

REPORT TO CONGRESS

USDA-NRCS Watershed Protection and Flood Prevention Program Multi-Year Plan



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Watershed Protection and Flood Prevention Program Plan

Preface

The Agriculture, Rural Development, Food and Drug Administration, and related Agencies Appropriations Bill, 2015, included the following congressional directive:

“Watershed Protection and Flood Prevention Plan.—The Committee directs NRCS to establish a long-term, multi-year plan to guide needed investments in watershed surveys and planning and watershed operations as authorized under the Watershed Protection and Flood Prevention Act, P.L. 83–566. The plan should establish a process for setting and ranking watershed operations and flood prevention priorities, reflecting the agency’s mission, goals, and requirements; consideration of existing investment in planning, infrastructure, and land treatment; and future needs for investment to improve watershed condition or prevent or mitigate watershed impairments. The plan should also include estimated funding requirements. As the agency develops the plan, the Committee encourages it to provide interested parties an opportunity to provide input. The agency is directed to develop the plan and report to Congress within 90 days after enactment of this Act.”

The following plan is provided by the Natural Resources Conservation Service (NRCS) in response to this request.

Introduction

The Watershed Program established through the Watershed Protection and Flood Prevention Act of 1954, as amended (Public Law 83-566) (Watershed Program) authorizes the Natural Resources Conservation Service (NRCS) to work with local sponsors to install watershed protection and improvement projects (see Appendix C for P.L. 83-566 language). These projects create and protect vital infrastructure while conserving and protecting natural resources and contributing to local economies.

The Watershed Program was designed to address the critical challenges facing rural water resource protection and management. The Watershed Program initially focused on the design and construction of structural water control measures. Projects starting in the late 1970s focused on watershed plans and a greater emphasis on land treatment measures. Watershed planning also provides a basis for partnering at state and local levels to identify and co-invest in projects reflecting the highest priority needs.

Watershed scale approaches are foundational to progress toward today's challenges such as reducing nitrogen and phosphorus transport to Lake Erie, Gulf of Mexico, and the Chesapeake Bay. Other water management challenges that will be best addressed at the watershed scale include agricultural irrigation efficiency in California's Central Valley and in the Colorado River Basin; water management improvements to protect and restore environmentally and economically significant fisheries in the Pacific Northwest; acid mine drainage remediation needs in Appalachia and the Intermountain West; and flood protection for infrastructure and communities in the Central Plains and Northeastern States.

These and other benefits are well-founded in scientific research. For example, thirteen watershed scale projects summarized by Osmond et al. (2012) not only demonstrated the effectiveness of watershed scale planning for improving water quality; but those studies also provided identification of critical source areas of nutrients and sediment (Meals et al., 2012b); important socioeconomic drivers for enhancing conservation adoption at a watershed scale; best measures for quantifying outcomes; and numerous other parameters for successful watershed scale planning and implementation (Meals et al., 2012a).

This multi-year plan describes near-term needs including the existing approved project backlog, remediation of existing structures, and emerging needs, along with a process for guiding future investments to improve watershed condition. The Watershed Program can provide a valuable tool for agriculture and rural communities across the Nation to address serious water management threats from extreme drought to unprecedented flooding.

The vision is a Watershed Protection and Flood Prevention Program delivered in partnership with local sponsors to protect and enhance agriculture and the environment through measures that provide landscape resilience, flood prevention, and water quantity and quality benefits for individuals and communities.

Background

Over the past six decades the nation has invested \$6.2 billion (nominal dollars) through the Watershed Program to install over 2,000 projects across the country (Fig. 1) to create and protect vital infrastructure while conserving and protecting natural resources and contributing to local economies (see Appendix B for a table of historical appropriations). The objectives of many of the original projects were to reduce flooding, improve drainage, and increase irrigation efficiencies. In the 1960s, high priority was placed on projects that provided jobs to combat poverty and encourage rural development; many of these projects involved establishing recreation areas. In later years projects focused on land treatment measures to solve natural resource problems, such as substandard water quality and loss of wildlife habitat.

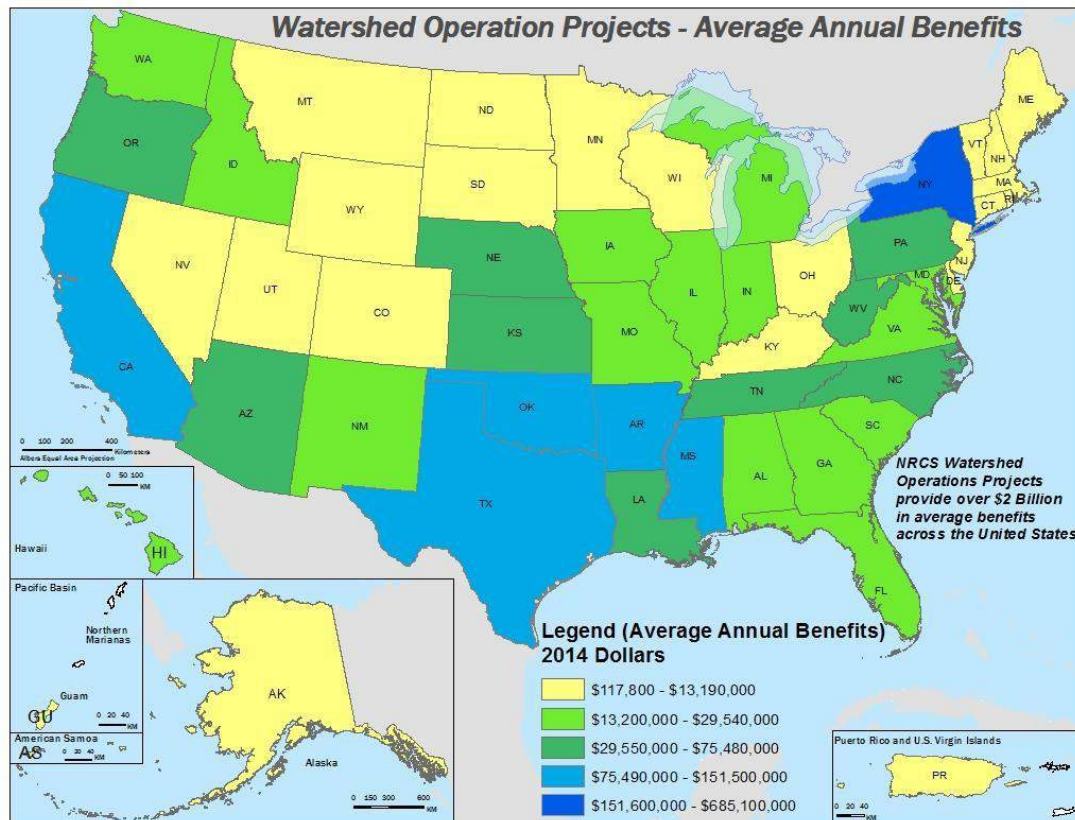
Figure 1: Watershed Projects Funded, 1947 – 2010



These watershed projects continue to deliver benefits that are increasingly important as population and food security demands rise, and the frequency and intensity of extreme weather events increase (Cai et al., 2014). By avoiding and reducing flood damages, NRCS estimates that this program annually provides over \$352 million in benefits to agriculture and over \$462 million in benefits to non-agricultural uses, such as roads, bridges, and homes. Other benefits such as erosion control, water conservation, water quality improvement and irrigation efficiency

exceed \$441 million on agricultural lands and over \$957 million from recreation, fish and wildlife, rural water supply and municipal and industrial water supply, annually. In total, as a result of installed watershed projects made possible through the investment from NRCS and local sponsors, the Watershed Program provides an estimated \$2.2 billion in average annual benefits across the Nation (Fig. 2).

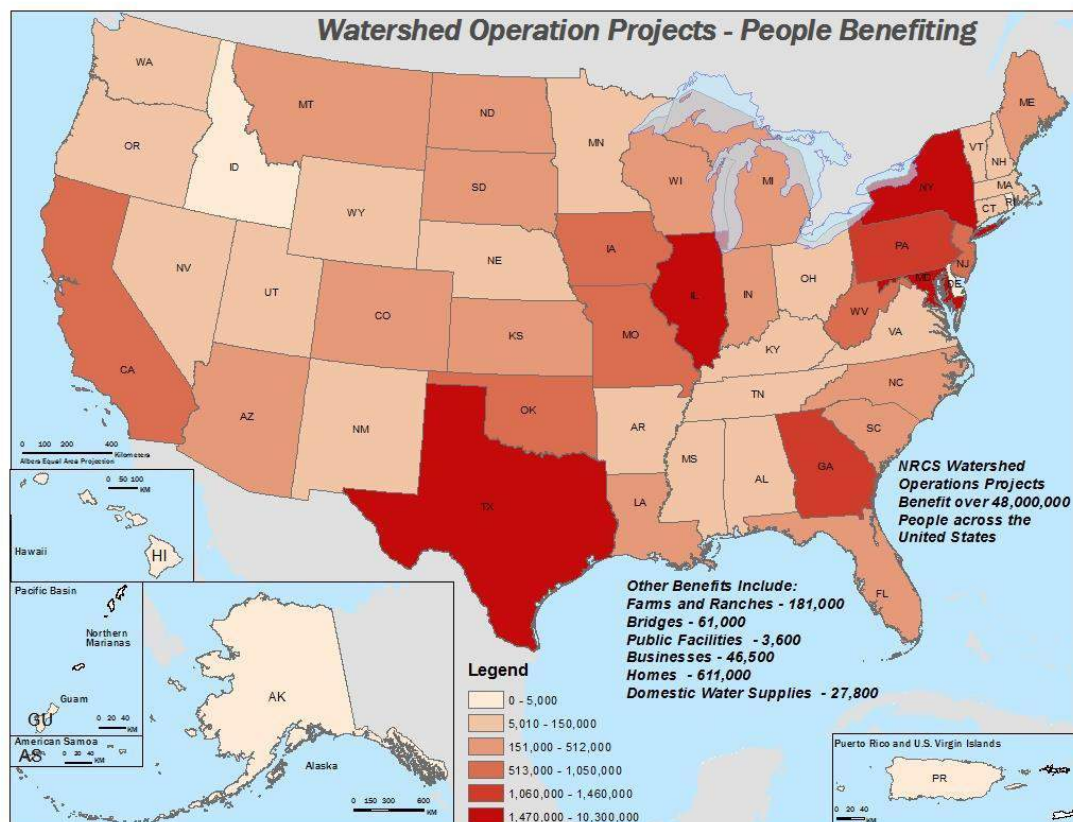
Figure 2. Watershed Program Benefits – Average Annual Monetary Benefits (2014 Dollars).



Another way to view these benefits is by the number of people and communities who benefit directly from watershed projects. The existing projects are protecting over 610,000 homes, 46,000 businesses, 180,000 farms and ranches, 61,000 bridges, and 28,000 domestic water supplies (Fig. 3). As a result, over 48 million people across the United States benefit from the Watershed Program every year.¹

¹ Benefit estimates presented here are drawn from the benefit cost analyses that are completed for each watershed project prior to implementation, and which monetize the estimated annual benefits for the project. Projects must have a greater than 1:1 benefit-cost ratio for approval. The estimates presented here have been adjusted for inflation and are considered conservative.

Figure 3. Watershed Program Benefits – Number of People Benefitting



A Federal-State-Local Partnership

At the core of the Watershed Program is a unique Federal-State-local partnership with project sponsors. Local sponsors identify needs, provide funding, and commit to operating and maintaining the completed projects over the long-term. The amount of funding and related arrangements depends on the type of project being implemented. Historically, local sponsors have provided an average of 60 percent of the total project funding. The non-federal contributions include local and state in-kind contributions and funding for construction, permits, easement acquisition, and operations and maintenance for the project life. Working in cooperation with local sponsoring organizations, NRCS prepares detailed watershed plans that outline soil and water management resource concerns and alternatives to address them, including estimated benefits and costs, cost-share funding and arrangements, and operation and maintenance arrangements. Projects are locally driven, addressing critical needs for the community and delivering multiple streams of benefits.

Secretary Ezra Taft Benson wrote in the 1955 yearbook of Agriculture, "The new watershed protection program (PL-566) clearly should not be looked upon as some miracle coming out of the federal treasury. If it is successful, it will be because local people working through their organizations with the help of their state government assume and maintain principle initiative."

The Watershed Program provides the authority to carry out Cooperative River Basin Studies and Watershed Surveys and Planning Program activities. The Cooperative River Basin Studies authorities include cooperative river basin studies, floodplain management studies, flood insurance studies, and interagency coordination and program formulation. These combine the efforts of Federal, State, and local agencies to establish a basis for the development of coordinated water resource programs. Investigation and survey reports serve as guides for the development of water, land, and related resources in agricultural, rural, and urban areas within upstream watershed settings. They also serve as a basis for coordination with major river systems and other phases of water resource management and development. Watershed Surveys and Planning allows NRCS and local partners to plan actions to address identified resource concerns within a watershed.

NRCS provides Federal financial assistance to project sponsors for the installation costs of land treatment measures to achieve environmental and public benefits such as surface and groundwater quality improvement, water conservation, and flood mitigation.

As of December 2014, the Federal Principles, Requirements, and Guidelines (PR&G) superseded the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G) to guide the formulation and evaluation of all water resources projects. The PR&G are intended to ensure proper and consistent planning by Federal agencies in the formulation and evaluation of water and related land resources implementation studies. Benefits and costs are estimated using the best current techniques and are calculated accurately, consistently, and in compliance with other economic evaluation requirements.

Prior to implementation of the project, the National Environmental Policy Act (NEPA) requires NRCS to analyze the environmental impacts of such actions and make the analysis available to the public before decisions are made and actions are taken unless the action is categorically excluded.

Environmental Impact Statements (EIS) or Environmental Assessments (EA) address ecological conditions such as water and air quality, watershed or ecosystem health, species diversity and richness. In addition, aspects for the economic and social, historical and cultural, political, and many other factors that may influence major changes in land use or management of the soil, water, air, plant, or animal resources are considered. Impacts of the future population centers and transportation infrastructure are also included.

Authorized Purposes

The authorized purposes for watershed projects are wide-ranging, and mutually supportive:

- Flood prevention – Flood prevention measures reduce flooding and damage caused by floodwater, including reducing runoff, erosion and sediment. These measures may include structural measures, such as dams or levees; nonstructural measures, such as easements, flood proofing, or infrastructure relocation; or a combination of both types of measures (Fig. 4).
- Watershed protection – Watershed protection includes onsite treatment of watershed natural resource concerns, such as water quality or water quantity. Project measures may target controls for offsite floodwater, erosion, sediment and agriculture related pollutants (Fig. 5).

- Agricultural water management – Agricultural water management includes measures that help to manage water supply for agriculture and rural communities. Measures such as drainage management, groundwater recharge, irrigation management, water conservation, water quality improvement, and rural water supply are included (Fig.6).
- Municipal and industrial water supply – Municipal and industrial water supply includes measures necessary to provide storage capacity in reservoirs to increase the availability of water for present and future use (Fig. 7).
- Fish and wildlife habitat and public recreation development – Fish and wildlife habitat and public recreation development are often companion purposes in watershed projects. These project purposes may be included in a watershed plan when the sponsor agrees to operate and maintain a reservoir or other area for public recreation or fish and wildlife access (Fig. 8).

The following figures provide examples of existing watershed projects and the types of benefits delivered.

Figure 4. Watershed Project, Virginia



This project includes structural (dam) and non-structural measures to manage water for this community, providing flood prevention, water quality, and recreation benefits.

Figure 5. Watershed Project, Tama, Iowa

This project combines terraces, buffer strips, and grass planting measures to address local water quality natural resource concerns.



Figure 6. Grade Stabilization, Gracemont, Oklahoma



This project in Kickapoo Creek, Oklahoma reduces streambank erosion and improves water quality.

Figure 7. Three Mile Lake, Union County, Iowa

This project provides water supply, flood prevention and recreation benefits.



Figure 8. Watershed Project, Western Missouri



This project provides water supply and recreational opportunities.

Stakeholder Input

In preparing this multi-year plan, NRCS reached out to stakeholders on priority needs and recommendations for program implementation. Several national organizations provided comments, which are summarized below.

Focus investments on agricultural water supply and resilience to climate change. Commenters encouraged USDA-NRCS to specifically recognize the threats to agriculture from climate change, specifically the anticipated impacts on water supply for agriculture and the related impacts on food supply, prices, and producer financial risk. Commenters recommended that the priority for Watershed Program investments be on agricultural water supply and resilience to climate change impacts. Future investment decisions should be guided toward agricultural viability, resilience, and reducing vulnerability. Commenters recognized that this approach may drive a focus toward new projects as a result of emerging vulnerabilities from climate-induced stresses to water supply and management.

Include forest restoration on private lands to protect water supplies as a priority. Commenters encouraged USDA-NRCS to recognize the significant threat to water supplies that is posed by loss of forested lands. The commenters noted that an estimated 53 percent of water supply in the contiguous 48 states originates on forestland and that western forests are particularly at risk, many of which are privately owned and play a significant role in water supply and water quality. Restoration of forests on private land to improve their resilience helps to reduce wildfire risks for private and adjacent public forestlands.

Align investments with other agencies where possible to maximize impact. One commenter recommended that USDA-NRCS provide priority for projects that complement or align with work being conducted by other agencies (e.g., U.S. Forest Service) to amplify benefits. For example prioritizing projects that would restore private forestland where Federal land management agencies are conducting similar activities on adjacent public lands.

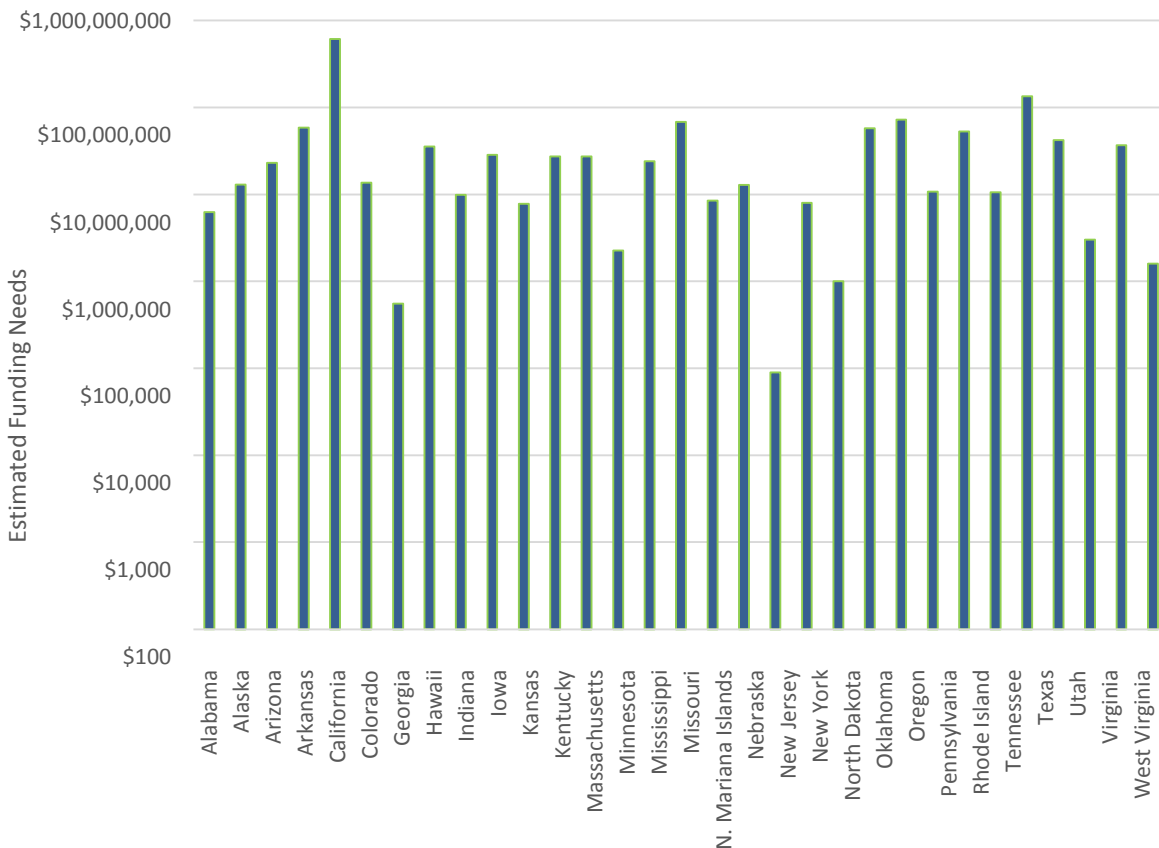
Establish a continuing review and ranking of watershed projects. Recognizing that a significant backlog exists in previously authorized watershed projects and that some may no longer be of local interest, commenters recommended that USDA-NRCS assess all previously authorized yet uncompleted projects. It was recommended that the resulting list of projects should be prioritized in conjunction with partners, and the priority setting process include a “readiness criteria test” for implementation. In addition, commenters recommended that projects in queue be reviewed and re-ranked annually to allow the program to be responsive to changing conditions.

Advocate for legislative changes to streamline implementation. Commenters noted that circumstances have changed significantly since the Watershed Program was authorized (1954) and opportunity exists to streamline and improve operations. These recommendations for legislative changes, outside the scope of this plan, focused on: broadening and balancing program purposes and eligibility; removing structure size limitations; improving data and benefits information; harmonizing program with similar authorities in other agencies; addressing cost-share rates; eliminating unused authorities and lower priority purposes; and improving clarity and intent.

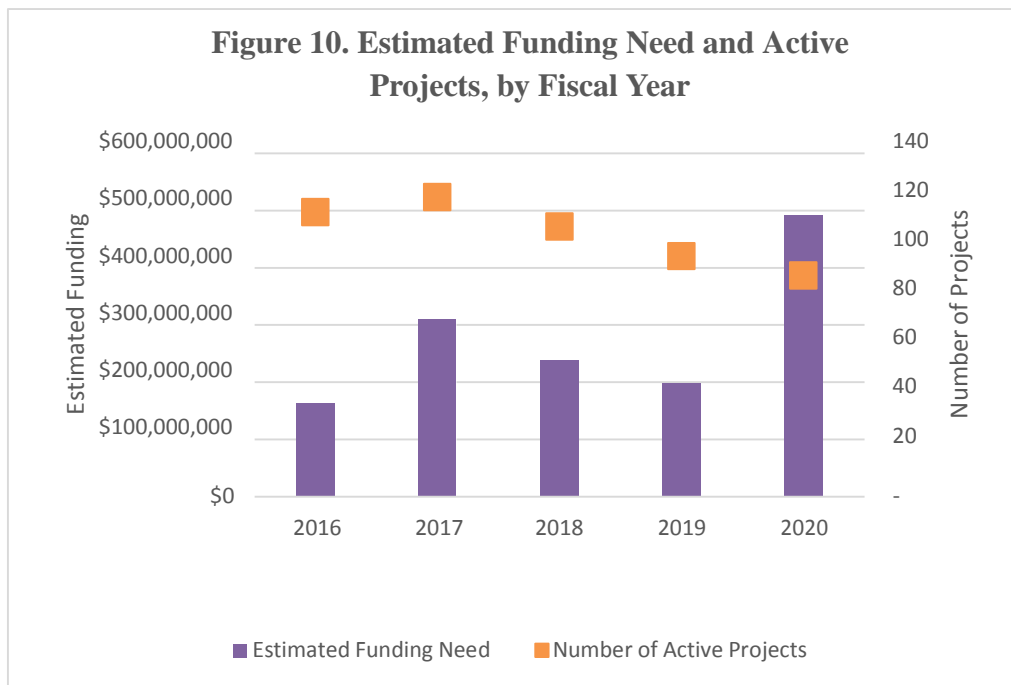
Agency Assessment of National Needs

In addition to invited comments, NRCS also evaluated specific watershed protection and flood prevention project needs and associated costs as part of this plan development. This included a review of the existing authorized but unfunded projects, existing projects needing remediation, and potential new projects. Through this process, 220 projects were identified; addressing a variety of purposes from flood prevention and watershed protection to agricultural water management and municipal and industrial water supply. The total cost of these projects was estimated at nearly \$1.4 billion from FY 2016 through 2020 (Fig. 9), which includes the share that would be contributed by the state or local partners, generally about 25 percent of total costs. Appendix A provides greater detail on project locations, purposes, and estimated costs.

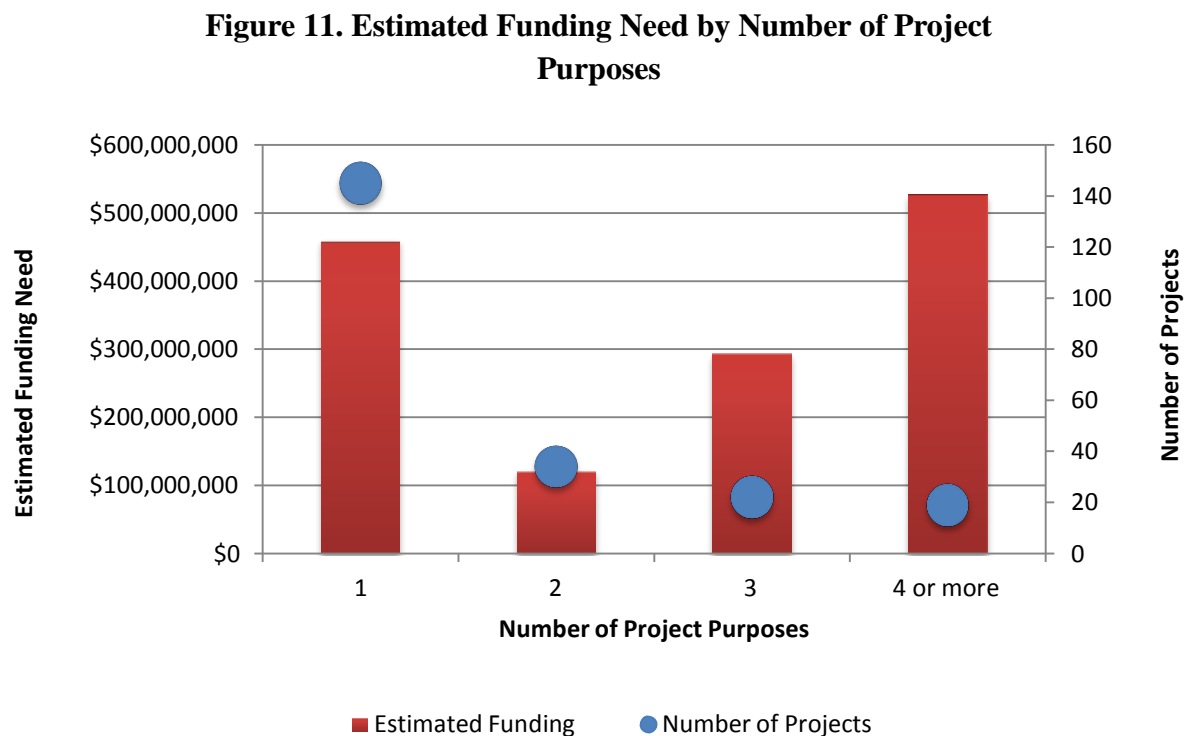
**Figure 9. Estimated Funding Need for Watershed Projects, by State, 2016 - 2020
(Over \$1.4 billion in funding needed)**



Estimated funding needs to complete projects vary by fiscal year reflecting differences in the project status, length of time to complete, and complexity of the project. Figure 10 shows the level of estimated funding and number of active projects by fiscal year. The 220 identified projects cover more than one fiscal year; the project numbers presented in the figure below reflect projects that would be underway at that time and are not additive across fiscal years.



The majority (two-thirds) of projects focus on one of four single purposes – Flood Prevention, Agricultural Water Management, Land Treatment, or Water Quality (Fig. 11). Flood Prevention accounted for over 80 percent of these single-purpose projects and was identified as a shared purpose in another 19 percent of projects, making it the most common objective of the identified needs.



Projects were also identified in terms of the type of activity to be conducted. Most project needs focused on completing construction of previously planned and designed components. Less than 5 percent of identified funding is for remediation needs – existing projects where measures are needed to correct oversights in structural designs or construction. Table 1 shows the number of projects and estimated funding by the stage of the project.

Table 1. Number of Projects by Stage and Associated Estimated Funding Need

Project Stage	Estimated Funding	Number of Projects
Remediation	\$ 61,147,500	49
Planning	23,295,000	12
Planning / Design	1,000,000	1
Design	26,746,700	13
Design / Construction	403,388,640	81
Construction	128,202,000	32
Planning / Design /	760,238,600	32
Grand Total	\$1,404,018,440	220

Process for Prioritizing Watershed Project Proposals

The Watershed and Flood Prevention Operations (WFPO) Program provides technical and financial assistance to States, local governments and Tribes (project sponsors) to plan and implement authorized watershed project plans for the purpose of:

- watershed protection
- flood mitigation
- water quality improvements
- soil erosion reduction
- rural, municipal and industrial water supply
- irrigation
- water management
- sediment control
- fish and wildlife enhancement
- hydropower

In order to be approved, projects must 1) be publicly sponsored, 2) be 250,000 acres or less, and 3) have at least 20 percent of benefits related to agriculture, including rural communities. In addition and in accordance with statute, projects that will exceed \$5 million in federal contributions or with single structures holding more than 2,500 acre feet require congressional approval.

Sponsor capacity is an essential project element; sponsors must demonstrate capacity to implement, operate, and maintain the project, including possessing the necessary authorities;

funding; acquisition of easements or other rights needed; and demonstrated capability to operate and maintain the project upon completion.

Pursuant to congressional guidance, the agency process for prioritizing watershed projects must consider (1) the agency's mission, (2) existing investment in watershed projects, and (3) future needs for improving watershed condition and mitigating the potential for watershed impairments.

Agency Mission

NRCS' Mission Statement is "Helping People Help the Land," which highlights the agency's role in developing and delivering high quality products and services that enable people to be good stewards of the Nation's soil, water, and related natural resources on non-Federal lands. The vision is a landscape where working farms, forests, and ranches are in balance with a healthy environment. This mission statement aligns seamlessly with the purposes of the Watershed Program and the agency's emphasis on assisting agricultural producers and communities address the dual challenges of adapting to and mitigating the effects of climate change.

Existing Investment

To guide investment in existing watershed projects, NRCS will focus on those projects where remediation is required. These are projects where the engineering design or related aspects of implementation are not operating as intended, as evaluated and verified through inspection. An estimated 49 projects in eight States are in need of remediation at an estimated \$55 million, or 4 percent of total needs for the period 2016 – 2020. Based on funding availability, NRCS will allocate an appropriate level to address remediation needs on an annual basis.

Future Needs

To guide investment in future needs for improving watershed condition and mitigating potential for watershed impairments, NRCS is establishing a process based on State and National priorities. The process will include an annual announcement program funding (APF) that will outline the specific state and national priorities to be emphasized in the funding year. This allows the agency to focus funding effectively, while providing flexibility over time to accommodate emerging watershed protection priorities. NRCS will evaluate and rank potential projects for funding annually based on alignment with program priorities established at the State and National levels to be locally responsive, and nationally consistent:

1. State priorities – State Conservationists identify state watershed project priorities with advice from the State Technical Committee. Priorities will consider current conditions and threats such as the effects of climate change, and the major natural resource challenges facing agriculture and rural communities, such as water supply or flooding.
2. National Priorities – National priorities focus on durability and equity. Project proposals will be ranked based on the following:
 - Partner leverage and contributions
 - Positive return on investment and higher benefit–cost ratio
 - Contributions to a regional water management need or concern
 - Benefits in high-poverty or historically underserved communities

- Durability of water management solutions for the benefitted area (e.g., economic benefits exceed estimated operation and maintenance (O&M) costs for the long term; local O&M assured; success of the project is not dependent on environmental or economic factors outside the project area).

This annual process and the associated ranking factors will result in prioritizing projects that will address a locally important, pressing natural resource issue in a timely manner.

Sponsors would be expected to respond to the APF for any project proposed for funding, including those needs outlined in this report and detailed in Appendix A. This proactive process ensures that funding will be directed to those projects best positioned for immediate implementation.

Summary

Many challenges that face our Nation's food security, water quality, water supplies, wildlife habitat, rural economies, and communities are most cost-effectively and efficiently addressed at a watershed scale. The USDA-NRCS Watershed Program is authorized to address these and related challenges. Historic droughts, floods, and other extreme weather events in recent years have demonstrated the value of previous investments in this program – nearly \$2.2 billion in benefits each year accrue as a result of these investments. Today, the Watershed Program offers the opportunity to address pressing water management issues facing agriculture and communities.

In preparing this multi-year plan NRCS conducted an assessment of current needs. Through that process nearly \$1.4 billion in estimated funding needs for 2016-2020 were identified. In addition, NRCS sought input from stakeholders on priorities for the program going forward. Recommendations were used to help shape a priority setting process that accommodates local needs and national priorities. NRCS will use the prioritization process outlined in this plan to focus funding on the highest priority projects for improving watershed condition and building landscape resilience and preserving, protecting, and improving the Nation's land and water resources and quality of the environment.

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Appendix A: Identified Watershed Project Needs, FY 2016 – 2020

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Fiscal Year 2016				
Alabama	Big Nance Creek Site 4	FP	Remedial	\$500,000
	Mush Creek Site 2	FP	Remedial	\$500,000
	Powell Creek Site 3	FP	Remedial	\$1,000,000
	Powell Creek Site 4	FP	Remedial	\$1,000,000
Arizona	Fredonia FRS	FP	Remedial	\$23,000,000
Arkansas	Bayou Meto	AWM	Design	\$125,000
	Departee Creek	FP	Construction	\$750,000
	Departee Creek	FP	Design	\$150,000
	Grand Prairie	AWM	Design	\$125,000
California	Beardsley	FP, LT, AWM, M&I	Planning	\$300,000
	Lower Llagas Creek	FP, LT, AWM, M&I, WQ, F&W	Design	\$500,000
	Lower Silver Creek	FP, LT, WQ	Planning	\$500,000
	McCoy Wash	FP, LT, WQ	Design	\$500,000
Colorado	6 Mile St. Charles	LT, AWM, WQ	Construction	\$900,000
	Highland Breaks	LT, WQ	Construction	\$1,500,000
	Holbrook Lake Ditch	LT, AWM, WQ	Construction	\$500,000
	Limestone-Graveyard Creeks	LT, WQ	Construction	\$500,000
Georgia	Bull Creek 3	FP, LT	Remedial	\$400,000
	North Broad River 33	FP, LT	Remedial	\$150,000
Hawaii	Lahaina	FP, LT	Design / Construction	\$9,900,000
	Upcountry Maui	AWM	Design / Construction	\$2,550,000
Indiana	Muddy Fork of Silver Creek	FP, F&W, M&I	Planning	\$250,000
	Prairie Creek (Daviess)	FP, WQ	Planning	\$300,000
Iowa	Clarke County Water Supply	AWM	Design / Construction	\$3,315,000
	West Fork of Big Creek	FP	Design / Construction	\$411,800

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Kansas	Doyle Creek- Site 11	FP	Construction	\$879,000
	Elk Creek- Site 4	FP	Design	\$39,000
	Grasshopper Coal- Site 29	FP	Design	\$37,000
	North Black Vermillion- Site 201	FP	Construction	\$445,000
	South Fork Wolf- Site 12-26	FP	Construction	\$939,000
Kentucky	Pike County - Floodplain Easement	FP	Planning	\$1,000,000
	Rockhouse Creek	FP, LT, F&W	Planning	\$350,000
	South Fork Little River	FP, LT	Planning	\$1,000,000
	West Fork Mayfield Creek	FP	Planning	\$750,000
Massachusetts	Allen Site Dam	FP, LT, F&W	Remedial / Design	\$200,000
	Cape Cod Water Resources Restoration Project	LT, F&W, WQ	Planning / Design	\$3,000,000
	Deerfield River	LT, WQ	Planning	\$300,000
	Great Marsh Restoration Project	LT, F&W, WQ	Planning	\$225,000
Minnesota	Rice Lake	WQ	Planning / Design	\$345,000
Mississippi	Abiaca Dam 3 (Y-34-03)	FP	Remedial	\$250,000
	Byhalia Creek Watershed Dam 4	FP	Remedial	\$200,000
	Long Beach Canal 1 Phase 1	FP	Construction	\$2,500,000
	Ltl Tallahatchie - Oaklimer	LT	Construction	\$500,000
	Ltl Tallahatchie - Upper Tallahatchie	LT	Construction	\$500,000
	Piney Creek GCS	LT	Construction	\$750,000
	Sabougla Watershed	LT	Construction	\$500,000
	Town Creek	FP	Remedial	\$200,000
	Town Creek Dam 5	FP	Construction	\$2,500,000
	Yazoo - Arcabutla Creek	LT	Construction	\$500,000
	Yazoo-Skuna Structure No. 6	LT	Remedial	\$200,000
Missouri	East Locust Creek	AWM, FP, F&W	Planning / Design	\$5,000,000
	Little Otter Creek	AWM, FP, F&W	Construction	\$2,000,000
N. Mariana Islands	Kagman Watershed	FP, LT, AWM	Design / Construction	\$1,250,000
Nebraska	Papio Creek S-5, S-22, D-31, D-78	FP	Planning	\$600,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
New Jersey	Assunpink Site 19	FP, F&W	Remedial	\$90,000
New York	Ashokan	LT	Design / Construction	\$30,000
	Lower Cannonsville	LT	Design / Construction	\$330,000
	Moonda / Saterly Creek	FP	Planning	\$200,000
	Neversink	LT	Design / Construction	\$10,000
	Newtown Hoffman Site 18	FP	Design	\$100,000
	Pepacton	LT	Design / Construction	\$180,000
	Roundout	LT	Design / Construction	\$20,000
	Schoharie	LT	Design / Construction	\$100,000
	Upper Cannonsville	LT	Design / Construction	\$330,000
North Dakota	Red River Detention	FP, LT, WQ	Planning / Design	\$1,000,000
Oklahoma	Bear 3	FP	Remedial	\$750,000
	Bear 5	FP	Remedial	\$125,000
	Boggy Creek 25	FP	Remedial	\$225,000
	Calvary 12	FP	Remedial	\$120,000
	Fast Runner 3	FP	Remedial	\$50,000
	Lower Bayou 12	FP	Design	\$450,000
	Lower Red Rock 1	FP	Design	\$475,000
	Middle Deep Red Run 7A	FP	Design	\$510,000
	Sugar Creek (Binger Site)	FP	Design	\$395,000
	Sugar Creek Drop REM	FP	Design	\$325,000
	Turkey Creek 9	FP	Design	\$425,000
	Upper Blue River 46	FP	Design	\$425,000
	Upper Blue River 48	FP	Design	\$375,000
	Upper Blue River 48	FP	Design	\$375,000
Oregon	Alder Slope Irrigation	AWM, WQ	Construction	\$275,000
	Arnold Irrigation District	AWM, M&I, WQ, F&W	Design / Construction	\$1,516,000
	Central Oregon Irrigation District	AWM, M&I, WQ, F&W	Design / Construction	\$8,791,820
	Champoeg Watershed	AWM, WQ	Planning	\$275,000
	Mud Springs - NUID Lateral	WQ, AWM	Design	\$160,200

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	58_11			
	North Agency Plains	WQ, AWM	Planning	\$217,500
	North Prairie Creek Irrigation	AWM, WQ, LT	Construction	\$1,100,000
	North Unit Irrigation District	AWM, M&I, WQ, F&W	Design / Construction	\$730,000
	Ochoco Irrigation District	AWM, M&I, WQ, F&W	Design / Construction	\$595,000
	Swalley Irrigation District	AWM, M&I, WQ, F&W	Planning	\$295,000
	Three Sisters Irrigation District	AWM, M&I, WQ, F&W	Construction	\$2,580,000
	Tumalo Irrigation District	AWM, M&I, WQ, F&W	Design / Construction	\$2,000,000
	Twilight Water Quality	WQ, AWM	Design	\$80,000
	Upper Grande Ronde Watershed	LT, WQ	Planning	\$365,000
	Vale Bench Lateral 227	WQ, AWM	Planning	\$165,000
Pennsylvania	Bentley Creek	FP	Planning	\$20,000
	Little Toby Creek	WQ	Planning	\$20,000
	Mill Creek	WQ	Planning	\$50,000
Rhode Island	Pocasset River Flood Mitigation Project	FP	Planning	\$150,000
Tennessee	Bear Creek (Scott)	FP	Design	\$200,000
Texas	Big Creek (Tri-County)	FP, M&I, F&W	Design	\$500,000
	Choctaw Creek	FP	Design	\$500,000
	Ecleto Creek	FP	Design	\$800,000
	Elm Creek (1250)	FP	Design	\$1,000,000
	Elm Creek (Cen-Tex)	FP	Design	\$1,000,000
	Lakeview	FP	Remedial	\$500,000
	Trinity - Big Sandy Creek	FP	Design	\$500,000
	Trinity - Grays Creek	FP	Remedial	\$200,000
Utah	Anabella Canal	AWM, FP	Design	\$4,200,000
	Cottonwood Canyon (Anabella)	FP, AWM	Design	\$3,200,000
	Flat Canyon DB	FP, AWM	Design	\$8,500,000
	Marion Canal	AWM, FP	Planning	\$1,500,000
	Willow Creek	FP, AWM	Design	\$350,000
Virginia	North Fork Powell River	LT, WQ	Design / Construction	\$1,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
West Virginia	Big Sandy - Dry Fork	FP, WQ, LT	Planning	\$500,000
	Potomac-Lost River 16	FP, M&I	Construction	\$35,000,000
Wyoming	Kaycee	FP	Design	\$350,000
Fiscal Year 2017				
Alabama	Camp Branch	LT, WQ	Design / Construction	\$396,000
	Harrison Mill / Panther Creek	LT, WQ	Design / Construction	\$225,000
	Northeast Yellow River	LT, WQ	Design, Construction	\$1,878,500
	Pates Creek	LT, WQ	Design / Construction	\$228,000
Alaska	Delta Clearwater	FP	Construction	\$13,000,000
Arkansas	Bayou Meto	AWM	Construction	\$6,250,000
	Big Slough Site 7	FP	Design	\$250,000
	Departee Creek	FP	Design	\$125,000
	Grand Prairie	AWM	Construction	\$6,250,000
California	Beardsley	FP, LT, AWM, M&I	Planning	\$300,000
	Llagas Creek	FP, LT, AWM, M&I, WQ	Planning	\$127,250,000
	Lower Calaveras-Mormon	FP, LT, AWM, M&I, WQ	Planning	\$1,750,000
	Lower Llagas Creek	FP, LT, AWM, M&I, WQ, F&W	Design	\$500,000
	Lower Silver Creek	FP, LT, WQ	Design	\$750,000
	McCoy Wash	FP, LT, WQ	Design	\$750,000
	Mill	FP, LT, AWM, M&I, WQ	Planning	\$1,190,000
	Oasis	FP, LT, WQ	Planning	\$1,000,000
	Upper Calaveras	FP, LT, AWM, M&I, WQ	Planning	\$2,870,000
	Upper Deer-Upper White	FP, LT, AWM, M&I, WQ	Planning	\$2,590,000
	Upper Dry	FP, LT, AWM, M&I, WQ	Planning	\$980,000
	Upper Poso	FP, LT, AWM, M&I, WQ	Planning	\$2,030,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Colorado	6 Mile St. Charles	LT, AWM, WQ	Construction	\$900,000
	Highland Breaks	LT, WQ	Construction	\$1,500,000
	Holbrook Lake Ditch	LT, AWM, WQ	Construction	\$500,000
	Limestone-Graveyard Creeks	LT, WQ	Construction	\$500,000
Hawaii	Lahaina	FP, LT	Construction	\$6,800,000
	Lower Hamakua Ditch	AWM, LT	Design / Construction	\$500,000
	Upcountry Maui	AWM	Design	\$600,000
	Wailuku-Alenaio	FP	Design	\$300,000
Indiana	Muddy Fork of Silver Creek	FP, F&W, M&I	Planning	\$250,000
	Prairie Creek (Davies)	FP, WQ	Planning	\$300,000
Iowa	Clarke County Water Supply	AWM	Design / Construction	\$13,150,000
	Twelve Mile Creek	FP	Design / Construction	\$235,000
	West Fork of Big Creek	FP	Design / Construction	\$514,600
Kansas	Elk Creek- Site 12	FP	Design	\$40,000
	Elk Creek- Site 4	FP	Construction	\$463,900
	Grasshopper Coal- Site 29	FP	Construction	\$435,000
	Squaw Creek Lower Wolf- Site 5-9	FP	Design	\$35,000
	Squaw Creek Lower Wolf- Site 6-4a	FP	Design	\$44,000
Kentucky	Pike County - Floodpain Easement	FP	Plan / Implement	\$1,000,000
	Rockhouse Creek	FP, LT, F&W	Design	\$700,000
	South Fork Little River	FP, LT	Design	\$700,000
	West Fork Mayfield Creek	FP	Design	\$300,000
Massachusetts	Allen Site Dam	FP, LT, F&W	Remedial	\$500,000
	Cape Cod Water Resources Restoration Project	LT, F&W, WQ	Plan / Design / Construction	\$4,000,000
	Deerfield River	LT, WQ	Planning	\$300,000
	Great Marsh Restoration Project	LT, F&W, WQ	Planning	\$225,000
Minnesota	Rice Lake	WQ	Construction	\$1,915,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Mississippi	Long Beach Canal 1 Phase 2	FP	Construction	\$2,500,000
	Ltl Tallahatchie - Oaklimer	LT	Construction	\$500,000
	Ltl Tallahatchie - Upper Tallahatchie	LT	Construction	\$500,000
	Piney Creek GCS	LT	Construction	\$750,000
	Town Creek	LT	Construction	\$500,000
	Yazoo - Arcabutla Creek	LT	Construction	\$500,000
	Yazoo-Skuna Yoda Creek Structure	LT	Remedial	\$250,000
Missouri	Big Creek Hurricane Ck	FP	Construction	\$1,000,000
	East Locust Creek	AWM, FP, F&W	Construction	\$12,000,000
	Upper Locust Creek	FP	Construction	\$1,000,000
	West Fork of Big Creek	FP	Construction	\$1,000,000
N. Mariana Islands	Kagman Watershed	FP, LT, AWM	Design / Construction	\$650,000
Nebraska	Papio S-22	FP	Design	\$200,000
	Papio S-5	FP	Design	\$500,000
New York	Ashokan	LT	Design / Construction	\$30,000
	Lower Cannonsville	LT	Design / Construction	\$330,000
	Moonda / Saterly Creek	FP	Planning	\$200,000
	Neversink	LT	Design / Construction	\$10,000
	Newtown Hoffman Site 18	FP	Design	\$50,000
	Pepacton	LT	Design / Construction	\$180,000
	Roundout	LT	Design / Construction	\$20,000
	Schoharie	LT	Design / Construction	\$100,000
	Upper Cannonsville	LT	Design / Construction	\$330,000
Oklahoma	Dry Creek 17	FP	Remedial	\$75,000
	Little Deep Fork 20	FP	Remedial	\$95,000
	Lower Bayou 12	FP	Construction	\$1,300,000
	Lower Red Rock 16	FP	Remedial	\$150,000
	Middle Deep Red Run 7A	FP	Construction	\$1,400,000
	North Deer Creek 1	FP	Remedial	\$142,500

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	Quawpaw 27	FP	Remedial	\$110,000
	Sugar Creek Drop	FP	Remedial	\$210,000
	Sugar Creek Drop	FP	Remedial	\$2,500,000
	Upper Black Bear 36	FP	Remedial	\$125,000
	Upper Blue River 35	FP	Design	\$450,000
	Upper Blue River 36	FP	Design	\$450,000
	Upper Blue River 46	FP	Construction	\$850,000
	Upper Blue River 48	FP	Construction	\$950,000
Oregon	Alder Slope Irrigation	AWM, WQ	Construction	\$962,000
	Arnold Irrigation District	AWM, M&I, WQ, F&W	Construction	\$2,060,000
	Central Oregon Irrigation District	AWM, M&I, WQ, F&W	Construction	\$3,649,220
	Champoeg Watershed	AWM, WQ	Design	\$495,000
	Mud Springs - NUID Lateral 58_11	WQ, AWM	Construction	\$150,000
	North Agency Plains	WQ, AWM	Design	\$217,500
	North Prairie Creek Irrigation	AWM, WQ, LT	Construction	\$2,200,000
	North Unit Irrigation District	AWM, M&I, WQ, F&W	Construction	\$880,000
	Ochoco Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,230,000
	Swalley Irrigation District	AWM, M&I, WQ, F&W	Construction	\$510,000
	Three Sisters Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,846,000
	Tumalo Irrigation District	AWM, M&I, WQ, F&W	Construction	\$2,000,000
	Twilight Water Quality	WQ, AWM	Design	\$160,000
	Upper Grande Ronde Watershed	LT, WQ	Planning	\$380,000
	Vale Bench Lateral 227	WQ, AWM	Planning	\$275,000
Pennsylvania	Bentley Creek	FP	Design	\$1,200,000
	Little Toby Creek	WQ	Design	\$200,000
	Mill Creek	WQ	Design	\$350,000
	unnamed watershed	FP	Planning	\$200,000
Rhode Island	Pocasset River Flood Mitigation Project	FP	Design	\$1,530,000
Tennessee	Bear Creek (Scott)	WQ	Construction	\$2,000,000
	Hurricane Creek	FP, M&I	Design	\$750,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	North Fork Forked Deer	FP	Remedial / Design	\$800,000
Texas	Big Creek (Tri-County)	FP, M&I, F&W	Design / Construction	\$5,000,000
	Choctaw Creek	FP	Construction	\$6,000,000
	Elm Creek (1250)	FP	Design / Construction	\$4,000,000
	Trinity - Big Sandy Creek	FP	Construction	\$6,000,000
	Trinity - Chambers Creek	FP	Remedial	\$3,000,000
	Trinity - Pilot Grove	FP	Remedial	\$3,000,000
	Trinity - Richland Creek	FP	Remedial	\$3,000,000
Utah	Cedar Ridge	FP, AWM	Design	\$3,800,000
	Coyote Gulch Wash (Ivins)	FP	Planning	\$2,800,000
	Gould's Wash DB	FP, AWM	Design	\$4,500,000
	St. George DBs	FP	Planning	\$3,200,000
	Vigin	FP	Planning	\$1,500,000
Virginia	North Fork Powell River	LT, WQ	Design / Construction	\$500,000
Wyoming	Kaycee	FP	Construction	\$1,235,400
Fiscal Year 2018				
Alabama	Whitewater Creek	LT, WQ	Design / Construction	\$114,000
	Wilkerson Creek	LT, WQ	Design / Construction	\$396,000
Arkansas	Bayou Meto	AWM	Construction	\$6,250,000
	Big Slough Site 7	FP	Construction	\$1,250,000
	Departee Creek	FP	Construction	\$5,500,000
	Grand Prairie	AWM	Construction	\$6,250,000
California	Beardsley	FP, LT, AWM, M&I	Design	\$500,000
	Llagas Creek	FP, LT, AWM, M&I, WQ	Planning	\$10,000,000
	Lower Calaveras-Mormon	FP, LT, AWM, M&I, WQ	Planning	\$1,750,000
	Lower Llagas Creek	FP, LT, AWM, M&I, WQ, F&W	Construction	\$3,000,000
	Lower Silver Creek	FP, LT, WQ	Design	\$750,000
	McCoy Wash	FP, LT, WQ	Design	\$750,000
	Mill	FP, LT, AWM, M&I,	Planning	\$1,190,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
		WQ		
	Oasis	FP, LT, WQ	Planning	\$750,000
	Upper Calaveras	FP, LT, AWM, M&I, WQ	Planning	\$2,870,000
	Upper Deer-Upper White	FP, LT, AWM, M&I, WQ	Planning	\$2,590,000
	Upper Dry	FP, LT, AWM, M&I, WQ	Planning	\$980,000
	Upper Poso	FP, LT, AWM, M&I, WQ	Planning	\$2,030,000
Colorado	6 Mile St. Charles	LT, AWM, WQ	Construction	\$900,000
	Highland Breaks	LT, WQ	Construction	\$1,500,000
	Holbrook Lake Ditch	LT, AWM, WQ	Construction	\$500,000
	Limestone-Graveyard Creeks	LT, WQ	Construction	\$500,000
Hawaii	Kahaluu	FP, LT, REC	Planning	\$100,000
	Lower Hamakua Ditch	AWM, LT	Design / Construction	\$1,500,000
	Wailuku-Alenaio	FP	Construction	\$1,100,000
	Waimanalo	AWM	Planning / Design	\$200,000
Indiana	Muddy Fork of Silver Creek	FP, F&W, M&I	Design	\$470,000
	Prairie Creek (Davies)	FP, WQ	Design	\$330,000
Iowa	Clarke County Water Supply	AWM	Construction	\$5,634,600
	East Fork of the Grand River	FP	Design / Construction	\$1,259,000
	West Fork of Big Creek	FP	Construction	\$514,600
Kansas	Elk Creek- Site 12	FP	Construction	\$467,500
	Middle Creek- Site 11	FP	Design	\$100,000
	Squaw Creek Lower Wolf- Site 5-8	FP	Design	\$58,000
	Squaw Creek Lower Wolf- Site 5-9	FP	Construction	\$414,000
	Squaw Creek Lower Wolf- Site 6-4a	FP	Construction	\$523,000
Kentucky	Pike County - Floodpain Easement	FP	Implementation	\$500,000
	Rockhouse Creek	FP, LT, F&W	Construction	\$4,500,000
	South Fork Little River	FP, LT	Construction	\$5,000,000
	West Fork Mayfield Creek	FP	Construction	\$5,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Massachusetts	Cape Cod Water Resources Restoration Project	LT, F&W, WQ	Plan / Design / Construction	\$8,000,000
	Deerfield River	LT, WQ	Planning	\$300,000
Mississippi	Ellison Creek GCS 1	LT	Remedial	\$250,000
	Ltl Tallahatchie - Oaklimer	LT	Construction	\$500,000
	Ltl Tallahatchie - Upper Tallahatchie	LT	Construction	\$500,000
	Piney Creek GCS	LT	Construction	\$750,000
	Town Creek	LT	Construction	\$200,000
	Yazoo - Arcabutla Creek	LT	Construction	\$250,000
	Yazoo - Skuna River	LT	Construction	\$500,000
Missouri	Big Creek Hurricane Ck	FP	Construction	\$1,000,000
	East Locust Creek	AWM, FP, F&W	Construction	\$12,000,000
	East Yellow Creek	FP	Construction	\$1,000,000
	Upper Locust Creek	FP	Construction	\$1,000,000
	West Fork of Big Creek	FP	Construction	\$1,000,000
N. Mariana Islands	Kagman Watershed	FP, LT, AWM	Construction	\$4,500,000
Nebraska	Papio D-31	FP	Design	\$200,000
	Papio S-22	FP	Design	\$200,000
	Papio S-5	FP	Construction	\$4,000,000
New York	Ashokan	LT	Design / Construction	\$30,000
	Lower Cannonsville	LT	Design / Construction	\$330,000
	Moonda / Saterly Creek	FP	Design	\$100,000
	Neversink	LT	Design / Construction	\$10,000
	Newtown Hoffman Site 18	FP	Construction	\$300,000
	Pepacton	LT	Design / Construction	\$180,000
	Roundout	LT	Design / Construction	\$20,000
	Schoharie	LT	Design / Construction	\$100,000
	Upper Cannonsville	LT	Design / Construction	\$330,000
Oklahoma	Bear 44	FP	Remedial	\$210,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	Brushy Peaceable 5	FP	Design	\$425,000
	Cotton Coon Mission 12A	FP	Design	\$425,000
	Cotton Coon Mission 12B	FP	Design	\$425,000
	Jack Creek 6	FP	Design	\$400,000
	Lower Black Bear 21	FP	Remedial	\$175,000
	Lower Red Rock 1	FP	Construction	\$2,500,000
	Middle Deep Red Run 7A	FP	Construction	\$1,250,000
	Turkey Creek 9	FP	Construction	\$2,100,000
	Uncle John 5	FP	Remedial	\$225,000
	Upper Black Bear 28	FP	Remedial	\$150,000
	Upper Black Bear 28	FP	Remedial	\$180,000
	Upper Blue River 48	FP	Construction	\$1,100,000
	Upper Red Rock Site 7	FP	Design	\$375,000
Oregon	Alder Slope Irrigation	AWM, WQ	Construction	\$176,000
	Arnold Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,491,000
	Central Oregon Irrigation District	AWM, M&I, WQ, F&W	Construction	\$3,810,000
	Champoeg Watershed	AWM, WQ	Construction	\$550,000
	North Agency Plains	WQ, AWM	Construction	\$298,100
	North Prairie Creek Irrigation	AWM, WQ, LT	Construction	\$550,000
	North Unit Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,880,000
	Ochoco Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,210,000
	Swalley Irrigation District	AWM, M&I, WQ, F&W	Construction	\$230,000
	Three Sisters Irrigation District	AWM, M&I, WQ, F&W	Construction	\$2,010,000
	Tumalo Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,900,000
	Twilight Water Quality	WQ, AWM	Design	\$162,500
	Upper Grande Ronde Watershed	LT, WQ	Planning	\$415,000
	Vale Bench Lateral 227	WQ, AWM	Planning	\$220,000
Pennsylvania	Bentley Creek	FP	Design	\$300,000
	Little Toby Creek	WQ	Design	\$100,000
	Mill Creek	WQ	Design / Construction	\$950,000
	unnamed watershed	FP	Planning	\$200,000
Rhode Island				
	Pocasset River Flood	FP	Construction	\$51,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	Mitigation Project			
Tennessee	Hurricane Creek	FP, M&I	Construction	\$2,500,000
	North Fork Forked Deer	FP	Design	\$250,000
Texas	Big Creek (Tri-County)	FP, M&I, F&W	Construction	\$5,000,000
	Caney Creek	FP	Construction	\$5,400,000
	Elm Creek (1250)	FP	Construction	\$11,000,000
	Elm Creek (Cen-Tex)	FP	Construction	\$12,000,000
Utah	Green River Canal	AWM	Planning	\$6,000,000
	Helper City	FP	Planning	\$2,500,000
Virginia	North Fork Powell River	LT, WQ	Design / Construction	\$500,000
West Virginia	Big Sandy - Tug Fork - Elkhorn Creek	FP, WQ, LT	Planning	\$500,000
Fiscal Year 2019				
Arkansas	Bayou Meto	AWM	Construction	\$6,250,000
	Grand Prairie	AWM	Construction	\$6,250,000
California	Beardsley	FP, LT, AWM, M&I	Construction	\$3,500,000
	Llagas Creek	FP, LT, AWM, M&I, WQ	Design	\$10,000,000
	Lower Calaveras-Mormon	FP, LT, AWM, M&I, WQ	Design	\$1,750,000
	Lower Llagas Creek	FP, LT, AWM, M&I, WQ, F&W	Construction	\$3,000,000
	Lower Silver Creek	FP, LT, WQ	Construction	\$7,000,000
	McCoy Wash	FP, LT, WQ	Construction	\$11,500,000
	Mill	FP, LT, AWM, M&I, WQ	Design	\$1,190,000
	Oasis	FP, LT, WQ	Design	\$7,000,000
	Upper Calaveras	FP, LT, AWM, M&I, WQ	Design	\$2,870,000
	Upper Deer-Upper White	FP, LT, AWM, M&I, WQ	Design	\$2,590,000
	Upper Dry	FP, LT, AWM, M&I, WQ	Design	\$980,000
	Upper Poso	FP, LT, AWM, M&I, WQ	Design	\$2,030,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Colorado	6 Mile St. Charles	LT, AWM, WQ	Construction	\$900,000
	Highland Breaks	LT, WQ	Construction	\$1,500,000
	Holbrook Lake Ditch	LT, AWM, WQ	Construction	\$500,000
	Limestone-Graveyard Creeks	LT, WQ	Construction	\$500,000
Hawaii	Kahaluu	FP, LT, REC	Design	\$100,000
	Upcountry Maui	AWM	Construction	\$5,350,000
	Wailuku-Alenaio	FP	Design	\$700,000
Indiana	Muddy Fork of Silver Creek	FP, F&W, M&I	Construction	\$4,700,000
	Prairie Creek (Daviess)	FP, WQ	Construction	\$3,300,000
Iowa	East Fork of the Grand River	FP	Design / Construction	\$1,259,000
	Turkey Creek	FP	Construction	\$118,000
Kansas	Middle Creek- Site 11	FP	Construction	\$1,186,500
	Squaw Creek Lower Wolf- Site 5-8	FP	Construction	\$690,500
	Upper Black Vermillion- Site 14	FP	Design	\$33,000
	Upper Black Vermillion- Site 227	FP	Design	\$38,000
Kentucky	Pike County - Floodplain Easement	FP	Implementation	\$500,000
	Rockhouse Creek	FP, LT, F&W	Construction	\$3,000,000
	South Fork Little River	FP, LT	Construction	\$2,000,000
	West Fork Mayfield Creek	FP	Construction	\$1,000,000
Massachusetts	Cape Cod Water Resources Restoration Project	LT, F&W, WQ	Plan / Design / Construction	\$7,000,000
Mississippi	Ltl Tallahatchie - Oaklimeter	LT	Construction	\$500,000
	Ltl Tallahatchie - Oaklimeter	LT	Construction	\$500,000
	Ltl Tallahatchie - Upper Tallahatchie	LT	Construction	\$500,000
	Piney Creek GCS	LT	Construction	\$750,000
	Sabougia Watershed	LT	Construction	\$500,000
	Yazoo - Arcabutla Creek	LT	Construction	\$500,000
	Yazoo - Skuna River	LT	Construction	\$500,000
Missouri	Big Creek Hurricane Ck	FP	Construction	\$1,000,000
	East Locust Creek	AWM, FP, F&W	Construction	\$12,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	Upper Locust Creek	FP	Construction	\$1,000,000
	West Fork of Big Creek	FP	Construction	\$1,000,000
N. Mariana Islands	Kagman Watershed	FP, LT, AWM	Construction	\$1,800,000
Nebraska	Papio D-31	FP	Design	\$200,000
	Papio D-78	FP	Design	\$400,000
	Papio S-22	FP	Construction	\$3,500,000
New York	Ashokan	LT	Design / Construction	\$30,000
	Lower Cannonsville	LT	Design / Construction	\$330,000
	Moonda / Saterly Creek	FP	Construction	\$1,000,000
	Neversink	LT	Design / Construction	\$10,000
	Pepacton	LT	Design / Construction	\$180,000
	Roundout	LT	Design / Construction	\$20,000
	Schoharie	LT	Design / Construction	\$100,000
	Upper Cannonsville	LT	Design / Construction	\$330,000
Oklahoma	Bear Creek 2 REM	FP	Remedial	\$175,000
	Boggy Creek 21 REM	FP	Remedial	\$175,000
	Boggy Creek 3 REM	FP	Remedial	\$200,000
	Cotton Coon Mission 12A	FP	Construction	\$2,500,000
	Cotton Coon Mission 12B	FP	Construction	\$2,500,000
	Cotton Coon Mission 14	FP	Design	\$450,000
	Kickappo Nations 8	FP	Design	\$375,000
	South Clinton Lat 2 REM	FP	Remedial	\$110,000
	South Clinton Lat 7 REM	FP	Remedial	\$110,000
	Sugar Creek (Binger Site)	FP	Construction	\$1,250,000
	Turkey 8 REM	FP	Remedial	\$250,000
	Upper Blue River 35	FP	Construction	\$2,100,000
	Upper Blue River 36	FP	Construction	\$1,750,000
	Upper Blue River 47	FP	Design	\$450,000
	Upper Muddy Boggy 19	FP	Design	\$410,000
	Upper Red Rock Site 7	FP	Construction	\$2,250,000
Oregon	Alder Slope Irrigation	AWM, WQ	Construction	\$176,000
	Arnold Irrigation District	AWM, M&I, WQ,	Construction	\$1,725,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
		F&W		
	Central Oregon Irrigation District	AWM, M&I, WQ, F&W	Construction	\$3,810,000
	Champoeg Watershed	AWM, WQ	Construction	\$660,000
	North Agency Plains	WQ, AWM	Construction	\$217,500
	North Prairie Creek Irrigation	AWM, WQ, LT	Construction	\$330,000
	North Unit Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,870,000
	Ochoco Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,310,000
	Swalley Irrigation District	AWM, M&I, WQ, F&W	Construction	\$105,000
	Three Sisters Irrigation District	AWM, M&I, WQ, F&W	Construction	\$1,580,000
	Tumalo Irrigation District	AWM, M&I, WQ, F&W	Construction	\$2,070,000
	Twilight Water Quality	WQ, AWM	Design	\$162,500
	Upper Grande Ronde Watershed	LT, WQ	Planning	\$365,000
	Vale Bench Lateral 227	WQ, AWM	Planning	\$20,000
Pennsylvania	Bentley Creek	FP	Construction	\$4,500,000
	Little Toby Creek	WQ	Construction	\$350,000
	Mill Creek	WQ	Construction	\$600,000
	unnamed watershed	FP	Planning	\$200,000
Tennessee	Hurricane Creek	FP, M&I	Construction	\$300,000
	North Fork Forked Deer	FP	Design	\$1,800,000
Texas	Choctaw Creek	FP	Construction	\$18,300,000
	Ecleto Creek	FP	Construction	\$10,000,000
	Trinity - Chambers Creek	FP	Remedial	\$3,000,000
	Trinity - Pilot Grove	FP	Remedial	\$3,000,000
Virginia	North Fork Powell River	LT, WQ	Design / Construction	\$500,000
Fiscal Year 2020				
Arkansas	Bayou Meto	AWM	Construction	\$6,250,000
	Grand Prairie	AWM	Construction	\$6,250,000
California	Llagas Creek	FP, LT, AWM, M&I, WQ	Construction	\$127,250,000
	Lower Calaveras-Mormon	FP, LT, AWM, M&I,	Construction	\$21,500,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
		WQ		
	Lower Llagas Creek	FP, LT, AWM, M&I, WQ, F&W	Construction	\$3,000,000
	Lower Silver Creek	FP, LT, WQ	Construction	\$7,000,000
	McCoy Wash	FP, LT, WQ	Construction	\$11,500,000
	Mill	FP, LT, AWM, M&I, WQ	Construction	\$14,060,000
	New Site	FP, LT, AWM, M&I, WQ	Construction	\$3,400,000
	Oasis	FP, LT, WQ	Construction	\$91,250,000
	Upper Calaveras	FP, LT, AWM, M&I, WQ	Construction	\$36,380,000
	Upper Deer-Upper White	FP, LT, AWM, M&I, WQ	Construction	\$32,660,000
	Upper Dry	FP, LT, AWM, M&I, WQ	Construction	\$11,270,000
	Upper Poso	FP, LT, AWM, M&I, WQ	Construction	\$25,220,000
Hawaii	Kahaluu	FP, LT, REC	Construction	\$800,000
	Lower Hamakua Ditch	AWM, WQ	Design / Construction	\$1,500,000
	Wailuku-Alenaio	FP	Construction	\$2,600,000
	Waimanalo	AWM	Construction	\$800,000
Iowa	East Fork of the Grand River	FP	Construction	\$1,257,000
	Mill Creek	LT	Design / Construction	\$353,000
	Mosquito of Harrison	FP	Design / Construction	\$118,000
Kansas	North Middle Forks Wolf- Site 15-4	FP	Design	\$27,900
	North Middle Forks Wolf- Site 15-5	FP	Design	\$29,500
	North Middle Forks Wolf- Site 19-8	FP	Design	\$24,300
	Upper Black Vermillion- Site 14	FP	Construction	\$393,000
	Upper Black Vermillion- Site 227	FP	Construction	\$446,500
Massachusetts	Cape Cod Water Resources Restoration Project	LT, F&W, WQ	Construction	\$3,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Mississippi	Ltl Tallahatchie - Oaklimeter	LT	Construction	\$500,000
	Ltl Tallahatchie - Oaklimeter	LT	Construction	\$500,000
	Ltl Tallahatchie - Upper Tallahatchie	LT	Construction	\$500,000
	Piney Creek GCS	LT	Construction	\$750,000
	Town Creek	LT	Construction	\$250,000
	Yazoo - Skuna River	LT	Construction	\$500,000
Missouri	Big Creek Hurricane Ck	FP	Construction	\$1,000,000
	East Locust Creek	AWM, FP, F&W	Construction	\$12,000,000
	East Yellow Creek	FP	Construction	\$1,000,000
	West Fork of Big Creek	FP	Construction	\$1,000,000
N. Mariana Islands	Kagman Watershed	FP, LT, AWM	Construction	\$250,000
Nebraska	Papio D-31	FP	Construction	\$1,500,000
	Papio D-78	FP	Construction	\$1,500,000
New York	Ashokan	LT	Design / Construction	\$30,000
	Lower Cannonsville	LT	Design / Construction	\$330,000
	Moonda / Saterly Creek	FP	Construction	\$1,000,000
	Neversink	LT	Design / Construction	\$10,000
	Pepacton	LT	Design / Construction	\$180,000
	Roundout	LT	Design / Construction	\$20,000
	Schoharie	LT	Design / Construction	\$100,000
	Upper Cannonsville	LT	Design / Construction	\$330,000
Oklahoma	Bear Creek Site 1	FP	Design	\$500,000
	Brushy Peaceable 5	FP	Construction	\$2,250,000
	Cotton Coon Mission 14	FP	Construction	\$2,100,000
	Cotton Coon Mission Site 13	FP	Design	\$525,000
	Jack Creek 6	FP	Construction	\$2,500,000
	Kickappo Nations 8	FP	Construction	\$1,900,000
	Little Washita River Site 37	FP	Design	\$475,000
	Oak Creek 9	FP	Remedial	\$175,000
	Stillwater 35	FP	Remedial	\$250,000
	Turkey 11	FP	Remedial	\$210,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
	Upper Black Bear 51	FP	Remedial	\$310,000
	Upper Blue River 47	FP	Construction	\$2,100,000
	Upper Muddy Boggy 19	FP	Construction	\$2,250,000
	Upper Muddy Boggy 26	FP	Remedial	\$125,000
	Upper Muddy Boggy 30	FP	Design	\$500,000
	Upper Red Rock 42	FP	Remedial	\$250,000
	Upper Red Rock Site 7	FP	Construction	\$1,750,000
	Wildhorse Creek Site 88	FP	Design	\$475,000
Oregon	Alder Slope Irrigation	AWM, WQ	Construction	\$176,000
	Arnold Irrigation District	AWM, M&I, WQ, F&W	Design	\$800,000
	Central Oregon Irrigation District	AWM, M&I, WQ, F&W	Design	\$1,700,000
	Champoeg Watershed	AWM, WQ	Construction	\$660,000
	North Prairie Creek Irrigation	AWM, WQ, LT	Construction	\$110,000
	North Unit Irrigation District	AWM, M&I, WQ, F&W	Design	\$850,000
	Ochoco Irrigation District	AWM, M&I, WQ, F&W	Design	\$650,000
	Swalley Irrigation District	AWM, M&I, WQ, F&W	Planning	\$50,000
	Three Sisters Irrigation District	AWM, M&I, WQ, F&W	Construction	\$750,000
	Tumalo Irrigation District	AWM, M&I, WQ, F&W	Design	\$1,000,000
	Twilight Water Quality	WQ, AWM	Design	\$30,000
	Upper Grande Ronde Watershed	LT, WQ	Planning	\$40,000
Pennsylvania	Bentley Creek	FP	Construction	\$300,000
	Little Toby Creek	WQ	Construction	\$50,000
	Mill Creek	WQ	Construction	\$50,000
	unnamed watershed	FP	Planning	\$1,000,000
Tennessee	North Fork Forked Deer	FP	Construction	\$2,000,000
Texas	Big Creek (Tri-County)	FP, M&I, F&W	Construction	\$10,000,000
	Big Creek (Tri-County)	FP, M&I, F&W	Construction	\$10,000,000
	Middle Colorado-Southwest Laterals	FP	Construction	\$2,700,000
	Middle Colorado-Upper Pecan Bayou	FP, M&I, F&W	Construction	\$5,400,000
	Trinity - Richland Creek	FP	Remedial	\$3,000,000

State	Project Name	Eligible Purpose(s)	Project Status	Estimated Funding
Virginia	North Fork Powell River	LT, WQ	Design / Construction	\$500,000
West Virginia	Big Sandy - Pond Creek	FP, WQ, LT	Planning	\$500,000
			Grand Total	\$1,404,018,440

Eligible Purpose Key:

FP	Flood Prevention
LT	Land Treatment / Watershed Protection
F&W	Public Recreation
	Agricultural Water
AWM	Management
M&I	Municipal and Industrial Water Supply
WQ	Water Quality Management

Appendix B: Watershed Operations Appropriations, 1947 – 2015

Fiscal Year	Amount Funded	Fiscal Year	Amount Funded
1947	\$2,100,000	1980	\$152,244,000
1948	3,000,000	1981	177,024,000
1949	6,000,000	1982	176,611,000
1950	9,500,000	1983	181,295,000
1951	10,315,000	1984	175,000,000
1952	6,559,600	1985	175,325,850
1953	7,750,000	1986	176,691,000
1954	12,000,000	1987	161,182,000
1955	14,732,000	1988	161,679,000
1956	22,000,000	1989	161,797,400
1957	29,500,000	1990	161,855,000
1958	38,720,000	1991	163,163,000
1959	43,500,000	1992	173,885,000
1960	40,750,000	1993	187,162,000
1961	56,370,000	1994	199,236,000
1962	78,787,000	1995	70,000,000
1963	86,702,200	1996	100,000,000
1964	89,072,000	1997	101,036,000
1965	97,602,000	1998	101,036,000
1966	91,973,000	1999	91,643,000
1967	95,826,100	2000	99,443,000
1968	96,156,000	2001	99,224,000
1969	82,132,000	2002	106,590,000
1970	90,770,000	2003	109,285,000
1971	100,334,000	2004	86,487,000
1972	132,099,000	2005	74,971,000
1973	115,675,500	2006	75,000,000
1974	121,674,000	2007	0
1975	109,641,600	2008	29,790,000
1976	167,076,000	2009	24,289,000
1977	129,649,000	2009 (ARRA)	145,000,000
1978	143,280,000	2010	30,000,000
1979	148,107,000	2011	0
		2012	0
		2013	0
		2014	0
		2015	0
Total Funding		\$6,207,297,250	

Appendix C: Watershed Protection and Flood Prevention Act – P.L. 83-566

Section 1001. Declaration of policy.

Section 1002. Definitions

Section 1003. Assistance to local organizations.

Section 1003a. Cost share assistance.

Section 1004. Conditions for Federal assistance.

Section 1005. Works of improvement.

Section 1006. Cooperative programs.

Section 1006a. Loans or advancements for financing local share of costs; repayment; interest; maximum amount.

Section 1006b. Territorial application.

Section 1007. Authorization of appropriations.

Section 1008. Notification of Secretary of the Interior of approval of assistance; surveys and investigations; report and recommendations; consideration; cost of surveys, investigations and reports.

Section 1009. Joint investigations and surveys by Secretary of the Army and Secretary of Agriculture; reports to Congress.

Section 1010. Data.

Section 1011. Watershed restoration and enhancement agreements.

Section 1012. Rehabilitation of structural measures near, at, or past their evaluated life expectancy.

WATERSHED PROTECTION AND FLOOD PREVENTION

Sec. 1001. Declaration of policy

Erosion, floodwater, and sediment damages in the watersheds of the rivers and streams of the United States, causing loss of life and damage to property, constitute a menace to the national welfare; and it is the sense of Congress that the Federal Government should cooperate with States and their political subdivisions, soil or water conservation districts, flood prevention or control districts, and other local public agencies for the purpose of preventing such damages, of furthering the conservation, development, utilization, and disposal of water, and the conservation and utilization of land and thereby of preserving, protecting, and improving the Nation's land and water resources and the quality of the environment.

Sec. 1002. Definitions

For the purposes of this chapter, the following terms shall mean:

The "Secretary" - the Secretary of Agriculture of the United States.

"Works of improvement" - any undertaking for -

(1) flood prevention (including structural and land treatment measures),

(2) the conservation, development, utilization, and disposal of water, or

(3) the conservation and proper utilization of land, in watershed or subwatershed area not exceeding two hundred and fifty thousand acres and not including any single structure which provides more than twelve thousand five hundred acre-feet of floodwater detention capacity, and more than twenty-five thousand acre-feet of total capacity. No appropriation shall be made for any plan involving an estimated Federal contribution to construction costs in excess of \$5,000,000, or which includes any structure which provides more than twenty-five hundred acre-feet of total capacity unless such plan has been approved by resolutions adopted by the appropriate committees of the Senate and House of Representatives:

Provided, That in the case of any plan involving no single structure providing more than 4,000 acre feet of total capacity the appropriate committees shall be the Committee on Agriculture, Nutrition, and Forestry of the Senate and the Committee on Agriculture of the House of Representatives and in the case of any plan involving any single structure of more than 4,000 acre-feet of total capacity the appropriate committees shall be the Committee on Environment and Public Works of the Senate and the Committee on Public Works and Transportation of the House of Representatives, respectively. Each project must contain benefits directly related to agriculture, including rural communities that account for at least 20 percent of the total benefits of the project. A number of such subwatersheds when they are component parts of a larger watershed may be planned together when the local sponsoring organizations so desire.

"Local organization" - any State, political subdivision thereof, soil or water conservation district, flood prevention or control district, or combinations thereof, or any other agency having authority under State law to carry out, maintain and operate the works of improvement; or any irrigation or reservoir company, water users' association, or similar organization having such authority and not being operated for profit that may be approved by the Secretary; or any Indian tribe or tribal organization, as defined in section 450b of title 25, having authority under Federal, State, or Indian tribal law to carry out, maintain, and operate the works of improvement.

Sec. 1003. Assistance to local organizations

In order to assist local organizations in preparing and carrying out plans for works of improvement, the Secretary is authorized, upon application of local organizations if such application has been submitted to, and not disapproved within 45 days by, the State agency having supervisory responsibility over programs provided for in this chapter, or by the Governor if there is no State agency having such responsibility –

(1) to conduct such investigations and surveys as may be necessary to prepare plans for works of improvement;

(2) to prepare plans and estimates required for adequate engineering evaluation;

(3) to make allocations of costs to the various purposes to show the basis of such allocations and to determine whether benefits exceed costs;

(4) to cooperate and enter into agreements with and to furnish financial and other assistance to local

organizations: Provided, That, for the land-treatment measures, the Federal assistance shall not exceed the rate of assistance for similar practices under existing national programs;

(5) to obtain the cooperation and assistance of other Federal agencies in carrying out the purposes of this section;

(6) to enter into agreements with landowners, operators, and occupiers, individually or collectively, based on conservation plans of such landowners, operators, and occupiers which are developed in cooperation with and approved by the soil and water conservation district in which the land described in the agreement is situated, to be carried out on such land during a period of not to exceed ten years, providing for changes in cropping systems and land uses and for the installation of soil and water conservation practices and measures needed to conserve and develop the soil, water, woodland, wildlife, energy, and recreation resources of and enhance the water quality of lands within the area included in plans for works of improvement, as provided for in such plans, including watershed or subwatershed work plans in connection with the eleven watershed improvement programs authorized by section 13 of the Act of December 22, 1944 (58 Stat. 887), as amended and supplemented. Applications for assistance in developing such conservation plans shall be made in writing to the soil and water conservation district involved, and the proposed agreement shall be reviewed by such district. In return for such agreements by landowners, operators, and occupiers the Secretary shall agree to share the costs of carrying out those practices and measures set forth in the agreement for which he determines that cost sharing is appropriate and in the public interest. The portion of such costs, including labor, to be shared shall be that part which the Secretary determines is appropriate and in the public interest for the carrying out of the practices and measures set forth in the agreement, except that the Federal assistance shall not exceed the rate of assistance for similar practices and measures under existing national programs. The Secretary may terminate any agreement with a landowner, operator, or occupier by mutual agreement if the Secretary determines that such termination would be in the public interest, and may agree to such modifications of agreements, previously entered into hereunder, as he deems desirable to carry out the purposes of this paragraph or to facilitate the practical administration of the agreements provided for herein. Notwithstanding any other provision of law, the Secretary, to the extent he deems it desirable to carry out the purposes of this paragraph, may provide in any agreement hereunder for (1) preservation for a period not to exceed the period covered by the agreement and an equal period thereafter of the cropland, crop acreage, and allotment history applicable to land covered by the agreement for the purpose of any Federal program under which such history is used as a basis for an allotment or other limitation on the production of any crop; or (2) surrender of any such history and allotments.

Sec. 1003a. Cost share assistance

(a) Easements- The Secretary may provide cost share assistance to project sponsors to enable such sponsors to acquire perpetual wetland or floodplain conservation easements to perpetuate, restore and enhance the natural capability of wetlands and floodplains to retain excessive floodwaters, improve water quality and quantity, and provide habitat for fish and wildlife.

(b) Amount- The Secretary shall require that project sponsors of watershed projects provide up to 50 percent of the cost of acquiring easements under subsection (a) of this section.

Sec. 1004. Conditions for Federal assistance

The Secretary shall require as a condition to providing Federal assistance for the installation of works of improvement that local organizations shall –

(1) acquire, or with respect to interests in land to be acquired by condemnation provide assurances satisfactory to the Secretary that they will acquire, without cost to the Federal Government from funds appropriated for the purposes of this chapter, such land, easements, or rights-of-way as will be needed in connection with works of improvement installed with Federal assistance: Provided, That when a local organization agrees to operate and maintain any reservoir or other area included in a plan for public fish and wildlife or recreational development, the Secretary shall be authorized to bear not to exceed one-half of the costs of (a) the land, easements, or rights-of-way acquired or to be acquired by the local organization for such reservoir or other area, and (b) minimum basic facilities needed for public health and safety, access to, and use of such reservoir or other area for such purposes: Provided further, That the Secretary shall be authorized to participate in recreational development in any watershed project only to the extent that the need therefore is demonstrated in accordance with standards established by him, taking into account the anticipated man-days of use of the projected recreational development and giving consideration to the availability within the region of existing water-based outdoor recreational developments: Provided further, That the Secretary shall be authorized to participate in not more than one recreational development in a watershed project containing less than seventy-five thousand acres, or two such developments in a project containing between seventy-five thousand and one hundred and fifty thousand acres, or three such developments in projects exceeding one hundred and fifty thousand acres: Provided further, That when the Secretary and a local organization have agreed that the immediate acquisition by the local organization of land, easements, or rights-of-way is advisable for the preservation of sites for works of improvement included in a plan from encroachment by residential, commercial, industrial, or other development, the Secretary shall be authorized to advance to the local organization from funds appropriated for construction of works of improvement the amounts required for the acquisition of such land, easements or rights-of-way; and, except where such costs are to be borne by the Secretary, such advance shall be repaid by the local organization, with interest, prior to construction of the works of improvement, for credit to such construction funds: Provided further, That the Secretary shall be authorized to bear an amount not to exceed one-half of the costs of the land, easements, or rights-of-way acquired or to be acquired by the local organization for mitigation of fish and wildlife habitat losses, and that such acquisition is not limited to the confines of the watershed project boundaries;

(2) assume—

(A) such proportionate share, as is determined by the Secretary to be equitable in consideration of national needs and assistance authorized for similar purposes under other Federal programs, of the costs of installing any works of improvement, involving Federal assistance (excluding engineering costs), which is applicable to the agricultural phases of the conservation, development, utilization, and disposal of water or for fish and wildlife development, recreational development, ground water recharge, water quality management, or the conservation and proper utilization of land: Provided, That works of improvement for water quality management shall

consist primarily of water storage capacity in reservoirs for regulation of streamflow, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source, and shall be consistent with standards and regulations adopted by the Water Resources Council on Federal cost sharing for water quality management, and

(B) all of the cost of installing any portion of such works applicable to other purposes except that any part of the construction cost (including engineering costs) applicable to flood prevention and features relating thereto shall be borne by the Federal Government and paid for by the Secretary out of funds appropriated for the purposes of this chapter: Provided, That, in addition to and without limitation on the authority of the Secretary to make loans or advancements under section 1006a of this title, the Secretary may pay for any storage of water for present or anticipated future demands or needs for municipal or industrial water included in any reservoir structure constructed or modified under the provisions of this chapter as hereinafter provided: Provided further, That the cost of water storage to meet future demands may not exceed 30 per centum of the total estimated cost of such reservoir structure and the local organization shall give reasonable assurances, and there is evidence, that such demands for the use of such storage will be made within a period of time which will permit repayment within the life of the reservoir structure of the cost of such storage: Provided further, That the Secretary shall determine prior to initiation of construction or modification of any reservoir structure including such water supply storage that there are adequate assurances by the local organization or by an agency of the State having authority to give such assurances, that the Secretary will be reimbursed the cost of water supply storage for anticipated future demands, and that the local organization will pay not less than 50 per centum of the cost of storage for present water supply demands: And provided further, That the cost to be borne by the local organization for anticipated future demands may be repaid within the life of the reservoir structure but in no event to exceed fifty years after the reservoir structure is first used for the storage of water for anticipated future water supply demands, except that—

(1) no reimbursement of the cost of such water supply storage for anticipated future demands need be made until such supply is first used, and

(2) no interest shall be charged on the cost of such water-supply storage for anticipated future demands until such supply is first used, but in no case shall the interest-free period exceed ten years. The interest rate used for purposes of computing the interest on the unpaid balance shall be determined in accordance with the provisions of section 1006a of this title.

(3) make arrangements satisfactory to the Secretary for defraying costs of operating and maintaining such works of improvement, in accordance with regulations presented by the Secretary of Agriculture;

(4) acquire, or provide assurance that landowners or water users have acquired, such water rights, pursuant to State law, as may be needed in the installation and operation of

the work of improvement;

(5) obtain agreements to carry out recommended soil conservation measures and proper farm plans from owners of not less than 50 per centum of the land situated in the drainage area above each retention reservoir to be installed with Federal assistance; and

(6) submit a plan of repayment satisfactory to the Secretary for any loan or advancement made under the provisions of section 1006a of this title.

Sec. 1005. Works of improvement

(1) Engineering and other services; reimbursement; advances

At such time as the Secretary and the interested local organization have agreed on a plan for works of improvement, and the Secretary has determined that the benefits exceed the costs, and the local organization has met the requirements for participation in carrying out the works of improvement as set forth in section 1004 of this title, the local organization may secure engineering and other services, including the design, preparation of contracts and specifications, awarding of contracts, and supervision of construction, in connection with such works of improvement, by retaining or employing a professional engineer or engineers satisfactory to the Secretary or may request the Secretary to provide such services: Provided, That if the local organization elects to employ a professional engineer or engineers, the Secretary shall reimburse the local organization for the costs of such engineering and other services secured by the local organization as are properly chargeable to such works of improvement in an amount not to exceed the amount agreed upon in the plan for works of improvement or any modification thereof: Provided further, That the Secretary may advance such amounts as may be necessary to pay for such services, but such advances with respect to any works of improvement shall not exceed 5 per centum of the estimated installation cost of such works.

(2) Federal construction; request by local organization

Except as to the installation of works of improvement on Federal lands, the Secretary shall not construct or enter into any contract for the construction of any structure: Provided, That, if requested to do so by the local organization, the Secretary may enter into contracts for the construction of structures.

(3) Transmission of certain plans to Congress.

Whenever the estimated Federal contribution to the construction costs of works of improvement in the plan for any watershed or subwatershed area shall exceed \$5,000,000 or the works of improvement include any structure having a total capacity in excess of twenty-five hundred acre-feet, the Secretary shall transmit a copy of the plan and the justification therefore to the Congress through the President.

(4) Transmission of certain plans and recommendations to Congress.

Any plans for works of improvement involving an estimated Federal contribution to construction costs in excess of \$5,000,000 or including any structure having a total capacity in excess of twenty-five hundred acre-feet

(a) which includes works of improvement for reclamation or irrigation, or which affects public or other lands or wildlife under the jurisdiction of the Secretary of the Interior,

(b) which includes Federal assistance for floodwater detention structures,
(c) which includes features which may affect the public health, or
(d) which includes measures for control or abatement of water pollution, shall be submitted to the Secretary of the Interior, the Secretary of the Army, the Secretary of Health and Human Services, or the Administrator of the Environmental Protection Agency, respectively, for his views and recommendations at least thirty days prior to transmission of the plan to the Congress through the President. The views and recommendations of the Secretary of the Interior, the Secretary of the Army, the Secretary of Health and Human Services, and the Administrator of the Environmental Protection Agency, if received by the Secretary prior to the expiration of the above thirty-day period, shall accompany the plan transmitted by the Secretary to the Congress through the President.

(5) Rules and Regulations

Prior to any Federal participation in the works of improvement under this chapter, the President shall issue such rules and regulations as he deems necessary or desirable to carry out the purposes of this chapter, and to assure the coordination of the work authorized under this chapter and related work of other agencies, including the Department of the Interior and the Department of the Army.

Sec. 1006 Cooperative Programs

The Secretary is authorized in cooperation with other Federal and with States and local agencies to make investigations and surveys of the watershed of rivers and other waterways as a basis for the development of coordinated programs. In areas where the programs of the Secretary of Agriculture may affect public or other lands under the jurisdiction of the Secretary of the Interior, the Secretary of the Interior is authorized to cooperate with the Secretary of Agriculture in the planning and development of works or programs for such lands.

Sec. 1006a Loans or advancements for financing local share of costs; repayment; interest; maximum amount.

The Secretary is authorized to make loans or advancements

(a) to local organizations to finance the local share of costs of carrying out works of improvement provided for in this chapter, and

(b) to State and local agencies to finance the local share of costs of carrying out works of improvement (as defined in section 1002 of this title) in connection with the eleven watershed improvement programs authorized by section 13 of the Act of December 22, 1944 (58 Stat. 887), as amended and supplemented: Provided, That the works of improvement in connection with said eleven watershed improvement programs shall be integral parts of watershed or subwatershed work plans agreed upon by the Secretary of Agriculture and the concerned State and local agencies. A loan or advance under this section shall be made under a contract or agreement that provides, under such terms and conditions as the Secretary considers appropriate, for the repayment of the loan or advance in not more than 50 years from the date when the principal benefits of the works of improvement first become available, with interest at a rate

not to exceed the current market yield for outstanding municipal obligations with remaining periods to maturity comparable to the average maturity for the loan, adjusted to the nearest 1 / 8 of 1 percent. With respect to any single plan for works of improvement, the amount of any such loan or advancement shall not exceed \$10,000,000.

Sec. 1006b Territorial application.

The provisions of this chapter shall be applicable to Hawaii, Alaska, Puerto Rico, and the Virgin Islands.

Sec. 1007. Authorization of appropriations

There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this chapter, such sums to remain available until expended. No appropriation hereafter available for assisting local organizations in preparing and carrying out plans for works of improvement under the provisions of section 1003 of this title or clause (a) of section 1006a of this title shall be available for any works of improvement pursuant to this chapter or otherwise in connection with the eleven watershed improvement programs authorized by section 13 of the Act of December 22, 1944 (58 Stat. 887), as amended and supplemented, or for making loans or advancements to State and local agencies as authorized by clause (b) of section 1006a of this title.

Sec. 1008 Notification of Secretary of the Interior of approval of assistance; surveys and investigations; report and recommendations; consideration; cost of surveys; investigations and reports.

When the Secretary approves the furnishing of assistance to a local organization in preparing a plan for works of improvement as provided for in section 1003 of this title:

(1) The Secretary shall so notify the Secretary of the Interior in order that the latter, as he desires, may make surveys and investigations and prepare a report with recommendations concerning the conservation and development of wildlife resources and participate, under arrangements satisfactory to the Secretary of Agriculture, in the preparation of a plan for works of improvement that is acceptable to the local organization and the Secretary of Agriculture.

(2) Full consideration shall be given to the recommendations contained in any such report of the Secretary of the Interior as he may submit to the Secretary of Agriculture prior to the time the local organization and the Secretary of Agriculture have agreed on a plan for works of improvement. The plan shall include such of the technically and economically feasible works of improvement for wildlife purposes recommended in the report by the Secretary of the Interior as are acceptable to, and agreed to by, the local organization and the Secretary of Agriculture, and such report of the Secretary of the Interior shall, if requested by the Secretary of the Interior, accompany the plan for works of improvement when it is submitted to the Secretary of Agriculture for approval or transmitted to the Congress through the President.

(3) The cost of making surveys and investigations and of preparing reports concerning the conservation and development of wildlife resources shall be borne by the Secretary of the Interior out of funds appropriated to his Department.

Sec. 1009 Joint investigations and surveys by Secretary of the Army and Secretary of Agriculture; reports to Congress.

The Secretary of the Army and the Secretary of Agriculture, when authorized to do so by resolutions adopted by the Committee on Environment and Public Works of the Senate or the Committee on Public Works and Transportation of the House of Representatives, are authorized and directed to make joint investigations and surveys in accordance with their existing authorities of watershed areas in the United States, Puerto Rico, and the Virgin Islands, and to prepare joint reports on such investigations and surveys setting forth their recommendations for the installation of the works of improvement needed for flood prevention or the conservation, development, utilization, and disposal of water, and for flood control and allied purposes. Such joint reports shall be submitted to the Congress through the President for adoption and authorization by the Congress of the recommended works of improvement: Provided, That the project authorization procedure established by this chapter shall not be affected.

Sec. 1010 Data.

The Secretary shall collect and maintain data on a national and State by State basis concerning -

- (1) expenditures for the individual flood control and conservation measures for which assistance is provided under this chapter; and
- (2) the expected flood control or environmental (including soil erosion) benefits that will result from the implementation of such measures.

Sec. 1011. Watershed restoration and enhancement agreements

(a) In general.—

For fiscal year 1997 and each fiscal year thereafter, appropriations made for the Bureau of Land Management may be used by the Secretary of the Interior for the purpose of entering into cooperative agreements with the heads of other Federal agencies, tribal, State, and local governments, private and nonprofit entities, and landowners for the protection, restoration, and enhancement of fish and wildlife habitat and other resources on public or private land and the reduction of risk from natural disaster where public safety is threatened that benefit these resources on public lands within the watershed.

(b) Direct and indirect watershed agreements

The Secretary of the Interior may enter into a watershed restoration and enhancement agreement—

- (1) directly with a willing private landowner; or
- (2) indirectly through an agreement with a state, local, or tribal government or other public entity, educational institution, or private nonprofit organization.

(c) Terms and conditions

In order for the Secretary to enter into a watershed restoration and enhancement agreement –

- (1) the agreement shall –
 - (A) include such terms and conditions mutually agreed to by the Secretary and

- the landowner;
 - (B) improve the viability of and otherwise benefit the fish, wildlife, and other biotic resources on public land in the watershed;
 - (C) authorize the provision of technical assistance by the Secretary in the planning of management activities that will further the purposes of the agreement;
 - (D) provide for the sharing of costs of implementing the agreement among the Federal government, the Landowner, and other entities, as mutually agreed on by the affected interests; and
 - (E) ensure that any expenditure by the Secretary pursuant to the agreement is determined by the Secretary to be in the public interest; and
- (2) the Secretary may require such other terms and conditions as are necessary to protect the public investment on private lands, provided such terms and conditions are mutually agreed to by the Secretary and other landowners, State and local governments or both.

Sec. 1012. Rehabilitation of structural measures near, at, or past their evaluated life expectancy

(a) Definitions

For purposes of this section:

(1) Rehabilitation

The term "rehabilitation", with respect to a structural measure constructed as part of a covered water resource project, means the completion of all work necessary to extend the service life of the structural measure and meet applicable safety and performance standards. This may include:

- (A) protecting the integrity of the structural measure or prolonging the useful life of the structural measure beyond the original evaluated life expectancy;
- (B) correcting damage to the structural measure from a catastrophic event;
- (C) correcting the deterioration of structural components that are deteriorating at an abnormal rate;
- (D) upgrading the structural measure to meet changed land use conditions in the watershed served by the structural measure or changed safety criteria applicable to the structural measure; or
- (E) decommissioning the structure, if requested by the local organization.

(2) Covered water resource project

The term "covered water resource project" means a work of improvement carried out under any of the following:

- (A) This chapter
- (B) Section 13 of the Act of December 22, 1944 (Public Law 78-534; 58 Stat. 905).
- (C) The pilot watershed program authorized under the heading "Flood Prevention" of the Department of Agriculture Appropriation Act, 1954 (Public Law 156; 67 Stat. 214).
- (D) Subtitle H of title XV of the Agriculture and Food Act of 1981 (16 U.S.C. 3451 et seq.; commonly known as the Resource Conservation and Development Program).

(3) Structural measure

The term "structural measure" means a physical improvement that impounds water, commonly known as a dam, which was constructed as part of a covered water resource project, including the impoundment area and flood pool.

(b) Cost share assistance for rehabilitation

(1) Assistance authorized

The Secretary may provide financial assistance to a local organization to cover a portion of the total costs incurred for the rehabilitation of structural measures originally constructed as part of a covered water resource project. The total costs of rehabilitation include the costs associated with all components of the rehabilitation project, including acquisition of land, easements, and rights-of-ways, rehabilitation project administration, the provision of technical assistance, contracting, and construction costs, except that the local organization shall be responsible for securing all land, easements, or rights-of-ways necessary for the project.

(2) Amount of assistance; limitations

The amount of Federal funds that may be made available under this subsection to a local organization for construction of a particular rehabilitation project shall be equal to 65 percent of the total rehabilitation costs, but not to exceed 100 percent of actual construction costs incurred in the rehabilitation. However, the local organization shall be responsible for the costs of water, mineral, and other resource rights and all Federal, State, and local permits.

(3) Relation to land use and development regulations

As a condition on entering into an agreement to provide financial assistance under this subsection, the Secretary, working in concert with the affected unit or units of general purpose local government, may require that proper zoning or other developmental regulations are in place in the watershed in which the structural measures to be rehabilitated under the agreement are located so that –

(A) the completed rehabilitation project is not quickly rendered inadequate by additional development; and

(B) society can realize the full benefits of the rehabilitation investment.

(c) Technical assistance for watershed project rehabilitation

The Secretary, acting through the Natural Resources Conservation Service, may provide technical assistance in planning, designing, and implementing rehabilitation projects should a local organization request such assistance. Such assistance may consist of specialists in such fields as engineering, geology, soils, agronomy, biology, hydraulics, hydrology, economics, water quality, and contract administration.

(d) Prohibited use

(1) Performance of operation and maintenance

Rehabilitation assistance provided under this section may not be used to perform operation and maintenance activities specified in the agreement for the covered water resource project entered into between the Secretary and the local organization responsible for the works of improvement. Such operation and maintenance activities shall remain the responsibility of the local organization, as provided in the project work plan.

(2) Renegotiation

Notwithstanding paragraph (1), as part of the provision of financial assistance under subsection (b) of this section, the Secretary may renegotiate the original agreement for the covered water resource project entered into between the Secretary and the local organization regarding responsibility for the operation and maintenance of the project when the rehabilitation is

finished.

(e) Application for rehabilitation assistance

A local organization may apply to the Secretary for technical and financial assistance under this section if the application has also been submitted to and approved by the State agency having supervisory responsibility over the covered water resource project at issue or, if there is no State agency having such responsibility, by the Governor of the State. The Secretary shall request the State dam safety officer (or equivalent State official) to be involved in the application process if State permits or approvals are required. The rehabilitation of structural measures shall meet standards established by the Secretary and address other dam safety issues. At the request of the local organization, personnel of the Natural Resources Conservation Service of the Department of Agriculture may assist in preparing applications for assistance.

(f) Ranking of requests for rehabilitation assistance

The Secretary shall establish such system of approving rehabilitation requests, recognizing that such requests will be received throughout the fiscal year and subject to the availability of funds to carry out this section, as is necessary for proper administration by the Department of Agriculture and equitable for all local organizations. The approval process shall be in writing, and made known to all local organizations and appropriate State agencies.

(g) Prohibition on certain rehabilitation assistance

The Secretary may not approve a rehabilitation request if the need for rehabilitation of the structure is the result of a lack of adequate maintenance by the party responsible for the maintenance.

(h) Authorization of appropriations

There is authorized to be appropriated to the Secretary to provide financial and technical assistance under this section -

- (1) \$5,000,000 for fiscal year 2001;
- (2) \$10,000,000 for fiscal year 2002;
- (3) \$15,000,000 for fiscal year 2003;
- (4) \$25,000,000 for fiscal year 2004; and
- (5) \$35,000,000 for fiscal year 2005.

(i) Assessment of rehabilitation needs

The Secretary, in concert with the responsible State agencies, shall conduct an assessment of the rehabilitation needs of covered water resource projects in all States in which such projects are located.

(j) Recordkeeping and reports

(1) Secretary

The Secretary shall maintain a data base to track the benefits derived from rehabilitation projects supported under this section and the expenditures made under this section. On the basis of such data and the reports submitted under paragraph (2), the Secretary shall prepare and submit to Congress an annual report providing the status of activities conducted under this section.

(2) Grant recipients

Not later than 90 days after the completion of a specific rehabilitation project for which assistance is provided under this section, the local organization that received the assistance shall make a report to the Secretary giving the status of any rehabilitation effort undertaken using financial assistance provided under this section.