores of Lake St. Clair.⁵⁹ The Corps argued that the property was an adjacent wetland under the 1975 regulation defining "waters of the United States."⁶⁰ It interpreted the CWA to cover all "freshwater wetlands" that are adjacent to other covered waters.⁶¹ The Supreme Court, in a unanimous holding, found that statutory authority extended to all wetlands adjacent to navigable or interstate waters and their tributaries.⁶² *Riverside Bayview* adopts the Corps' definition of wetlands, defined as lands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.⁶³ However, inundation by frequent flooding from the adjacent body of water was not a required characteristic of the wetlands.⁶⁴ The court found the site at issue to be wetlands and subject to Corps permit authority.⁶⁵

The Supreme Court in *Riverside Bayview* did not extend its holding beyond the narrow question of statutory jurisdiction over wetlands adjacent to, but not regularly flooded by, hydrographic features more conventionally identified as "waters."⁶⁶ Specifically, the Court's opinion did not address the authority of the Corps to regulate discharges of fill into wetlands not adjacent to bodies of open water.⁶⁷ The Court noted in dictum that an overly simplistic method of classifying land and water as CWA "jurisdictional waters" risked injustice to the Corps.⁶⁸ *Riverside Bayview* recognized the problems faced by the Corps in defining the scope of its CWA authority and combating water pollution.⁶⁹ A precise line between land, wetlands, and water is difficult to determine.⁷⁰ In addition, the Court recognized that legislative history and underlying policies of the statutory grants of Corps' authority were ambiguous.⁷¹ In looking at Congressional intent behind the CWA, the Court said that it was clear that the term "navigable" as used in the CWA was of limited importance

⁵⁹ *Id.* at 124.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.* at 129.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.* at 138.

⁶⁶ *Id.* at 131.

⁶⁷ *Id.*

⁶⁸ *Id.* at 132.

⁶⁹ *Id.* at 132.

⁷⁰ *Id.*

⁷¹ *Id.*

and the Act defines the waters covered broadly by expressing concern for water quality and aquatic ecosystems.⁷² The *Riverside* court deferred to the Corps' judgment and said that the Corps' ecological decisions about the relationship between waters and their adjacent wetlands provide an adequate basis for a legal judgment that the site may be defined as waters under the CWA.⁷³

Determinations of legislative waters and wetlands proved confusing to the Corps. The Corps would argue in 1992 that it did not have jurisdiction over a site adjacent to San Leandro Bay following the filling and conversion to dry land between 1972 and 1986.⁷⁴ In *Golden Gate Audubon Society, Inc. v. Army Corps* the area in question had been wetlands. The Port of Oakland filled the area beginning in 1965, but by 1975 areas with biological wetland characteristics had begun to reemerge.⁷⁵ The Corps declined jurisdiction based on their conclusion that the reemerging wetlands were not the "normal circumstances" of the site.⁷⁶ The Supreme Court found that the Corps did have jurisdiction over the site in question and criticized the Corps' failure to assert jurisdiction as contrary to the Congressional intent behind the CWA.⁷⁷ "It was irrelevant whether the wetlands had always been there, were re-emergent wetlands, or were man-made."⁷⁸ It did not matter how the property at issue became a water of the U.S. if the property was in any way within the Commerce Clause power.⁷⁹

A precise definition of "waters of the United States" eluded the Corps. An agency may look to the legislative history and underlying policies of its statutory grants to determine the bounds of its regulatory authority.⁸⁰ When a court reviews an agency's construction of a statute, there is a two prong analysis. First, the Court determines whether "Congress has directly spoken to the precise question;" and then second, the question is whether "the agency's answer is based on a permissible construction of

⁷² *Id.* at 133.

⁷³ *Id.*

⁷⁴ *Golden Gate Audubon*, 796 F.Supp. at 1309.

⁷⁵ *Id.*

⁷⁶ *Id.* at 1311 (the "normal circumstances" issue resulted from the regulatory definition of wetlands which defined wetlands as: those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, *Id.* at 1309).

⁷⁷ *Id.* at 1313-14.

⁷⁸ *Id.* at 1314.

⁷⁹ *Id.* at 1314.

⁸⁰ *Riverside*, 474 U.S. at 132.

the statute."⁸¹ However, where an administrative interpretation of a statute would raise serious constitutional problems, the court will construe the statute to avoid such problems unless the agency's construction is plainly contrary to Congress' intent.⁸²

The Corps attempted to clarify its jurisdiction over intrastate water in 1986.⁸³ It stated that Section 404(a) of the CWA extended to intrastate waters and isolated wetlands that provided migratory bird habitat, which would establish a nexus to interstate commerce.⁸⁴ The Corps pursued this assertion of jurisdiction in *Tabb Lakes v. United States* but the action was procedurally defective.⁸⁵ Subsequently, the Supreme Court would review the Corps argument for CWA jurisdiction under the Migratory Bird Rule in *Solid Waste Agency of Northern Cook County v. Army Corps* ("SWANCC").⁸⁶

In SWANCC, petitioner was a consortium of cities and villages that located an abandoned sand and gravel mining site and developed it into a disposal site for non-hazardous solid waste.⁸⁷ The mining site was abandoned in about 1960, and forest developed with "scattered permanent and seasonal ponds that varied in size and depth."⁸⁸ Petitioner contacted county and state agencies to file various permits, and received a permit from the state.⁸⁹ Petitioner then contacted the Corps to determine if federal landfill permits were required to place waste fill in various seasonal ponds.⁹⁰ The Corps evaluated the site under its regulatory definition of "waters of the United States."⁹¹ The language of the Corps regulation, at that time, indicated that intrastate bodies of water not adjacent to navigable waters required causation to establish federal jurisdiction.⁹² Also,

⁸¹ *Chevron v. Natural Resources Defense Council*, 476 U.S. 837, 842-843 (1984).

⁸² *Id.* at 842-843.

⁸³ SWANCC, 531 U.S. at 161, *see also* *Tabb Lakes v. United States*, 10 F.3d 796, 798-99 (Fed. Cir. 1993).

⁸⁴ SWANCC, 531 U.S. at 161.

⁸⁵ *Tabb Lakes*, 10 F.3d at 799 (court dismissed case as procedurally defective because the Corps had not complied with the Administrative Procedure Act, the *Tabbs Lakes* court did not rule on the Corps' Migratory Bird Rule).

⁸⁶ SWANCC, 531 U.S. at 164.

⁸⁷ *Id.* at 162-163.

⁸⁸ *Id.* at 162-163.

⁸⁹ *Id.* at 165.

⁹⁰ *Id.* at 163.

⁹¹ *Id.* at 163, *citing* 33 CFR sec. 328.3(a) ("Waters" were defined as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce).

⁹² *Id.*, 33 CFR sec. 328.3(a)(3).

there should be a showing of effect on navigable waters or commerce to assert jurisdiction.

The Corps initially concluded that it did not have jurisdiction over the site because it contained no wetlands which supported vegetation typically adapted for life in saturated soil conditions.⁹³ A Nature Preserve Commission notified the Corps that there were migratory birds on the site and the Corps reevaluated its determination.⁹⁴ Once on site, the Corps found over one hundred migratory bird species using the area as habitat.⁹⁵ The Corps determined that while the area did not contain wetlands, there were “waters of the United States” on the site because migratory birds used the area as habitat.⁹⁶ Asserting jurisdiction pursuant to the Migratory Bird Rule subpart (b), the Corps argued that 404(a) extended to intrastate waters.⁹⁷

The Corps cited *Riverside Bayview* and argued the scope of the relevant definition of “navigable waters” included “at least some waters that would not be deemed navigable” and § 404(g) simply referred to “other...waters.”⁹⁸ The Court disagreed, holding that 404(a) of the CWA did not support the Corps promulgation of the Migratory Bird Rule.⁹⁹ The case identified significant constitutional issues presented by the Corps interpretation of the agency’s regulations.¹⁰⁰ The court viewed the Corps claim of jurisdiction in *SWANCC* as an attempt to usurp the states’ traditional and primary power over land and water use, and sufficient to preclude the administrative deference argument.¹⁰¹ The Court also held that the CWA should be read as written.¹⁰² Here, the Corps interpretation of the CWA was found to invoke the outer limits of Congress’ power, and there was no clear indication that Congress intended that re-

⁹³ *SWANCC*, 531 U.S. at 164.

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.* at 164-65.

⁹⁷ *Id.* at 165 (Corps argued that Migratory Bird Rule applied to intrastate waters which (a.) are or would be used as habitat by birds protected by Migratory Bird Treaties; or (b.) are or would be used as habitat by other migratory birds which cross state lines; or (c.) are or would be used as habitat for endangered species; or (d.) are used to irrigate crops sold in interstate commerce).

⁹⁸ *Id.* at 171, quoting *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 133 (1985).

⁹⁹ *SWANCC*, 531 U.S. at 171-72.

¹⁰⁰ *Id.* at 174.

¹⁰¹ *Id.*

¹⁰² *SWANCC*, 531 U.S. at 174; see also *DeBartolo v Florida Gulf Coast Builders*, 485 U.S. 568, 574-75 (1988).

sult.¹⁰³ This concern was heightened where the Corps use of the Migratory Bird Rule was viewed as altering the federal-state framework by permitting federal encroachment upon a traditional state power.¹⁰⁴ “Regulation of land use is a function traditionally performed by local government.”¹⁰⁵ The use of “navigable” in the CWA was considered important as indicating that Congress intended the traditional basis for asserting federal jurisdiction over waters was navigability.¹⁰⁶

The SWANCC dissent pointed out that “navigable” was not included in the statement of purpose or the definition of the term for the CWA.¹⁰⁷ The intent of the statute was to establish “a comprehensive program for controlling and abating water pollution.”¹⁰⁸ Justice Stevens opined that the “CWA was ‘watershed legislation,’ fundamentally changing both the purpose and scope of federal regulation of the Nation’s waters.”¹⁰⁹ In defense of the Migratory Bird Rule, the dissent argued that discharge of fill into “isolated” waters would aggregate the adverse affect on migratory bird populations and habitat.¹¹⁰ Such activities would substantially affect interstate commerce.¹¹¹ Additionally, the dissent argued for broad application of “Commerce Clause power to allow regulation of particular ‘activities causing air or water pollution, or other environmental hazards that may have effects in more than one state.’”¹¹²

Courts essentially split into two camps in interpreting the scope of SWANCC.¹¹³ The issue of “navigable waters” defined as “waters of the United States” was argued before a number of courts in the years following SWANCC and decided inconsistently. Jurisdiction was found both in areas where there was serious impact to navigable water which created a significant nexus and also where there was adjacent water with no hydrologic or ecological connection.¹¹⁴

¹⁰³ SWANCC, 531 U.S. at 172; see also *DeBartolo v Florida Gulf Coast Builders*, 485 U.S. 568, 575 (1988) (*DeBartola* passed on deciding the constitutional question and decided the case based on statutory language and history).

¹⁰⁴ SWANCC, 531 U.S. at 174.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 171-175 (language includes waters that were or had been navigable in fact or could be reasonably be made so).

¹⁰⁷ *Id.* at 180-81 (Stevens, J., dissenting).

¹⁰⁸ *Id.* at 179 (Stevens, J., dissenting).

¹⁰⁹ *Id.* at 175 (Stevens, J., dissenting).

¹¹⁰ *Id.* at 194 (Stevens, J., dissenting).

¹¹¹ See *id.* at 194-95 (Stevens, J., dissenting).

¹¹² *Id.* at 196 (*citing* *Hodel v. Virginia Mining*, 452 U.S. 264, 282 (1981)).

¹¹³ *FD&P Enterprises v. U.S. Army Corps*, 239 F. Supp. 2d 509, 513 (D.N.J. 2003).

¹¹⁴ *Id.* at 517.

In a 2003 case, *FD&P Enterprises v Army Corps*, the U.S. District Court reviewed the cases interpreting *SWANCC*¹¹⁵ and then rejected “hydrological connection” as the basis for analyzing CWA jurisdiction and applied “the significant nexus between the wetlands and navigable waters.”¹¹⁶ In its analysis, the Court concluded that where there is a substantial injurious impact upon the chemical, physical and/or biological integrity of the navigable water, there would be a significant nexus.¹¹⁷

Also in 2003, the U.S. Northern District of California found the Corps had jurisdiction over a pond that was adjacent to a navigable water and separated by a man-made berm in *San Francisco Baykeeper v. Cargill Salt Division*.¹¹⁸ The Court found that the same characteristics that justified protection of adjacent wetlands in *Riverside Bayview* applied to adjacent ponds.¹¹⁹ It reasoned that a discharge into the pond could affect the water quality of proximate navigable waters, capture runoff, and prevent flooding and erosion and the pond also served as shared habitat for local wildlife.¹²⁰

In the 2005 case *Baccarat Fremont Developers v. US Army Corps*, the Ninth Circuit held that the Corps had jurisdiction where wetlands were adjacent to traditional waters.¹²¹ The Court did not require the existence of significant hydrological or ecological connection between the wetlands and “waters” of the U.S.¹²² The *Baccarat* wetlands were separated from flood control channels by man-made berms which if were removed would cause the wetlands to connect directly to navigable flood control channels.¹²³ Appellant *Baccarat* argued that if the berms were removed the wetlands would drain entirely¹²⁴ and that the Corps failed to show a significant hydrological or ecological connection.¹²⁵ The *Baccarat* court held that the Corps did have jurisdiction under the CWA over the adjacent wetlands without a showing of a significant connection.¹²⁶ There would be CWA jurisdiction over a tributary where there is a showing that

¹¹⁵ *Generally id.* at 513-517.

¹¹⁶ *Id.* at 516.

¹¹⁷ *Id.* at 517 (Court denied motion for summary judgment because there was a genuine issue of material fact as to whether the Corps would be able to show substantial nexus).

¹¹⁸ *San Francisco Baykeeper v. Cargill Salt Division*, 2003 U.S. Dist. LEXUS 8247, p.3.

¹¹⁹ *Id.* at 15-16.

¹²⁰ *Id.* at 16.

¹²¹ *Baccarat Fremont Developers v. U.S. Army Corps*, 425 F.3d 1150, 1156-57 (9th Cir. 2005).

¹²² *Id.* at 1156.

¹²³ *Id.* at 1152.

¹²⁴ *Id.*

¹²⁵ *Id.* at 1156.

¹²⁶ *Id.* at 1158.

water is exchanged, at least intermittently, with a water of the U.S.¹²⁷ However, the Court went on to say that it would have found a significant nexus where: (1) the wetlands on the site were in reasonable proximity to the flood control channels; (2) the wetlands served important functions that contribute to the aquatic environment in general and to the nearby tidal waters in particular; (3) the wetlands function were particularly important given the reduction of wetlands in the San Francisco Bay area; (4) the wetlands were within the one hundred year floodplain of tidal waters; and (5) the wetlands are part of a hydric soil unit that is contiguous with the area covered by tidal waters.¹²⁸

III. SUPREME COURT DIRECTION IN *RAPANOS*

In 2006, the Supreme Court addressed the Corps' jurisdiction over tributary wetlands under the CWA in the consolidated cases of *Rapanos v U.S.* and *Carabell v U.S.*¹²⁹ The plurality opinion criticized the Corps for exercising the discretion of an "enlightened despot" in ruling over the waters of the U.S.¹³⁰ The Court derided the Corps for interpreting its authority under the CWA beyond the outer limit of Congress' Commerce Power and raising difficult questions about the ultimate scope of that power.¹³¹ The Court expressed that there had been an expansion of federal regulation of land under the CWA without any change in the governing statute.¹³²

Army Corps' regulations at the time interpreted "the waters of the United States" to include, in addition to traditional interstate navigable waters, broader classes of intrastate waters that could affect interstate or foreign commerce.¹³³ The regulations specifically provide that wetlands

¹²⁷ *Id.* at 1156.

¹²⁸ *Id.* at 1157.

¹²⁹ *Rapanos*, 126 S.Ct at 2219.

¹³⁰ *Id.* at 2213 (Justice Scalia wrote the plurality opinion but the Supreme Court was fractured in a four to one to four block in the opinion).

¹³¹ *Id.* at 2224.

¹³² *Id.* at 2215.

¹³³ *Id.* at 2216 (the Corps broad regulation asserted jurisdiction over traditional navigable waters as well as all interstate waters including interstate wetlands; all other waters such as interstate 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 and further including tributaries of such waters, and wetlands adjacent to such waters and tributaries).

separated from other waters of the U.S. by natural or man-made barriers were considered adjacent wetlands.¹³⁴

Rapanos and their affiliated businesses were charged in violation of the CWA with depositing fill material without a permit into wetlands on three sites near Midland, Michigan: the Salzburg site, the Hines Road site, and the Pine River site.¹³⁵ The plurality opinion selectively colored the representation of Rapanos' conduct by the presentation or omission of case facts. Rapanos' more egregious conduct is relayed in the concurring opinion of Justice Kennedy and the dissenting opinion by Justice Stevens.

The Court described the sites in contention as Rapanos' "sometimes-saturated" fields.¹³⁶ The plurality opinion is not clear whether the connections between these wetlands and the nearby drains and ditches were continuous or intermittent, or whether the nearby drains and ditches contained continuous or merely occasional flows of water.¹³⁷ The dissent notes that prior to the destruction of the wetlands, all three sites had surface connection to tributaries of traditionally navigable waters.¹³⁸

Rapanos had first contacted the Michigan Department of Natural Resource ("MDNR"), pursuant to his plans to construct a shopping center on the sites.¹³⁹ A state official inspected the Salzburg site and concluded it may include regulatory wetlands.¹⁴⁰ The state told Rapanos that he could proceed with the project if the wetlands were defined and protected or if a permit was obtained.¹⁴¹ Subsequently, Rapanos hired a wetland

¹³⁴ *Id.* at 2216 (the Corps considered wetlands were adjacent even if separated from other waters by man-made dikes or barriers, natural river berms, beach dunes and the like).

¹³⁵ *Id.* at 2219.

¹³⁶ *Id.* at 2214 (Justice Scalia described the sites as, "the Salzburg wetlands were connected to a man-made drain into Hoppler Creek, which flows into the Kawkawlin River, emptying into Saginaw Bay and Lake Huron" *Id.* at 2219. Omitted from Scalia's description is the surface connections that are described by Justices Kennedy and Stephens, see *Rapanos*, 126 S.Ct. at 2238 (Kennedy's descriptions, "Salzburg had twenty-eight acres of wetlands with a surface water connection to tributaries of the Kawkawlin River; the Hines Road site consisted of sixty-four acres of wetland with a surface-water connection to the Rose Drain, which carried water to the Tittabawassee River, a navigable waterway; the forty-nine acres of the Pine River wetlands had a surface connection to the Pine River which flows into Lake Huron") see also *Rapanos* at 2253 (Stephens emphasizing the surface connection between the areas and traditional waters)).

¹³⁷ *Id.* at 2219.

¹³⁸ *Id.* at 2253 (Stephens, J., dissenting).

¹³⁹ *Id.* at 2238 (Kennedy, J., concurring).

¹⁴⁰ *Id.* at 2253 (Stephens, J., dissenting).

¹⁴¹ *Id.* at 2238 (Kennedy, J., concurring).

consultant to survey for wetlands on the property.¹⁴² When the consultant turned in a report identifying between forty-eight to fifty-eight acres of wetlands on the Salzburg site, Rapanos threatened to “destroy” the consultant unless he destroyed the report.¹⁴³ Rapanos proceeded to fill in twenty-two acres of wetland without a permit.¹⁴⁴ Later, Rapanos prevented MDNR inspectors from visiting the site and State officials and the E.P.A. served Rapanos with a cease and desist order.¹⁴⁵ Rapanos continued to direct additional non-permitted wetland altering work, including filling and draining thirty-two acres of wetland at the other two sites.¹⁴⁶ The matter was referred to the Department of Justice and the federal government brought criminal charges.¹⁴⁷

A. Federal Jurisdiction Over Wetlands

The opinions of Justices Scalia, Kennedy and Stevens were consistent in describing that the purpose of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹⁴⁸ In carrying out this purpose the CWA prohibits the discharge of any pollutant into navigable waters.¹⁴⁹ The plurality emphasized Congress’ policy to recognize, preserve, and protect the primary responsibility of the States in preventing, reducing, and eliminating pollution.¹⁵⁰ Justice Scalia’s argument for State’s rights sounds misdirected where it is well settled that the federal government can regulate an activity with a substantial effect on interstate commerce.¹⁵¹ Even if an activity is local the application of federal power can be appropriate.¹⁵² Substantial interstate effect can be found in an aggregation of effects.¹⁵³ It is not contested that, as in *SWANCC*, Rapanos’ discharge of fill material was undertaken for economic reasons.¹⁵⁴ Federal jurisdiction would preempt the state where Rapanos’ action falls under one of three broad categories of activities that Congress may regulate under the Commerce Power.¹⁵⁵ Further,

¹⁴² *Id.*

¹⁴³ *Id.* (a description omitted in Scalia’s fact discussion).

¹⁴⁴ *Id.* at 2238-39 (Kennedy, J., concurring).

¹⁴⁵ *Id.* at 2253 (Stephens, J., dissenting).

¹⁴⁶ *Id.* at 2239 (Kennedy, J., concurring).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 2215, 2236-2237, 2252.

¹⁴⁹ *Id.* at 2215.

¹⁵⁰ *Id.*

¹⁵¹ *Heart of Atlanta v. United States*, 379 U.S. 241, 252-53 (1964).

¹⁵² *Wickard v. Filburn*, 317 U.S. 111, 127-28 (1942).

¹⁵³ *Id.*

¹⁵⁴ *SWANCC*, 531 U.S. at 193.

¹⁵⁵ *Lopez*, 514 U.S. at 558-559.

it is possible Rapanos directly engaged in interstate commerce if the heavy equipment was purchased across state lines and then used in the activity.¹⁵⁶

Justice Kennedy explained that the EPA is obligated to oversee the Corps' permitting decisions and States, with qualifying programs, may assume certain aspects of the permitting.¹⁵⁷ Justice Stevens mentioned only that any discharge of a pollutant to navigable waters required a permit from the Corps or EPA.¹⁵⁸ Justice Stevens would largely defer to the Corps' interpretation of the CWA statutory language "navigable waters."¹⁵⁹

Primarily, the outcome in *Rapanos* turned on the interpretation and application of the statutory term and whether it reasonably described the Michigan wetlands that the Corps sought to regulate.¹⁶⁰ All of the Justices cite with approval early cases where the Corps had jurisdiction over "traditional waters," interstate waters that were navigable in fact.¹⁶¹ There is no dispute that there is CWA jurisdiction over the traditional waters.¹⁶² The *Rapanos* court is in disagreement on whether it is reasonable to apply the statutory term "waters of the U.S." to adjacent wetlands, tributaries, remote bodies of water and wetlands adjacent to tributaries.

The Justices focused on their former holdings in *Riverside* and *SWANCC* in guiding their analysis of the issues in *Rapanos*. *Riverside*, as discussed previously, involved fill discharged into wetlands that were adjacent to navigable bodies of water and their tributaries.¹⁶³ Citing *Riverside*, the *Rapanos* Court affirmed that the meaning of "navigable waters" in the CWA is broader than the traditional understanding of the term.¹⁶⁴ The issue in *SWANCC* was whether CWA jurisdiction extended to nonnavigable, isolated, intrastate waters based on migratory bird habi-

¹⁵⁶ *Robertson v. United States*, 514 U.S. 669, 671 (1995) (Robertson's activities affected commerce where mining equipment was purchased in another state and transported across state lines).

¹⁵⁷ *Rapanos*, 126 S.Ct. at 2237 (Kennedy, J., concurring).

¹⁵⁸ *Id.* at 2252 (Stevens, J., dissenting).

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 2237 (Kennedy, J., concurring).

¹⁶¹ *Id.* at 2237, 2252 (Kennedy, J., concurring) (Stevens, J., dissenting).

¹⁶² *Id.* at 2216, 2237, 2252 (Kennedy, J., concurring) (Stevens, J., dissenting) (CWA predecessor statutes refer to waters that are navigable in fact or readily susceptible to being rendered so, as in *The Daniel Ball*).

¹⁶³ *Riverside*, 474 U.S. at 123 (*Riverside* was a unanimous holding in contrast to subsequent CWA jurisdiction cases such as *SWANCC* and *Rapanos*).

¹⁶⁴ *Rapanos*, 126 S.Ct. at 2220.

tat. The Justices had varied interpretations of their prior holdings in support of their *Rapanos* opinions.

B. Plurality Opinion

In *Rapanos*, Justice Scalia acknowledged that *Riverside* upheld the Corps' interpretation of the waters of the U.S. to include wetlands that actually abutted traditional navigable waters.¹⁶⁵ Particularly where there is no precise delineation between water to solid ground.¹⁶⁶ Justice Scalia stated that "adjacent" wetlands should not include wetlands with barriers to the covered waters or where the hydrological connection is limited to a long-term flooding cycle or speculative exchange of water droplets.¹⁶⁷ Adding that *Riverside* did not extend Corps' jurisdiction to nonnavigable, isolated, intrastate waters that were not adjacent to navigable waters, these bodies of water would not be considered as waters of the U.S.¹⁶⁸

In Justice Scalia's interpretation of the *SWANCC* holding in the *Rapanos* opinion, he cites the holding was that nonnavigable, isolated, intrastate waters which were not actually adjacent to a navigable waterway were not included as "waters of the U.S."¹⁶⁹ Omitted is the portion of the *SWANCC* holding that says "...based on migratory bird habitat."

Rapanos criticized lower courts for applying CWA jurisdiction where there was intermittent water flow in natural streams, man-made ditches, tributaries, and drains.¹⁷⁰ Further, Justice Scalia considered that it was implausible to apply CWA jurisdiction to dry washes and arroyos where water flow was periodic and limited to times after heavy rain.¹⁷¹ Then, the plurality opinion relied on Webster's Dictionary to evaluate "the waters" and developed the opinion that the term applied to only relatively permanent, standing or flowing bodies of water.¹⁷² This would exclude from the interpretation transitory puddles, ephemeral flow, dry channels or intermittent flows.¹⁷³ Although Justice Scalia would not necessarily exclude seasonal streams, rivers, or lakes or ones that might dry up in extraordinary circumstances, he would use "common sense and common usage" to distinguish between the less than year round waters.¹⁷⁴

¹⁶⁵ *Id.* at 2216.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 2217.

¹⁶⁸ *Id.* at 2218.

¹⁶⁹ *Id.* at 2217.

¹⁷⁰ *Id.* at 2217-18.

¹⁷¹ *Id.* at 2220-21.

¹⁷² *Id.* at 2220-21.

¹⁷³ *Id.* at 2220-21.

¹⁷⁴ *Id.* at 2221.

In summary, Justice Scalia would find CWA jurisdiction only over those relatively permanent, standing or continuously flowing bodies of water that form geographic features, such as streams, oceans, rivers and lakes and only those wetlands with a continuous surface connection to bodies of waters of the U.S.¹⁷⁵ The impact of Justice Scalia's opinion would be to narrow the application of Corps' jurisdiction.

C. Justice Kennedy Concurring Opinion

Justice Kennedy presents the *SWANCC* holding as "under the circumstances presented," to be considered navigable waters under the CWA, a water or wetland must possess a "significant nexus" to waters that are or were navigable in fact or that could reasonably be made so."¹⁷⁶ This Comment suggests that *SWANCC*'s holding is narrower than either Justice Scalia or Justice Kennedy describe. The emphasis in *SWANCC* was a rejection of the Corps' "Migratory Bird Rule" as an interpretation of the CWA and a concern for potential impact on the States' traditional and primary power over land and water use.¹⁷⁷ Justice Kennedy's reference in *Rapanos* to "significant nexus" as a holding in *SWANCC* would actually be found within the discussion of *Riverside* in *SWANCC*.¹⁷⁸ The actual language of the *SWANCC* opinion was, "It was the significant nexus between the wetlands and the "navigable waters" that informed our reading of the CWA in *Riverside Bayview Homes*."¹⁷⁹ Webster's Dictionary defines "nexus" as a "connection, link" from the Latin *nectere* "to bind."¹⁸⁰ Justice Kennedy's direction is where there is significant connection or linkage between the waters in question and navigable waters there is justification for assertion of CWA jurisdiction. However, the Supreme Court held in *Riverside* that Corps jurisdiction was not limited by a physical location and was justified if there would be an effect to waters of the U.S.¹⁸¹ *Riverside* held there was broad jurisdiction over adjacent wetlands as encompassed within the definition of "wa-

¹⁷⁵ *Id.* at 2225.

¹⁷⁶ *Id.* at 2236 (Kennedy, J., concurring).

¹⁷⁷ *SWANCC*, 531 U.S. at 174. (*SWANCC* had a majority opinion by Chief Justice Rehnquist, joined by Justices O'Connor, Scalia, Kennedy and Thomas, with the dissent by Justice Stevens, joined by Justices Souter, Ginsburg and Breyer).

¹⁷⁸ *Id.* at 167.

¹⁷⁹ *SWANCC*, 531 U.S. at 167.

¹⁸⁰ WEBSTER'S DICTIONARY (10th ed. 2002).

¹⁸¹ *Riverside*, 474 U.S. at 133-134 (*Riverside* would justify Corps' jurisdiction over waters moving in hydrologic cycles, and pollution of aquatic systems, irregardless of whether the water was above or below an ordinary high water mark, or even high tide line, if there was an affect on waters of the U.S.).

ters of the United States.”¹⁸² The *Riverside* Court reasoned that wetlands may affect the water quality of adjacent waters and varied forms of water bodies functioning as integral parts of the aquatic environment.¹⁸³

Justice Kennedy criticizes the plurality opinion for requiring that the waters in question be permanent standing water or continuous flow where the CWA is concerned with downstream water quality.¹⁸⁴ Applying this requirement from the plurality opinion would recognize jurisdiction over the merest trickle as long as it was continuous but exclude irregular, thunderous torrents of water flow.¹⁸⁵ The plurality’s second limitation would be to exclude wetlands that lacked a continuous surface connection to other jurisdictional waters.¹⁸⁶ Justice Kennedy argues that the plurality opinion is overly dismissive of the intent of the CWA and is an unprecedented interpretation of the Act.¹⁸⁷

In summary, Justice Kennedy would require that the specific wetlands have a “significant nexus” to waters that are navigable.¹⁸⁸

D. Dissenting Opinion

The dissent found the Corps’ interpretation of wetlands adjacent to tributaries as “waters of the U.S.” to be a reasonable interpretation of the statutory provision.¹⁸⁹ Relying on the Congressional intent in the CWA, the Court considered there was a foundation for the Corps interpretation.¹⁹⁰ Justice Stevens argued that the unanimous Supreme Court decision in *Riverside Bayview* should be controlling in *Rapanos*.¹⁹¹ *SWANCC* would not apply to *Rapanos* because wetlands were not present in *SWANCC*.¹⁹² Justice Stevens said that wetlands are integral to the chemical, physical, and biological integrity of the Nation’s waters and the Corps reasonably had jurisdiction.¹⁹³ In contrast to the plurality opinion, Justice Stevens gave consideration to lower Court holdings, where most had concluded that jurisdiction covered intermittent tributaries and wet-

¹⁸² *Id.* at 135.

¹⁸³ *Id.*

¹⁸⁴ *Rapanos*, 126 S.Ct. at 2242.

¹⁸⁵ *Id.* at 2242.

¹⁸⁶ *Id.* at 2244.

¹⁸⁷ *Id.* at 2246.

¹⁸⁸ *Id.* at 2252.

¹⁸⁹ *Id.* at 2252.

¹⁹⁰ *Id.* at 2252-53 (where the intent of Congress in passing the CWA was to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters).

¹⁹¹ *Id.* at 2255.

¹⁹² *Id.* at 2256 (*SWANCC* was a case about isolated ponds with migratory bird habitat).

¹⁹³ *Id.* at 2257.

lands adjacent to navigable waters.¹⁹⁴ The dissent would give broad latitude to the Corps interpretation of the statutory limits of the CWA.

IV. EPA ANALYSIS OF CWA AUTHORITY POST-RAPANOS

Following the Supreme Court four-to-one opinion blocks in *Rapanos* there will be continued difficulty in interpreting whether a particular “water” is jurisdictional under the CWA.¹⁹⁵ In light of Justice Kennedy’s “significant nexus” standard, “information on a ‘water’s’ contribution to the physical, chemical, and biological integrity of downstream navigable water will be jurisdictionally relevant.”¹⁹⁶ Practitioners will also want to consider Scalia’s “relatively permanent” standard including flow characteristics of frequency and volume.¹⁹⁷

A. EPA Memorandum in Response to *Rapanos*

In June 2007, the EPA issued a memorandum to EPA regions and the Corps (collectively “the Agencies”) providing guidance following the Supreme Court opinions in *Rapanos*.¹⁹⁸ With no single opinion commanding a majority of the court, controlling legal principles were derived from the common holdings of five or more justices.¹⁹⁹ The EPA stated that regulatory jurisdiction under CWA exists over a water body if either the plurality or Justice Kennedy’s standard is satisfied.²⁰⁰

B. Statement of Current Interpretation of Authority

Under the statutory language of the CWA, jurisdiction will continue to be asserted over all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, in-

¹⁹⁴ *Id.*

¹⁹⁵ Donna Downing, Tracie-Lynn Nadeau, & Rose Kwok, *Technical and Scientific Challenges in Implementing Rapanos’ “Water of the United States”*, 22 NAT. RESOURCES & ENV’T. 42, 43 (2007).

¹⁹⁶ *Id.* at 43.

¹⁹⁷ *Id.*

¹⁹⁸ ENVTL. PROT. AGENCY, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT’S DECISION IN *RAPANOS V. UNITED STATES & CARABELL V. UNITED STATES* (hereinafter “EPA MEMORANDUM”) 1 (2007), <http://www.epa.gov/owow/wetlands/pd/RapanosGuidance6507.pdf>.

¹⁹⁹ *Id.* at 3, *citing* Marks v. United States, 430 U.S. 188, 193-194 (1977); *Waters v. Churchill*, 511 U.S. 661, 685 (1994).

²⁰⁰ *Id.*

cluding all waters which are subject to the ebb and flow of the tide.²⁰¹ Additionally, the Agencies will assert jurisdiction over wetlands adjacent to traditional navigable waters, as defined in the agencies regulations.²⁰² Rejected in the EPA memorandum is Justice Scalia's principle that "adjacent" requires a continuous surface connection between adjacent wetlands and traditional waters.²⁰³ Jurisdiction would also be extended to relatively permanent nonnavigable tributaries of traditional waters, including tributaries with year-round flow or a continuous but seasonal flow.²⁰⁴

C. Wetland Categories Where "Significant Nexus" is Potential Basis for CWA Authority

Waters other than those identified above would then be evaluated under the significant nexus standard.²⁰⁵ The Agencies will assert jurisdiction over the following types of water when there is a significant nexus with traditional waters: (1) non-navigable tributaries that are not relatively permanent, (2) wetlands adjacent to non-navigable tributaries that are not relatively permanent, and (3) wetlands adjacent to, but not directly abutting, a relatively permanent tributary (e.g. separated by some physical barrier).²⁰⁶ EPA incorporates the relevant flow parameters and ecological function described in *Rapanos* by Justice Kennedy in order to determine "significant nexus."²⁰⁷ Following the significant nexus analysis "the agencies will evaluate whether the tributary and its adjacent wetland are likely to have an effect that is more than speculative or insubstantial on the chemical, physical, and biological integrity of a traditional navigable water."²⁰⁸

²⁰¹ 33 C.F.R. § 328.3(a)(1) (Michie)(1997); 40 C.F.R. § 230.3(s)(1)(Bender)(2007). "Waters" including all of the navigable waters of the U.S. and those defined by federal court decisions.

²⁰² EPA MEMORANDUM, *supra* note 198, at 4-5.

²⁰³ *Id.* at 5.

²⁰⁴ *Id.*

²⁰⁵ *Id.* at 7.

²⁰⁶ *Id.*

²⁰⁷ *Id.* at 8 (evaluating significant nexus, as proposed in the EPA memorandum, would include evaluating "duration, frequency of flow, volume" and proximity to traditional waters, physical characteristics, overall function with consideration given to influential factors such as watershed size, annual precipitation, and geomorphology).

²⁰⁸ *Id.* at 10.

V. NEXUS AND CAUSATION

The interim guidance provided in the EPA memorandum may not be workable in its complexity. Common throughout the five opinions in *Rapanos* is the acknowledgment that the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. It would be inconsistent with the Necessary and Proper Clause²⁰⁹ to deny an agency assigned the legislative responsibility to enforce the CWA the ability to carry out that responsibility. Clearly, jurisdiction should be applicable where there is a showing of significant harm or potential for significant harm to traditional navigable waters.

The "significant nexus" test presents practicability issues that may lead lower courts to turn to prior precedent in their Circuits.²¹⁰ In drafting the 2007 memorandum, the Agencies discussed the application of the *Rapanos* opinions and federal jurisdiction over the range of navigable waters and associated tributaries and wetlands.²¹¹ As the Agencies struggled to define the limits of CWA jurisdiction it is apparent the application of the "significant nexus" test becomes strained when applied to more remote waters. One very basic area of confusion is in the common usage of the terms "nexus" and "isolated or remote." Where "nexus" is understood to mean connection, "isolated" means separate or solitary, and "remote" is understood to mean a separation or indirect control.²¹² Given the purpose of the CWA there may be situations where jurisdiction should be asserted in response to an act originating in a remote wetland or body of water, such as flood control, but significantly impacting or having the potential to significantly impact traditional waters.²¹³ Environmental law must account for the fact that there are chemical and biological thresholds in the ecosystem.²¹⁴

²⁰⁹ U.S. CONST. art. I, § 8, cl. 18.

²¹⁰ Jeffrey J. Davidson & Marguerite E. McLamb, *Federal Wetlands Jurisdiction under Rapanos: Unpredictability and Opportunity* (Aug. 14, 2006), <http://www.wilmerhale.com/publication/whPubsDetail.aspx?publication=3314> (last visited July 22, 2007).

²¹¹ See generally, EPA MEMORANDUM, *supra* note 198, at 2.

²¹² WEBSTERS, *supra* note 180, ("Remote" defined as: separated by great intervals; far removed in space, time, or relation-Divergent; out of the way, secluded; acting on or controlling indirectly or from a distance; not arising from a primary or proximate action; small in degree; distant manner.)

²¹³ *Rapanos*, 126 S.Ct. at 2262 (Stevens, J., dissent).

²¹⁴ Lazarus, *supra* note 52, at 6.

A. Inference Underlying “Significant Nexus” is “Significant Harm”

There is no single accepted definition of “isolated wetlands” because the issue is more a matter of perspective than scientific fact.²¹⁵ Congress recognized that protection of aquatic ecosystems demanded a broad federal authority to control pollution, for water moves in hydrologic cycles.²¹⁶ Global cycles include water, nitrogen, and sulfur plus wetlands’ microbes, plants, and wildlife.²¹⁷ Atmospheric maintenance appears to be an additional wetlands’ function.²¹⁸ A stabilized capacity to store carbon in plants and soil would help moderate global climate conditions.²¹⁹ It is therefore essential that discharge of pollutants be controlled at the source.²²⁰

The foundational cases of *Riverside* and *SWANCC* recognized that the ecological relationship between traditional waters and adjacent wetlands provided a legal basis for asserting CWA jurisdiction.²²¹ Further, meaningful connections via surface runoff and ecological connection, such as those found between wetlands and nearby traditional waters, would also be present in many isolated waters.²²² Even the *Rapanos* plurality would allow Corps jurisdiction over any discharge into upstream channels that delivered a pollutant to traditional waters as a point source of pollutants under the CWA.²²³ The plurality argument that the language of the CWA does not expressly allow for enforcement of federal jurisdiction over non-traditional water based on harm or potential harm to traditional waters²²⁴ would deny the Agencies the ability to carry out the statutory direction of the CWA. Congress provided that the States would not be

²¹⁵ U.S. FISH & WILDLIFE SERVICE WEBSITE, OVERVIEW OF ISOLATED WETLANDS, http://www.fws.gov/nwi/Pubs_Reports/isolated/report_files/2_section/overview.htm (wetlands surrounded by upland may be considered isolated since they are separated from other wetlands by dry land) (last visited Aug. 11, 2007).

²¹⁶ *Riverside*, 474 U.S. at 132-133, citing S. Rep. No 92-414, p.77 (1972).

²¹⁷ U.S. ENVIRONMENTAL PROTECTION AGENCY WEBSITE, WHAT ARE WETLANDS? <http://www.epa.gov/owow/wetlands/vital/nature.html> (last modified Feb. 22, 2006).

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *Riverside*, 474 U.S. at 132-133, citing S. Rep. No 92-414, p.77 (1972).

²²¹ *Id.* at 134.

²²² *SWANCC*, 531 U.S. at 176 (Stevens, J., dissent) (discussing *Riverside* holding).

²²³ *Rapanos*, 126 S.Ct. at 2227 (See *Rapanos* at 2217, although the *Rapanos* plurality discussed the *SWANCC* holding as a rejection of jurisdiction over nonnavigable, isolated, intrastate waters because significant nexus did not exist where adjacency was absent; jurisdiction would be found where nonpoint source pollutants impacted navigable waters).

²²⁴ *Id.* at 2230.

permitted to supersede the Corps' jurisdiction to regulate discharges into traditional waters and adjacent wetlands.²²⁵

The 2007 EPA memorandum outlines the "relevant factors" that the Agencies will consider in determining significant nexus.²²⁶ These include functions of the water in question; capacity to control pollutants; impact on flood waters; ecological function including impact to nutrient and carbon cycles; habitat services for recreation or commercially important species; and the extent the tributary and adjacent wetlands perform functions related to downstream water quality and sediment trapping.²²⁷

B. Watershed Analysis Applied to CWA Jurisdiction

The language of the EPA memorandum clearly suggests that the Agencies are moving towards a position that waters other than traditional waters can be subject to CWA jurisdiction where there is a showing of significant effect in terms of chemical, physical, and biological integrity.

1. Relevant factors

Scientific concepts of connectivity differ from legal definitions.²²⁸ Given the challenges to federal jurisdiction over non-navigable waters it is essential that determinations of connectivity thresholds be informed by scientific understanding of headwater streams effects on large scale ecological functions.²²⁹ Hydrologists view connectivity as a continuum and consider that the entire landscape is hydrologically connected.²³⁰ Stream networks are characterized by a high degree of spatial and temporal heterogeneity with mass, momentum, energy, and organisms flowing in four dimensions.²³¹

²²⁵ *Riverside*, 474 U.S. at 138 (the State would not be permitted to supersede the Corps jurisdiction to regulate discharge into traditional waters and adjacent wetlands).

²²⁶ EPA MEMORANDUM, *supra* note 198, at 9 (*But see Rapanos* at 2235, the *Rapanos* plurality criticized as "opaque" Justice Kennedy's standard of finding jurisdiction where there is a significant effect on traditional waters, and the absence of jurisdiction when its effects are in contrast speculative and insubstantial.)

²²⁷ *Id.* at 9-10.

²²⁸ Freeman, *supra* note 7, at 7.

²²⁹ *Id.*

²³⁰ *Id.* at 6.

²³¹ Traci-Lynn Nadeau, Mark Cable Rains, *Hydrological Connectivity between headwaters streams and downstreams waters, how science can inform policy*. 43 JAWRA (Feb. 2007) at 122 (four dimensional characterization for stream networks include: longitudinal (channel-channel), lateral (channel-floodplain), vertical (channel-aquifer), and temporal (time-time)).

Some scientists have taken the position that headwater streams influence every important aspect of a river ecosystem in that influences on river geomorphology and chemical systems begin in the headwaters of the watershed.²³² Headwaters would be defined as all first- and second-order streams, which in the aggregate would compose over two-thirds of the total stream length in a river network.²³³ Large scale changes in downstream waters can result from headwater alteration, specifically: coastal eutrophication and hypoxia, diminished secondary productivity in rivers, and reduced viability of stream biota.²³⁴ Cumulative effects of human activities may have negative consequences on regional and even global scales with respect to issues such as safe drinking water, economically important fisheries, and aquatic and terrestrial biodiversity.²³⁵

In the past fifty years nitrogen contributions to natural systems have increased markedly in response to increased food and energy production.²³⁶ Excess nitrogen has been linked to many environmental concerns, including the disruption of forest ecosystem processes, acidification of lakes and streams and degradation of coastal waters including high profile water quality issues such as eutrophication, hypoxia, and harmful algal blooms.²³⁷ In the northeast, river networks headwaters catchments, in aggregate, account for nearly one-half of the total nitrogen mass supplied to all stream reaches. Current research demonstrates the important role that headwaters play in the supply, transport, and fate of water and nitrogen in river networks.²³⁸ Generally larger downstream effects would be anticipated in response to major changes in the land use or channel properties in headwater catchments and streams.²³⁹ Understanding headwater contributions and functions are important, and the magnitude of their effects on downstream habitats and communities justifies incorporating headwaters, and the streams flowing from them, in the CWA jurisdictional analysis.²⁴⁰

²³² Freeman, *supra* note 7, at 6.

²³³ *Id.*

²³⁴ *Id.* at 8.

²³⁵ *Id.* at 11 (e.g., urbanization, mountain-top mining, intensive agriculture).

²³⁶ Richard B. Alexander, *The Role of Headwater Streams in Downstream Water Quality*, 43 JAWRA, (Feb. 2007), at 42.

²³⁷ *Id.*

²³⁸ *Id.* at 56.

²³⁹ *Id.* at 57.

²⁴⁰ Mark S. Wipfli, John Richardson, Robert Naiman, *Ecological Linkages between headwaters and downstream ecosystems: transport of organic matter, invertebrates, and wood down headwater channels*. 43 JAWRA at 74.

2. Impact analysis

Flow regimes are characterized by magnitude, frequency, duration, timing, and the rate of change.²⁴¹ The analysis of significant effect on traditional waters from acts impacting remote waters and non-adjacent wetlands would potentially include an analysis of alterations in the flow regime of the traditional waters. The inquiry should be, “Does the activity have a significant effect on interstate commerce, via an impact to waters of the U.S.?” The standard would be “rational basis.”²⁴² The connection between the act and the impact to waters of the U.S. should not be speculative or insubstantial.²⁴³

VI. CONCLUSION

California hydrology has been impacted by prior conversion of wetlands. If the forecast impacts associated with climate change occur there will be alteration in the timing and volume of precipitation, a change which could result in a twenty to fifty percent reduction in water availability. Preservation of watershed function, including headwaters and wetlands, would contribute to stabilizing global cycles for water, nitrogen, and sulfur included in wetlands’ microbes, plants, and wildlife. Protecting wetland function may contribute to atmospheric maintenance with wetlands’ capacity to store carbon in plants and soil and would aid moderating global climate conditions. The CWA recognizes that the State has a primary responsibility to plan the development and use of land and water resources. However, where there is a significant effect or potential for significant effect on waters of the U.S., the state’s rights do not supersede the federal government’s rights. The Commerce Power does not diminish as it approaches customary state concerns.²⁴⁴ The statutory language and case law would support the Agencies’ assertion of CWA jurisdiction over traditional waters, wetlands adjacent to traditional waters, and non-navigable tributaries of traditional waters, including the wetlands that are adjacent to the tributaries. In addition, other waters and wetlands should become subject to CWA jurisdiction upon a showing of

²⁴¹ Nadeau, *supra*, note 231, at 124.

²⁴² See *Hodel v. Virginia Surface Mining*; 452 U.S. 264, 276 (1981), See *Perez v. United States*, 402 U.S. 146, 156 (1971) (the economic, financial, and social setting of loan sharking was evaluated by Congress in enacting criminal statute and Court would not require Congress to make a particularized finding.); *Katzenback v. McClung*, 379 U.S. 294, 303-04, (1964); *Heart of Atlanta Motel v. United States*, 379 U.S. 241, 258 (1964).

²⁴³ *Rapanos*, 126 S.Ct. at 2251-52; *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992).

²⁴⁴ *United States v. Darby*, 312 U.S. 100, 113-114 (1941).

significant effect or potential for significant effect to traditional waters. The determination of significant effect should be science-based, considering relevant flow characteristics and hydrologic function. In contrast to other non-adjacent waters, a finding of significant effect may be easier met in headwaters because headwaters have a disproportionately greater effect to downstream traditional waters. Failing to assert CWA jurisdiction for "remoteness" would fail to recognize the potential for harm to traditional waters. Consideration should be given to not just the effect of the individual act, but rather the cumulative effect of all similar instances.²⁴⁵ Agency jurisdiction beyond traditional waters may rely upon scientific determinations of effect upon navigable waters in carrying out the Congressional purpose of the CWA.

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²⁴⁵ *Wickard v. Filburn*, 317 U.S. at 127-128 (application of Agricultural Adjustment Act of 1938 to wheat grown for personal consumption).