Table E-35: Section 402 individual permits (SIC codes in parentheses) issued in case study watersheds in the Rio Grande River Basin

Industry category	Individual permits[1]			General permits[1]		
	Total number of NPDES permits	Permits with discharge point near ephemeral streams[2]		Total number of NPDES permits[1]	Permits with discharge point near ephemeral streams[2]	
		Number of permits	Percent of all permits		Number of permits	Number of permits

[3] Includes SIC Codes 211, 212, 213, 214, 219, 241, 251, 252, 253, 254, 259, 271, 272, and 279

[4] Includes SIC Codes 1422, 1423, 1429, 1442, 1446, 1459, 1474, 1475, 1481, and 1499

[5] Includes SIC Codes 1629, 1794, 6552, 1611, 1799, 1521, 1522, and 1623

[6] Includes Asphalt Paving Mixtures and Blocks (2951), Scrap and Waste Materials (5093), Trucking Facilities (4212, 4231), and Water Supply (4941)

[7] Includes SIC Codes 6513, 6514, 6515, 7011, 7032, 7033, 8211, 8221, 8641, and 8661

Table E-36 illustrates the plausible effects of state responses following a change to the definition of "waters of the United States" on the number of NPDES permits in the Rio Grande River Basin. Potential state responses and different analytic scenarios are described in Sections II.B and III.C.1. NPDES permits for discharges near ephemeral waters were issued in one state in HUC 1306 (New Mexico) and two states in HUC 1307 (New Mexico and Texas). Texas is expected to regulate waters beyond the CWA under Scenarios 2 and 3. New Mexico is not anticipated to regulate waters beyond the CWA under any scenarios.

Table E-1: Section 402 permits issued in case study watersheds in the Rio Grande River Basin potentially affected by proposed definition of "waters of the United States," by policy scenario[1,2,3]

Industry category	Individual Permits with discharge point near ephemeral streams			General Permits with discharge point near ephemeral streams		
	Scenario 0	Scenario 1	Scenario 2 (3)[4]	Scenario 0	Scenario 1	Scenario 2 (3)[4]
HUC 1306						
Sewerage Systems (4952)	1	1	1	0	0	0
Animal Feeding Operations[5]	0	0	0	2	2	2
Motor Vehicle Parts, Used (5015)	0	0	0	7	7	7
Aggregate Mining[6]	0	0	0	6	6	6
Construction and Development[7]	0	0	0	2	2	2
Other Categories[8]	0	0	0	9	9	9
Missing SIC Codes	0	0	0	51	51	51
Total	**1**	**1**	**1**	**77**	**77**	**77**
HUC 1307						
Industrial Domestic Wastewater Treatment[9]	0	0	0	0	0	0
Sewerage Systems (4952)	0	0	0	0	0	0
Aggregate Mining[6]	0	0	0	1	1	1
Ready-Mixed Concrete (3273)	0	0	0	1	1	0
Animal Feeding Operations[5]	0	0	0	0	0	0

Table E-1: Section 402 permits issued in case study watersheds in the Rio Grande River Basin potentially affected by proposed definition of "waters of the United States," by policy scenario[1,2,3]

Industry category	Individual Permits with discharge point near ephemeral streams			General Permits with discharge point near ephemeral streams		
	Scenario 0	Scenario 1	Scenario 2 (3)[4]	Scenario 0	Scenario 1	Scenario 2 (3)[4]
Other Categories[8]	0	0	0	0	0	0
Missing SIC Codes	0	0	0	10	10	10
Total	**0**	**0**	**0**	**12**	**12**	**11**
Total for both watersheds	**1**	**1**	**1**	**89**	**89**	**88**

[1] Source: EPA's ICIS-NPDES data, 2017. The facility permits included in the spatial analysis are limited to those for which the ICIS-NPDES database includes latitude/longitude coordinates. For permits with multiple SIC codes, only one SIC code was retained, with manufacturing industries prioritized, to avoid double-counting.

[2] The agencies used FCODES in the NHD dataset to determine whether 402 discharges are likely to affect ephemeral streams.

[3] See Table III-1 for description of policy scenarios.

[4] Policy scenarios 2 and 3 are identical for surface water dischargers.

[5] Includes SIC Codes 211, 212, 213, 214, 219, 241, 251, 252, 253, 254, 259, 271, 272, and 279

[6] Includes SIC Codes 1422, 1423, 1429, 1442, 1446, 1459, 1474, 1475, 1481, and 1499

[7] Includes SIC Codes 1629, 1794, 6552, 1611, 1799, 1521, 1522, and 1623

[8] Includes Asphalt Paving Mixtures and Blocks (2951), Scrap and Waste Materials (5093), Trucking Facilities (4212, 4231), and Water Supply (4941)

[9] Includes SIC Codes 6513, 6514, 6515, 7011, 7032, 7033, 8211, 8221, 8641, and 8661

E.3.2 Section 404

Table E-37 summarizes section 404 permits issued in 2011-2015 within the two selected watersheds of the Rio Grande River Basin. The table includes permits that required mitigation and potentially affected ephemeral streams, non-abutting wetlands, or wetlands adjacent to but not directly abutting permanent waters.

Table E-37: Section 404 permits issued in case study watersheds in the Rio Grande River Basin (2011-2015)[1]

State	# Permitted Projects	# Permits with mitigation requirements affected by changes to the definition of "waters of the United States"[2]	Permanent impacts		Temporary impacts	
			Acres	Length Feet	Acres	Length Feet
HUC 1306						
NM	168	1	17.5	0	0.0	0
Total	**168**	**1**	**17.5**	**0**	**0.0**	**0**
Avg. per year	**34**	**0**	**3.5**	**0**	**0.0**	**0**
HUC 1307						
NM	39	0	0.0	0	0.0	0
TX	6	0	0.0	0	0.0	0

Table E-37: Section 404 permits issued in case study watersheds in the Rio Grande River Basin (2011-2015)[1]

State	# Permitted Projects	# Permits with mitigation requirements affected by changes to the definition of "waters of the United States"[2]	Permanent impacts		Temporary impacts	
			Acres	Length Feet	Acres	Length Feet
Total	**45**	**0**	**0.0**	**0**	**0.0**	**0**
Avg. per year	**9**	**0**	**0.0**	**0**	**0.0**	**0**

[1] Values based on permits with mitigation requirements on waterways determined to be non-abutting wetlands, RPWWN-type wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. No 404 permits in HUC 1307 meet these requirements.

[2] Number of permits includes permits with mitigation requirements that potentially affect at least one water no longer jurisdictional under the CWA under the proposed rule.

Table E-38 presents expected reductions in average annual mitigation requirements in the Rio Grande River Basin under different likely state response scenarios following the proposed "waters of the United States" definitional changes.

Table E-38: Estimated changes in average mitigation required per year in the Rio Grande River Basin based on the sensitivity analysis methodology, by policy scenario[1,2]

State	Expected Reduction in Average Mitigation Acres per Year			Expected Reduction in Average Mitigation Length Feet per Year			Expected Reduction in Average Mitigation Length Feet Acres per Year[3]		
	Scenario 0 & 1	Scenario 2	Scenario 3	Scenario 0 & 1	Scenario 2	Scenario 3	Scenario 0 & 1	Scenario 2	Scenario 3
HUC 1306									
NM	3.5	3.5	0.0	0	0	0	0.0	0.0	0.0
Total	**3.5**	**3.5**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**
HUC 1307									
TX	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0
Total	**0.0**	**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0.0**

[1] Values based on permits with mitigation requirements on waterways determined to be non-abutting wetlands, RPWWN-type wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because these permits do not result in the loss of ecosystems services provided by wetlands and streams. No 404 permits in HUC 1307 meet these requirements. Permanent and temporary acre and linear feet impacts provided in the ORM2 are used to estimate mitigation requirements. The agencies assumed a 1:1 ratio for compensatory requirements based on the USACE guidance (U.S. Army Corps of Engineers 2014).

[2] Scenarios 0 and 1 are combined because all values are identical.

[3] Based on mitigation lengths where impacts in linear feet are converted to acres by multiplying total linear feet by an average width of 100 feet (50 feet on each side of the stream) and converting square feet to acres.

Table E-39 compares the mitigation reduction estimates in the Rio Grande River Basin using the methodology described in Section IV.B and the sensitivity analysis methodology.

Table E-39: Comparison of annual average mitigation requirements in the Rio Grande River Basin between the main methodology and the sensitivity analysis methodology

Impact Type	Acres[1]		Linear Feet[2]		Stream Riparian Acres[3]		Total Acreage[4]	
	Main	Sensitivity	Main	Sensitivity	Main	Sensitivity	Main	Sensitivity
HUC 0509								
Permanent	0.02	3.51	0	0	0.00	0.00	0.02	3.51
Temporary	0.00	0.00	0	0	0.00	0.00	0.00	0.00
Total	**0.02**	**3.51**	**0**	**0**	**0.00**	**0.00**	**0.02**	**3.51**
HUC 0510								
Permanent	0.00	0.00	0	0	0.00	0.00	0.00	0.00
Temporary	0.00	0.00	0	0	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**

[1] Main analysis includes permanent impact acres on RPWWN-type wetlands and ephemeral streams. Sensitivity analysis includes permanent and temporary impact acres from RPWWN-type wetlands, non-abutting wetlands, and ephemeral streams.

[2] Main analysis includes permanent impact linear feet on riparian areas of RPWWN-type wetlands and ephemeral streams. Sensitivity analysis includes permanent and temporary impact linear feet on riparian areas of non-abutting wetlands, RPWWN-type wetlands, and ephemeral streams.

[3] Main analysis converts permanent linear feet impacts to acres using a 50-foot mitigation width (25 feet on each side). Sensitivity analysis converts permanent and temporary linear feet impacts to acres using a 100-40foot mitigation width (50 feet on each side).

[4] Sum of the acres and stream riparian acres fields.

Tables E-40, E-41, and E-42 present permit application cost savings, cost savings from reduced mitigation requirements, and total costs savings, respectively.

Table E-40: Average annual reduction in 404 permit application costs in the Rio Grande River Basin, based on the sensitivity analysis methodology[1,2]

Permit Type	Unit Costs from Corps NWP Analysis (2017$)	Scenario 0 & 1		Scenario 2		Scenario 3	
		Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)	Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)	Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)
HUC 1306							
IP	$14,700	0.2	<$0.01	0.2	<$0.01	0.0	$0.00
GP	$4,400	17.0	$0.07	17.0	$0.07	0.0	$0.00
Total		**17.2**	**$0.08**	**17.2**	**$0.08**	**0.0**	**$0.00**

Table E-40: Average annual reduction in 404 permit application costs in the Rio Grande River Basin, based on the sensitivity analysis methodology[1,2]

Permit Type	Unit Costs from Corps NWP Analysis (2017$)	Scenario 0 & 1		Scenario 2		Scenario 3	
		Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)	Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)	Annual Average Reduction in Permits with Rule	Estimated Reduction in Permits Costs (millions 2017$)
HUC 1307							
IP	$14,700	0.0	$0.00	0.0	$0.00	0.0	$0.00
GP	$4,400	8.0	$0.04	8.0	$0.04	0.0	$0.00
Total		**8.0**	**$0.04**	**8.0**	**$0.04**	**0.0**	**$0.00**
Both Watersheds							
IP		0.2	<$0.01	0.2	<$0.01	0.0	$0.00
GP		25.0	$0.11	25.0	$0.11	0.0	$0.00
Total		**25.2**	**$0.11**	**25.2**	**$0.11**	**0.0**	**$0.00**

[1] Includes permits estimated to only affect waters no longer jurisdictional under the CWA under the proposed rule (*i.e.*, non-abutting wetlands, RPWWN-type wetlands, and ephemeral streams).

[2] Scenarios 0 and 1 are combined because all values are identical.

Table E-41: Annual cost savings (2017$) of reduced mitigation requirements in the Rio Grande River Basin based on the sensitivity analysis methodology, by policy scenario[1,2]

State	Cost Per Acre (2017$)		Cost Per LF (2017$)		Scenarios 0 & 1 (Millions 2017$)		Scenario 2 (Millions 2017$)		Scenario 3 (Millions 2017$)	
	Low	High	Low	High	Low	High	Low	High	Low	High
HUC 1306										
NM	$51,850	$72,490	$294	$675	$0.27	$0.38	$0.27	$0.38	$0.00	$0.00
Total	-	-	-	-	**$0.27**	**$0.38**	**$0.27**	**$0.38**	**$0.00**	**$0.00**
HUC 1307										
TX	$54,000	$105,400	$525	$900	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total	-	-	-	-	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Both Watersheds										
Total	-	-	-	-	**$0.27**	**$0.38**	**$0.27**	**$0.38**	**$0.00**	**$0.00**

[1] Estimated changes in average mitigation required per year are presented in Table E-38. For each state, cost savings are calculated by multiplying the cost of each mitigation acre or linear foot (low and high estimates) by the expected reduction in annual mitigation requirements, summing the acreage and linear feet values for each scenario, and multiplying the total by 1.5. The agencies multiply the total by 1.5 to account for a compensatory mitigation requirement ratio of 1.5:1.

[2] Scenarios 0 and 1 are combined because all values are identical.

Table E-42: Total annual cost savings in the Rio Grande River Basin, based on the sensitivity analysis methodology[1,2]

HUC	Scenarios 0 & 1		Scenario 2		Scenario 3	
	Low	High	Low	High	Low	High
1306	$0.35	$0.46	$0.35	$0.46	$0.00	$0.00
1307	$0.04	$0.04	$0.04	$0.04	$0.00	$0.00
Total	**$0.39**	**$0.49**	**$0.39**	**$0.49**	**$0.00**	**$0.00**

[1] Scenarios 0 and 1 are combined because all values are identical.

[2] Scenarios 0, 1, and 2 include cost savings in New Mexico and Texas. Under Scenario 3, cost savings drop to zero because both states in the case study region are expected to regulate waters beyond CWA requirements.

The agencies did not estimate the forgone benefit value of lost mitigation acres for the Rio Grande River Basin case study because none of the existing wetland valuation studies were conducted in the same geographic area or provided a good match for the affected resource characteristics. See Section IV.B.3.2.2.2 for additional details.

E.3.3 Section 311

The agencies used the high-resolution NHD data in the main analysis to estimate impacts on section 311 programs. Therefore, the results for the sensitivity analysis are the same as discussed in Section IV.B.3.2.3 for the main analysis.

E.3.4 Water Quality Modeling

As discussed in Section IV.B.3.3.1, given the small level of 404 activity in the two watersheds, the agencies did not perform SWAT model runs for this case study.

E.3.5 Dredging for Water Storage and Navigation

Because the agencies did not perform SWAT model runs for the Rio Grande case study (see Section IV.B.3.3.1), net sediment depositions and annualized dredging cost change estimates are not available.

E.4 Stage 2 Quantitative Assessment of National Impacts

Tables E-43, E-44, and E-45 present national-level permit cost savings, mitigation cost savings, and total cost savings (sum of permit cost savings and reduced mitigation requirement savings), respectively, based on the sensitivity analysis methodology. Table E-46 presents forgone benefit estimates based on the sensitivity analysis methodology.

Table E-43: National average annual reduction in 404 permit application costs based on the sensitivity analysis methodology

Permit Type	Unit Costs from Corps NWP Analysis (2017$)	Annual Average Reduction in Permits with Proposed Rule	Estimated Reduction in Permit Costs (millions 2017$)
Scenario 0[1,2]			
IP	$14,700	250	$3.7
GP	$4,400	8,376	$36.9

Table E-43: National average annual reduction in 404 permit application costs based on the sensitivity analysis methodology

Permit Type	Unit Costs from Corps NWP Analysis (2017$)	Annual Average Reduction in Permits with Proposed Rule	Estimated Reduction in Permit Costs (millions 2017$)
Total		**8,626**	**$40.5**
		Scenario 1[1,3]	
IP	$14,700	82	$1.2
GP	$4,400	4,635	$20.4
Total		**4,717**	**$21.6**
		Scenario 2[1,4]	
IP	$14,700	48	$0.7
GP	$4,400	3,054	$13.4
Total		**3,103**	**$14.2**
		Scenario 3[1,5]	
IP	$14,700	18	$0.3
GP	$4,400	567	$2.5
Total		**585**	**$2.8**

[1] Annual average permit reductions based on permits issued in years 2011-2015 estimated to only affect RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams.

[2] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-44: National average annual cost savings of reduced mitigation requirements based on the sensitivity analysis methodology

Unit	Annual Average Mitigation Reduction with Rule	Low (Millions 2017$)	High (Millions 2017$)
		Scenario 0[1,2]	
Acres	2,735.7	$256.7	$523.5
LF	600,813	$300.7	$683.8
Total		**$557.4**	**$1,207.3**
		Scenario 1[1,3]	
Acres	1,267.4	$99.6	$181.6
LF	372,632	$170.8	$371.6
Total		**$270.4**	**$553.2**
		Scenario 2[1,4]	
Acres	978.1	$86.8	$148.1
LF	274,261	$147.8	$309.9
Total		**$234.6**	**$458.0**

Table E-44: National average annual cost savings of reduced mitigation requirements based on the sensitivity analysis methodology

Unit	Annual Average Mitigation Reduction with Rule	Low (Millions 2017$)	High (Millions 2017$)
		Scenario 3[1,5]	
Acres	241.7	$16.3	$23.4
LF	85,857	$38.4	$96.2
Total		**$54.7**	**$119.5**

[1] Annual average mitigation reduction based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Cost savings are calculated by multiplying the cost of each mitigation acre or linear foot (low and high estimates) for each state by the expected reduction in annual mitigation requirements, summing the state-level acreage and linear feet values for each scenario, and multiplying the total by 1.5. The agencies multiply the total by 1.5 to account for a compensatory mitigation requirement ratio of 1.5:1.

[2] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-45: Total national estimated annual cost savings based on the sensitivity analysis methodology (Millions 2017$)

Cost Type	Scenario 0[1]		Scenario 1[2]		Scenario 2[3]		Scenario 3[4]	
	Low	High	Low	High	Low	High	Low	High
Permit Cost Savings	$40.5	$40.5	$21.6	$21.6	$14.2	$14.2	$2.8	$2.8
Mitigation Cost Savings	$557.4	$1,207.3	$270.4	$553.2	$234.6	$458.0	$54.7	$119.5
Total	**$597.9**	**$1,247.9**	**$292.0**	**$574.8**	**$248.7**	**$472.2**	**$57.5**	**$122.3**

[1] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[2] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[4] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-46: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, by policy scenario

Scenario	Households	Annual Forgone Mitigation Acres	Mean WTP per household per acre (2017$)	Mean Estimate of Forgone Benefits (Millions 2017$)	Lower 5th WTP per household per acre (2017$)	Lower 5th Estimate of Forgone Benefits (Millions 2017$)	Upper 95th WTP per household per acre (2017$)	Upper 95th Estimate of Forgone Benefits (Millions 2017$)
Scenario 0[1,2]	115,994,247	4,115.0	$0.0251	$362.7	$0.0001	$1.8	$0.0493	$801.4
Scenario 1[1,3]	45,033,201	2,122.8	$0.0192	$120.7	$0.0001	$0.7	$0.0419	$266.3
Scenario 2[1,4]	32,455,035	1,607.7	$0.0212	$108.0	$0.0001	$0.6	$0.0461	$238.8
Scenario 3[1,5]	6,118,413	438.8	$0.0237	$17.5	$0.0001	$0.1	$0.0504	$35.5

[1] Annual average mitigation reduction based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services.

[2] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-47 presents state-level average annual reductions in permit and mitigation requirements based on the sensitivity analysis methodology. Tables E-48, E-49, and E-50 present state-level permit cost savings, mitigation cost savings, and total cost savings (sum of permit cost savings and mitigation cost savings), respectively, based on the sensitivity analysis methodology.

Tables E-51, E-52, E-53, and E-54 present state-level forgone benefits from reduced mitigation requirements based on the sensitivity analysis methodology for Scenarios 0, 1, 2, and 3, respectively.

Table E-47: Average annual reductions in permit and mitigation requirements based on the sensitivity analysis methodology, by state

State	Annual Average Reduction in Permits with Proposed Rule[1]								Average Annual Mitigation Reduction with Proposed Rule[2]							
	Individual Permits				General Permits				Acres				Linear Feet			
	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]
AL	4.4	4.4	4.4	0.0	45.0	45.0	45.0	0.0	88.68	88.68	88.68	0.00	48,153	48,153	48,153	0
AR	2.6	2.6	2.6	0.0	330.0	330.0	330.0	0.0	35.70	35.70	35.70	0.00	15,933	15,933	15,933	0
AZ	5.0	5.0	5.0	5.0	240.6	240.6	240.6	240.6	14.93	14.93	14.93	14.93	2,033	2,033	2,033	2,033
CA	9.0	0.0	0.0	0.0	1,077.0	0.0	0.0	0.0	53.57	0.00	0.00	0.00	110,627	0	0	0
CO	0.4	0.4	0.4	0.0	160.6	160.6	160.6	0.0	3.04	3.04	3.04	0.00	566	566	566	0
CT	0.2	0.0	0.0	0.0	45.8	0.0	0.0	0.0	5.81	0.00	0.00	0.00	0	0	0	0
DE	0.2	0.2	0.2	0.0	5.4	5.4	5.4	0.0	4.56	4.56	4.56	0.00	285	285	285	0
FL	51.2	0.0	0.0	0.0	175.8	0.0	0.0	0.0	861.87	0.00	0.00	0.00	792	0	0	0
GA	4.2	4.2	4.2	0.0	72.0	72.0	72.0	0.0	80.64	80.64	80.64	0.00	2,580	2,580	2,580	0
IA	1.0	1.0	0.0	0.0	41.4	41.4	0.0	0.0	6.69	6.69	0.00	0.00	3,305	3,305	0	0
ID	0.6	0.6	0.6	0.6	10.6	10.6	10.6	10.6	0.92	0.92	0.92	0.92	140	140	140	140
IL	5.0	0.0	0.0	0.0	208.8	0.0	0.0	0.0	32.56	0.00	0.00	0.00	11,905	0	0	0
IN	1.8	0.0	0.0	0.0	100.8	0.0	0.0	0.0	39.31	0.00	0.00	0.00	58,514	0	0	0
KS	4.4	4.4	0.0	0.0	381.2	381.2	0.0	0.0	17.40	17.40	0.00	0.00	78,904	78,904	0	0
KY	1.8	1.8	1.8	1.8	146.2	146.2	146.2	146.2	39.49	39.49	39.49	39.49	77,074	77,074	77,074	77,074
LA	12.0	12.0	0.0	0.0	316.8	316.8	0.0	0.0	172.78	172.78	0.00	0.00	3,789	3,789	0	0
MA	1.2	0.0	0.0	0.0	41.8	0.0	0.0	0.0	31.68	0.00	0.00	0.00	7	0	0	0
MD	1.0	0.0	0.0	0.0	39.2	0.0	0.0	0.0	5.17	0.00	0.00	0.00	2,432	0	0	0
ME	1.0	0.0	0.0	0.0	82.4	0.0	0.0	0.0	38.43	0.00	0.00	0.00	0	0	0	0
MI	32.6	0.0	0.0	0.0	223.2	0.0	0.0	0.0	1.92	0.00	0.00	0.00	144	0	0	0
MN	28.4	0.0	0.0	0.0	242.2	0.0	0.0	0.0	221.62	0.00	0.00	0.00	1,112	0	0	0
MO	4.2	4.2	4.2	0.0	264.8	264.8	264.8	0.0	11.73	11.73	11.73	0.00	10,578	10,578	10,578	0
MS	8.6	8.6	8.6	8.6	117.4	117.4	117.4	117.4	125.56	125.56	125.56	125.56	4,485	4,485	4,485	4,485
MT	0.2	0.2	0.2	0.0	21.6	21.6	21.6	0.0	23.72	23.72	23.72	0.00	1,004	1,004	1,004	0
NC	3.4	3.4	0.0	0.0	78.4	78.4	0.0	0.0	25.72	25.72	0.00	0.00	677	677	0	0
ND	1.2	1.2	1.2	0.0	178.0	178.0	178.0	0.0	98.05	98.05	98.05	0.00	13,004	13,004	13,004	0
NE	0.2	0.2	0.0	0.0	34.8	34.8	0.0	0.0	9.27	9.27	0.00	0.00	1,680	1,680	0	0
NH	0.2	0.0	0.0	0.0	34.4	0.0	0.0	0.0	1.87	0.00	0.00	0.00	0	0	0	0
NJ	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.83	0.00	0.00	0.00	0	0	0	0
NM	1.8	1.8	1.8	0.0	156.8	156.8	156.8	0.0	6.98	6.98	6.98	0.00	5	5	5	0

Table E-47: Average annual reductions in permit and mitigation requirements based on the sensitivity analysis methodology, by state

State	Annual Average Reduction in Permits with Proposed Rule[1]								Average Annual Mitigation Reduction with Proposed Rule[2]							
	Individual Permits				General Permits				Acres				Linear Feet			
	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]
NV	0.4	0.4	0.0	0.0	37.8	37.8	0.0	0.0	2.29	2.29	0.00	0.00	924	924	0	0
NY	4.8	0.0	0.0	0.0	186.6	0.0	0.0	0.0	18.83	0.00	0.00	0.00	1,294	0	0	0
OH	15.0	0.0	0.0	0.0	291.2	0.0	0.0	0.0	36.80	0.00	0.00	0.00	23,263	0	0	0
OK	0.4	0.4	0.4	0.0	53.4	53.4	53.4	0.0	0.82	0.82	0.82	0.00	3,728	3,728	3,728	0
OR	4.8	0.0	0.0	0.0	37.2	0.0	0.0	0.0	31.38	0.00	0.00	0.00	524	0	0	0
PA	2.6	0.0	0.0	0.0	780.6	0.0	0.0	0.0	32.21	0.00	0.00	0.00	4,546	0	0	0
RI	0.2	0.0	0.0	0.0	12.4	0.0	0.0	0.0	0.53	0.00	0.00	0.00	0	0	0	0
SC	1.4	1.4	1.4	0.0	23.8	23.8	23.8	0.0	29.84	29.84	29.84	0.00	0	0	0	0
SD	1.8	1.8	1.8	1.8	52.0	52.0	52.0	52.0	60.80	60.80	60.80	60.80	2,124	2,124	2,124	2,124
TN	0.6	0.0	0.0	0.0	29.2	0.0	0.0	0.0	3.79	0.00	0.00	0.00	5,452	0	0	0
TX	8.6	8.6	8.6	0.0	1,077.8	1,077.8	1,077.8	0.0	312.45	312.45	312.45	0.00	89,682	89,682	89,682	0
UT	1.0	1.0	1.0	0.0	74.6	74.6	74.6	0.0	4.17	4.17	4.17	0.00	2,609	2,609	2,609	0
VA	3.8	0.0	0.0	0.0	58.0	0.0	0.0	0.0	22.74	0.00	0.00	0.00	5,148	0	0	0
VT	0.0	0.0	0.0	0.0	17.8	0.0	0.0	0.0	1.07	0.00	0.00	0.00	43	0	0	0
WA	4.2	0.0	0.0	0.0	56.8	0.0	0.0	0.0	26.39	0.00	0.00	0.00	2,378	0	0	0
WI	12.0	12.0	0.0	0.0	247.4	247.4	0.0	0.0	48.13	48.13	0.00	0.00	1,000	1,000	0	0
WV	0.4	0.4	0.0	0.0	442.6	442.6	0.0	0.0	7.01	7.01	0.00	0.00	8,092	8,092	0	0
WY	0.0	0.0	0.0	0.0	23.8	23.8	23.8	0.0	35.97	35.97	35.97	0.00	278	278	278	0
Total	**250.0**	**82.2**	**48.4**	**17.8**	**8,376.2**	**4,634.8**	**3,054.4**	**566.8**	**2,735.70**	**1,267.35**	**978.06**	**241.70**	**600,813**	**372,632**	**274,261**	**85,857**

[1] Annual average permit reductions based on permits issued in years 2011-2015 that only affect RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams.

[2] Annual average mitigation reduction based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services.

[3] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[5] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[6] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-48: Average annual reduction in 404 permit application costs based on the sensitivity analysis methodology, by state (Millions 2017$)

State	Scenario 0[1,2]			Scenario 1[1,3]			Scenario 2[1,4]			Scenario 3[1,5]		
	Individual	General	Total	Individual	General	Total	Individual	General	Total	Individual	General	Total
AL	$0.06	$0.20	$0.26	$0.06	$0.20	$0.26	$0.06	$0.20	$0.26	$0.00	$0.00	$0.00
AR	$0.04	$1.45	$1.49	$0.04	$1.45	$1.49	$0.04	$1.45	$1.49	$0.00	$0.00	$0.00
AZ	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13
CA	$0.13	$4.74	$4.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$0.01	$0.71	$0.71	$0.01	$0.71	$0.71	$0.01	$0.71	$0.71	$0.00	$0.00	$0.00
CT	$0.00	$0.20	$0.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$0.00	$0.02	$0.03	$0.00	$0.02	$0.03	$0.00	$0.02	$0.03	$0.00	$0.00	$0.00
FL	$0.75	$0.77	$1.53	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$0.06	$0.32	$0.38	$0.06	$0.32	$0.38	$0.06	$0.32	$0.38	$0.00	$0.00	$0.00
IA	$0.01	$0.18	$0.20	$0.01	$0.18	$0.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ID	$0.01	$0.05	$0.06	$0.01	$0.05	$0.06	$0.01	$0.05	$0.06	$0.01	$0.05	$0.06
IL	$0.07	$0.92	$0.99	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$0.03	$0.44	$0.47	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$0.06	$1.68	$1.74	$0.06	$1.68	$1.74	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KY	$0.03	$0.64	$0.67	$0.03	$0.64	$0.67	$0.03	$0.64	$0.67	$0.03	$0.64	$0.67
LA	$0.18	$1.39	$1.57	$0.18	$1.39	$1.57	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MA	$0.02	$0.18	$0.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$0.01	$0.17	$0.19	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$0.01	$0.36	$0.38	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$0.48	$0.98	$1.46	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$0.42	$1.07	$1.48	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$0.06	$1.17	$1.23	$0.06	$1.17	$1.23	$0.06	$1.17	$1.23	$0.00	$0.00	$0.00
MS	$0.13	$0.52	$0.64	$0.13	$0.52	$0.64	$0.13	$0.52	$0.64	$0.13	$0.52	$0.64
MT	$0.00	$0.10	$0.10	$0.00	$0.10	$0.10	$0.00	$0.10	$0.10	$0.00	$0.00	$0.00
NC	$0.05	$0.34	$0.39	$0.05	$0.34	$0.39	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ND	$0.02	$0.78	$0.80	$0.02	$0.78	$0.80	$0.02	$0.78	$0.80	$0.00	$0.00	$0.00
NE	$0.00	$0.15	$0.16	$0.00	$0.15	$0.16	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NH	$0.00	$0.15	$0.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NM	$0.03	$0.69	$0.72	$0.03	$0.69	$0.72	$0.03	$0.69	$0.72	$0.00	$0.00	$0.00

Table E-48: Average annual reduction in 404 permit application costs based on the sensitivity analysis methodology, by state (Millions 2017$)

State	Scenario 0[1,2]			Scenario 1[1,3]			Scenario 2[1,4]			Scenario 3[1,5]		
	Individual	General	Total	Individual	General	Total	Individual	General	Total	Individual	General	Total
NV	$0.01	$0.17	$0.17	$0.01	$0.17	$0.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NY	$0.07	$0.82	$0.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$0.22	$1.28	$1.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$0.01	$0.23	$0.24	$0.01	$0.23	$0.24	$0.01	$0.23	$0.24	$0.00	$0.00	$0.00
OR	$0.07	$0.16	$0.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$0.04	$3.43	$3.47	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$0.00	$0.05	$0.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$0.02	$0.10	$0.13	$0.02	$0.10	$0.13	$0.02	$0.10	$0.13	$0.00	$0.00	$0.00
SD	$0.03	$0.23	$0.26	$0.03	$0.23	$0.26	$0.03	$0.23	$0.26	$0.03	$0.23	$0.26
TN	$0.01	$0.13	$0.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$0.13	$4.74	$4.87	$0.13	$4.74	$4.87	$0.13	$4.74	$4.87	$0.00	$0.00	$0.00
UT	$0.01	$0.33	$0.34	$0.01	$0.33	$0.34	$0.01	$0.33	$0.34	$0.00	$0.00	$0.00
VA	$0.06	$0.26	$0.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$0.00	$0.08	$0.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$0.06	$0.25	$0.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$0.18	$1.09	$1.26	$0.18	$1.09	$1.26	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WV	$0.01	$1.95	$1.95	$0.01	$1.95	$1.95	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WY	$0.00	$0.10	$0.10	$0.00	$0.10	$0.10	$0.00	$0.10	$0.10	$0.00	$0.00	$0.00
Total	**$3.68**	**$36.86**	**$40.53**	**$1.21**	**$20.39**	**$21.60**	**$0.71**	**$13.44**	**$14.15**	**$0.26**	**$2.49**	**$2.76**

[1] For each state, permit cost savings are calculated by multiplying the number of individual and general permit reductions (see Table E-47) by the unit costs from the Corps NWP analysis ($14,700 per individual permit; $4,400 per general permit).

[2] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-49: Average annual reduction in 404 mitigation requirement costs based on the sensitivity analysis methodology, by state

State	Cost Per Acre (2017$)		Cost Per LF (2017$)		Scenario 0[1,2] (Millions 2017$)		Scenario 1[1,3] (Millions 2017$)		Scenario 2[1,4] (Millions 2017$)		Scenario 3[1,5] (Millions 2017$)	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
AL	$54,000	$105,400	$266	$675	$26.40	$62.77	$26.40	$62.77	$26.40	$62.77	$0.00	$0.00
AR	$30,040	$54,396	$242	$540	$7.39	$15.82	$7.39	$15.82	$7.39	$15.82	$0.00	$0.00
AZ	$54,000	$84,000	$294	$675	$2.11	$3.94	$2.11	$3.94	$2.11	$3.94	$2.11	$3.94
CA	$210,000	$384,250	$294	$675	$65.66	$142.88	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$51,850	$72,490	$90	$360	$0.31	$0.64	$0.31	$0.64	$0.31	$0.64	$0.00	$0.00
CT	$329,166	$470,629	$294	$675	$2.87	$4.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$34,000	$250,000	$375	$700	$0.39	$2.01	$0.39	$2.01	$0.39	$2.01	$0.00	$0.00
FL	$54,000	$105,400	$294	$675	$70.16	$137.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$172,000	$272,000	$878	$975	$24.20	$36.67	$24.20	$36.67	$24.20	$36.67	$0.00	$0.00
IA	$36,774	$80,711	$90	$383	$0.82	$2.71	$0.82	$2.71	$0.00	$0.00	$0.00	$0.00
ID	$42,250	$81,085	$294	$675	$0.12	$0.25	$0.12	$0.25	$0.12	$0.25	$0.12	$0.25
IL	$64,454	$105,356	$228	$599	$7.22	$15.84	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$50,000	$71,000	$294	$636	$28.75	$60.01	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$54,000	$105,400	$90	$360	$12.06	$45.36	$12.06	$45.36	$0.00	$0.00	$0.00	$0.00
KY	$110,016	$165,024	$300	$755	$41.20	$97.06	$41.20	$97.06	$41.20	$97.06	$41.20	$97.06
LA	$10,000	$60,000	$294	$675	$4.26	$19.39	$4.26	$19.39	$0.00	$0.00	$0.00	$0.00
MA	$596,041	$621,330	$100	$200	$28.32	$29.53	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$62,667	$226,667	$552	$763	$2.50	$4.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$250,906	$374,616	$0	$0	$14.46	$21.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$52,767	$130,800	$230	$993	$0.20	$0.59	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$9,294	$76,443	$294	$675	$3.58	$26.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$27,000	$81,000	$90	$405	$1.90	$7.85	$1.90	$7.85	$1.90	$7.85	$0.00	$0.00
MS	$26,000	$32,500	$266	$675	$6.69	$10.66	$6.69	$10.66	$6.69	$10.66	$6.69	$10.66
MT	$30,000	$37,000	$294	$675	$1.51	$2.33	$1.51	$2.33	$1.51	$2.33	$0.00	$0.00
NC	$26,445	$71,273	$297	$391	$1.32	$3.15	$1.32	$3.15	$0.00	$0.00	$0.00	$0.00
ND	$40,000	$60,000	$294	$675	$11.62	$21.99	$11.62	$21.99	$11.62	$21.99	$0.00	$0.00
NE	$54,000	$105,400	$90	$360	$0.98	$2.37	$0.98	$2.37	$0.00	$0.00	$0.00	$0.00
NH	$156,283	$220,358	$245	$735	$0.44	$0.62	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$38,000	$300,000	$294	$675	$0.05	$0.37	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NM	$51,850	$72,490	$294	$675	$0.55	$0.76	$0.55	$0.76	$0.55	$0.76	$0.00	$0.00

Table E-49: Average annual reduction in 404 mitigation requirement costs based on the sensitivity analysis methodology, by state

State	Cost Per Acre (2017$)		Cost Per LF (2017$)		Scenario 0[1,2] (Millions 2017$)		Scenario 1[1,3] (Millions 2017$)		Scenario 2[1,4] (Millions 2017$)		Scenario 3[1,5] (Millions 2017$)	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
NV	$106,167	$197,806	$294	$675	$0.77	$1.62	$0.77	$1.62	$0.00	$0.00	$0.00	$0.00
NY	$72,000	$91,580	$310	$420	$2.64	$3.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$37,500	$216,000	$165	$1,350	$7.83	$59.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$49,700	$60,979	$235	$555	$1.38	$3.18	$1.38	$3.18	$1.38	$3.18	$0.00	$0.00
OR	$54,500	$125,170	$42,339	$81,599	$35.84	$70.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$66,750	$196,895	$401	$865	$5.96	$15.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$462,604	$545,980	$294	$675	$0.37	$0.43	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$99,223	$171,637	$588	$683	$4.44	$7.68	$4.44	$7.68	$4.44	$7.68	$0.00	$0.00
SD	$40,000	$60,000	$294	$675	$4.58	$7.62	$4.58	$7.62	$4.58	$7.62	$4.58	$7.62
TN	$37,500	$37,500	$240	$362	$2.18	$3.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$54,000	$105,400	$525	$900	$95.93	$170.47	$95.93	$170.47	$95.93	$170.47	$0.00	$0.00
UT	$54,000	$105,400	$294	$675	$1.49	$3.30	$1.49	$3.30	$1.49	$3.30	$0.00	$0.00
VA	$30,000	$200,000	$375	$700	$3.92	$12.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$110,000	$131,549	$294	$675	$0.19	$0.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$69,324	$1,114,494	$294	$675	$3.79	$46.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$70,800	$105,400	$294	$675	$5.55	$8.62	$5.55	$8.62	$0.00	$0.00	$0.00	$0.00
WV	$120,000	$180,000	$728	$826	$10.10	$11.92	$10.10	$11.92	$0.00	$0.00	$0.00	$0.00
WY	$41,667	$50,667	$294	$675	$2.37	$3.02	$2.37	$3.02	$2.37	$3.02	$0.00	$0.00
Total					**$557.37**	**$1,207.33**	**$270.44**	**$553.17**	**$234.58**	**$458.04**	**$54.70**	**$119.54**

[1] For each state, cost savings are calculated by multiplying the cost of each mitigation acre or linear foot (low and high estimates) by the expected reduction in annual mitigation requirements (see Table E-47), summing the acreage and linear feet values for each scenario, and multiplying the total by 1.5. The agencies multiply the total by 1.5 to account for a compensatory mitigation requirement ratio of 1.5:1.

[2] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-50: Total national estimated annual cost savings based on the sensitivity analysis methodology, by state (Millions 2017$)

State	Scenario 0[1]		Scenario 1[2]		Scenario 2[3]		Scenario 3[4]	
	Low	High	Low	High	Low	High	Low	High
AL	$26.66	$63.04	$26.66	$63.04	$26.66	$63.04	$0.00	$0.00
AR	$8.88	$17.31	$8.88	$17.31	$8.88	$17.31	$0.00	$0.00
AZ	$3.24	$5.07	$3.24	$5.07	$3.24	$5.07	$3.24	$5.07
CA	$70.53	$147.76	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$1.03	$1.35	$1.03	$1.35	$1.03	$1.35	$0.00	$0.00
CT	$3.07	$4.30	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$0.42	$2.04	$0.42	$2.04	$0.42	$2.04	$0.00	$0.00
FL	$71.69	$138.59	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$24.58	$37.05	$24.58	$37.05	$24.58	$37.05	$0.00	$0.00
IA	$1.01	$2.91	$1.01	$2.91	$0.00	$0.00	$0.00	$0.00
ID	$0.18	$0.31	$0.18	$0.31	$0.18	$0.31	$0.18	$0.31
IL	$8.21	$16.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$29.22	$60.48	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$13.80	$47.10	$13.80	$47.10	$0.00	$0.00	$0.00	$0.00
KY	$41.87	$97.73	$41.87	$97.73	$41.87	$97.73	$41.87	$97.73
LA	$5.83	$20.96	$5.83	$20.96	$0.00	$0.00	$0.00	$0.00
MA	$28.52	$29.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$2.69	$4.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$14.84	$21.97	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$1.66	$2.05	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$5.06	$28.02	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$3.13	$9.08	$3.13	$9.08	$3.13	$9.08	$0.00	$0.00
MS	$7.33	$11.31	$7.33	$11.31	$7.33	$11.31	$7.33	$11.31
MT	$1.61	$2.43	$1.61	$2.43	$1.61	$2.43	$0.00	$0.00
NC	$1.72	$3.54	$1.72	$3.54	$0.00	$0.00	$0.00	$0.00
ND	$12.42	$22.79	$12.42	$22.79	$12.42	$22.79	$0.00	$0.00
NE	$1.13	$2.53	$1.13	$2.53	$0.00	$0.00	$0.00	$0.00
NH	$0.59	$0.77	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$0.05	$0.38	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NM	$1.26	$1.48	$1.26	$1.48	$1.26	$1.48	$0.00	$0.00

Table E-50: Total national estimated annual cost savings based on the sensitivity analysis methodology, by state (Millions 2017$)

State	Scenario 0[1]		Scenario 1[2]		Scenario 2[3]		Scenario 3[4]	
	Low	High	Low	High	Low	High	Low	High
NV	$0.94	$1.79	$0.94	$1.79	$0.00	$0.00	$0.00	$0.00
NY	$3.53	$4.29	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$9.33	$60.53	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$1.62	$3.42	$1.62	$3.42	$1.62	$3.42	$0.00	$0.00
OR	$36.08	$70.26	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$9.43	$18.88	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$0.42	$0.49	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$4.57	$7.81	$4.57	$7.81	$4.57	$7.81	$0.00	$0.00
SD	$4.84	$7.88	$4.84	$7.88	$4.84	$7.88	$4.84	$7.88
TN	$2.31	$3.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$100.80	$175.34	$100.80	$175.34	$100.80	$175.34	$0.00	$0.00
UT	$1.83	$3.64	$1.83	$3.64	$1.83	$3.64	$0.00	$0.00
VA	$4.23	$12.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$0.27	$0.33	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$4.10	$46.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$6.82	$9.89	$6.82	$9.89	$0.00	$0.00	$0.00	$0.00
WV	$12.05	$13.87	$12.05	$13.87	$0.00	$0.00	$0.00	$0.00
WY	$2.48	$3.12	$2.48	$3.12	$2.48	$3.12	$0.00	$0.00
Total	**$597.90**	**$1,247.86**	**$292.04**	**$574.77**	**$248.73**	**$472.19**	**$57.45**	**$122.30**

[1] Includes all states except Hawaii and Alaska. Alaska is excluded from the sensitivity analysis methodology because the GIS layers used in the NHD-NWI adjacency analysis are only available for the conterminous United States.

[2] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[4] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table E-51: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 0

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	NA	NA	NA	NA	NA	NA	NA
AL	1,883,791	199.22	$0.0311	$11,653,593	$0.0001	$47,301	$0.0626	$23,495,366
AR	1,147,084	72.28	$0.0315	$2,614,757	$0.0001	$10,333	$0.0631	$5,234,413
AZ	2,380,990	19.60	$0.0363	$1,694,037	$0.0002	$7,072	$0.0793	$3,701,928
CA	12,577,498	307.53	$0.0175	$67,852,677	$0.0001	$351,833	$0.0433	$167,428,542
CO	1,972,868	4.34	$0.0154	$132,149	$0.0001	$686	$0.0383	$327,893
CT	1,371,087	5.81	$0.0487	$387,394	$0.0001	$446	$0.0759	$604,091
DE	342,297	5.22	$0.0275	$49,144	$0.0001	$243	$0.0584	$104,326
FL	7,420,802	863.68	$0.0196	$125,326,995	$0.0001	$661,004	$0.0431	$275,939,755
GA	3,585,584	86.56	$0.0289	$8,977,948	$0.0001	$41,108	$0.0602	$18,681,814
IA	1,221,576	14.28	$0.0071	$123,619	$0.0001	$881	$0.0170	$295,773
ID	579,408	1.24	$0.0169	$12,127	$0.0001	$58	$0.0408	$29,252
IL	4,836,972	59.89	$0.0109	$3,144,739	$0.0001	$19,539	$0.0243	$7,031,505
IN	2,502,154	173.64	$0.0107	$4,647,911	$0.0001	$27,386	$0.0237	$10,288,191
KS	1,112,096	198.54	$0.0058	$1,284,814	$0.0000	$9,275	$0.0142	$3,125,419
KY	1,719,965	216.43	$0.0290	$10,789,433	$0.0001	$44,170	$0.0590	$21,946,025
LA	1,728,360	181.48	$0.0208	$6,529,783	$0.0001	$29,407	$0.0442	$13,870,628
MA	2,547,075	31.69	$0.0492	$3,972,418	$0.0001	$4,373	$0.0757	$6,113,539
MD	2,156,411	10.76	$0.0907	$2,102,864	$0.0005	$12,589	$0.2014	$4,671,661
ME	557,219	38.43	$0.0155	$332,305	$0.0000	$270	$0.0217	$464,747
MI	3,872,508	2.25	$0.0132	$114,510	$0.0001	$617	$0.0281	$244,281
MN	2,087,227	224.18	$0.0090	$4,221,742	$0.0001	$31,031	$0.0212	$9,914,479
MO	2,375,611	36.01	$0.0113	$963,075	$0.0001	$5,469	$0.0246	$2,105,202
MS	1,115,768	135.86	$0.0322	$4,875,602	$0.0001	$17,692	$0.0632	$9,578,581
MT	409,607	26.03	$0.0155	$164,930	$0.0001	$774	$0.0373	$397,923
NC	3,745,155	27.27	$0.0301	$3,078,189	$0.0001	$13,838	$0.0622	$6,356,526
ND	281,192	127.91	$0.0039	$138,749	$0.0000	$1,038	$0.0098	$350,943

Table E-51: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 0

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
NE	721,130	13.13	$0.0046	$43,411	$0.0000	$330	$0.0115	$108,713
NH	518,973	1.87	$0.0464	$45,160	$0.0001	$49	$0.0723	$70,322
NJ	3,214,360	0.83	$0.0500	$133,320	$0.0001	$140	$0.0758	$202,203
NM	791,395	6.99	$0.0216	$119,572	$0.0001	$535	$0.0504	$279,011
NV	1,006,250	4.41	$0.0171	$76,175	$0.0001	$362	$0.0412	$183,113
NY	7,317,755	21.80	$0.0497	$7,935,737	$0.0000	$7,233	$0.0733	$11,686,174
OH	4,603,435	90.20	$0.0112	$4,640,886	$0.0001	$26,117	$0.0244	$10,136,912
OK	1,460,450	9.38	$0.0236	$323,171	$0.0001	$1,581	$0.0505	$691,771
OR	1,518,938	32.58	$0.0163	$807,845	$0.0001	$3,921	$0.0396	$1,960,545
PA	5,018,904	42.64	$0.0497	$10,643,350	$0.0000	$9,602	$0.0731	$15,644,600
RI	413,600	0.53	$0.0536	$11,705	$0.0001	$12	$0.0790	$17,247
SC	1,801,181	29.84	$0.0284	$1,528,072	$0.0001	$7,131	$0.0594	$3,194,982
SD	322,282	65.68	$0.0039	$83,486	$0.0000	$605	$0.0099	$209,710
TN	2,493,552	16.30	$0.0288	$1,172,058	$0.0001	$5,231	$0.0597	$2,425,124
TX	8,922,933	518.33	$0.0137	$63,570,443	$0.0001	$406,658	$0.0320	$147,775,138
UT	877,692	10.16	$0.0148	$131,579	$0.0001	$659	$0.0363	$323,957
VA	3,056,058	34.56	$0.0249	$2,633,725	$0.0001	$14,919	$0.0549	$5,794,192
VT	256,442	1.17	$0.0484	$14,477	$0.0000	$13	$0.0710	$21,205
WA	2,620,076	31.85	$0.0217	$1,811,468	$0.0001	$9,639	$0.0534	$4,452,614
WI	2,279,768	50.43	$0.0107	$1,234,438	$0.0001	$7,580	$0.0240	$2,755,008
WV	763,831	25.59	$0.0189	$368,546	$0.0001	$1,785	$0.0409	$800,166
WY	226,879	36.61	$0.0165	$137,212	$0.0001	$660	$0.0400	$331,881
Total	**115,994,247**			**$362,651,339**		**$1,843,196**		**$801,367,396**

[1] Annual average forgone mitigation acres (see Table E-47) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table E-52: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 1

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	NA	NA	NA	NA	NA	NA	NA
AL	1,883,791	199.22	$0.0311	$11,653,593	$0.0001	$47,301	$0.0626	$23,495,366
AR	1,147,084	72.28	$0.0315	$2,614,757	$0.0001	$10,333	$0.0631	$5,234,413
AZ	2,380,990	19.60	$0.0363	$1,694,037	$0.0002	$7,072	$0.0793	$3,701,928
CO	1,972,868	4.34	$0.0154	$132,149	$0.0001	$686	$0.0383	$327,893
DE	342,297	5.22	$0.0275	$49,144	$0.0001	$243	$0.0584	$104,326
GA	3,585,584	86.56	$0.0289	$8,977,948	$0.0001	$41,108	$0.0602	$18,681,814
IA	1,221,576	14.28	$0.0071	$123,619	$0.0001	$881	$0.0170	$295,773
ID	579,408	1.24	$0.0169	$12,127	$0.0001	$58	$0.0408	$29,252
KS	1,112,096	198.54	$0.0058	$1,284,814	$0.0000	$9,275	$0.0142	$3,125,419
KY	1,719,965	216.43	$0.0290	$10,789,433	$0.0001	$44,170	$0.0590	$21,946,025
LA	1,728,360	181.48	$0.0208	$6,529,783	$0.0001	$29,407	$0.0442	$13,870,628
MO	2,375,611	36.01	$0.0113	$963,075	$0.0001	$5,469	$0.0246	$2,105,202
MS	1,115,768	135.86	$0.0322	$4,875,602	$0.0001	$17,692	$0.0632	$9,578,581
MT	409,607	26.03	$0.0155	$164,930	$0.0001	$774	$0.0373	$397,923
NC	3,745,155	27.27	$0.0301	$3,078,189	$0.0001	$13,838	$0.0622	$6,356,526
ND	281,192	127.91	$0.0039	$138,749	$0.0000	$1,038	$0.0098	$350,943
NE	721,130	13.13	$0.0046	$43,411	$0.0000	$330	$0.0115	$108,713
NM	791,395	6.99	$0.0216	$119,572	$0.0001	$535	$0.0504	$279,011
NV	1,006,250	4.41	$0.0171	$76,175	$0.0001	$362	$0.0412	$183,113
OK	1,460,450	9.38	$0.0236	$323,171	$0.0001	$1,581	$0.0505	$691,771
SC	1,801,181	29.84	$0.0284	$1,528,072	$0.0001	$7,131	$0.0594	$3,194,982
SD	322,282	65.68	$0.0039	$83,486	$0.0000	$605	$0.0099	$209,710
TX	8,922,933	518.33	$0.0137	$63,570,443	$0.0001	$406,658	$0.0320	$147,775,138
UT	877,692	10.16	$0.0148	$131,579	$0.0001	$659	$0.0363	$323,957
WI	2,279,768	50.43	$0.0107	$1,234,438	$0.0001	$7,580	$0.0240	$2,755,008
WV	763,831	25.59	$0.0189	$368,546	$0.0001	$1,785	$0.0409	$800,166

Table E-52: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 1

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
WY	226,879	36.61	$0.0165	$137,212	$0.0001	$660	$0.0400	$331,881
Total	**45,033,201**			**$120,698,053**		**$657,233**		**$266,255,464**

[1] Annual average forgone mitigation acres (see Table E-47) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table E-53: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 2

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	NA	NA	NA	NA	NA	NA	NA
AL	1,883,791	199.22	$0.0311	$11,653,593	$0.0001	$47,301	$0.0626	$23,495,366
AR	1,147,084	72.28	$0.0315	$2,614,757	$0.0001	$10,333	$0.0631	$5,234,413
AZ	2,380,990	19.60	$0.0363	$1,694,037	$0.0002	$7,072	$0.0793	$3,701,928
CO	1,972,868	4.34	$0.0154	$132,149	$0.0001	$686	$0.0383	$327,893
DE	342,297	5.22	$0.0275	$49,144	$0.0001	$243	$0.0584	$104,326
GA	3,585,584	86.56	$0.0289	$8,977,948	$0.0001	$41,108	$0.0602	$18,681,814
ID	579,408	1.24	$0.0169	$12,127	$0.0001	$58	$0.0408	$29,252
KY	1,719,965	216.43	$0.0290	$10,789,433	$0.0001	$44,170	$0.0590	$21,946,025
MO	2,375,611	36.01	$0.0113	$963,075	$0.0001	$5,469	$0.0246	$2,105,202
MS	1,115,768	135.86	$0.0322	$4,875,602	$0.0001	$17,692	$0.0632	$9,578,581
MT	409,607	26.03	$0.0155	$164,930	$0.0001	$774	$0.0373	$397,923
ND	281,192	127.91	$0.0039	$138,749	$0.0000	$1,038	$0.0098	$350,943
NM	791,395	6.99	$0.0216	$119,572	$0.0001	$535	$0.0504	$279,011
OK	1,460,450	9.38	$0.0236	$323,171	$0.0001	$1,581	$0.0505	$691,771
SC	1,801,181	29.84	$0.0284	$1,528,072	$0.0001	$7,131	$0.0594	$3,194,982
SD	322,282	65.68	$0.0039	$83,486	$0.0000	$605	$0.0099	$209,710
TX	8,922,933	518.33	$0.0137	$63,570,443	$0.0001	$406,658	$0.0320	$147,775,138
UT	877,692	10.16	$0.0148	$131,579	$0.0001	$659	$0.0363	$323,957
WY	226,879	36.61	$0.0165	$137,212	$0.0001	$660	$0.0400	$331,881
Total	**32,455,035**			**$107,959,080**		**$593,775**		**$238,760,117**

[1] Annual average forgone mitigation acres (see Table E-47) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table E-54: Total national forgone benefit estimate of reduced mitigation requirements based on the sensitivity analysis methodology, Scenario 3

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AZ	2,380,990	19.60	$0.0363	$1,694,037	$0.0002	$7,072	$0.0793	$3,701,928
ID	579,408	1.24	$0.0169	$12,127	$0.0001	$58	$0.0408	$29,252
KY	1,719,965	216.43	$0.0290	$10,789,433	$0.0001	$44,170	$0.0590	$21,946,025
MS	1,115,768	135.86	$0.0322	$4,875,602	$0.0001	$17,692	$0.0632	$9,578,581
SD	322,282	65.68	$0.0039	$83,486	$0.0000	$605	$0.0099	$209,710
Total	**6,118,413**			**$17,454,685**		**$69,597**		**$35,465,497**

[1] Annual average forgone mitigation acres (see Table E-47) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands, other non-abutting wetlands, or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Appendix F: Stage 2 Analysis State-level Results

This appendix provides state-level results of the agencies' stage 2 quantitative assessment, summarized in Section IV.C. Table F-1 presents average annual reductions in permit and mitigation requirements under the proposed rule, by policy scenario and state. Tables F-2, F-3, and F-4 present permit cost savings, mitigation cost savings, and total cost savings (sum of permit cost savings and mitigation cost savings), respectively, by policy scenario and state.

Tables F-5, F-6, F-7, and F-8 present forgone benefits from reduced mitigation requirements by policy scenario and state for Scenarios 0, 1, 2, and 3, respectively.

Table F-1: Average annual reductions in permit and mitigation requirements under the proposed rule, by policy scenario and state

State	Annual Average Reduction in Permits with Proposed Rule[1]								Average Annual Mitigation Reduction with Proposed Rule[2]							
	Individual Permits				General Permits				Acres				Linear Feet			
	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]
AK	1.6	1.6	1.6	0.0	20.2	20.2	20.2	0.0	13.54	13.54	13.54	0.00	0	0	0	0
AL	1.0	1.0	1.0	0.0	28.8	28.8	28.8	0.0	15.25	15.25	15.25	0.00	29,318	29,318	29,318	0
AR	2.0	2.0	2.0	0.0	310.6	310.6	310.6	0.0	18.96	18.96	18.96	0.00	15,261	15,261	15,261	0
AZ	5.0	5.0	5.0	5.0	240.0	240.0	240.0	240.0	14.45	14.45	14.45	14.45	2,033	2,033	2,033	2,033
CA	5.2	0.0	0.0	0.0	1,041.2	0.0	0.0	0.0	18.32	0.00	0.00	0.00	36,866	0	0	0
CO	0.2	0.2	0.2	0.0	108.2	108.2	108.2	0.0	1.27	1.27	1.27	0.00	472	472	472	0
CT	0.0	0.0	0.0	0.0	38.6	0.0	0.0	0.0	0.58	0.00	0.00	0.00	0	0	0	0
DE	0.0	0.0	0.0	0.0	2.2	2.2	2.2	0.0	2.33	2.33	2.33	0.00	0	0	0	0
FL	19.8	0.0	0.0	0.0	55.2	0.0	0.0	0.0	438.85	0.00	0.00	0.00	591	0	0	0
GA	2.2	2.2	2.2	0.0	48.8	48.8	48.8	0.0	35.50	35.50	35.50	0.00	1,886	1,886	1,886	0
IA	0.2	0.2	0.0	0.0	26.4	26.4	0.0	0.0	0.94	0.94	0.00	0.00	2,920	2,920	0	0
ID	0.4	0.4	0.4	0.4	5.6	5.6	5.6	5.6	0.60	0.60	0.60	0.60	140	140	140	140
IL	0.2	0.0	0.0	0.0	123.2	0.0	0.0	0.0	4.72	0.00	0.00	0.00	10,843	0	0	0
IN	0.8	0.0	0.0	0.0	83.6	0.0	0.0	0.0	16.11	0.00	0.00	0.00	51,439	0	0	0
KS	2.8	2.8	0.0	0.0	349.0	349.0	0.0	0.0	8.23	8.23	0.00	0.00	72,741	72,741	0	0
KY	1.8	1.8	1.8	1.8	141.2	141.2	141.2	141.2	13.38	13.38	13.38	13.38	67,596	67,596	67,596	67,596
LA	3.4	3.4	0.0	0.0	262.2	262.2	0.0	0.0	84.95	84.95	0.00	0.00	1,223	1,223	0	0
MA	0.2	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.56	0.00	0.00	0.00	0	0	0	0
MD	0.0	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.81	0.00	0.00	0.00	997	0	0	0
ME	0.2	0.0	0.0	0.0	32.0	0.0	0.0	0.0	2.43	0.00	0.00	0.00	0	0	0	0
MI	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0	0	0	0
MN	10.4	0.0	0.0	0.0	101.8	0.0	0.0	0.0	32.80	0.00	0.00	0.00	55	0	0	0
MO	2.6	2.6	2.6	0.0	245.8	245.8	245.8	0.0	6.66	6.66	6.66	0.00	10,155	10,155	10,155	0
MS	2.8	2.8	2.8	2.8	73.8	73.8	73.8	73.8	20.80	20.80	20.80	20.80	3,329	3,329	3,329	3,329
MT	0.0	0.0	0.0	0.0	8.0	8.0	8.0	0.0	2.11	2.11	2.11	0.00	694	694	694	0
NC	0.2	0.2	0.0	0.0	14.6	14.6	0.0	0.0	4.79	4.79	0.00	0.00	0	0	0	0
ND	0.2	0.2	0.2	0.0	15.0	15.0	15.0	0.0	4.77	4.77	4.77	0.00	625	625	625	0
NE	0.2	0.2	0.0	0.0	30.8	30.8	0.0	0.0	2.27	2.27	0.00	0.00	1,186	1,186	0	0
NH	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.09	0.00	0.00	0.00	0	0	0	0
NJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0	0	0	0

Table F-1: Average annual reductions in permit and mitigation requirements under the proposed rule, by policy scenario and state

State	Annual Average Reduction in Permits with Proposed Rule[1]								Average Annual Mitigation Reduction with Proposed Rule[2]							
	Individual Permits				General Permits				Acres				Linear Feet			
	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]	Sc. 0[3]	Sc. 1[4]	Sc. 2[5]	Sc. 3[6]
NM	1.0	1.0	1.0	0.0	152.0	152.0	152.0	0.0	1.36	1.36	1.36	0.00	0	0	0	0
NV	0.4	0.4	0.0	0.0	37.6	37.6	0.0	0.0	2.29	2.29	0.00	0.00	924	924	0	0
NY	0.6	0.0	0.0	0.0	18.8	0.0	0.0	0.0	2.33	0.00	0.00	0.00	953	0	0	0
OH	1.2	0.0	0.0	0.0	187.0	0.0	0.0	0.0	13.91	0.00	0.00	0.00	20,967	0	0	0
OK	0.2	0.2	0.2	0.0	49.6	49.6	49.6	0.0	0.55	0.55	0.55	0.00	3,212	3,212	3,212	0
OR	3.6	0.0	0.0	0.0	19.8	0.0	0.0	0.0	9.95	0.00	0.00	0.00	504	0	0	0
PA	0.2	0.0	0.0	0.0	440.0	0.0	0.0	0.0	6.89	0.00	0.00	0.00	3,179	0	0	0
RI	0.2	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.53	0.00	0.00	0.00	0	0	0	0
SC	0.4	0.4	0.4	0.0	5.6	5.6	5.6	0.0	2.71	2.71	2.71	0.00	0	0	0	0
SD	0.4	0.4	0.4	0.4	38.2	38.2	38.2	38.2	4.60	4.60	4.60	4.60	1,563	1,563	1,563	1,563
TN	0.6	0.0	0.0	0.0	25.0	0.0	0.0	0.0	2.49	0.00	0.00	0.00	4,999	0	0	0
TX	6.0	6.0	6.0	0.0	736.6	736.6	736.6	0.0	110.82	110.82	110.82	0.00	86,422	86,422	86,422	0
UT	0.6	0.6	0.6	0.0	71.8	71.8	71.8	0.0	2.08	2.08	2.08	0.00	2,193	2,193	2,193	0
VA	1.6	0.0	0.0	0.0	17.4	0.0	0.0	0.0	5.82	0.00	0.00	0.00	3,539	0	0	0
VT	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.50	0.00	0.00	0.00	43	0	0	0
WA	1.6	0.0	0.0	0.0	28.4	0.0	0.0	0.0	10.15	0.00	0.00	0.00	281	0	0	0
WI	5.4	5.4	0.0	0.0	85.2	85.2	0.0	0.0	27.07	27.07	0.00	0.00	0	0	0	0
WV	0.2	0.2	0.0	0.0	380.4	380.4	0.0	0.0	3.03	3.03	0.00	0.00	6,919	6,919	0	0
WY	0.0	0.0	0.0	0.0	20.6	20.6	20.6	0.0	0.78	0.78	0.78	0.00	213	213	213	0
Total	**87.6**	**41.2**	**28.4**	**10.4**	**5,758.0**	**3,508.8**	**2,322.6**	**498.8**	**973.94**	**406.11**	**272.53**	**53.84**	**446,282**	**311,025**	**225,112**	**74,661**

[1] Annual average permit reductions based on permits issued in years 2011-2015 estimated to only affect RPWWN-type wetlands or ephemeral streams.

[2] Annual average mitigation reduction based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services.

[3] Includes all states except Hawaii.

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[5] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[6] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table F-2: Average annual reduction in 404 permit application costs under the proposed rule, by policy scenario and state (Millions 2017$)

State	Scenario 0[1,2]			Scenario 1[1,3]			Scenario 2[1,4]			Scenario 3[1,5]		
	Individual	General	Total	Individual	General	Total	Individual	General	Total	Individual	General	Total
AK	$0.02	$0.09	$0.11	$0.02	$0.09	$0.11	$0.02	$0.09	$0.11	$0.00	$0.00	$0.00
AL	$0.01	$0.13	$0.14	$0.01	$0.13	$0.14	$0.01	$0.13	$0.14	$0.00	$0.00	$0.00
AR	$0.03	$1.37	$1.40	$0.03	$1.37	$1.40	$0.03	$1.37	$1.40	$0.00	$0.00	$0.00
AZ	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13	$0.07	$1.06	$1.13
CA	$0.08	$4.58	$4.66	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$0.00	$0.48	$0.48	$0.00	$0.48	$0.48	$0.00	$0.48	$0.48	$0.00	$0.00	$0.00
CT	$0.00	$0.17	$0.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$0.00	$0.01	$0.01	$0.00	$0.01	$0.01	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00
FL	$0.29	$0.24	$0.53	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$0.03	$0.21	$0.25	$0.03	$0.21	$0.25	$0.03	$0.21	$0.25	$0.00	$0.00	$0.00
IA	$0.00	$0.12	$0.12	$0.00	$0.12	$0.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ID	$0.01	$0.02	$0.03	$0.01	$0.02	$0.03	$0.01	$0.02	$0.03	$0.01	$0.02	$0.03
IL	$0.00	$0.54	$0.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$0.01	$0.37	$0.38	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$0.04	$1.54	$1.58	$0.04	$1.54	$1.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KY	$0.03	$0.62	$0.65	$0.03	$0.62	$0.65	$0.03	$0.62	$0.65	$0.03	$0.62	$0.65
LA	$0.05	$1.15	$1.20	$0.05	$1.15	$1.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MA	$0.00	$0.05	$0.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$0.00	$0.04	$0.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$0.00	$0.14	$0.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$0.15	$0.45	$0.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$0.04	$1.08	$1.12	$0.04	$1.08	$1.12	$0.04	$1.08	$1.12	$0.00	$0.00	$0.00
MS	$0.04	$0.32	$0.37	$0.04	$0.32	$0.37	$0.04	$0.32	$0.37	$0.04	$0.32	$0.37
MT	$0.00	$0.04	$0.04	$0.00	$0.04	$0.04	$0.00	$0.04	$0.04	$0.00	$0.00	$0.00
NC	$0.00	$0.06	$0.07	$0.00	$0.06	$0.07	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ND	$0.00	$0.07	$0.07	$0.00	$0.07	$0.07	$0.00	$0.07	$0.07	$0.00	$0.00	$0.00
NE	$0.00	$0.14	$0.14	$0.00	$0.14	$0.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NH	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Table F-2: Average annual reduction in 404 permit application costs under the proposed rule, by policy scenario and state (Millions 2017$)

State	Scenario 0[1,2]			Scenario 1[1,3]			Scenario 2[1,4]			Scenario 3[1,5]		
	Individual	General	Total	Individual	General	Total	Individual	General	Total	Individual	General	Total
NM	$0.01	$0.67	$0.68	$0.01	$0.67	$0.68	$0.01	$0.67	$0.68	$0.00	$0.00	$0.00
NV	$0.01	$0.17	$0.17	$0.01	$0.17	$0.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NY	$0.01	$0.08	$0.09	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$0.02	$0.82	$0.84	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$0.00	$0.22	$0.22	$0.00	$0.22	$0.22	$0.00	$0.22	$0.22	$0.00	$0.00	$0.00
OR	$0.05	$0.09	$0.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$0.00	$1.94	$1.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$0.00	$0.04	$0.05	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$0.01	$0.02	$0.03	$0.01	$0.02	$0.03	$0.01	$0.02	$0.03	$0.00	$0.00	$0.00
SD	$0.01	$0.17	$0.17	$0.01	$0.17	$0.17	$0.01	$0.17	$0.17	$0.01	$0.17	$0.17
TN	$0.01	$0.11	$0.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$0.09	$3.24	$3.33	$0.09	$3.24	$3.33	$0.09	$3.24	$3.33	$0.00	$0.00	$0.00
UT	$0.01	$0.32	$0.32	$0.01	$0.32	$0.32	$0.01	$0.32	$0.32	$0.00	$0.00	$0.00
VA	$0.02	$0.08	$0.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$0.00	$0.01	$0.01	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$0.02	$0.12	$0.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$0.08	$0.37	$0.45	$0.08	$0.37	$0.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WV	$0.00	$1.67	$1.68	$0.00	$1.67	$1.68	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WY	$0.00	$0.09	$0.09	$0.00	$0.09	$0.09	$0.00	$0.09	$0.09	$0.00	$0.00	$0.00
Total	**$1.29**	**$25.34**	**$26.62**	**$0.61**	**$15.44**	**$16.04**	**$0.42**	**$10.22**	**$10.64**	**$0.15**	**$2.19**	**$2.35**

[1] For each state, permit cost savings are calculated by multiplying the number of individual and general permit reductions (see Table F-1) by the unit costs from the Corps NWP analysis ($14,700 per individual permit; $4,400 per general permit).

[2] Includes all states except Hawaii.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table F-3: Average annual reduction in 404 mitigation requirement costs under the proposed rule, by policy scenario and state

State	Cost Per Acre (2017$)		Cost Per LF (2017$)		Scenario 0[1,2] (Millions 2017$)		Scenario 1[1,3] (Millions 2017$)		Scenario 2[1,4] (Millions 2017$)		Scenario 3[1,5] (Millions 2017$)	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
AK	$54,000	$105,400	$294	$675	$0.73	$1.43	$0.73	$1.43	$0.73	$1.43	$0.00	$0.00
AL	$54,000	$105,400	$266	$675	$8.62	$21.40	$8.62	$21.40	$8.62	$21.40	$0.00	$0.00
AR	$30,040	$54,396	$242	$540	$4.26	$9.27	$4.26	$9.27	$4.26	$9.27	$0.00	$0.00
AZ	$54,000	$84,000	$294	$675	$1.38	$2.59	$1.38	$2.59	$1.38	$2.59	$1.38	$2.59
CA	$210,000	$384,250	$294	$675	$14.69	$31.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$51,850	$72,490	$90	$360	$0.11	$0.26	$0.11	$0.26	$0.11	$0.26	$0.00	$0.00
CT	$329,166	$470,629	$294	$675	$0.19	$0.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$34,000	$250,000	$375	$700	$0.08	$0.58	$0.08	$0.58	$0.08	$0.58	$0.00	$0.00
FL	$54,000	$105,400	$294	$675	$23.87	$46.65	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$172,000	$272,000	$878	$975	$7.76	$11.49	$7.76	$11.49	$7.76	$11.49	$0.00	$0.00
IA	$36,774	$80,711	$90	$383	$0.30	$1.19	$0.30	$1.19	$0.00	$0.00	$0.00	$0.00
ID	$42,250	$81,085	$294	$675	$0.07	$0.14	$0.07	$0.14	$0.07	$0.14	$0.07	$0.14
IL	$64,454	$105,356	$228	$599	$2.78	$6.99	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$50,000	$71,000	$294	$636	$15.93	$33.86	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$54,000	$105,400	$90	$360	$6.99	$27.05	$6.99	$27.05	$0.00	$0.00	$0.00	$0.00
KY	$110,016	$165,024	$300	$755	$21.75	$53.24	$21.75	$53.24	$21.75	$53.24	$21.75	$53.24
LA	$10,000	$60,000	$294	$675	$1.21	$5.92	$1.21	$5.92	$0.00	$0.00	$0.00	$0.00
MA	$596,041	$621,330	$100	$200	$0.33	$0.35	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$62,667	$226,667	$552	$763	$0.60	$0.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$250,906	$374,616	$0	$0	$0.61	$0.91	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$52,767	$130,800	$230	$993	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$9,294	$76,443	$294	$675	$0.32	$2.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$27,000	$81,000	$90	$405	$1.09	$4.65	$1.09	$4.65	$1.09	$4.65	$0.00	$0.00
MS	$26,000	$32,500	$266	$675	$1.43	$2.92	$1.43	$2.92	$1.43	$2.92	$1.43	$2.92
MT	$30,000	$37,000	$294	$675	$0.27	$0.55	$0.27	$0.55	$0.27	$0.55	$0.00	$0.00
NC	$26,445	$71,273	$297	$391	$0.13	$0.34	$0.13	$0.34	$0.00	$0.00	$0.00	$0.00
ND	$40,000	$60,000	$294	$675	$0.37	$0.71	$0.37	$0.71	$0.37	$0.71	$0.00	$0.00
NE	$54,000	$105,400	$90	$360	$0.23	$0.67	$0.23	$0.67	$0.00	$0.00	$0.00	$0.00
NH	$156,283	$220,358	$245	$735	$0.01	$0.02	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$38,000	$300,000	$294	$675	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Table F-3: Average annual reduction in 404 mitigation requirement costs under the proposed rule, by policy scenario and state

State	Cost Per Acre (2017$)		Cost Per LF (2017$)		Scenario 0[1,2] (Millions 2017$)		Scenario 1[1,3] (Millions 2017$)		Scenario 2[1,4] (Millions 2017$)		Scenario 3[1,5] (Millions 2017$)	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
NM	$51,850	$72,490	$294	$675	$0.07	$0.10	$0.07	$0.10	$0.07	$0.10	$0.00	$0.00
NV	$106,167	$197,806	$294	$675	$0.52	$1.08	$0.52	$1.08	$0.00	$0.00	$0.00	$0.00
NY	$72,000	$91,580	$310	$420	$0.46	$0.61	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$37,500	$216,000	$165	$1,350	$3.98	$31.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$49,700	$60,979	$235	$555	$0.78	$1.82	$0.78	$1.82	$0.78	$1.82	$0.00	$0.00
OR	$54,500	$125,170	$42,339	$81,599	$21.88	$42.37	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$66,750	$196,895	$401	$865	$1.73	$4.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$462,604	$545,980	$294	$675	$0.24	$0.29	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$99,223	$171,637	$588	$683	$0.27	$0.47	$0.27	$0.47	$0.27	$0.47	$0.00	$0.00
SD	$40,000	$60,000	$294	$675	$0.64	$1.33	$0.64	$1.33	$0.64	$1.33	$0.64	$1.33
TN	$37,500	$37,500	$240	$362	$1.29	$1.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$54,000	$105,400	$525	$900	$51.36	$89.46	$51.36	$89.46	$51.36	$89.46	$0.00	$0.00
UT	$54,000	$105,400	$294	$675	$0.76	$1.70	$0.76	$1.70	$0.76	$1.70	$0.00	$0.00
VA	$30,000	$200,000	$375	$700	$1.50	$3.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$110,000	$131,549	$294	$675	$0.07	$0.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$69,324	$1,114,494	$294	$675	$0.79	$11.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$70,800	$105,400	$294	$675	$1.92	$2.85	$1.92	$2.85	$0.00	$0.00	$0.00	$0.00
WV	$120,000	$180,000	$728	$826	$5.40	$6.26	$5.40	$6.26	$0.00	$0.00	$0.00	$0.00
WY	$41,667	$50,667	$294	$675	$0.10	$0.18	$0.10	$0.18	$0.10	$0.18	$0.00	$0.00
Total					**$209.87**	**$469.96**	**$118.58**	**$249.66**	**$101.90**	**$204.29**	**$25.27**	**$60.23**

[1] For each state, cost savings are calculated by multiplying the cost of each mitigation acre or linear foot (low and high estimates) by the expected reduction in annual mitigation requirements (see Table F-1), and summing the acreage and linear feet values for each scenario.

[2] Includes all states except Hawaii.

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[4] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[5] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table F-4: Total national estimated annual cost savings, by policy scenario and state (Millions 2017$)

State	Scenario 0[1]		Scenario 1[2]		Scenario 2[3]		Scenario 3[4]	
	Low	High	Low	High	Low	High	Low	High
AK	$0.84	$1.54	$0.84	$1.54	$0.84	$1.54	$0.00	$0.00
AL	$8.76	$21.54	$8.76	$21.54	$8.76	$21.54	$0.00	$0.00
AR	$5.66	$10.67	$5.66	$10.67	$5.66	$10.67	$0.00	$0.00
AZ	$2.51	$3.72	$2.51	$3.72	$2.51	$3.72	$2.51	$3.72
CA	$19.34	$36.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CO	$0.59	$0.74	$0.59	$0.74	$0.59	$0.74	$0.00	$0.00
CT	$0.36	$0.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
DE	$0.09	$0.59	$0.09	$0.59	$0.09	$0.59	$0.00	$0.00
FL	$24.41	$47.19	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
GA	$8.01	$11.74	$8.01	$11.74	$8.01	$11.74	$0.00	$0.00
IA	$0.42	$1.31	$0.42	$1.31	$0.00	$0.00	$0.00	$0.00
ID	$0.10	$0.17	$0.10	$0.17	$0.10	$0.17	$0.10	$0.17
IL	$3.32	$7.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
IN	$16.31	$34.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
KS	$8.57	$28.63	$8.57	$28.63	$0.00	$0.00	$0.00	$0.00
KY	$22.40	$53.89	$22.40	$53.89	$22.40	$53.89	$22.40	$53.89
LA	$2.41	$7.13	$2.41	$7.13	$0.00	$0.00	$0.00	$0.00
MA	$0.39	$0.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MD	$0.65	$0.99	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
ME	$0.75	$1.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MI	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MN	$0.92	$3.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
MO	$2.21	$5.77	$2.21	$5.77	$2.21	$5.77	$0.00	$0.00
MS	$1.79	$3.29	$1.79	$3.29	$1.79	$3.29	$1.79	$3.29
MT	$0.30	$0.58	$0.30	$0.58	$0.30	$0.58	$0.00	$0.00
NC	$0.19	$0.41	$0.19	$0.41	$0.00	$0.00	$0.00	$0.00
ND	$0.44	$0.78	$0.44	$0.78	$0.44	$0.78	$0.00	$0.00
NE	$0.37	$0.80	$0.37	$0.80	$0.00	$0.00	$0.00	$0.00
NH	$0.03	$0.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NJ	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Table F-4: Total national estimated annual cost savings, by policy scenario and state (Millions 2017$)

State	Scenario 0[1]		Scenario 1[2]		Scenario 2[3]		Scenario 3[4]	
	Low	High	Low	High	Low	High	Low	High
NM	$0.75	$0.78	$0.75	$0.78	$0.75	$0.78	$0.00	$0.00
NV	$0.69	$1.25	$0.69	$1.25	$0.00	$0.00	$0.00	$0.00
NY	$0.55	$0.71	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OH	$4.82	$32.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
OK	$1.00	$2.04	$1.00	$2.04	$1.00	$2.04	$0.00	$0.00
OR	$22.02	$42.51	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
PA	$3.67	$6.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
RI	$0.29	$0.33	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
SC	$0.30	$0.50	$0.30	$0.50	$0.30	$0.50	$0.00	$0.00
SD	$0.82	$1.51	$0.82	$1.51	$0.82	$1.51	$0.82	$1.51
TN	$1.41	$2.02	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TX	$54.68	$92.79	$54.68	$92.79	$54.68	$92.79	$0.00	$0.00
UT	$1.08	$2.02	$1.08	$2.02	$1.08	$2.02	$0.00	$0.00
VA	$1.60	$3.74	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
VT	$0.08	$0.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WA	$0.93	$11.65	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
WI	$2.37	$3.31	$2.37	$3.31	$0.00	$0.00	$0.00	$0.00
WV	$7.08	$7.94	$7.08	$7.94	$0.00	$0.00	$0.00	$0.00
WY	$0.19	$0.27	$0.19	$0.27	$0.19	$0.27	$0.00	$0.00
Total	**$236.49**	**$496.58**	**$134.63**	**$265.71**	**$112.53**	**$214.93**	**$27.61**	**$62.57**

[1] Includes all states except Hawaii.

[2] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Iowa, Idaho, Kansas, Kentucky, Louisiana, Missouri, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, Nevada, Oklahoma, South Carolina, South Dakota, Texas, Utah, Wisconsin, West Virginia, and Wyoming

[3] Includes Alaska, Alabama, Arkansas, Arizona, Colorado, Delaware, Georgia, Idaho, Kentucky, Missouri, Mississippi, Montana, North Dakota, New Mexico, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming

[4] Includes Arizona, Idaho, Kentucky, Mississippi, and South Dakota

Table F-5: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 0

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	13.54	$0.0203	$70,881	$0.0001	$391	$0.0506	$176,916
AL	1,883,791	48.90	$0.0310	$2,856,426	$0.0001	$11,611	$0.0625	$5,761,209
AR	1,147,084	36.47	$0.0315	$1,319,006	$0.0001	$5,214	$0.0631	$2,640,627
AZ	2,380,990	16.79	$0.0363	$1,450,884	$0.0002	$6,057	$0.0793	$3,170,558
CA	12,577,498	60.64	$0.0175	$13,349,609	$0.0001	$69,350	$0.0432	$32,957,756
CO	1,972,868	1.81	$0.0154	$55,198	$0.0001	$287	$0.0383	$136,961
CT	1,371,087	0.58	$0.0487	$38,370	$0.0001	$44	$0.0759	$59,835
DE	342,297	2.33	$0.0275	$21,994	$0.0001	$109	$0.0584	$46,691
FL	7,420,802	439.53	$0.0195	$63,514,306	$0.0001	$336,260	$0.0429	$139,955,173
GA	3,585,584	37.66	$0.0289	$3,904,705	$0.0001	$17,886	$0.0602	$8,125,765
IA	1,221,576	4.29	$0.0071	$37,118	$0.0001	$265	$0.0170	$88,811
ID	579,408	0.76	$0.0169	$7,429	$0.0001	$36	$0.0408	$17,920
IL	4,836,972	17.17	$0.0109	$901,027	$0.0001	$5,601	$0.0243	$2,014,758
IN	2,502,154	75.15	$0.0107	$2,009,643	$0.0001	$11,852	$0.0237	$4,449,370
KS	1,112,096	91.73	$0.0058	$592,948	$0.0000	$4,285	$0.0141	$1,442,577
KY	1,719,965	90.97	$0.0289	$4,529,584	$0.0001	$18,561	$0.0589	$9,215,883
LA	1,728,360	86.35	$0.0208	$3,104,002	$0.0001	$13,991	$0.0442	$6,595,682
MA	2,547,075	0.56	$0.0492	$70,161	$0.0001	$77	$0.0758	$107,995
MD	2,156,411	1.95	$0.0316	$133,136	$0.0002	$797	$0.0703	$295,811
ME	557,219	2.43	$0.0444	$60,263	$0.0000	$49	$0.0621	$84,285
MI	3,872,508	0.00	$0.0000	$0	$0.0000	$0	$0.0000	$0
MN	2,087,227	32.86	$0.0090	$617,612	$0.0001	$4,547	$0.0212	$1,450,853
MO	2,375,611	18.32	$0.0113	$489,844	$0.0001	$2,782	$0.0246	$1,070,800
MS	1,115,768	24.62	$0.0321	$882,527	$0.0001	$3,206	$0.0631	$1,734,165
MT	409,607	2.91	$0.0155	$18,442	$0.0001	$87	$0.0373	$44,499
NC	3,745,155	4.79	$0.0301	$540,326	$0.0001	$2,429	$0.0622	$1,115,824
ND	281,192	5.48	$0.0039	$5,942	$0.0000	$45	$0.0097	$15,035

Table F-5: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 0

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
NE	721,130	3.63	$0.0046	$12,012	$0.0000	$91	$0.0115	$30,082
NH	518,973	0.09	$0.0466	$2,097	$0.0001	$2	$0.0726	$3,265
NJ	3,214,360	0.00	$0.0000	$0	$0.0000	$0	$0.0000	$0
NM	791,395	1.36	$0.0216	$23,236	$0.0001	$104	$0.0504	$54,221
NV	1,006,250	3.35	$0.0171	$57,864	$0.0001	$275	$0.0412	$139,097
NY	7,317,755	3.43	$0.0497	$1,246,601	$0.0000	$1,136	$0.0732	$1,835,837
OH	4,603,435	37.98	$0.0112	$1,952,871	$0.0001	$10,996	$0.0244	$4,266,102
OK	1,460,450	4.23	$0.0236	$145,818	$0.0001	$713	$0.0505	$312,141
OR	1,518,938	10.53	$0.0163	$261,072	$0.0001	$1,267	$0.0396	$633,619
PA	5,018,904	10.53	$0.0496	$2,623,909	$0.0000	$2,368	$0.0730	$3,857,389
RI	413,600	0.53	$0.0536	$11,705	$0.0001	$12	$0.0790	$17,247
SC	1,801,181	2.71	$0.0284	$138,978	$0.0001	$649	$0.0594	$290,601
SD	322,282	6.40	$0.0039	$8,129	$0.0000	$59	$0.0099	$20,421
TN	2,493,552	8.22	$0.0288	$591,376	$0.0001	$2,639	$0.0597	$1,223,670
TX	8,922,933	210.02	$0.0137	$25,678,927	$0.0001	$164,691	$0.0319	$59,725,635
UT	877,692	4.60	$0.0148	$59,576	$0.0001	$298	$0.0363	$146,684
VA	3,056,058	9.88	$0.0249	$753,148	$0.0001	$4,267	$0.0549	$1,656,927
VT	256,442	0.55	$0.0484	$6,872	$0.0000	$6	$0.0710	$10,065
WA	2,620,076	10.47	$0.0217	$595,425	$0.0001	$3,169	$0.0534	$1,463,637
WI	2,279,768	27.07	$0.0107	$662,555	$0.0001	$4,069	$0.0240	$1,478,793
WV	763,831	10.98	$0.0189	$158,065	$0.0001	$766	$0.0409	$343,204
WY	226,879	1.03	$0.0165	$3,844	$0.0001	$19	$0.0400	$9,300
Total	**115,994,247**			**$135,575,460**		**$713,414**		**$300,293,696**

[1] Annual average forgone mitigation acres (see Table F-1) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table F-6: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 1

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	13.54	$0.0203	$70,881	$0.0001	$391	$0.0506	$176,916
AL	1,883,791	48.90	$0.0310	$2,856,426	$0.0001	$11,611	$0.0625	$5,761,209
AR	1,147,084	36.47	$0.0315	$1,319,006	$0.0001	$5,214	$0.0631	$2,640,627
AZ	2,380,990	16.79	$0.0363	$1,450,884	$0.0002	$6,057	$0.0793	$3,170,558
CO	1,972,868	1.81	$0.0154	$55,198	$0.0001	$287	$0.0383	$136,961
DE	342,297	2.33	$0.0275	$21,994	$0.0001	$109	$0.0584	$46,691
GA	3,585,584	37.66	$0.0289	$3,904,705	$0.0001	$17,886	$0.0602	$8,125,765
IA	1,221,576	4.29	$0.0071	$37,118	$0.0001	$265	$0.0170	$88,811
ID	579,408	0.76	$0.0169	$7,429	$0.0001	$36	$0.0408	$17,920
KS	1,112,096	91.73	$0.0058	$592,948	$0.0000	$4,285	$0.0141	$1,442,577
KY	1,719,965	90.97	$0.0289	$4,529,584	$0.0001	$18,561	$0.0589	$9,215,883
LA	1,728,360	86.35	$0.0208	$3,104,002	$0.0001	$13,991	$0.0442	$6,595,682
MO	2,375,611	18.32	$0.0113	$489,844	$0.0001	$2,782	$0.0246	$1,070,800
MS	1,115,768	24.62	$0.0321	$882,527	$0.0001	$3,206	$0.0631	$1,734,165
MT	409,607	2.91	$0.0155	$18,442	$0.0001	$87	$0.0373	$44,499
NC	3,745,155	4.79	$0.0301	$540,326	$0.0001	$2,429	$0.0622	$1,115,824
ND	281,192	5.48	$0.0039	$5,942	$0.0000	$45	$0.0097	$15,035
NE	721,130	3.63	$0.0046	$12,012	$0.0000	$91	$0.0115	$30,082
NM	791,395	1.36	$0.0216	$23,236	$0.0001	$104	$0.0504	$54,221
NV	1,006,250	3.35	$0.0171	$57,864	$0.0001	$275	$0.0412	$139,097
OK	1,460,450	4.23	$0.0236	$145,818	$0.0001	$713	$0.0505	$312,141
SC	1,801,181	2.71	$0.0284	$138,978	$0.0001	$649	$0.0594	$290,601
SD	322,282	6.40	$0.0039	$8,129	$0.0000	$59	$0.0099	$20,421
TX	8,922,933	210.02	$0.0137	$25,678,927	$0.0001	$164,691	$0.0319	$59,725,635
UT	877,692	4.60	$0.0148	$59,576	$0.0001	$298	$0.0363	$146,684
WI	2,279,768	27.07	$0.0107	$662,555	$0.0001	$4,069	$0.0240	$1,478,793
WV	763,831	10.98	$0.0189	$158,065	$0.0001	$766	$0.0409	$343,204

Table F-6: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 1

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
WY	226,879	1.03	$0.0165	$3,844	$0.0001	$19	$0.0400	$9,300
Total	**45,033,201**			**$46,836,259**		**$258,974**		**$103,950,102**

[1] Annual average forgone mitigation acres (see Table F-1) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table F-7: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 2

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AK	258,058	13.54	$0.0203	$70,881	$0.0001	$391	$0.0506	$176,916
AL	1,883,791	48.90	$0.0310	$2,856,426	$0.0001	$11,611	$0.0625	$5,761,209
AR	1,147,084	36.47	$0.0315	$1,319,006	$0.0001	$5,214	$0.0631	$2,640,627
AZ	2,380,990	16.79	$0.0363	$1,450,884	$0.0002	$6,057	$0.0793	$3,170,558
CO	1,972,868	1.81	$0.0154	$55,198	$0.0001	$287	$0.0383	$136,961
DE	342,297	2.33	$0.0275	$21,994	$0.0001	$109	$0.0584	$46,691
GA	3,585,584	37.66	$0.0289	$3,904,705	$0.0001	$17,886	$0.0602	$8,125,765
ID	579,408	0.76	$0.0169	$7,429	$0.0001	$36	$0.0408	$17,920
KY	1,719,965	90.97	$0.0289	$4,529,584	$0.0001	$18,561	$0.0589	$9,215,883
MO	2,375,611	18.32	$0.0113	$489,844	$0.0001	$2,782	$0.0246	$1,070,800
MS	1,115,768	24.62	$0.0321	$882,527	$0.0001	$3,206	$0.0631	$1,734,165
MT	409,607	2.91	$0.0155	$18,442	$0.0001	$87	$0.0373	$44,499
ND	281,192	5.48	$0.0039	$5,942	$0.0000	$45	$0.0097	$15,035
NM	791,395	1.36	$0.0216	$23,236	$0.0001	$104	$0.0504	$54,221
OK	1,460,450	4.23	$0.0236	$145,818	$0.0001	$713	$0.0505	$312,141
SC	1,801,181	2.71	$0.0284	$138,978	$0.0001	$649	$0.0594	$290,601
SD	322,282	6.40	$0.0039	$8,129	$0.0000	$59	$0.0099	$20,421
TX	8,922,933	210.02	$0.0137	$25,678,927	$0.0001	$164,691	$0.0319	$59,725,635
UT	877,692	4.60	$0.0148	$59,576	$0.0001	$298	$0.0363	$146,684
WY	226,879	1.03	$0.0165	$3,844	$0.0001	$19	$0.0400	$9,300
Total	**32,455,035**			**$41,671,369**		**$232,803**		**$92,716,031**

[1] Annual average forgone mitigation acres (see Table F-1) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.

Table F-8: Total national forgone benefit estimate of reduced mitigation requirements, Scenario 3

State	Households (HH)	Annual Forgone Mitigation Acres[1]	Mean WTP /HH/acre (2017$)	Mean Estimate of Forgone Benefits (2017$)	Lower 5th WTP/HH/acre (2017$)	Lower 5th Estimate of Forgone Benefits (2017$)	Upper 95th WTP WTP/HH/acre (2017$)	Upper 95th Estimate of Forgone Benefits (2017$)
AZ	2,380,990	16.79	$0.0363	$1,450,884	$0.0002	$6,057	$0.0793	$3,170,558
ID	579,408	0.76	$0.0169	$7,429	$0.0001	$36	$0.0408	$17,920
KY	1,719,965	90.97	$0.0289	$4,529,584	$0.0001	$18,561	$0.0589	$9,215,883
MS	1,115,768	24.62	$0.0321	$882,527	$0.0001	$3,206	$0.0631	$1,734,165
SD	322,282	6.40	$0.0039	$8,129	$0.0000	$59	$0.0099	$20,421
Total	**6,118,413**			**$6,878,552**		**$27,918**		**$14,158,947**

[1] Annual average forgone mitigation acres (see Table F-1) based on permits issued in years 2011-2015 with mitigation requirements on waterways determined to be RPWWN-type wetlands or ephemeral streams. Excludes permits issued for mitigation or restoration activities because the main purpose of these activities is to restore or enhance ecosystem services provided by water resources as opposed to dredge and fill activities that lead to permanent or temporary losses of ecosystem services. Linear feet are converted to acres by multiplying total linear feet by an average width of 50 feet (25 feet on each side of the stream) and converting square feet to acres.