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Natural Resources Conservation Service







AGRICULTURAL CONSERVATION EASEMENT PROGRAM Programmatic Environmental Assessment December 2019



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INTRODUCTION

The Agricultural Conservation Easement Program (ACEP) was first authorized by the Agricultural Act of 2014 (2014 Farm Bill). It is a voluntary easement program comprised of an agricultural land easement (ALE) component for protecting the agricultural and grazing uses, future viability, and related conservation values on farms and ranches and a wetland reserve easement (WRE) component for protecting and restoring wetlands that have previously been impacted by agricultural practices. The 2014 Farm Bill created the ACEP by merging the Farm and Ranch Lands Protection Program (FRPP), the Grassland Reserve Program (GRP), and the Wetlands Reserve Program (WRP), each of which was in effect during the period of the 2008 Farm Bill. The Agriculture Improvement Act of 2018 (2018 Farm Bill) modified the ACEP that has been in place since 2014, and the Natural Resources Conservation Service (NRCS) is publishing an interim final rule to implement those changes.

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies prepare Environmental Impact Statements (EISs) for major Federal actions significantly affecting the quality of the human environment. When a proposed Federal action is not likely to result in significant impacts requiring an EIS, but the activity has not been categorically excluded from NEPA, an agency can prepare an Environmental Assessment (EA) to assist them in determining whether there is a need for an EIS.¹ The Council on Environmental Quality (CEQ) has defined "major Federal action" to include activities over which Federal agencies have control, including promulgation of regulations in which they exercise discretion. Because NRCS has discretion over how it will implement certain aspects of ACEP, NRCS has prepared this EA to assist its Responsible Federal Official (RFO) in determining whether the proposed action will result in significant impacts on the environment such that an EIS should be prepared.

CEQ has indicated that because an EA is a concise document, the purpose of which is to determine the need for an EIS, it should not contain long descriptions or detailed data which the agency may have gathered. Rather, it should contain a brief discussion of the need for the action, alternatives to the proposed action, the environmental impacts of the proposed action and alternatives, and a list of agencies and persons consulted.² As such, this programmatic EA is intended to briefly provide enough information for the NRCS RFO to determine whether to prepare an EIS or a finding of no significant impact (FONSI). The impacts of the 2014 Farm Bill changes were analyzed in the 2016 ACEP Programmatic EA. The impacts of WRP, GRP, and FRPP were analyzed in 2009 Programmatic EAs. Relevant analyses from the 2009 and 2016 Programmatic EAs, their FONSI, and other existing analyses, are incorporated here by reference as appropriate.

BACKGROUND

Overview of ACEP under 2014 Farm Bill

Information regarding ACEP as implemented under the 2014 Farm Bill is relevant to this EA in part because CEQ NEPA implementing regulations require analysis of a No Action alternative.

¹ 40 CFR 1501.4, 1508.9; 7 CFR 650.8.

² 40 CFR 1508.9(b) and Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 23 March 1981.

The 2014 Farm Bill repealed FRPP, GRP, and WRP and consolidated the majority of those program provisions without change into one program consisting of two components, referred to as ALE and WRE. Lands enrolled in the former FRPP, GRP, and WRP are considered enrolled in ACEP under the 2014 Farm Bill. By the end of fiscal year (FY) 2018, NRCS had enrolled 5,310 easements totaling over 1.6 million acres in ACEP-ALE, FRPP, and GRP; and 14,361 easements totaling nearly 2.7 million acres in ACEP-WRE and WRP.

The 2014 Farm Bill stated that the purposes of the ACEP were to: (1) combine the purposes and coordinate the functions of the WRP, the GRP, and the FRPP as they were in effect before ACEP enactment; (2) restore, protect, and enhance wetland on eligible land; (3) protect the agricultural use and future viability, and related conservation values of eligible land by limiting nonagricultural uses of that land; and (4) protect grazing uses and related conservation values by restoring and conserving eligible land.

ACEP-ALE Component

Under ALE, NRCS provides financial assistance to eligible entities to purchase easements that protect the agricultural use and conservation values of the land. Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland, and nonindustrial private forest land. Eligible entities include Indian Tribes, State and local governments, and nongovernmental organizations that have farmland, rangeland, or grassland protection programs. In the case of working farms, the ALE helps farmers and ranchers keep their land in agriculture and preserves open space and associated conservation values for communities. On working ranches, ALE protects grazing uses by conserving grassland, including rangeland, pastureland, and shrubland. The protection of these grazing lands helps prevent conversion to more intensive land uses, which protects soil from erosion, preserves soil health, protects water quality, and conserves wildlife habitat.

To enroll land in ALE, NRCS enters into agreements with eligible entities. NRCS contributes up to 50 percent of the fair market value of the agricultural land easement. Where NRCS determines that grasslands of special environmental significance will be protected, NRCS may contribute up to 75 percent of the fair market value of the agricultural land easement.

Under the 2014 Farm Bill, NRCS prioritized applications that protected agricultural uses and related conservation values of the land and those that maximized the protection of contiguous acres devoted to agricultural use. Each easement was required to be subject to an agricultural land easement plan that promoted the long-term viability of the land.

ACEP-WRE Component

Under WRE, NRCS provides technical and financial assistance directly to private landowners and Indian Tribes to restore, protect, and enhance wetlands through the purchase of a wetland reserve easement held by the United States by and through NRCS. To enroll land in WRE, NRCS enters into purchase agreements with eligible private landowners or Indian Tribes that include the right for NRCS to develop and implement a wetland reserve easement restoration plan. This plan restores, protects, and enhances the wetland's functions and values. Land eligible for wetland reserve easements includes farmed or converted wetland that can be successfully and costeffectively restored. Under the 2014 Farm Bill, NRCS prioritized applications based the easement's potential for protecting and enhancing habitat for migratory birds and other wildlife.

Through the wetland reserve enrollment options, NRCS may enroll eligible land through-

- Permanent Easements.—Permanent easements are conservation easements in perpetuity. NRCS pays up to 100 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 75 to 100 percent of the restoration costs.
- 30-Year Easements.—30-year easements expire after 30 years. Under 30-year easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.
- Term Easements.—Term easements are easements that are for the maximum duration allowed under applicable State laws. NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.
- 30-Year Contracts.—30-year contracts are only available to enroll acreage owned by Indian Tribes, and program payment rates are commensurate with 30-year easements.

For wetland reserve easements, NRCS also pays all costs associated with recording the easement in the local land records office, including recording fees, charges for abstracts, survey and appraisal fees, and title insurance.

Overview of ACEP in the 2018 Farm Bill

Most of the changes Congress made to ACEP in the 2018 Farm Bill are administrative in nature and have limited potential to impact the environment. Congress also prescribed most of the changes to be made, leaving little discretion for NRCS to exercise in updating the regulations implementing ACEP. Congress modified the purposes of ACEP in the 2018 Farm Bill by narrowing the scope of nonagricultural uses that may be limited to those that negatively affect the agricultural uses and conservation values and clarifying that protection of grazing uses includes restoring or conserving eligible land.

Table 1 (appendix C) compares key provisions of ACEP under the 2014 Farm Bill and ACEP as authorized by the 2018 Farm Bill.

PURPOSE AND NEED FOR ACTION

The need to which NRCS is responding by proposing action is the need to implement the ACEP as authorized and funded by Congress. To meet this need, NRCS must implement the program in a manner that achieves the purposes for which the ACEP was authorized.

Congress has prescribed most aspects of the program and indicated ACEP should largely continue to operate as it has in the past with the exception of those limited changes required by the 2018 Farm Bill. As a result, NRCS has little discretion remaining to exercise. NRCS has prepared this

EA to inform its decisions on implementing discretionary aspects through changes to the regulations. The 2018 Farm Bill changes to ALE that will have environmental impacts are removal of the requirement that ALE be subject to a conservation plan and receive a cash contribution from the eligible entity equal to at least 50 percent of the Federal share. The 2018 Farm Bill change to WRE with environmental impacts is allowing establishment of an alternative plant community on more than 30 percent of a WRE.

Therefore, the environmental impacts of the proposed action to address these requirements is briefly explored in this document to determine if significant impacts will result that require NRCS to prepare an EIS.

ALTERNATIVES

Alternative 1: No Action – Continue to implement ACEP as it was under the 2014 Farm Bill.

Alternative 1 (No Action) involves a continuation of ACEP as it was implemented under the 2014 Farm Bill. This alternative assumes conservation easement funding at 2018 Farm Bill levels and cost-share would be provided based on 2014 Farm Bill requirements and therefore similar conservation practices would be implemented and a similar number of easements enrolled.

Although this alternative is not viable because it does not meet the requirements of the 2018 Farm Bill, it provides a baseline against which to compare the effects of the other alternatives considered. CEQ NEPA implementing regulations require analysis of a No Action alternative for this purpose.

Alternative 2: Proposed Action – Implement ACEP according to 2018 Farm Bill requirements

Under Alternative 2 for ACEP-ALE, NRCS would encourage the development of agricultural land easement plans, including grassland and forest management plans, by eligible entities through optional ranking considerations. The easement would not be subject to such plans, however, for the development of a plan to be considered a positive ranking attribute, the deed would identify the eligible entity and the landowner must update the plan as needed during the life of the easement.

Under Alternative 2 for ACEP-WRE, NRCS would modify the definition of wetland restoration in the regulation to eliminate the restriction that vegetative communities different from those that likely existed prior to degradation of the wetland (i.e., alternative plant communities) could involve no more than 30 percent of the easement area. The statutory requirement for State-specific criteria and guidelines to be used in the decision to allow establishment of alternative plant communities would be incorporated.

EFFECTS OF ALTERNATIVES

Approach to Impact Analysis

This analysis concentrates on the environmental impacts of conservation practices likely to be implemented under each of the alternatives and the locations of lands likely to be protected by conservation easements. Program and conservation practice impacts described in the 2016 ACEP Programmatic Environmental Assessment and the 2009 WRP, FRPP, and GRP Programmatic Environmental Assessments³ are incorporated by reference.

This EA also incorporates by reference, the findings of the Resources Conservation Act (RCA) Appraisal, Soil and Water Resources Conservation Act,⁴ and the Conservation Effects Assessment Project (CEAP) findings described in a series of CEAP cropland, wildlife, wetlands, and grazing lands assessment reports.⁵

This EA analyzes potential environmental impacts at a broad program scale, identifying the qualitative effects that are a reasonably foreseeable result of each alternative. The transfer of the easement interest alone does not affect the environment except to the extent it restricts future alternative land uses; it is the conservation practices that are implemented under the programs that have immediate potential to affect the quality of the human environment. These qualitative assessments of NRCS conservation practices are based on a review of the best available scientific studies and methodological approaches, as well as professional judgment. NRCS has developed network effects diagrams to illustrate the chain of expected direct, indirect, and cumulative effects of applying each of its conservation practices to be considered in conjunction. Copies of the network diagrams for conservation practices implemented under ACEP are available on the NRCS web site.⁶ The methodologies used to develop the network effects diagrams and determine the effects of NRCS conservation programs are described in appendix A.

The No Action alternative focuses on ACEP activities under the 2014 Farm Bill, their effects on natural resources, and a projection of future effects if ACEP were to continue unchanged. The discussion of Alternative 2 focuses on the likely differences in impacts to the quality of the human environment as compared to the No Action alternative.

³ The 2016 ACEP Programmatic EA is available at

https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=nrcseprd1294837&ext=pdf; the 2009 WRP Programmatic EA is available at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_006911.pdf; the 2009 FRPP Programmatic EA is available at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/ stelprdb1042340.pdf; and the 2009 GRP Programmatic EA is available at http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/ FSE_DOCUMENTS/stelprdb1042339.pdf.

⁴ RCA Appraisal: Soil and Water Resources Conservation Act," USDA, 2011; <u>http://www.nrcs.usda.gov/Internet/</u> FSE_DOCUMENTS/stelprdb1044939.pdf.

⁵ See <u>http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/</u> for a description of CEAP and links to related studies and reports. See also Appendix A.

⁶ Conservation practice network effect diagrams are available in the right hand column at http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143 026849.

Environmental Considerations in NRCS Conservation Program Delivery

In addition to this programmatic review, NRCS undertakes environmental review at subsequent stages of program implementation consistent with NEPA requirements, other requirements for protection of the environment, and NRCS regulations. This additional review is conducted as part of the NRCS planning process and includes an onsite environmental evaluation (EE) and documenting the results on the NRCS-CPA-52, "Environmental Evaluation Worksheet," before funding is provided to eligible recipients. The EE assesses the effects of conservation alternatives and provides information for the RFO to determine the need for consultation or to develop additional EAs or EISs consistent with NEPA, or to undertake other actions to meet requirements for environmental protection.

In situations where a single conservation practice may result in increased risk to the condition of another resource, additional conservation practices are integrated into the conservation plan to avoid creating new resource concerns. NRCS regulations require NRCS to minimize adverse effects⁷ and the planning and EE process helps to ensure that all potential impacts to natural resources are identified and appropriate alternatives and practices are available. Appendix B describes the development of NRCS conservation practice standards and how environmental considerations, including compliance with NEPA, the Endangered Species Act (ESA), and the National Historic Preservation Act, are integrated into NRCS conservation planning and program delivery to ensure adverse effects are minimized and NRCS takes no action under ACEP that will result in significant adverse effects.

Environmental Effects of Alternatives

Alternative 1: No Action – Continue to implement ACEP as it was under the 2014 Farm Bill.

Alternative 1, the No Action alternative, assumes continuation of ACEP under 2014 Farm Bill rules at 2018 Farm Bill authorized funding levels. Though this alternative is not feasible to implement, it is required by CEQ regulations because it provides a baseline against which to compare effects. Under this alternative, NRCS would continue to provide financial and associated technical assistance to owners of private farmland and ranchland, or eligible entities through ACEP-ALE and ACEP-WRE as those programs were authorized before enactment of the 2018 Farm Bill.⁸

ACEP Impacts Overview

ACEP provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. Under the ALE component, NRCS provides assistance to Indian Tribes, State and local governments, and nongovernmental organizations to protect the long-term viability of the Nation's food supply by preventing conversion of productive working lands to

⁷ 7 CFR 650.3(b)(4).

⁸ Baseline conditions of the natural resources most affected by the ACEP are described on pages 12, 13, 16, 21–23, and 32 of the 2009 WRP Final Programmatic Environmental Assessment; pages 11–16, 16–36, and 39–41 of the 2009 FRPP Programmatic Environmental Assessment; and pages 25 through 29 of the 2009 GRP Final Programmatic Environmental Assessment and are hereby incorporated by reference.

nonagricultural uses. Land protected by ALEs provides additional public benefits, including environmental quality, historic preservation, wildlife habitat, and protection of open space. By limiting development, ALEs preserve agricultural heritage and green space, provide for recreational activities, and help ensure the Nation's ability to produce its own food.

Under the WRE component, NRCS helps landowners to restore, protect, and enhance wetlands and associated habitats that have been degraded by agricultural activities. The wetland functions and values restored and protected through WRE provide public benefits including habitat for fish and wildlife, including threatened and endangered species; improving water quality by filtering sediments and chemicals; reducing damaging impacts from floods; recharging groundwater; protecting biological diversity; and providing opportunities for educational, scientific, and compatible recreational activities.

Under the 2014 Farm Bill, NRCS enrolled a total of 2,171 ACEP easements in FY 2014–2018; 817 under ALE and 1,354 under WRE. These easements protected a total of 798,022.9 acres, including 547,433.1 acres of agricultural lands and 250,589.8 acres of wetlands and associated habitats. Tables 2 to 4 in appendix C detail the enrollment data by State.

The 2016 ACEP Programmatic EA provides an overview of impacts and cumulative effects of the WRP, FRPP, and GRP as those easement programs were implemented prior to being consolidated under ACEP. The discussion of those impacts on pages 15–45 of the 2016 ACEP Programmatic EA is herein incorporated by reference. The information on ACEP conservation practice data grouped by program purpose and WRE priorities (fish and wildlife habitat, grassland conservation, water quality, and wetlands) is updated below.

Figure 1 identifies the top practices used through ACEP-WRE under the 2014 Farm Bill to improve fish and wildlife habitat. While every practice and management action taken on the land has some effect on biological resources, the conservation practices shown in figure 1 are those implemented specifically to improve fish and wildlife habitat.



Figure 1. ACEP-WRE Fish and Wildlife Habitat Practices FY 2014–FY 2017

Figure 2 identifies the top ACEP-WRE practices used under the 2014 Farm Bill for conservation of grassland resources on wetland reserve easements, which may include wet meadows, seasonal herbaceous marshes, vernal pools and prairie pothole uplands, and other wetland-associated uplands. NRCS is committed to conserving and enhancing grassland resources on wetland reserve easements and where compatible, the grazing uses needed to maintain the health and vigor of those grasslands to maximize wetland functions and values on the easement area. This includes the application of conservation practices that conserve and improve wildlife and habitat on private grazing land; conserve and improve fish habitat and aquatic systems through grassland and grazing land conservation treatment; protect and improve water quality; improve the dependability and consistency of water supplies; and identify and manage weed and brush encroachment problems, including noxious weeds and other invasive plant species.



Figure 2. ACEP-WRE Grassland Conservation Practices FY 2014–FY 2017

Figure 3 identifies the top ACEP-WRE practices used under the 2014 Farm Bill that are related to water quality. Water quality is an indicator of the health of the environment and reflects what occurs on the land. The primary water quality issues from agriculture are sediment, nutrients, pesticides, pathogens, and in some parts of the country, salinity. Under ACEP-WRE, the land in the easement area is restored to wetlands which alleviates the water quality issues that may have existed on that land while it was used for agriculture purpose and improves water quality over a larger area by filtering water from adjacent lands in agricultural use that flows through those restored wetlands on the easement area. Using conservation practices to improve land in an environmentally sound manner results in better water quality for drinking, recreation, wildlife, fisheries, and industry.



Figure 3. ACEP-WRE Water Quality Practices FY 2014–FY 2017

Figure 4 identifies the top practices used in ACEP-WRE under the 2014 Farm Bill for wetland conservation. Healthy wetland ecosystems function to modulate drought and floods, provide wildlife and fish habitat, filter pollutants, retain sediment, recharge groundwater, reduce erosion, sequester carbon, and cycle nutrients. The goal of the wetland conservation practices is to restore, enhance, and protect the quality and quantity of wetlands. Of the two primary wetland conservation practices applied on WRE in FY 2014 to FY 2017, Wetland Restoration was applied on almost 94 percent of the acres treated, followed by Wetland Enhancement on approximately 6 percent.



Figure 4. ACEP-WRE Wetland Conservation Practices FY 2014–FY 2017

Alternative 1 Cumulative Effects

At the end of FY 2018, NRCS had enrolled 5,310 easements totaling over 1.6 million acres in ACEP-ALE, FRPP, and GRP; and 14,361 easements totaling nearly 2.7 million acres in ACEP-WRE and WRP. The map in figure 5 illustrates the relative number of easements enrolled in each State under each easement program from inception through FY 2018. Though the number of easements is fewer in Western States, easements in the West tend to protect larger numbers of acres. Florida, Louisiana, Arkansas, Colorado, and Wyoming have the most acreage protected by NRCS conservation easement programs overall; however, the mix of easement programs through which those acres are protected varies considerably.

The map in figure 6 shows the cumulative acres enrolled in ACEP-ALE (including FRPP and GRP easements considered enrolled in ALE under the 2014 Farm Bill) and ACEP-WRE (including WRP easements considered enrolled in WRE under the 2014 Farm Bill) in each State. States that historically had many acres of wetlands converted to agricultural uses, such as Louisiana, Arkansas, and Florida have more wetland reserve easements. States with large amounts of grazing lands (e.g., Montana, Wyoming, Colorado), and those experiencing development pressure on farms and ranches (e.g., Vermont, Pennsylvania, Ohio) have enrolled more agricultural land easements.

There are also likely higher numbers of wetland reserve easements overall because WRP was the first easement program and has had more time for enrollment numbers to accrue. Under the 2014 Farm Bill, less than half of the easements enrolled were under ALE, but the number of acres protected under ALE was more than three times those under WRE (see table 2 in appendix C).

ALE participation is absent or low in some States due to a lack of State farmland protection programs or eligible entities that can purchase and hold agricultural land easements.

Figure 5: Cumulative Easements Enrolled and Closed in ACEP, FRPP, GRP and WRP from Inception of Each Easement Program



Figure 6: Cumulative Acres Enrolled and Closed in ACEP-ALE (including FRPP and GRP) and ACEP-WRE (including WRP) through FY 2018



NRCS' easement programs have achieved some impressive cumulative benefits. For example, wildlife habitat restored or protected by easements can help preclude the need for listing under the ESA and accelerate the recovery of at-risk species. Both the Oregon chub and Louisiana black bear were delisted due to the many landowners who enrolled their land into NRCS conservation easements and restored habitat needed by the species. In Florida, ranchers are actively engaged in conservation projects to protect the Everglades, the primary source of drinking water for 7 million Floridians. Ninety-five percent of the 100,000 acres enrolled in NRCS easement programs during the past 5 years in Florida were in the Northern Everglades Watershed.

ACEP has also been an integral part of ongoing NRCS landscape conservation initiatives. For example, under the Sage Grouse Initiative (SGI), NRCS has permanently protected approximately 674,000 acres of sagebrush habitat from development or conversion to cultivated cropland with over 200 easements on private lands. The cumulative impacts of SGI, together with other sage grouse conservation efforts, enabled the U.S. Fish and Wildlife Service to determine in 2015 that protections under the ESA were not needed for the species.

Under the No Action alternative, authorized funding would be the same as in the 2016 fiscal year. As a result, NRCS estimates that under this alternative there would be a similar number of ACEP easements enrolled each year from FY 2019 through 2023, as in FY 2016, and a similar number of acres would be protected each year from FY 2019 through 2023, as in FY 2016.

It is also reasonable to conclude that under the No Action alternative the same types of conservation practices implemented under WRE in the past would likely be implemented in the future. Additional wetland functions and values, including wildlife and fish habitat would be restored, enhanced, and protected, and water quality improvements, floodwater retention, and other benefits would continue to accrue. As identified in the most recent report to Congress (Dahl 2011), the Nation's wetland losses continue to outdistance wetland gains. Therefore, the trend of wetland restoration and protection through WRE contributing to an overall decline in the net rate of wetland loss may continue, but it is likely there will not be enough enrollments to prevent the net loss of wetlands from continuing to occur.

<u>Alternative 2: Proposed Action - Implement ACEP according to 2018 Farm Bill</u> <u>requirements</u>

Under this alternative, ACEP would be implemented according to the provisions of the 2018 Farm Bill. As is required by the 2018 Farm Bill provisions, there will be a WRE component implemented the same way WRE was implemented under the 2014 Farm Bill, except that the regulatory limitation that vegetative communities different from those that likely existed on the site prior to degradation of the wetland (i.e., alternative plant communities), could not exceed more than 30 percent of the easement area will be eliminated. NRCS would incorporate the statutory requirement for State-specific criteria and guidelines to be used in the decision to allow establishment of alternative plant communities into the regulations.

In terms of the conservation practices that will be implemented on wetland reserve easements under Alternative 2, the same conservation practices implemented under WRE in Alternative 1 will continue to be implemented and financial assistance will continue to be provided. As a result, the environmental and public benefits of protecting and restoring wetlands on WRE under Alternative 2 are expected to be largely the same as the effects under Alternative 1. Thus, ACEP-WRE will continue to provide wetland functions and values, benefit fish and wildlife, and migratory birds in particular, and will improve water quality and floodwater retention, as well as increase ecosystem resilience, and provide other wetland-related benefits just as WRP and WRE have in the past.

Broadening NRCS' ability to establish alternative plant communities on more than 30 percent of WRE areas will provide flexibility in wetland restoration to enhance wetland functions and migratory bird and wetland-dependent wildlife habitat values and contribute to the goals of State, regional, and local wetland conservation initiatives. This change will enable States to be responsive to environmental conditions that would warrant and necessitate the restoration of the wetland functions and values on the easement area to a condition other than what existed historically on the site. Each State that implements this option must first develop the State-specific guidelines and criteria in coordination with their State technical committees to set forth the conditions and extents under which these restoration actions may occur. NRCS expects this new flexibility to primarily be

used to help recover population numbers of declining species, increase wetland habitat types that are limited in the area, and increase ecosystem resiliency to changing climate conditions, by establishing native plant communities associated with wetlands, that did not historically occur on the acres enrolled in WRE but appropriate to the geographic area.

There will also be an ALE component that will be implemented similar to the way ALE was implemented under the 2014 Farm Bill in that NRCS will continue to provide financial assistance to eligible entities to purchase agricultural land easements on eligible lands. As required by the 2018 Farm Bill, NRCS will update the ALE regulatory deed requirements and minimum deed terms for enrollments under the 2018 Farm Bill to remove the requirement that the easement be subject to an agricultural land easement plan and identify that a conservation plan is still required on highly erodible cropland (HEL) under Alternative 2. Because of these changes, the environmental benefits of NRCS conservation practices on ALE will be reduced under Alternative 2 as compared to Alternative 1.

To encourage continued conservation planning on ALE lands where a plan is not required, NRCS will include optional ranking considerations to allow States to prioritize applications committed to maximizing the environmental value of the protected land, through the development and maintenance of an agricultural land easement plan, including any associated forest land or grassland management plans. NRCS will likewise require that any conservation practices or activities agreed to as a condition of funding and enrollment are identified in the eligible entity's own deed terms. Eligible entities will be responsible for any planning done on ALE (except for NRCS-developed HEL conservation plans), but ALE landowners may request NRCS assistance with planning through NRCS conservation technical assistance.

By offering States an opportunity to prioritize ALE applications that will have an agricultural land easement plan developed by the eligible entity, NRCS anticipates incremental additional benefits to the protection of the future viability of agricultural uses and related conservation values will continue to accrue on those easements. In addition, the variety of ecosystem services and environmental benefits provided by agricultural lands will continue to be protected under Alternative 2. For ALE on cropland, benefits include providing open and green space and protecting the agrarian nature of communities including cultural values, heritage values, rural lifestyles, and access to fresh, local food supplies. ALE on grasslands additionally provides wildlife habitat, especially for grassland birds, and carbon sequestration. ALE also provides other benefits such as recreation (hunting and wildlife-viewing opportunities) as well as areas where precipitation can infiltrate, recharging aquifers and reducing runoff.

In summary, the environmental impacts of Alternative 2 are expected to be similar to those under the No Action alternative.

Alternative 2 Cumulative Effects

Cumulatively, the effects of ACEP under this alternative are not likely to be very different from those of the No Action alternative except that there may be more cumulative benefits to at-risk fish and wildlife species, additional ecosystem resiliency, and improved water quality due to the ability to establish alternative plant communities on more than 30 percent of WRE areas. This change will enable additional habitat restoration and management specifically targeted to increase wetland

types and vegetative communities that are most limited or vulnerable in the broader geographic area where the easement is located and address specific habitat needs for at-risk species.

Although cumulative funding authorized for ACEP under the 2018 Farm Bill is greater than under the 2014 Farm Bill, Congress eliminated the requirement for eligible entities to provide a cash contribution for ALE equal to at least 50 percent of the Federal share. As a result, it is anticipated that Federal share provided under ALE will not be leveraged to the same extent under the 2018 Farm Bill and thus fewer acres and easements may be enrolled in ALE for the same dollars expended. However, the elimination of the eligible entity cash contribution requirement is expected to broaden the ability of eligible entities to participate in ALE across a more diverse geography and provide better access to ALE in States where farmland and ranch land preservation funding is not readily available from other sources, resulting in increased ALE acres in States that currently have none (see figure 6).

Overall under Alternative 2, wetland reserve easements will continue to be enrolled under ACEP-WRE, and degraded wetlands and associated habitats will continue to be restored and protected, the land will not be developed, and only uses compatible with maintaining wetland functions and values will be allowed. ACEP-WRE will maximize wetland functions and values, including benefits for wildlife and at-risk species; achieve cost-effective restoration with a priority on benefits to migratory birds; protect and improve water quality; reduce the impact of flood events; increase ecosystem resilience; promote scientific and educational uses of ACEP-WRE lands; and benefit rural communities and economies through recreational opportunities and reduced regulatory burdens. In addition, ACEP-ALE will help keep farmland and ranchland productive and sustainable when they are threatened by development pressures or conversion to more intensive agricultural uses. Retaining land in agricultural use reduces the amount of urban pollution (nitrogen, phosphorus, and sedimentation) from land that would otherwise be converted to lawns and impervious surfaces such as pavement and buildings. Ultimately this enhances efforts in managing the total maximum daily load (TMDL) of nutrients to impaired public waters such as the Chesapeake Bay and Mississippi River. By protecting agricultural lands, ACEP-ALE also will protect the viewsheds, open space, and associated amenities for future generations. In addition, by limiting development and providing open spaces, ACEP-ALE will preserve agricultural heritage and green space, provide for recreational activities, and help ensure the Nation's ability to produce its own food.

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APPENDICES

APPENDIX A

NRCS Methodologies to Estimate Conservation Effects

NRCS uses three main mechanisms to evaluate the conservation effects of its recommended activities. They are: Conservation Network Effects Diagrams, Conservation Practice Physical Effects documents, and the Conservation Effects Assessment Project. Each is discussed below.

Conservation Network Effects Diagrams

To assist in the analysis of environmental impacts, NRCS has developed Conservation Network Effects Diagrams depicting the chain of natural resource effects resulting from the application of each conservation practice. Each of the diagrams first identifies the typical setting to which the practice is applied. This includes identification of the predominating land use and the environmental resource concerns that trigger use of the conservation practice. The diagrams then identify the conservation practice used to mitigate or address the resource concerns. All of the available conservation network effects diagrams are incorporated by reference and can be viewed in the National Handbook of Conservation Practices and in the last column on the following web site:

https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026_849_

Following identification of the conservation practice, there is a description of the physical activities that are carried out to implement the practice. From there, the diagrams depict the occurrence of the direct, indirect, and cumulative effects of the practice. Effects are qualified with a "+" or a "-" which qualitatively denotes an increase ("+") or decrease ("-") in the effect. Pluses and minuses do not equate to good and bad or positive and negative. Impacts are characterized in this manner because site-specific conditions can influence the degree or intensity of the potential environmental impact. Only the general effects that are considered the most important ones from a national perspective are illustrated.

Additional information on the process used to develop the Conservation Network Effects Diagrams is available in the NRCS Watershed Science Institute Report CED-WSSI-2002-2, "Analyzing Effects of Conservation Practices – A Prototypical Method for Complying with National Environmental Policy Act (NEPA) Requirements for Farm Bill Implementation." This document is included in the NRCS National Environmental Compliance Handbook and is available at https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/ecosciences/ec/.

Conservation Practice Physical Effects (CPPE)

The Conservation Practice Physical Effects (CPPE) documents, found in the Field Office Technical Guide – Section V, and the National Handbook of Conservation Practices, display in subjective terms the physical effects conservation practices have on the natural resources and their associated problems or concerns. Technical specialists document in the CPPE the practice effects based on their experience and available technical information. When creating the CPPE, the question is presented, "When this practice is installed according to NRCS practice standards, and fully functional, what effect will it have on the various resource concerns?" The answer is in the form of a rating that represents the practice's effect on the resource concern, and the magnitude of the effect.

The following terms define "Effect" values:

- No Effect.—The conservation practice being evaluated has no discernible effect on the resource concern identified.
- Worsening.—The conservation practice further deteriorates the condition of the resource.
- Improvement.—The conservation practice improves the condition of the resource.

The following terms express the magnitude of the effects:

- Slight.—Some effect (positive or negative) of the practice on the resource, but not enough to influence the decision to select the practice to solve the problem.
- Moderate.—A measurable effect (positive or negative) of the practice on the resource.
- Substantial.—An extensive measurable effect (positive or negative) of the practice on the resource.

National technical specialists with responsibility for a given conservation practice establish CPPE values for each conservation practice. The effects listed in the National CPPE represent general conditions nationwide.

Example: The national agronomist determines that generally, the implementation of NRCS Conservation Practice Standard (CPS) Residue and Tillage Management, No Till (Code 329) will extensively reduce the sheet and rill erosion problem because of increased surface cover and decreased soil disturbance.

Therefore, a value is entered as "Substantial Improvement" to the Soil Erosion - Sheet and Rill Erosion resource concern. However, the implementation of CPS Residue and Tillage Management, No Till (Code 329) may cause a slight increase in soluble nitrate nitrogen infiltration depending on the time and method of application, rainfall, nutrient form, organic matter, soil texture, and depth to water table, and therefore a value is entered as "Moderate Worsening" to the Water Quality Degradation - Nutrients in Groundwater resource concern.

Since data on the CPPEs are national in scope, State-level NRCS offices are encouraged to review and localize the information as necessary to reflect those effects expected to occur under local conditions. Each State will review and, if needed, edit the values in the National CPPE based on local knowledge and experience to reflect typical conditions in their State. States use an interdisciplinary group of technical experts to refine existing entries to ensure proper consideration of all effects to all of the resource concerns. If a State modifies the National CPPE, the State will provide a description of the local conditions and a depiction of the typical practice installation to justify the change. A well-written description of the typical practice installation will aid the planner when it comes time to conduct site-specific analyses. Example: The national agronomist determined that, in general, the implementation of Residue and Tillage Management, Reduced Till (345) results in a "Slight to Moderate Improvement" in the Soil Erosion - Wind Erosion resource concern. However, a State agronomist observes that with the implementation of Residue Management, Reduced Till (345) the reduction of wind erosion is extensive because the critical wind erosion period occurs when the soil is covered with residue or crop. The State agronomist will change the value to "Substantial Improvement" in the Soil Erosion - Wind Erosion resource concern, with a rationale statement as to why the practice has been deemed to have a Substantial rather than a Slight to Moderate Improvement in the Soil Erosion - Wind Erosion resource concern.

Conservation Effects Assessment Project

In addition to developing the Conservation Network Effects Diagrams described above, following the 2002 Farm Bill, NRCS initiated an extensive effort to assess environmental impacts from implemented conservation practices. The resultant Conservation Effects Assessment Project (CEAP) uses literature reviews, modeling, farmer surveys, watershed assessments, and regional studies in collaboration with partners in universities, agencies, and conservation organizations to conduct this assessment. It relies, in part, on the statistical framework developed for the National Resources Inventories (NRIs). Since the early 1980s, the NRIs have provided statistically reliable nationwide information on status and trends in soil erosion and land use. Besides estimates of acres in cropland, pastureland, forests, and wetlands, the surveys also classify land with prime farmland conditions and identify certain wetland characteristics. The CEAP cropland assessments use NRI points to collect additional information through surveys with farmers, to evaluate how conservation practices may affect such trends, and to connect other resource concerns into the modeling framework. The CEAP grazing lands, wetlands, and wildlife assessments are developing ways to use the NRI as a basis for modeling regional estimates as well.

Regional studies show that existing conservation practices on cultivated cropland have reduced sediment, nitrogen, phosphorus, and pesticide losses and increased soil carbon content at the basin scale. Smaller-scale analyses of watersheds across the country have helped refine CEAP models and incorporate additional elements into the framework. Other ongoing CEAP components are evaluating the environmental impacts of conservation practices on wildlife habitats, wetland ecosystem services and restoration, and grazing lands. Studies have so far shown positive benefits for those resources.¹

CEAP cropland assessments show that voluntary, incentives-based conservation approaches are achieving measurable results. Further opportunities exist to reduce soil erosion and nutrient losses from cultivated cropland. Targeting enhances effectiveness and efficiency of conservation program funding and technical assistance. Plus, comprehensive conservation planning that includes a combination of erosion control and nutrient management practices is essential. Conservation planning should account for regional variation in pressing resource concerns. For example, in the Chesapeake Bay, the Great Lakes regions, and the Upper-Mississippi River Basin, the most

¹ For specific details see the NRCS web site on CEAP: <u>https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/</u>

significant issue is the loss of nitrogen through leaching. In the Ohio-Tennessee Basin, loss of phosphorous causes the most damage. In the Missouri Basin, wind erosion is the largest culprit.

Estimating the direct and indirect impacts of conservation practices is a complicated task. CEAP is the latest and most complex development toward that goal and is a continuing effort. The CEAP modeling framework allows researchers to account for variable topographical and soil characteristics as well as for the effects of weather and climate. The impact of each practice at each site is modeled through mathematical formulas based on empirical observations. Since the underlying data points are statistically distributed, results can be extended beyond the sample. Still, CEAP models currently do not have the capacity to assess the impacts on all different natural resource concerns. They focus on nutrients and pesticides in water, sediment losses, and changes in soil organic carbon, primarily on cropland. Projects within the other CEAP components—wildlife, wetlands, and grazing lands—are underway to extend the use of the models. In addition, CEAP modeling is the basis for development of decision tools that can be used in policy decision-making at the national or regional level as well as in conservation planning at the farm or field level.

Additional Resources:

CEAP National Assessments:

- Cropland (reports for individual regions are available on this page)-<u>https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/na/?cid=nr</u> <u>cs143_014144</u>
- Grazing Lands <u>https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/na/?cid=nr</u> <u>cs143_014159</u>
- Wetlands <u>https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/na/?cid=nrc</u><u>s143_014155</u>
- Wildlife - <u>https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/nra/ceap/na/?cid=</u> <u>nrcs143_014151</u>

CEAP Watershed Assessments -

https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/ws/

 $CEAP \ Dynamic \ Bibliographies - \underline{https://www.nal.usda.gov/waic/conservation-effects-assessment-project-ceap-and-related-publications}$

APPENDIX B

Integration of Environmental Considerations into NRCS Planning and Program Delivery

From soil erosion prevention, to wetland restoration, to water quality improvements, to wildlife and energy conservation efforts, the intent of NRCS conservation activities has been to improve the quality of the environment for current and future generations by mitigating the effects of agricultural production and the impacts of a growing population on our Nation's natural resources using the best available science-based information and technologies.

State and local conservationists, as well as members of the public, play a pivotal role in accomplishing this mission. In each State there is a State Technical Committee comprised of representatives from Federal, State, local, and Tribal governments, as well as representatives of organizations knowledgeable about conservation and agricultural production issues, and other interested individuals. This committee provides the NRCS State conservationist with advice and recommendations on the implementation of NRCS-administered conservation programs. Local, as well as State-wide priorities are considered and identified so that when a local NRCS conservationist is developing a conservation plan, they are able to address natural resource concerns not only of national or State interest, but also those of most importance locally. Conservation plans can be designed to address environmental resource concerns on private, non-Federal, or Tribal government lands, or a combination. NRCS conservationists help individuals and communities take a comprehensive approach to planning the proper use and protection of natural resources on these lands through a nine-step planning process described in the NRCS National Planning Procedures Handbook. (See https://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=32437.)

As part of this conservation planning effort, individual environmental reviews called Environmental Evaluations (EEs) are completed to identify the conservation planning effort and assist the agency's compliance with NRCS regulations implementing NEPA. The EEs are a concurrent part of the planning process in which the potential long- and short-term impacts of an action are briefly evaluated and alternative actions explored. The EEs and conservation plans are developed to assist the landowner in making decisions and implementing the conservation practices identified in the conservation plan.

Conservation plans include practices that meet NRCS conservation practice standards and specifications as documented in the agency's Field Office Technical Guide (FOTG) and the National Handbook of Conservation Practices (NHCP). These conservation practices are developed through a multidisciplinary science-based process, which includes opportunities for public comment, in order to maximize benefits and minimize and mitigate the risk of unintended consequences. NRCS conservation practice standards are established at a national level and set the minimum level of acceptable quality for planning, designing, installing, operating, and maintaining conservation practices. At a minimum, each conservation practice standard includes the definition and purposes of the practice, conditions in which the conservation practice applies, and the criteria supporting each purpose. (See NRCS National Conservation Practice Standards at https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_0268_49).

When a conservation practice standard is developed or revised, NRCS publishes a notice in the Federal Register of the availability of the standard for review and comment for a period of not less than 30 days from the date of publication. Standards from the NHCP and interim standards are used and implemented by States, as needed, and may be modified to include additional requirements to meet State or local needs. Because of wide variations in site conditions such as soils, climate, and topography, States can revise these national standards and develop specifications to add special provisions or provide additional details in the conservation practice standards. State laws and local ordinances or regulations may also dictate more stringent criteria. However, in no case can States use standards that are lower than national standards. Only practices that meet NRCS standards and specifications are eligible for funding through NRCS programs.

Standards for conservation practices are detailed in section IV of the local FOTG.¹ Conservation practice standards, planning criteria, and local resource data are maintained in the FOTG to provide detailed information for planners to plan and design practices in a manner consistent with local conditions and resource concerns. Commonly, suites of conservation practices are planned and installed together as part of a conservation management system designed to enhance soil, water and related natural resources for sustainable use. Conservation practice standards and State-specific conservation practice specifications include considerations that, when combined with the considerations identified during the EE process, are designed to minimize potentially adverse impacts to affected resources.

Typical effects of implementing conservation practices are summarized in each State's Conservation Practice Physical Effects, contained in section V of the FOTG. This collection of resource-based planning, design, and implementation documents provides NRCS employees and other users with the necessary information, modified for local conditions, to develop alternative approaches to addressing natural resource problems.

When an action has been proposed, the conservation planner conducts the EE and documents the results on the form NRCS-CPA-52, "Environmental Evaluation Worksheet." The proposed action is evaluated against a No Action alternative and other alternatives being considered to address identified resource concerns to determine and quantify, to the extent feasible, impacts upon soil, water, air, plant, animal, and certain human and energy resources. The planner also considers and evaluates the proposed action and alternatives with respect to special environmental concerns identified by related laws, regulations, Executive orders, and agency policies. Where adverse impacts or extraordinary circumstances are present, the planner identifies ways in which the alternative can be modified to avoid or minimize these effects.² Required permits or consultations with other agencies are also identified.

The results of the EE are shared with the landowner, who then identifies the alternative and conservation practices they are willing to implement, if any. NRCS may then provide financial assistance or offer to purchase an easement if there are no significant adverse effects, funds are available, program-specific requirements are met, and the landowner is willing to follow NRCS conservation practice standards and specifications and other program requirements. The NRCS RFO reviews the results of the EE to ensure any necessary consultation has been carried out and to

¹ See <u>https://efotg.sc.egov.usda.gov/#/</u> to access the e-FOTG for an NRCS office.

² See NRCS General Manual Title 190 Part 410.3B.

determine whether NRCS NEPA analysis is sufficient before Federal funding is provided. (See figure 7.)





This process is followed for all NRCS conservation programs for which a conservation plan is developed that may result in the implementation of conservation practices. The effects of the conservation practices may vary somewhat depending on the local ecosystem(s), methods of practice installation, and presence of special resource concerns in a particular State, such as the presence of a coastal zone, endangered or threatened species, historic or cultural resources, and the like. While effects on these resources may be described in general terms at the national level, they must be addressed at the State and local level. This is particularly true for endangered and threatened species, historic preservation, historic and cultural resources, and essential fish habitat and other resources that are protected by special authorities that require consultation with other agencies. NRCS will consult on a State- or site-specific level as needed and appropriate, to ensure easement program actions do not adversely affect special resources of concern. NRCS will also implement practices in a manner that is consistent with the NRCS policy to avoid, minimize, or otherwise mitigate adverse effects to the extent feasible.

For example, to ensure compliance with the ESA, State conservationists will invite representatives of the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), as applicable, to all State Technical Committee meetings and encourage their involvement in the development of program criteria within the State. NRCS will also conduct additional programmatic consultations with USFWS and NFMS at the State level as needed to ensure easement program implementation is not likely to adversely affect species listed as endangered or threatened or species proposed for listing as endangered or threatened or designated or proposed critical habitat. Such consultation will also be used to identify ways NRCS programs might further the conservation of

protected species and identify situations in which no site-specific consultation would be needed.³ Site-specific consultation will also be conducted as needed to avoid adversely affecting any protected species or habitat.

To ensure compliance with the National Historic Preservation Act and associated authorities, NRCS State offices follow the procedures outlined in the Advisory Council on Historic Preservation's (ACHP) regulations (36 CFR part 800) or, in accordance with NRCS' alternate procedures (nationwide Programmatic Agreement), invite State Historic Preservation Officers (SHPOs) and federally recognized Tribes (or their designated Tribal Historic Preservation Officers) to enter into consultation agreements that highlight and focus review and consultation on those resources and locations that are of special concern to these parties. In addition, if no State-level agreements are developed with the SHPOs or Tribes, or if other consulting parties are identified, they will be afforded, as appropriate, an opportunity to advise the NRCS State office during project-specific planning about their historic and cultural resource concerns so that they may be taken into account in accordance with the ACHP regulations. Similar processes will be followed, as needed and appropriate, to address other special requirements for the protection of the environment.

³ In addition to situations in which NRCS determines there is no effect on protected species or habitat, site-specific consultation should not be needed when NRCS and FWS or NMFS agree a category of proposed actions is not likely to adversely affect a protected species or habitat and NRCS obtains written concurrence based on that agreement.

APPENDIX C

Tables

Table 1: ACEP Selected Statutory Requirements

Program	2014 Farm Bill	2018 Farm Bill
Elements	(FY 2014–FY 2018)	(FY 2019–FY 2023)
Authorized Program Funding	FY 2014 - \$400,000,000 FY 2015 - \$425,000,000 FY 2016 - \$450,000,000 FY 2017 - \$500,000,000 FY 2018 - \$250,000,000	\$450,000,000 for each of fiscal years 2019 through 2023
ALE Minimum Terms and Conditions	FY 2018 - \$250,000,000 Agricultural land easement plan required for all ALE, including required component plans for highly erodible land (HEL), grassland, or forest lands. All easements are subject to the agricultural land easement plan.	An agricultural land easement plan, including grassland or forest land plans, is no longer required, except for portions of ALE that are highly erodible cropland (HEL). Development of such plans by the eligible entity is voluntary and will be encouraged through optional ranking provisions. Easements will not be subject to an agricultural land easement plan.
Eligible Land	ALE–Agricultural land subject to a pending offer for purchase of an easement from an eligible entity. WRE–Required consultation with U.S. Fish & Wildlife Service to determine if land could be restored to maximize wildlife benefits and wetland functions and values.	
ALE Cost- Share Assistance,	Required a cash contribution from the eligible entity equal to at least 50% of the Federal share.	Allows entirety of non-Federal share to be comprised of a charitable contribution or qualified

Program	2014 Farm Bill	2018 Farm Bill
Elements	(FY 2014–FY 2018)	(FY 2019–FY 2023)
Non-Federal		conservation contribution from the
Share		private landowner and includes
		provision for non-easement costs to
		be included in calculation of the
		non-Federal share.
WRE Alternative	No statutory requirement, however,	Authorizes the establishment of an
Plant Communities	under NRCS regulations a vegetative	alternative vegetative community
	plant community different from what	on the entirety of the WRE
	likely existed prior to degradation of	pursuant to State-specific criteria
	the site could be established on up to	and guidelines, if such community
	30% of the easement area.	substantially benefits migratory
		waterfowl or other wetland wildlife
		or meets local resource concerns or
		needs.
WRE Priority	Priority given to acquiring WREs	Adds value of the easement for
	based on their value for protecting	improving water quality as a
	and enhancing habitat for migratory	priority.
	birds and other wildlife.	

Table 2: Total ACEP Easements by State FY 2014–FY 2018

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Alabama	2	223.6	2	143.6			8	842.6	2	267.0
Alaska	1	68.3			1	74.1	1	70.0		
Arizona					1	6,043.0	4	16,374.9	2	3,164.8
Arkansas	26	5,835.9	6	5,075.8	17	4,576.1	32	12,662.4	16	4,179.8
California	17	12,234.3	8	15,559.5	11	6,818.2	12	18,959.4	7	10,407.8
Colorado	6	5,217.1	6	2,220.5	10	6,215.0	10	9,469.4	6	6,610.8
Connecticut	10	811.2	13	643.1	9	1,037.5	11	748.4	7	659.1
Delaware	2	74.7	2	396.5			15	1,952.8	9	1,489.0
Florida	13	7,023.0	10	6,321.7	5	974.5	21	14,042.0	6	10,642.5
Georgia	10	3,022.5	4	3,512.0	3	421.8	15	8,978.9	5	928.1

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Idaho	3	4,193.7	2	1,136.0	3	688.7	5	2,509.8	6	5,937.6
Illinois	7	305.5	5	597.3	12	776.0	22	2,860.5	2	258.0
Indiana	11	842.1	14	680.4	16	1,552.6	43	2,934.1	18	1,902.0
Iowa	18	1,667.9	6	1,839.4	19	2,358.5	22	2,571.7	22	1,617.3
Kansas	14	2,556.8	5	2,864.6	5	561.5	23	1,717.8	5	804.1
Kentucky	22	2,387.0	21	2,606.6	24	3,871.0	16	2,670.9	26	3,058.1
Louisiana	20	6,413.4	38	9,021.4	43	6,483.8	41	8,247.9	9	4,613.3
Maine	1	19.7	2	118.7	1	81.8	2	525.0	3	394.0
Maryland	3	208.3	4	663.4	9	720.9	3	140.7	3	87.5
Massachusetts	12	483.1	6	364.2	4	109.1	7	544.3	13	546.6
Michigan	10	881.8	9	777.3	11	1,302.2	13	1,443.7	5	712.0
Minnesota	3	809.4	3	151.1	5	460.6	3	164.9	3	320.7
Mississippi	11	1,836.4	3	441.9	14	2,381.1	27	6,038.1	19	2,731.8
Missouri	9	1,602.4	9	770.0	11	1,629.6	9	3,316.8	5	834.8
Montana	4	19,114.1	6	9,920.1	16	50,346.5	30	101,451.0	9	15,731.4
Nebraska	5	1,270.2	3	358.3	2	2,991.0	22	4,118.0	11	1,023.0
Nevada	3	4,691.9	1	2,784.6					3	1,712.1
New Hampshire	14	928.7	14	1,466.1	17	2,325.6	18	2,646.7	14	1,240.5
New Jersey	10	492.4	1	373.5	9	809.9	5	485.7	14	949.3
New Mexico					1	5,239.0	1	8,500.0	2	4,572.6
New York	11	835.1	8	772.9	10	980.9	14	1,317.7	3	243.3
North Carolina	2	701.4	1	111.0	7	559.8	9	2,770.0	4	359.7
North Dakota	14	3,091.5	11	2,838.2	12	2,491.1	21	4,415.2	3	890.4
Ohio	15	4,653.6	21	2,776.3	27	3,818.3	35	5,038.1	19	2,676.8
Oklahoma	4	532.8			3	2,425.2	8	1,628.8	2	716.2
Oregon	1	17.6	1	12,225.0	2	2,181.8	3	3,867.0	1	8,500.0
Pennsylvania	8	444.0	14	456.3	13	1,028.0	10	680.4	7	953.1
Rhode Island	1	37.4	2	25.9	5	158.3	4	60.4	4	110.9
South Carolina	1	271.7	4	1,258.5	4	2,464.2	2	655.1	4	1,134.8
South Dakota	15	1,814.3	11	1,420.2	17	2,084.2	13	1,855.6	8	2,969.9
Tennessee	9	1,023.5	6	889.6	12	997.3	15	2,524.6	3	2,399.5
Texas	4	2,777.9	1	1,105.0	10	11,059.7	9	6,737.9	3	753.7
Utah	4	4,233.5	2	4,081.0	2	126.2	4	1,101.1	2	125.5
Vermont	24	3,683.1	2	192.5	29	3,524.1	28	3,380.6	20	2,523.5
Virginia	1	293.2	5	666.0	2	234.9	1	65.0	4	344.0

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Washington	2	290.0			3	524.1	13	9,035.6	4	2,681.9
West Virginia	2	622.0			4	931.5	6	960.2	5	884.9
Wisconsin	15	993.1	10	655.1	11	707.7	9	1,216.5	5	463.3
Wyoming	2	4,863.0	2	2,440.0	5	12,373.0	4	12,068.0	6	6,895.5
Total	402	116,393.7	304	102,721.1	457	159,519.7	649	296,366.2	359	123,022.2

Table 3: ACEP ALE Easements by State FY 2014–FY 2018

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Alaska	1	68.3			1	74.1	1	70.0		
Arizona					1	6,043.0	4	16,374.9	2	3,164.8
California	8	8,958.0	4	10,618.4	4	5,370.2	8	17,632.6	6	9,882.5
Colorado	6	5,217.1	6	2,220.5	10	6,215.0	10	9,469.4	5	6,592.3
Connecticut	10	811.2	13	643.1	9	1,037.5	11	748.4	7	659.1
Delaware							13	1,829.8	9	1,489.0
Florida	5	3,451.6	5	1,342.1	4	141.4	4	8,582.9	3	6,633.0
Georgia	1	51.2			3	421.8	2	110.9	2	100.8
Idaho	3	4,193.7	2	1,136.0	2	625.5	3	2,392.0	4	5,874.0
Illinois			2	201.0	3	291.1				
Indiana									1	172.0
Iowa			1	696.0	1	560.0	1	295.0		
Kansas	1	1,622.8	2	2,513.7						
Kentucky	9	972.5	12	1,018.0	11	1,307.4			5	273.0
Maine	1	19.7	2	118.7	1	81.8	2	525.0	3	394.0
Maryland					2	362.1				
Massachusetts	11	427.7	5	141.2	4	109.1	5	471.5	12	514.6
Michigan	6	726.5	6	616.6	8	1,115.0	11	1,366.0	5	712.0
Minnesota	2	180.4								
Mississippi					1	521.0	2	323.7	3	161.6
Montana	4	19,114.1	6	9,920.1	12	49,699.3	19	91,647.7	9	15,731.4
Nebraska	1	983.6			2	2,991.0	3	2,316.0		
Nevada	1	4,535.0	1	2,784.6					2	1,490.1
New Hampshire	8	416.1	5	487.5	6	668.9	6	547.8	8	590.1
New Jersey	7	379.9	1	373.5	4	504.6	5	485.7	11	853.3

	FY 2014	FY 2014	FY 2015	FY 2015	FY 2016	FY 2016	FY 2017	FY 2017	FY 2018	FY 2018
State	Number of Easements	Acres Enrolled								
New Mexico					1	5,239.0	1	8,500.0	1	4,560.0
New York	3	191.8	3	579.2	4	516.2	7	1,150.3	1	143.0
North Carolina	1	173.6	1	111.0	7	559.8	8	843.0	4	359.7
Ohio	12	3,614.3	11	2,259.6	21	3,500.0	23	4,257.9	10	2,295.2
Oklahoma					1	1,784.0				
Oregon			1	12,225.0	2	2,181.8	1	3,755.0	1	8,500.0
Pennsylvania	3	266.9	2	119.9	8	800.2	4	480.5	7	953.1
Rhode Island	1	37.4	2	25.9	3	105.0	3	39.2	2	58.5
South Carolina	1	271.7	3	723.5	2	1,522.2				
South Dakota									1	2,240.0
Tennessee	1	231.6	1	190.9						
Texas	2	682.1	1	1,105.0	8	11,017.9	4	5,273.8	2	640.0
Utah	3	4,125.3	2	4,081.0	2	126.2	4	1,101.1	2	125.5
Vermont	23	3,198.8	1	60.0	26	3,365.7	21	2,784.8	18	2,485.4
Virginia			3	435.8	1	162.3	1	65.0	3	253.0
Washington					3	524.1	13	9,035.6	2	2,543.9
West Virginia	2	622.0			4	931.5	6	960.2	5	884.9
Wisconsin	2	234.2	5	316.7	2	216.5	2	289.5	2	203.9
Wyoming	2	4,863.0	2	2,440.0	5	12,373.0	4	12,068.0	6	6,895.5
Total	141	70,641.9	111.0	59,504.0	189.0	123,065.0	212.0	205,793.1	164.0	88,429.1

Table 4: ACEP WRE Easements by State FY 2014 - FY 2018

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Alabama	2	223.6	2	143.6			8	842.6	2	267.0
Arkansas	26	5,835.9	6	5,075.8	17	4,576.1	32	12,662.4	16	4,179.8
California	9	3,276.3	4	4,941.1	7	1,448.0	4	1,326.8	1	525.3
Colorado									1	18.5
Delaware	2	74.7	2	396.5			2	123.0		
Florida	8	3,571.4	5	4,979.6	1	833.1	17	5,459.1	3	4,009.5
Georgia	9	2,971.3	4	3,512.0			13	8,868.0	3	827.3
Idaho					1	63.3	2	117.8	2	63.6
Illinois	7	305.5	3	396.3	9	485.0	22	2,860.5	2	258.0
Indiana	11	842.1	14	680.4	16	1,552.6	43	2,934.1	17	1,730.0
Iowa	18	1,667.9	5	1,143.4	18	1,798.5	21	2,276.7	22	1,617.3

State	FY 2014 Number of Easements	FY 2014 Acres Enrolled	FY 2015 Number of Easements	FY 2015 Acres Enrolled	FY 2016 Number of Easements	FY 2016 Acres Enrolled	FY 2017 Number of Easements	FY 2017 Acres Enrolled	FY 2018 Number of Easements	FY 2018 Acres Enrolled
Kansas	13	934.0	3	350.9	5	561.5	23	1,717.8	5	804.1
Kentucky	13	1,414.5	9	1,588.7	13	2,563.6	16	2,670.9	21	2,785.1
Louisiana	20	6,413.4	38	9,021.4	43	6,483.8	41	8,247.9	9	4,613.3
Maryland	3	208.3	4	663.4	7	358.8	3	140.7	3	87.5
Massachusetts	1	55.4	1	223.0			2	72.8	1	32.0
Michigan	4	155.4	3	160.8	3	187.2	2	77.6		
Minnesota	1	629.0	3	151.1	5	460.6	3	164.9	3	320.7
Mississippi	11	1,836.4	3	441.9	13	1,860.1	25	5,714.4	16	2,570.2
Missouri	9	1,602.4	9	770.0	11	1,629.6	9	3,316.8	5	834.8
Montana					4	647.3	11	9,803.3		
Nebraska	4	286.6	3	358.3			19	1,802.0	11	1,023.0
Nevada	2	156.9							1	222.0
New Hampshire	6	512.6	9	978.7	11	1,656.7	12	2,099.0	6	650.4
New Jersey	3	112.4			5	305.2			3	96.0
New Mexico									1	12.6
New York	8	643.3	5	193.7	6	464.7	7	167.4	2	100.3
North Carolina	1	527.8					1	1,927.0		
North Dakota	14	3,091.5	11	2,838.2	12	2,491.1	21	4,415.2	3	890.4
Ohio	3	1,039.3	10	516.7	6	318.3	12	780.3	9	381.7
Oklahoma	4	532.8			2	641.2	8	1,628.8	2	716.2
Oregon	1	17.6					2	112.0		
Pennsylvania	5	177.1	12	336.4	5	227.8	6	199.9		
Rhode Island					2	53.3	1	21.2	2	52.4
South Carolina			1	535.0	2	942.0	2	655.1	4	1,134.8
South Dakota	15	1,814.3	11	1,420.2	17	2,084.2	13	1,855.6	7	729.9
Tennessee	8	791.9	5	698.7	12	997.3	15	2,524.6	3	2,399.5
Texas	2	2,095.9			2	41.8	5	1,464.1	1	113.7
Utah	1	108.2								
Vermont	1	484.3	1	132.5	3	158.4	7	595.8	2	38.1
Virginia	1	293.2	2	230.3	1	72.6			1	91.0
Washington	2	290.0							2	138.0
Wisconsin	13	758.9	5	338.4	9	491.2	7	927.0	3	259.3
Total	261.0	45,751.7	193.0	43,217.1	268.0	36,454.7	437.0	90,573.1	195.0	34,593.1