



# Public Employees for Environmental Responsibility

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## **The Total Devaluation of Wetlands under the Trump Administration July 2017**

**What are “Waters of the United States”?** “Waters of the United States” (WOTUS) is a phrase contained in the federal Clean Water Act (CWA) which was passed in 1972 in order to regulate discharges of pollutants into waters. The CWA prohibits “the discharge of any pollutant” into navigable waters from any point source (a single, definable source, such as a pipe, a bulldozer, etc.). The term “navigable waters” is defined as “the waters of the United States.” The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) jointly administer the CWA.

In the implementation of the CWA, the Corps and EPA asserted jurisdiction over not just navigable waterways (those waters capable of being used by vessels for interstate commerce), but also tributaries to these waters, and wetlands adjacent to these waters. In addition, the agencies asserted jurisdiction over some isolated wetlands and waters – that is, waters that are not physically connected to the navigable waterways, but had a significant nexus to navigable waters. Complaints ensued that the Corps and EPA were overreaching, and the precise meaning of WOTUS was litigated extensively.

In 2005, the Supreme Court heard one of these wetland cases, and the Justices could not come to a majority decision. Instead, the Justices came up with two alternative tests to determine whether a wetland or water was jurisdictional under the CWA. The decision did little to clarify matters, and on May 27, 2015, after extensive scientific review and a massive public comment process, the Corps and EPA issued the Clean Water Rule to address the uncertainties. The Rule was supposed to take effect on August 28, 2015, but 13 states filed suit to stop it. Ultimately, a U.S. Court of Appeals issued a nationwide stay, and the Clean Water Rule was never fully implemented.

**The fate of WOTUS under the Trump Administration:** On February 28, 2017, President Trump signed an Executive Order (EO) telling the Corps and EPA to review the Clean Water Rule. EPA Administrator Pruitt then issued a proposed rule repealing the stayed Clean Water Rule, and issued an accompanying economic analysis justifying the repeal. Pruitt plans to issue a new definition of WOTUS in the coming months, which will drastically reduce the number of wetlands and waters that are jurisdictional under the CWA.

**Provisions of the CWA that would be affected by WOTUS rule change:** The CWA has numerous sections, each dealing with a different program or permit type. If the definition of WOTUS changes, the implementation of these laws would change as well. For example, if a stream or wetland that used to be jurisdictional (and therefore used to require a CWA permit from the Corps or EPA to discharge pollutants or fill into it) is no longer considered a WOTUS, then discharges into it would no longer require a permit. The sections of the CWA analyzed in both the 2015 Clean Water Rule and the proposed repeal include:

- 1) CWA Section 303, which includes development of state water quality standards, monitoring and assessment of water quality, and development of total maximum daily loads (TMDLs).
- 2) CWA Section 311, which addresses oil spill prevention and preparedness. These requirements apply to facilities that produce or store large quantities of oil.
- 3) CWA Section 401, which gives states, tribes, and interstate agencies the authority to review federal permits or licenses that may result in a discharge to waters of the United States, in order to certify whether such discharges will meet applicable water quality standards and pertinent state or tribal laws.
- 4) CWA Section 402 (point sources), the National Pollutant Discharge Elimination System (NPDES) program, permits discharges to WOTUS from point sources (e.g., pipes).
- 5) Other CWA Section 402 provisions (discharge of stormwater, concentrated animal feeding operations (CAFOs), and pesticide application), which involve discharging into WOTUS.

**Costs and Benefits of Proposed Rule:** When the Clean Water Rule was issued in 2015, it was accompanied by a number of economic analyses to assess the costs and benefits of the rule as required by law. This cost/benefit analysis is important. If the definition of WOTUS changes such that there are far fewer jurisdictional wetlands and waters, the financial impact associated with each of the provisions of the CWA will change. Moreover, federal money given to the States to assist with these programs would also be affected.

The analyses examined two scenarios, a “low end” scenario, in which the agencies assumed that there would be 2.84% more positive jurisdictional determinations (i.e., 2.84% more wetlands would be considered waters of the United States, thereby requiring a permit to discharge into them, nationwide), and a “high end” scenario, in which they assumed there would be 4.65% more positive jurisdictional determinations.

It is important to note that a finding that a particular water or wetland is jurisdictional does not automatically incur any direct costs to anyone. However, if an applicant decides to proceed and obtain a permit to discharge into the water or wetland, the applicant would

incur a cost. So, because the amount of jurisdictional wetlands was estimated to increase anywhere from 2.84% to 4.65%, the agencies estimated costs by applying this incremental increase to the costs associated with applying for permits under these CWA programs.

Potential costs associated with an expansion of WOTUS regulated under these provisions of the CWA include: 1) costs to the regulated community (e.g., development of plans, permit applications, mitigation costs, penalties for violating the laws); and 2) costs to the regulators (e.g., employees necessary to review permit applications, issue permits, conduct inspections, etc.).

Potential benefits associated with an expansion of WOTUS include: 1) avoided costs of environmental damage (e.g., oil spills, adverse impacts to fisheries, water quality, drinking water and recreational sites); and 2) direct values and services of the natural resources (e.g., flood storage and water purification provided by wetlands, recreational values, fishing and hunting, etc.). For the Section 404 program (wetlands), the agencies used a willingness-to-pay (WTP) analysis, in order to capture the inherent value of the wetlands. In other words, they looked at surveys of households that gauged how much people were willing to pay to preserve wetlands rather than see them destroyed. Unfortunately, literature that examined WTP for the types of isolated wetlands at issue here are extremely limited, and they were only able to find studies from the 1990s.

**Economic analysis contained in the 2015 Clean Water Rule:** The economic analyses in the 2015 Clean Water Rule were comprehensive. The tables, adjusted to FY 2016 dollars, are simplified and re-created below:

*Estimated costs and benefits if the 2015 Clean Water Rule were implemented, given estimate of increased jurisdiction by 2.84% (“low end” scenario)*

	Annual <b>Cost</b> (FY16 \$millions)		Annual <b>Benefits</b> (FY16 \$millions)	
	Low	High	Low	High
<b>CWA 402 (CAFO)</b>	\$6.38	\$6.38	\$3.9	\$6.8
<b>CWA 402 (Stormwater)</b>	\$30.19	\$37.59	\$29.7	\$37.7
<b>CWA 404 Permit Application</b>	\$29.4	\$50.2	\$313.5	\$313.5
<b>CWA 404 Mitigation - wetlands</b>	\$55.7	\$156.0		

<b>CWA 404 Mitigation - streams</b>	\$23.3	\$46.2	Not quantified	Not quantified
<b>CWA 311</b>	\$13.0	\$13.0	Not quantified	Not quantified
<b>CWA 401</b>	\$0.8	\$0.8	Not quantified	Not quantified
<b>CWA 402 (Pesticide general permits)</b>	\$3.4	\$3.7	Not quantified	Not quantified
<b>TOTAL</b>	<b>\$162.17</b>	<b>\$313.87</b>	<b>\$347.1</b>	<b>\$358</b>

*Estimated costs and benefits if the 2015 Clean Water Rule were implemented, given estimate of increased jurisdiction by 4.65% (“high end” scenario)*

	<b>Annual Cost (FY16 \$millions)</b>		<b>Annual Benefits (FY16 \$millions)</b>	
	<b>Low</b>	<b>High</b>	<b>Low</b>	<b>High</b>
<b>CWA 402 (CAFO)</b>	\$10.45	\$10.45	\$6.4	\$11.1
<b>CWA 402 (Stormwater)</b>	\$49.48	\$61.48	\$48.6	\$61.7
<b>CWA 404 Permit Application</b>	\$48.2	\$82.2	\$513.2	\$513.2
<b>CWA 404 Mitigation - wetlands</b>	\$91.2	\$255.4		
<b>CWA 404 Mitigation - streams</b>	\$23.3	\$46.2	Not quantified	Not quantified
<b>CWA 311</b>	\$13.0	\$13.0	Not quantified	Not quantified
<b>CWA 401</b>	\$1.3	\$1.3	Not quantified	Not quantified
<b>CWA 402 (Pesticide general permits)</b>	\$5.5	\$6.1	Not quantified	Not quantified
<b>TOTAL</b>	<b>\$242.43</b>	<b>\$476.13</b>	<b>\$568.2</b>	<b>\$586.0</b>

**The updated economic analyses in Pruitt’s repeal of the 2015 Clean Water Rule:**  
When EPA and the Corps issued the proposed repeal of the 2015 Clean Water Rule, they

also issued a document entitled “Economic Analysis for the Proposed Definition of ‘Waters of the United States’ – Recodification of Pre-existing Rules.” In this document, they created new tables estimating “avoided costs and forgone benefits” derived from the economic analysis tables in the 2015 Clean Water Rule.

These tables are simplified and presented below. The changes are presented in *red italics*.

***Estimates of Avoided Costs and Foregone Benefits, Derived from the 2015 Clean Water Rule (“low end” scenario)***

	Annual <b>Avoided Costs</b> (FY16 \$millions)		Annual <b>Foregone Benefits</b> (FY16 \$millions)	
	<b>Low</b>	<b>High</b>	<b>Low</b>	<b>High</b>
<b>CWA 402 (CAFO)</b>	\$6.38	\$6.38	\$3.9	\$6.8
<b>CWA 402 (Stormwater)</b>	\$30.19	\$37.59	\$29.7	\$37.7
<b>CWA 404 Permit Application</b>	\$29.4	\$50.2	<i>Not quantified</i>	<i>Not quantified</i>
<b>CWA 404 Mitigation - wetlands</b>	\$55.7	\$156.0		
<b>CWA 404 Mitigation - streams</b>	\$23.3	\$46.2	Not quantified	Not quantified
<b>CWA 311</b>	\$13.0	\$13.0	Not quantified	Not quantified
<b>CWA 401</b>	\$0.8	\$0.8	Not quantified	Not quantified
<b>CWA 402 (Pesticide general permits)</b>	\$3.4	\$3.7	Not quantified	Not quantified
<b>TOTAL</b>	<b>\$162.17</b>	<b>\$313.87</b>	<b><i>\$33.6 + \$B*</i></b>	<b><i>\$44.5 + \$B*</i></b>

\*\$B is a stand-in for the unquantified benefits.

***Estimated of Avoided Costs and Forgone Benefits, derived from the 2015 Clean Water Rule, (“high end” scenario)***

	<b>Annual <i>Avoided Costs</i> (FY16 \$millions)</b>		<b>Annual <i>Forgone Benefits</i> (FY16 \$millions)</b>	
	<b>Low</b>	<b>High</b>	<b>Low</b>	<b>High</b>
<b>CWA 402 (CAFO)</b>	\$10.45	\$10.45	\$6.4	\$11.1
<b>CWA 402 (Stormwater)</b>	\$49.48	\$61.48	\$48.6	\$61.7
<b>CWA 404 Permit Application</b>	\$48.2	\$82.2	<i>Not quantified</i>	<i>Not quantified</i>
<b>CWA 404 Mitigation - wetlands</b>	\$91.2	\$255.4		
<b>CWA 404 Mitigation - streams</b>	\$23.3	\$46.2	Not quantified	Not quantified
<b>CWA 311</b>	\$13.0	\$13.0	Not quantified	Not quantified
<b>CWA 401</b>	\$1.3	\$1.3	Not quantified	Not quantified
<b>CWA 402 (Pesticide general permits)</b>	\$5.5	\$6.1	Not quantified	Not quantified
<b>TOTAL</b>	<b>\$242.43</b>	<b>\$476.13</b>	<b><i>\$55.0 + \$B*</i></b>	<b><i>\$72.8 + \$B*</i></b>

\*\$B is a stand-in for the unquantified benefits.

Because these new tables are associated with the repeal of the final 2015 Clean Water Rule, the costs become “avoided costs,” and the benefits become “forgone benefits.” In other words, the agencies are arguing that failure to implement the rule will avoid the costs associated with the Rule, and the benefits which will never occur will be forfeited, or forgone.

The only difference, then, between the tables presented in the 2015 Clean Water Rule and the tables in the economic analysis associated with the repeal of the 2015 Clean Water Rule is the deletion of the benefits associated with wetlands.

**Result of the new cost/benefit analysis:** By eliminating all benefits associated with wetland preservation and mitigation, the agencies have managed to flip the cost/benefit analysis from one where the benefits associated with wetland protection far outweighed the costs, to one where the costs far outweigh the benefits. The comparison table, with the low end scenario and the high end scenario presented as a range, is below:

***Estimated Costs/Benefits of Section 404 of the CWA under the 2015 Clean Water Rule vs. the Proposed Repeal***

	Annual Costs vs. Benefits of the 2015 Clean Water Rule (FY16 \$millions)		Annual Avoided Costs vs. Forgone Benefits of Proposed 2017 Repeal (FY16 \$millions)	
	Costs	Benefits	Avoided costs	Forgone benefits
<b>CWA 404 Permit Application</b>	\$29.4 - \$82.2	\$313.5 - \$513.2	\$29.4 - \$82.2	Not quantified
<b>CWA 404 Mitigation - wetlands</b>	\$55.7 - \$255.4		\$55.7 - \$255.4	
<b>CWA 404 Mitigation - streams</b>	\$23.3- \$46.2	Not quantified	\$23.3 - \$46.2	Not quantified
<b>TOTAL</b>	<b>\$108.4 – \$383.8</b>	<b>\$313.5 – \$513.2</b>	<b>\$108.4 - \$383.8</b>	<b>\$0 + \$B</b>

Therefore, the net benefit from the 2015 Clean Water Rule was \$129.4 million to \$205.1 million, but the net benefit from the repeal was reduced to zero with the swipe of a pen. In fact, according to this analysis, the repeal of the 2015 Clean Water Rule would *avoid* \$108.4 to \$383.8 million in costs, annually.

The agencies claim that the justification for zeroing out the benefits associated with wetland protection is due to the “uncertainty” associated with the WTP studies, “because public attitudes toward nature protection could have changed.”<sup>1</sup> Therefore, because of the age of the studies used in the 2015 Clean Water Rule, and because of the uncertainty of how the states will react to the repeal, EPA and the Corps decided the uncertainty was too large to include any benefits at all.

While it is true that there are very few recent WTP studies on these types of wetlands, replacement cost and ecosystem services are valid measures from which to derive benefits. By zeroing out all benefits associated with wetland protection, the Trump EPA is ignoring both disciplines of science and economics.

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<sup>1</sup> Pp. 8-9, “Economic Analysis for the Proposed Definition of ‘Waters of the Untied States” – Recodification of Pre-existing Rules.”