

**THE FUTURE OF WOTUS:
EXAMINING THE ROLE OF STATES**

HEARING
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT
COMMITTEE ON SCIENCE, SPACE, AND
TECHNOLOGY
HOUSE OF REPRESENTATIVES
ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

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CONTENTS

November 29, 2017

Witness List	Page 2
Hearing Charter	3

Opening Statements

Statement by Representative Andy Biggs, Chairman, Subcommittee on Environment, Committee on Science, Space, and Technology, U.S. House of Representatives	4
Written Statement	5
Statement by Representative Suzanne Bonamic, Ranking Member, Subcommittee on Environment, Committee on Science, Space, and Technology, U.S. House of Representatives	7
Written Statement	9

Witnesses:

Mr. Wesley Mehl, Deputy Commissioner, Arizona State Land Department	
Oral Statement	11
Written Statement	14
Mr. James K. Chilton Jr., Rancher, Chilton Ranch	
Oral Statement	30
Written Statement	32
Mr. Ken Kopocis, Adjunct Associate Professor, American University Washington College of Law	
Oral Statement	41
Written Statement	43
Mr. Reed Hopper, Senior Attorney, Pacific Legal Foundation	
Oral Statement	56
Written Statement	58
Discussion	77

Appendix I: Answers to Post-Hearing Questions

Mr. Ken Kopocis, Adjunct Associate Professor, American University Washington College of Law	100
---	-----

Appendix II: Additional Material for the Record

Statement submitted by Representative Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology, U.S. House of Representatives	104
Documents submitted by Representative Colleen Hanabusa, Committee on Science, Space, and Technology, U.S. House of Representatives	106
Letter submitted by Representative Mark Takano, Committee on Science, Space, and Technology, U.S. House of Representatives	120
Documents submitted by Representative Paul Tonko, Committee on Science, Space, and Technology, U.S. House of Representatives	123

IV

	Page
Letter submitted by Representative Andy Biggs, Chairman, Subcommittee on Environment, Committee on Science, Space, and Technology, U.S. House of Representatives	148
Documents submitted by Representative Suzanne Bonamic, Ranking Member, Subcommittee on Environment, Committee on Science, Space, and Tech- nology, U.S. House of Representatives	151

**THE FUTURE OF WOTUS:
EXAMINING THE ROLE OF STATES**

Wednesday, November 29, 2017

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:22 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Andy Biggs [Chairman of the Subcommittee] presiding.

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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Subcommittee on Environment

The Future of WOTUS: Examining the Role of States

Wednesday, November 29, 2017

10:15 a.m.

2318 Rayburn House Office Building

Witnesses

Wesley Mehl, Deputy Commissioner, Arizona Land Department

James K. Chilton Jr., Rancher, Chilton Ranch

Ken Kopocis, Adjunct Associate Professor, American University Washington
College of Law

Reed Hopper, Senior Attorney, Pacific Legal Foundation

**U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY**

HEARING CHARTER

Wednesday, November 29, 2017

TO: Members, Subcommittee on Environment
FROM: Majority Staff, Committee on Science, Space, and Technology
SUBJECT: Subcommittee Hearing: “The Future of WOTUS: Examining the Role of States”

The Subcommittee on Environment will hold a hearing *The Future of WOTUS: Examining the Role of States* on Wednesday, November 29, 2017, at 10:00 a.m. in Room 2318 of the Rayburn House Office Building.

Hearing Purpose:

The purpose of this hearing is to survey the current status of federal water regulations and their impact at the state level. This hearing will also examine options to improve federal water rules moving forward.

Witness List

- **Mr. Wesley Mehl**, Deputy Commissioner, Arizona State Land Department
- **Mr. James K. Chilton Jr.**, Rancher, Chilton Ranch
- **Mr. Ken Kopocis**, Adjunct Associate Professor, American University Washington College of Law
- **Mr. Reed Hopper**, Senior Attorney, Pacific Legal Foundation

Staff Contact

For questions related to the hearing, please contact Majority Staff at 202-225-6371.

Chairman BIGGS. Good morning. The Subcommittee on Environment will come to order.

Without objection, the Chair is authorized to declare recesses of the Subcommittee at any time.

Welcome to today's hearing entitled "The Future of WOTUS: Examining the Role of States."

And I thank all of our witnesses who are here. We're glad to have all of you here and Members of the Committee. I recognize myself for five minutes for an opening statement.

Welcome to today's hearing, "The Future of WOTUS: Examining the Role of States." I thank our expert panel of witnesses for being here today and agreeing to testify about this important topic.

The Waters of the United States rule, or WOTUS, issued by the EPA in 2015, amounted to one of the biggest federal overreaches in modern history. Not only did the rule's flimsy definitions and underlying science mean that the Agency had the ability to regulate private land, but it also placed significant financial burdens on some of our country's hardest workers.

I am very pleased to have representatives here today from my home State of Arizona to discuss how this rule would affect them and what changes they believe would make water regulations better for this country.

We all want to be good stewards of the environment. We also want to be good stewards for the people we are here in Washington to represent. When a federal agency overlooks the needs of American citizens, we in Congress have a duty to ask questions and address the concerns of our constituents. For example, when WOTUS was proposed, there was a large outcry from stakeholders across the Nation that the rule's vague definitions regarding navigable water could include sometimes dry drainage ditches on private farmland. It's absurd to consider a dry ditch "navigable." Our Nation depends on the hard work of farmers and ranchers. These men and women simply don't have the time to deal with bureaucratic nonsense. Of course, it's not just them who suffer. Costly and unnecessary government mandates have drastic economic impacts on each and every one of us.

The shortcomings of WOTUS are so self-evident that it's not surprising this onerous rule has been challenged across the country. And now we can point to a very encouraging action from the new Administration. President Trump recently issued an executive order directing EPA and the Army Corps of Engineers to review the WOTUS rule. I applaud the Administration for heeding the calls of Americans. A revision to the 2015 rule is desperately needed to provide greater clarity to States and stakeholders. Instead of rushing forward with burdensome federal regulations, the government needs to do its due diligence and propose a rule that is helpful, not harmful.

Today, we will hear ideas about how some of those fixes to the regulation should look. Witnesses will inform Congress how federal water regulations affect them and what they need from the government to continue operating effectively. I look forward to a knowledgeable and substantive discussion.

[The prepared statement of Chairman Biggs follows:]



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

For Immediate Release
November 29, 2017

Media Contacts: Thea McDonald, Brandon VerVelde
(202) 225-6371

Statement from Andy Biggs (R-Ariz.)

The Future of WOTUS: Examining the Role of States

Chairman Biggs: Welcome to today's hearing, "The Future of WOTUS: Examining the Role of States." I want to thank our expert panel of witnesses for being here today and agreeing to testify about this important topic.

The Waters of the United States rule, or WOTUS, issued by the Environmental Protection Agency (EPA) in 2015, amounted to one of the biggest federal overreaches in modern history. Not only did the rule's flimsy definitions and underlying science mean that the agency had the ability to regulate private land, but it also placed significant financial burdens on some of our country's hardest workers.

I am very pleased to have representatives here today from my home state of Arizona to discuss how this rule would affect them and what changes they believe would make water regulations better for this country.

We all want to be good stewards of the environment. We also want to be good stewards for the people we are here in Washington to represent. When a federal agency overlooks the needs of American citizens, we in Congress have a duty to ask questions and address the concerns of our constituents.

For example, when WOTUS was proposed, there was a large outcry from stakeholders across the nation that the rule's vague definitions regarding navigable water could include sometimes-dry drainage ditches on private farmland. It is absurd to consider a dry ditch "navigable." Our nation depends on the hard work of farmers and ranchers: these men and women simply don't have the time to deal with bureaucratic nonsense. Of course, it's not just them who suffer: costly and unnecessary government mandates have drastic economic impacts on each and every one of us.

The shortcomings of WOTUS are so self-evident that it is not surprising this onerous rule has been challenged across the country. And now we can point to a very encouraging action from the new administration: President Trump recently issued an executive order directing EPA and the Army Corps of Engineers to review the WOTUS rule.

I applaud the administration for heeding the calls of Americans. A revision to the 2015 rule is desperately needed to provide greater clarity to states and stakeholders. Instead of rushing forward with burdensome federal regulations, the government needs to do its due diligence and propose a rule that is helpful, not harmful.

Today we will hear ideas about how some of those fixes to the regulation should look. Witnesses will inform Congress how federal water regulations affect them and what they need from the government to continue operating effectively.

I look forward to a knowledgeable and substantive discussion.

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Chairman BIGGS. And I ask for unanimous consent to enter the comments of the American Road and Transportation Builders Association to the EPA regarding the regional WOTUS rule.

[The information appears in Appendix II.]

Chairman BIGGS. With that, I yield back and recognize the Ranking Member, Ms. Bonamici of Oregon, for her opening statement.

Ms. BONAMICI. Thank you, Mr. Chairman.

From Oregon's Willamette Valley to the Chesapeake Bay, Americans want the Waters of the United States to be safeguarded from harmful pollutants. They want this protection because our national ecosystem is interconnected, and what happens upstream is going to influence what happens downstream, especially to drinking water. Clean water is essential for our survival, and humanity has been dealing with issues related to access to clean water since the dawn of civilization.

The needs of individual States are far more similar than they are different. The Clean Water Act exists in part because there was a time when states had primary responsibility for keeping waters within their State clean and safe. Unfortunately, many of those States were not able to meet that responsibility, and Americans watched as some of those waters became dirty and polluted and others caught on fire.

Back in 1972, amendments to the Clean Water Act redefined the waters covered under the act to include the Waters of the United States, including the territorial seas, but Court opinions addressing which bodies of water fit that definition have been inconsistent. The genesis of the Clean Water Rule comes from the 2006 U.S. Supreme Court case *Rapanos v. United States* in which the Court did not reach a majority decision about what constitutes a water of the United States, and the result of that decision was confusion. The purpose of the rule is to minimize confusion by clarifying the jurisdiction of the Clean Water Act.

After the *Rapanos* case but prior to the rule, the EPA released a report titled "Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence." Mr. Chairman, I ask for unanimous consent to enter the executive summary of this report into the record.

The report reviewed more than 1,200 publications from peer-reviewed scientific literature, and the report itself went through two separate independent peer reviews. The report drew five major conclusions, which provided initial support for the Clean Water Rule. One conclusion was the scientific literature unequivocally demonstrates that streams individually or cumulatively exert a strong influence on the integrity of downstream waters, all tributaries, streams, including perennial, intermittent, and ephemeral streams are physically, chemically, and biologically connected to downstream rivers.

As Mr. Kopocis explains in his testimony, before the Waters of the United States rule was finalized in May of 2015 the EPA received and considered more than 1 million public comments and held more than 400 public meetings. And though some suggest that despite past performance, States rather than Environmental Protection agencies should conserve America's waterways, watersheds, rivers, lakes, and streams, in response to such a suggestion in the

Rapanos case, former Supreme Court Justice John Paul Stevens said, quote, "The fact that the States have the power and the interest does not necessarily mean that the Federal Government does not also have the power."

Now, I don't want to return to a time when our waters were dirty, polluted, and even caught on fire, and I know our constituents don't want that either. It is for that very reason that we also need to hear not just from witnesses here today but also from representatives who are currently at the Environmental Protection Agency. This committee must meet its oversight responsibility and question the EPA about this issue and other issues—actions they are taking. The quality of the air we breathe and the water we drink is too important. This committee has a responsibility to keep the EPA accountable to the American people.

Mr. Chairman, I ask for unanimous consent to enter into the record a letter signed by Members of the Science Committee requesting that Chairman Smith invite Administrator Pruitt to testify before our Committee as soon as possible, and in addition, I would like to enter into the record Chairman Smith's response to the request, stating that a hearing request is underway. We appreciate that.

I urge Chairman Smith, Chairman Biggs, and the EPA to schedule this hearing quickly. The American people have an ownership stake in their environment, and they deserve to know what the EPA and Administrator's plans are—Administrator Pruitt's plans are for the EPA.

Thank you, Mr. Chairman, and without objection, I'd like to enter the letter and the report—executive summary into the record.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]

Ms. BONAMICI. Thank you, and I yield back the balance of my time.

[The prepared statement of Ms. Bonamici follows:]

OPENING STATEMENT

Ranking Member Suzanne Bonamici (D-OR)
of the Subcommittee on Environment

House Committee on Science, Space, and Technology
Subcommittee on Environment
"The Future of WOTUS: Examining the Role of States"
November 29, 2017

Mr. Chairman, from Oregon's Willamette Valley to the Chesapeake Bay; Americans want the waters of the United States to be safeguarded from harmful pollutants. They want this protection because our national ecosystem is interconnected, and what happens upstream is going to influence what happens downstream, especially to drinking water.

Clean water is essential for our survival, and humanity has been dealing with issues related to access to clean water since the dawn of civilization. The needs of individual states are far more similar than they are different. The Clean Water Act exists, in part, because there was a time when states had primary responsibility for keeping waters within their state clean and safe. Unfortunately, many of those states were not able to meet that responsibility, and Americans watched as some of those waters became dirty and polluted, and others caught on fire.

Back in 1972, amendments to the Clean Water Act redefined the waters covered under the Act to include "the waters of the United States, including the territorial seas." But court opinions addressing which bodies of water fit that definition have been inconsistent. The genesis of the Clean Water Rule comes from the 2006 U.S. Supreme Court case *Rapanos v. United States*, in which the Court did not reach a majority decision about what constitutes a water of the United States. The result of that decision was confusion.

And the purpose of the rule is to minimize confusion by clarifying the jurisdiction of the Clean Water Act.

After the *Rapanos* case but prior to the Rule, the EPA released a report titled, "Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence." Mr. Chairman, I ask for unanimous consent to enter the executive summary of this report into the record.

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As Mr. Kopocis (Kah-poe-sis) explains in his testimony, before the Waters of the US rule was finalized in May of 2015, the EPA received more than 1 million public comments and held more than 400 public meetings.

And though some suggest that, despite past performance, states, rather than the Environmental Protection Agency, should conserve America's waterways, watersheds, rivers, lakes, and streams. In response to such a suggestion in the Rapanos case, former Supreme Court Justice John Paul Stevens, said, "The fact that the States have the power and the interest does not necessarily mean that the Federal Government does not also have the power."

I don't want to return to a time when our waters were dirty, polluted, and even caught on fire, and I know our constituents don't want that either. It is for that very reason that we also need to hear not just from the witnesses here today but also from representatives who are currently at the EPA. This committee must meet its oversight responsibility and question the EPA about this issue and other actions they are taking. The quality of the air we breathe and the water we drink is too important. This committee has a responsibility to keep the EPA accountable to the American people. Mr. Chairman, I ask for unanimous consent to enter into the record a letter signed by members of the Science Committee requesting that Chairman Smith invite EPA Administrator Pruitt to testify before our Committee as soon as possible. In addition, I would like to enter into the record Chairman Smith's response to the request, stating that that a hearing request is underway. I urge Chairman Smith, Chairman Biggs, and the EPA to schedule this hearing quickly. The American people have an ownership stake in their environment, and they deserve to know what Administrator Pruitt's plans are for the EPA.

Thank you. I yield back.

Chairman BIGGS. I want to introduce our witnesses, and so let's do that right now. Our first witness today is Mr. Wesley Mehl, Deputy Commissioner of the Arizona State Land Department. Mr. Mehl received his bachelor's degree in political science from the University of Arizona and his law degree from Pepperdine University. He also received an LLM in real property law from the University of Miami. Glad to have you today.

Our next witness is Mr. James Chilton, Jr., of Chilton Ranch. Mr. Chilton is a fifth-generation rancher and has received multiple awards, such as Rancher of the Year in 2002. He received his bachelor's degree as well as master's degrees in economics and political science from Arizona State University. Thank you, Mr. Chilton.

Our third witness is Mr. Ken Kopocis, Adjunct Associate Professor at American University's Washington College of Law. Mr. Kopocis previously served as the Deputy Assistant Administrator in the Office of Water at the U.S. Environmental Protection Agency. He received his bachelor's degree from the University of Nebraska Omaha and his law degree from the Marshall-Wythe School of Law of the College of William and Mary. Thank you, Mr. Kopocis.

And our last witness is Mr. Reed Hopper, Senior Attorney at the Pacific Legal Foundation. Mr. Hopper previously served as an Environmental Protection Officer and Hearing Officer in the U.S. Coast Guard. He received his bachelor's degree from the University of California and his law degree from the University of the Pacific McGeorge School of Law.

I now recognize Mr. Mehl for five minutes to present his testimony. And I'll just remind all of you to be sure to turn on your microphone when you want to start. Thank you.

**TESTIMONY OF MR. WESLEY MEHL,
DEPUTY COMMISSIONER,
ARIZONA STATE LAND DEPARTMENT**

Mr. MEHL. Thank you, Mr. Chairman. Mr. Chairman and members of the committee, thank you for the opportunity to testify on behalf of the Arizona State Land Department. I am the Deputy Commissioner of the department. In 1915, the State formed the land department to manage 9.2 million acres of land that was given to us by the Federal Government to be held in trust for support of our public beneficiaries. Chiefly, this is our K-12 education system.

The mandate of the department is to produce optimal revenue for our trust beneficiaries. To do this, we sell land; we lease land. There are 13 beneficiaries.

If we could go to the next slide.

[Slide.]

So we have 9.2 million acres of trust land. You can see trust land identified on this map as blue. We're spread throughout the State. Together, it's 1.6 times larger than Maricopa County, which is the largest county in Arizona.

The next slide, please.

[Slide.]

We have 13 beneficiaries. As I said, the largest beneficiary is our K through 12 education system. We also have beneficiaries of our State universities.

Next slide, please.

[Slide.]

This map represents the transactions we have done historically. These are sales and leases. We lease for mineral, agriculture, and grazing purposes and we sell. This revenue supports our trust beneficiaries.

Next slide, please.

[Slide.]

As part of this mission, I'm here to discuss our experience in navigating section 404 of the Clean Water Act. And I think our frustrations with the rule can best be illustrated with an experience that we've had in permitting actions in an area of north Phoenix in an urban area, particularly a subdivision, master-planned community called Desert Ridge. In 1993, we sold land to a developer who master-planned this area, and it's an area bordered by freeways, so the 101 freeway and the 51 freeway are an apex, and you can see that on this map.

When the project was started, the first four or five subdivisions and developments were permitted under the EPA—or the Army Corps' nationwide 404 permit, so each of these was allowed to proceed with—based on this recognition that minimal impacts were made to Waters of the United States.

However, soon thereafter in the early 2000s the Corps came to the Land Department and said, "No longer are we going to allow development in this manner but, instead, we are going to require an individual permit for the entire master plan area of Desert Ridge."

You go to the next slide, please.

[Slide.]

So our first challenge with the rule has been the ambiguity with respect to what a project is under 404. So the Land Department doesn't build anything and when—we rely on people we sell to to develop roadways, utility corridors, or commercial development. When we had to step in and get our permit, there were a number of challenges, and I'll talk through those.

The first challenge is determining jurisdiction. Regulations for 404 have been ambiguous for a number of years. In the early 2000s, the premise we received were based on some hydrology and it's represented here. The picture on the left shows the jurisdictional delineations of 404 washes in this area. And you can see they form a web-like construct along the entirety of the property. The problem here for us is there really isn't water present in this area. These are all channels that transport stormwater drainage, so it falls in the mountains and comes through this area, but these are not streams. They are simply temporary runs of stormwater.

When you have a jurisdictional delineation, you translate that into permit with onsite mitigation. The picture on the right shows mitigation corridors in hatch blue. The major problem for the department has been developing under these onsite mitigation corridors. Desert Ridge is some of our most valuable land. It's situated at the apex of these two freeways. To continue selling, we have to

be able to sell with affordable infrastructure. The connections between the corridors make infrastructure much more difficult.

When Commissioner Atkins and I arrived——

Chairman BIGGS. Mr. Mehl, your five minutes has expired. If you can just real quickly sum up, and then we'll put your statement into the record.

Mr. MEHL. Yes, I apologize.

In sum, the rule makes it hard to define jurisdiction. The washes in this area are—have no connection to downstream traditional waterways, and that's demonstrated in a 2017 study that we just commissioned. A move toward the Administration's executive order using Justice Scalia's Rapanos rationale on the 404 rule would be beneficial to the Corps, to the regulated community, and to the State of Arizona. Thank you.

[The prepared statement of Mr. Mehl follows:]

**Written Statement of Testimony of Wesley P. Mehl
Deputy Commissioner, Arizona State Land Department
Committee on Science, Space and Technology
Subcommittee on Environment
U.S. House of Representatives**

**The Arizona State Land Department and Section 404 Permitting
November 29, 2017**

Introduction

My name is Wesley Mehl. I am the Deputy Commissioner of the Arizona State Land Department (“ASLD”).¹ As the manager of 9.2 million acres of State Trust Land, ASLD is the largest single non-federal landowner in Arizona, and as such has a strong interest in the administration and regulatory reach of the Section 404 permit program.

Summary of Main Points

- The Section 404 permit, which is essentially a construction permit regulating land development, has proven to be the most burdensome and complicated permit requirement faced by ASLD.
- **The Rule should be consistent with Congressional Intent:** It is Arizona’s view that the original intent of Congress was not to use the Clean Water Act as a blanket regulation to cover all waters. Federal jurisdiction may extend beyond navigable waters to particular non-navigable water bodies and wetlands, but only in cases where water features affect navigable waters and are identifiable based on clear, objective characteristics.
- **The Rule Should Provide Clarity:** The Executive Order on reviewing the WOTUS rule directs both EPA and the Department of the Army to consider interpreting the term “navigable waters” in a manner consistent with Justice Scalia’s opinion in *Rapanos v. United States*, 547 U.S. 715 (2006). Two of the main tenets of this opinion are that WOTUS must be “relatively permanent waters”, and that wetlands must have a “continuous surface connection” to a relatively permanent water to be considered a WOTUS. Arizona believes that relatively permanent waters in Arizona include perennial and seasonal waters. Seasonal waters include any waters that flow at any time during the year as a result of factors other than storm flow. “Ephemeral” waters, i.e. waters that flow only in response to storm events, would not be included. Similarly, wetlands would only be considered a WOTUS if they have a continuous connection to a WOTUS, and the connection is at least seasonal.
- The ambiguity of the 404 rule, and the difficulty in applying the rule in the arid West, is clearly demonstrated in three existing 404 permit areas on ASLD Trust Land. The three permit areas, in urban infill areas of North Phoenix, have experienced significantly diminished demand as a result of complications arising from the permits: a significant loss of developable land

¹ On behalf of Arizona’s Land Commissioner Lisa A. Atkins, we thank Robert Anderson, who represents ASLD on 404 matters, for significant assistance in the preparation of this written testimony.

(effectively 18-20%), severe complications arising from configuration problems presented by mandated on-site mitigation corridors, significantly increased infrastructure costs, disproportionate cost and complications arising from planting requirements. We estimate that the direct and indirect impact of these three permits alone will cost the State more than \$700m, when accounting for loss of land, increased infrastructure costs, project delays and other impacts.

- All past iterations of the 404 rules have disproportionately affected arid climates, and in particular, those areas with alluvial fan conditions.
- The rules and guidance pertaining to “ordinary high water mark” are suited to perennial streams, and present significant ambiguity in the context of arid desert climates. What is an ordinary water mark for an ephemeral wash that runs less than 4% of the year, and is subject to change in course depending on rainfall patterns? In such a context, “bed and bank” analysis is misleading, and a significant nexus analysis can be economically unfeasible.
- A clear rule that resolves ambiguity, including those ambiguities presented by the question of significant nexus would allow the United States Army Corps of Engineers (the “Corps”) to fairly administer the program in an expeditious manner, and avoid significant costs to the regulated community and the public.
- Arizona appreciates the Environmental Protection Agency’s (“EPA”) recent push for cooperative federalism. Arizona believes that primacy on Section 404 would allow the State of Arizona to both improve 404 permit processing time for customers, and increase certainty and consistency in WOTUS determinations, thus improving environmental outcomes and minimizing regulatory uncertainty for businesses.
- ASLD enjoys a good relationship with the local Corps office. ASLD appreciates their professionalism, and has great respect for the staff with whom we have worked. ASLD also believes that the Corps would benefit greatly from a change in the Rule consistent with Justice Scalia’s opinion in *Rapanos*.

Background

A Section 404 permit is a federal permit required pursuant to Section 404 of the Clean Water Act, 33 U.S.C. §1344, for discharging “dredged or fill material” to “navigable waters.” Section 404 was enacted in 1972 as part of comprehensive amendments to the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act. The Act included two permit programs typically encountered in land development and affecting how lands administered by ASLD are developed: Section 402, or the National Pollutant Discharge Elimination System (“NPDES”) program, *id.* at §1342, which applies to pollutant discharges (other than dredge and fill) to regulated waters and is administered by the EPA, and Section 404, which requires a permit discharge or “dredge or fill material” (a type of pollutant by law, but generally composed of locally available dirt, concrete and steel) into regulated waters and is administered by the Corps with EPA

oversight. *Id.* at §§ 1344.² The Section 404 permit, which is essentially a construction permit regulating land development, has proven to be the most burdensome and complicated permit requirement faced by us. Before explaining the challenges we have faced with the permit program, it is helpful to understand ASLD's role as a landowner, and the constitutional and statutory limitations under which we operate.

Arizona State Trust Lands

ASLD, like its sister agencies in other states in the West, is in a unique position among land owners in that it is a state agency which functions as the Trustee of lands deeded to the State of Arizona at Statehood by the Federal Government in trust for public institutions in the State, including our K-12 system, and state universities.

The United States Congress, to encourage and support an expanding nation, entrusted the new territories and states with millions of acres of land to be managed specifically to provide funding for public education and other state institutions. Beginning in 1850 through 1912, when Arizona joined the Union, Congress granted in trust to the State of Arizona approximately 10,790,000 acres of land to support the designated public purposes, including devoting sections 2, 16, 32, and 36 in each township to the common schools (K-12).

The Arizona Legislature created the Arizona State Land Department in 1915 and designated the State Land Commissioner to manage the land in the best interest of the beneficiaries and to maximize long-term revenue to the trust. All uses of the land must benefit the trust, distinguishing its use from that of public land, such as state parks or national forests. Not only did Congress grant the lands in trust, but Congress also placed specific restrictions on transactions, including requiring sale and long-term lease of trust land at public auction for no less than appraised true value.

In this role, ASLD manages over 9.2 million acres of Trust land and as such represents the largest single non-federal landowner in the State. The lands involved were transferred to the State of Arizona when Arizona was admitted as a State pursuant to the Arizona-New Mexico Enabling Act (the "Enabling Act"). ASLD accordingly is constrained by statutory and constitutional mandates which do not affect other land owners. The mandates include the Enabling Act, the Arizona Constitution, and Title 37 of the Arizona Revised Statutes, the latter two of which are intended to implement the Enabling Act restrictions. The overarching obligation imposed on ASLD is to manage State Trust lands for their "highest and best use" and to maximize the return to its respective public beneficiaries.

In exercising this obligation, ASLD is subject to a number of constraints. Probably the most obvious is that ASLD must deal with the Trust lands given to it. It is not free to look at the open market for land, but instead must try to maximize the revenues it can obtain from the specific lands given to it under the Enabling Act. Further, under the way the Trust was set up, each piece of Trust land has specific beneficiaries (i.e. different school districts, universities, etc.), so that it

² Both the 404 and NPDES programs allow for states to assume authority to issue permits under those programs; virtually all states have done so under the NPDES program while only two -- New Jersey and Michigan -- have assumed the 404 program.

is not generally permissible under the ASLD's trust obligations to give up rights on one piece of Trust land for the benefit of another piece of Trust land. As a result, the ASLD generally has less flexibility and financial room to maneuver than other land-owners.

“Navigable waters” on State Trust Lands, and the Desert Ridge 404 Permits

While one might think that “navigable waters” as defined by the Clean Water Act would be a rare feature in the Arid West, the reverse has been the case. The Clean Water Act defines “navigable waters” as “waters of the United States”. 33 U.S.C. §502(7). EPA and the Corps adopted a regulatory definition of “waters of the United States that includes essentially any wetlands or surface water which affects interstate commerce. 33 C.F.R. § 328.3(a). The most controversial types of waters nationally are wetlands, but other types of waters are included too such as lakes, rivers, streams (including intermittent streams), playa lakes or natural ponds, and impoundments and tributaries of waters otherwise defined as waters of the U.S. *Id.* The validity of this rule has been called into question twice by the U.S. Supreme Court and no longer includes isolated waters or “non-relatively permanent waters” that have no “significant nexus” to “traditional” navigable waters. See *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 675 (2001)(“*SWANCC*”); *Rapanos v. U.S.*, 126 S. Ct. 2208 (2006); “CWA Guidance to Implement the U.S. Supreme Court Decision for the *Rapanos* and *Carabell* Cases” (2008).

For State Trust lands in Arizona, the most common category of “waters” encountered are dry washes or arroyos. These features are drainage areas with “ephemeral” flow, i.e., they flow only in direct response to rainfall and are otherwise dry the vast majority of the year. They have been regulated in the past under the Section 404 permit program because they were deemed to be “tributaries” of “navigable waters” and therefore considered to have a sufficient connection to interstate commerce to regulate them at the federal level. The presumption was that all ephemeral washes were regulated, and that the burden of proof fell on the land owner to show that such ephemeral flows were isolated waters rather than tributaries with a significant nexus to navigable waters, a very costly enterprise.

Drainage features such as this are ubiquitous across the landscape in desert areas. They are particularly problematic where “alluvial fans” form. These drainage features found on thousands of acres of State Trust land are areas where high velocity flows coming off mountain ranges create unstable channels that shift and change with major storm events. The fans can form a weblike network of channels that make development challenging without major construction improvements. A notable problem with such alluvial systems is that many of the channels result from major storm events that occur only on a 20, 50 or 100 year basis. However, because of how these ephemeral channels form it is difficult to assess which channels represent ordinary path of rainfall versus isolated waters from infrequent storms that are outside of the rule. At present, ASLD is actively engaged in entitlement or marketing on at least three major project areas with active alluvial fan systems. The rule, as it stands, interjects risk and ambiguity into each of these efforts.

One of the major challenges we face is determining the limit of these washes. Under Corps regulations, the limit of jurisdiction for tributaries is the “ordinary high water mark” (“OHWM”), which is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in

the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” 33 C.F.R. § 328.3(e). This definition is borrowed from the Rivers and Harbors Act and describes the lateral limit of perennial streams, where the near constant presence of water forms a clear line on the bank. In ephemeral systems, which are characterized by a lack of water and generally have very “flashy” flows, a clear OHWM like that seen on perennial systems does not exist. Nevertheless, the Corps and EPA use the presence or absence of an OHWM as both the lateral limit of jurisdiction and the upstream limit of jurisdiction, i.e., Clean Water Act jurisdiction extends upstream until the OHWM is no longer “perceptible”. At the top of the watershed this is a very difficult determination, with no clear beginning or end of federal regulatory control. In practice, prior to *Rapanos*, the Corps generally considered dry washes as small as two to three feet in width to be jurisdictional. Even post *Rapanos*, the availability of hydrologic data is uncertain, and the cost of obtaining and analyzing that data is significant, and represents a significant burden to moving potential projects forward. Often a project will face a cost-benefit decision on whether to cede jurisdiction to expedite a project even where there is clear evidence suggesting that a significant nexus may not exist. The alternative, pursuing studies that demonstrate a lack of jurisdiction, is very time consuming, and uncertain, especially given the ambiguity of the Rule.

ASLD has direct experience with such permitting standards, as it has three existing permits in an urban area of North Phoenix under which very small ephemeral washes were designated as Waters of the US. Under those permits, which cover an alluvial fan system known as the Rawhide Wash watershed, ASLD was subject to 6-1 on-site mitigation in the form of protected wash corridors. The resulting mitigation areas present significant challenges to land use and infrastructure. Implementation of guidance issued after the *Rapanos* decision has led to some regulatory relief. Many of the washes lack the “significant nexus” to downstream traditional navigable waters that would justify federal regulation under the *Rapanos* decision. The challenge has been demonstrating this lack of nexus to the satisfaction of the Corps. Obtaining a determination on large land holdings such as State Trust lands is a challenge to efficient and timely development of land held by ASLD, impacting the ability of ASLD to obtain maximum return to the Trust. Many smaller landowners elect to concede jurisdiction, even where a lack of jurisdiction seems clear, to avoid the long wait and therefore risk associated with pursuing a finding of no significant nexus. However, for a seller such as ASLD, finding a buyer for a large tract of land is difficult where 404 issues are not resolved prior to a sale. When a buyer is found, it is generally at a price significantly discounted from what fair market value would have been without 404 risk.

To illustrate the impact of 404 on the Trust, we can look to ASLD’s prime current inventory. The Trust owns approximately 12,791 acres in three master planned areas in urban North Phoenix called Desert Ridge, Paradise Ridge and Azara. ASLD obtained a 404 Permit for each of these areas in the early-to-mid 2000s. The graphics in [Appendix 1](#) and [Appendix 2](#) illustrate this land area, where mountain ranges direct storm water discharge through a wide area – a classic alluvial fan watershed. In this case, there is no source of water other than rain, so in the Phoenix climate this watershed is rarely active.

In the early 2000s the master planned area of Desert Ridge was in the process of development, and a number of projects in the master plan were in the pipeline. The Army Corps had processed the first three or four of these projects under so-called Nationwide Permits. At some point there was a change in approach by the Corps, and ASLD was informed that further work

would require an Individual Permit for the remainder of the Desert Ridge area. As market demand was extremely high, ASLD proceeded to apply for a permit. The result serves as a cautionary tale, both for ASLD and for those who study the impacts of the Section 404.

The first, and primary problem with these permit areas is the rationale for inclusion under Section 404 regulation. The watershed is driven only by storm water runoff, and flows are very infrequent owing to the arid desert climate. The nearest traditional navigable body of water is approximately 90 miles away, as water flows. See [Appendix 3](#). The watershed is also interrupted by several freeways, the Central Arizona Project canal (which is protected by a dyke system to prevent water damage to the canal system) and almost the entirety of urban Phoenix. All of these interruptions detain flows, and suggest a lack of physical connection between the subject watershed and traditional navigable waters. ASLD might have challenged jurisdiction based on these factors, but the permits predated *Rapanos*, and there was a lack of hydrologic data at the time to fully support possible arguments. A recent flood control study of the watershed revealed flow data that helped convince ASLD to reexamine these permit areas. (See flow data in [Appendix 1](#).) The resulting study, completed earlier this year, concludes that this watershed has no physical connection to traditional navigable waters, much less an effect on the biological, chemical or physical traits of such water that would be required for jurisdiction under *Rapanos*. However, many landowners in this area have pursued 404 permits, and may continue pursuing 404 permits, as the ambiguity in the rule, and the high cost of a significant nexus analysis, make it difficult to proceed with often time-sensitive developments.

Second, because of the alluvial fan system, there are many existing storm runoff channels in the permitted areas. Without flow data, it is difficult to assess potential chemical, biological or physical effects on downstream waters. In many cases, assuming a physical connection to regulated water exists, the difficulty will lie in determining which channels are jurisdictional, and which are not. In the case of the Desert Ridge areas, a lack of flow data contributed to over designation when the original permits were obtained. ASLD's 2017 study showed that even if you assumed a physical connection, the jurisdictional delineation for these permit areas were over-designated by 50% or more. Some of this is likely the result of techniques, as our 2017 effort allocated significant resources for ground truthing, whereas the earlier efforts relied almost exclusively on conclusions drawn from aerial photographs.

Third, a major cost associated with the permits are the mitigation requirements. The three 404 Permits required on-site mitigation amounting to approximately 12% of the total land mass, or 1,685 of the total 12,791 acres within Desert Ridge, Paradise Ridge and Azara. Not only is there a loss of usable land associated with the corridors themselves, there is also a substantial loss in land attributable to the configuration challenges presented by the on-site mitigation corridors, and their effect on land planning. As a result, the effective mitigation requirement is likely 20% or more in these permit areas. See [Appendix 4](#) as illustrative of this problem. The various intersections and paths of these on-site mitigation corridors, which were required to follow existing washes, were often incompatible with efficient and economical land planning, and caused a greater loss of net-usable land. Those same configuration problems also greatly compounded infrastructure cost.

Finally, another example of how the 404 permitting program is not germane to the arid southwest, and which relates to our mitigation requirements, is found in the "Permittee-

Responsible” or onsite mitigation that was originally the sole method of mitigation under our 404 permits. Under this requirement, a developer was required to plant new trees and landscape materials to replace those removed by development. The consequence, given the lack of water in the system, was that it required permittees to irrigate the wash corridors to provide for sufficient water to the planted materials in order to achieve the required 80% survival rate after three years. This attempt to create a riparian environment in the dry desert uplands, has required extensive irrigation (of dubious environmental benefit in the dry desert) and has failed in many cases, as these so-called washes simply lack the water to meet Corps objectives. Because of this record, the Corps recently modified our permits to allow developers to purchase off-site mitigation credits from In-Lieu Fee providers. However, the practical effect of this method is that developers are now paying \$80,000 per acre in mitigation bank expenses to replace dry upland washes with dissimilar wetlands in other areas of the Arizona. See [Appendix 5](#), an illustration of Desert Ridge wash versus In-Lieu Mitigation Bank area in Arizona.

Desert Ridge has slowly developed since 1993, under a number of 404 permits issued from the mid-nineties to the mid-2000s. Other projects in the same watershed have also been permitted during and after this period, with the most recent in 2015. See [Appendix 6](#), which shows significant difference in outcome on land adjacent to Desert Ridge. The outcomes have been inconsistent, and to my knowledge, no project has been given a determination that the Corps lacked jurisdiction. Despite this fact, ASLD’s 2017 study showed that this watershed has no physical connection to traditional navigable waters. Earlier this year ASLD submitted this study to the Army Corps, and is awaiting determination from the Corps on jurisdiction. We believe that it is the high cost of analysis, including difficulty in obtaining reliable data, and most importantly, the ambiguity that has persisted in the Rule over this period that has caused this difficulty.

Section 404 Permitting Requirements and State Trust Lands

Section 404 permit requirements, when they apply to development of State Trust land, substantially affect the value of that land and its developability. There are multiple challenges with permitting State Trust lands, and these challenges directly and appreciably impact the return to the Trust Beneficiaries.

The first challenge that ASLD faces is the need to resolve Section 404 permitting issues before offering land for auction. Section 404 permitting from inception to permit issuance, can take several years to complete, with substantial uncertainty about the nature and scope of allowable development under an issued permit. While in some cases ASLD sells land without addressing Section 404, in many instances a far higher price for the land can be obtained at public auction if ASLD has first obtained a determination from the Corps regarding whether waters of the US are present on site and, if so, obtaining a permit for development of the land. The regulatory process is time consuming and expensive, and ASLD often lacks the resources to obtain a permit (or a determination that a permit is not needed) in advance of public auction.

As to the permit process itself, the major regulatory obstacle is the requirement to conduct an alternatives analysis in order to secure a permit. Section 404 requires that a permit comply with environmental guidelines developed by EPA pursuant to Section 404(b)(1) of the Act. The central requirement of the guidelines is the requirement to evaluate alternatives to the proposed discharge and only permit the least environmentally damaging practicable alternative that accomplishes the

project purpose. 40 C.F.R. § 230.10(a). The guidelines further provide that “an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” *Id.* In practice, this requirement pushes applicants to avoid ephemeral washes as much as possible, especially as mitigation costs can greatly exceed land value on a par basis in certain areas. This avoidance requirement significantly impedes efficient land development, resulting in substantial loss in value and, ironically, encourages development of land as low density residential which some would characterize as “sprawl”, but in any event results in much lower returns to the Trust.

The guidelines include an obligation to look at offsite alternatives to accomplishing the project purpose: “If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.” *Id.* This obligation is generally imposed on applicants when they “entered the market”. The idea is that an applicant should avoid purchasing and trying to develop land that has significant aquatic resources. Since ASLD never “entered the market”, but rather has a mandate to manage the lands given to it, this requirement makes no sense. If ASLD is forced to develop an alternative site, then the original site would not be developed and its value to the public education trusts marginalized.

The guidelines also require the applicant to evaluate locations to the proposed project that do not involve any discharge to jurisdictional waters. *Id.* As discussed above, complete avoidance is often impossible due to the ubiquitous nature of ephemeral washes on State Trust lands.

One of the most difficult aspects of the alternatives analysis requirement is setting the project purpose. In the context of permitting ephemeral washes, the project purpose used by the Corps tends to be more generic than the applicant’s true purpose. For State Trust lands, ASLD’s true purpose is in obtaining the highest and best use for the property and maximizing value to the Trust. The Corps, however, looks at the specific construction plans and then evaluates whether that type of project (industrial, residential, etc.) can be accomplished while avoiding as many washes as possible.

In the context of Desert Ridge, a pressing question is what is a project? As discussed, Desert Ridge began development through nationwide permits issued to individual development projects after sales by ASLD. This made sense, as ASLD did not plan Desert Ridge, and ASLD does not build any portion of development, from roads to buildings. At that time the Corps interpreted a “project” to be the entirety of the Desert Ridge master-planned area, as it was zoned and entitled by the City of Phoenix as a whole. However, the zoning plan was flexible, anticipated a 20-plus year buildout, and was dependent on other builders and developers to construct improvements. There were no construction plans to base a 404 permit on when ASLD was forced to obtain its Permits. Designing on-site mitigation for a permit without a clear idea of what future improvements and infrastructure would require is one reason why the Desert Ridge 404 experience has been so difficult.

A related problem was the Corps interpretation of project purpose. ASLD’s Trust mission is to optimize revenue to Trust Beneficiaries. Generally, however, a project purpose will relate to an actual construction project, not a mission. As ASLD had no construction project to base its permit on, there was an inability to point to a project purpose upon which ASLD could satisfy

various mitigation alternatives analysis. This contributed to difficulties with the established on-site mitigation corridors, which have proven to be a significant burden to further development in the area based on increased infrastructure costs, and land planning inefficiencies.

Another significant regulatory obstacle is the need to comply with mitigation obligations imposed by the guidelines and Corps regulations. Broadly speaking, mitigation generally refers to efforts by the permit applicant to reduce or compensate for adverse environmental consequences of the proposed project. Agency policy speaks in terms of a mitigation “sequence” of avoidance, minimization and compensation. *See* Memorandum of Agreement between the Department of the Army and the Environmental Protection Agency Concerning The Determination of Mitigation Under the Clean Water Act Section 404 (b)(1) Guidelines (Feb. 6, 1990)(“Mitigation MOA”). Basically, this means that in review of a permit application, the Corps must first ensure that jurisdictional waters are avoided to the maximum extent practicable. This is generally accomplished through the alternatives analysis requirement. Next, the impact of discharges that are allowed must be minimized. This can be done in a number of ways including ensuring that the material discharged will not cause a violation of water quality standards (*e.g.*, use clean fill), ensuring that operation of the construction project will be done in a manner that minimizes other discharges, and ensuring that the fill that is discharged is secured so that it does not wash away. *See generally* 40 C.F.R. Part 230 H. Finally, compensation is usually required for the loss of waters occasioned by the discharge. This is done to implement the general national policy of “no net loss” of aquatic functions and values, although it does not have to be accomplished on each and every application. 33 C.F.R. Part 332; 40 C.F.R. Part 230, Subpart J.

Compensatory mitigation is one of the most challenging parts of a 404 permit application for large projects. Compensating for lost functions and values is generally accomplished through one or a combination of: (a) *restoration* of degraded aquatic areas; (b) *enhancement* of existing aquatic areas (basically raising the functions of an area that is already aquatic but not degraded) (c) *establishment* (also called “creation) of new aquatic areas; and (d) preservation of existing resources. 33 C.F.R. §332(a)(2).³ Each of these methods can be executed through three basic approaches which we list in order of preference (most preferred to least preferred): (a) purchase of credits in a mitigation bank (*i.e.*, a facility that has restored or created wetlands or other aquatic areas in advance); (b) payment of an in lieu fee to an entity that will use the money to restore or create wetlands or other aquatic resources; or (c) development and implementation of a “permittee-responsible” mitigation plan. That plan could be accomplished onsite or offsite (preferably within the same watershed) and could be in kind (addressing the same kind of aquatic resources impacted, which is preferred) or in some circumstances, out-of-kind (particularly of the resources that are being addressed through the plan are of higher function or value than the resources impacted.) *Id.*, §332(b).

These compensatory requirements adversely impact development on State Trust lands in a number of ways. First, as discussed above, the cost of mitigation is high and obviously directly impacts the value of land subject to mitigation requirements. Second, as of now, Arizona has no mitigation banks and relatively few in lieu fee projects. Therefore in many instances, permit applicants are required to develop their own mitigation plans. This has been done on State Trust

³ There are parallel cites to the Corps compensatory mitigation regulations in the EPA 404(b)(1) Guidelines at 40 C.F.R. Part 230, Subpart J.

lands permitted by the Corps in the past, but has resulted in substantial land set asides that reduce overall land values and impose maintenance burdens on potential purchasers. Furthermore, development of permittee specific mitigation plans are a significant expense. All in all, compensatory mitigation significantly devalues land and is a difficult regulatory obligation to meet.

Primacy

The State of Arizona is currently investigating obtaining CWA Section 404 primacy. Program authorization for CWA § 404 will allow Arizona to improve permit processing time for customers, improve coordination between the dredge and fill permit program and the Arizona Section 402 permit program and increase certainty and consistency in WOTUS determinations, thus minimizing regulatory uncertainty for businesses. Even with these improvements, primacy does not offer relief for the concerns elaborated on above.

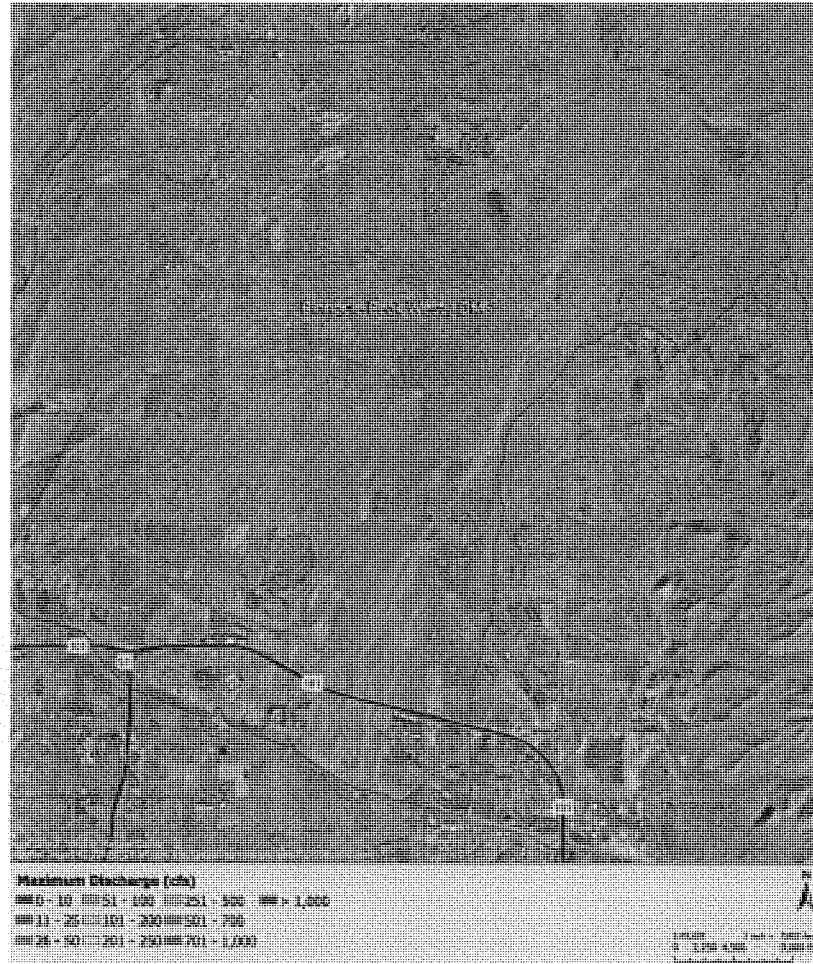
In ASLD's view, process improvement will continue to be difficult without substantial improvement in the Rule. However, primacy will give Arizona a say in how it prioritizes processing such permits, and will move regulatory control closer to the regulated community. A frustration with the current system is that the State has no control over a permitting process that can significantly affect economic development in the State. To ASLD this is not because of Corps staff, but is a result of divergent interests of the State and Federal governments. Desert Ridge is an illustration of how economic progress can stall, in part because of the 404 program. Assuming a clear 404 were to be put in place, primacy would allow Arizona to prioritize projects like Desert Ridge that are recognized to have a probable impact for the State.

Conclusion

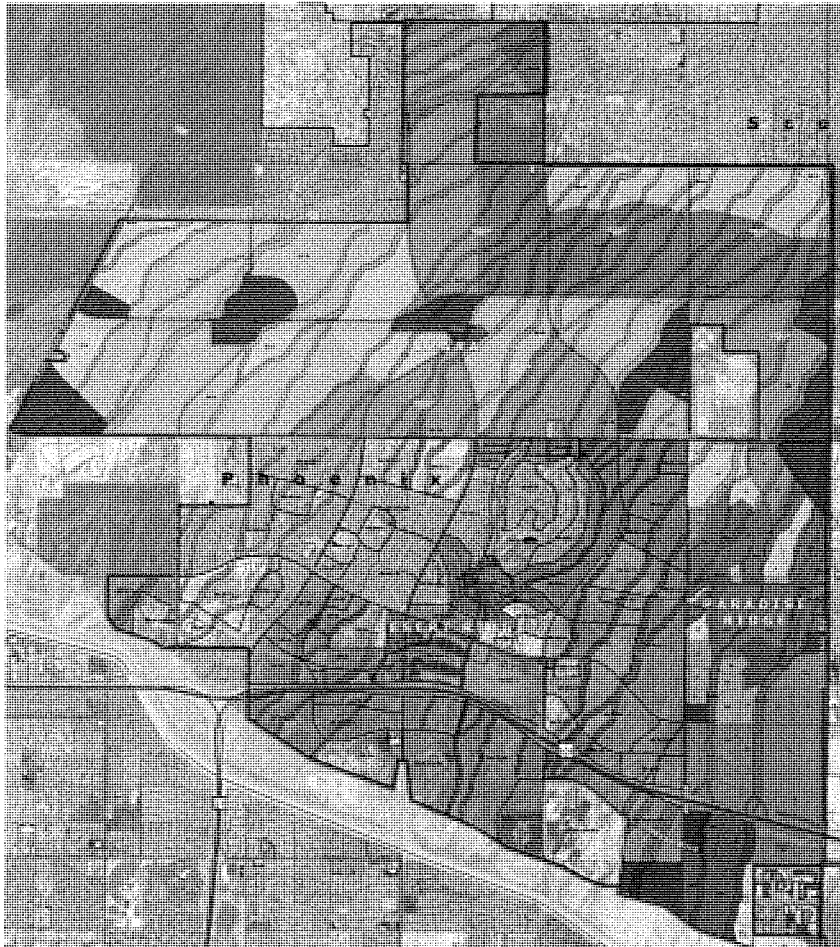
Section 404 permitting is a major regulatory consideration affecting the value of State Trust lands. The Desert Ridge area is an illustration of the effects of ambiguity in regulation under Section 404. Regulation of small ephemeral washes in particular, substantially diminish the value and marketability of State Trust lands, with little and oftentimes no discernable environmental benefit. ASLD supports protection and conservation of valuable aquatic resources in the State, but believes that extending Section 404 permitting requirements to small ephemeral washes imposes far too great a burden. In our view there would be tremendous benefit from a clear 404 rule that minimizes unknown risks, and gives proper consideration of the unique character of arid desert lands. While the guidance in *Rapanos* has improved the picture under existing regulation, the burden of significant nexus analysis often puts that benefit out of reach, and has a tremendous impact on project timelines. An improved and clear Rule would assist both the regulated community and the agencies involved in permitting.

Mr. Chairman and Members of the Committee, thank you for the opportunity to testify on behalf of Arizona and the Arizona State Land Department. I am happy to answer any questions that you might have, and pleased to provide any additional information you may require.

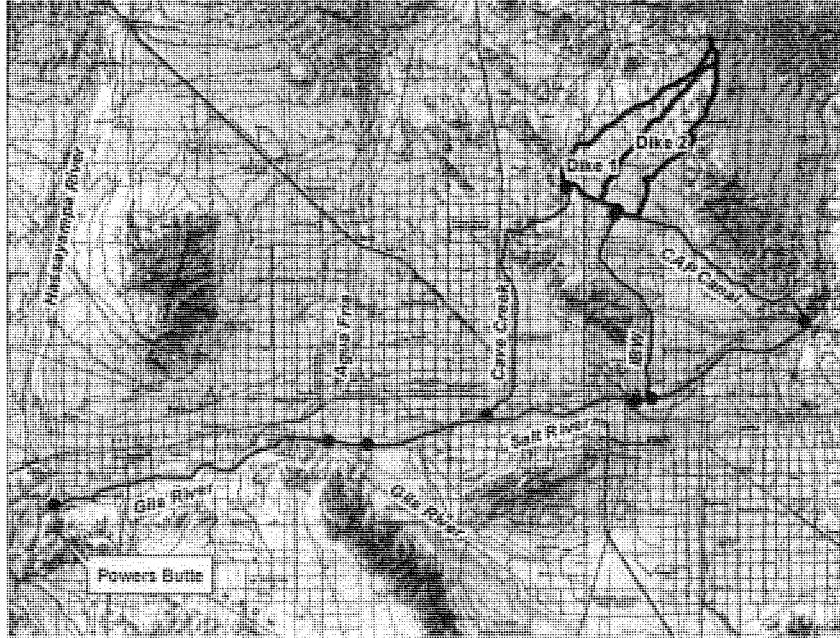
Appendix 1. This photo depicts maximum storm water flow rates from recent hydrologic studies on the Pinnacle Peak West ADMS. This study, which was performed for flood control purposes, provided ASLD with data to pursue a significant nexus analysis of the Rawhide Wash Watershed in Desert Ridge, Paradise Ridge and Azara. As you can see, flow rates vary widely, and there are many minor discharges in this alluvial fan system, which present the most significant challenge for ASLD.



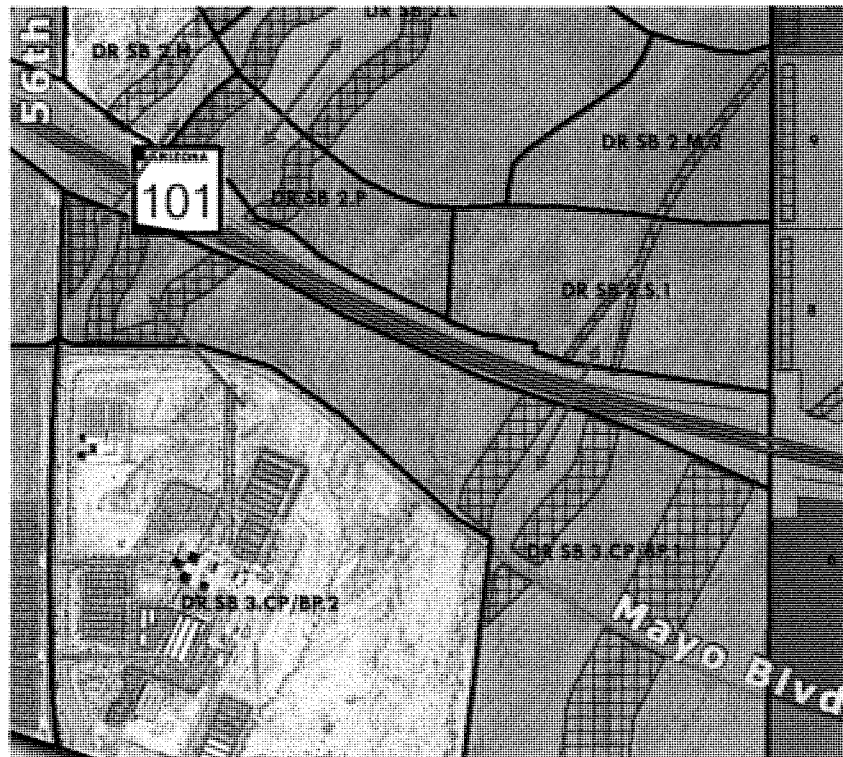
Appendix 2. This graphic depicts the on-site mitigation corridors required under the respective 404 permits for Desert Ridge, Paradise Ridge and Azara. The configuration of these corridors present tremendous obstacles for development in this urban area of North Phoenix, and have diminished the value of the underlying Trust land.



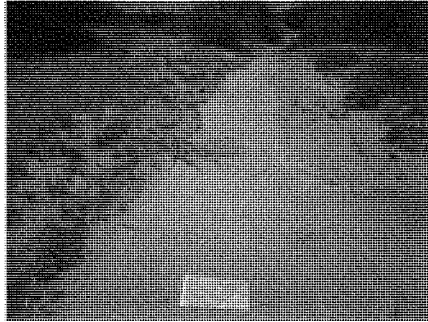
Appendix 3. This graphic illustrates the distance from the Desert Ridge (Rawhide) watershed to the nearest traditional navigable water (Powers Butte). The water is interrupted by the 101 Freeway, the CAP canal, and numerous gravel detention areas. ASLD's 2017 study concluded there is no physical connection between the Desert Ridge (Rawhide) watershed and any traditional navigable water.



Appendix 4. This graphic illustrates the configuration problems that are common with the Desert Ridge, Paradise Ridge and Azara 404 permits. The blue hatched areas are on-site mitigation corridors. The development on the bottom left of the graphic is the Mayo Hospital. A bio-science park has long been planned for adjacent land, but a number of factors have delayed progress, high among those, the very significant loss of land between the mitigation corridors. The Northeast corner of 56th Street and Mayo Boulevard should provide an ideal entry area for the bio-science campus, but is undevelopable as a result of the corridors. This is a sparse desert area, with very infrequent storm water runoff.



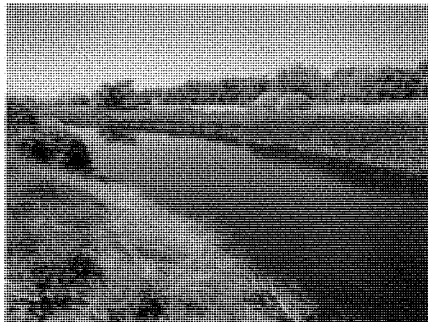
Appendix 5. These pictures show the difference between several representative washes in the ASLD permit areas in North Phoenix, and typical 404 in-lieu fee mitigation properties.



An example of an upland desert ephemeral wash in Desert Ridge.



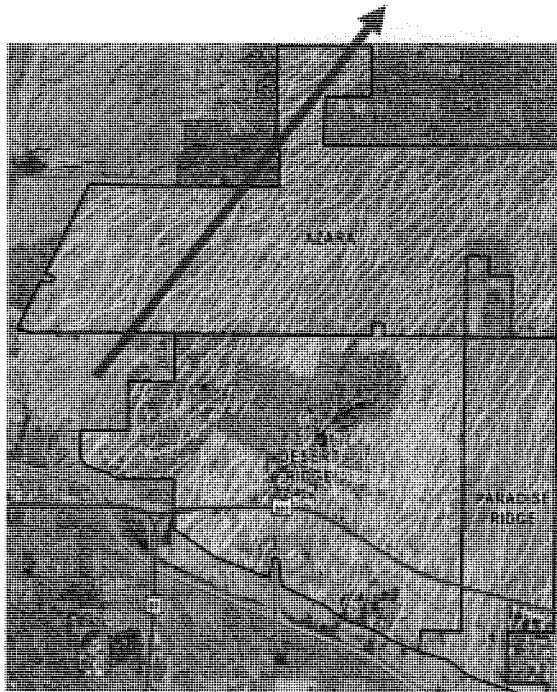
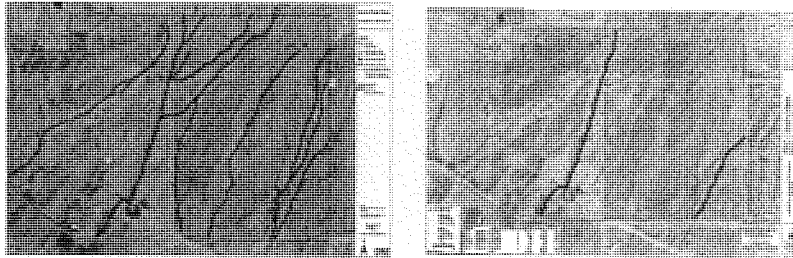
A second example of an upland desert ephemeral wash in Desert Ridge.



An example of an existing 404 In-Lieu Fee Mitigation property in Arizona

Appendix 6. The graphic on the bottom left shows the jurisdictional delineations performed for permitting Desert Ridge, Paradise Ridge and Azara. The top left graphic shows a similar delineation made in 2006 as part of ASLD's permit work. The top right graphic shows the same piece of land, delineated in 2015 by a subsequent purchaser. The location of the land is shown by the red arrow, and is directly adjacent to Desert Ridge. Note the significant difference in outcome.

URS-2008 For ASLD



Chairman BIGGS. Thank you, Mr. Mehl.
Mr. Chilton.

**TESTIMONY OF MR. JAMES K. CHILTON JR.,
RANCHER, CHILTON RANCH**

Mr. CHILTON. Chairman Biggs and distinguished Committee Members, thank you for having me today. My name is Jim Chilton, and I'm a fifth-generation Arizona rancher. Our ranch is adjacent to the town of Arivaca and continues south to the international boundary with Mexico. We've been in the cattle business in Arizona for 127 years. Our family all came from Texas, so I'm happy to see Texans here.

We are thankful for the 2015 Waters of the United States rule that has been proposed to be withdrawn. Our experience convinces us that it was an unjustifiable overreach by the Environmental Protection Agency and the Corps of Engineers. It represented a federal power grab not supported by the Clean Water Act or the Constitution.

For ranches in the Western United States, a requirement to obtain a Corps of Engineers section 404 permit or other permit is time-consuming and very expensive. The map on the monitor shows Arizona, and the red X is where I wanted to put a road across a dry wash. The dark line leading north marks the end of the Brawley Wash with no connection to the Santa Cruz River, and the end of the dry Santa Cruz River that has no connection to a navigable river. The dark line on the left represents the lower Gila River. These are all dry riverbeds, not streams of flowing water.

In the 1990s, I had to retain consultants and an attorney in an effort to comply with the requirements of Section 404 to put a small dirt road across a dry wash. That wash only carries water briefly during occasional rainstorms. It connects with the Brawley Wash about 10 miles west of my proposed road crossing. The dry Brawley Wash spreads out into the desert 70 miles north from the wash where I needed a ranch road. The wash is not even connected to the Santa Cruz River. The dry Santa Cruz riverbed vanishes as it spreads out like fingers in the desert 68 miles south of the usually dry Gila River. The Gila River extends another 100 miles or so across the desert to the Colorado River, which is the closest year-round navigable water. And it's 265 miles from the spot where I wanted to cross the dry wash. It is laughable to think that a desert wash is navigable in any way.

My second experience was before the Supreme Court decision on Rapanos. I wanted to improve a small dirt road on my private property and place a culvert in the bottom of a wash on that road. You'll see on the monitor the wash and you'll see how steep it was. I used to have to drive down into the wash and up over it on my private land. However, I was told by my environmental consultant, I paid good money for that, it was a water of the United States. Well, excitedly, I read the Rapanos decision several years later after I had abandoned the dry wash road. I decided it's easier to drive down and up than hire attorneys and consultants to go through the section 404 process.

However, I abandoned the project, and after reading Rapanos, I said, "Ah, it doesn't have a significant impact to the Colorado River

265 miles away,” so I put in this bridge. Well, I might go to jail now if I did it again.

In conclusion, the 2015 rule would allow the EPA and the Corps to trump States’ rights to manage intrastate waterways and even dry washes. Any future rule should recognize the authority of State and local governments to make land use and water decisions. It is our position that the intrastate rivers such as the Santa Cruz in southern Arizona should be regulated by the State and counties, not the federal government. Any new WOTUS rule should minimize adverse impacts on farmers and ranchers and other small businesses, and it must be designed to reduce the potential for abuse through bureaucrats sitting around and expanding the interpretation.

Please refer to my written testimony for precise recommendations of the National Cattlemen’s Beef Association and the Public Lands Council. Thank you, Mr. Chairman.

[The prepared statement of Mr. Chilton follows:]

Statement on behalf of the
NATIONAL CATTLEMEN'S BEEF ASSOCIATION
&
PUBLIC LANDS COUNCIL

On
The Future of WOTUS: Examining the Role of the States

Submitted to the
Subcommittee on Environment
The Honorable Andy Biggs, Chairman
House Committee on Science, Space, and Technology
The Honorable Lamar Smith, Chairman

By
Mr. Jim Chilton, Chilton Ranch LLC

November 29, 2017



National Cattlemen's
Beef Association



**Testimony before the House Subcommittee on Environment, U.S. House of Representatives
James K. Chilton, Jr.
11-29- 2017**

My name is Jim Chilton and I am a 5th generation rancher from Arivaca, Arizona. Arivaca is approximately 55 miles southwest of Tucson, Arizona. Our 50,000-acre ranch is adjacent to the town of Arivaca and continues south to the international border with Mexico. The ranch includes private property, state trust lands and three federal grazing permits within the Coronado National Forest. I am very proud of my wife Sue Chilton, my two sons, my partner (my brother) and ancestors. The entire family is blessed to be able to live preserving our western ranching customs, culture, and heritage dating back to pioneering ancestors who entered Arizona Territory in the late 1800's. We have been in the cattle business in Arizona for about 127 years and have a long-term view of the necessity to be excellent stewards of the grasslands we respectfully manage.

2015 Waters of the United States Rule

We are thankful and appreciative that the Waters of the United States Rule, 80 Fed. Reg. 37,054 (June 29, 2015) has been proposed to be withdrawn. Our experience convinces us that it was an unjustifiable over-reach by the Environmental Protection Agency (EPA) and the Corps of Engineers (Corps). It represented to us a federal agency power grab not supportable by either the Clean Water Act or the US Constitution's grant of authority to the federal government over genuinely navigable waters.

The 2015 Rule, in my opinion, unlawfully burdened my ranching operation since I could not determine whether I would be in compliance or out of compliance on any necessary ranch improvement involving any of the typical Southern Arizona dry washes on my ranch, due to the vagueness of the Rule. The possibility that features like small dry washes on Chilton Ranch could be treated as waters of the United States (WOTUS) created uncertainty about whether and how Chilton Ranch could use its private land and what regulatory requirements would apply to particular uses.

United States Supreme Court Rapanos Decision

A new rule must be drafted by the Environmental Protection Agency and the Corps of Engineers that follows the meaning and spirit of the Supreme Court Rapanos Decision (Rapanos, 447 U.S. at 719 (plurality opinion) and clearly adheres to what the public and an agricultural producer can see is really a navigable waterway.

My Neighbors and I have No Navigable Streams Nor any Nexus to a Navigable Stream

As is the case for most ranches in the Western United States, a requirement to obtain a Corps Section 404 permit or other permits for routine work in a desert grassland is totally irrational. There are no navigable streams for an estimated 265 miles from my ranch. More specifically, the following are examples of my experience with the expensive, time consuming and burdensome Section 404 permitting process as it was formerly applied. These experiences underpin my hope that a future rule will adhere to the U.S. Constitution and Rapanos Decision.

Abandoned 404 Project

During the late 1990s, prior to the Rapanos Decision, I had to retain environmental consultants and an attorney in an effort to comply with requirements imposed to obtain a permit to put a small dirt road across a dry wash. That wash only carries water briefly during occasional summer rainstorms. My environmental consultants believed, at that point in time, building a small dirt ranch road across the wash was subject to the the 1972 Clean Water Act regulations. It is laughable or enough to provoke anger, to think of this desert wash as a “navigable” water of the United States. No one could float anything—not even a leaf—from my land to the nearest navigable river because the supposed connections do not connect and are almost always dry and are never, ever navigable.

The dry wash in question connects with the Brawley dry wash about ten miles west of my proposed road crossing. The Brawley Wash ends and any ephemeral water it ever carries spreads out into the desert approximately 70 miles north from the wash where I needed a ranch road. The Brawley Wash is not connected to the next feature: the dry Santa Cruz River. The dry Santa Cruz River bed virtually vanishes as it spreads out like fingers in the desert 68 miles detached from the usually dry Gila River. The intermittent and ephemeral Gila River bed extends through sandy, dry terrain until it reaches the Colorado River, another hundred or so miles across the desert from the city of Gila Bend. The Colorado River is, of course, the first truly year-round navigable river; it is located approximately 265 miles from the spot where I wanted to cross that desert wash with a road. See Figure 1 on the following page which illustrates the vast, and hydrologically disconnected, expanse of space between the Santa Cruz basin near Chilton Ranch and the Colorado River. It is an unsupportable assertion of authority for the EPA and Corps to claim that the entire Santa Cruz basin, liberally covered with dry washes that are ephemeral at best, has a navigable or even seasonal nexus with the Colorado River.

My desire to obtain a Corps 404 permit to cross a desert wash with a small ranch road, on the well-documented right-of-way I owned, became so time-consuming (over three years) and expensive that I abandoned the project altogether. The \$40,000 I had spent was entirely the result of the vague and expansive requirements of EPA and the Corps of Engineers; not a penny went to a constructive or productive agricultural need; it was all for a permit writing expert, consultants, an environmental assessment and engineering report, a survey, and attorney fees.

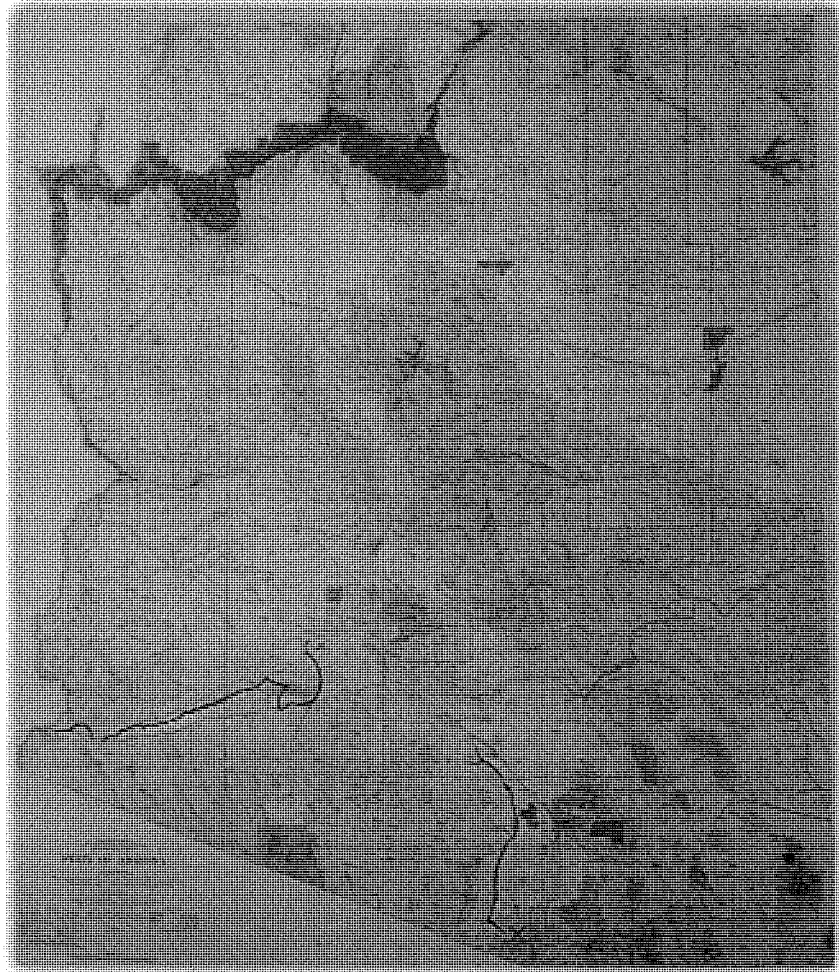


Figure 1. The Chilton Ranch is located at the red "X". The dark line leading north of the ranch represents the Santa Cruz basin. The dark line on the left represents the Gila River basin. Note: the dark lines represent river beds, not flowing water. As you can see, these river beds do not connect and therefore no nexus exists between my ranch and the navigable Colorado River, which constitutes the western border of Arizona along the left side of the map.

Another ranch improvement abandoned

A second personal experience emphasizes the point that, when a bureaucracy writes rules, it is always tempted to expand its authority. This time I wanted to improve a small dirt road on my private land by placing a culvert in a dry wash which had twelve inches wide of sand in the bottom. I needed this improvement so the dip would be more easily crossed by ranch trucks. This little road and the dry wash are located more than 270 miles from the navigable Colorado River. My environmental consultant again told me that, at that point in time, this dry wash would be considered a Water of the United States and therefore a 404 permit would be required to improve this road. Based on my expensive and time-consuming experience with the other dry wash, I did not pursue the permit and did not improve the road.

Later, the Supreme Court Rapanos decision was issued. With a careful reading of the Rapanos decision, I concluded that there was clearly not a significant nexus between my culvert project and the navigable Colorado River. Therefore, I installed the culvert in the dry wash and significantly improved my road. Please see Figure 2, below, depicting the actual bridge with culvert Chilton Ranch LLC constructed after the Supreme Court Rapanos decision.

Unfortunately, two years ago, the EPA and the Corps promulgated the 2015 WOTUS Rule which would have made it again highly questionable whether I could improve a ranch road to cross any dry wash, of which there are probably hundreds on my ranch, without a 404 Permit.



Figure 2. The dry wash and constructed bridge and culvert at Chilton Ranch.

Corps 404 Permitting Costs

Language in the Supreme Court Rapanos Decision described costs typically incurred due to the former interpretation:

...“the average applicant for an individual Clean Water Act permit spends 788 days and \$271,596 in complying with the current process and the average applicant for a nationwide permit currently spends 313 days and \$28,915 - not counting the substantial costs of mitigation or design changes.” Rapanos, 447 U.S. at 719 (plurality opinion).

Clearly, the Court found that the Clean Water Act permitting process was unjustifiably expensive in both time and money. Farmers and ranchers are concerned now about future rule development that could return us to the situation we, as well as small businesses, small communities, forestry, mining, manufacturing and all productive land uses, faced prior to the Rapanos decision.

Tyranny of the Bureaucracy

In my view, the 2015 WOTUS Rule empowered bureaucrats to impose their personal views without concern for being called to account for their actions. Any future rule should be designed to restrict such behavior by removing any subjectivity from interpreting what is a federal water. We need a reasonable interpretation shared by citizens on what constitutes a navigable river and what is a genuine nexus to navigable water.

Unfortunately, when a vague and expansive rule is adopted, it opens the door for activists to freely interpret federal regulations to advance their personal philosophy. This *de facto* license results in a form of tyranny that supplants the rule of law and undermines public respect for government. From our own experience and that of other western ranchers, every past EPA and Corps expansion of jurisdiction has eventually resulted in enabling agenda-driven individuals within the bureaucracies to drive federal policy toward their wildland vision. I have personally had to conduct decades-long battles to redress unjustified bureaucratic attacks and to defend the right to produce food and to protect our multi-generation ranching heritage.

Respect for Private Property

As George Washington said, “private property and freedom are inseparable.”

As a Supervisor on our Pima County Natural Resource Conservation District Board, I recognize that our District Cooperators, small ranchers, and farmers rely on their property rights and the right to produce without federal imposition of undue burdens. Consequently, the question of potential rule development that could again inappropriately label dry washes on our land as navigable waters directly concerns us and our Resource Conservation Cooperators. We advocate that future rule development on WOTUS properly construe the limits of the federal government and the role of the agents enforcing that rule.

Conclusion

It is clear the 2015 Rule would have allowed the EPA and the Corps of Engineers to trump states' rights to manage intrastate waterways and even dry washes and river beds. Any future rule should recognize the authority of state and local governments to make local land and water use decisions. It is, for example, our position that intra-state rivers, such as the Santa Cruz in southern Arizona, should be regulated by the State, not the Federal Government. **We request that Congress take action to ensure that any new EPA and Corps rule minimize adverse impact on farmers, ranchers, businesses, and individuals, and that it must be designed to reduce the potential for abuse through expansive interpretation, and to recognize the reality that a navigable water is exactly that: a waterway with sufficient water to be an avenue of shipping commerce.** It is simply unacceptable to require family ranchers, farmers, and other small businesses to hire expensive legal and environmental experts to navigate compliance with a federal rule that is both over-expansive and ambiguous. Any future rule must clearly delineate agricultural exclusions; small agricultural producers cannot wait on ranch and farm improvements for years while the wheels of bureaucracy slowly turn out the required permits.

In our area, a significant nexus with the Colorado River does not exist in the Santa Cruz Dry River Basin since the Santa Cruz spreads out and disappears in the Santa Cruz Flats south of Eloy, Arizona approximately 68 miles distant from the dry Gila River. Southern Arizona does not have a "significant nexus with a navigable water."

Future EPA and Corps rules must be simple, straight-forward, and easily interpreted. Likewise, future rules must not infringe on private property rights or States' rights. The following are the recommendations of the National Cattlemen's Beef Association and Public Lands Council:

1. Producers living in states with an approved section 402 permitting program need **a clear rule that defines WOTUS based on objectively identifiable characteristics** to reasonably administer the program within their borders. Such a definition will go a long way towards avoiding litigation and other costs that divert scarce resources from protecting state and federal waters.
2. The EPA should conduct a thorough review of congressional intent and judicial interpretations, including Justice Scalia's opinion in the *Rapanos* case, and **develop an independent interpretation of the various Clean Water Act terms, including "waters of the United States," rather than relying strictly on one judge's view.**
3. The term **"navigable waters" must be given importance and effect.** We recognize that Congress intended to regulate at least *some* waters that are not navigable in the traditional sense. This is clear from prior U.S. Supreme Court decisions in *Riverside Bayview*, *SWANCC*, and *Rapanos*. However, federal jurisdiction cannot extend to isolated or intrastate waters that are not navigable. Nor does it extend to any ordinarily dry features, such as ephemeral streams. Justice Kennedy concurred with notion in the *Rapanos* case, criticizing the Agencies for leaving "wide room for regulation of drains, ditches, and streams remote from any navigable-in-fact water and carrying only minor water volumes

toward it,” and for asserting jurisdiction over wetlands “little more related to navigable-in-fact waters” than the isolated ponds at issue in *SWANCC*.

4. In defining those non-navigable water bodies or wetlands that are “waters of the U.S.,” **EPA should focus on water features that have an actual surface connection to traditional navigable waters and that are identifiable based on clear, objective characteristics**, to provide clarity and certainty to regulators and the producers. Mere adjacency to a tributary is insufficient to create jurisdiction.
5. A water feature that is “relatively permanent” must contain water persistently and frequently. At a minimum, they must continuously carry water on a seasonal basis (such as throughout the spring and summer season). **Features that are usually dry and only carry water when it rains are not “relatively permanent” waters.**
6. **Wetlands should only be “waters of the U.S.” when they are adjacent to traditional navigable waters and their tributaries**, meaning they directly touch or share a common border with those waters. The presence of a hydrologic connection to navigable-in-fact waters is not enough to support federal jurisdiction.
7. Administrative clarity and regulatory certainty are key goals of this rulemaking. Because the Clean Water Act is a strict liability statute that includes an absolute prohibition on unauthorized discharges into WOTUS, **the new definition must provide clear lines to put regulated entities on notice and meet administrative due process requirements.**
8. An appropriately narrow and clear WOTUS definition will go a long way to fix the issues that many agricultural producers face when attempting to comply with the Clean Water Act. That being said, **the EPA and Army Corps should carefully consider the need to retain the long-standing agricultural exclusions from WOTUS and should consider the need for additional exclusions**, depending on the scope of the revised WOTUS definition.

JAMES K. CHILTON, JR.*11-29-17*

Jim Chilton, a fifth generation Arizona rancher, was born in 1939 and raised on farms and ranches. In 1979, Mr. Chilton, together with his father and brother formed a partnership, Chilton Ranch & Cattle Company, a cow-calf ranching company. In 1987, Mr. Chilton and his wife Sue and two sons purchased a 50,000-acre ranch south of Arivaca, Arizona that expanded the family operation.

Mr. Chilton was honored as Rancher of the Year in 2002 by the Arizona Cattle Growers' Association and three years later received a similar award from the Arizona Farm Bureau. In 2005, he received the True Grit Award from the Arizona Cattle Growers' Association and the Individual of the Year Award from the Arizona/New Mexico Coalition of Counties. In 1991, the Chiltons were awarded the Pima County Natural Resource Conservation District Award of Merit for Outstanding Accomplishments in Resource Conservation. In 2005, his wife and he received The Arizona Farm Bureau Environmental Stewardship Award.

Mr. Chilton has been a principal in municipal financial advisory firms since 1970. Prior to forming his own municipal investment banking firms, Mr. Chilton was Senior Vice President and Manager of the Shearson/American Express Public Finance Division for the western United States.

A graduate of Arizona State University, he received a Bachelor of Science, a Master of Science in Economics, and a Master of Arts in Political Science. Mr. Chilton also served U.S. Senator Carl Hayden of Arizona for three years as a Special Assistant.

He and his wife Sue have been married for over 54 years, raised two sons and are enjoying five grandchildren.

Chairman BIGGS. Thank you, Mr. Chilton.
Mr. Kopocis.

**TESTIMONY OF MR. KEN KOPOCIS,
ADJUNCT ASSOCIATE PROFESSOR,
AMERICAN UNIVERSITY
WASHINGTON COLLEGE OF LAW**

Mr. KOPOCIS. Thank you. Chairman Biggs, Ranking Member Bonamici, and other Members of the Subcommittee, thank you for the request to appear today to discuss the future for protecting water quality under the Clean Water Act and the role of the States. I appear today in my personal capacity.

In 1972, Congress enacted the Clean Water Act to restore and maintain the integrity of the nation's waters. If a water subject to the act is not going to be polluted or destroyed, it does not come under the authority of the Clean Water Act.

Congress has also created significant roles for the States in the implementation of the Clean Water Act, often referred to as cooperative federalism. The Trump EPA has put forward a false choice that providing protection against polluting and destroying waterbodies somehow is adverse to states' interests. Today, most of the day-to-day activities for implementing the Clean Water Act are carried out by the states. States decide how clean their waters will be, not EPA, plus a significant number of States have not challenged the Clean Water Rule, and their interests are adversely affected by the proposed rollback. Further reducing the scope of the Clean Water Act will only reduce State efforts to protect waters from pollution and destruction by eliminating their federal partner.

The Trump Administration is pursuing a policy of repeal and retreat, repeal the Clean Water Rule and retreat to jurisdiction based on the excessively narrow plurality opinion in *Rapanos*. But that opinion was expressly rejected by five of the nine Justices of the Court. A Scalia-based rule is guaranteed to continue the post-*Rapanos* confusion and litigation for many, many years to come, and it is not likely to withstand judicial challenge.

A Scalia-based rule also has adverse practical effects for protecting state waters from pollution and destruction. Eliminating the protection for intermittent and ephemeral streams will remove Clean Water Act protection for as much as 60 percent of the Nation's waters, and in some areas this could be 80 to 90 percent. These waters would no longer be protected by water quality standards; no Clean Water Act permits would be required for discharges of pollutants; funding to address municipal wastewater, stormwater, and nonpoint source pollution would be less available; and federal authority to respond to oil spills would be curtailed.

While some argue that States can and will fill this void, since the scope of the Clean Water Act was limited in 2001 and 2006, there is no evidence that any State has done so. The act refers to navigable waters, which Congress defined as Waters of the United States, including the territorial seas. The Supreme Court has considered this definition three times, and in each case, every Justice has agreed that the term "navigable waters" applies to waters beyond those considered to be traditionally navigable. This debate should be over.

Although neither SWANCC nor Rapanos invalidated the Agency's regulations, the EPA and the Corps spent several years developing the Clean Water Rule in response to demands of interested parties across the entire interested spectrum, yet the Trump Administration's current plans for repeal and retreat will bring back the confusion and litigation everyone said they wanted to end.

The agencies developed a rule based upon Justice Kennedy's significant nexus test, a test that would have the support of five of the nine Justices on the Court, unlike the Scalia standard, which only had four. The rule is supported and informed by the best available peer-reviewed science on the relationship of waters and the impacts of upstream waters on downstream and adjacent waters. The validity and credibility of the science used by the agencies to support the Clean Water Rule has not been seriously denied or refuted. If there is better science, then bring it to the attention of the public and the agencies for their consideration.

The rule establishes which waters will be jurisdictional in which circumstances and expanded the list of waters that would not be subject to jurisdiction. People would for the first time be able to read the rule and better know that a waterbody or feature was or was not subject to the act and—without the need for an expert or an individual analysis. The rule also establishes transparency in how the agencies will make significant nexus determinations instead of leaving those decisions within the discretion of an agency employee. For greater detail, I attached the rule to my testimony.

The Clean Water Rule is a carefully considered rule that was developed with unprecedented public engagement and comment. It was available for public comment for 207 days. During that period, EPA held over 400 public meetings, and I personally attended about 70 of those in my prior capacity, including multiple visits to farms. Unfortunately, the rule's benefits of clarity, predictability, and consistency have been put on hold, but that will be resolved. The Trump Administration does a disservice to the public with its path of repeal and retreat. It will only continue the post-Rapanos confusion and litigation for many, many years.

The work of the Clean Water Act is far from finished. State-generated water quality reports indicate hundreds of impaired waters in need of reduced pollution and increased protection. Narrowing the scope of the act does not advance these joint state and federal efforts. No one ever says that the water in our rivers, lakes, streams, and ponds is too clean, there are too many healthy fish to catch and eat, or that drinking water is too clean and abundant. The Trump policy of repeal and retreat only imperils the integrity of our nation's waters.

Thank you, and I'm happy to answer any questions you may have.

[The prepared statement of Mr. Kopocis follows:]

Opening Statement

Ken Kopocis

Hearing before the Subcommittee on Environment

Committee on Science, Space, and Technology

U.S. House of Representatives

November 29, 2017

Chairman Biggs, Ranking Member Bonamici, and other members of the subcommittee, thank you for the request to appear today to discuss the future for protecting water quality of the “waters of the United States” under the Clean Water Act and the role of the States. I appear today in a personal capacity.

In 1972, Congress established the objective of the Clean Water Act, to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters. Congress made clear that this objective would be best achieved by controlling pollutant discharges at their source, and reemphasized that objective through the substantial amendments of 1977 and 1987 that tightened controls on pollutant discharges. Congress made water quality the heart of the statutory and regulatory program.

Congress also created significant roles for the States in the implementation of the Clean Water Act, these roles are often referred to as a partnership or cooperative federalism. Today, most of the day-to-day activities for implementing the Clean Water Act are carried out by the States. Further reducing the scope of the Clean Water Act will only reduce State efforts to protect waters from pollution and destruction.

Clean water in adequate supply is essential to our existence. Whether illustrated by the recent drought in California or the lead contamination in Flint, Michigan, we have daily reminders that water is essential to life. Waters are also important to the environment in which we live. Rivers, lakes, ponds and wetlands supply and cleanse our drinking water, ameliorate storm surges, provide invaluable storage capacity for flood waters, and enhance our quality of life by providing essential habitat, myriad recreational opportunities, as well as important water supply and power generation benefits.

Consider these facts about the value of clean water to Americans:

- Manufacturing companies use nine trillion gallons of fresh water every year.

- 31 percent of all water withdrawals in the U.S. are for irrigation, highlighting the extent to which the nation's farmers depend on clean water.
- About 40 million anglers spend \$45 billion annually to fish in U.S. waters.
- The beverage industry uses more than 12 billion gallons of water annually to produce products valued at \$58 billion.
- About 60 percent of stream miles in the U.S. only flow seasonally or after rain, but are critically important to the health of downstream waters.
- Approximately 117 million people – one in three Americans – get their drinking water from public systems that rely on seasonal, rain-dependent, and headwater streams.

The U.S. Environmental Protection Agency and Department of the Army issued the Clean Water Rule in 2015 to ensure that the Nation's waters could continue to provide these essential benefits, making waters better protected from pollution and destruction by having the scope of the Clean Water Act easier to understand, more predictable, and more consistent with the law and peer-reviewed science.

The Supreme Court considered the scope of waters protected by the Clean Water Act from pollution and destruction three times – *U.S. v. Riverside Bayview Homes* in 1985, *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* in 2001, and *Rapanos v. U.S.* in 2006. In each of those cases, in every opinion written by the justices, whether it was 9 – 0 in *Riverside Bayview*, 5 – 4 in *SWANCC*, or 4 – 1 – 4 in *Rapanos*, every justice has supported that the Clean Water Act term “navigable waters” is broader than the traditional understanding of that term. The Clean Water Act applies to waters beyond those considered to be traditionally navigable. The Supreme Court has been completely consistent on this point.

The Clean Water Rule was developed to address the uncertainty and confusion following the U.S. Supreme Court decisions usually referred to simply as *SWANCC* and *Rapanos*.

In *SWANCC*, a majority of the Court invalidated the agencies' practice of using the presence of migratory birds as a sole basis for establishing Clean Water Act jurisdiction, and the agencies stopped that practice. The Court in *SWANCC* did not invalidate any aspect of the agencies' regulations.

In *Rapanos*, the Court considered two consolidated cases involving wetlands that did not immediately abut traditionally navigable waters. In *Rapanos*, no opinion could gather a majority, and the nine justices wrote five separate opinions. The confusion evident on the Court carried over into the regulatory responsibilities of the two agencies and resulted in the George W. Bush administration issuing guidance in 2003 and 2008 to reconcile the several opinions of the

Court with the existing regulations defining the scope of the Clean Water Act. Again in *Rapanos*, the agencies' regulations were left intact by the Court.

Following the confusion generated by *Rapanos*, interested parties demanded that the agencies take action to clarify which waters would have their quality and existence protected by the Clean Water Act, and equally important which would not. Every interest group that approached the agencies, and this includes the agriculture community, the property development and construction community, the environmental community, the resource extraction community, the hunting and fishing community, mayors, governors and Federal and State legislators on both sides of the aisle, and countless others recommended that the agencies take action to address the post-*Rapanos* confusion. No one argued for the agencies to do nothing and retain the status quo. Yet, that is the course the Trump administration is currently pursuing.

To respond to these requests, the agencies spent several years developing the Clean Water Rule. This development was subject to countless conversations with outside groups, including all of those I mentioned previously – State, local and Federal interests in the public and private sectors. When the agencies considered issuing additional guidance as an interim measure, that effort had both strong support and strong criticism. The agencies abandoned the idea of developing guidance and chose to pursue formal rule-making under the Administrative Procedure Act. While more time consuming, rule-making provides more certainty since guidance is not binding on the agencies.

The Clean Water Rule clarifies the jurisdiction of the Clean Water Act and would reduce the costly and time-consuming case-specific significant nexus analysis that resulted from the *Rapanos* decision. The Rule interprets the Clean Water Act, it does not expand it. In fact, because of the implementation of the Supreme Court decisions and the added exclusions, the Clean Water Rule narrows the coverage of the Clean Water Act compared to the 1986 Rule it replaces, and does so consistent with the Act's legislative history and the court cases interpreting it.

The Rule is supported by the best available peer-reviewed science on the relationship of waters, their connectivity, and the impacts of protecting water quality or not protecting water quality on downstream and adjacent waters. EPA's Office of Research and Development prepared an exhaustive synthesis of peer-reviewed science on how waters are connected to each other and how they impact downstream waters. This Science Report was also peer-reviewed by EPA's independent Science Advisory Board and subjected to public comment. The Science Report informed the agencies' actions in response to the policy guidance provided by the Supreme Court in both the *SWANCC* and *Rapanos* decisions – how best to consider the significant nexus between upstream and downstream waters when determining the jurisdiction of the Clean Water Act.

The final Science Report provides several key conclusions based on review of the peer-reviewed scientific literature:

1. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, biologically, and chemically connected to downstream rivers and this connection influences the integrity of downstream rivers.
2. Wetlands and open waters in floodplains and riparian areas are physically, chemically and biologically connected with downstream rivers and influence the ecological integrity of such rivers.
3. Non-floodplain wetlands and open waters (i.e., isolated waters) provide many functions that benefit downstream water quality and ecological integrity.
4. The connectivity of streams, wetlands and other surface waters, taken as a whole, to downstream waters occurs along a continuum from highly connected to highly isolated – but these variations in the degree of connectivity are critical to the ecological integrity and sustainability of downstream waters.
5. The critical contribution of upstream waters to the chemical, physical, and biological integrity of downstream waters results from the accumulative contribution of similar waters in the same watershed and in the context of their function considered over time.

Continuing even to today, the validity and credibility of the science used by the agencies to support the Clean Water Rule has not been seriously challenged. The agencies have not denied or refuted the science. The various litigants challenging the Rule have not put forward newer or better science to dispute the conclusions of the Science Report. If there is better science, those challenging the conclusions, whether public or private, have an obligation to bring such science to the attention of the public and the agencies for their consideration. Without such new information, the agencies must stand behind the prior work.

Because of the Clean Water Rule's greater clarity and specificity compared to the rule it replaced, no longer would many waters, such as some tributaries, adjacent waters, ditches and wetlands, need a level of individual analysis to determine whether there was a significant nexus to a downstream water that *Rapanos* required and the old regulatory definition did not provide. Because of the new exclusions in the Clean Water Rule, people would for the first time be able to read the Rule and better know that a water body or feature was not subject to the Clean Water Act without the need for an individual analysis.

The Clean Water Rule continues to apply the protections of the Clean Water Act to traditionally navigable waters, interstate waters, the territorial seas, impoundments of otherwise jurisdictional waters, tributaries, and adjacent wetlands. The Clean Water Rule deletes the

jurisdiction of the Clean Water Act over waters “the use, degradation or destruction of which could affect interstate or foreign commerce” and replaces it with the significant nexus analysis first established by the majority opinion in *SWANCC* and carried forward in *Rapanos* by Justice Kennedy. The Rule also establishes transparency in how the agencies will make significant nexus determinations by listing specific factors instead of leaving those decisions within the discretion of an agency employee.

The Clean Water Rule carries forward the jurisdictional exclusions for waste treatment systems and prior converted cropland. It also adds new regulatory exclusions such as for certain ditches, artificially irrigated areas, farm and stock water ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, cooling ponds, reflecting and swimming pools, ornamental waters, water-filled depressions incidental to mining or construction, erosional features and grassed waterways, groundwater including tile drains, stormwater features, wastewater recycling and groundwater recharge.

For greater detail on the inclusions and exclusions, the complete text of the Clean Water Rule is attached as an appendix to this statement.

The Clean Water Rule is a carefully considered rule that was developed with unprecedented public engagement and comment. The agencies received and considered over one million public comments over a period of 207 days. The agencies held over 400 public meetings all across the country. I personally attended about 70 of those meetings in my prior capacity, both in Washington and around the country, including multiple visits to farms. The Rule applies the law as written by Congress and interpreted by the Supreme Court; it relies upon the best available peer-reviewed science to support its scope; and it is the product of over 40 years of technical expertise of the U.S. EPA and the Department of the Army working with the Corps of Engineers in administering the Clean Water Act.

Unfortunately, the Rule’s benefits of clarity, predictability and consistency have been put on hold by the courts, but that will ultimately be resolved. I personally am very aware of the controversy surrounding the scope of the Clean Water Act over these many years, but I also believe it is a disservice to the public that the Trump administration has indicated that it will undertake a new rule-making to retreat from the Clean Water Rule. Of even greater concern is the stated intent of the Trump administration to develop a new rule based upon the plurality opinion authored by Justice Scalia in *Rapanos*. This would be a retreat from the 1986 Rule adopted by the Reagan administration.

The plurality opinion in *Rapanos* was expressly rejected by five of the nine justices – rejected by a majority of the court. In addition to the four dissenting justices who rejected the plurality opinion, Justice Kennedy wrote that the plurality opinion “makes little practical sense” and was “unpersuasive.” He concluded, “In sum, the plurality’s opinion is inconsistent with the

Act's text, structure, and purpose." The current effort to develop a Scalia-based rule is guaranteed to continue the post-*Rapanos* confusion and litigation for many, many years to come, and is not likely to withstand judicial challenge.

The Trump EPA has put forward a false choice that providing protection against polluting and destroying waterbodies somehow is adverse to States' interests. Under the Clean Water Act, States decide how clean their waters will be by establishing the designated use for waters within the State. States are also able to establish water quality criteria that support those uses. Forty-six of the fifty States already implement many day-to-day aspects of the Clean Water Act through state permitting programs. Plus, a significant number of States have not challenged the Clean Water Rule and their interests are undercut by the proposed rollback.

A Scalia-based rule also has many adverse practical effects for protecting State waters from pollution and destruction. For example, eliminating the protection for intermittent and ephemeral streams will remove Clean Water Act protection for a significant number of waters – as much as 60 percent nationally. In more arid areas of the country, this could be as high as 80 to 90 percent. These waters would no longer be protected by water quality standards, no Clean Water Act permits would be required for discharges of pollutants, funding to address municipal wastewater, stormwater, and nonpoint source pollution would be less available, and Federal authority to respond to oil spills would be curtailed. While some argue that States can and will fill this void, since the scope of the Clean Water Act was first limited in 2001 and further limited in 2006, there is no evidence that any State has done so.

The Clean Water Act is often referred to as our most effective environmental law, and it has resulted in great improvements in water quality. However, the work is far from finished – State generated water quality reports indicate hundreds of impaired waters in need of reduced pollution and increased protection. Abandoning upstream waters and continuing the confusion on how to protect water quality does not advance these joint efforts at the State and Federal level. In my thirty-plus years in water law, I have never heard that the water in our rivers, lakes, streams and ponds is too clean, that there are too many healthy fish to catch and eat, that our drinking water is too clean and abundant, or that we need more beach closures due to pollution. The Clean Water Rule advances the cause of protecting human health and the environment. This is not a time for retreat.

Thank you again, I am pleased to answer any questions you may have.

APPENDIX to Statement of Ken Kopocis

The following definition was published on June 29, 2015 by EPA and the Department of the Army as the Clean Water Rule. On October 9, 2015, the 6th Circuit Court of Appeals stayed the use of the revised rule. The revised rule is reproduced below.

Code of Federal Regulations

(Revised 2015 by Clean Water Rule, currently stayed by 6th Circuit.)

Title 40 - Protection of Environment. CHAPTER I - ENVIRONMENTAL PROTECTION AGENCY (CONTINUED). SUBCHAPTER D - WATER PROGRAMS. PART 122 - EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM. Subpart A - Definitions and General Program Requirements.

Authority: The Clean Water Act, 33 U.S.C. 1251 *et seq.*

Source: 80 FR 37054, June 29, 2015

§ 122.2 Definitions.

The following definitions apply to parts 122, 123, and 124. Terms not defined in this section have the meaning given by CWA. When a defined term appears in a definition, the defined term is sometimes placed in quotation marks as an aid to readers.

* * * * *

Waters of the United States or *waters of the U.S.* means:

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this definition, the term “waters of the United States” means:

- (i) All waters which are currently used, 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;
- (ii) All interstate waters, including interstate wetlands;
- (iii) The territorial seas;
- (iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this definition, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (1)(vii)(A) through (E) of this definition where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this definition. The waters identified in each of paragraphs (1)(vii)(A) through (E) of this definition are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this definition. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this definition when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermount flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (iii) of this definition and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this definition where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (v) of this definition. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this definition or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this definition when

performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not “waters of the United States” even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this definition.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. [See Note 1 of this section.]

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this definition.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) In this definition, the following terms apply:

(i) Adjacent. The term adjacent means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this definition, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this definition. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this definition and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) Neighboring. The term neighboring means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this definition. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this definition and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (iii) of this definition, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is

located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) Tributary and tributaries. The terms tributary and tributaries each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this definition), to a water identified in paragraphs (1)(i) through (iii) of this definition that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this definition. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i) through (iii) of this definition.

(iv) Wetlands. The term wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) Significant nexus. The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this definition. The term “in the region” means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this definition. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (3)(v)(A) through (I) of this definition. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this definition. Functions relevant to the significant nexus evaluation are the following:

- (A) Sediment trapping,
- (B) Nutrient recycling,
- (C) Pollutant trapping, transformation, filtering, and transport,
- (D) Retention and attenuation of flood waters,
- (E) Runoff storage,
- (F) Contribution of flow,
- (G) Export of organic matter,
- (H) Export of food resources, and
- (I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (1)(i) through (iii) of this definition.

(vi) Ordinary high water mark. The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(vii) High tide line. The term high tide line means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Kenneth J. Kopocis

Currently employed as an associate professor of law at American University Washington College of Law, Washington, DC.

Previously served as the Deputy Assistant Administrator in the Office of Water at the U.S. Environmental Protection Agency. As the chief official for the Office of Water, managed a staff of approximately 550 at Washington headquarters and approximately 1,500 in 10 EPA regions, with a total annual budget of approximately \$3 billion.

Prior to EPA, held several senior positions on the staffs of both the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate. The combined Congressional career spanned nearly 27 years.

The Capitol Hill career included hundreds of congressional hearings, scores of legislative accomplishments, and interaction with the public, State and local officials, and interest groups.

Areas of legislative and policy experience are: matters relating to water pollution control and water infrastructure; water resources development, conservation and management; hazardous waste cleanup; transportation; and, emergency and disaster response.

Graduated the Marshall-Wythe School of Law of the College of William and Mary in 1980, and the University of Nebraska-Omaha in 1977.

Chairman BIGGS. Thank you, Mr. Kopocis.
Mr. Hopper.

**TESTIMONY OF MR. REED HOPPER,
SENIOR ATTORNEY,
PACIFIC LEGAL FOUNDATION**

Mr. HOPPER. Thank you, Chairman Biggs, and honorable Committee Members, for this opportunity. I'd like to address three particular questions. The first is why is it important to be precise in identifying the Waters of the United States? The simple answer is that the designation of Waters of the United States affects millions of property owners nationwide, and the impact on these property owners is quite severe. When an area is designated as subject to the Clean Water Act, it essentially gives the Federal Government complete control over that property, allowing it to exercise a veto power over the land use.

It also leaves the landowner in a no-win situation. The landowner who has designated property really only has a few options. They could simply abandon all use of the property at ruinous cost; they could get a permit, which has been estimated to cost, for an individual permit, \$270,000 and 800 days in processing; or they can simply go forward without federal approval and risk civil fines of \$75,000 a day and/or criminal prosecution. In addition, if the designation of the scope of the Clean Water Act is not properly drawn, it raises constitutional questions related to due process, impingement on State rights, and exceedance of the commerce power.

The second question is, is the revision of the 2015 WOTUS rule justified? Again, the short answer is yes. Two courts have already determined on a preliminary basis that, on its face, the 2015 WOTUS rule is probably invalid because it is likely overbroad in that it overextends or exaggerates the significant nexus test under *Rapanos* and is incompatible with the *SWANCC* decision, which prohibited regulation of isolated waterbodies. Also, the distance limitations the Court has held are likely arbitrary and not supported by scientific evidence.

In addition, the final rule doesn't look like the proposed rule, which denied the public proper notice and opportunity for comment. More importantly, these courts held that in order to protect the States' primary responsibility to regulate local land and water use and to avoid the diminishment of state sovereignty, that the rule needed to be stayed not only locally but nationwide. And one of the courts also stated that in order to protect the public from overreaching government, the rule needed to be enjoined.

Another reason why it's appropriate to revise the rule is as I outlined in my law review article called "Running Down the Controlling Opinion in *Rapanos v. United States*," all nine Justices—not five or four, but all nine Justices would agree that when you use the *Scalia* plurality test and find jurisdiction, Justice Kennedy would agree and the four in the dissent would agree so all nine Justices would concur. These factors not only justify but necessitate pushing the reset button on the WOTUS rule.

Finally, the third question I would address is where do we go from here? I think the real problem is not so much the language we're dealing with but with the inability or unwillingness of the

Agency to show some constraint. The EPA and the Corps of Engineers need to focus on protecting core water resources instead of pushing the envelope on federal power by prosecuting minor or imaginary infractions such as digging a ditch; creating a stock pond, as in our Johnson case; plowing farmland, as in our Duarte case; building a house in a built-out subdivision, as in our Sackett case; or asserting jurisdiction over isolated waterbodies, as in our Hawkes case.

Justice Roberts took the Corps of Engineers and the EPA to task in the Rapanos decision for not heeding the direction of the Supreme Court in the SWANCC case and said that the agencies continued to rely on a boundless interpretation of the act which is not justified.

So what do we do? How do we constrain the agencies? There are two possibilities. One is a legislative fix. This would be more appropriate because it would clarify congressional intent and is more defensible legally. The other one is a regulatory fix with specific language more constrained than the WOTUS rule relying on the Scalia plurality. And for specifics on a proposal, I refer you to my written testimony, page 15. Thank you very much.

[The prepared statement of Mr. Hopper follows:]

November 29, 2017

Subcommittee on Environment
The Future of WOTUS: Examining the Role of States
United States House of Representatives
Committee on Science, Space, and Technology

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A SUMMARY

The 2015 WOTUS rule may be the broadest expansion of federal power in the history of the Nation. Through an unprecedented interpretation of “waters of the United States,” the WOTUS rule imposes complete federal control over virtually all waters and much of the land in the Country subjecting millions of citizens to potential civil and criminal sanctions for ordinary land use contrary to express congressional intent and Supreme Court precedent. The rule also usurps the traditional power of the States to manage and regulate local land and water resources in violation of the U.S. Constitution.

More than 30 States and 70 private and community parties, including counties, industry, ranchers, farmers, builders, and other landowners, sued to overturn the rule. Two federal courts determined the WOTUS rule may be invalid because it is likely inconsistent with the Clean Water Act, the Supreme Court’s *Rapanos* decision, including Justice Kennedy’s broad “significant nexus” test, and appears arbitrary and lacking in scientific support. Moreover, these courts held the rule must be stayed to protect the States from losing their sovereignty and the general public from irreparable harm that follows from government overreaching. Revision of the WOTUS rule is therefore prudent and necessary.

To address the concerns raised in the 2015 WOTUS rule, overzealous agency action must be restrained by statutory amendment or regulatory directive. In either case, the law must be clear and unambiguous. It must be understandable to ordinary citizens and consistently and fairly applied. To that end, the government should focus on protecting core water resources and not small, insubstantial threats. Faithful adherence to the Scalia plurality in *Rapanos* offers the most judicious approach to Clean Water Act enforcement.

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November 29, 2017

Subcommittee on Environment

*The Future of WOTUS: Examining the Role of States*

United States House of Representatives  
Committee on Science, Space, and Technology

Statement

By

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INTRODUCTION

Chairman Biggs and honorable committee members, as an attorney with the Pacific Legal Foundation (PLF), a nonprofit, public interest organization dedicated to the protection of individual liberties and private property rights, I thank you for this opportunity to provide my analysis of the future of WOTUS. I was privileged to represent John Rapanos in the U.S. Supreme Court, in *Rapanos v. United States*,<sup>1</sup> that is the impetus for the 2015 WOTUS rule. And, on behalf of PLF, I represent numerous farmers, ranchers, counties, and other landowners currently challenging the rule. The WOTUS rule authorizes federal regulation of virtually all waters in the Nation and much of the land. On its face, the rule conflicts with the language of the Clean Water Act and Supreme Court cases interpreting the act. The rule also usurps the traditional power of the States to manage local land and water resources and nullifies constitutional limits on federal authority.

BACKGROUND

The Clean Water Act<sup>2</sup> prohibits the discharge of pollutants, including dredged and fill material, into “navigable waters” without a federal permit<sup>3</sup> and

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<sup>1</sup> 547 U.S. 715 (2006).

<sup>2</sup> Clean Water Act, 33 U.S.C. §§ 1251, *et seq.*

<sup>3</sup> 33 U.S.C. § 1344(a).

defines the term “navigable waters” as “waters of the United States.”<sup>4</sup> In *Rapanos v. United States*, the Army Corps of Engineers (“Corps”) claimed the Clean Water Act covered the shallow wetlands on John Rapanos’s Michigan lots.<sup>5</sup> When he graded the lots for construction, Corps officials cited Mr. Rapanos for filling “navigable waters” without a permit in violation of the Clean Water Act.<sup>6</sup> The district court found Mr. Rapanos liable because the wetlands on his property bordered a manmade drainage ditch that flowed intermittently through a series of conduits to a navigable-in-fact watercourse miles away.<sup>7</sup> The Sixth Circuit Court of Appeals upheld the district court on the theory that any hydrological connection with a traditional navigable water was sufficient for federal jurisdiction, no matter how slight.<sup>8</sup> The U.S. Supreme Court reversed the Sixth Circuit, however, invalidating this expansive interpretation of the Clean Water Act.<sup>9</sup>

Five of the nine Justices ruled the Corps had gone too far and could not regulate all waters based solely on a hydrological (or tributary) connection to a downstream navigable-in-fact waterway.

Justices Scalia, Thomas, Alito, and Roberts, determined the language, structure, and purpose of the Clean Water Act limited federal authority to “relatively permanent, standing or continuously flowing bodies of water” commonly recognized as “streams, oceans, rivers and lakes” directly connected to traditional or navigable-in-fact waterways.<sup>10</sup> The Scalia plurality would also authorize federal regulation of wetlands physically abutting these water bodies, but only if they have a continuous surface water connection whereby the wetland and water body are literally “indistinguishable.”<sup>11</sup>

Although Justice Kennedy joined the four-justice plurality in rejecting federal regulation of any and all tributaries to navigable-in-fact waterways, providing a five-member majority in favor of Mr. Rapanos, he proposed a different standard for determining “waters of the United States” pursuant to the Clean Water Act. Under a “significant nexus”<sup>12</sup> test, Justice Kennedy would allow the federal government to regulate a wetland if it significantly affects a navigable-in-fact waterway.<sup>13</sup> According to Justice Kennedy, this approach would exclude from federal regulation

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<sup>4</sup> 33 U.S.C. § 1362(7).

<sup>5</sup> *Rapanos*, 547 U.S. at 719, 729–30 (2006).

<sup>6</sup> *Id.*

<sup>7</sup> See *United States v. Rapanos*, 190 F.Supp. 2d 1011, 1013 (E.D. Mich. 2002).

<sup>8</sup> See *United States v. Rapanos*, 376 F.3d 629, 642 (6th Cir. 2004). See *id.* at 639.

<sup>9</sup> *Rapanos*, 547 U.S. at 757.

<sup>10</sup> *Id.* at 716, 739.

<sup>11</sup> *Id.* at 755.

<sup>12</sup> *Id.* at 759 (Kennedy, J., concurring).

<sup>13</sup> *Id.* at 780.



remote drains, ditches, and streams (and adjacent wetlands) with insubstantial flows and only speculative evidence of a “significant nexus.”<sup>14</sup>

The four Justices in the dissent (Stevens, Souter, Ginsburg, and Breyer) took the view that the Corps could regulate essentially any feature that advanced the statutory goal of maintaining the “chemical, physical, and biological integrity of the Nation’s waters.”<sup>15</sup> The dissent would therefore authorize federal regulation of the entire hydrological chain on the premise that virtually all waters are interconnected and therefore affect the integrity of the Nation’s waters.

The 2015 WOTUS rule was adopted in putative reliance on the Kennedy “significant nexus test,” but in effect the rule incorporated the view of the *Rapanos* dissent authorizing the regulation of virtually all waters based on their interconnectedness.<sup>16</sup>

#### PROBLEMS WITH THE 2015 WOTUS RULE

The 2015 WOTUS rule<sup>17</sup> is unprecedented. Under the guise of redefining the statutory term “waters of the United States” under the Clean Water Act, as interpreted by the Supreme Court in *Rapanos*, the Army Corps of Engineers and the Environmental Protection Agency expanded the scope of their own authority to encompass nearly all waters and huge swaths of land throughout the country. These agencies arrogated to themselves a virtually limitless power to regulate local land and water use in direct opposition to congressional intent, judicial precedent, and constitutional constraints. The implications of this rule for national land-use regulation, executive power, and constitutional norms cannot be overstated.

The 2015 WOTUS rule defines navigable “waters of the United States” expansively to include:

1. All waters which are or were or may be used in interstate or foreign commerce;
2. All interstate waters;
3. The territorial seas;
4. All impoundments of any “waters of the United States;”
5. All tributaries to waters 1-3. A “tributary” means a water that contributes flow directly or through another water

<sup>14</sup> *Id.* at 779–81.

<sup>15</sup> *Id.* at 787. (Stevens, J., dissenting).

<sup>16</sup> See *Technical Support Document for the Clean Water Rule: Definition of Waters of the United States* (May 27, 2015).

<sup>17</sup> *Clean Water Rule: Definition of Waters of the United States*. 80 Fed. Reg. 37054 (June 29, 2015).

(including any impoundment), to waters 1-3, that has physical indicators of a bed and bank and an ordinary high water mark. A tributary may be natural or man-made;

6. All waters adjacent to waters 1-5. "Adjacent" means bordering, contiguous, or neighboring. "Neighboring" means within 100 feet of the ordinary high water mark of waters 1-5. And, all waters within the 100-year floodplain of waters 1-5 and not more than 1,500 feet from the ordinary high water mark. Also, all waters within 1,500 feet of the high tide line of waters 1-3;
7. All of the following waters that have been determined on a case-by-case basis to have a significant nexus to waters 1-3: prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands. "Significant nexus" means that a water, alone or in combination with similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of waters 1-3. "Significant" means more than speculative or insubstantial and includes effects on any of nine factors;
8. All waters located within the 100-year floodplain of waters 1-3 and all waters within 4,000 feet of the high tide line or ordinary high water mark of waters 1-5 when they have a significant nexus to waters 1-3; and,
9. Some waters are excluded from federal regulation under the Final Rule.<sup>18</sup>

Attesting to the remarkable sweep of the WOTUS rule, and its onerous effect on the regulated public, the rule was immediately challenged by 31 states and approximately 70 other parties representing industry, landowners, ranchers, farmers, builders, and others. The parties challenged the rule on several grounds, some of which I summarize here.

#### **Illegal Inclusion of All Tributaries**

The 2015 WOTUS Rule defines "waters of the United States" to include all tributaries with a bed and bank and ordinary high water mark. In *Rapanos*, however, a majority of the Supreme Court held the term "waters of the United States" does not include all tributaries. See plurality opinion, Scalia, J. (Rejecting the regulation of

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<sup>18</sup> *Id.* at 37104-37106.

tributaries based on an ordinary high water mark because “[t]his interpretation extended ‘the waters of the United States’ to virtually any land feature over which rainwater or drainage passes and leaves a visible mark—even if only ‘the presence of litter and debris.’”<sup>19</sup> See also Justice Kennedy’s concurrence (Rejecting categorical regulation of tributaries with an ordinary high water mark because “the breadth of this standard . . . [would] leave wide room for regulation of drains, ditches and streams remote from any navigable-in-fact water and carrying only minor water volumes toward it . . .”).<sup>20</sup>

### **Overbroad Definition of Adjacent Waters**

It is axiomatic that if the regulation of all tributaries is invalid then the categorical regulation of all waters adjacent to such tributaries is also invalid. See Kennedy concurrence (Holding that the overly broad regulation of all tributaries “precludes its adoption as the determinative measure of whether adjacent wetlands are likely to play an important role in the integrity of an aquatic system comprising navigable waters as traditionally understood. Indeed, in many cases wetlands adjacent to tributaries covered by this standard might appear little more related to navigable-in-fact waters than were the isolated ponds held to fall beyond the Act’s scope in *SWANCC*”<sup>21</sup>).<sup>22</sup>

### **Lack of Scientific Evidence**

The distance-based definitions on which the rule relies fail for lack of evidentiary support. The Agencies’ only explanation for this approach is that the various distances are “reasonable and practical boundar[ies],” consistent with unspecified “experience” and “the implementation value of drawing clear lines.”<sup>23</sup> But the Agencies’ own experts specifically *rejected* the Corps and EPA’s distance-based approach, explaining that “the available science supports defining adjacency or determination of adjacency on the basis of functional relationships, not on how close an adjacent water is to a navigable water.”<sup>24</sup> Nothing in the record explains, for example, why a 1,500 or “a 4,000 foot standard is scientifically supportable.”<sup>25</sup> As the District of North Dakota explained, “[w]hile a ‘bright line’ test is not in itself arbitrary, the Rule must be supported by some evidence why a 4,000 foot standard is scientifically supportable. On the record before the court, it appears that the standard is the right standard [only] because the Agencies say it is.”<sup>26</sup>

<sup>19</sup> *Rapanos*, 547 U.S. at 725.

<sup>20</sup> *Id.* at 781.

<sup>21</sup> *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001)(*SWANCC*).

<sup>22</sup> *Rapanos*, 547 U.S. at 781-82.

<sup>23</sup> 80 Fed. Reg. at 37,085-91

<sup>24</sup> Letter from Science Advisory Board to Gina McCarthy, EPA-SAB-14-007, at \*2-3 (Sept. 30, 2014).

<sup>25</sup> District of North Dakota Preliminary Injunction at 13.

<sup>26</sup> *Id.*

According to a detailed *Bloomberg* article,<sup>27</sup> top officials at the Corps of Engineers warned the WOTUS rule was shoddy and ill-advised. “To briefly summarize: our technical review . . . indicate[s] the [C]orps data provided to EPA has been selectively applied out of context, and mixes terminology and disparate datasets. In the [C]orps’ judgment, the documents contain numerous inappropriate assumptions, with no connection to the data provided, misapplied data, analytical deficiencies, and logistical inconsistencies.” Maj. Gen. John Peabody, Deputy Commanding General for Civil and Emergency Operations.

The article concludes with this statement: “The documents reveal a dysfunctional process within and between the agencies, where political officials were making decisions over the vigorous objections and against the findings of agency staff, without taking the time to address the concerns,” Don Parrish, the [American Farm Bureau’s] senior regulatory relations director, told Bloomberg BNA in an e-mail. “They show an ‘ends justify the means—get it done now, no matter what’ mentality that is not appropriate for agency rulemaking on such an important issue.”<sup>28</sup>

#### **Invalid Inclusion of Isolated Waters**

The WOTUS rule purports to regulate all waters within 4,000 feet of another jurisdictional water if it has a “significant nexus” to an interstate water or navigable-in-fact water. This necessarily includes “isolated waters” which the Supreme Court held in *SWANCC* cannot be regulated under the Clean Water Act.<sup>29</sup> In *Rapanos* all nine justices acknowledged that *SWANCC* precluded the regulation of isolated water bodies. See, e.g., Scalia, J., for the plurality (In *SWANCC* “we held that ‘nonnavigable, isolated, intrastate waters,’ []—which, unlike the wetlands at issue in *Riverside Bayview*, did not ‘actually abu[t] on a navigable waterway,’ []—were not included as ‘waters of the United States.’”);<sup>30</sup> (Kennedy, J.: “Congress’ choice of words creates difficulties, for the Act contemplates regulation of certain ‘navigable waters’ that are not in fact navigable. [] Nevertheless, the word ‘navigable’ in the Act must be given some effect. Thus, in *SWANCC* the Court rejected the Corps’ assertion of jurisdiction over isolated ponds and mudflats bearing no evident connection to navigable-in-fact waters.”);<sup>31</sup> and, see Stevens, J. (dissent, recognizing isolated water bodies are not jurisdictional under *SWANCC*).<sup>32</sup>

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<sup>27</sup> “Support Documents for Water Rule ‘Flawed,’ Corps Memo,” dated July 28, 2015.

<sup>28</sup> *Id.*

<sup>29</sup> *SWANCC*, 531 U.S. at 172.

<sup>30</sup> *Rapanos*, 547 U.S. at 726.

<sup>31</sup> *Id.* at 779.

<sup>32</sup> *Id.* at 795.

### **Failure to Provide Notice and Comment**

Federal agencies must conduct rule-making in accordance with the Administrative Procedure Act which requires public notice of substantive rule changes and an opportunity for public comment on those changes.<sup>33</sup>

Among other things, the Final 2015 WOTUS rule substantially changed the category of “adjacent waters” from the Proposed Rule by adding a definition of “neighboring” that includes: (1) all waters located within 100 feet of the ordinary high water mark of certain waters; (2) all waters within the 100-year floodplain and 1,500 feet of the ordinary high water mark of certain waters; and (3), all waters located within 1,500 feet of the high tide line of certain waters.

The WOTUS rule substantially changed the category of “other waters” from the Proposed Rule by aggregating normally isolated waters to determine if they will have a “significant nexus” with downstream navigable-in-fact-waters including: Prairie potholes; Carolina and Delmarva bays; pocosins; western vernal pools in California; and, Texas coastal prairie wetlands.

The WOTUS rule also substantially changed the category of “other waters” from the Proposed Rule by allowing case-by-case analysis of all waters within 4,000 feet of any other covered water.

And, the WOTUS rule substantially changed the case-by-case analysis for determining a “significant nexus” from the Proposed Rule by defining such a nexus based on the effect of any one of nine factors including: (i) sediment trapping; (ii) nutrient recycling; (iii) pollutant trapping, transformation, filtering, and transport; (iv) retention and attenuation of flood waters; (v) runoff storage; (vi) contribution of flow; (vii) export of organic matter; (viii) export of food resources; and, (ix) provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in certain waters.

None of these changes were subject to public notice and comment.

### **Exceeding the Commerce Power**

In *SWANCC*,<sup>34</sup> the Supreme Court recognized that federal regulation of small water bodies, such as ponds and mudflats, likely exceeded the scope of the commerce power as limited by that court’s decisions in *United States v. Lopez*<sup>35</sup> and *United States v. Morrison*.<sup>36</sup> The Supreme Court raised similar concerns in

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<sup>33</sup> 5 U.S.C. § 553(b)&(c).

<sup>34</sup> *SWANCC*, 531 U.S. at 173.

<sup>35</sup> 514 U.S. 549 (1995),

<sup>36</sup> 529 U.S. 598 (2000).

*Rapanos* over the Corps' broad interpretation of tributaries and adjacent wetlands. "Likewise, just as we noted in *SWANCC*, the Corps' interpretation stretches the outer limits of Congress's commerce power."<sup>37</sup> But the WOTUS rule goes even further than the interpretation of "waters of the United States" advanced in *SWANCC* and *Rapanos* to encompass waters, and even normally dry land (e.g., within the 100-year floodplain), with absolutely no connection to navigable waters or interstate commerce in clear violation of constitutional authority.<sup>38</sup>

### Usurpation of State Authority

One of the more egregious problems with the WOTUS rule is its flagrant disregard for principles of federalism inherent in the constitutional structure and expressly acknowledged by Congress in the text of the Clean Water Act.

The WOTUS rule extends federal jurisdiction so far into local land and water resources that it necessarily undermines State power, in violation of the Tenth Amendment. The Tenth Amendment Provides that "[t]he powers not delegated to the United States by the Constitution . . . are reserved to the States respectively, or to the people."<sup>39</sup> Congress did not mince words on the role of the States in maintaining the integrity of the Nation's waters: "It is the policy of the Congress to recognize, **preserve and protect the primary responsibilities and rights of the States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources . . .**"<sup>40</sup> Rather than preserve and protect these rights and responsibilities, the WOTUS Rule eviscerates them.

The Clean Water Act is clear; to achieve the act's objective, Congress intended to rely on the States, not usurp their power. Maintaining the integrity of the Nation's waters would necessarily involve shared responsibilities. The statutory text suggests the Federal Government would regulate downstream navigable waters (as it has historically done) while the States regulate upstream non-navigable waters (as they have historically done). Moreover, Congress would not dictate to the States but would defer to the States to "prevent, reduce, and eliminate pollution" in their land use planning.

This approach to "cooperative federalism" provides an equitable allocation of scarce regulatory resources while preserving and protecting the acknowledged rights and responsibilities of the States to control local land and water resources in

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<sup>37</sup> *Rapanos*, 547 U.S. at 738 (Scalia, J., for the plurality)

<sup>38</sup> For a more detailed analysis of this argument, I refer the committee to my testimony at the Joint Hearing on Impacts of the Proposed Waters of the United States Rule on Local and State Governments, House Committee on Transportation and Infrastructure and Senate Committee of Environment and Public Works, dated February 4, 2015.

<sup>39</sup> U.S. Const. amend. X.

<sup>40</sup> 33 U.S.C. § 1215(b)(emphasis added).

furtherance of the balance of power established by the Framers. And, of equal importance, it demonstrates Congress' recognition that it has limited constitutional power to regulate local land and water resources.

However, the 2015 WOTUS rule only gives lip service to this congressional mandate suggesting that the States are adequately protected because they can impose more rigorous standards on pollutant discharges than the federal regulations. But this is an empty power because it still subjects the States' traditional land use authority to federal mandates. This robs the States of any meaningful control over their land and water resources that both Congress and the Framers explicitly sought to protect.

Permitting respondents to claim federal jurisdiction over ponds and mudflats . . . would result in a significant impingement of the States' traditional and primary power over land and water use. See, *e.g.*, *Hess v. Port Authority Trans-Hudson Corporation*, 513 U.S. 30, 44, 130 L.Ed.2d 245, 115 S. Ct. 394 (1994) ("Regulation of land use [is] a function traditionally performed by local governments"). Rather than expressing a desire to readjust the federal-state balance in this manner, Congress chose to "recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources . . ." 33 U.S.C. §1251(b). We thus read the [Clean Water Act] as written to avoid the significant constitutional and federalism questions raised by respondents' interpretation, and therefore reject the request for administrative deference.<sup>41</sup>

These arguments are not academic. The courts relied on these arguments, and others, to enjoin the rule from active enforcement. They serve as a caution to the Corps and EPA in revising a new WOTUS rule.

#### THE COURTS STAY THE WOTUS RULE

Many state and private plaintiffs challenged the 2015 WOTUS rule in the federal district and appellate courts. Some of the district court cases are still pending while others were dismissed when the Sixth Circuit Court of Appeals asserted sole jurisdiction to hear any challenges to the WOTUS rule. None of these courts has issued a definitive ruling on the validity of the rule. However, two courts issued stays of the rule pending further litigation on the merits.

The first court to issue a stay was the District Court of North Dakota where 13 States brought suit to overturn the rule.<sup>42</sup> That court issued a stay (or preliminary injunction) within the plaintiff States based on a number of

<sup>41</sup> *SWANCC*, 531 U.S. at 174.

<sup>42</sup> *North Dakota v. U.S. E.P.A.*, 127 F.Supp.3d 1047 (DND 2015).

factors, including: (1) the likelihood the States will succeed on the merits; (2) the potential for irreparable harm to the States if the rule is not stayed; (3) the balance of harms; and (4), the public interest.

The district court ruled the States are likely to succeed on the merits because the rule appears overbroad and does not satisfy the Kennedy “significant nexus” test as set forth in *Rapanos*.<sup>43</sup> And further, the inclusion of all tributaries and the distance limitations is likely not supported by scientific evidence or authorized by the Clean Water Act.<sup>44</sup> Also, the court held the final rule was not likely a proper outgrowth of the proposed rule thus depriving the States proper notice and opportunity for comment under the rule-making process set forth in the Administrative Procedure Act.<sup>45</sup>

With respect to the second factor, the court held the WOTUS rule will cause the States irreparable harm in two respects. First, if the rule is implemented it will diminish the States’ “traditional and primary power over land and water use” resulting in a loss of sovereignty over intrastate waters.<sup>46</sup> Second, the States will suffer uncompensated monetary loss from the increased costs associated with complying with a likely invalid rule.<sup>47</sup>

Finally, the court weighed the balance of harm to the States against the benefit of the rule to the public and concluded that while a small portion of the public would benefit from the greater certainty the WOTUS rule would provide, “[a] far broader segment of the public would benefit from the preliminary injunction because it would ensure that federal agencies do not extend their power beyond the express delegation from Congress.”<sup>48</sup> Therefore, “the greater public interest favors issuance of the preliminary injunction.”<sup>49</sup>

In the Sixth Circuit, 18 additional states challenged the WOTUS rule calling for the Court to stay the rule and halt its enforcement nationwide.<sup>50</sup> That court applied the same analysis as did the District of North Dakota and with the same result. The court concluded the States would likely prevail on their arguments that the WOTUS rule is not supported by the scientific evidence, the Kennedy “significant nexus” test is not met, and the rule exceeds statutory authority.<sup>51</sup> Moreover, the Sixth Circuit stated: “What is of greater concern to us, in balancing the harms, is the burden—potentially visited nationwide on governmental bodies, state and federal, as

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<sup>43</sup> *Id.* at 1056.

<sup>44</sup> *Id.* at 1056-1057.

<sup>45</sup> *Id.* at 1058.

<sup>46</sup> *Id.* at 1059.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 1060.

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

<sup>50</sup> *In re E.P.A.*, 803 F.3d 804 (6<sup>th</sup> Cir. 2015).

<sup>51</sup> *Id.* at 807-808.



well as private parties—and the impact on the public in general, implicated by the Rule’s effective redrawing jurisdictional lines over certain of the nation’s waters.”<sup>52</sup> The court concluded, therefore, that “the sheer breadth of the ripple effects caused by the Rule’s definitional changes counsels strongly in favor of maintaining the status quo for the time being.”

Accordingly, the 2015 WOTUS rule is stayed nationwide.

### THE EFFECT OF THE STAY

The Sixth Circuit addressed the effect of its stay by addressing the court’s rationale for granting the stay and explaining the necessary result.

A stay allows for a more deliberate determination whether this exercise of Executive power, enabled by Congress and explicated by the Supreme Court, is proper under the dictates of federal law. A stay temporarily silences the whirlwind of confusion that springs from uncertainty about the requirements of the new Rule and whether they will survive legal testing. A stay honors the policy of cooperative federalism that informs the Clean Water Act and must attend the shared responsibility for safeguarding the nation’s waters. *See* 33 U.S.C. § 1251(b) (“It is the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of the States to prevent, reduce, and eliminate pollution.”). In light of the disparate rulings on this very question issued by district courts around the country—enforcement of the Rule having been preliminarily enjoined in thirteen states<sup>4</sup>—a stay will, consistent with Congress’s stated purpose of establishing a national policy, 33 U.S.C. § 1251(a), **restore uniformity of regulation under the familiar, if imperfect, pre-Rule regime, pending judicial review.**<sup>53</sup>

The problem with this approach is that the “pre-Rule regime,” which relied on the 1977/1988 regulations and the 2008 Rapanos Guidelines, is not much better than the 2015 WOTUS rule. To the contrary, the “pre-Rule regime” led to the very excesses and inconsistencies the Corps and EPA claimed would be remedied with the ill-fated WOTUS rule.

The Corps and the EPA have a history of exceeding their authority under the Clean Water Act. Some of this can be attributed to ambiguity in the law, but the primary problem is willful overreach.

According to the General Accountability Office (GAO), local districts of the Corps “differ in how they interpret and apply the federal regulations when

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<sup>52</sup> *Id.*

<sup>53</sup> *Id.* at 808 (emphasis added).

determining what wetlands and other waters fall within the [Clean Water Act's] jurisdiction."<sup>54</sup> But worse than the *inter*-district inconsistencies are the *intra*-district inconsistencies. The GAO reports that even Corps staff working in the same office disagree on the scope of the Act and that "three different district staff" would likely make "three different assessments" as to whether a particular water feature is subject to the Clean Water Act.<sup>55</sup>

But this is by design. The Corps and EPA have not strived for clarity. To the contrary, federal enforcement practices differ from district to district because "the definitions used to make jurisdictional determinations' are deliberately left 'vague.'"<sup>56</sup> This allows federal officials the freedom to assert the broadest possible interpretation of Clean Water Act jurisdiction, on a case-by-case basis, so as to avoid any facial challenge to their regulatory authority. In fact, the 2008 *Rapanos* Guidelines encourage this sort of ad hoc analysis.

Examples of vague "pre-Rule" regulatory definitions abound. The definition of "wetland" is so broad it encompasses areas that are wet only "for one to two weeks per year."<sup>57</sup> In other words, a "wetland" may be mostly dry land.<sup>58</sup> A more ironic characterization of a wet land would be hard to conceive. Under this definition, approximately 100,000,000 acres of wetlands are located in the lower 48 states—an area the size of California.<sup>59</sup> About 75% of these wetlands are located on private land.<sup>60</sup> Wetlands cover half the State of Alaska.<sup>61</sup> Next to Alaska, the states with the largest wetland acreage are Florida (11 million), Louisiana (8.8 million), Minnesota (8.7 million), and Texas (7.6 million).<sup>62</sup>

Likewise, under the "pre-Rule regime," the Corps and EPA interpret the term "discharge" to include the mere movement of soil in the same area without any addition of material.<sup>63</sup> Contrary to ordinary use and commonsense, "adjacent"

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<sup>54</sup> U.S. General Accounting Office, *Report to the Chairman, Subcommittee on Energy Policy, Natural Resources and Regulating Affairs, Committee on Government Reform, House of Representatives, Waters and Wetlands: Corps of Engineers Needs to Evaluate Its District Office Practices in Determining Jurisdiction*, GAO-04-297 (Feb. 2004)(GAO Report).

<sup>55</sup> *Id.* at 22.

<sup>56</sup> *Rapanos v. United States*, 547 U.S. 715, 727, 781 (2006) (citing GAO Report).

<sup>57</sup> Gordon M. Brown, *Regulatory Takings and Wetlands: Comments on Public Benefits and Landowner Cost*, 21 Ohio N.U. L. Rev. 527, 529 (1994).

<sup>58</sup> See *United States v. Mills*, 817 F. Supp. 1546, 1548 (N.D. Fla. 1993).

<sup>59</sup> See [http://water.epa.gov/type/wetlands/vital\\_status.cfm](http://water.epa.gov/type/wetlands/vital_status.cfm) (last visited Nov. 2, 2011).

<sup>60</sup> See Jonathan H. Adler, *Wetlands, Waterfowl, and the Menace of Mr. Wilson: Commerce Clause Jurisprudence and the Limits of Federal Wetland Regulation*, 29 *Envl. L.* 1, 26, 52 (1999).

<sup>61</sup> See [http://water.epa.gov/type/wetlands/vital\\_status.cfm](http://water.epa.gov/type/wetlands/vital_status.cfm) (last visited Nov. 2, 2011).

<sup>62</sup> *Id.*

<sup>63</sup> See *Borden Ranch Partnership v. United States Army Corps of Engineers*, 261 F.3d 810 (9th Cir. 2001). See also, *Duarte Nursery v. United States Army Corps of Engineers*, 2016 WL4717986 (EDC 2016).

becomes “neighboring”<sup>64</sup>—sometimes miles away—and “tributary” includes “swales” and “storm drains.”<sup>65</sup> The 2008 *Rapanos* Guidelines add to the confusion because they are inconsistent with the *Rapanos* decision; unduly expanding the Scalia plurality and Justice Kennedy’s “significant nexus” test.

This jurisdictional ambiguity is more than a theoretical concern. Regulatory uncertainty permeates the enforcement decisions of the Corps and EPA. Those decisions become the basis for imposing multimillion dollar penalties and seeking criminal prosecution.

Nevertheless, the Administration appears to endorse this approach. On November 16, 2017, the Corps and EPA issued a joint press release announcing they would soon publish a rule-making in the Federal Register that would delay the effective date of the 2015 WOTUS rule for two years. This would codify the result of the Sixth Circuit stay and reinstate the prior regulatory scheme that has proved so problematic.

#### THE EFFECT OF THE EXECUTIVE ORDER

The aforementioned two-year delay in the effective date for the 2015 WOTUS rule is to allow the agencies time to revise and reissue the WOTUS rule in accord with the *Presidential Executive Order on Restoring the Rule of Law, Federalism, and Economic Growth, by Reviewing the “Waters of the United States: Rule*, dated February 28, 2017. Legally, this is a prudent move. As noted above, although no court has definitively ruled on the validity of the 2015 WOTUS rule, a district court and an appellate court have determination that the rule is likely invalid and cannot stand. This is a sufficient basis for replacing the rule more in keeping with the statute, Supreme Court precedent, and constitutional constraints on federal power.

The key to successfully revising the rule to adhere to the rule-of-law, while protecting economic growth, is to focus the rule on a proper interpretation of the *Rapanos* decision. The 2015 WOTUS rule relied on an exaggerated interpretation of Justice Kennedy’s “significant nexus” test which the North Dakota Court and the Sixth Circuit both found suspect. The President’s Executive Order properly directs the Corps and EPA to revise the WOTUS rule “in a manner consistent with the opinion of Justice Scalia” in *Rapanos*, which was adopted by four Justices, as opposed to Justice Kennedy’s lone concurring opinion. The Scalia plurality is more in keeping with the original intent of Congress to protect and preserve the traditional and primary power of the States to regulate local land and water resources free of the dictates of federal officials. And, it’s the only opinion in the *Rapanos* decision consistent with the Supreme Court’s standard for interpreting split decisions. In defense of this view, I have written a law review article entitled,

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<sup>64</sup> 33 CFR 328.3(c).

<sup>65</sup> *Rapanos*, 547 U.S. 722 (J. Scalia).

*Running Down the Controlling Opinion in Rapanos v. United States*, which is available for reading at SSRN.com<sup>66</sup> Here is a summary of the article:

In *Rapanos v. United States*, the Supreme Court sought to define the scope of the Clean Water Act.<sup>67</sup> The Court split on a 4-1-4 vote.<sup>68</sup> Consequently, the lower courts must decide the controlling opinion. In putative reliance on the Supreme Court's standard for interpreting fractured decisions, set forth in *Marks v. United States*,<sup>69</sup> the circuit courts have either adopted the lone Kennedy concurrence or rejected *Marks* as unworkable in favor of an either/or test allowing the government to establish federal jurisdiction under either the Kennedy concurrence or the Scalia plurality in *Rapanos*. In each case, the circuit court either misconstrued *Marks* or misinterpreted *Rapanos*. This article makes the case that *Marks* is readily adaptable to the *Rapanos* decision and the Scalia plurality is controlling. Whenever the plurality would find a jurisdictional water, Justice Kennedy would agree because the plurality test is a logical subset of Justice Kennedy's broader "significant nexus" test. Together, the four Justices in the plurality and Justice Kennedy constitute a five-member majority—in accordance with *Marks*.

#### THE REVISED WOTUS RULE (A PROPOSAL)

Even if the Corps and EPA draft a WOTUS rule that textually achieves the President's laudable goal of balancing the rule-of-law with economic growth, and satisfies all the appropriate statutory, judicial, and constitutional standards, it will all be for naught if these agencies do not fairly and consistently apply the rule. What's really needed in the short and long term is agency restraint, whatever rule the agencies adopt. The problem doesn't lie only with the regulatory language, but with overzealous enforcement. Government officials should focus on protecting core water resources instead of pushing the envelope on federal power by prosecuting minor or imaginary infractions such as digging a drainage ditch, creating a stock pond, plowing farmland, or building a house in a built-out subdivision, like it does now under the "pre-Rule regime." I fear these agencies are incapable, institutionally, of reining in abusive agency action.

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<sup>66</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2983915](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2983915)

<sup>67</sup> *Rapanos v. United States*, 547 U.S. 715, 730–32 (2006).

<sup>68</sup> *Id.* at 718.

<sup>69</sup> *Marks v. United States*, 430 U.S. 188, 193 (1977).

The ultimate remedy for this problem is a clear, unambiguous *statutory* definition of “waters of the United States” that cannot be misunderstood, misinterpreted, or misapplied through subsequent regulation, guidance, or practice.

But, a regulatory “fix” is better than no “fix” at all. After long study of the Scalia opinion and review of many different proposals for a new WOTUS rule, I suggest this simplified approach to defining “waters of the United States” under the Clean Water Act.

Amend 33 C.F.R. § 328.3 to read:

a. The term “waters of the United States” includes ONLY:

1. Those waters that are navigable-in-fact and currently used or susceptible to use in interstate or foreign commerce. These waters include the territorial seas.

2. Permanent, standing or continuously flowing streams, rivers, and lakes directly connected to navigable-in-fact waters described in a.1. Continuously flowing means an uninterrupted flow except in extreme weather conditions such as drought. These waters do not include groundwater or channels through which waters flow intermittently or ephemerally, or channels that provide only periodic drainage, such as from rainfall.

3. Those wetlands that directly abut and are indistinguishable from the waters described in a.1. and a.2. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Wetlands are indistinguishable from the waters described in a.1. and a.2. when the wetlands and waters have merged so there is no clear demarcation between the two.

This definition would reduce federal regulation of local waters that the States can and should regulate while providing a measure of certainty to the regulators and regulated public consistent with the Scalia opinion, the text of the Clean Water Act, the President's Executive Order, and constitutional limitations.

#### WHAT ABOUT JURISDICTION?

It is certain that the new WOTUS rule will be challenged in court as too narrow or too broad. It is essential therefore that affected parties know where to

bring such challenges—in the district courts or the courts of appeals. This is still an open question but one that will soon be answered by the Supreme Court in *National Association of Manufacturers v. DOD* (No. 16-299), to which PLF is party.

One of the most fundamental rights of American citizens is the right to seek redress from illegal government action in a court of law. But the federal government has an arsenal of weapons it wields to deny or curtail this right. Nowhere is this more prevalent than in the government's attempts to stifle landowner suits challenging federal agency action under the Clean Water Act.

When a landowner challenges the federal government's legal authority to regulate local land or water use under the act, the government response is as predictable as night follows day. First, the government attacks the landowner's standing to bring the suit arguing the landowner suffered no unique harm from the agency's illegal conduct. If that does not work, the government argues the landowner has not exhausted all administrative remedies or the case is not yet ripe for judicial review because the agency action is not final. Failing that, the government may argue the courts owe the agency complete deference in its interpretation of the law and its "expert opinions" should not be disturbed.

The EPA employed these tactics against the Sacketts<sup>70</sup> when they sought judicial review of an EPA "compliance order" directing the Sacketts to cease all work on the construction of a modest home they intended to build on an apparently dry half-acre lot in a built-out subdivision that no ordinary person would call a navigable "water of the United States." The Corps of Engineers relied on similar arguments in seeking dismissal of suits brought by Hawkes Company<sup>71</sup> and Kent Recycling<sup>72</sup> when they went to court to overturn blatantly invalid "Jurisdictional Determinations" issued by the Corps that allowed the government to stop their wetland projects the government opposed.

In each of these cases, the landowners sought only one thing--their constitutional right to their day in court. For over forty years, the courthouse doors were closed to landowners who simply wanted a court of law to declare whether the federal government had the power to dictate the use of their land under the Clean Water Act when it was apparent the government had gone too far and exceeded its statutory or constitutional authority. This attempt to stifle citizen access to the courts is a breach of the public trust. It elevates the subjective values of government officials, which are not protected by the constitution, above the rights of American citizens, which are protected by the constitution. In short, when illegal government

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<sup>70</sup> *Sackett v. EPA*, 566 U.S. 120 (2012).

<sup>71</sup> *U.S. Army Corps of Engineers v. Hawkes Co.*, 136 S.Ct.1807 (2016).

<sup>72</sup> *Kent Recycling Services v. U.S. Army Corps of Engineers*, 136 S.Ct.2427 (2016).

action is exempt from judicial review, government officials become a law unto themselves.

Fortunately, in each of these PLF cases--*Sackett*, *Hawkes*, and *Kent Recycling*--the U.S. Supreme Court unanimously held that landowners could exercise their right to seek redress in the courts in the face of overreaching government actions under the Clean Water Act. But this was not enough to deter the government from seeking to curtail judicial review of the Corps' and EPA's controversial WOTUS rule.

When PLF challenged the rule in district court, representing eleven landowners from seven states, the government sought to have the case dismissed claiming the proper venue for such a challenge is the Court of Appeals. This would have the effect of narrowing the window for challenging the WOTUS rule, and rules like it that define federal jurisdiction under the act, to 120 days, instead of the usual 6 years afforded review in the district courts.

Last month, the Supreme Court heard oral argument on this very issue in *National Association of Manufacturers v. Department of Defense* (Case No. 16-299). The justices appeared to side with National Association of Manufacturers, PLF, the States, and others that the text of the Clean Water Act is clear and does not support the government's interpretation.

Several justices were concerned that the government's interpretation, which relies on a "practical reading" of the act, rather than on an "ordinary reading" of the act, would cause confusion because no one could rely on the plain text to determine when and where they could challenge the WOTUS rule. Chief Justice Roberts expressed the concerns raised by PLF that the government's narrow reading would harm landowners who may not know for several years whether the WOTUS rule even applies to them. They would be cut off from directly challenging the rule, and federal jurisdiction, if they missed the short 120-day window the government urged on the court. The primary reason the government gave for its crabbed reading of the act is that it would be more efficient for the government and the courts if challenges to the WOTUS rule were funneled through a single appeals court rather than multiple district courts throughout the country. However, the Petitioners countered that the Supreme Court held in PLF's *Sackett* case that administrative efficiency and convenience does not trump the People's right to meaningful access to the courts to counter overreaching government.

It is likely the High Court will rule in favor of landowners and that a decision will be issued soon so that the parties are clear about which court has jurisdiction to review the WOTUS rule, new or old.

**CONCLUSION**

Once again, I thank the committee for the opportunity to comment on the future of the WOTUS rule. The rule affects literally millions of private and public landowners nationwide. I commend the committee for its interest in this important matter.

Sincerely,  
M. Reed Hopper  
Senior Attorney  
Pacific Legal Foundation



Chairman BIGGS. Thank you, Mr. Hopper. I now recognize myself for my five minutes of questions.

Mr. Mehl, since the rule has been stayed, you have a chance now to voice your concerns and discuss a mutual path forward for water regulations. The question is, do you think water regulations in this country need updating? And if so, what revisions do you think would be helpful and necessary, particularly in light of Arizona's case? Please turn on your mic. Thank you.

Mr. MEHL. Yes, absolutely, I think some changes need to be made for clarity. At least in Arizona's case you have a high degree of prevalence of dry washes, especially in alluvial wash areas where water comes off mountains and sort of spreads out over the land, creating a high degree of complexity in analyzing where waters are and where waters aren't with respect to the existing rules.

The 2015 rule resolve ambiguity in preference of total inclusion, but there's a high cost of this. There's a high cost in terms of what you pay for the analysis and just in the overall land taken through that rule. Where in Arizona where you have the only short number of days of rainfall a year and there just simply isn't much water in the system, you need to be able to use land for its highest and best purpose, and that's the mission of the State Land Department. If you have a rule that can show clearly what is and what is not included in jurisdiction, then you create a great benefit. And I think on the environmental side, you preserve what should be preserved and leave for development what should be higher density to prevent further sprawl and other environmental problems.

Chairman BIGGS. Thank you, Mr. Mehl.

And, Mr. Chilton, five generations raising cattle in Arizona, that's not an easy thing to do. With these regulations, do you know of—besides the couple that you've mentioned, your projects on your ranch, do you know of other ranchers that have had to abandon projects because the permitting process was too expensive and time-consuming?

Mr. CHILTON. I do not know of other ranchers who have had to abandon projects. Basically, ranchers avoid having to bump up against the EPA and the Corps of Engineers. It's costly. It's outrageous that if you want to build a road on your private land and drive across a wash that you have to get a permit. And Mr. Hopper's point about the costs of permitting is outrageous. We need, and other ranchers need, a clear definition of a significant nexus with a navigable river. Thank you.

Chairman BIGGS. Thank you. And, Mr. Hopper, my understanding is that the EPA expanded the various definitions of water in its rulemaking. Does this potentially increase EPA's jurisdiction to regulate private property?

Mr. HOPPER. Yes—excuse me. Yes. The EPA claims that their new rule only expands three to four percent of the area that they previously recognized. However, you have to keep in mind that, as I just mentioned in my testimony, that the Supreme Court, particularly Justice Roberts, has already castigated the agencies for exceeding their authority and using a boundless interpretation. So this is three to four percent in addition to the boundless interpretation on which they've already relied.

Chairman BIGGS. Have you seen any other federal agencies attempting to expand their jurisdiction like we're seeing here—

Mr. HOPPER. Yes.

Chairman BIGGS. —at the EPA?

Mr. HOPPER. Yes. The Fish and Wildlife Service has done the same under the Endangered Species Act, and in fact we have a case now pending in the Supreme Court to address this very issue called *Markle v. U.S. Fish and Wildlife Service*.

Chairman BIGGS. Great. Thank you. I'm going to go ahead and yield back and recognize the Ranking Member of the subcommittee, Ms. Bonamici.

Ms. BONAMICI. Thank you, Mr. Chairman.

The Supreme Court plurality decision in *Rapanos* created an uncertain regulatory environment and the Clean Water Rule as a result of the decision by the EPA and the Army Corps to provide regular—regulatory clarity in light of the *Rapanos* decision and to better define Waters of the United States. And this effort involved considering how to address the two distinct tests in *Rapanos*, one by Justice Kennedy and one by Justice Scalia, about what constitutes a water of the United States. And every federal court of appeals decision to consider this question, including one just two days ago in *United States v. Robertson* in the Ninth Circuit has held that Justice Kennedy's test to define a water of the United States is a valid test to apply.

Now, some have held that either test can be used. However, some critics of the Clean Water Rule suggest that Justice Scalia's test should be the exclusive test. The reason federal courts have used Justice Kennedy's test as an appropriate basis for determining what is protected is because of Supreme Court precedent describing how plurality decisions should be interpreted. This precedent makes clear that Justice Kennedy's test at a minimum should be used and that Justice Scalia's test should not be the exclusive basis for protection.

Mr. KOPCIS, in light of these federal court decisions, is there any legally justifiable reason for using Justice Scalia's test as an exclusive basis for Clean Water Act coverage?

Mr. KOPCIS. No, there is not. When I was at the Agency, our Office of General Counsel consulted extensively with the Department of Justice as to how to best interpret the *Rapanos* case and how to apply it, and it was the decision of all of the attorneys involved that the precedent from the Supreme Court was very clear as to how to interpret a plurality decision, and that's been reflected in all of the circuit courts to date that have ruled on the issue.

Ms. BONAMICI. Thank you. And, Mr. Kopocis, now, I've heard from some Oregonians. They've expressed some concern that the Clean Water Rule might affect their family farms and how they manage their lands. And you heard Mr. Chilton's story. What would you say in response to those who express those concerns?

Mr. KOPCIS. We at the Agency in developing the rule took the interest of agricultural properties very much into consideration. We expanded upon the existing agricultural exclusions from jurisdiction, which is significant because if it's outside of the jurisdiction of the act, you don't even have to worry about whether a permit is required. We preserved all of the existing exclusions from juris-

diction, the ones for prior converted cropland, for example, all the permit exclusions or exemptions that are in the act. We even went back in response to the comments and specifically excluded the concept of puddles. The agencies had long said that puddles were not jurisdictional in their informal documents, but—we didn't think it was necessary to put that in the proposal, but we were criticized for not doing so, so we put it back in. So we wanted to make sure that there was no ambiguity that things such as puddles, erosional features, and the like on agricultural lands or any other land would not be jurisdictional.

Ms. BONAMICI. And you heard the testimony this morning by the other witnesses. Are the points that they brought up any different from the points that were brought up during the whole Clean Water Rule public comment process?

Mr. KOPOCIS. No. We received, as you said, over a million comments on the rule. They covered every aspect of what the Agency should or should not do from the standpoint of the proposal, plus also how to make the program work better. We carefully evaluated all those comments and we made changes to the rule based on those comments.

Ms. BONAMICI. And could you also address the issue of the ephemeral or intermittent streams and elaborate on the role that intermittent and ephemeral streams play on the health of downstream waters? And also—and there's just a minute left, but could you also talk about wetlands and, considering the great economic and environmental benefits associated with wetlands, what would be the consequences of wetland habitat if the Clean Water Rule were not implemented?

Mr. KOPOCIS. Well, intermittent and ephemeral streams are the feeder streams of all of our Nation's rivers, lakes, ponds, et cetera. So if they are destroyed or polluted, then you will not be able to protect the larger waterbodies because it's simply impossible. They are basically the capillaries of the circulatory system of the hydrologic cycle. So it is important. And it's also important to note that the agencies have long asserted jurisdiction over intermittent and ephemeral streams. This is not a concept that was new to the rule.

As to the value of wetlands, the values of wetlands have been stated multiple times and have been calculated, but there are tens of millions of people who spend billions of dollars a year in wetlands-related activities, and that can be monetized. There is also the value of wetlands that they provide in terms of water quality and stormwater retention and reducing floods. If anybody doubts the value of wetlands, they don't need to look farther than the State of Louisiana, which is spending billions of dollars to restore their coastal Louisiana wetlands to protect the city of New Orleans and other communities.

Ms. BONAMICI. Thank you. My time is expired. Thank you, Mr. Chairman.

Chairman BIGGS. Thank you. The Chair recognizes the Vice Chair of the Subcommittee, Mr. Banks from Indiana.

Mr. BANKS. Thank you, Mr. Chairman, and thank you for holding this important hearing today. After hearing the testimony, I am more convinced than ever that the original WOTUS rule is an assault on transparency and accountable government. It was overly

vague; it ignored the legitimate concerns raised by farmers, ranchers, and business owners; utilized an overly broad interpretation of navigable waters unjustified by the underlying statute; and encroached on the rights of States to regulate waters within their jurisdictions.

I was proud to lead a letter earlier this year to Secretary Pruitt in support of the Agency's decision to review and rescind the original rule while also urging for its permanent withdrawal. I'm glad that the Administration is taking this issue seriously by working to rollback this rule.

WOTUS is a great example of what is wrong with our current regulatory process. Instead of working with stakeholders and carefully weighing trade-offs, the EPA looked to punish farmers and ranchers with no concern as to the rule's detrimental effects. The rule failed to acknowledge any limits on its own authority by ignoring the plaintext of the Clean Water Act, as well as the Supreme Court precedent in order to implement its ideological agenda. Unelected bureaucrats making laws is a direct threat to our constitutional system of government, and it is our job as elected representatives to make sure that these gross oversteps are stopped.

So with that, Mr. Hopper, in your testimony you write, quote, "On its face, the rule conflicts with the language of the Clean Water Act and Supreme Court cases interpreting the act. The rule also usurps the traditional power of the States to manage local land and water resources and nullifies constitutional limits on federal authority," end quote. Your testimony then goes on into detail about the lack of scientific justification for the rule and the regulatory overreach of the EPA.

So with that, could you provide a brief overview again of the ways that the EPA overstepped its authority of the rule?

Mr. HOPPER. Yes. Thank you for the question. I would refer you not merely to my testimony but to what my testimony relies on, which is the conclusion of the District Court of North Dakota, as well as Sixth Circuit, which arrived at those same conclusions. Even if the Kennedy test were to be the applicable standard, these courts found that the Agency exceeded the significant nexus standard.

In addition, it seems obvious to me that, as we look back at this 2001 SWANCC decision wherein the Supreme Court said that the regulation of ponds and mudflats exceeded the traditional power of the States to regulate local land and water use and raised constitutional questions that the same thing applies here, so I think if you simply look at what the Supreme Court has already said, what the two courts said that have stayed the rule, and one's own reading and common sense suggests that this goes beyond any statutory or constitutional limit recognized by the Court so far.

Mr. BANKS. Okay. There are nearly 12,000 farms in my district, and since a severe rainstorm could create standing water on every farm, it is conceivable that every one of the farms I represent could have been subject to this rule. So as a follow-up, what kind of effect—do you agree with that? Could a severe rainstorm create standing water on every farm that could be subject to the rule? And what kind of effect would that have on agricultural output?

Mr. HOPPER. In 2012, Pacific Legal Foundation won a unanimous Supreme Court victory in what's called the Sackett case in which we challenged the right of an individual or sought to seek the right of an individual to go to court to question federal jurisdiction when the EPA issues a compliance order. In the opinion that followed in our favor, as I said, unanimously, Justice Alito himself said that under the Agency's interpretation of the Clean Water Act it covers virtually any wet spot in the country, so I would affirm what you just said.

Mr. BANKS. Okay. Thank you. I yield back.

Chairman BIGGS. Thank you. The Chair recognizes the gentlelady from Hawaii, Ms. Hanabusa.

Ms. HANABUSA. Thank you, Mr. Chair. Mr. Chair, I'd like to have unanimous consent to put into the record a 2013 report from the Environmental Law Institute entitled "State Constraints: State-imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act." This assessment found only half of all the States currently protect waters more stringently than the federal Clean Water Act requires. This report determined that the States are not currently filling the gap left by the United States court ruling limiting the Clean Water Act and face significant obstacles doing so.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]

Ms. HANABUSA. Thank you. Mr. Chairman, I'd also like to have the letter from sportsmen and women's groups including the National wildlife Federation, the Theodore Roosevelt Conservation Partnership, Trout Unlimited, and the Arizona Wildlife Federation and others, all supporting the Clean Water Act protections laid out in the Clean Water Act rule and oppose rolling back these protections. They note hunters and anglers broadly celebrated the Clean Water Rule because it would help clarify federal jurisdictions over Waters of the United States and conserve roughly 60 percent of the stream miles and 20 million acres of wetlands at risk of being polluted or destroyed because of the jurisdictional confusion.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]

Ms. HANABUSA. Thank you, Mr. Chair.

Mr. KOPCIS, I have some questions of you. First of all, you use a very interesting phrase called repeal and retreat. So what is it that you are so concerned about that the repeal of the rule would result with?

Mr. KOPCIS. Well, repealing the rule will eliminate the advantages of the rule to provide greater clarity as to what is and is not jurisdictional under the Clean Water Act in a post-SWANCC and post-Rapanos world. The trouble that the agencies had to deal with particularly after Rapanos was that the agencies were told that the reliance on waters that the pollution or destruction of which could have an adverse effect on interstate commerce was not the test to be used. So you had a rule that was out of sync with both the Scalia opinion and the Kennedy opinion.

So as the Agency attempted to address that—and obviously, there's some disagreement as to how successful the Agency was—but the Agency was trying to address that particular issue. So re-

pealing it only restores the very confusion that everybody—and I will say everybody, whether it was the environmental community, the fish and wildlife community, it was the construction community, it was Republicans, Democrats, State, local, federal. Everybody that came said you've got to fix this. And so what they're about to do is unfix it and put it back to those days.

The reason I refer to retreat is that if there's going to be an effort to form a rule based on the Scalia opinion, it will cover a very narrow set of waters which will eliminate the protection for as much as 60 percent of the Nation's waters. That is a serious, serious retreat from what this Congress enacted in 1972.

Ms. HANABUSA. Mr. Kopocis, one of the things that I do follow is administrative rulemaking, and I did want to confirm with you that you had over a million public comments over a period of 207 days, and the Agency held over 400 public meetings all across the country. And you personally attended about 70 of these meetings in your prior capacity both in Washington and across the country. Can you tell me, after hearing all of this, why you still remain so confirmed—so firm in your belief that the rule should not be repealed?

Mr. KOPOCIS. Well, I think that when we set out to undertake it, we also set out to develop what was the best available science, and the work of our Office of Research and Development at EPA in developing that science was extensive. They originally looked at over 1,000 previously peer-reviewed documents. EPA did not create any of the science. They then, through the course of review and public comment, added another couple hundred documents to that report and came up with the conclusion on the interaction of waters and how upstream waters and their pollution or destruction affects downstream and adjacent waters. And so it was critical that the agencies apply the best available science.

As I said, nobody has brought forward better science or said that the science the agencies used was bad. And then the agencies had to apply the law as interpreted both from the legislative history and the words of the Clean Water Act and as interpreted by the three Supreme Court cases where the Court had opined.

Ms. HANABUSA. Thank you very much, and, Mr. Chair, I yield back.

Chairman BIGGS. Thank you. And the Chair recognizes the gentleman from California, Mr. Rohrabacher.

Mr. ROHRABACHER. Thank you very much, Mr. Chairman.

Let me just—we have a cattlemen with us here, Mr. Chilton. Mr. Chilton, you are really not in the cattle business; you are in the moneymaking business. Everything you do is aimed, just like everybody else. We're working our jobs, but we really are doing it to earn a living.

But in your earning your living, you're providing meat for my family and I appreciate that, and I'd just like to know that—do these water issues impact on the price of the hamburgers that I'm buying?

Mr. CHILTON. I would say yes. The cattle business is one of the largest businesses in the Nation, and as it's impacted adversely by bureaucrats at the Environmental Protection Agency and the Corps of Engineers, it raises the cattlemen's costs. And it's absolutely ab-

surd to think that the rules—the 2015 rules, which were over a half-inch thick, are easy to understand or—they're ambiguous and I can't—

Mr. ROHRABACHER. Did you have to hire a lawyer to—

Mr. CHILTON. Yes. And consultants and lawyers.

Mr. ROHRABACHER. Now, let me ask about the consultants and lawyers. The fee that you had to pay them, did you add it on to the price of the meat for the hamburger that I have to buy for my kids?

Mr. CHILTON. No, it took away from my profits.

Mr. ROHRABACHER. Okay. Well, that's good. That's a fair answer. And let me just note if the cattlemen don't make a profit, my kids are going to pay more for their hamburger. And—just like every other business unless you take away a profitability.

Now, let me ask you this. When I was a kid, my family came from North Dakota and we'd go back and visit. My dad was a marine, and we'd go back and visit our relatives. And we were relatively poor people, I might add. I remember that there were—on these roadsides out in the middle of nowhere there were these gullies, and I guess ditches was a better description of them, and they'd fill up with water and my cousins would go out and they could actually get some crawfish out of those ditches.

And let me ask you this. Today, if—according to the rules, if something goes on with those ditches and a federal bureaucrat or a Federal Government employee now has power, do they have power over the water in those ditches? I'd ask that I guess to Ken. You go right ahead.

Mr. KOPOCIS. Thank you for the opportunity to answer that question because one of the items that we did take care of in the rule from proposal to final was we excluded virtually all the roadside ditches from the jurisdiction. We wanted to make that clear. So the answer—I can't speak to the specifics, but it is highly much more likely than not that the ditches you describe would not—

Mr. ROHRABACHER. Okay. So the question—I think the question we have to have now is do we really want to expand the federal definition of what those ditches are like you have just described? We took those ditches out? Why do we have the Federal Government making that determination? Shouldn't that be—I mean, that should be left up to local people. Why are local people any more less sympathetic with these important issues we're talking about, the cost of this man's doing business or the cleanliness of the water that everybody consumes in that area? Why is the Federal Government more sympathetic to the needs of the people than a local bureaucrat or a local government official?

Mr. KOPOCIS. Well, that's—the 2015 rule would have given all of that authority to State and local officials. By saying that these would not be jurisdictional, the Federal Government would have no role.

Mr. ROHRABACHER. Yes, I—on those ditches?

Mr. KOPOCIS. On those ditches, yes.

Mr. ROHRABACHER. But not on these dried-up riverbeds that we're talking about and they will determine what's a ditch and what's a dried-up riverbed.

Now, let me just ask one last thing. Of course, when it comes down to California, you have to understand we were just in a big drought in California. And this was a drought that lasted 3 or four years. And in the middle of the drought we had people who were so nutty that we actually channeled millions and hundreds of millions of gallons of fresh water into the ocean in order to save a little thing called Delta smelt. Now, let me just note that crawfish are really important, I think, but they're not important enough to give all this power to the Federal Government and maybe to have some really horrible economic decisions on the industry that provides us our meat. And what we learned in California, sometimes people are so crazy and so fanatic about every—about endangered species and things such as that that they will hurt the well-being of regular people, as they did when they put all of that water, fresh water into the ocean in the middle of a drought in California.

Chairman BIGGS. The gentleman's time is expired.

Mr. ROHRABACHER. Oh, thank you very much, Mr. Chair.

Chairman BIGGS. Thank you. Thank you. The Chair recognizes the gentleman from Texas, Mr. Weber.

Mr. WEBER. Thank you, sir. All right here we go. I'm going to read from the President's executive order. I just can't hardly be quiet anymore if I can get my iPad here working.

In his order February 28, 2017, section 1 policy, "It is in the national interest to ensure that the Nation's navigable waters are kept free from pollution, while at the same time promoting economic growth, minimizing regulatory uncertainty," which was referred to by the gentlelady from Oregon—we'll talk about that in a minute—"and showing due regard for the roles of Congress and the States under the Constitution." Mr. Chairman, I'd like permission—unanimous consent to read into the record the Tenth Amendment—have it placed in the record rather.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]

Mr. WEBER. Thank you. Mr. Chilton, you said you've been farming or you've been ranching—your family has for 127 years. Is that true?

Mr. CHILTON. That's exactly true, yes.

Mr. WEBER. Are you glad that your great-grandparents, your grandparents, and your parents took care of their property and you were able to do the same kind of ranching?

Mr. CHILTON. I am.

Mr. WEBER. They did a good job, didn't they?

Mr. CHILTON. They really did a good job, and we really have an excellent ranch with wonderful grasses, and we take care of our land.

Mr. WEBER. It's in your vested interest, isn't it?

Mr. CHILTON. It is.

Mr. WEBER. You said early in your testimony that you had to get a permit and you had to pay a lot of good money to an environmental attorney. Is there any other kind of money, Mr. Chilton, than good money?

Mr. CHILTON. All money is good and—

Mr. WEBER. Absolutely. And you're tired of giving it to a lawyer, right?



Mr. CHILTON. I hate giving it to the lawyers——

Mr. WEBER. I don't——

Mr. CHILTON. —and I hate listening to lawyers.

Mr. WEBER. I don't blame you at all.

Mr. KOPCIS. I'm going to come to you. Is the Supreme Court ever wrong?

Mr. KOPCIS. The Supreme Court is the law of the land. There are——

Mr. WEBER. That's not what I asked. Does *Brown v. Board of Education*, *Plessy v. Ferguson*, or *Dred Scott* cases ring a bell with you where they actually reversed themselves?

Mr. KOPCIS. Yes, they—yes——

Mr. WEBER. Okay. So they—we do know they are wrong?

Mr. KOPCIS. They do reverse themselves from time to time, yes.

Mr. WEBER. Okay. So they do make mistakes. All right. So in your discussion—in your exchange with the gentlelady from Oregon, she made the comment that it created regulatory uncertainty, but I will tell you that the regulatory uncertainty was created long before the case got to the Supreme Court. It was created by an overreach of the Federal Government. The Tenth Amendment, the reason I want it read into the record is because you just got through with Dana Rohrabacher saying that the 2015 rule gave the States the authority. I will tell you that is so patently false on its face. Read your Constitution. The Federal Government is delineated with what their responsibilities and what their powers are by the Founders of this country. All others are given to the States and the people respectively, period, end of sentence. That's just exactly the way it is. When the Federal Government starts feeling like it has to dole out power to the States, something is wrong, terribly wrong with this country.

Let me continue. That's my op-ed for the minute, okay? I hope I wasn't too forceful to you. If I was, tough.

Mr. KOPCIS. Well, perhaps——

Mr. WEBER. I'm going to go——

Mr. KOPCIS. Perhaps I should've said that they basically just took the Federal Government out of it.

Mr. WEBER. Okay.

Mr. KOPCIS. It wasn't an affirmative——

Mr. WEBER. If we can get you on record of wanting to take the Federal Government out of the WOTUS, we're all for that. Are you on record saying you want to take the Federal Government out of it?

Mr. KOPCIS. I don't believe that the Federal Government——

Mr. WEBER. Okay. Mr. Hopper, I'm going to come to you. In President Trump's executive order February 28, '17, I just read, he directs EPA and the Army Corps to consider the Scalia opinion in the *Rapanos* case in its revisions to WOTUS. I've got two questions really. I've got about a minute left. What is the difference between Justice Scalia's approach and Justice Kennedy's and why does it make more sense to follow Justice Scalia's, Mr. Hopper?

Mr. HOPPER. First, to the second question, as I outlined in my law review article, it's required by law to rely on the plurality decision authored by Justice Scalia than it is the Kennedy approach under the Supreme Court's *Marks* decision, which says when you

have a split decision, you look at those Justices who agreed in the final judgment, which would be the four in the Scalia plurality and Justice Kennedy. You never look to the dissent. All these other courts that have held that the Kennedy test is controlling have relied on the dissent. This is——

Mr. WEBER. And isn't that interesting?

Mr. HOPPER. Yes, it is. And that's contrary to the express decision by the Supreme Court in Marks.

Your other question was?

Mr. WEBER. What was the difference between the Scalia approach and the Kennedy's?

Mr. HOPPER. Yes, the difference is significant. Mr. Kopocis is right that there's no question that the Scalia plurality is going to be narrower, and that's why it falls under the Marks decision. When you have two competing concurring opinions, you look to see whether one is a subset of the other, and the Scalia plurality decision is a subset of the larger interpretation of Justice Kennedy.

Mr. WEBER. Good point.

Mr. HOPPER. The major difference, however, is that under the Scalia plurality, it's fairly definite in that it describes relatively permanent tributaries and abutting wetlands that are indistinguishable. However, through the significant nexus test, it's—it can only be applied on a case-by-case basis, and that's where the lack of clarity comes. And the WOTUS rule that was published in 2015 continues to rely on this case-by-case analysis, which gives nobody any security or certainty. Judge Kelly in the Eighth Circuit said, interestingly enough, the Clean Water Act is the only law I know of where you have to hire an expert to determine if it even applies to you, not to mention an attorney.

Mr. WEBER. Thank you, Mr. Hopper.

Thank you for your indulgence, Mr. Chairman.

Chairman BIGGS. Thank you. The Chair recognizes the gentleman from Texas, Mr. Babin.

Mr. BABIN. Thank you, Mr. Chairman, and I thank you, witnesses, for being here.

Mr. Hopper, you mentioned in your testimony that the draft 2015 WOTUS rule in the final rule had substantial differences within it. Were these differences subject to public notice and to public comment?

Mr. HOPPER. Yes, absolutely. That was one of the reasons why the rule was stayed by the District Court of North Dakota and the Sixth Circuit Court of Appeals is because there was such a substantial difference between the proposed rule and the final rule, particularly with respect to these distance limitations of 4,000 feet and the 1,500 feet, and the 100-year floodplain.

Mr. BABIN. Absolutely. So these changes are substantial enough to have warranted this extension period?

Mr. HOPPER. Without question.

Mr. BABIN. Yes. Okay. And then also in a May 29, 2015, interview with PBS NewsHour, previous EPA Administrator Ms. Gina McCarthy stated the following, quote, "The farmers will know very clearly here that we are clearly explaining that irrigation ditches are not included. We have clearly said in the rule and beyond this

rule as absolutely no new regulatory or permitting issue for agriculture whatsoever.” Do you agree with this statement?

Mr. HOPPER. No. In fact, I remember reading—writing a blog post saying that the Administrator’s a prankster because if she had read her own rule, she’d realize that it’s not clear. Even if there’s been no change in the exemptions, the statutory exemptions for agriculture, that in itself constitutes a problem because the Agency has a history of defining these exemptions so narrowly as to eviscerate them. For example, there’s an exemption for farming. Common farming practices should not be subject to Clean Water Act jurisdiction. However, common farming practices are interpreted to mean what’s common and ordinary on that particular farm, not what’s common and ordinary in the industry. We think that’s bogus, undermines the exemption and the statute, and I think we’re going to see the same type of thing with any other exemption like ditches.

Mr. BABIN. Right. So we’re looking at an enormous overreach by unelected federal bureaucracy.

Mr. HOPPER. By any definition.

Mr. BABIN. Absolutely. Okay. And then, Mr. Chilton, how can a landowner possibly be expected to know prior to any digging that any water encountered would be, quote, “groundwater” and therefore exempt or shallow sub service and therefore subject to the Clean Water Act requirements or even to fines?

Mr. CHILTON. Well, most farmers and ranchers want to do a good job and earn a living, and you can’t really determine when you have an ambiguous overreaching rule that isn’t easily understood. I don’t know how you tell the difference between a groundwater issue and whether it’s a surface water issue. It’s very difficult, and one has to, under the 2015 rule, hire consultants and attorneys to answer that question. Is there a significant impact? In our area the Santa Cruz River doesn’t even reach a navigable river here. I mean, it’s outrageous the way the County of Pima has to go through all the treacherous paperwork that is imposed on them by the Environmental Protection Agency and the Corps of Engineers when the Santa Cruz River doesn’t even reach a navigable river. It’s outrageous. And in terms of groundwater, let the State control what is groundwater and what is surface water.

It’s difficult. It’s ambiguous, and it’s expensive. We have an overreaching Federal Government. Remember, the States created the Federal Government, and now the Federal Government is ruling with a high—with an iron hand. And I hate to say this, Ken, but bureaucrats like you are overreaching. It’s outrageous.

Mr. BABIN. Thank you, Mr. Chilton. My time is expired, Mr. Chairman.

Chairman BIGGS. Thank you.

Mr. BABIN. I appreciate it, though.

Chairman BIGGS. Thank you. The Chair recognizes the gentleman from Georgia, Mr. Loudermilk.

Mr. LOUDERMILK. Thank you, Mr. Chairman. I thank all the panel for being here.

I want to just open with one quick question, yes or no question. Commissioner Mehl, do you agree with the Waters of the United States rule?

Mr. MEHL. The 2015?

Mr. LOUDERMILK. Yes.

Mr. MEHL. No, I do not.

Mr. LOUDERMILK. No. Mr. Chilton, do you agree with that?

Mr. CHILTON. Absolutely no.

Mr. LOUDERMILK. Mr. Hopper, do you agree with it?

Mr. HOPPER. No.

Mr. LOUDERMILK. Seventy-five percent of our panel just said no, they don't agree with it, but, Mr. Kopocis, back in August of this year you co-authored an op-ed on the Hill that was entitled "Trump Plans to Roll Back Environmental Rule Everyone Agrees On." Can you define who everyone is? I mean, I—when I go back to my district, I do not hear this, that everyone agrees with it, so I think that the title may be a bit misleading at the best. But I would say that's kind of consistent from what I've seen in the three years I've been in Congress with the EPA has a history of using any means or method to achieve a goal that it wants, regardless of fact, law, or public opinion, and I want to address some of those issues with you today.

I think possibly maybe some of the reason you say everyone agrees with this rule is, as you said several times in your statement and responding to questions was there was unprecedented public comment. I believe I read somewhere recently that you or someone commented that 87.1 percent of those commented in favor of the Waters of the United States. Do you recall that, that—

Mr. KOPOCIS. I don't believe that was a statement that I made.

Mr. LOUDERMILK. Okay. But—

Mr. KOPOCIS. That sounds about right.

Mr. LOUDERMILK. Okay. The majority of the people were in favor of it, but it's interesting because the New York Times came out in 2015 with an article that uncovered that the Agency was actually involved in what the GAO has now determined was an illegal social media campaign called Thunderclap. Are you familiar with that?

Mr. KOPOCIS. Yes, I am.

Mr. LOUDERMILK. You're familiar with that. So in fact one of your colleagues at the American University stated that the Agency is supposed to be more of an honest broker, not a partisan advocate in the process. Now, I was surprised to learn that the Agency was actually using social media to generate support for Waters of the United States. In fact, through a FOIA request by Judicial Watch, the former EPA Director of Web Communications admitted that she did not want, quote, "it to look like EPA used its own social media accounts to gain support for the rule" even though you partnered with Sierra Club and some other grassroots organizations. In fact, as I mentioned, the Government Accounting Office stated that you had "violated publicity or propaganda and anti-lobbying provisions contained in appropriations acts in association with its Waters of the United States rulemaking."

So do you agree with the statements of your colleague? In fact, again, Professor Lubbers said that a guide to federal agency—that—I'm sorry. "I have not seen before from a federal agency this stark of an effort to generate endorsements of a proposal during an open comment period." Were you aware of the Thunderclap in the

generating of popular public opinion during this rulemaking period?

Mr. KOPOCIS. I became aware of the Thunderclap incident after it had occurred. The—I was not—that was something that was handled by our communications—our communications staff. We did—I’m familiar with the GAO letter on the issue where they found—they found some minor violations of the appropriations law. The Agency disagreed with the Agency’s conclusions—with GAO’s conclusions, as did the Department of Justice.

Mr. LOUDERMILK. Okay. Well, I mean, I think most of the people in the country expect our agencies to—when you have a public comment period to be honest brokers in listening to public opinion, not generating public opinion but again—and I’ll close with this—I think it’s been in the history of the Agency following this. In 2015, the Science Committee obtained documents from the EPA demonstrating the EPA had avoided the regulatory impact analysis process at the Office of Management and Budget. If you recall, there was a question that you have to do an impact analysis if a rule or regulation exceeds a certain fiscal impact on the Nation, which was the question.

Can we bring up the slide, please?

[Slide.]

Mr. LOUDERMILK. Okay. This was an email that we actually brought up in a hearing when we had Director McCarthy in a while back, and I want you to follow along. And let’s start at the bottom of the email. This was an email from Jim Pendergast, who I think you’re familiar with, and basically, in the second sentence of the first paragraph in the last part says, “You relayed to us that Greg Peck said the rule now considered significant that OMB was like—was unlikely to change that designation and that”—and basically that you have to do this impact study. It went on in the second paragraph that the rule is now considered economically significant by OMB, so it would require this impact study.

If you go up to the next email, “So just got off the phone with Sandy and Tomeka. They say that Nancy and Ken know that an RIA may be necessary but they are—but that there are some economically significant rules EPA haven’t had an RIA,” even though the law says you have to do it.

Chairman BIGGS. The gentleman’s time has expired. Perhaps Mr. Higgins who’s next on the list will yield you some time.

Mr. LOUDERMILK. Thirty seconds.

Mr. HIGGINS. I’d like to yield to my colleague.

Chairman BIGGS. He yields 30 seconds, Mr. Loudermilk.

Mr. LOUDERMILK. Thank you, Mr. Chairman. And with this, “At last, good news. Tomeka and Sandy talked to Ken. Ken said it has been agreed that we do not need an RIA.” This kind of fits into what we’ve seen is that the law doesn’t matter, the public opinion obviously doesn’t matter, and rules don’t matter—is—do you think that you—that it’s acceptable just to make an opinion that you don’t need an impact analysis and then go forward with that?

Mr. KOPOCIS. The requirement to do the impact analysis comes out of an executive order, does not come out of a statute or the public laws. It is something that is routinely negotiated between the agencies and the Office of Management and Budget, their Office of

Information and Regulatory Affairs, OIRA, and that is something that there were extensive conversations between the Agency and OIRA—

Mr. LOUDERMILK. Did Gina McCarthy negotiate that?

Mr. KOPOCIS. I am not—I don't recall that Gina McCarthy was personally involved.

Mr. LOUDERMILK. Thank you, Mr. Chair.

Chairman BIGGS. Thank you. The Chair recognizes the gentleman from Louisiana, Mr. Higgins.

Mr. HIGGINS. Thank you, Mr. Chairman. In the interest of time, I'll ask your answers to be brief. Mr. Kopocis testified that the 2015 Waters of the United States rule used the best science available. Mr. Hopper, do you agree that the rule used sound science and the best science available?

Mr. HOPPER. The answer is no, and the two courts agreed.

Mr. HIGGINS. Thank you for your answer. Mr. Kopocis, thank you for appearing before us today. Are you familiar with the enumerated powers of our Constitution?

Mr. KOPOCIS. Yes, I—

Mr. HIGGINS. Article II, sections 2 and 3 gives the President constitutional authority to issue proclamations and orders, thereby the—according to the constitutional parameters, the 2015 Waters of the United States rule, as amended by President Obama, would be legal, don't you agree?

Mr. KOPOCIS. I'm sorry. I didn't follow the question, Mr. Higgins.

Mr. HIGGINS. In other words, there's executive authority for altering of rules at the federal level granted to the President of the United States. So—

Mr. KOPOCIS. Yes, sir—

Mr. HIGGINS. President Obama's ruling was legal. Do you agree?

Mr. KOPOCIS. The Clean Water Rule that was—

Mr. HIGGINS. That was amended.

Mr. KOPOCIS. —2015 was—yes, I believe it was legally promulgated.

Mr. HIGGINS. All right. So if it was constitutionally sound for President Obama to alter the rule, don't you agree that it is constitutionally sound for President Trump to do the same?

Mr. KOPOCIS. Oh, I don't raise any question about his constitutional authority.

Mr. HIGGINS. All right. Let's move forward. I'd like to give you an example, sir, of a town that exists within the district I represent, south Louisiana. This is a small town of just a few thousand folks. It's economically sound. A railroad runs through it. Those folks work hard to develop their community, and they of course have to deal with rain.

Decades ago at the southern parameters of that municipality, a ditch was dug. A 12-mile ditch was dug through private property owned by five Americans, all of whom had—have family, grown up together, they've known each other for generations, they're family within this community. This drainage ditch was designed to collect the rainwater and runoff and bring it to a more major navigable waterway 12 miles through private land.

Over the course of decades, the ditch deteriorated. And because of the 2015 Waters of the United States rule, although this municipi-

pality of American citizens and the five private landowners that owned the land where the original ditch was established were not allowed to reestablish the original parameters of this relatively small ditch through their own land because of the interpretations of the Waters of the United States regarding wetlands, do you feel that that's reflective of our Founding Fathers' intent regarding the union of 50 sovereign States and the rights of the citizens that live therein?

Mr. KOPOCIS. Well, first of all, I'm a little puzzled as to how the 2015 rule could have affected this ditch since it was in effect for only a matter of a few days. It has been on—it's been stayed—

Mr. HIGGINS. Because the interpretation of the Corps of Engineers determined that that private land was wetlands based on broad interpretations from one Corps command-and-control center to the next.

Mr. KOPOCIS. Well, Mr. Higgins, the waters in question may have been jurisdictional, and they may have been jurisdictional since 1972. I really can't speak to the specifics of that.

Mr. HIGGINS. I'll just ask you as an American, sir. Do you think that that's right, that a private landowner cannot reestablish a ditch as decades-old to allow water to flow to protect his neighboring communities?

Chairman BIGGS. The gentleman time is expired. If you choose to answer, Mr. Kopocis, you may.

Mr. KOPOCIS. Thank you. I will briefly. Since 1977, the service and maintenance of existing ditches is exempt from permitting requirements under the Clean Water Act. And as to your point as to private property, a lot of the waters that are subject to the clean water jurisdiction are on private property. If we were to exclude all waters that are on private property, the only waters left would be those that form interstate boundaries or are on federal land.

Mr. HIGGINS. Thank you, Mr. Chairman.

Chairman BIGGS. Thank you. The Chair recognizes the gentleman from South Carolina, Mr. Norman.

Mr. NORMAN. First, I want to thank each of you for taking the time.

Mr. Chilton, your experiences with what you went through with trying to cut a small ditch is ridiculous, and it's unelected bureaucrats who are causing this country more trouble. And my response back to most of them is to let you pay for it.

Mr. Mehl, let me ask you. The EPA under the previous Administrations claimed that they are not regulating land with this rule. If you regulate water in a real sense, aren't you really regulating land use? And even though the Agency has that it does not intend to take over private property, how can the Agency deny that by expanding vastly its definition of the Waters of the United States, it effectively is limiting the activities that can occur on your private property? Is this not the case?

Mr. MEHL. Yes, sir. The rule does affect land use. Obviously, it affects density, it affects configurations of what you can develop. In Arizona where you have situations where water spreads over large areas, you have a tremendous impact as you really have to make decisions about what goes where, and those are traditionally decisions made at a local level about zoning.

And with respect to the water it's not even a question of polluting or preventing water from going from one place to another because largely engineering will do that. We want to develop certain lands. You can direct the water around these developments so that they go from the same point A to the same point B. And our only subject to fill such as dirt and concrete and steel.

The true impact is on what you can do with that land, and so it is a land-use regulation. And it's tremendously destructive for value.

Mr. NORMAN. And that's the effect that you're basically taking somebody's private land.

Mr. MEHL. Yes.

Mr. NORMAN. Mr. Chilton, the 2015 WOTUS rule sought to regulate isolated waterbodies like dry washes. This is a significant stretch in the federal authority from the previous interpretations of the Waters of the United States. How would regulations over these isolated waterbodies impact your operation? And as you've got a pretty big operation—in other agricultural operations in Arizona?

Mr. CHILTON. First, our dry washes run into other dry washes that run into dry rivers and dissipate, as Mr. Mehl says, in the desert. They never reach the Colorado River. And for us to have to try to judge under the 2015 rule what is or isn't a water of the United States and some sort of language saying high watermark, I kind of think of Noah. What was the high watermark when Noah was there? Do we have to—does that mean all the world is subject to the 2015 rule? I mean, why do we have to live under the rule of the EPA and the Corps of Engineers? It's very expensive, it's costly, and it's time-consuming.

Mr. NORMAN. Well, I appreciate you expressing your views. And it's sad to read in our notes what you had to go through and, you know, the money that you had to spend. That's one truck that you can't buy. That's one hiree that you can't put food on the table with a salary. So I appreciate you telling your side of the story and being willing to come up and express your concern. Thank you so much.

Mr. CHILTON. Thank you.

Mr. NORMAN. I yield back.

Chairman BIGGS. Thank you. And we appreciate the interest of some Members—some folks—Members of the whole Committee who are here for the Subcommittee because of the interest on this important issue, and so I recognize them for their patience and will recognize first Mr. Tonko from New York.

Mr. TONKO. Thank you, Mr. Chair.

I have letters from more than 250 scientists and the Society of Wetland Scientists who strongly oppose a repeal of the Clean Water Rule. They note that the rule is supported overwhelmingly by scientific evidence and that a repeal of the rule, and I quote, "poses a significant threat to the integrity and security of our drinking water, public health, fisheries, and wildlife habitat," close quote.

So I ask, Mr. Chair, that these letters be included in the record.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]



Mr. TONKO. Thank you.

Every life and every job in this country depends on clean water. We must protect this precious resource and not throw away all the progress we have made. Earlier this year members of the House Sustainable Energy and Environment Coalition, or SEEC, led a comment letter to EPA opposing Administrator Pruitt's efforts to rescind the Clean Water Rule.

Since the 1970s, we have learned so much about our waterways. Years of research and peer-reviewed science have told us that the Waters of the United States are connected. What do we do—we do to one will impact the health and the safety of another.

The Clean Water Rule protects the drinking water of roughly 1/3 of Americans. One hundred and seventeen million Americans rely on drinking water sources fed by intermittent or ephemeral streams. Rolling back this rule also jeopardizes waterways that Americans use for recreation. The bottom line is Americans need an EPA that will use the best possible science to protect our health and our national—natural heritage.

In his testimony Mr. Hopper claims that the Clean Water Rule is not supported by scientific evidence. To the contrary, EPA issued a comprehensive science report known as the Connectivity Report which reviewed and summarized the relevant peer-reviewed scientific literature. Mr. KOPCIS, how do you respond to the claim that the Clean Water Rule is unsupported by scientific evidence?

Mr. KOPCIS. Well, quite frankly, sir—thank you for the question—I find it to be a little troubling in how to answer that because typically when science is disputed, somebody brings science to the table and says, “Well, I disagree with your science and here’s my science as to why.” To date, the opponents of the rule have not brought forward credible science to counter what the Agency put together.

And as I said in my opening remarks, the Agency did not create any of the science associated with the Connectivity Report. It was based on about 1,200 previously peer-reviewed studies and articles that had been put together by the experts in the field. EPA’s compilation then was subject to public comment. It was sent to the Independent Science Advisory Board for its views, a science advisory panel that was made up of 27 experts in the field. They held public meetings and reviewed the document and ultimately came with the final document and the conclusions that were contained therein. As I said, since that time, nobody has come forward and said, “I have science that debunks yours.”

Mr. TONKO. And just why is this Connectivity Report so important?

Mr. KOPCIS. Well, when Justice Kennedy in his opinion opined on the significant nexus test, he said it was the relationship of waters upstream to downstream that was important, that those downstream waters of course—the upstream relationship to downstream waters that are navigable waters, jurisdictional waters. And so because the agencies in the past had looked at the effects on interstate commerce instead of how waters were interconnected with each other, it was important for us to develop that science so that we could be informed on where the Clean Water Act jurisdiction starts and where it ends. And it was important to note that

some of the waters that are—that the science report suggested could be jurisdictional under the Clean Water Act were not included in the final rule.

Mr. TONKO. And in terms of informing us or policymakers as to any future actions to repeal or replace the rule, what role does the Connectivity Report play?

Mr. KOPOCIS. Well, the Connectivity Report is there. If the Agency follows its path and issues a new rule, it is going to have to explain why it does not follow the science that the Agency itself already prepared and already sent through the public process.

Mr. TONKO. And in your testimony you discussed the importance of clean water to the Nation's economy listing a number of businesses and industries that need a reliable supply of clean water to function. Can you elaborate on the role of clean water in supporting the American economy, please?

Mr. KOPOCIS. Well, clean water is important and required for virtually every aspect of the American economy. There is no sector of the economy that can exist without fresh, clean, and abundant water. When companies come to look at creating new—a new factory or a new endeavor, they look at what is the availability of water, whether that's the soft drink industry—Coca-Cola spends enormous amounts of money trying to figure out where fresh water is available. Manufacturers use water; farmers use water. It's—virtually every segment of society uses water. It has to have it, an adequate and clean supply.

Mr. TONKO. Thank you very much. Mr. Chair, I yield back.

Chairman BIGGS. Thank you. The Chair recognizes the very patient gentleman from California, Mr. Takano.

Mr. TAKANO. Thank you, Mr. Chairman. I appreciate the opportunity.

Mr. Kopocis—before I begin, Mr. Chairman, I have a letter from 60 different groups around the country including Earth Justice, the League of Conservation Voters, the Natural Resources Defense Council, Alaska Wilderness League, the Puget Sound Keeper Alliance all supporting the clean water protections laid out in the Clean Water Rule and opposing rollbacks of the rule. I ask that this letter be included in the record.

Chairman BIGGS. Without objection.

[The information appears in Appendix II.]

Mr. TAKANO. Thank you, Mr. Chairman.

Mr. Kopocis, the witnesses today have identified many problems they think exist with the Clean Water Rule, and I wanted to give you an opportunity to address some of the concerns raised in the written testimony directly. If you could briefly respond to each of these concerns. A, why is the conclusion of all tributaries legal—in the rule legal?

Mr. KOPOCIS. The rule actually doesn't include all tributaries. For the first time it placed restrictions on the definition of what constituted—constitutes a tributary. The old rule used to refer to the presence of an ordinary high watermark. The new rule says ordinary high watermark, plus there has to be a bed and banks, so there would be waterbodies that could be thought of and would be thought of as tributaries that would be excluded under the new rule. It does not cover all tributaries.

Mr. TAKANO. Okay. So actually compared to the old rule this new rule—

Mr. KOPOCIS. Correct.

Mr. TAKANO. —actually—

Mr. KOPOCIS. It's more narrow—

Mr. TAKANO. —is more narrow.

Mr. KOPOCIS. —because it's more specific in the physical requirements to be considered a tributary.

Mr. TAKANO. Well, is the definition of adjacent waters overbroad?

Mr. KOPOCIS. No. In fact, it's been interesting that many of the criticisms of the definition of adjacency have focused on the distance limitations, the use of the 100-year floodplain, the 4,000 feet, the 1,500 feet, et cetera. In the proposal what went out it was floodplains and riparian areas without limitation, so the limitations that are in the final rule that are being criticized as overly broad are in fact limitations on what was in the proposal.

Mr. TAKANO. Thank you. Does the rule contain an invalid inclusion of isolated waters?

Mr. KOPOCIS. No. There is obviously some disagreement as to the holding in SWANCC. SWANCC, that case said that it was inappropriate for the agencies to rely on the presence of migratory birds to assert jurisdiction over an intrastate isolated water, and the agencies don't do that. The agencies have always looked at isolated waters and have been able to find jurisdiction under other theories. And Justice Kennedy in particular said that it was in fact sometimes the lack of a physical connection that provided the nexus to the downstream water.

Mr. TAKANO. Thank you very much for that. Did the EPA—did EPA fail to provide notice and comment of substantial rule changes?

Mr. KOPOCIS. No. Every one of the changes that we made from proposal to final were part of a test—the legal test of a logical outgrowth. In the proposal we asked over 50 specific questions for commenters, asking them for their views on a variety of issues, including items such as what was the correct floodplain, how should we define the riparian area, are there limits how—what should the Agency do? So, no, we did not believe so.

Mr. TAKANO. Thank you. Does the rule exceed—

Mr. KOPOCIS. I shouldent say we—the Agency.

Mr. TAKANO. Thank you. Thank you for that. Does the rule exceed the scope of commerce power—of the commerce power?

Mr. KOPOCIS. Well, the Agency—working within the Agency and the Department of Justice believes the answer is no. Obviously, the ultimate decision on the extent of Congress' power under the commerce clause will be made by the Supreme Court. It's an issue they've ducked three times.

Mr. TAKANO. Okay. Is the rule flagrantly disregarding the principles of federalism and usurping the rights of States?

Mr. KOPOCIS. No, it does not usurp the rights of the States. The States have always been free to do whatever they choose to do in addition under the Clean Water Act, and some States have done so. They have more stringent requirements are they apply State law to waters that are not subject to federal jurisdiction.

The—I find it ironic that—when people talk about usurping State powers, the Clean Water Act only restricts the ability of people to pollute or destroy waters, so if States' powers are being somehow usurped, it would be the power of the State to destroy or pollute their own waters.

Mr. TAKANO. Well, Mr. Kopocis, you know, I've had the privilege of being able to travel to many countries that are extraordinarily beautiful, but I find that the management of the water, whether it's near the ocean, whether it's near a river or creek in a populated area can often be disappointing. I will smell the waft of pollution, human pollution, and it strikes me that one of the great things about our country is the impressive reliability from community to community that we can trust the water systems to actually not have to rely on bottled water if we don't want to buy the bottled water. But in America we have a tremendous trust in water from jurisdiction to jurisdiction. That's my experience.

Thank you so much for your response.

Mr. KOPOCIS. Thank you.

Mr. TAKANO. I appreciate it.

Chairman BIGGS. Thank you. The Chair recognizes the gentleman from Virginia, Mr. Beyer.

Mr. BEYER. Mr. Chairman, thank you. Thank you all for coming. I want to begin by just defending unelected bureaucrats, also known as civil servants. You know, it's the character of our governments at every level—state, local, federal—that determines the quality of our lives, the health of our economy, the health of our ranches, and these are our police, our military, education, virtually every part, and they're all unelected bureaucrats. And they fulfill the duties and the obligations that we the Congress gives them or county government, state government. So a government without unelected bureaucrats is no government at all, and all we have to look at the lawless ungoverned nations around the world right now and think we don't want to live there. So let's be careful about trashing these people. They are there to serve us.

And by the way, much as we like elected, it's sort of difficult to imagine having elected Members of Congress or even the county to determine what can happen on every given ditch or river or land-use project.

I want to start off in line with what my friend Barry Loudermilk did by asking you a yes or no question down the line starting with Mr. Mehl. Do you believe it's important for the American public to be able to offer their opinions like you are today on the nature of federal oversight for our water?

Mr. MEHL. Yes, sir.

Mr. BEYER. Yes. Mr. Chilton, should there be public input on this?

Mr. CHILTON. There should be public input, but it's a local matter, not a federal matter.

Mr. BEYER. Mr. Kopocis?

Mr. KOPOCIS. Yes, absolutely.

Mr. BEYER. And, Mr. Hopper?

Mr. HOPPER. Yes.

Mr. BEYER. And I think that's what Mr. Loudermilk was trying to point out, too, when he had the debate about social media.

That's why I was so dismayed when twice Republican leadership tried to sneak into the appropriations bill language that would suspend the comment period on the current Administration's efforts to repeal the rule. And as you suggested, Mr. Kopocis, there's nothing illegitimate about the current Administration trying to change the rule as previous Administrations have also. But we do believe the public deserves to have a say on this, and Republican leadership should stop trying to sneak in provisions to eliminate public comment. I wanted to raise this issue to make sure that we all have a chance to do this.

I also want to highlight that we're reviewing the Clean Water Rule in the Science Committee, and naturally, the average American would think that the Science Committee would be weighing the scientific merits of the rule, but that's not what we have today. We have a witness panel that doesn't have scientists. We have administrative, legal, land management experience, ranching experience, but the key thing to note is that the Clean Water Rule was stayed by the courts, is now waiting consideration by the Supreme Court. They just had an oral argument. So it makes sense to have legal administrative experts, but the rule was never put in place.

So let's just make the assumption that the arguments against the never-enacted Clean Water Rule were justified and that what we're hearing today are not just lobbyist talking points relayed from industries that want to dirty our drinking water.

Mr. Kopocis, you're the clean water expert here. And Mr. Chilton said that the rule is overly burdensome and would regulate the small dry washes on his estate, the dirt road they want to put across. In his testimony he claims that the Clean Water Rule does not respect private property. Is this true? Is this your perspective?

Mr. KOPOCIS. No, I don't agree with that assertion. Obviously, I can't speak to whether that feature he had in his photograph was jurisdictional or not. It's very hard to say from a photograph. I would say that the ability to construct a road crossing on a small waterbody like that is authorized by a nationwide permit by the Corps of Engineers. I don't know why it would not have qualified for that on Mr. Chilton's ranch.

Mr. BEYER. Yes. I want to also highlight how drastically different the Administrations have been on this—their engagement on this issue. We only recently received Secretary Pruitt's calendar thanks to a FOIA request by journalists and something that was once very transparent in previous Administrations. And now we know unequivocally that, unlike his predecessor in the Obama Administration, Mr. Pruitt has done very little engagement with anyone beyond industry hostile to this rule. In fact, he appeared in a National Cattlemen's Beef Association video as Secretary lobbying against the Clean Water Rule, and now, there's an active investigation into whether this action is a violation of his role as Secretary.

The Administration should be listening to scientists, not industry that wants to dump or endanger our drinking water, and that's why I led a letter with Ms. Johnson and Ms. Bonamici to Chairman Smith asking that Mr. Pruitt testify before this Committee. So we deserve answers for this concerning behavior of ignoring science and focusing on industry lobbying. The mission of the EPA is to protect the human health and the environment, not work for indus-

try's whims. And Mr. Pruitt is still not confirmed to testify before our committee. We deserve better.

Mr. Chair, I yield back.

Chairman BIGGS. Thank you. And I appreciate all the Members and their very interesting questions, but I most especially express gratitude to our panel, very excellent testimony.

And the record will remain open for two weeks for additional comments and written questions from the Members. This hearing is adjourned.

[Whereupon, at 12:05 p.m., the Subcommittee was adjourned.]

## Appendix I

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### ANSWERS TO POST-HEARING QUESTIONS

## ANSWERS TO POST-HEARING QUESTIONS

*Responses by Mr. Ken Kopocis*

Committee on Science, Space & Technology

***“The Future of WOTUS: Examining the Role of States”***

Questions for the Record to:

Mr. Ken Kopocis, Associate Professor of Law, American University Washington College of Law  
Submitted by Environment Subcommittee Ranking Member Suzanne Bonamici

*1. Mr. Mehl stated in his testimony that requiring permits for ephemeral or intermittent streams is unnecessarily burdensome and that they should not be included in the definition of waters of the United States.*

- a. Can you please elaborate on the role intermittent and ephemeral streams play in the health of downstream waters?*
- b. How does the Clean Water Rule address these types of streams?*
- c. What effect would delisting intermittent and ephemeral streams as waters of the United States have in arid states?*

Answer: In developing the CWR, EPA’s Office of Research and Development prepared an exhaustive synthesis of peer-reviewed science on the impacts of protecting water quality or not protecting water quality on downstream and adjacent waters. This Science Report was also peer-reviewed by EPA’s independent Science Advisory Board and subjected to public comment. The final Science Report provides several key conclusions based on review of the peer-reviewed scientific literature:

1. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, biologically, and chemically connected to downstream rivers and this connection influences the integrity of downstream rivers.
2. Wetlands and open waters in floodplains and riparian areas are physically, chemically and biologically connected with downstream rivers and influence the ecological integrity of such rivers.
3. Non-floodplain wetlands and open waters (i.e., isolated waters) provide many functions that benefit downstream water quality and ecological integrity.
4. The connectivity of streams, wetlands and other surface waters, taken as a whole, to downstream waters occurs along a continuum from highly connected to highly isolated – but these variations in the degree of connectivity are critical to the ecological integrity and sustainability of downstream waters.
5. The critical contribution of upstream waters to the chemical, physical, and biological integrity of downstream waters results from the accumulative contribution of similar waters in the same watershed and in the context of their function considered over time.

Intermittent and ephemeral streams constitute approximately 60 percent of waters nationally. In more arid states, intermittent and ephemeral streams constitute as much as 80 to 90 percent of waters in those states. Because these streams feed into larger waterbodies or are captured in reservoirs, these intermittent and ephemeral streams are contributing sources for the drinking water of one in three Americans, or some 117 million people. Failing to protect these waters from pollution and destruction places this drinking water at risk, or would likely cause drinking water providers to incur additional treatment costs to provide safe water.



In addition to imperiling drinking water sources, water quality goals cannot be maintained in downstream waters if upstream waters are contributing unchecked pollution. When downstream waters become polluted by uncontrolled upstream pollution, the burden of cleaning downstream waters would fall on the downstream communities and industry. In arid states, excluding the overwhelming number of waters would make it impossible to achieve water quality in the downstream major waters. Either the costs of cleanup would be prohibitive, or water quality goals of the Clean Water Act would need to be abandoned. Neither is a desirable outcome.

The Army Corps of Engineers and the Environmental Protection Agency have long asserted that certain, but not all, intermittent and ephemeral tributary streams are provided protection from pollution and destruction under the Clean Water Act. This position is not new to the Clean Water Rule. What was new under the Clean Water Rule (CWR) is that making determinations of which waters would be subject to the Clean Water Act would occur with greater clarity, predictability, and transparency.

The CWR addressed intermittent and ephemeral tributary streams by reducing the costly and time-consuming case-specific significant nexus analysis that resulted from the *Rapanos* decision. The CWR establishes physical indicator characteristics that must be necessary for intermittent and ephemeral tributary streams to be subject to and protected by the Clean Water Act. These indicators are the presence of a bed and banks and an ordinary high water mark. These characteristics indicate a volume, frequency, and duration of flow sufficient to create the required significant nexus. The requirement for these indicators also operates to exclude episodic water features such as sheet flow across land. Additionally, the CWR for the first time specifically excluded erosional features from jurisdiction.

*2. Many states have self-imposed limitations that prevent state regulatory agencies from regulating waters more stringently than the Clean Water Act. A 2013 report by the Environmental Law Institute, funded by the EPA, found that over two-thirds of the states “have laws that could restrict the authority of state agencies or localities to regulate waters left unprotected by the federal Clean Water Act.”*

*a. How would states that have these restrictions be capable of ‘filling the gap’ when it comes to protecting waters not covered by the Clean Water Act? What are the potential results of such a restriction?*

*b. Could you describe the potential negative effects on downstream water sources if a definition of waters of the US were to be adopted that caused certain waterways to fall out of federal Clean Water Act protections? Are states equipped to step in and ensure that current water quality standards are maintained?*

Answer: The Environmental Law Institute (ELI) report clearly indicates that the ability and willingness of states to “fill the gap” is severely constrained. ELI found that the bulk of the restrictions either prohibiting or limiting the authority of state environmental protection agencies are statutory. As such, the practical ability of state agencies to protect waters from pollution and

destruction outside of Clean Water Act jurisdiction is severely limited. A change to state laws would require “substantial expense” undertaken “with potential difficulty.”

The results of limiting the jurisdiction of waters protected by the Clean Water Act will be adverse to state ability to protect water quality. For example, waters outside the scope of the Clean Water Act would no longer be protected by water quality standards that ensure the cleanliness and health of the waters; no state or federal Clean Water Act permits would be required for discharges of pollutants no matter how toxic and destructive; funding to address municipal wastewater, stormwater, and nonpoint source pollution would be less available because Clean Water Act funding provided to the states is targeted to waters subject to the Act; state authority to place requirements to protect water quality on federal permits and licenses would be eliminated for waters no longer under the Act; federal authority to respond to oil spills would be curtailed because both the Clean Water Act and the Oil Pollution Act provide federal funding and authority for waters subject to the interpretation of “navigable waters;” and, states would not be able to rely on federal authorities to recover natural resource damages from oil spills in these waters.

Because the majority of the restrictions are statutory, states have the theoretical ability to step in where the Clean Water Act no longer applies. However, as ELI documents, this would be at substantial expense and difficulty for the states. Recent experience indicates that states do not have the increased state resources for environmental programs that would allow for such additional responsibility to be assumed even if the restrictive provisions were removed. As ELI states in its conclusion: “These provisions are so prevalent nationwide, and many of them are of such breadth, that it is unrealistic to expect state agencies or localities to comprehensively protect surface waters left outside of federal Clean Water Act coverage in the wake of the U.S. Supreme Court’s decisions in *SWANCC* and *Rapanos*.” There is no indication that the conclusion of ELI does not remain sound.

## Appendix II

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ADDITIONAL MATERIAL FOR THE RECORD

STATEMENT SUBMITTED BY EBJ

OPENING STATEMENT**Ranking Member Eddie Bernice Johnson (D-TX)**House Committee on Science, Space, and Technology  
Subcommittee on Environment*“The Future of the WOTUS Rule: Examining the Role of States”*  
November 29, 2017

Good morning. I want to join in welcoming our witnesses, and I look forward to your testimony. A clear definition of what is considered ‘waters of the U.S.’ is important to protecting public health and the environment. A narrow definition would lead to less water bodies being protected under the Clean Water Act. In turn, protecting fewer water bodies could endanger sources of clean drinking water and wetlands that support hunting and fishing. But that is exactly what this administration appears to be trying to do.

The impact of the Clean Water Rule, also known as the WOTUS rule, and its potential repeal and replacement with a narrower definition of waters of the U.S., is deserving of a thoughtful discussion and debate. However today, at a hearing ostensibly to examine the roles of states in the next phase of defining waters of the US, only one state has been brought in to testify, the Subcommittee Chairman’s home state of Arizona. And there is also no one at the table from the EPA to provide an understanding of where things stand at the federal level. It’s now almost December, and the Majority has yet to have a single political appointee from the Trump Administration testify in front of the Committee. This is an abdication of our Committee’s oversight responsibilities.

The “de-facto deregulation” that this Administration is attempting by repealing the Clean Water Rule and replacing it with a narrower definition of waters of the U.S. will have broad impacts on downstream water sources under the Clean Water Act. By allowing certain headwaters, rain-fed or seasonal streams to fall out of jurisdiction of the Clean Water Act, we could potentially adversely impact over 117 million Americans whose public drinking water supplies rely on these sources.

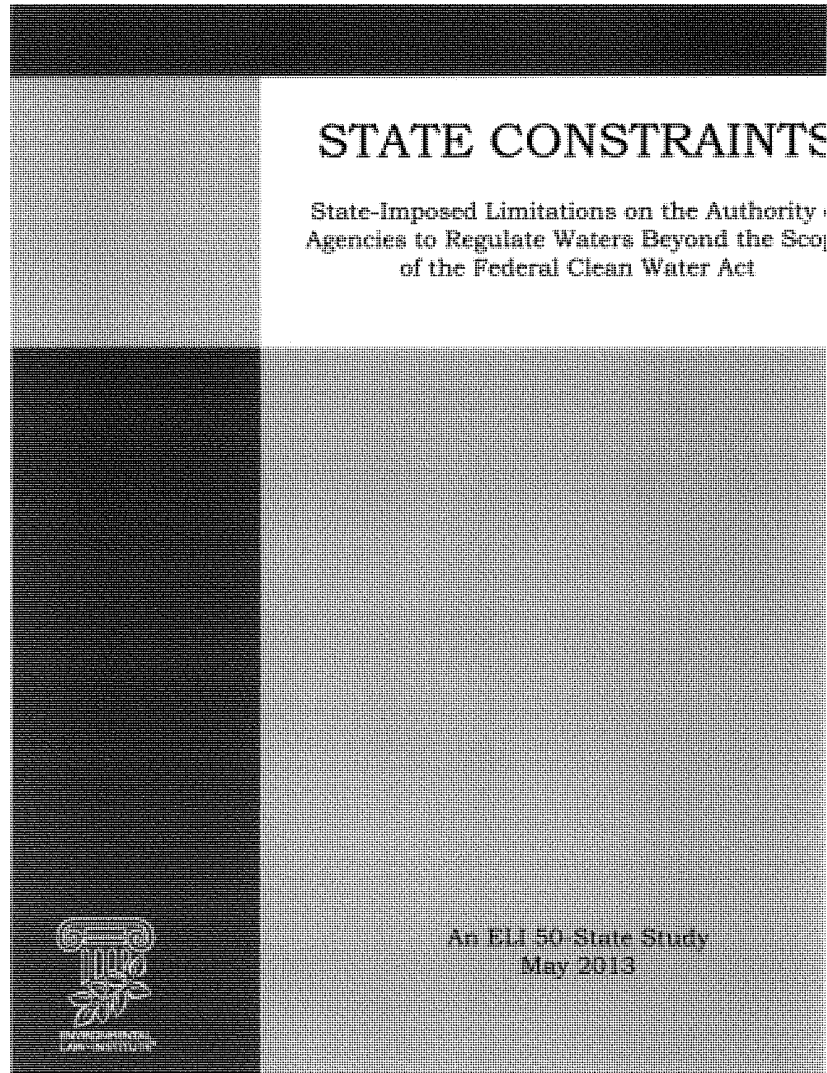
That is why it is vital that we have a comprehensive discussion on this issue. Instead we are again having another incomplete hearing with no representation from the EPA at a hearing focusing on an Agency program. This is a disservice to the American people. With a multitude of changes in EPA priorities and practices being undertaken by this Administration and this Administrator, it is important for Congress to get a full accounting of what is happening at the EPA. This will help to ensure the Agency is being managed in an effective way that is to the benefit of the public.

Earlier this month I led a letter with my fellow Democratic colleagues on this Committee to Chairman Smith requesting a formal hearing with EPA Administrator Scott Pruitt. Since then, it has been reported that Administrator Pruitt will be testifying before both the House Energy and Commerce Committee as well as the Senate Environment and Public Works Committee over the next few months. But we still have not heard of a hearing date for the Administrator to come

before this Committee. As members of the Science Committee, it is our duty to conduct serious oversight of the agency that is in charge of protecting our nation's public health and the environment. I again urge the Chairman to commit to holding a hearing with Administrator Pruitt, and to conduct future hearings with representatives from the EPA present to ensure a well-rounded dialogue.

Thank you, and I yield back the balance of my time.

REPORT SUBMITTED BY REPRESENTATIVE COLLEEN HANABUSA



# STATE CONSTRAINTS

State-Imposed Limitations on the Authority of  
Agencies to Regulate Waters Beyond the  
Scope of the Federal Clean Water Act

An ELI 50-State Study  
May 2013

A PUBLICATION OF THE  
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*State Constraints: State-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act*

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## CONTENTS

|                                                                                                                             |    |
|-----------------------------------------------------------------------------------------------------------------------------|----|
| EXECUTIVE SUMMARY.....                                                                                                      | 1  |
| INTRODUCTION AND BACKGROUND .....                                                                                           | 3  |
| NATIONAL CHARACTERIZATION OF LIMITATIONS CONTAINED IN STATE LAWS .....                                                      | 7  |
| <i>PART I</i>                                                                                                               |    |
| STATES WITH STRINGENCY LIMITATIONS.....                                                                                     | 11 |
| A. STRINGENCY PROHIBITIONS.....                                                                                             | 12 |
| B. QUALIFIED STRINGENCY PROHIBITIONS .....                                                                                  | 13 |
| C. THREE KEY ASPECTS OF A STATE STRINGENCY PROVISION .....                                                                  | 15 |
| D. IMPLICATIONS FOR PROTECTING ADDITIONAL STATE WATERS .....                                                                | 18 |
| <i>PART II</i>                                                                                                              |    |
| STATES WITH PROPERTY-BASED LIMITATIONS.....                                                                                 | 20 |
| A. COMPENSATION/PROHIBITION PROVISIONS .....                                                                                | 21 |
| B. ASSESSMENT PROVISIONS .....                                                                                              | 24 |
| C. OTHER PROVISIONS.....                                                                                                    | 27 |
| D. IMPLICATIONS FOR PROTECTING ADDITIONAL STATE WATERS .....                                                                | 29 |
| <i>PART III</i>                                                                                                             |    |
| SYNTHESIS: COMPARING STATES THAT REGULATE BEYOND THE SCOPE OF THE<br>FEDERAL CLEAN WATER ACT TO STATES THAT SELF-LIMIT..... | 31 |
| CONCLUSION .....                                                                                                            | 36 |
| APPENDIX 1: RESEARCH METHODOLOGY .....                                                                                      | 38 |
| APPENDIX 2: STATE PROFILES .....                                                                                            | 40 |
| ALABAMA .....                                                                                                               | 41 |
| ALASKA.....                                                                                                                 | 42 |
| ARIZONA .....                                                                                                               | 43 |
| ARKANSAS .....                                                                                                              | 49 |
| CALIFORNIA .....                                                                                                            | 52 |

|                            |     |
|----------------------------|-----|
| COLORADO .....             | 54  |
| CONNECTICUT .....          | 57  |
| DELAWARE .....             | 59  |
| DISTRICT OF COLUMBIA ..... | 61  |
| FLORIDA .....              | 62  |
| GEORGIA .....              | 78  |
| HAWAII .....               | 79  |
| IDAHO .....                | 80  |
| ILLINOIS .....             | 86  |
| INDIANA .....              | 87  |
| IOWA .....                 | 93  |
| KANSAS .....               | 97  |
| KENTUCKY .....             | 102 |
| LOUISIANA .....            | 106 |
| MAINE .....                | 114 |
| MARYLAND .....             | 123 |
| MASSACHUSETTS .....        | 126 |
| MICHIGAN .....             | 128 |
| MINNESOTA .....            | 132 |
| MISSISSIPPI .....          | 135 |
| MISSOURI .....             | 141 |
| MONTANA .....              | 143 |
| NEBRASKA .....             | 151 |
| NEVADA .....               | 154 |
| NEW HAMPSHIRE .....        | 157 |
| NEW JERSEY .....           | 158 |
| NEW MEXICO .....           | 163 |
| NEW YORK .....             | 164 |
| NORTH CAROLINA .....       | 166 |
| NORTH DAKOTA .....         | 169 |
| OHIO .....                 | 173 |
| OKLAHOMA .....             | 176 |
| OREGON .....               | 178 |
| PENNSYLVANIA .....         | 191 |
| RHODE ISLAND .....         | 194 |
| SOUTH CAROLINA .....       | 196 |
| SOUTH DAKOTA .....         | 198 |
| TENNESSEE .....            | 200 |
| TEXAS .....                | 204 |
| UTAH .....                 | 213 |
| VERMONT .....              | 220 |
| VIRGINIA .....             | 221 |
| WASHINGTON .....           | 225 |
| WEST VIRGINIA .....        | 229 |
| WISCONSIN .....            | 234 |
| WYOMING .....              | 238 |

## EXECUTIVE SUMMARY

Twice in the last 12 years, the U.S. Supreme Court has issued decisions limiting the reach of the federal Clean Water Act: *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, in 2001, and *Rapanos v. United States*, in 2006. The result has been confusion among judges, regulators, the regulated community, and environmentalists over which waters are “in” for purposes of the federal Clean Water Act, and which waters are “out”—with serious consequences for environmental protection, development planning, and enforcement. Absent comprehensive federal regulation for particular surface waters, it falls to the states to decide whether or not to protect these waters under state law.

State *legislatures* can, without question, enact or amend laws to protect state water resources that have lost federal protection, or whose coverage by federal law is now clouded by legal uncertainty. A few states have done so, with respect to some waters. But *state environmental agencies*, and some local governments, may also seek to use their existing legal authorities to address water resources that are vulnerable and merit additional protection in the face of a newly limited Clean Water Act. This 50-state study examines limitations imposed by state law that could constrain the ability of state agencies (and, to a lesser extent, localities) to do this.

*Findings.* Over two-thirds of U.S. states, 36 in all, have laws that could restrict the authority of state agencies or localities to regulate waters left unprotected by the federal Clean Water Act. These restrictions take the form of absolute or qualified prohibitions that require state law to be “no more stringent than” federal law; property rights limitations; or a combination of the two. Such provisions constrain, and in some instances eliminate, the authority of state or local regulators to protect aquatic resources whose Clean Water Act coverage has disappeared or been rendered uncertain as a result of the *SWANCC* and *Rapanos* decisions. In 14 states and the District of Columbia, there are no such state-law impediments.

*“No more stringent than” laws.* Twenty-eight states have laws that could operate to either prohibit state agencies from regulating waters more stringently than the federal Clean Water Act, or limit their authority to do so. The Clean Water Act establishes national minimum standards—essentially, a stringency “floor”—beneath which states are not allowed to fall in their protection of water quality. States may, however, protect their waters *more* rigorously. A “no more stringent than” prohibition, found in 13 states, ensures that the federal program floor also will be a state “ceiling” with respect to whatever subject matter the stringency provision covers. A “qualified” stringency provision, found in 23 states, makes it more difficult for states to regulate more stringently than the federal programs do, but stops short of creating a bar to state agency action.

*Private property rights laws.* Twenty-two states have adopted legal protections, often contained in state private property rights acts, for the benefit of landowners whose property values may be affected by government regulation. These statutes rarely reference water quality or water pollution directly, but they are likely implicated by any new state regulation that affects the uses to which property may be put. State laws containing what this study calls “compensation/prohibition provisions” can bar or impede new environmental regulation, as agencies generally cannot afford to pay compensation to have their regulations enforced. In other instances, state law requires agencies to perform property impact assessments or take other steps

that serve as a disincentive for an agency to regulate in any manner that arguably affects property rights. Finally, a handful of states have established a property rights ombudsman/advocate, or set up a private property dispute resolution program, which facilitate property owners' ability to challenge state regulations.

*Ability of states to regulate non-CWA waters given these limitations.* Half of the states—25 in all—have in place state regulatory protections that cover at least *some waters* that are either no longer subject to federal coverage following *SWANCC* and *Rapanos*, or whose federal coverage has been rendered uncertain. The list of states that attempt to afford these additional state protections intersects with the list of states identified by this study as having relevant limitations, as follows:

- Eight states—including all EPA Region 1 states except Maine, as well as New York, Illinois, and California—*have no relevant stringency or property-based limitations provisions* and regulate waters more broadly than is required by the Clean Water Act.
- Seven jurisdictions (including the District of Columbia) *have no relevant limitations provisions*, but also do not regulate waters more broadly than is required by the Clean Water Act.
- Seventeen states *have relevant limitations provisions* but also regulate waters more broadly than is required by the Clean Water Act.
- Nineteen states *have relevant limitations provisions* and do not regulate waters more broadly than is required by the Clean Water Act. This category includes all EPA Region 8 states, and all Region 6 states but New Mexico. These states thus have an identifiable “gap” in the coverage of their waters following *SWANCC* and *Rapanos*, but are constrained (to varying degrees) in regulating to fill that gap under existing state laws.

These findings are summarized in the table below.

| <b>State-by-State Breakdown: Presence of Relevant Limitations Provisions Versus Whether State Waters Are Regulated More Broadly than Required by Federal CWA</b> |                                                                                |                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                                                                  | States that <b>regulate waters more broadly</b> than required by the CWA       | States that <b>do not</b> regulate waters more broadly than required by the CWA        |
| States <b>with</b> relevant limitations provisions                                                                                                               | FL, IN, ME, MD, MI, MN, NE, NJ, NC, OH, OR, PA, TN, VA, WV, WA, WI [17 states] | AZ, AR, CO, DE, ID, IA, KS, KY, LA, MS, MO, MT, NV, ND, OK, SD, TX, UT, WY [19 states] |
| States <b>without</b> relevant limitations provisions                                                                                                            | CA, CT, IL, MA, NH, NY, RI, VT [8 states]                                      | AL, AK, DC, GA, HI, NM, SC [6 states and DC]                                           |

*Conclusion.* State laws imposing limitations on the authority of state agencies (and to some extent, municipalities) to protect aquatic resources are commonplace. Although these laws vary significantly in their scope and application, they can constrain, and in some cases eliminate, the ability of state regulators to protect waters no longer covered by the federal Clean Water Act, or whose federal protection has become uncertain. Since these laws are statutory, they do not affect the ability of state legislatures to alter them or to enact additional water protections. However, the prevalence of these state constraints across the country, together with the reality that only half of all states already protect waters more broadly than is required by federal law, suggest that states are not currently “filling the gap” left by U.S. Supreme Court rulings limiting the Clean Water Act, and face significant obstacles to doing so.

## INTRODUCTION AND BACKGROUND

The protections of the federal Clean Water Act, enacted in 1972, apply to “navigable waters.”<sup>1</sup> This jurisdictional term—on which all of the Act’s programs stand—is defined under the Act to mean “waters of the United States,”<sup>2</sup> a phrase that the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) have further clarified by regulation.<sup>3</sup> A water body—be it a river, a wetland, an ephemeral stream, a “prairie pothole,” an oxbow lake, or any other kind of surface water—is covered by a Clean Water Act program only if it is a water of the United States. A water deemed *not* to be a water of the United States lies outside the scope of the federal Act. Protections for these waters, if any, must come from the law of the state where it is found. If no state law covers that water or the activity affecting it, a property owner is typically free to dredge, fill, discharge pollutants to, or otherwise alter that water at will, for development or any other reason.

As a result of two U.S. Supreme Court decisions over the last twelve years, the issue of state regulation of waters that lie outside of federal Clean Water Act jurisdiction has assumed heightened importance. In 2001, the U.S. Supreme Court decided *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*,<sup>4</sup> commonly known as the *SWANCC* case. In a five-to-four ruling, the Court concluded that Congress did not intend the federal Clean Water Act to reach “isolated ponds, some only seasonal” that were located wholly within one state, where the lone asserted basis for federal jurisdiction was their use as habitat by migratory birds. After *SWANCC*, waters deemed to be “isolated” have been vulnerable to losing their Clean Water Act protection, and no intrastate, non-navigable, isolated waters have been found to be jurisdictional.

In 2006, the Supreme Court again addressed the jurisdictional scope of the Clean Water Act, this time in *Rapanos v. United States*.<sup>5</sup> This badly divided decision lacked a majority opinion and stands as the Court’s latest word on the reach of the Clean Water Act. *Rapanos* established

<sup>1</sup> *E.g.*, 33 U.S.C. § 1251(a), CWA § 101(a) (referencing national clean water goals and policies in the context of navigable waters); 33 U.S.C. § 1313(c)(2)(a), CWA § 303(c)(2)(a) (discussing requirement of water quality standards for navigable waters); 33 U.S.C. § 1342(a), CWA § 402(a) (discussing permits for discharge of pollutants into navigable waters); 33 U.S.C. § 1344(a), CWA § 404(a) (providing for issuance of permits for the discharge of dredged or fill material into navigable waters); 33 U.S.C. § 1362(12), CWA § 502(12) (defining “discharge of a pollutant” as an addition of any pollutant to navigable waters).

<sup>2</sup> 33 U.S.C. § 1362(7), CWA § 502(7).

<sup>3</sup> 33 C.F.R. § 328.3 (Corps); 40 C.F.R. § 230.3(s) (EPA). The two agencies also have issued various joint guidance documents on the scope of the term “waters of the United States.” See “U.S. Army Corps of Engineers/Environmental Protection Agency, The Scope of Clean Water Act Jurisdiction after *SWANCC*,” Jan. 15, 2003. See also U.S. Army Corps of Engineers/Environmental Protection Agency, “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States* & *Carabell v. United States*,” Dec. 2, 2008 (currently in effect), available at [http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008\\_12\\_3\\_wetlands\\_CWA\\_Jurisdiction\\_Following\\_Rapanos120208.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf); and U.S. Army Corps of Engineers/U.S. Environmental Protection Agency, “Draft Guidance on Identifying Waters Protected by the Clean Water Act,” May 2, 2011 (still under review and not in effect), available at [http://water.epa.gov/lawsregs/guidance/wetlands/upload/wous\\_guidance\\_4-2011.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/wous_guidance_4-2011.pdf).

<sup>4</sup> 531 U.S. 159 (2001).

<sup>5</sup> 547 U.S. 715 (2006).

two different rules for determining whether wetlands (and, perhaps, other waters) are jurisdictional under the federal Act. Justice Scalia's plurality opinion would find Clean Water Act coverage for a wetland where the wetland has a *continuous surface connection* with a *relatively permanent* body of water that is connected to traditional interstate navigable waters.<sup>6</sup> Justice Kennedy's concurring opinion in *Rapanos* would find coverage for wetlands where there is a *significant nexus* between the wetlands and downstream waters—*i.e.*, where the wetlands, “either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as ‘navigable.’”<sup>7</sup>

*Rapanos* has generated federal litigation arising out of more than two thirds of all U.S. states. Now almost seven years since the case was decided, the courts of appeals still differ as to which *Rapanos* opinion, or opinions, provide the proper test for Clean Water Act jurisdiction. Three U.S. circuit courts of appeals have ruled that Clean Water Act jurisdiction exists if a water meets *either* the Kennedy significant nexus test *or* the Scalia plurality test.<sup>8</sup> This is also the position taken by EPA, the Corps, and the Justice Department.<sup>9</sup> Three other circuits have approved the use of the Kennedy significant nexus test to find jurisdiction—without necessarily foreclosing the possibility that the Scalia plurality test could be used in future cases.<sup>10</sup> One circuit has held that Kennedy's significant nexus test alone provides the rule of *Rapanos*.<sup>11</sup> Finally, two circuits have each considered a post-*Rapanos* case presenting questions of Clean Water Act jurisdiction but declined to decide on a controlling legal standard.<sup>12</sup> The remaining federal circuit courts have

<sup>6</sup> *Id.* at 742 (Scalia, J., plurality). In other words, the wetland must be linked to downstream waters by a “water of the United States.” *Id.* However, the plurality would “not necessarily exclude” from the category of “relatively permanent waters” rivers or streams that are seasonal or that dry up under extraordinary circumstances. *Id.* at 733 n.5.

<sup>7</sup> *Id.* at 780 (Kennedy, J., concurring).

<sup>8</sup> See *United States v. Johnson*, 467 F.3d 56 (1st Cir. 2006); *United States v. Donovan*, 661 F.3d 174 (3d Cir. 2011); *United States v. Bailey*, 571 F.3d 791 (8th Cir. 2009). In *Rapanos*, Justice Stevens foresaw the confusion that was likely to arise from the Court's divided ruling and proposed precisely this approach for interpreting the decision. *Rapanos*, 547 U.S. at 810 (Stevens, J., dissenting) (“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>9</sup> See *supra* note 3, Corps/EPA 2008 guidance at 3, and Corps/EPA 2011 proposed draft guidance at 2. See also “Interpreting the Effect of the U.S. Supreme Court’s Recent Decision in the Joint Cases of *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* on ‘The Waters of the United States,’” Hearing Before the Subcomm. on Fish, Wildlife, and Water of the S. Comm. on Environment and Public Works, 109th Cong. 16 (2006) (statement of John C. Cruden, then-Deputy Assistant Attorney General, Environment and Natural Resources Division, U.S. Department of Justice) (reporting that the Department has argued to courts that a wetland is jurisdictional under the Clean Water Act if either the *Rapanos* Scalia plurality test or Justice Kennedy’s significant nexus test is met in a particular fact situation).

<sup>10</sup> See *Precon Development Corp., Inc. v. U.S. Army Corps of Engineers*, 633 F.3d 278 (4th Cir. 2011); *United States v. Gerke Excavating, Inc.*, 464 F.3d 723 (7th Cir. 2006) (per curiam); *Northern California River Watch v. City of Healdsburg*, 496 F.3d 993 (9th Cir. 2007), *withdrawing and superseding on denial of reh’g*, 457 F.3d 1023 (9th Cir. 2006); *Northern California River Watch v. Wilcox*, 633 F.3d 766 (9th Cir. 2011), *amending and superseding earlier opinion* at 620 F.3d 1075 (9th Cir. 2010).

<sup>11</sup> *United States v. Robison*, 505 F.3d 1208 (11th Cir. 2007).

<sup>12</sup> *United States v. Lucas*, 516 F.3d 316 (5th Cir. 2008); *United States v. Cundiff*, 555 F.3d 200 (6th Cir. 2009), *affirming* 480 F. Supp. 2d 940 (W.D. Ky. 2007).

not addressed the issue. No appeals court has ruled that the Scalia plurality test alone provides the rule of *Rapanos*. Essentially, the courts agree only that if a water satisfies the Kennedy significant nexus test, that water is jurisdictional. However, unless and until new federal regulations are issued by EPA and the Corps, the significant nexus test must be applied on a case-by-case basis, rather than to categories of waters.<sup>13</sup>

The legacy of *SWANCC* and *Rapanos* has been to sow confusion among judges, regulators, the regulated community, and environmentalists over which waters are “in” and which waters are “out” for purposes of the federal Clean Water Act—with very real consequences both for protecting and using America’s water resources<sup>14</sup> and for ensuring sound federal enforcement.<sup>15</sup> The resulting post-*SWANCC/Rapanos* “gap” in federal Clean Water Act coverage has focused renewed attention on the states. They, of course, remain free to protect or otherwise regulate *under state law* any waters that lie beyond the reach of the Clean Water Act, or waters whose coverage under the federal Act has been rendered uncertain by the two Supreme Court decisions. State legislatures can adopt new legal protections as they like, and several states have responded legislatively to the change in federal law. But enacting state legislation is a slow and difficult endeavor, given competing political priorities at the state capital. It is state agencies—and typically the state department of environmental protection—that usually possess the expertise (as well as a legislative mandate) to address water protection issues through regulatory and permitting processes that target the waters of greatest concern. Additionally, cities and counties, which are often more knowledgeable about local conditions and needs than distant state legislators, may have the greatest incentive to protect their water resources.

So the question becomes, in the wake of *SWANCC* and *Rapanos*, *can* state agencies and localities readily and effectively “fill the gap” in federal protection for state surface waters, relying on existing state legal authorities under water pollution control laws, dredge-and-fill laws, or other state statutes?<sup>16</sup> The results of this study indicate that, in many instances, the practical answer is “no”—or only at substantial expense and with potential difficulty. The explanation lies

<sup>13</sup> See *Rapanos*, 547 U.S. at 782 (Kennedy, J. concurring). For more on the significant nexus test, and for a detailed treatment of the current science and law of Clean Water Act jurisdiction—including summaries of all post-*Rapanos* court rulings nationwide—see Environmental Law Institute, *Clean Water Act Jurisdictional Handbook, Second Edition* (May 2012), available at [http://www.elistore.org/reports\\_detail.asp?ID=11425](http://www.elistore.org/reports_detail.asp?ID=11425).

<sup>14</sup> See, e.g., Environmental Law Institute, *America’s Vulnerable Waters: Assessing the Nation’s Portfolio of Vulnerable Aquatic Resources Since Rapanos v. United States* (Aug. 2011) (identifying a range of aquatic resource types that the U.S. Army Corps of Engineers often determines are not protected by the CWA), available at [http://www.elistore.org/reports\\_detail.asp?ID=11416](http://www.elistore.org/reports_detail.asp?ID=11416).

<sup>15</sup> See, e.g., Charles Duhigg and Janet Roberts, “Rulings Restrict Clean Water Act, Foiling E.P.A.,” *New York Times*, Feb. 28, 2010, at A1 (“Thousands of the nation’s largest water polluters are outside the Clean Water Act’s reach because the Supreme Court has left uncertain which waterways are protected by that law, according to interviews with regulators.”). See also Memorandum from Granta Y. Nakayama, EPA Ass’t Administrator for Enforcement & Compliance Assurance, to Benjamin Grumbles, EPA Ass’t Administrator for Water, Re: Clean Water Act Enforcement, Post-*Rapanos* (Mar. 4, 2008) (discussing negative effect of *Rapanos* on hundreds of enforcement cases).

<sup>16</sup> Although this report focuses mainly on regulation by state agencies, localities, too, can act to protect their local water resources—including so-called “isolated” surface waters. For example, Lake County, Illinois has an ordinance that expressly protects isolated wetlands and intermittent streams that are not subject to Clean Water Act jurisdiction. See Lake County Stormwater Management Commission, Watershed Development Ordinance at 72-73 (eff. Nov. 18, 2008) (defining “isolated waters of Lake County”).

in two kinds of state laws: those that bar or limit the adoption of regulations that are “more stringent” than corresponding federal laws or rules, and those that constrain government action in service of protecting private property rights. Past articles and reports have addressed the subject of so-called “no more stringent than” laws. In 1995, articles published in the *Environmental Law Reporter* and the *Maryland Law Review* were among the first to explore the application of these state laws in the field of environmental protection.<sup>17</sup> The former State Environmental Resource Center also undertook work in this area.<sup>18</sup> A 2004 law student article expanded the discussion of state-imposed regulatory limitations by examining the role of state private property rights acts—and explored what state stringency and property rights laws meant for wetlands protection, post-SWANCC.<sup>19</sup> Other writings also have highlighted the rise of state private property rights laws.<sup>20</sup>

This study builds on and updates these earlier efforts, in the context of how state legal limitations could constrain the ability of state agencies and localities to regulate waters that lie outside of the scope of the Clean Water Act, as it is interpreted post-SWANCC and post-Rapanos.<sup>21</sup> This report presents an overview, discussion, and synthesis of the study’s findings and their implications. Appendix 2 contains a detailed profile for every state, including a discussion of and citations to that state’s stringency prohibitions and property-based limitations. Each state profile concludes with a snapshot of how that state’s existing legal framework may (or may not) already provide legal protections for waters that are subject to a loss of protection under federal law.

<sup>17</sup> See James M. McElfish, Jr., “Minimal Stringency: Abdication of State Innovation,” 25 *Environmental Law Reporter* 10003 (1995) (hereinafter “Minimal Stringency”); Jerome M. Organ, “Limitations on State Agency Authority to Adopt Environmental Standards More Stringent than Federal Standards: Policy Considerations and Interpretive Problems,” 54 *Md. L. Rev.* 1373 (1995) (hereinafter “Limitations on State Agency Authority”). See also Environmental Law Institute, *Enforceable State Mechanisms for the Control of Nonpoint Source Water Pollution*, Appendix: State “No More Stringent” Laws (Oct. 1997) (collecting state stringency statutes applicable to regulation of non-point source pollutants), reproduced by U.S. EPA at <http://water.epa.gov/polwaste/nps/appendix.cfm>.

<sup>18</sup> See State Environmental Resource Center (SERC), “Issue: ‘No More Stringent Laws’ (2004), available at <http://www.serconline.org/noMoreStringent.html>. In 2004, SERC became the Wisconsin office of Defenders of Wildlife.

<sup>19</sup> Andrew Hecht, “Obstacles to the Devolution of Environmental Protection: States’ Self-Imposed Limitations on Rulemaking,” 15 *Duke Envtl. L. & Pol’y F.* 105 (2004) (student note) (hereinafter “Obstacles to Devolution”). But see R. Benjamin Lingle, “The Constitutionality and Economic Impacts of Federal Jurisdiction of Wetlands: The Clean Water Restoration Act of 2009,” 62 *Fla. L. Rev.* 1091, 1112-14 (Sept. 2010) (student note) (arguing that because state legislatures that wish to expand state protection of waters are free to disable state stringency limitations that stand in the way, any prohibition on states created by such rules is, “at least in part, illusory”).

<sup>20</sup> See, e.g., Georgetown Environmental Law and Policy Institute, *The Track Record on Takings Legislation: Lessons from Democracy’s Laboratories* (2008), republished at 28 *Stan. Envtl. L.J.* 439 (2009) (hereinafter *Track Record*) (examining passage and application of state laws that contain takings “compensation” measures, with particular emphasis on the experiences of Florida and Oregon). See also John D. Echeverria, “The Politics of Property Rights,” 50 *Okla. L. Rev.* 351 (1997) (critically analyzing property rights as a political issue); John R. Nolon, “Takings and Property Rights Legislation,” *Envtl. Outlook*, v. 2, no. 2 (winter 1996) (examining trends in state regulatory takings legislation).

<sup>21</sup> This study does *not* consider the following environmental subject matter areas where state “no more stringent than” laws have proliferated over the years: surface mining regulation, hazardous waste disposal, regulation of underground storage tanks, and clean air rulemaking. For discussions of the state stringency statutes that cover these areas, see generally “Minimal Stringency” and “Limitations on State Agency Authority,” *supra* note 17, and “Obstacles to Devolution,” *supra* note 19.

It is also important to note, as discussed at page 35, that some states that *do have* stringency or property rights limitations nevertheless regulate waters more broadly than is required under the Clean Water Act.



\*Visit <https://www.eli.org/sites/default/files/eli-pubs/d23-04.pdf> to view the entire report.

## LETTER SUBMITTED BY REPRESENTATIVE COLLEEN HANABUSA

Chairman Andy Biggs  
House Committee on Science, Space,  
and Technology  
Subcommittee on Environment  
2321 Rayburn House Office Building  
Washington, DC 20515

Ranking Member Suzanne Bonamici  
House Committee on Science, Space,  
and Technology  
Subcommittee on Environment  
2321 Rayburn House Office Building  
Washington, DC 20515

November 28, 2017

Dear Chairman Biggs and Ranking Member Bonamici,

On behalf of our millions of supporters, the undersigned hunting, fishing, and conservation groups write to express our support of the critical Clean Water Act protections laid out in the 2015 Clean Water Rule and our opposition to rolling back those protections.

The rulemaking process for the Clean Water Rule began in 2011 because the scope of the Clean Water Act – and which waters fell within its protection – had become unclear in the wake of two U.S. Supreme Court cases. Stakeholders representing the regulated community, irrigators, local governments, Congress, the Chief Justice on the Supreme Court, and others had all urged the agencies to write a clarifying rule. The agencies provided ample time for stakeholders to engage in the rulemaking process – they took comments for over 200 days, from April 21 to November 14, 2014 and held over 400 stakeholder meetings across the country. During the 2015 Clean Water Rule rulemaking process, over 800,000 people commented in support of Clean Water Act protections for smaller streams and wetlands, and over the past several months, more than 500,000 stakeholders have commented in opposition of attempt to repeal the rule.

In order to ensure a strong scientific and technical foundation for the 2015 Clean Water Rule, EPA's Office of Research and Development issued the report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*. In the report, the EPA reviewed more than 1,200 peer-reviewed publications and summarized the current scientific understanding about the connectivity and mechanisms by which streams and wetlands, singly or in aggregate, affect the physical, chemical, and biological integrity of downstream waters. This report underwent an external review by EPA's Science Advisory Board consisting of 27 topic experts representing independent experts in their field providing a range of expertise required to assess the scientific and technical aspects of connectivity. The EPA Connectivity report represents the state-of-the-science on the connectivity and isolation of waters in the United States. Hunters and anglers strongly supported the report given its technical and scientific nature.

Hunters and anglers broadly celebrated the Clean Water Rule because it would help clarify federal jurisdiction over "Waters of the United States" and conserve the roughly 60 percent of stream miles and 20 million acres of wetlands (and thereby the downstream waters into which they flow) at risk of being polluted or destroyed because of the jurisdictional confusion. These waters contribute to the drinking water supplies of 117 million Americans, protect communities from flooding, and provide essential fish and wildlife habitat that supports a robust outdoor recreation economy worth \$887 billion. Moreover, wetlands filter pollution from agriculture and

storm water runoff, recharge groundwater supplies, and store large volumes of flood water. As we have seen from recent devastating natural disasters, protecting wetlands, which serve as flood mitigation systems, is critical. In the United States, 9.6 million homes and \$390 billion in property are located in 15,000 square miles of flood-prone areas. During Hurricane Sandy alone, wetlands prevented \$625 million in direct flood damages.

Every year, over 47 million Americans head into the field to hunt or fish. The hunting and fishing industries in the United States directly employ 483,000 Americans and adds billions of dollars in additional spending. The economic benefits of hunting and fishing – which total \$200 billion a year – are especially pronounced in rural areas, where money brought in during fishing and hunting seasons can be enough to keep small businesses operational for the entire year. However, hunting and fishing do not merely provide economic and conservation benefits. They are a heritage that we cherish and want to pass along to our children. If the nation loses streams to nutrient and other pollution and wetlands are drained, it loses fish, wildlife, and sporting access along with them.

As the subcommittee also considers the role of states in its upcoming hearing, we ask members to keep in mind that while 46 states have sought – and obtained – delegation of the § 402 point source discharge program, only two states conduct their own § 404 permit programs. It has been 17 years since the U.S. Supreme Court issued its SWANCC decision and over a decade since the Rapanos decision, yet additional states have not asked for delegation of the § 404 permit program since that time. Mostly, it is just too expensive for states to assume responsibility for the § 404 program, as a [2015 Montana study](#) demonstrated. There is no evidence to support a claim that states would step in to protect wetlands through state regulatory programs should the Clean Water Act protections for headwater streams and wetlands be rolled back. This would put the wetlands that sportsmen and women love at risk once again.

Our country's waterways and the American public have benefitted enormously from the Clean Water Act. Narrowing the scope of waters protected by the Clean Water Act jeopardizes our progress towards achieving fishable, swimmable, and drinkable water for all Americans.

We thank the committee for its consideration of the views expressed in this letter.

Sincerely,

American Fisheries Society  
 Arizona Wildlife Federation  
 Backcountry Hunters & Anglers  
 Fly Fishers International  
 Izaak Walton League of America  
 National Wildlife Federation  
 Theodore Roosevelt Conservation Partnership  
 Trout Unlimited

LETTER SUBMITTED BY REPRESENTATIVE MARK TAKANO

November 29, 2017

The Honorable Lamar Smith  
Chairman  
House Committee on Science, Space,  
and Technology  
2321 Rayburn House Office Building  
Washington, DC 20515

The Honorable Eddie Bernice Johnson  
Ranking Member  
House Committee on Science, Space,  
and Technology  
2321 Rayburn House Office Building  
Washington, DC 20515

The Honorable Andy Biggs  
Chairman  
Subcommittee on Environment  
House Committee on Science, Space,  
and Technology  
2321 Rayburn House Office Building  
Washington, DC 20515

The Honorable Suzanne Bonamici  
Ranking Member  
Subcommittee on Environment  
House Committee on Science, Space,  
and Technology  
2321 Rayburn House Office Building  
Washington, DC 20515

**RE: 60+ Groups from Across the Country Urge Support for the Critical Safeguards in the 2015 Clean Water Rule**

Dear Chairman Smith, Chairman Biggs, Ranking Member Johnson, and Ranking Member Bonamici,

In light of the House Science, Space, and Technology Subcommittee on the Environment holding a hearing to discuss “The Future of WOTUS: Examining the Role of States,” we write on behalf of our millions of supporters to express our support of the critical clean water protections laid out in the 2015 Clean Water Rule, and our opposition to rolling back those necessary protections.

The Clean Water Rule, finalized by EPA and Army Corps in 2015, was the result of vigorous public engagement over several years and developed using clear science and legal reasoning. The rulemaking was also a response to a request by stakeholders—ranging from states to regulated dischargers to environmental groups—for more clarity regarding which waterways were protected under the Clean Water Act. The agencies provided ample time for stakeholders to engage in the rulemaking process – they took comments for over 200 days, from April 21 to November 14, 2014, and held over 400 stakeholder meetings across the country. Over one million people have commented in support of the protections laid out in the 2015 Clean Water Rule since it was first proposed in 2014.

Years of scientific review, which included the findings of more than 1,200 peer-reviewed publications, led the agencies to conclude that headwater, seasonal, and rain-dependent streams, along with numerous wetlands and other water bodies, serve critical functions and should be entitled to the protections laid out in the Clean Water Act. Notably, one in three Americans receive drinking water from public water systems that draw supply from the kinds of streams the Clean Water Rule sought to protect. Moreover, wetlands filter pollution from contaminated runoff, recharge groundwater supplies, and store large volumes of flood water. As we have seen

from recent extreme weather events, protecting wetlands, which serve as flood mitigation systems, is critical – 9.6 million homes and \$390 billion in property are located in 15,000 square miles of flood-prone areas. During Hurricane Sandy alone, wetlands avoided \$625 million in direct flood damages.

The Clean Water Rule also supports the outdoor recreation economy. According to the Outdoor Industry Association, Americans spend \$887 billion annually in outdoor recreation, and the outdoor recreation economy is responsible for 7.6 million American jobs. Streams and wetlands, many of which would be protected by the 2015 rule, provide essential fish and wildlife habitat and other recreational opportunities that are crucial for hunters, anglers, paddlers, and hikers, as well as the small businesses they support. Indeed, according to a bipartisan survey, 83 percent of hunters and anglers supported the 2015 Clean Water Rule.

Our country's waterways and the American public have benefitted enormously from the protections laid out in the 1972 Clean Water Act. However, by attacking the Clean Water Rule and attempting to redefine the Waters of the United States to narrow the scope of waters protected, the Trump Administration is defying the intent of the Clean Water Act itself, jeopardizing progress towards achieving more fishable, swimmable, and drinkable water for all Americans.

We thank the committee for its consideration of the views expressed in this letter and urge members to keep in mind the necessary public health and environmental protections laid out in the Clean Water Rule as it is discussed in the hearing today.

Sincerely,

*National Groups*

Alaska Wilderness League  
 American Rivers  
 American Sustainable Business Council  
 Clean Water Action  
 Earthjustice  
 Endangered Species Coalition  
 Environment America  
 Hip Hop Caucus  
 League of Conservation Voters  
 League of United Latin American Citizens  
 National Audubon Society  
 National Parks Conservation Association  
 Natural Resources Defense Council  
 Physicians for Social Responsibility  
 River Network  
 Sierra Club  
 Voces

Regional Groups

Connecticut River Conservancy  
 John Flannagan Dam Advisory Group  
 Southern Environmental Law Center  
 Tennessee Riverkeeper

Local/State-Based Groups

Alabama Rivers Alliance, *Alabama*  
 Black Warrior Riverkeeper, *Birmingham, Alabama*  
 Cahaba River Society, *Birmingham, Alabama*  
 Choctawhatchee Riverkeeper, *Troy, Alabama*  
 Hurricane Creekkeeper, *Tuscaloosa, Alabama*  
 Little River Waterkeeper, *Fort Payne, Alabama*  
 One World Adventure Company, *Fort Payne, Alabama*  
 Copper River Watershed Project, *Copper River Drainage, Alaska*  
 Dry Creek Conservancy, *Sacramento, California*  
 Environment Florida, *Florida*  
 Florida Wildlife Federation, *Tallahassee, Florida*  
 Save the Manatee Club, *Florida*  
 Hanalei Watershed Hui, *Hanalei, Hawaii*  
 Idaho Conservation League, *Idaho*  
 Prairie Rivers Network, *Champaign Illinois*  
 Environmental Law & Policy Center, *Chicago, Illinois*  
 Illinois Council of Trout Unlimited, *Illinois*  
 Maine Rivers, *Maine*  
 Massachusetts Rivers Alliance, *Massachusetts*  
 Freshwater Future, *Michigan*  
 New Hampshire Rivers Council, *New Hampshire*  
 Hackensack Riverkeeper, *Hackensack, New Jersey*  
 Onondaga Environmental Institute, *Syracuse, New York*  
 Groundwork Cincinnati-Mill Creek, *Cincinnati, Ohio*  
 Mill Creek Watershed Council of Communities, *Cincinnati, Ohio*  
 Ohio Environmental Council, *Columbus, Ohio*  
 WaterWatch of Oregon, *Oregon*  
 Columbia Riverkeeper, *Hood River, OR/Columbia River Basin*  
 Environment Oregon, *Portland, Oregon*  
 TN Environmental Council, *Nashville, Tennessee*  
 Environment Texas, *Austin, Texas*  
 Utah Rivers Council, *Salt Lake City, Utah*  
 Friends of the Russell Fork, *Virginia*  
 Virginia League of Conservation Voters, *Virginia*  
 Virginia Conservation Network, *Virginia*  
 Milwaukee Riverkeeper, *Milwaukee, Wisconsin*  
 Northwest Watershed Institute, *Washington*  
 Puget Soundkeeper Alliance, *Seattle, Washington*  
 River Alliance of Wisconsin, *Wisconsin*  
 OVEC-Ohio Valley Environmental Coalition, *Huntington, West Virginia*

LETTER SUBMITTED BY REPRESENTATIVE PAUL TONKO

September 25, 2017

Ms. Donna Downing  
Office of Water (4504-T)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Ms. Stacey Jensen  
Regulatory Community of Practice (CECW-CO-R)  
U.S. Army Corps of Engineers  
441 G Street NW  
Washington, DC 20314

***RE: Public Comments on EPA-HQ-OW-2017-0203, Definition of “Waters of the United States” - Recodification of Pre-existing Rules***

Dear Ms. Downing and Ms. Jensen:

We the undersigned are professional aquatic scientists from across the United States with broad knowledge of the physical, chemical, and biological characteristics of streams, wetlands, and other aquatic ecosystems. We write in opposition to repeal of the Clean Water Rule because we support science-based environmental policy, and current science overwhelmingly supports the existing Clean Water Rule.

We are concerned that rescinding the Clean Water Rule will have detrimental impacts on ephemeral and intermittent streams and wetlands. The EPA’s Connectivity Report, and the over 1,200 peer-reviewed scientific publications on which it is based, clearly established the vital importance of these natural features to clean water and the health of the nation’s rivers. Repealing the Clean Water Rule, and thus removing protections for a significant portion of waters in the United States, violates the letter and spirit of the Clean Water Act.

The Clean Water Act (CWA) defines traditionally navigable waters, interstate waters, and territorial seas as “waters of the United States”; this definition has been further refined by case law and agency guidance over the last few decades. However, uncertainty regarding the jurisdictional reach of the CWA following several Supreme Court decisions [*United States v. Riverside Bayview Homes*, *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, and *Rapanos v. United States*] hampered protection for many of the nation’s waters, putting our rivers, small streams, and wetlands at risk. The Clean Water Rule provides clarity regarding the scope of the protections afforded by the CWA and describes which types of waters are and are not categorially protected by the CWA. In so doing, the Clean Water Rule ensures that tributaries, including ephemeral and intermittent streams, and waters adjacent to those tributaries, including wetlands and oxbows, are protected as jurisdictional waters based on their connections to the navigable waterways that have traditionally been recognized as waters of the United States. Repealing the Rule will again put these ecologically significant waterways at risk.

Scientific studies demonstrate that tributary streams, adjacent waters, and wetlands are chemically, physically, and biologically connected to downstream waters, including traditional navigable waters, interstate waters, and territorial seas.<sup>1</sup> Streams, wetlands, and adjacent waters affect the functions and integrity of downstream waters through the delivery of water (i.e., flow); transport of nutrients, sediment, and contaminants; and by providing foraging, breeding, spawning, and nursery habitat for organisms (e.g., fish, macroinvertebrates, waterbirds) residing in, or associated with, waterways that are unarguably protected by the CWA, as well as pathways for the movement of these organisms. Streams, wetlands, and adjacent waters can also delay or control the release of materials to downstream waters: they store water and sediment; retain and transform nutrients, metals, and pesticides; and recharge groundwater. Degradation of these connected aquatic ecosystems can lead to the loss or reduction of important ecological functions that benefit downstream waterbodies—including flood attenuation, sediment trapping, and nutrient and pollutant removal. As a result, communities may be impacted by increased flood damage, reduced recreational opportunities, impeded navigation, compromised fisheries, and increased costs of water filtration for drinking supply and industrial use if these waterways are not protected.

The Clean Water Rule was developed using the best available science from high-quality, peer-reviewed studies and was subject to an exhaustive outreach, review, and public comment process. We are disappointed that the current Administration has proposed dismantling the Rule with minimal consultation and without scientific justification. The undersigned scientists strongly oppose the repeal of the Clean Water Rule.

Sincerely,

Laura S. Craig, PhD  
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Science & Economics Program  
American Rivers  
Washington, District of Columbia

Michele Adams, PE  
Founder  
Meliora Environmental Design, LLC  
Phoenixville, PA

Paul Adamus, PhD  
Courtesy Faculty  
Oregon State University  
Corvallis, OR

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<sup>1</sup> U.S. Environmental Protection Agency, Office of Research and Development, Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence, See <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=296414>



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LETTER SUBMITTED BY REPRESENTATIVE PAUL TONKO



September 26, 2017

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Re: Docket ID No. EPA-HQ-OW-2017-0203; FRL-9962-34-OW; Definition of "Waters of the United States" - Recodification of Pre-existing Rules

Dear Administrator Pruitt and Deputy Assistant Secretary Lamont:

These comments are submitted regarding the proposed rule, Definition of "Waters of the United States" - Recodification of Pre-existing Rules, EPA-HQ-OW-2017-0203; FRL-9962-34-OW, published in the Federal Register on July 27, 2017. On behalf of the approximately 3,000+ members of the Society for Wetland Scientists (SWS). Our society *strongly opposes the proposed rule to rescind* the definition of "Waters of the United States" (WOTUS) as promulgated by the Agencies in 2015 (Clean Water Rule: Definition of Waters of the United States; 80 FR 37054, June 29, 2015) (2015 CWR).

The Society of Wetland Scientists (SWS) is an international scientific organization whose members study, manage, and restore wetlands. We are a science-based and non-profit organization. Our members have numerous areas of expertise in the ecological, chemical, geological and biological sciences, and they work in the private sector, academia, and tribal, state and federal agencies. SWS holds multiple scientific meetings each year focused on wetlands throughout the world and publishes the most important, peer-reviewed journal dealing with wetlands (*Wetlands*) in the world.

Wetlands have many significant attributes important to the national economy and citizen well-being. Wetlands play a disproportionately significant role in protecting our nation's waters by retaining, degrading, or transforming contaminants from urban, mining, timber harvesting and agricultural runoff that would otherwise pollute downstream areas in a watershed. Bottomland hardwood forests, swamps, and pocosin wetlands can provide flood protection for communities by absorbing stormwater runoff, which slows the rate of rising floodwaters and may save human lives and property. Many forested wetlands retain floodwaters that recharge aquifers and export nutrients that fertilize poorer soils in drier upland areas. Wetlands can serve as retention basins of precipitation that recharge aquifers, including the



Ogallala Aquifer, which is a major source of groundwater for agricultural operations and drinking water for municipalities in the Great Plains and southern High Plains. Prairie potholes and playa lake wetlands provide nesting and wintering habitat for dozens of species and millions of migratory birds on the North American continent, which generates millions of dollars in waterfowl hunting and bird watching revenues. Wetlands provide vital habitat for thousands of species, including federally listed endangered plant and animal species.

Coastal wetlands directly provide nursery habitat for commercially important fish, crab, shrimp, and oysters that sustain the billion dollar U.S. seafood industry and thousands of American jobs. As the bumper sticker says: “no wetlands, no shrimp”. These wetlands can mitigate disaster costs by reducing the storm surge of tropical cyclones. Lovelace (1994), for example, documented a 1 m decrease in storm surge per 23 km over fairly continuous marsh during the second landfall of Hurricane Andrew. Similarly, a 2016 study (Narayan et al. 2016) found that coastal wetlands prevented \$625 million in property damages during Hurricane Sandy, and that coastal wetlands reduced annual property damages in Ocean County, New Jersey by nearly 20%.

The proposed repeal of the 2015 Clean Water Rule is unsupported by the peer-reviewed science and critical analysis that supported the 2015 Clean Water Rule. The proposed repeal has not been subjected to rigorous independent peer review, it has not undergone a robust public comment process, and it poses a significant threat to the integrity and security of our drinking water, public health, fisheries, and wildlife habitat - while significantly increasing the risks and costs associated with flood and storm damage. We submit the following comments for your consideration.

**Comment #1: The Agencies should provide a body of peer-reviewed publications that has depth, breadth and accuracy that is comparable to the literature analysis supporting the 2015 CWR.**

The 2015 CWR is supported overwhelmingly by the scientific evidence, documented in the EPA *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* report (US EPA 2013), which underwent external peer review by the EPA Science Advisory Board, and incorporates results from over 1,200 peer-reviewed scientific publications. Further support for the 2015 CWR is provided by a Brief of the *Amici Curiae* in Support of Respondents and in Support of Upholding the Clean Water Rule (Brief, *Amici Curiae* 2017), filed with the U.S. Court of Appeals for the Sixth Circuit, as well as numerous peer-reviewed studies (e.g., Golden et al. 2017), Agency experience and U.S. Supreme Court precedent. The Agencies should provide peer-reviewed publications that contain robust scientific evidence demonstrating that the repeal of the 2015 CWR is desirable and will not exacerbate ongoing problems.

Here we discuss one watershed as an example of many – the Mississippi River basin - the largest in the US. This documentation should address how rescinding the 2015 CWA will avoid leading to financial losses resulting from deterioration of the associated wetland services of the Mississippi River watershed, as defined by the 2015 CWR.

The Mississippi River watershed drains 41 percent of the contiguous United States and includes waters from several major river systems, including the Missouri/Platte River Basin, the Ohio/Tennessee River Basin, and the Arkansas/Red/White River Basin. Interspersed among the headwater streams in these basins are thousands of hectares of isolated wetlands that retain floodwaters, recharge aquifers, provide wildlife habitat, and ameliorate drought conditions. The repeal of the 2015 CWR will remove protections for these wetlands and provide ‘perverse incentives’ for business, real estate, and agricultural interests, which will continue the practice of unequal costs and benefits between private and public entities. For instance, the price of agricultural products or real estate developments that are generated from wetland destruction do not reflect the full environmental costs of nonpoint pollution, lost wetland ecosystem

services, natural resource damage, and lost socioeconomic and ecological opportunity costs of communities downstream. *Opportunity costs* are the financial resources that are diverted to repair environmental damage, community infrastructure, and care for ailing residents as a result of pollution from upstream agricultural and commercial activity. (See Florida's ordeal with harmful algal blooms: <https://depnewsroom.wordpress.com/algal-bloom-monitoring-and-response/>).

Nutrient, herbicide, and pesticide loads (as well as other contaminants) emanate from agricultural, urban, and suburban areas of states that have sustained serious wetland losses; some states have even lost over 75% of their wetlands (Association of State Wetland Managers 2015). These toxicants are transported downstream and damage aquatic ecosystems largely because wetlands have been lost from the watershed.

Southern Louisiana, in particular, is still struggling to recover from Hurricane Katrina, the Deepwater Horizon disaster, the Flood of 2016, and Hurricane Harvey. Eighteen percent of the US petrochemical refining capacity, strategic oil reserves and 1.9 billion dollars of pipelines, are in southern Louisiana (<http://www.linoga.com/industry-sectors/>). The port of New Orleans and five other ports therein are vital to interstate and international shipping, the nation's economy, and national defense. In this region, two wetland examples of restoration efforts aimed at ecological and economic recovery that would be undermined by repeal of the 2015 CWA are the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) and the Mississippi River – Gulf of Mexico Watershed Nutrient Task Force. These two restoration efforts have already spent billions of taxpayer dollars to combat and resolve these massive problems, which potentially could be wasted or significantly reduced in value if the 2015 CWA is repealed.

The repeal of the 2015 CWR will exacerbate and accelerate land loss and Dead Zone catastrophes by facilitating the destruction of wetlands and headwater streams in the upper Mississippi River watershed. These nutrient loads from upstream are responsible for the formation of the massive hypoxic or 'Dead Zone' that forms annually off the Louisiana and Texas coasts. This hypoxic zone kills marine life, including commercially valuable species, disrupts marine ecology, and affects the billion dollar Louisiana seafood industry. Louisiana has lost 4877 km<sup>2</sup> of land from 1932 to 2010, which is a direct threat to the industrial, commercial, and residential infrastructure, as well as to millions of American jobs in various sectors. The much higher nutrient loads since the 1960s is a driver of wetland loss (Deegan et al. 2012; Kearney et al. 2012). These higher nutrient loads can facilitate the loss of wetland vegetation by degrading the root biomass and making plants more susceptible to erosion. The belowground biomass of these wetland plants act in a manner similar to reinforcement bars in concrete, and contribute to the strength and stability of the soil. Without these plants, the landscape becomes vulnerable to erosion caused by large disturbances such as floods and storm surge.

**Comment #2:** Reduce uncertainty and unnecessary regulatory oversight. **The Agencies should provide extensive, substantive and valid documentation to demonstrate how reverting to a case-by-case approach leads to greater certainty, consistency, clarity, and stability of regulation.**

The enactment of the 2015 CWR created a regulatory framework with a greater certainty, consistency, clarity, and stability of regulation than previous WOTUS definitions and agency guidance documents. Reverting to case-by-case "significant nexus" evaluations will add to the financial and permitting burden for businesses and communities, and perpetuates unnecessary confusion and inconsistency for an unknown period of time. The lack of scientific, peer-reviewed studies to support repeal of the 2015 CWR will likely trigger costly and time-consuming court challenges and contribute further to regulatory uncertainty, instability, and costs to both private and public sectors. Reverting to previous definitions of WOTUS and prior Agency guidance documents will lead to incomplete achievement of the CWA mandate, and be accompanied by costly and significant negative consequences for American citizens, businesses, and communities, as they experience deteriorated water quality, more limited water supplies,

more severe flood and storm damage to properties and infrastructure, reduced fisheries, reduced recreational activities supporting American businesses, and degraded ecosystem and wildlife habitat conditions, etc. Compensating for these ecosystem service losses will incur significant additional financial losses.

**Comment #3: The Agencies should provide a complete economic analysis that includes economic benefits associated with wetlands protected by the 2015 CWR, as well as the costs and lost revenues associated with rescinding the 2015 CWR. A revised economic analysis should be supported by peer-reviewed publications, and should provide peer-reviewed publications to support any removal of economic benefits or additions of economic costs associated with rescinding the 2015 CWR. This economic analysis should be subject to a robust and consequential peer review and public comment process.**

The proposed rule to rescind is dependent upon, and largely justified by, a highly flawed, incomplete, and weak economic analysis (see: [https://www.epa.gov/sites/production/files/2017-06/documents/economic\\_analysis\\_proposed\\_step1\\_rule.pdf](https://www.epa.gov/sites/production/files/2017-06/documents/economic_analysis_proposed_step1_rule.pdf)). The Federal Agencies that drafted this rescission rely on an economic analysis conducted for the 2015 CWR, but with one major change—the Agencies removed the estimated \$313 to \$513 million in annual benefits that resulted from wetland protection under the 2015 CWR, and they failed to provide other means to estimate the economic value of wetlands protected by the 2015 CWR.

They justify this removal of benefits, in part, by stating that, “public attitudes towards nature protection *could* have changed” (paragraph 4 page 8 & 9, [https://www.epa.gov/sites/production/files/2017-06/documents/economic\\_analysis\\_proposed\\_step1\\_rule.pdf](https://www.epa.gov/sites/production/files/2017-06/documents/economic_analysis_proposed_step1_rule.pdf)) over time, but provide no documentation to support this assertion. According to survey results (among others, see <http://www.trcp.org/2017/06/28/new-national-poll-shows-hunter-angler-support-conservation-crosses-party-lines/>), Americans place greater value on clean water than on any other environmental factor, and *increasingly* value wetlands (Costanza et al. 2014). Further, the Agencies make the specious argument that they were unable to find updated studies of “willingness to pay” wetlands valuation studies, such as those that were part of the 2015 CWR economic analysis. Several contingent valuation studies were conducted between 2005 and 2014 (including Whitehead et al (2005), Whitehead et al (2009), Awondo et al (2011) and Petrolia et al (2014)). In addition, according to John Loomis, Colorado State University professor, and author of “Statistical Efficiency of Double-Bounded Dichotomous Choice Contingent Valuation”, which includes over 1,000 citations and received the Publication of Enduring Quality Award from the Agricultural and Applied Economics Association; there have been no major changes to the scientifically accepted methods for valuing clean water since the studies that support the 2015 CWR, and his seminal 1991 work continues to be used today (personal communication, 8/10/2017). OMB and USACE continue to utilize the “willingness to pay” approach, as do others. Two meta-analyses conducted by Brander et al. (2013) and Ghermandi et al. (2008) continue to support the conclusions of the studies in support of the 2015 CWR.

Further, many additional studies documenting the economic value of wetlands, as measured in a variety of ways, have been produced recently, and are included in the list of economic valuation studies (see reference list #2). The references appended to this letter include “willingness to pay” studies, as well as other methods for assessing the economic value of wetland ecosystem services. It should be further noted that each of the references appended to this letter includes additional citations of work related to the topic of the article.

The Agencies’ economic cost-benefit analyses should include estimates of the costs to property owners, communities, governments, taxpayers, and health care insurers associated with replacing the ecosystem services provided by wetlands and headwater streams that would be *un*protected with the repeal of the

2015 CWR. These costs include those for: 1) construction and operation of additional water quality treatment, water storage, and flood control facilities and infrastructure, 2) increased health care costs, and increased reconstruction and repair costs associated with higher levels of flood and storm damage to properties, roads, and other infrastructure, and 3) insurance. Additionally, there would be a loss of revenues to private businesses, including many rural small businesses that benefit from fishing, hunting, boating, and other recreation industries that are dependent upon clean and plentiful waters and the wetlands that sustain them.

**Comment #4: The Agencies should provide broadly-based, peer-reviewed, accurate and substantive documentation of the commitment of state agencies to take on wetland protection that would be lost if the 2015 CWR is rescinded. This documentation should be subject to a robust peer review and public comment process.**

The reduction of federal financial support must also be considered when evaluating the capability of state programs to evaluate wetland permitting. The Agencies assert that rescinding the 2015 CWR is justified because states will protect wetlands through state wetland protection programs. States have had the option to assume responsibility for the Section 404 permit program since the Clean Water Act (CWA) passed in 1972, yet only two states have chosen to do so. An additional 21 states have some type of dredge-and-fill permit program, many of which rely on federal grant funding and collaboration (Association of Wetland Managers 2015). Furthermore, over two dozen states currently have budget deficits in 2017. These states and others face fiscal challenges such as health care, unfunded retirement obligations, and a backlog of repairs for aging infrastructure which makes taking on more wetland-related management issues problematic, if not prohibitive. The majority of states rely on the technical and financial support of the federal government in administering wetlands protection policies, and thus are not likely to have the capacity or the inclination to take on wetland protection in the absence of federal protection, which would lead to loss of the economic, ecological, and public health and safety benefits. Furthermore, the current US Administration has proposed drastic reductions to the EPA budget, which would result in diminished federal financial support of state wetland programs. A solely State-by-State regulation of wetlands makes the management of some migratory species that much more difficult, if not impossible.

**Comment #5: The current 60-day comment period for the proposed rescinding of the 2015 CWR should be extended for another six months, so that our members, and other stakeholders directly impacted by the proposed rule to rescind, have sufficient time to submit comments.**

There was a robust public participation to develop the 2015 CWR. The 2015 CWR underwent an extensive stakeholder process, involving over 400 meetings with small business owners, farmers, energy companies, states, counties, municipalities, other federal agencies, sportsmen, conservation groups and environmental organizations, and a public comment period that lasted for over 200 days. Americans submitted over 1.1 million comments on the 2015 CWR, and over 90% were in support of the 2015 CWR and protection of our nation's wetlands and waters. The broad public support for the 2015 CWR should not be overridden by an unduly foreshortened comment period and limited stakeholder process.

Our nation's wetlands and headwater streams provide a broad suite of direct and indirect ecosystem services to society. There are costs associated with replacing those ecosystem services (if they could be replaced); there are far-reaching implications for fish, wildlife, and their habitat from rescinding the 2015 CWR. We therefore urge the EPA and the Army Corps of Engineers to either **withdraw the proposed rule to rescind the 2015 CWR and reaffirm the 2015 CWR**, or, to develop a revised rule that is as scientifically, legally, and ecologically robust as the 2015 CWR, and that is supported by an economic analysis that incorporates a valuation of ecosystem services provided by WOTUS as defined in the 2015 CWR. Only in this way will the concerns and interests of American citizens, businesses, and communities be addressed in a responsible manner.

Sincerely,



Arnold van der Valk  
President  
Society of Wetland Scientists

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## LETTER SUBMITTED BY REPRESENTATIVE ANDY BIGGS



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Nov. 28, 2017

**Re: Docket No. EPA-HQ-OW-2017-0480; Definition of "Waters of the United States"**

On behalf of the more than 7,500 members of the American Road & Transportation Builders Association (ARTBA), I respectfully offer comments on the U.S. Environmental Protection Agency's (EPA) and U.S. Army Corps of Engineers' (Corps) continuing efforts to revise the definition of "Waters of the United States" (WOTUS).

ARTBA's membership includes private and public sector members that are involved in the planning, designing, construction and maintenance of the nation's roadways, waterways, bridges, ports, airports, rail and transit systems. Our industry generates more than \$380 billion annually in U.S. economic activity and sustains more than 3.3 million American jobs.

ARTBA's public sector members adopt, approve, or fund transportation plans, programs, or projects. ARTBA's private sector members plan, design, construct and provide supplies for these federal transportation improvement projects. ARTBA members are directly involved with the federal wetlands permitting program and undertake a variety of construction-related activities under the Clean Water Act (CWA). ARTBA actively works to combine the complementary interests of improving our nation's transportation infrastructure with protecting essential water resources.

**Overview**

One of the main reasons for the success of the CWA is the Act's clear recognition of a partnership between the federal and state levels of government in the area of protecting water resources. The lines of federal and state responsibility are set forth in Section 101(b) of the CWA:

"It is the policy of Congress to recognize, preserve, and protect the primary responsibilities of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation and enhancement) of land and water resources..."

This structure of shared responsibility allows states the essential flexibility they need to protect truly ecologically important and environmentally sensitive areas within their borders while, at the same time, making necessary improvements to their transportation infrastructure. The success of the federal-state partnership is backed by dramatic results. Prior to the inception of the CWA, from the 1950s to the 1970s, an average of 458,000 acres of wetlands were lost each year. Subsequent to the CWA's passage, from 1986-1997, the loss rate declined to 58,600 acres per year and between 1998-2004 overall wetland areas increased at a rate of 32,000 acres per year.<sup>1</sup>

ARTBA supports the reasonable protection of environmentally sensitive wetlands with policies balancing preservation, economic realities and public mobility requirements. Much of the current debate over federal jurisdiction, however, involves overly broad and ambiguous definitions of

<sup>1</sup> Draft 2007 Report on the Environment: Science, USEPA, May 2007, available at <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=140917>



“wetlands.”<sup>2</sup> This ambiguity is frequently used by anti-growth groups to stop desperately needed transportation improvements. For this reason, ARTBA has, and continues to, work towards a definition of “wetlands” that would be easily recognizable to both landowners and transportation planners and is consistent with the original scope of the CWA’s jurisdiction. As an example of this, official ARTBA policy recommends defining a “wetland” as follows: “If a land area is saturated with water at the surface during the normal growing season, has hydric soil and supports aquatic-type vegetation, it is a functioning wetland.”

#### **A Revised WOTUS Rule Should Not Extend Federal Jurisdiction to Roadside Ditches**

ARTBA is particularly concerned with the treatment of roadside ditches under any revisions to the WOTUS rule. Current federal regulations say nothing about ditches, but the 2015 WOTUS rule expanded EPA and Corps jurisdiction to the point where virtually any ditch with standing water could be covered. Federal environmental regulation should be applied when a clear need is demonstrated and regulating all roadside ditches under the theory of interconnectedness fails to meet this threshold. A ditch’s primary purpose is safety and they only have water present during and after rainfall. In contrast, traditional wetlands are not typically man-made nor do they fulfill a specific safety function. As such, roadside ditches are not, and should not be, regulated as traditional jurisdictional wetlands because the only time they contain water is when they are fulfilling their intended purpose.

The unacceptable length of the environmental review and approval process for federal-aid highway projects has been routinely documented and acknowledged by both Republican and Democrat administrations. Adding more layers of review—for unproven benefits—will only lengthen this process. Further, requiring wetland permits for ditch construction and maintenance would force project sponsors and the private sector to incur new administrative and legal costs which would lead to increased project costs. The potential delays and increased costs that would result from the WOTUS rule would divert resources from timely ditch maintenance activities and potentially threaten the role ditches play in promoting roadway safety.

In addition, the 2015 WOTUS rule created a completely new concept of allowing for “aggregation” of the contributions of all similar waters “*within an entire watershed*.” This concept results in a blanket jurisdictional determination—meaning the EPA and Corps could regulate the complete watershed. Such a broadening of jurisdiction would literally leave no transportation project untouched regardless of its location, as there is no area in the United States not linked to at least one watershed. While there are certainly instances where a permit is appropriate for the impacts of transportation construction, these situations should be evaluated on a case-by-case basis where specific environmental benefits can be evaluated.

#### **Revisions to the WOTUS Rule Should Not Jeopardize Progress on Project Streamlining**

It should also be noted that there has been recent bipartisan progress in the area of streamlining the project review and approval process for transportation projects. Members of both political parties agree that transportation improvements can be built more quickly without sacrificing necessary environmental protections. The current surface transportation reauthorization law, the “Fixing America’s Surface Transportation” (FAST) Act as well as its predecessor, the “Moving

<sup>2</sup> Many states define wetlands as well other types of water resources and prescribe regulatory regimes that are appropriate to each. The federal government tries a one-size fits all approach essentially requiring water resources viewed by states as not being wetlands to be regulated as if they were wetlands under federal law.

Ahead for Progress in the 21<sup>st</sup> Century” (MAP-21) Act, both contained significant reforms to the project delivery process aimed at reducing delay.

Under the 2015 WOTUS rule, the progress of the project delivery reforms in both MAP-21 and the FAST Act would have been jeopardized. Any reduction in delay gained from improvements to the project delivery process would likely be negated by the increased permitting requirements and opportunities for litigation caused by the 2015 WOTUS rule’s expansion of federal jurisdiction. In revising the WOTUS rule, the EPA and Corps should seek to reduce unnecessary regulatory burdens to project delivery.

**EPA and the Corps Should Consider a “De Minimis” Threshold for Regulation Under a Revised WOTUS Definition**

One method of establishing clarity would be to develop a classification system for wetlands based on their ecological value. This would allow increased protection for the most valuable wetlands while also creating flexibility for projects impacting wetlands that are considered to have little or no value. Also, there should be a “de minimis” level of impacts defined which would not require any permitting process to encompass instances where impacts to wetlands are so minor that they do not have any ecological effect. A “de-minimis” standard for impacts would be particularly helpful for transportation projects and allow projects to avoid being delayed by minimal impacts to areas which are not environmentally sensitive.

**Conclusion.**

ARTBA supports the efforts of the EPA and the Corps to revise the WOTUS rule and looks forward to continuing to work with both EPA and the Corps to develop a new regulatory mechanism which continues to protect, sustain and improve our nation’s infrastructure while addressing the future challenges of the CWA.

ARTBA is also a member of the Waters Advocacy Coalition (WAC) which has also submitted comments to this docket. ARTBA wholly supports the WAC comments and incorporates them by reference into this submission.

Sincerely,



T. Peter Ruane  
President & C.E.O

LETTER SUBMITTED BY REPRESENTATIVE SUZANNE BONAMICI

LAMAR S. SMITH, Texas  
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas  
RANKING MEMBER

**Congress of the United States**  
**House of Representatives**

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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November 8, 2017

The Honorable Eddie Bernice Johnson  
Ranking Member  
House Committee on Science, Space, and Technology  
394 Ford Office Building  
Washington, D.C. 20515

Dear Ranking Member Johnson:

Thank you for your letter of November 7, 2017, regarding U.S. Environmental Protection Agency Administrator Scott Pruitt testifying before the Committee. The Committee has already been talking to EPA to determine a mutually convenient time for a hearing with the Administrator about environmental policies, regulations, and sound science. The Committee will keep you informed on our progress in this regard.

Sincerely,



Rep. Lamar Smith  
Chairman  
Committee on Science, Space,  
and Technology

cc

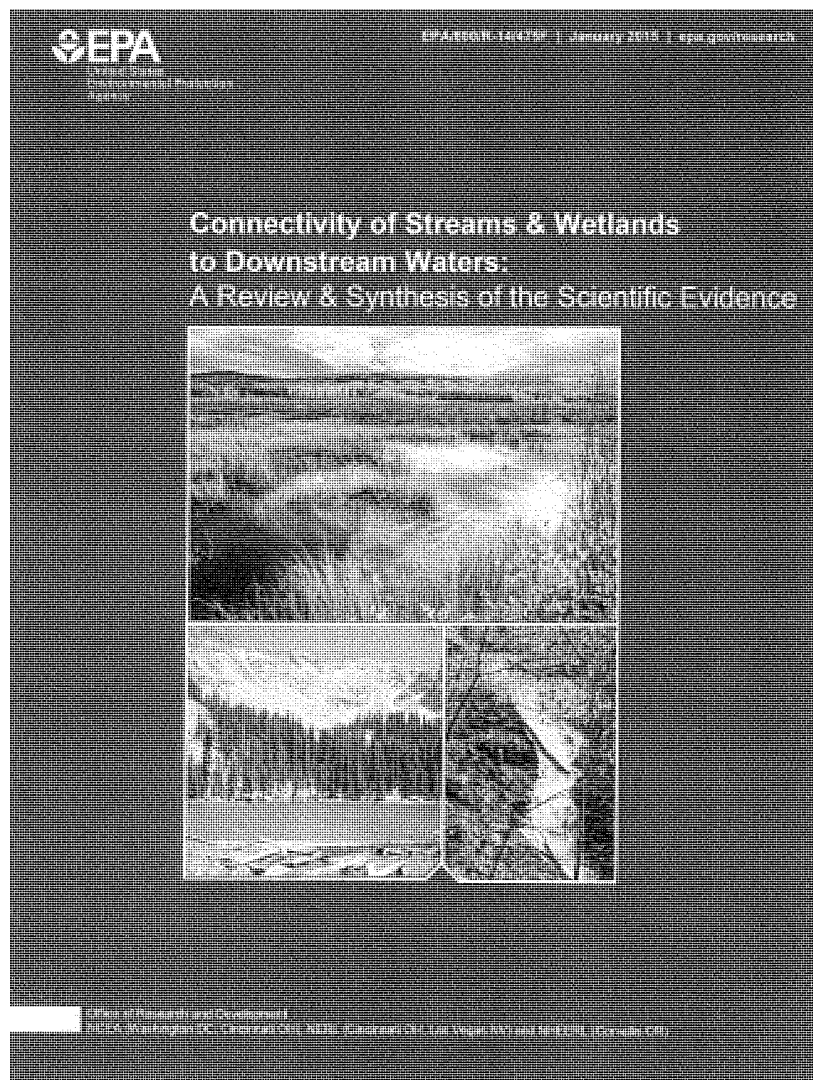
The Honorable Donald S. Beyer, Ranking Member Subcommittee on Oversight

The Honorable Suzanne Bonamici, Ranking Member Subcommittee on Environment

The Honorable Zoe Lofgren

The Honorable Daniel W. Lipinski  
The Honorable Ami Bera  
The Honorable Elizabeth Esty  
The Honorable Marc Veasey  
The Honorable Jacky Rosen  
The Honorable Jerry McNerney  
The Honorable Ed Perlmutter  
The Honorable Paul Tonko  
The Honorable Bill Foster  
The Honorable Mark Takano  
The Honorable Colleen Hanabusa  
The Honorable Charlie Crist

REPORT SUBMITTED BY REPRESENTATIVE SUZANNE BONAMICI

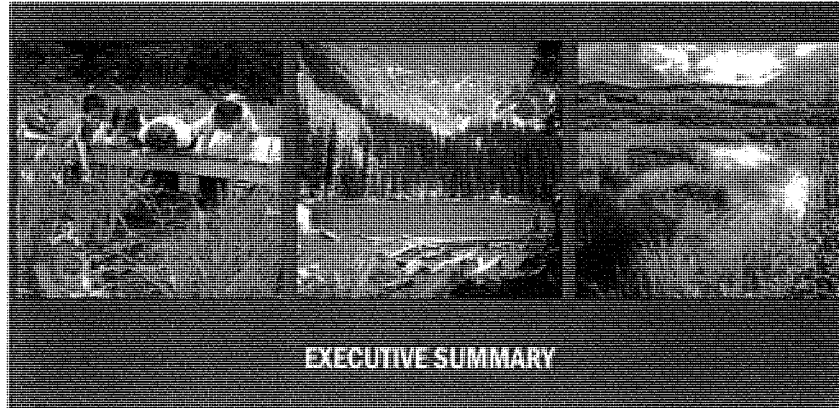


**CONNECTIVITY OF STREAMS AND WETLANDS  
TO DOWNSTREAM WATERS:  
A REVIEW AND SYNTHESIS OF THE  
SCIENTIFIC EVIDENCE**

Office of Research and Development  
U.S. Environmental Protection Agency  
Washington, DC

**DISCLAIMER**

This document has been reviewed in accordance with U.S. Environmental Protection Agency policy and approved for publication. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.



## BACKGROUND

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The U.S. Environmental Protection Agency's (U.S. EPA's) Office of Research and Development developed this report to inform rulemaking by the U.S. EPA and U.S. Army Corps of Engineers (U.S. ACE) on the definition of "waters of the United States" under the Clean Water Act (CWA). Its purpose is to summarize current scientific understanding about the connectivity and mechanisms by which streams and wetlands, singly or in aggregate, affect the physical, chemical, and biological integrity of downstream waters. The focus of the review is on surface and shallow subsurface connections of small or temporary streams, nontidal wetlands, and certain open waters. Because this report is a technical review of peer-reviewed scientific literature, it neither considers nor sets forth legal standards for CWA jurisdiction, nor does it establish EPA policy.

The report is organized into six chapters. Chapter 1 outlines the purpose, scientific context, and approach of the report. Chapter 2 describes the components of a river system and watershed; the types of physical, chemical, and biological connections that link those components; the factors that influence connectivity at various temporal and spatial scales; and methods for quantifying connectivity. Chapter 3 reviews literature on connectivity in stream networks in terms of physical, chemical, and biological connections and their resulting effects on downstream waters. Chapter 4 reviews literature on the connectivity and effects of nontidal wetlands and certain open waters on downstream waters. Chapter 5 applies concepts and evidence from previous chapters to six case studies from published literature on Carolina and Delmarva bays, oxbow lakes, prairie potholes, prairie streams, southwestern streams, and vernal pools. Chapter 6 summarizes key findings and conclusions, identifies data gaps, and briefly discusses research approaches that could fill those gaps. A glossary of scientific terms used in the report



and detailed case studies of selected systems (summarized in Chapter 5) are included in Appendix A and Appendix B, respectively.

## SUMMARY OF MAJOR CONCLUSIONS

Based on the review and synthesis of more than 1,200 publications from the peer reviewed scientific literature, the evidence supports five major conclusions. Citations have been omitted from the text to improve readability; please refer to individual chapters for supporting publications and additional information.

### Conclusion 1: Streams

The scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported. Streams are the dominant source of water in most rivers, and the majority of tributaries are perennial, intermittent, or ephemeral headwater streams. Headwater streams also convey water into local storage compartments such as ponds, shallow aquifers, or stream banks, and into regional and alluvial aquifers; these local storage compartments are important sources of water for maintaining baseflow in rivers. In addition to water, streams transport sediment, wood, organic matter, nutrients, chemical contaminants, and many of the organisms found in rivers. The literature provides robust evidence that streams are biologically connected to downstream waters by the dispersal and migration of aquatic and semiaquatic organisms, including fish, amphibians, plants, microorganisms, and invertebrates, that use both upstream and downstream habitats during one or more stages of their life cycles, or provide food resources to downstream communities. In addition to material transport and biological connectivity, ephemeral, intermittent, and perennial flows influence fundamental biogeochemical processes by connecting channels and shallow ground water with other landscape elements. Physical, chemical, and biological connections between streams and downstream waters interact via integrative processes such as nutrient spiraling, in which stream communities assimilate and chemically transform large quantities of nitrogen and other nutrients that otherwise would be transported directly downstream, increasing nutrient loads and associated impairments due to excess nutrients in downstream waters.

### Conclusion 2: Riparian/Floodplain Wetlands and Open Waters

The literature clearly shows that wetlands and open waters in riparian areas and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality, including the temporary storage and deposition of channel-forming sediment and woody debris, temporary storage of local ground water that supports baseflow in

rivers, and transformation and transport of stored organic matter. Riparian/floodplain wetlands and open waters improve water quality through the assimilation, transformation, or sequestration of pollutants, including excess nutrients and chemical contaminants such as pesticides and metals, that can degrade downstream water integrity. In addition to providing effective buffers to protect downstream waters from point source and nonpoint source pollution, these systems form integral components of river food webs, providing nursery habitat for breeding fish and amphibians, colonization opportunities for stream invertebrates, and maturation habitat for stream insects. Lateral expansion and contraction of the river in its floodplain result in an exchange of organic matter and organisms, including fish populations that are adapted to use floodplain habitats for feeding and spawning during high water, that are critical to river ecosystem function. Riparian/floodplain wetlands and open waters also affect the integrity of downstream waters by subsequently releasing (desynchronizing) floodwaters and retaining large volumes of stormwater, sediment, and contaminants in runoff that could otherwise negatively affect the condition or function of downstream waters.

### **Conclusion 3: Non-floodplain Wetlands and Open Waters**

Wetlands and open waters in non-floodplain landscape settings (hereafter called “non-floodplain wetlands”) provide numerous functions that benefit downstream water integrity. These functions include storage of floodwater; recharge of ground water that sustains river baseflow; retention and transformation of nutrients, metals, and pesticides; export of organisms or reproductive propagules to downstream waters; and habitats needed for stream species. This diverse group of wetlands (e.g., many prairie potholes, vernal pools, playa lakes) can be connected to downstream waters through surface-water, shallow subsurface-water, and ground-water flows and through biological and chemical connections.

In general, connectivity of non-floodplain wetlands occurs along a gradient (Conclusion 4), and can be described in terms of the frequency, duration, magnitude, timing, and rate of change of water, material, and biotic fluxes to downstream waters. These descriptors are influenced by climate, geology, and terrain, which interact with factors such as the magnitudes of the various functions within wetlands (e.g., amount of water storage or carbon export) and their proximity to downstream waters to determine where wetlands occur along the connectivity gradient. At one end of this gradient, the functions of non-floodplain wetlands clearly affect the condition of downstream waters if a visible (e.g., channelized) surface-water or a regular shallow subsurface-water connection to the river network is present. For non-floodplain wetlands lacking a channelized surface or regular shallow subsurface connection (i.e., those at intermediate points along the gradient of connectivity), generalizations about their specific effects on downstream waters from the available literature are difficult because information on both function and connectivity is needed. Although there is ample evidence that non-floodplain wetlands provide hydrologic, chemical, and biological functions that affect material fluxes, to date, few scientific studies explicitly addressing connections between non-floodplain wetlands and river networks have been published in the peer-reviewed literature. Even fewer publications specifically focus

on the frequency, duration, magnitude, timing, or rate of change of these connections. In addition, although areas that are closer to rivers and streams have a higher probability of being connected than areas farther away when conditions governing the type and quantity of flows—including soil infiltration rate, wetland storage capacity, hydraulic gradient, etc.—are similar, information to determine if this similarity holds is generally not provided in the studies we reviewed. Thus, current science does not support evaluations of the degree of connectivity for specific groups or classes of wetlands (e.g., prairie potholes or vernal pools). Evaluations of individual wetlands or groups of wetlands, however, could be possible through case-by-case analysis.

Some effects of non-floodplain wetlands on downstream waters are due to their isolation, rather than their connectivity. Wetland “sink” functions that trap materials and prevent their export to downstream waters (e.g., sediment and entrained pollutant removal, water storage) result because of the wetland’s ability to isolate material fluxes. To establish that such functions influence downstream waters, we also need to know that the wetland intercepts materials that otherwise would reach the downstream water. The literature we reviewed does provide limited examples of direct effects of wetland isolation on downstream waters, but not for classes of wetlands (e.g., vernal pools). Nevertheless, the literature we reviewed enables us to conclude that sink functions of non-floodplain wetlands, which result in part from their relative isolation, will affect a downstream water when these wetlands are situated between the downstream water and known point or nonpoint sources of pollution, and thus intersect flowpaths between the pollutant source and downstream waters.

#### **Conclusion 4: Degrees and Determinants of Connectivity**

Watersheds are integrated at multiple spatial and temporal scales by flows of surface water and ground water, transport and transformation of physical and chemical materials, and movements of organisms. Although all parts of a watershed are connected to some degree—by the hydrologic cycle or dispersal of organisms, for example—the degree and downstream effects of those connections vary spatially and temporally, and are determined by characteristics of the physical, chemical, and biological environments and by human activities.

Stream and wetland connections have particularly important consequences for downstream water integrity. Most of the materials—broadly defined as any physical, chemical, or biological entity—in rivers, for example, originate from aquatic ecosystems located upstream or elsewhere in the watershed. Longitudinal flows through ephemeral, intermittent, and perennial stream channels are much more efficient for transport of water, materials, and organisms than diffuse overland flows, and areas that concentrate water provide mechanisms for the storage and transformation, as well as transport, of materials.

Connectivity of streams and wetlands to downstream waters occurs along a continuum that can be described in terms of the frequency, duration, magnitude, timing, and rate of change of water, material, and biotic fluxes to downstream waters. These terms, which we refer to collectively as

connectivity descriptors, characterize the range over which streams and wetlands vary and shift along the connectivity gradient in response to changes in natural and anthropogenic factors and, when considered in a watershed context, can be used to predict probable effects of different degrees of connectivity over time. The evidence unequivocally demonstrates that the stream channels and riparian/floodplain wetlands or open waters that together form river networks are clearly connected to downstream waters in ways that profoundly influence downstream water integrity. The connectivity and effects of non-floodplain wetlands and open waters are more variable and thus more difficult to address solely from evidence available in peer-reviewed studies.

Variations in the degree of connectivity influence the range of functions provided by streams and wetlands, and are critical to the integrity and sustainability of downstream waters. Connections with low values of one or more descriptors (e.g., low-frequency, low-duration streamflows caused by flash floods) can have important downstream effects when considered in the context of other descriptors (e.g., large magnitude of water transfer). At the other end of the frequency range, high-frequency, low-magnitude vertical (surface-subsurface) and lateral flows contribute to aquatic biogeochemical processes, including nutrient and contaminant transformation and organic matter accumulation. The timing of an event can alter both connectivity and the magnitude of its downstream effect. For example, when soils become saturated by previous rainfall events, even low or moderate rainfall can cause streams or wetlands to overflow, transporting water and materials to downstream waters. Fish that use nonperennial or perennial headwater stream habitats to spawn or rear young, and invertebrates that move into seasonally inundated floodplain wetlands prior to emergence, have life cycles that are synchronized with the timing of flows, temperature thresholds, and food resource availability in those habitats.

### **Conclusion 5: Cumulative Effects**

The incremental effects of individual streams and wetlands are cumulative across entire watersheds and therefore must be evaluated in context with other streams and wetlands. Downstream waters are the time-integrated result of all waters contributing to them. For example, the amount of water or biomass contributed by a specific ephemeral stream in a given year might be small, but the aggregate contribution of that stream over multiple years, or by all ephemeral streams draining that watershed in a given year or over multiple years, can have substantial consequences on the integrity of the downstream waters. Similarly, the downstream effect of a single event, such as pollutant discharge into a single stream or wetland, might be negligible but the cumulative effect of multiple discharges could degrade the integrity of downstream waters.

In addition, when considering the effect of an individual stream or wetland, all contributions and functions of that stream or wetland should be evaluated cumulatively. For example, the same stream transports water, removes excess nutrients, mitigates flooding, and provides refuge for

fish when conditions downstream are unfavorable; if any of these functions is ignored, the overall effect of that stream would be underestimated.

## SUPPORT FOR MAJOR CONCLUSIONS

This report synthesizes a large body of scientific literature on the connectivity and mechanisms by which streams, wetlands, and open waters, singly or in aggregate, affect the physical, chemical, and biological integrity of downstream waters. The major conclusions reflect the strength of evidence currently available in the peer-reviewed scientific literature for assessing the connectivity and downstream effects of water bodies identified in Chapter 1 of this report.

The conclusions of this report were corroborated by two independent peer reviews by scientists identified in the front matter of this report.

The term connectivity is defined in this report as the degree to which components of a watershed are joined and interact by transport mechanisms that function across multiple spatial and temporal scales. Connectivity is determined by the characteristics of both the physical landscape and the biota of the specific system. Our review found strong evidence supporting the central roles of the physical, chemical, and biological connectivity of streams, wetlands, and open waters—encompassing varying degrees of both connection and isolation—in maintaining the structure and function of downstream waters, including rivers, lakes, estuaries, and oceans. Our review also found strong evidence demonstrating the various mechanisms by which material and biological linkages from streams, wetlands, and open waters affect downstream waters, classified here into five functional categories (source, sink, refuge, lag, and transformation; discussed below), and modify the timing of transport and the quantity and quality of resources available to downstream ecosystems and communities. Thus, the currently available literature provided a large body of evidence for assessing the types of connections and functions by which streams and wetlands produce the range of observed effects on the integrity of downstream waters.

We identified five categories of functions by which streams, wetlands, and open waters influence the timing, quantity, and quality of resources available to downstream waters:

- Source: the net export of materials, such as water and food resources;
- Sink: the net removal or storage of materials, such as sediment and contaminants;
- Refuge: the protection of materials, especially organisms;
- Transformation: the transformation of materials, especially nutrients and chemical contaminants, into different physical or chemical forms; and
- Lag: the delayed or regulated release of materials, such as stormwater.

These functions are not mutually exclusive; for example, the same stream or wetland can be both a source of organic matter and a sink for nitrogen. The presence or absence of these functions, which

depend on the biota, hydrology, and environmental conditions in a watershed, can change over time; for example, the same wetland can attenuate runoff during storm events and provide ground-water recharge following storms. Further, some functions work in conjunction with others; a lag function can include transformation of materials prior to their delayed release. Finally, effects on downstream waters should consider both actual function and potential function. A potential function represents the capacity of an ecosystem to perform that function under suitable conditions. For example, a wetland with high capacity for denitrification is a potential sink for nitrogen, a nutrient that becomes a contaminant when present in excessive concentrations. In the absence of nitrogen, this capacity represents the wetland's potential function. If nitrogen enters the wetland (e.g., from fertilizer in runoff), it is removed from the water; this removal represents the wetland's actual function. Both potential and actual functions play critical roles in protecting and restoring downstream waters as environmental conditions change.

The evidence unequivocally demonstrates that the stream channels and riparian/floodplain wetlands or open waters that together form river networks are clearly connected to downstream waters in ways that profoundly influence downstream water integrity. The body of literature documenting connectivity and downstream effects was most abundant for perennial and intermittent streams, and for riparian/floodplain wetlands. Although less abundant, the evidence for connectivity and downstream effects of ephemeral streams was strong and compelling, particularly in context with the large body of evidence supporting the physical connectivity and cumulative effects of channelized flows that form and maintain stream networks.

As stated in Conclusion 3, the connectivity and effects of wetlands and open waters that lack visible surface connections to other water bodies are more difficult to address solely from evidence available in the peer-reviewed literature. The limited evidence currently available shows that these systems have important hydrologic, water-quality, and habitat functions that can affect downstream waters where connections to them exist; the literature also provides limited examples of direct effects of non-floodplain wetland isolation on downstream water integrity. Currently available peer-reviewed literature, however, does not identify which types or classes of non-floodplain wetlands have or lack the types of connections needed to convey the effects on downstream waters of functions, materials, or biota provided by those wetlands.

## KEY FINDINGS FOR MAJOR CONCLUSIONS

This section summarizes key findings for each of the five major conclusions, above and in Chapter 6 of the report. Citations have been omitted from the text to improve readability; please refer to individual chapters for supporting publications and additional information.

### Conclusion 1, Streams: Key Findings

- Streams are hydrologically connected to downstream waters via channels that convey surface and subsurface water either year-round (i.e., perennial flow), weekly to seasonally (i.e., intermittent flow), or only in direct response to precipitation (i.e., ephemeral flow). Streams are

the dominant source of water in most rivers, and the majority of tributaries are perennial, intermittent, or ephemeral headwater streams. For example, headwater streams, which are the smallest channels where streamflows begin, are the cumulative source of approximately 60% of the total mean annual flow to all northeastern U.S. streams and rivers.

- In addition to downstream transport, headwaters convey water into local storage compartments such as ponds, shallow aquifers, or stream banks, and into regional and alluvial aquifers. These local storage compartments are important sources of water for maintaining baseflow in rivers. Streamflow typically depends on the delayed (i.e., lagged) release of shallow ground water from local storage, especially during dry periods and in areas with shallow ground-water tables and pervious subsurfaces. For example, in the southwestern United States, short-term shallow ground-water storage in alluvial floodplain aquifers, with gradual release into stream channels, is a major source of annual flow in rivers.
- Infrequent, high-magnitude events are especially important for transmitting materials from headwater streams in most river networks. For example, headwater streams, including ephemeral and intermittent streams, shape river channels by accumulating and gradually or episodically releasing stored materials such as sediment and large woody debris. These materials help structure stream and river channels by slowing the flow of water through channels and providing substrate and habitat for aquatic organisms.
- There is strong evidence that headwater streams function as nitrogen sources (via export) and sinks (via uptake and transformation) for river networks. For example, one study estimated that rapid nutrient cycling in small streams with no agricultural or urban impacts removed 20–40% of the nitrogen that otherwise would be delivered to downstream waters. Nutrients are necessary to support aquatic life, but excess nutrients lead to eutrophication and hypoxia, in which over-enrichment causes dissolved oxygen concentrations to fall below the level necessary to sustain most aquatic animal life in the stream and streambed. Thus, the influence of streams on nutrient loads can have significant repercussions for hypoxia in downstream waters.
- Headwaters provide habitat that is critical for completion of one or more life-cycle stages of many aquatic and semiaquatic species capable of moving throughout river networks. Evidence is strong that headwaters provide habitat for complex life-cycle completion; refuge from predators, competitors, parasites, or adverse physical conditions in rivers (e.g., temperature or flow extremes, low dissolved oxygen, high sediment); and reservoirs of genetic- and species-level diversity. Use of headwater streams as habitat is especially critical for the many species that migrate between small streams and marine environments during their life cycles (e.g., Pacific and Atlantic salmon, American eels, certain lamprey species). The presence of these species within river networks provides robust evidence of biological connections between headwaters and larger rivers; because these organisms also transport nutrients and other materials as they migrate, their presence also provides evidence of biologically mediated chemical connections. In prairie streams, many fishes swim upstream into tributaries to release eggs, which develop as they are transported downstream.

- Human alterations affect the frequency, duration, magnitude, timing, and rate of change of connections between headwater streams, including ephemeral and intermittent streams, and downstream waters. Human activities and built structures (e.g., channelization, dams, ground-water withdrawals) can either enhance or fragment longitudinal connections between headwater streams and downstream waters, while also constraining lateral and vertical exchanges and tightly controlling the temporal dimension of connectivity. In many cases, research on human alterations has enhanced our understanding of the headwater stream-downstream water connections and their consequences. Recognition of these connections and effects has encouraged the development of more sustainable practices and infrastructure to reestablish and manage connections, and ultimately to protect and restore the integrity of downstream waters.

#### Conclusion 2, Riparian/Floodplain Wetlands and Open Waters: Key Findings

- Riparian areas and floodplains connect upland and aquatic environments through both surface and subsurface hydrologic flowpaths. These areas are therefore uniquely situated in watersheds to receive and process waters that pass over densely vegetated areas and through subsurface zones before the waters reach streams and rivers. When pollutants reach a riparian or floodplain wetland, they can be sequestered in sediments, assimilated into wetland plants and animals, transformed into less harmful or mobile forms or compounds, or lost to the atmosphere. Wetland potential for biogeochemical transformations (e.g., denitrification) that can improve downstream water quality is influenced by local factors, including anoxic conditions and slow organic matter decomposition, shallow water tables, wetland plant communities, permeable soils, and complex topography.
- Riparian/floodplain wetlands can reduce flood peaks by storing and desynchronizing floodwaters. They can also maintain river baseflows by recharging alluvial aquifers. Many studies have documented the ability of riparian/floodplain wetlands to reduce flood pulses by storing excess water from streams and rivers. One review of wetland studies reported that riparian wetlands reduced or delayed floods in 23 of 28 studies. For example, peak discharges between upstream and downstream gaging stations on the Cache River in Arkansas were reduced 10–20% primarily due to floodplain water storage.
- Riparian areas and floodplains store large amounts of sediment and organic matter from upstream and from upland areas. For example, riparian areas have been shown to remove 80–90% of sediments leaving agricultural fields in North Carolina.
- Ecosystem function within a river system is driven in part by biological connectivity that links diverse biological communities with the river system. Movements of organisms that connect aquatic habitats and their populations, even across different watersheds, are important for the survival of individuals, populations, and species, and for the functioning of the river ecosystem. For example, lateral expansion and contraction of the river in its floodplain result in an exchange of matter and organisms, including fish populations that are adapted to use floodplain habitats



for feeding and spawning during high water. Wetland and aquatic plants in floodplains can become important seed sources for the river network, especially if catastrophic flooding scours vegetation and seed banks in other parts of the channel. Many invertebrates exploit temporary hydrologic connections between rivers and floodplain wetland habitats, moving into these wetlands to feed, reproduce, or avoid harsh environmental conditions and then returning to the river network. Amphibians and aquatic reptiles commonly use both streams and riparian/floodplain wetlands to hunt, forage, overwinter, rest, or hide from predators. Birds can spatially integrate the watershed landscape through biological connectivity.

### Conclusion 3, Non-floodplain Wetlands and Open Waters: Key Findings

- Water storage by wetlands well outside of riparian or floodplain areas can affect streamflow. Hydrologic models of prairie potholes in the Starkweather Coulee subbasin (North Dakota) that drains to Devils Lake indicate that increasing the volume of pothole storage across the subbasin by approximately 60% caused simulated total annual streamflow to decrease 50% during a series of dry years and 20% during wet years. Similar simulation studies of watersheds that feed the Red River of the North in North Dakota and Minnesota demonstrated qualitatively comparable results, suggesting that the ability of potholes to modulate streamflow could be widespread across eastern portions of the prairie pothole region. This work also indicates that reducing water storage capacity of wetlands by connecting formerly isolated potholes through ditching or drainage to the Devils Lake and Red River basins could increase stormflow and contribute to downstream flooding. In many agricultural areas already crisscrossed by extensive drainage systems, total streamflow and baseflow are increased by directly connecting potholes to stream networks. The impacts of changing streamflow are numerous, including altered flow regime, stream geomorphology, habitat, and ecology. The presence or absence of an effect of prairie pothole water storage on streamflow depends on many factors, including patterns of precipitation, topography, and degree of human alteration. For example, in parts of the prairie pothole region with low precipitation, low stream density, and little human alteration, hydrologic connectivity between prairie potholes and streams or rivers is likely to be low.
- Non-floodplain wetlands act as sinks and transformers for various pollutants, especially nutrients, which at excess levels can adversely impact human and ecosystem health and pose a serious pollution problem in the United States. In one study, sewage wastewaters were applied to forested wetlands in Florida for 4.5 years; more than 95% of the phosphorus, nitrate, ammonium, and total nitrogen were removed by the wetlands during the study period, and 66–86% of the nitrate removed was attributed to the process of denitrification. In another study, sizeable phosphorus retention ( $0.3$  to  $8.0$  mg soluble reactive P  $m^{-2} d^{-1}$ ) occurred in marshes that comprised only 7% of the lower Lake Okeechobee basin area in Florida. A non-floodplain bog in Massachusetts was reported to sequester nearly 80% of nitrogen inputs from various sources, including atmospheric deposition, and prairie pothole wetlands in the upper Midwest were found to remove >80% of the nitrate load via denitrification. A large prairie marsh was found to remove 86% of nitrate, 78% of ammonium, and 20% of phosphate through

assimilation and sedimentation, sorption, and other mechanisms. Together, these and other studies indicate that onsite nutrient removal by non-floodplain wetlands is substantial and geographically widespread. The effects of this removal on rivers are generally not reported in the literature.

- Non-floodplain wetlands provide unique and important habitats for many species, both common and rare. Some of these species require multiple types of waters to complete their full life cycles, including downstream waters. Abundant or highly mobile species play important roles in transferring energy and materials between non-floodplain wetlands and downstream waters.
- Biological connections are likely to occur between most non-floodplain wetlands and downstream waters through either direct or stepping stone movement of amphibians, invertebrates, reptiles, mammals, and seeds of aquatic plants, including colonization by invasive species. Many species in those groups that use both stream and wetland habitats are capable of dispersal distances equal to or greater than distances between many wetlands and river networks. Migratory birds can be an important vector of long-distance dispersal of plants and invertebrates between non-floodplain wetlands and the river network, although their influence has not been quantified. Whether those connections are of sufficient magnitude to impact downstream waters will either require estimation of the magnitude of material fluxes or evidence that these movements of organisms are required for the survival and persistence of biota that contribute to the integrity of downstream waters.
- Spatial proximity is one important determinant of the magnitude, frequency and duration of connections between wetlands and streams that will ultimately influence the fluxes of water, materials and biota between wetlands and downstream waters. However, proximity alone is not sufficient to determine connectivity, due to local variation in factors such as slope and permeability.
- The cumulative influence of many individual wetlands within watersheds can strongly affect the spatial scale, magnitude, frequency, and duration of hydrologic, biological and chemical fluxes or transfers of water and materials to downstream waters. Because of their aggregated influence, any evaluation of changes to individual wetlands should be considered in the context of past and predicted changes (e.g., from climate change) to other wetlands within the same watershed.
- Non-floodplain wetlands can be hydrologically connected directly to river networks through natural or constructed channels, nonchannelized surface flows, or subsurface flows, the latter of which can travel long distances to affect downstream waters. A wetland surrounded by uplands is defined as “geographically isolated.” Our review found that, in some cases, wetland types such as vernal pools and coastal depressional wetlands are collectively—and incorrectly—referred to as geographically isolated. Technically, the term “geographically isolated” should be applied only to the particular wetlands within a type or class that are completely surrounded by uplands. Furthermore, “geographic isolation” should not be confused with functional isolation, because

geographically isolated wetlands can still have hydrologic, chemical, and biological connections to downstream waters.

- Non-floodplain wetlands occur along a gradient of hydrologic connectivity-isolation with respect to river networks, lakes, or marine/estuarine water bodies. This gradient includes, for example, wetlands that serve as origins for stream channels that have permanent surface-water connections to the river network; wetlands with outlets to stream channels that discharge to deep ground-water aquifers; geographically isolated wetlands that have local ground-water or occasional surface-water connections to downstream waters; and geographically isolated wetlands that have minimal hydrologic connection to other water bodies (but which could include surface and subsurface connections to other wetlands). This gradient can exist among wetlands of the same type or in the same geographic region.
- Caution should be used in interpreting connectivity for wetlands that have been designated as “geographically isolated” because (1) the term can be applied broadly to a heterogeneous group of wetlands, which can include wetlands that are not actually geographically isolated; (2) wetlands with permanent channels could be miscategorized as geographically isolated if the designation is based on maps or imagery with inadequate spatial resolution, obscured views, etc.; and (3) wetland complexes could have connections to downstream waters through stream channels even if individual wetlands within the complex are geographically isolated. For example, a recent study examined hydrologic connectivity in a complex of wetlands on the Texas Coastal Plain. The wetlands in this complex have been considered to be a type of geographically isolated wetland; however, collectively they are connected both geographically and hydrologically to downstream waters in the area: During an almost 4-year study period, nearly 20% of the precipitation that fell on the wetland complex flowed out through an intermittent stream into downstream waters. Thus, wetland complexes could have connections to downstream waters through stream channels even when the individual wetland components are geographically isolated.

#### Conclusion 4, Degrees and Determinants of Connectivity: Key Findings

- The surface-water and ground-water flowpaths (hereafter, hydrologic flowpaths), along which water and materials are transported and transformed, determine variations in the degree of physical and chemical connectivity. These flowpaths are controlled primarily by variations in climate, geology, and terrain within and among watersheds and over time. Climate, geology, and terrain are reflected locally in factors such as rainfall and snowfall intensity, soil infiltration rates, and the direction of ground-water flows. These local factors interact with the landscape positions of streams and wetlands relative to downstream waters, and with functions (such as the removal or transformation of pollutants) performed by those streams and wetlands to determine connectivity gradients.
- Gradients of biological connectivity (i.e., the active or passive movements of organisms through water or air and over land that connect populations) are determined primarily by species

assemblages, and by features of the landscape (e.g., climate, geology, terrain) that facilitate or impede the movement of organisms. The temporal and spatial scales at which biological pathways connect aquatic habitats depend on characteristics of both the landscape and species, and overland transport or movement can occur across watershed boundaries. Dispersal is essential for population persistence, maintenance of genetic diversity, and evolution of aquatic species. Consequently, dispersal strategies reflect aquatic species' responses and adaptations to biotic and abiotic environments, including spatial and temporal variation in resource availability and quality. Species' traits and behaviors encompass species-environment relationships over time, and provide an ecological and evolutionary context for evaluating biological connectivity in a particular watershed or group of watersheds.

- Pathways for chemical transport and transformation largely follow hydrologic flowpaths, but sometimes follow biological pathways (e.g., nutrient transport from wetlands to coastal waters by migrating waterfowl, upstream transport of marine-derived nutrients by spawning of anadromous fish, uptake and removal of nutrients by emerging stream insects).
- Human activities alter naturally occurring gradients of physical, chemical, and biological connectivity by modifying the frequency, duration, magnitude, timing, and rate of change of fluxes, exchanges, and transformations. For example, connectivity can be reduced by dams, levees, culverts, water withdrawals, and habitat destruction, and can be increased by effluent discharges, channelization, drainage ditches and tiles, and impervious surfaces.

#### Conclusion 5, Cumulative Effects: Key Findings

- Structurally and functionally, stream-channel networks and the watersheds they drain are fundamentally cumulative in how they are formed and maintained. Excess water from precipitation that is not evaporated, taken up by organisms, or stored in soils and geologic layers moves downgradient by gravity as overland flow or through channels carrying sediment, chemical constituents, and organisms. These channels concentrate surface-water flows and are more efficient than overland (i.e., diffuse) flows in transporting water and materials, and are reinforced over time by recurrent flows.
- Connectivity between streams and rivers provides opportunities for materials, including nutrients and chemical contaminants, to be transformed chemically as they are transported downstream. Although highly efficient at the transport of water and other physical materials, streams are dynamic ecosystems with permeable beds and banks that interact with other ecosystems above and below the surface. The exchange of materials between surface and subsurface areas involves a series of complex physical, chemical, and biological alterations that occur as materials move through different parts of the river system. The amount and quality of such materials that eventually reach a river are determined by the aggregate effect of these sequential alterations that begin at the source waters, which can be at some distance from the river. The opportunity for transformation of material (e.g., biological uptake, assimilation, or beneficial transformation) in intervening stream reaches increases with distance to the river.

Nutrient spiraling, the process by which nutrients entering headwater streams are transformed by various aquatic organisms and chemical reactions as they are transported downstream, is one example of an instream alteration that exhibits significant beneficial effects on downstream waters. Nutrients (in their inorganic form) that enter a headwater stream (e.g., via overland flow) are first removed from the water column by streambed algal and microbial populations. Fish or insects feeding on algae and microbes take up some of those nutrients, which are subsequently released back into the stream via excretion and decomposition (i.e., in their organic form), and the cycle is repeated. In each phase of the cycling process—from dissolved inorganic nutrients in the water column, through microbial uptake, subsequent transformations through the food web, and back to dissolved nutrients in the water column—nutrients are subject to downstream transport. Stream and wetland capacities for nutrient cycling have important implications for the form and concentration of nutrients exported to downstream waters.

- Cumulative effects across a watershed must be considered when quantifying the frequency, duration, and magnitude of connectivity, to evaluate the downstream effects of streams and wetlands. For example, although the probability of a large-magnitude transfer of organisms from any given headwater stream in a given year might be low (i.e., a low-frequency connection when each stream is considered individually), headwater streams are the most abundant type of stream in most watersheds. Thus, the overall probability of a large-magnitude transfer of organisms is higher when considered for all headwater streams in a watershed—that is, a high-frequency connection is present when headwaters are considered cumulatively at the watershed scale, compared with probabilities of transport for streams individually. Similarly, a single pollutant discharge might be negligible but the cumulative effect of multiple discharges could degrade the integrity of downstream waters. Riparian open waters (e.g., oxbow lakes), wetlands, and vegetated areas cumulatively can retain up to 90% of eroded clays, silts, and sands that otherwise would enter stream channels. The larger amounts of snowmelt and precipitation cumulatively held by many wetlands can reduce the potential for flooding at downstream locations. For example, wetlands in the prairie pothole region cumulatively stored about 11–20% of the precipitation in one watershed.
- The combination of diverse habitat types and abundant food resources cumulatively makes floodplains important foraging, hunting, and breeding sites for fish, aquatic life stages of amphibians, and aquatic invertebrates. The scale of these cumulative effects can be extensive; for example, coastal ibises travel up to 40 km to obtain food from freshwater floodplain wetlands for nesting chicks, which cannot tolerate salt levels in local food resources until they fledge.

## CLOSING COMMENTS

The structure and function of downstream waters highly depend on materials—broadly defined as any physical, chemical, or biological entity—that originate outside of the downstream waters. Most of the constituent materials in rivers, for example, originate from aquatic ecosystems located upstream in the drainage network or elsewhere in the drainage basin, and are transported to the river through flowpaths illustrated in the introduction to this report. Thus, the effects of streams, wetlands, and open waters on rivers are determined by the presence of (1) physical, chemical, or biological pathways that enable (or inhibit) the transport of materials and organisms to downstream waters; and (2) functions within the streams, wetlands, and open waters that alter the quantity and quality of materials and organisms transported along those pathways to downstream waters.

The strong hydrologic connectivity of river networks is apparent in the existence of stream channels that form the physical structure of the network itself. Given the evidence reviewed in this report, it is clear that streams and rivers are much more than a system of physical channels for efficiently conveying water and other materials downstream. The presence of physical channels, however, is a compelling line of evidence for surface-water connections from tributaries, or water bodies of other types, to downstream waters. Physical channels are defined by continuous bed-and-bank structures, which can include apparent disruptions (such as by bedrock outcrops, braided channels, flow-through wetlands) associated with changes in the material and gradient over and through which water flows. The continuation of bed and banks downgradient from such disruptions is evidence of the surface connection with the channel that is upgradient of the perceived disruption.

Although currently available peer-reviewed literature does not identify which types of non-floodplain wetlands have or lack the types of connections needed to convey functional effects to downstream waters, additional information (e.g., field assessments, analysis of existing or new data, reports from local resource agencies) could be used in case-by-case analysis of non-floodplain wetlands. Importantly, information from emerging research into the connectivity of non-floodplain wetlands, including studies of the types identified in Section 4.5.2 of this report, could close some of the current data gaps in the near future. Recent scientific advances in the fields of mapping, assessment, modeling, and landscape classification indicate that increasing availability of high-resolution data sets, promising new technologies for watershed-scale analyses, and methods for classifying landscape units by hydrologic behavior can facilitate and improve the accuracy of connectivity assessments. Emerging research that expands our ability to detect and monitor ecologically relevant connections at appropriate scales, metrics to accurately measure effects on downstream integrity, and management practices that apply what we already know about ecosystem function will contribute to our ability to identify waters of national importance and maintain the long-term sustainability and resiliency of valued water resources.

LETTER SUBMITTED BY REPRESENTATIVE SUZANNE BONAMICI

LAMAR S. SMITH, Texas  
CHAIRMANEDDIE BERNICE JOHNSON, Texas  
RANKING MEMBER

**Congress of the United States**  
**House of Representatives**

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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November 7, 2017

The Honorable Lamar Smith  
Chairman  
House Committee on Science, Space and Technology  
2321 Rayburn House Office Building  
Washington D.C. 20515

Dear Chairman Smith:

We write to express our disappointment that Scott Pruitt, the Administrator of the Environmental Protection Agency (EPA), has yet to testify before the Committee on Science, Space and Technology.<sup>1</sup> Administrator Pruitt's predecessor, Gina McCarthy, testified before this Committee on three occasions during the second term of the Obama Administration, testifying first just four months after her confirmation.<sup>2</sup> By comparison, Administrator Pruitt was confirmed eight months ago.

The Science Committee has oversight jurisdiction over the EPA's science programs and research. Further, Congress and the Science Committee have a constitutional role in holding the Executive Branch of the government accountable and providing legitimate oversight of federal agencies, particularly when questions of waste, inefficiencies, ineffectiveness, and potentially unethical behavior arise. During Administrator Pruitt's short tenure at EPA, multiple issues have already emerged regarding the costs of his travel, use of a 24/7 security detail, the vetting of scientific grants by political appointees, wasteful use of limited Agency financial resources, his ties and interactions with the industries he is expected to regulate, and other matters.

We respectfully request that you invite EPA Administrator Pruitt to testify before the Science Committee as soon as possible. Specifically, we would like to hear concrete responses from Administrator Pruitt regarding the following issues:

<sup>1</sup> Coral Davenport, "Senate Confirms Scott Pruitt as E.P.A. Head," *New York Times*, February 17, 2017, accessed here: <https://www.nytimes.com/2017/02/17/us/politics/scott-pruitt-environmental-protection-agency.html>

<sup>2</sup> As EPA Administrator Gina McCarthy testified before the Science Committee three times, on the following dates: November 14, 2013, <https://science.house.gov/legislation/hearings/full-committee-hearing-strengthening-transparency-and-accountability-within>; July 9, 2015, <https://science.house.gov/legislation/hearings/examining-epa-s-regulatory-overreach>; and June 22, 2016, <https://science.house.gov/legislation/hearings/full-committee-hearing-ensuring-sound-science-epa>

### Questionable Expenses, Trips, & Security:

- I. At the same time Administrator Pruitt has called for reducing the budget of the EPA by one-third, his office has contracted to spend more than \$25,000 to construct a Sensitive Compartmented Information Facility (SCIF) in his own office. Two SCIFs already exist in the same building. He should account to Congress and the public for this duplicative and wasteful use of taxpayer funds.<sup>3</sup>
- II. For the first time ever in the EPA's history, the Agency is now providing a 24/7 security detail for its Administrator. This has come with more than just a financial cost to the agency. It has also delayed and diminished the ability of the EPA's Office of Enforcement and Compliance Assurance (OECA) to do its job. The OECA, according to their website, "goes after pollution problems that impact American communities through vigorous civil and criminal enforcement. Our enforcement activities target the most serious water, air and chemical hazards. As part of this mission, we work to advance environmental justice by protecting communities most vulnerable to pollution."<sup>4</sup> However, Administrator Pruitt now reportedly has 18 officials from OECA detailed to providing him round-the-clock security rather than pursuing criminal cases against corporations that violate federal environmental regulations and foul the environment. This office, which has been understaffed for years, attempts to ensure the environmental security and safety of American citizens being harmed by pollution and other toxic hazards.<sup>5</sup> Diverting these officials to Pruitt's personal security detail further undercuts the mission and effectiveness of this office.
- III. Multiple media stories have detailed the excessive costs of Administrator Pruitt's travel, including the use of private charter and military aircraft at a cost to taxpayers of more than \$58,000. He has also reportedly been flying in first class when he has flown on commercial flights, along with at least some of his security detail.<sup>6</sup> Administrator Pruitt should justify the costs of his travel to the public.

<sup>3</sup> See: Timothy Cama, "EPA spending almost \$25,000 for soundproof booth," *The Hill*, September 26, 2017, accessed here: <http://thehill.com/policy/energy-environment/352528-epa-spending-almost-25000-for-soundproof-booth>; Miranda Green, "EPA chief getting his own \$25,000 sound-proof booth," *CNN*, September 26, 2017, accessed here: [www.cnn.com/2017/09/26/politics/pruitt-sound-proof-booth/index.html](http://www.cnn.com/2017/09/26/politics/pruitt-sound-proof-booth/index.html); Michael Biesecker, "EPA buys Pruitt a special booth for secret communications," *Associated Press*, September 27, 2017, accessed here: [www.washingtonpost.com/politics/epa-buys-pruitt-a-special-booth-for-secret-communications/2017/09/27/446a13a2-a3c8-11e7-b573-8ec86cdfefed\\_story.html?utm\\_term=.78b652e0194d](http://www.washingtonpost.com/politics/epa-buys-pruitt-a-special-booth-for-secret-communications/2017/09/27/446a13a2-a3c8-11e7-b573-8ec86cdfefed_story.html?utm_term=.78b652e0194d)

<sup>4</sup> "About the Office of Enforcement and Compliance Assurance (OECA): What We Do," Environmental Protection Agency, accessed here: [www.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca](http://www.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca)

<sup>5</sup> See: Rene Marsh and Gregory Wallace, "EPA pulls agents from criminal investigations to guard Pruitt," *CNN*, September 21, 2017, accessed here: <http://www.cnn.com/2017/09/21/politics/epa-pruitt-agents/index.html>; Juliet Eilperin and Brady Dennis, "At EPA, guarding the chief pulls agents from pursuing environmental crimes," *Washington Post*, September 20, 2017, accessed here: [https://www.washingtonpost.com/national/health-science/at-epa-guarding-the-chief-pulls-agents-from-pursuing-environmental-crimes/2017/09/19/7b7b8b6c-9ce0-11e7-8eal-ed975285475e\\_story.html?utm\\_term=.026af87ba494](https://www.washingtonpost.com/national/health-science/at-epa-guarding-the-chief-pulls-agents-from-pursuing-environmental-crimes/2017/09/19/7b7b8b6c-9ce0-11e7-8eal-ed975285475e_story.html?utm_term=.026af87ba494)

<sup>6</sup> Brady Dennis and Juliet Eilperin, "EPA's Pruitt took charter, military flights that cost taxpayers more than \$58,000," *Washington Post*, September 27, 2017, accessed here: [https://www.washingtonpost.com/news/energy-environment/wp/2017/09/27/epas-pruitt-took-charter-military-flights-that-cost-taxpayers-more-than-58000/?utm\\_term=.c2eba157d74a](https://www.washingtonpost.com/news/energy-environment/wp/2017/09/27/epas-pruitt-took-charter-military-flights-that-cost-taxpayers-more-than-58000/?utm_term=.c2eba157d74a)



- IV. Many of Administrator Pruitt's taxpayer funded flights have been to his home state of Oklahoma and the justification for these flights has come into question. Press reports, based on data obtained through Freedom of Information Act (FOIA) requests to EPA, show that Administrator Pruitt often flies home on a Friday under the pretext of a business meeting and stays in his home state of Oklahoma over the weekend. From March through May 2017, he apparently spent 43 out of 92 days in Oklahoma.<sup>7</sup> This gives the appearance that Secretary Pruitt is mixing political gatherings and personal destinations with official business. The disproportionate attention to Oklahoma has already fueled speculation that Secretary Pruitt plans to return to the State and run for office. Congress and the American public deserve a thorough accounting for, and justification of, these frequent flights.

#### **Industry and Political Interests vs. Scientific Facts:**

- I. According to multiple media reports and substantiated by his own official calendar of meetings, which was released under a FOIA request, Administrator Pruitt has had a stream of corporate executives flowing through his office. From April 2017 through early September 2017, he met with senior officials from, or spoken at gatherings organized by, a multitude of corporate entities and industry associations. This included the Chemours Company, Shell Oil Company, Southern Company, Phillips 66, National Mining Association, National Association of Manufacturers, American Petroleum Institute, American Fuel & Petrochemical Manufacturers, Oklahoma Independent Petroleum Association, CropLife America, Boeing, General Electric, BMW, General Motors and the Ford Motor Company, among others. During the same time period he reportedly met with only two environmental groups and one public health organization, the American Academy of Pediatrics.<sup>8</sup>

Most disturbingly he has issued policy directives, favored by these corporations and industry trade groups, following these meetings. In one case, hours after meeting with the CEO of a foreign mining company, the Pebble Limited Partnership (PLP), EPA Administrator Pruitt directed his staff to withdraw from a plan under the Clean Water Act's 404(c) process to protect the watershed of Bristol Bay, Alaska. His decision will help the mining company push forward a controversial proposal to build one of the world's largest open pit copper and gold mines at the headwaters of one of the world's

<sup>7</sup> Lisa Friedman, "Scott Pruitt Spent Much of Early Months at E.P.A. Traveling Home, Report Says," *New York Times*, July 24, 2017, accessed here: [www.nytimes.com/2017/07/24/climate/scott-pruitt-epa-travel-expenses.html](http://www.nytimes.com/2017/07/24/climate/scott-pruitt-epa-travel-expenses.html)

<sup>8</sup> See, Steven Mufson and Juliet Elperin, "EPA chief Pruitt met with many corporate execs. Then he made decisions in their favor," *Washington Post*, September 23, 2017, accessed here: [www.washingtonpost.com/news/energy-environment/wp/2017/09/22/epa-chief-pruitt-met-with-many-corporate-execs-shortly-before-making-decisions-in-their-favor/?utm\\_term=.a1400c7e358a](http://www.washingtonpost.com/news/energy-environment/wp/2017/09/22/epa-chief-pruitt-met-with-many-corporate-execs-shortly-before-making-decisions-in-their-favor/?utm_term=.a1400c7e358a); James Jacoby, Anya Bourg and Frank Koughan (producers), "War On The EPA," *PBS Frontline*, October 11, 2017, accessed here: [www.pbs.org/wgbh/frontline/film/war-on-the-epa/](http://www.pbs.org/wgbh/frontline/film/war-on-the-epa/); Eric Lipton and Lisa Friedman, "E.P.A. Chief's Calendar: A Stream of Industry Meetings and Trips Home," *New York Times*, accessed here: [www.nytimes.com/2017/10/03/us/politics/epa-scott-pruitt-calendar-industries-coal-oil-environmentalists.html](http://www.nytimes.com/2017/10/03/us/politics/epa-scott-pruitt-calendar-industries-coal-oil-environmentalists.html)

largest natural sockeye salmon fisheries.<sup>9</sup> These actions raise serious questions about whether the EPA Administrator is attempting to fulfill the Agency's mission to protect the public health of Americans or if he is simply carrying out the agenda of the very industries he is supposed to regulate. The public deserves an explanation from Administrator Pruitt.

- II. Administrator Pruitt has taken steps to remove independent scientists from the Agency's science advisory panels and stock these panels with industry representatives and scientists financed by industry interests.<sup>10</sup> Repopulating these science advisory boards with individuals who work for, or are financed by, those industries that are supposed to be regulated by the Agency undermines the scientific integrity of the EPA. These actions undercut the mission of the EPA and endanger the health and safety of the public.<sup>11</sup> "The mission of EPA is to protect human health and the environment," according to the Agency's own web-site.<sup>12</sup> It is not to protect the interests of industry. Information from industry and the perspectives of industry are important, but they should not supplant sound objective scientific data.
- III. Rather than having scientific experts review potential EPA grant awards to nonprofits, universities and other institutions, which has traditionally been the case at EPA, Administrator Pruitt has placed that responsibility into the hands of political appointees.<sup>13</sup> While new Administrations and new Administrators of federal agencies periodically re-evaluate their programs and policies, Scott Pruitt has demanded that all competitive

<sup>9</sup> Drew Griffin, Scott Bronstein and John D. Sutter, "EPA head met with a mining CEO -- and then pushed forward a controversial mining project," *CNN*, September 22, 2017, accessed here:

<http://www.cnn.com/2017/09/22/politics/pebble-epa-bristol-bay-invs/index.html>

<sup>10</sup> See: Chris Mooney and Juliet Eilperin, "EPA just gave notice to dozens of scientific advisory board members that their time is up," *Washington Post*, June 20, 2017, accessed here: [https://www.washingtonpost.com/news/energy-environment/wp/2017/06/20/trump-administration-to-decline-to-renew-dozens-of-scientists-for-key-epa-advisory-board/?utm\\_term=.e70070171039](https://www.washingtonpost.com/news/energy-environment/wp/2017/06/20/trump-administration-to-decline-to-renew-dozens-of-scientists-for-key-epa-advisory-board/?utm_term=.e70070171039); Rene Marsh and Theodore Schleifer, "Pruitt removes scientists from key EPA board," May 8, 2017, *CNN*, accessed here: [www.cnn.com/2017/05/08/politics/epa-scott-pruitt-board/index.html](http://www.cnn.com/2017/05/08/politics/epa-scott-pruitt-board/index.html); Zach Coleman, "A Little Less Science for EPA's Science Advisory Boards," *UNDARK*, July 12, 2017, accessed here: <https://undark.org/2017/07/12/epa-science-advisory-board-pruitt/>

<sup>11</sup> See: Chris Mooney and Juliet Eilperin, "EPA just gave notice to dozens of scientific advisory board members that their time is up," *Washington Post*, June 20, 2017, accessed here: [https://www.washingtonpost.com/news/energy-environment/wp/2017/06/20/trump-administration-to-decline-to-renew-dozens-of-scientists-for-key-epa-advisory-board/?utm\\_term=.e70070171039](https://www.washingtonpost.com/news/energy-environment/wp/2017/06/20/trump-administration-to-decline-to-renew-dozens-of-scientists-for-key-epa-advisory-board/?utm_term=.e70070171039); Rene Marsh and Theodore Schleifer, "Pruitt removes scientists from key EPA board," May 8, 2017, *CNN*, accessed here: [www.cnn.com/2017/05/08/politics/epa-scott-pruitt-board/index.html](http://www.cnn.com/2017/05/08/politics/epa-scott-pruitt-board/index.html); Zach Coleman, "A Little Less Science for EPA's Science Advisory Boards," *UNDARK*, July 12, 2017, accessed here: <https://undark.org/2017/07/12/epa-science-advisory-board-pruitt/>

<sup>12</sup> "Our Mission and What We Do," Environmental Protection Agency (EPA), accessed here: <https://www.epa.gov/aboutepa/our-mission-and-what-we-do>

<sup>13</sup> See: Sean Reilly, "Pruitt assigns political appointee to vet grant requests," *E&E News*, August 17, 2017, accessed here: <https://www.eenews.net/stories/1060058907>; Annie Snider, "EPA puts grants under scrutiny cuts some funding," *PoliticoPro*, August, 24, 2017, accessed here: [www.politicopro.com/energy/whiteboard/2017/08/epa-puts-grants-under-scrutiny-cuts-some-funding-092068](http://www.politicopro.com/energy/whiteboard/2017/08/epa-puts-grants-under-scrutiny-cuts-some-funding-092068); Juliet Elperin, "EPA now requires political aide's sign-off for agency awards, grant applications," *Washington Post*, September 4, 2017, accessed here: [www.washingtonpost.com/politics/epa-now-requires-political-aides-sign-off-for-agency-awards-grant-applications/2017/09/04/2fd707a0-88fd-11e7-a94f-3139abce39f5\\_story.html?utm\\_term=.e7e64ada8711](https://www.washingtonpost.com/politics/epa-now-requires-political-aides-sign-off-for-agency-awards-grant-applications/2017/09/04/2fd707a0-88fd-11e7-a94f-3139abce39f5_story.html?utm_term=.e7e64ada8711); Daniella Diaz, "Report: Political aide signs off grant applications, awards at EPA," *CNN*, September 5, 2017, accessed here: [www.cnn.com/2017/09/05/politics/epa-john-konkus-grant-award-applications/index.html](http://www.cnn.com/2017/09/05/politics/epa-john-konkus-grant-award-applications/index.html)

scientific and other grant solicitations be reviewed by political appointees in the EPA's Office of Public Affairs (OPA).<sup>14</sup> The individual assigned to vetting these scientific grants has no scientific background or expertise, ensuring that grants will be judged by political criteria rather than on their scientific and technical merits. This is bound to undermine the integrity of EPA-funded scientific studies and harm U.S. environmental research, scientific innovation and the safety of the public from potential exposure to harmful chemicals. Administrator Pruitt should explain the rationale for this questionable change in the EPA's grant-making process, as it appears to rely on politics rather than science as a barometer of integrity and necessity.

- IV. Since taking over as Administrator of the EPA, Administrator Pruitt has directed that terms he appears to dislike, such as "climate change," be scrubbed from the Agency's website.<sup>15</sup> An abundance of scientific evidence has clearly shown the climate is changing, the planet is warming, and human caused carbon emissions are largely to blame. Personal beliefs are not science and attempting to hide terms from the public won't make issues disappear. Administrator Pruitt should justify his actions and explain how these decisions were based on scientific evidence and not political beliefs.

Moreover, it was concerning to hear that the EPA's Office of Public Affairs decided to cancel the speaking appearance of three agency scientists who were scheduled to report on their work and discuss climate change at a conference in Rhode Island.<sup>16</sup> The Narragansett Bay Estuary Program, funded through the EPA, was hosting the conference and the scientists were expected to discuss the state of the Bay. Given the lack of explanation from the Administration, this agency action reinforces concerns that the Agency is silencing science they dislike and preventing EPA scientists from engaging in scientific discussions. The EPA has a responsibility to the public to adequately address these issues, not silence scientists or scrub away scientific evidence that simply highlights the issue of climate change.

We call on you as Chairman of the House Committee on Science, Space and Technology to request that Administrator Pruitt testify before the Committee as soon as possible. Not only is such oversight routine, but as a public official Administrator Pruitt has an obligation to address his conduct and management of EPA. His leadership of EPA in eight short months has already resulted in policies that favor the very industries he is supposed to regulate, potentially resulting in harm to Americans' public health and safety.

<sup>14</sup> "Protocol for Office of Public Affairs Review of Draft Competitive Grant Solicitations," Office of the Administrator, Environmental Protection Agency (EPA), accessed here: [www.documentcloud.org/documents/3954249-EPA-s-new-procedures-for-drafting-competitive.html#document/p1](http://www.documentcloud.org/documents/3954249-EPA-s-new-procedures-for-drafting-competitive.html#document/p1)

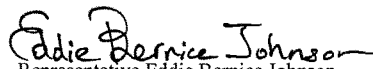
<sup>15</sup> See: Michael Hiltzik, "Trump's EPA has started to scrub climate change data from its website," *Los Angeles Times*, May 1, 2017, accessed here: <http://www.latimes.com/business/hiltzik/la-fi-hiltzik-epa-climate-20170501-story.html>; Michael Collins, "EPA removes climate change data, other scientific information from website," *USA Today*, April 29, 2017, accessed here: <https://www.usatoday.com/story/news/politics/2017/04/29/epa-removes-climate-change-data-other-scientific-information-website/101072040/>; Niina Heikkinen, "EPA Just Scrubbed Even More Mentions of Climate from Its Web Site," *ClimateWire*, May 8, 2017, accessed here: <https://www.scientificamerican.com/article/epa-just-scrubbed-even-more-mentions-of-climate-from-its-web-site/>


<sup>16</sup> Friedman, Lisa, "E.P.A. Cancels Talk on Climate Change by Agency Scientists," *New York Times*, Oct. 22, 2017, accessed here: <https://www.nytimes.com/2017/10/22/climate/epa-scientists.html>

Each of the items mentioned above deserves its own hearing. There has been no satisfactory response by either Mr. Pruitt or the EPA justifying the above issues. At a minimum, the Committee and the public deserve a detailed explanation of the actions taken by Administrator Pruitt and the EPA. It is critically important that the Committee engage in serious oversight of the Executive Branch and ensure that the policies and practices of the EPA are not harming the American people. It is important we hear from Administrator Pruitt to understand how he believes he is carrying out the core mission of the EPA to protect the American public from environmental risks while managing the Agency in an effective, efficient and ethical manner.

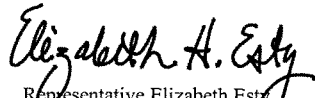
Thank you for your attention to this matter.

Sincerely,

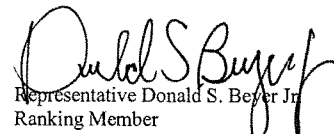
  
Representative Eddie Bernice Johnson  
Ranking Member

  
Representative Suzanne Bonamici  
Ranking Member  
Subcommittee on Environment

  
Representative Daniel W. Lipinski

  
Representative Elizabeth Esty

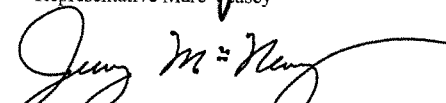
  
Representative Jacky Rosen

  
Representative Donald S. Beyer Jr.  
Ranking Member  
Subcommittee on Oversight

  
Representative Zoe Lofgren

  
Representative Ami Bera

  
Representative Marc Veasey

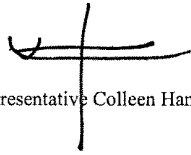
  
Representative Jerry McNerney

A stylized, cursive signature of Ed Perlmutter in black ink.

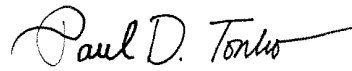
Representative Ed Perlmutter

A cursive signature of Bill Foster in black ink.

Representative Bill Foster

A stylized signature of Colleen Hanabusa in black ink, featuring a large vertical stroke.

Representative Colleen Hanabusa

A cursive signature of Paul D. Tonko in black ink.

Representative Paul Tonko

A cursive signature of Mark Takano in black ink.

Representative Mark Takano

A cursive signature of Charlie Crist in black ink.

Representative Charlie Crist