
Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Table of Contents

Amended June 2024

Subpart A – Program Criteria

- 500.0 Authority, Purpose, and Scope
- 500.1 Watershed Program Overview
- 500.2 Relationship to Other Programs
- 500.3 Eligible Purposes
- 500.4 Project Scope

Subpart B – Responsible Parties

- 500.10 NRCS Responsibilities
- 500.11 Sponsor Eligibility and Responsibilities

Subpart C – Application for Assistance

- 500.20 Request for NRCS Planning Assistance
- 500.21 Watershed Project Planning Funding
- 500.22 Withdraw or Termination of an Application

Subpart D – Program Administrative Requirements

- 500.30 Civil Rights
- 500.31 Administrative Record Requirement
- 500.32 Federal Laws, Regulations, Executive Orders, Other Authorities

Subpart E – Program Cost Sharing

- 500.40 Cost-Share Authority
- 500.41 Cost-Share Policy

Figure 500E-1: Federal Cost-Sharing Percentage Provisions for Conservation Easements and Mitigation of Fish and Wildlife Habitat Losses

500.42 Cost-Share Rates for Watershed Program Purposes

Figure 500E-2: Federal Cost-Sharing Percentage Provisions by Purpose

500.43 Relocation Payments

Subpart F – Requesting Funds

500.50 General

500.51 NRCS State Responsibilities

500.52 NRCS National Responsibilities

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart A – Program Criteria

Amended June 2024

500.0 Authority, Purpose, and Scope

A. Authority

1. Title 390 National Watershed Program Manual (NWPM) Parts 500 through 506 provides policy for the delivery of technical and financial assistance authorized by either of the following:
 - a. Watershed Protection and Flood Prevention Act of 1954, as amended (Pub. L. No. 83-566)
 - b. Flood Control Act of 1944, as amended (Pub. L. No. 78-534)

B. Purpose

1. This manual establishes the policy and procedures for delivering the NRCS Watershed Program authorized by Pub. L. No. 83-566 (see 390 NWPH § 606.1 and Pub. L. No. 78-534 § 606.2).
 - a. Title 7 of the Code of Federal Regulations (CFR) Part 622 provides the general policies for planning and implementing watershed projects under Pub. L. No. 83-566 and flood prevention projects under Pub. L. No. 78-534 (see 390 NWPH § 606.3). Programmatic requirements for activities authorized by these two laws are identical unless noted otherwise. Hereinafter, the “Watershed Program” refers to activities carried out under the authority of these two laws.
 - b. Staff must follow the procedures in this manual when developing watershed project plans under the authorities established in Pub. L. No. 83-566 or Pub. L. No. 78-534. The goal of these procedures is to ensure that planning and implementation of projects meet all federal laws, regulations, Executive orders, and NRCS policies.

C. Scope

1. All watershed project plans developed for the Watershed Program and authorized under Pub. L. No. 83-566 or Pub. L. No. 78-534 must meet all requirements in this manual.
2. Watershed project plans developed under the NRCS Watershed Program will comprise all land and water within the confines of a drainage divide and must follow a hydrologic boundary. In the case of floodplain conservation easements, irrigation, or salinity projects, the watershed boundary may be based on the problem area or subsurface hydrologic area. The watershed area must include all direct tributary drainageways and lands in which water and sediment could adversely affect a proposed structural measure after project installation (such as an irrigation or drainage canal, floodway, or floodwater

retarding structure that is included in the plan). A watershed area may consist of two or more minor drainageways that are separate tributaries to a stream, artificial waterway, lake, or tidal area. Areas where a diversion brings in water may be excluded from the watershed if these sources of water have no significant effect on the flood prevention and water management resource concerns of the watershed area.

3. NRCS staff, through the Watershed Program, plans and implements watershed project actions. A project action is a formally planned undertaking that is carried out within a specified area by sponsors for the benefit of the general public (7 CFR § 650.4 (h)). Sponsoring local organizations (SLO) are local organizations (as defined in 16 U.S.C. § 1002) that have the legal authority and resources to install, operate, and maintain works of improvement (see 390 NWPM § 500.11(A) for SLO eligibility requirements).
4. Watershed Program planning and implementation must comply with applicable federal, state, and local laws, regulations, and Executive orders (EO). A partial listing of the related federal laws, regulations, and EOs is found in 390 NWPM § 500.32 of this manual. This includes Drug-Free Workplace (7 CFR Part 3021) requirements and Controlled Substance Act (21 U.S.C. § 812) prohibitions.

500.1 Watershed Program Overview

A. Watersheds Under Pub. L. No. 83-566

1. Under Pub. L. No. 83-566 § 1, the Secretary of Agriculture is authorized to “cooperate with states and local agencies in planning and carrying out works of improvement for soil conservation and for other purposes.” USDA is authorized to provide technical, financial, and credit assistance to SLOs representing the people living in watersheds, as well as any additional treatment and protection of federally owned lands within such watersheds.
2. The Watershed Program requires the development of physically, environmentally, socially, and economically sound watershed project plans with actions scheduled to be implemented over a specified period of years. Watershed project plans evaluate project actions, which are formally planned undertakings carried out by SLOs within a specified geographic area for the benefit of the general public.
3. All Watershed Program projects are “water resource projects” and must be designed to accomplish one or more of the general purposes described in 390 NWPM, Part 500, Subpart A “Program Criteria.” The watershed planning process must identify the most economically, socially, and environmentally acceptable means of achieving an eligible project purpose or purposes.

B. Watersheds Under Pub. L. No. 78-534

1. Under Pub. L. No. 78-534, USDA has responsibility for 11 selected watersheds. NRCS and the Forest Service manage planning watersheds and installing measures to reduce runoff and erosion with assistance from other agencies. The following 11 watersheds were individually authorized in Pub. L. No. 78-534 § 13:
 - a. Buffalo Creek (New York)
 - b. Coosa River (Georgia and Tennessee)

- c. Little Sioux River (Iowa and Minnesota)
- d. Little Tallahatchie River (Mississippi)
- e. Los Angeles River (California)
- f. Colorado River (Texas)
- g. Potomac River (Virginia, West Virginia, Maryland, and Pennsylvania)
- h. Santa Ynez River (California)
- i. Trinity River (Texas)
- j. Washita River (Oklahoma and Texas)
- k. Yazoo River (Mississippi)

C. Notification for Special Designated Areas

1. Special commissions have been established with statutory authority to coordinate resource planning and development activities specific to the water resources programs in several specially designated areas. NRCS has both formal and informal agreements with officials in these areas to coordinate and keep them informed of progress during planning and operations. The specially designated areas are:
 - a. Appalachia
 - b. Delaware River Basin
 - c. Susquehanna River Basin
 - d. Tennessee Valley Authority Area
2. See 390 NWPH Part 602 Subpart E, for additional information on coordination with specially designated areas.

500.2 Relationship to Other Programs

- A. Watershed Program funds may be used in a complementary manner with other USDA natural resource conservation programs to reach project objectives, except as noted in cost-share policy provided in 390 NWPM § 500.41. Watershed Program assistance may not be used when the project can be installed by individual landowners or the collective action of multiple landowners under alternative financial assistance (7 CFR § 622.11(a)(6)).

500.3 Eligible Purposes

A. General Purposes

1. The three general purposes for Watershed Program projects established in Pub. L. No. 83-566 § 1 are:
 - a. flood prevention (including structural and land treatment measures);
 - b. the conservation, development, utilization, and disposal of water; or
 - c. the conservation and proper utilization of land in watershed or subwatershed areas not exceeding 250,000 acres. The project may not include any single structure which provides more than 12,500 acre-feet of floodwater detention capacity and more than 25,000 acre-feet of total capacity.

2. To achieve these purposes, Pub. L. No. 83-566 § 3 authorizes NRCS to provide any necessary technical assistance to SLOs preparing and implementing watershed project plans. NRCS technical assistance includes the following:
 - a. conducting any investigations and surveys necessary to prepare plans for works of improvement;
 - b. preparing plans and estimates required for adequate planning and engineering evaluations;
 - c. allocating costs to the various purposes showing the basis of such allocations and determining whether benefits exceed costs;
 - d. cooperating and entering into agreements with and furnishing financial and other assistance to one or more SLOs;
 - e. obtaining the cooperation and assistance of other federal agencies in carrying out the purposes of this section; and
 - f. entering into agreements with landowners and operators based on conservation plans developed in cooperation with and approved by the local soil and water conservation district, providing for changes in cropping systems and land uses, and installing soil and water conservation practices and measures needed to enhance water quality and to conserve and develop soil, water, woodland, wildlife, energy, recreation, and resources.
3. Works of improvement planned for these purposes are installed on non-federal land by the SLO to benefit groups of landowners and communities. Works of improvement installed on federal land will be maintained by the SLO in accordance with mutually satisfactory arrangements made between the SLO, the land administering agency, and NRCS.

B. Authorized Project Purposes

1. Federal assistance is authorized for the following project purposes.
 - a. Flood Prevention (Flood Damage Reduction)
 - (1) Flood prevention or flood damage reduction measures are installed to prevent or reduce damages caused by floodwater. Flood damage reduction is defined as the control and disposal of surface water caused by abnormally high direct precipitation, snowmelt, stream overflow, or floods aggravated or caused by wind or tidal effects. Consider nonstructural alternatives to prevent or reduce flood damages for any project involving flood prevention (33 U.S. Code § 701b-11). Flood damage reduction and mitigation measures reduce or prevent floodwater damages by (1) reducing runoff, erosion, and sediment; (2) modifying the susceptibility of improvements in the floodplain to damage; (3) removing damageable property from the floodplain; or (4) reducing the frequency, depth, or velocity of flooding. Measures may also include actions that prevent encroachment into the floodplain.
 - (2) The SLO must obtain agreements to implement recommended soil conservation measures and conservation plans from owners for at least 50 percent of the lands situated in the drainage area above each retention reservoir to be installed with federal assistance (Pub. L. No. 83-566 § 4).

b. Watershed Protection

(1) Watershed protection consists of onsite treatment of watershed natural resource concerns for the primary purposes of reducing offsite floodwater, erosion, sediment, and agriculture-related pollutants. Watershed protection plans may include ecosystem restoration activities. Any practice or combination of practices listed in Title 450 of the National Handbook of Conservation Practices may be considered for inclusion in the systems of practices included in a watershed protection project plan. Watershed protection works of improvement involve land treatment practices installed by land users to conserve and develop resources. They include, but are not limited to, practices for conserving and developing any of the following:

- soil
- water quality and quantity
- woodland
- ecosystem restoration
- fish and wildlife habitat
- energy
- air quality
- cultural resources
- aesthetic resources
- recreation and scenic resources

(2) For conservation practices that involve the temporary storage of water, the drainage area above structures should be protected to prevent sedimentation from adversely affecting the practice, or a plan for periodic sediment removal should be developed.

(3) Before beginning construction of the retention reservoir, the necessary land treatment practices must be installed to ensure that at least 50 percent of the land upstream from any retention reservoir is adequately protected.

c. Public Recreation

(1) Public recreation may only be used as a project purpose in conjunction with another authorized purpose. Public recreation developments may be included in a watershed project plan when the SLO agrees to operate and maintain a reservoir or other area for public recreation. Project works of improvement paid for with federal funding should only include the minimum basic facilities needed for public health and safety and access to and use of the area.

d. Public Fish and Wildlife

(1) Fish and wildlife development areas may be included in a watershed project plan when the SLO agrees to operate and maintain a reservoir or other area for public fish and wildlife access. Measures installed for public use of areas that are developed to improve the habitat or the environment for the breeding and growth, and development of fish and wildlife may be included in a watershed project plan. Assistance for ecosystem restoration measures are also provided under this purpose.

e. Agricultural Water Management

- (1) Agricultural water management includes rural and agricultural water supply, drainage, ground water recharge, irrigation, water conservation, and water quality improvement.
- (2) Rural water supply project measures are primarily to provide a dependable water supply to meet present or anticipated future demands for agricultural use in rural areas, including all uses of water necessary to meet the needs of households, farmsteads, or community facilities.
- (3) Rural communities are defined as areas having a population of less than 50,000 people. Outlet works and pipelines needed to convey water from the reservoir to the existing or proposed treatment facilities or water system are also considered project measures.
- (4) The planning, design, and installation of rural drinking water wells and any necessary power supply for the operation of the well may be considered watershed project measures. Water treatment components and distribution systems as well as electric distribution facilities fall outside the scope of the Watershed Program.

f. Municipal and Industrial Water Supply

- (1) Municipal and industrial (M&I) water supply includes measures necessary to provide storage capacity in reservoirs to increase the availability of water for present and future M&I use.
- (2) Outlet works and pipelines needed to convey water from the reservoir to the existing or proposed treatment facilities or water system are also considered project measures.
- (3) Planning, design, and installation of M&I industrial water wells, water treatment plants, distribution systems, and electric distribution facilities fall outside the scope of the Watershed Program.

g. Water Quality Management

- (1) Water quality management measures provide water storage capacity in reservoirs for the regulation of stream flow to improve water quality in streams.

500.4 Project Scope

A. Watershed and Structure Size

1. The maximum watershed and structure size for works of improvement is defined in Pub. L. No. 83-566 § 2. Any changes in the maximum watershed or structure size requires congressional approval.
 - a. Maximum Watershed Size. For the purposes of the Watershed Program, the maximum watershed or subwatershed size is 250,000 acres. An SLO may plan multiple subwatersheds concurrently in separate plans when they are part of a watershed larger than 250,000 acres (16 U.S.C. § 1002). This limitation does not apply to Pub. L. No. 78-534 subwatershed project plans.

- b. Maximum Structure Size. A Watershed Program plan may not include a structure providing more than 12,500 acre-feet of floodwater detention capacity or more than 25,000 acre-feet of total capacity. Total capacity is defined as the total volume of space available for water and sediment upstream of a dam below the elevation at which discharge begins in the primary auxiliary spillway. This limitation does not apply to subwatershed project plans under Pub. L. No. 78-534.

B. Federal Objective

1. The federal objectives of the Principles, Requirements, and Guidelines (PR&G) in Departmental Manual (DM) 9500-13 specify that federal water resource investments must reflect national priorities, encourage economic development, and protect the environment by:
 - a. seeking to maximize sustainable economic development;
 - b. seeking to avoid the unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood-prone area must be used; and
 - c. protecting and restoring the functions of natural systems and mitigating any unavoidable damage to natural systems.

C. Cost Sharing and Project Authorized Purposes

1. Watershed project plans will include allocating installation costs to the various project purposes and will show the basis of these allocations and whether benefits exceed costs (16 U.S.C. § 1003(a)(3)). These benefits should include both monetized and non-monetized benefits (see section 500.4(E) of this subpart).

D. Floodplain Management

1. In watershed planning, the approach to floodplain management should consider the interconnectedness between physical, ecological, economic, and social and cultural systems. If physical changes to the watershed are implemented by others during a watershed study, modifications to the floodplain need to fully consider any impact to the system.

E. Public Benefits and Benefit Evaluations

1. Public benefits encompass environmental, economic, and social goals. Watershed project plans must include monetary and non-monetary effects and consider both quantified and unquantified measures (PR&G, Chapter 1, § 2 and DM 9500-13, § 9). The PR&G process will be used to identify tradeoffs between environmental, economic, and social goals as well as their associated monetary and non-monetary effects (DM 9500-13, § (6)(b)(6)).
2. Watershed planning may involve analyzing and evaluating benefits, including identifying economic and environmental benefits, cost-effectiveness, incremental cost analyses, and tradeoffs. Watershed planning may involve a wide variety of proven economic methodologies that are appropriate to the study effort, including monetary and non-monetary assessments based on yielding the highest value or utility for an alternative's combined objectives and its identified needs.

3. Sound economic principles and expertise should be applied in watershed planning and should be scaled appropriately to meet the needs of the study. The economic principles in “Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies,” (P&G, 1983) remain valid and reiterated in NRCS Economic Handbooks and in Office of Management and Budget (OMB) Circular A4. More guidance on the level of analysis necessary can be found in 390 NWPM § 501.30.
4. In all planning situations, the uncertainties, assumptions, specifications, and planning objectives need to be identified early in the study and then clearly documented and communicated. In addition, the adequacy of these conditions must be documented throughout the review processes.
 - a. Monetary benefits and applicable costs in a benefit-cost framework consist of real changes to national output of goods and services. The appropriate costs and related benefits establish the benefit-cost ratio and net monetized benefits. Costs avoided by rejecting one alternative will not be included as benefits to other alternatives.
 - b. Ecosystem services may include aspects of the national output of goods and services. Those that are monetizable will be included in the benefit-cost ratio and net benefits calculation. Non-monetary ecosystem services may be used as tradeoffs.
 - c. The tradeoff analysis will include all applicable non-monetary costs and benefits that are otherwise appropriate to include in a benefit-cost framework associated with real changes in national output.
 - d. Any other project benefits that are not part of the benefit costs framework (in the context of national output of goods and services) will be used as part of the tradeoff analysis, when applicable. These may be associated with local and regional economic conditions, including income and employment (regional economic development).
 - e. The public benefits, both monetary and non-monetary, should be compared with the costs to determine if the selected plan is beneficial.
 - f. Each project must contain benefits directly related to agriculture, including rural communities. Benefits to agriculture and rural communities must account for at least 20 percent of the total benefits of the project (Pub. L. No. 83-566 § 2). This requirement does not apply to subwatershed project plans under Pub. L. No. 78-534.

F. Recreational Development Limitations

1. According to Pub. L. No. 83-566 § 4(1), the number of recreation developments within a watershed must be limited by the size of the watershed with no more than one development in a watershed project of less than 75,000 acres; two developments in a project of between 75,000 and 150,000 acres; or three developments (the maximum allowed) in a project of more than 150,000 acres. Need must be demonstrated, considering the anticipated day use of the projected recreational development as well as the regional availability of existing water-based outdoor recreational developments.
2. Private development within real property rights acquired with federal cost-share funds for the purpose of public fish and wildlife or public recreation is prohibited. The exception to this is for facilities that are constructed or operated by private concessionaires on a controlled permit basis to serve the planned use of the improvement or development approved by the SLO and NRCS.

G. Water Quality Management Reservoir Storage Limitations

1. Works of improvement for water quality management that consist of water storage capacity in reservoirs for regulation of streamflow should not be provided as a substitute for adequate treatment or other methods of controlling waste at the source (Pub. L. No. 83-566 § 4(2)). These works of improvement for water quality management must be consistent with state water quality standards developed in accordance with the Federal Water Pollution Control Act (otherwise known as the Clean Water Act (CWA) 33 U.S.C §1251, as amended (Pub. L. No. 112-328 §§ 208 and 319)).

H. Public Involvement, Collaboration and Coordination

1. Public involvement, collaboration, and consultation with affected federal, state, federally recognized American Indian tribal governments, Native Hawaiian Organizations (NHO), and interstate and other local government entities in compliance with the National Environmental Policy Act (NEPA) must be formed at the beginning of the planning process (40 CFR §§ 1501.7(h)(1), 1501.8(b)(1), and 1501.9(a)) and must continue throughout the planning process.
2. NEPA consultations with federally recognized tribes, tribal historic preservation officers (THPO), and NHOs are inherently governmental (government-to-government) and cannot be delegated to technical service providers (TSP), contractors, SLOs, other agencies, or individuals. They must be conducted by NRCS, and the state conservationist (STC) must sign the initial NEPA consultation letters. Subsequent NEPA letters can be signed by other NRCS staff if the STC and tribes or NHOs agree.
3. NEPA consultation compliance is not the same as National Historic Preservation Act (NHPA) compliance and does not satisfy requirements for NHPA consultation.

I. NHPA Section 1006, Consultation – Section 106 Consultation (see 390 NWPM § 501.2)

1. Prior to initiating formal consultation, Watershed Project administrators must consult the NRCS state cultural resources specialist (CRS) about NHPA Section 106 (Pub. L. No. 89-665 and 54 U.S.C. §§ 306101, et seq.) requirements to ensure that the specific consultation requirements are fulfilled. In accordance with NHPA Section 106, Watershed Project administrators must consult State Historic Preservation Officers (SHPO); tribes and NHO with ancestral land claims, traditional use claims, or traditional cultural property claims in or near the project area, even if the claimant tribe or NHO no longer resides within a geopolitical or state boundary; local governments; and other interested parties. The STC is the responsible federal official who signs the initial NHPA Section 106 consultation letters addressed to consulting parties. The CRS can sign subsequent consultation letters if the STC and the consulting parties agree.
2. The NHPA Section 106 consultation requirement with tribes or NHOs is inherently governmental (government-to-government) and cannot be delegated to TSPs, contractors, SLOs, other agencies, or individuals. According to 36 CFR § 800.2, the “agency official” (in the case of the NRCS, this is the STC) is responsible for compliance with NHPA.
3. The NHPA Section 106 consultation requirement with tribes and NHOs shall be conducted in a manner that is useful and meaningful to the tribes and NHOs and shall substantiate a “reasonable and good faith effort” as required by 36 CFR § 800.3(f)(2).

This requires more than an initial consultation letter. If no response to the initial letter is received, NRCS shall follow-up with an email and telephone call (at a minimum). Use additional email, telephone calls and in-person meetings as necessary when requested by tribal or NHO government officials.

4. Except for consultations concerning determinations and findings, NHPA Section 106 consultations do not have time limitations unless agreed upon by NRCS, SHPO, tribes, NHOs, and other NHPA consulting parties. A 30-day period for consultations about National Register of Historic Places determinations and findings are specified by 36 CFR § 800.3(c)(4).
5. Watershed Project Managers must keep a NHPA Section 106 project record containing all results of the NHPA Section 106 process. The contents of this record must be included in the project's administrative record.

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart B – Responsible Parties

Amended June 2024

500.10 NRCS Responsibilities

A. NRCS State Responsibilities

1. The state conservationist (STC) is responsible for the overall management of the Watershed Program in their assigned state and coordinates, organizes, and manages program activities to ensure that all phases of the program are carried out effectively and efficiently. As the responsible federal official (RFO), the STC is fully responsible for the content of the plan environmental document (i.e., watershed project plan – environmental evaluation (Plan-EE), watershed project plan – environmental assessment (Plan-EA), or watershed project plan – environmental impact statement (Plan-EIS)), regardless of the level of preparation by NRCS or any non-NRCS entities (sponsoring local organizations (SLO), contractors, non-governmental entities, etc.).
 - a. The STC will appoint a state watershed operations program manager.
 - b. The STC will appoint a state watershed rehabilitation program manager.
 - c. The state watershed operations program manager and state watershed rehabilitation program manager are responsible for duties assigned by the STC to administer their respective programs in compliance with applicable statutes, regulations, and policy.
 - d. State and federal requirements must be followed:
 - (1) Responsible State. The STC of the state the watershed (or the major portion thereof) is in will provide overall guidance and ensure that the watershed project plan adheres to all statutory, regulatory, and policy requirements of the state. The STC of the responsible state must contact the STCs of any state where the watershed extends and coordinate any planning and implementation activities for the adjoining states. The STC of the responsible state must receive in writing from the STC's of any state where the watershed extends the decision not to participate in a watershed project plan.
 - (2) Plans on Federal Lands. Project measures planned for installation on federal lands must conform to NRCS standards and specifications, as well as those of the land-administering agencies involved. Where differences in standards exist, measures must conform to the highest standard.

- (a) It is necessary to identify the lead federal agency for the purpose of complying with the National Historic Preservation Act (NHPA) Section 106.
 - (b) In addition, projects on federally-owned, managed, or administered lands and lands held in trust are subject to the provisions of the Antiquities Act (16 U.S.C. §§ 431–433), the Archeological Resources Protection Act (Pub. L. No. 96-95), and the Native American Grave Protection and Repatriation Act (Pub. L. No. 101-601), as well as policies of the agency that owns, manages, or administers the land. In the case of Native American reservations and tribe or native Hawaiian organization (NHO)-owned properties, projects are also subject to policies of the tribe or NHO.
 - (3) Fish and Wildlife Service Notification. The STC must contact the U.S. Fish and Wildlife Service (USFWS) for its recommendations regarding fish and wildlife resources, in accordance with the provisions of Pub. L. No. 83-566 § 12. Section 12 requirements are in addition to any consultation required under the Endangered Species Act of 1973 (16 U.S.C §§ 1531, et seq.).
2. Watershed Program Information Assistance
- a. NRCS will provide information to interested parties about the types of assistance available through the Watershed Program. After NRCS receives a request for planning assistance for a potential watershed project, NRCS will prepare a preliminary investigation findings report (PIFR) to determine if the potential project has any insurmountable obstacles and is eligible to be planned and implemented through the Watershed Program.
3. Preparation of the Watershed Project Plan
- a. NRCS will assist the SLO in preparing a watershed project plan with the cooperation and assistance of state, local, and other federal agencies, tribes or NHOs, and other consulting parties. If the watershed project boundary is located within multiple states, the STC of the state in which the major portion of the watershed is located must coordinate with the other states to complete the watershed project plan. The STC of the responsible state must receive in writing, from the STC's of any state where the watershed extends, the decision not to participate in a watershed project plan. The watershed project plan includes the watershed plan, and depending on the level of NEPA documentation, either an EE, EA, or EIS is required. The combined document evaluates and assesses all reasonable alternatives and their environmental, social, and economic impacts. When the entirety of the proposed action is covered by one or more categorical exclusions (CE), the Plan-EE will document the applicable CE.
 - b. In states where a programmatic EIS for watershed activities has been prepared, either a Plan-EE or Plan-EA tiered to the EIS will be prepared as appropriate and as outlined in the programmatic EIS. In some cases, a supplemental or new EIS may be required. NRCS is responsible for the content and quality of the Plan-EE, Plan-EA, or Plan-EIS for the purposes of compliance with NEPA, NHPA, and the Principles, Requirements, and Guidelines (PR&G) in Departmental Manual 9500-

13. NRCS and the SLO will each bear responsibility for funding their own costs incurred for watershed project planning and public participation.

4. Implementation Assistance

- a. NRCS will provide technical assistance, financial assistance, or both to install measures for projects included in an authorized watershed project plan. For watershed program purposes with cost-share rates that are to be comparable to similar federal programs, the STC will set the appropriate rate (390 NWPM § 500.42).

5. Real Property Rights Work Maps

- a. Work maps showing real property rights will be provided by NRCS to the SLO. In addition, responsibilities for real property rights are provided in 390 NWPM § 504.3.

6. Operation, Maintenance, & Replacement Assistance

- a. NRCS will provide technical assistance to the SLO in the operation, maintenance, and replacement (OM&R) of installed measures as defined in the OM&R agreement.

7. Conservation District or Natural Resource District Involvement

- a. NRCS will encourage the SLO to invite each conservation district and natural resource district in the project area to participate in watershed project activities as an official project SLO.

8. Prior to construction, NRCS will certify that not less than 50 percent of the lands in the drainage area above each proposed retention reservoir to be installed with Watershed Program funds have practices installed by landowners to implement soil conservation plans that meet NRCS Field Office Technical Guide (FOTG) criteria. For projects where federal or state lands are a part of the drainage area above a reservoir, the applicable land management plan can be used towards the 50 percent requirement.

9. The official administrative record will be maintained in the NRCS state office.

B. NRCS National Headquarters Responsibilities

1. The deputy chief for Programs is responsible for coordinating the development of national policy, standards, and procedures for project planning, installation, OM&R, and allocation of program funds. The deputy chief for Programs provides staff leadership and confers with the other divisions, as well as with appropriate federal agencies and congressional committees to deliver the program.
2. The appropriate national watershed program manager will review all watershed project plans. This includes plan modifications such as revised plans and supplemental plans.
3. The Chief approves watershed project plans for funding authorization (subject to appropriations) after all reviews and comments are satisfactorily addressed. The Chief will authorize a watershed project plan in written correspondence to the STC.

500.11 Sponsor Eligibility and Responsibilities

A. Sponsor Eligibility

1. Watershed project plans must be sponsored by one or more entities legally organized under state law or by any American Indian tribe, Alaska Native community, or NHO. SLOs can be (1) any state or political subdivision thereof (counties, municipalities); (2) any soil or water conservation district, flood prevention or control district, or combinations thereof; (3) any other agency having authority under state law to carry out, maintain, and operate 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 is eligible for approval by the Secretary; or (4) any Indian tribe or tribal organization, as defined in Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450b), having the authority to carry out, operate, and maintain works of improvement that, individually or collectively, meet the SLO responsibilities (7 CFR § 622.10(a)).

B. SLO Responsibilities

1. The STC must require and ensure that the SLOs of each project, individually or collectively, are willing and able to provide for the following functions listed.
 - a. Power of Eminent Domain and Real Property Rights. At least one SLO must have the power of eminent domain (7 CFR § 622.10(a)(1)) and be willing to use it as necessary. The SLO must acquire real property, water, mineral, and other real property rights needed for the project (Pub. L. No. 83-566 §§ 4(1) and (4)). This is not required for projects where all works of improvement are to be installed by land treatment long term contracts.
 - b. Permits and Licenses. The SLO must acquire needed permits and licenses in accordance with local, state, and federal laws.
 - c. Authority to Levy Taxes. At least one SLO must have and exercise the authority to levy taxes or provide another adequate means of financing the local share of the project costs, as well as OM&R expenses (7 CFR § 622.10(a)(2)).
 - d. Land Treatment Above Reservoirs. The SLO must obtain agreements from landowners to implement soil conservation plans that meet NRCS FOTG criteria on not less than 50 percent of the lands situated in the drainage area above each retention reservoir to be installed with Watershed Program funds (Pub. L. No. 83-566 § 4(4)). For projects where federal or state lands are a part of the drainage area above a reservoir, the applicable land management plan can be used towards the 50 percent requirement. This requirement does not apply to dams rehabilitated through the Pub. L. No. 566 rehabilitation program, except where sedimentation in the reservoir is significant.
 - e. Public Participation. The SLO must arrange for and carry out activities that encourage the public to participate in the watershed project planning process.
 - f. Financial. The SLO must show evidence of commitment for funding, installing, operating, and maintaining the project. The SLO will perform all contracting for construction of any structure, except that NRCS may perform contracting upon request from the SLO.

- g. Watershed Management. The SLO must implement the needed watershed management features, such as providing land treatments for upstream watershed protection; obtaining needed permits and easements; and assuring compliance with floodplain zoning, National Flood Insurance Program regulations, and other land use regulations.
- h. Public Recreation and Fish and Wildlife. Basic facilities for recreation or fish and wildlife may be designed by NRCS, SLOs, private engineers, or other professionals.
- i. Municipal and Industrial (M&I) Water Supply. The SLO must provide documentation that any proposed M&I water supply use will be acceptable in quantity and quality to meet the anticipated needs. For single-purpose M&I water supply implementation, the SLO must provide all technical services (Title 210 National Engineering Manual (210 NEM §16(4))).
- j. Operation, Maintenance, and Replacement. The SLO must use its powers and authority to ensure the installation, operation, maintenance, and replacement of the project as planned (7 CFR § 622.10(b)).
- k. Storm and Sanitary Sewers. The SLO has sole responsibility for new storm and sanitary sewers in urban or built-up areas, as well as for relocations and changes to existing sewer facilities.

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart C – Application for Assistance

Amended June 2024

500.20 Request for NRCS Planning Assistance

A. Preapplication Requirements

1. This section sets forth requirements for preparing and submitting an application for the Watershed Protection and Flood Prevention Operations (WFPO) Program. See 390 NWPM § 505.32 for Watershed Rehabilitation Program application requirements.
 - a. The sponsoring local organization (SLO) must request Watershed Program planning assistance for a WFPO project from the state conservationist (STC) in writing. After receiving the request, NRCS will prepare a preliminary investigation findings report (PIFR) to determine the feasibility of the potential project and its eligibility for the WFPO Program.
 - (1) When preparing a PIFR, the STC must notify in writing the entities listed below:
 - (a) State governors
 - (b) U.S. Fish and Wildlife Service (Department of Interior)
 - (c) National Oceanic Atmospheric Administration, National Marine Fisheries Service (where applicable)
 - (d) U.S. Army Corps of Engineers (Department of Army)
 - (e) All federal agencies concerned
 - (f) Indian tribes (including Alaska Natives) and native Hawaiian organizations (NHO) that may be impacted by the WFPO project
 - (2) When the PIFR is completed, the same entities must be informed if the STC plans to proceed with a full watershed planning effort (Executive Order 10584 § 3; Executive Order 13175; National Historic Preservation Act, 36 CFR Part 800; and NRCS National Instruction Title 190 Part 315, Tribal Ancestral Lands Consultation (TALC)).
 - b. If a request for planning assistance is for a WFPO watershed project plan that was previously authorized more than 5 years before the date of the current application or that may have substantial changes in the project economics, real property rights, environmental impact, or sponsorship, NRCS must develop a reaffirming feasibility report (RFR). Request for RFR funding must include:
 - (1) Sponsor Letter of Request

- (2) Plan of Work and cost estimate
- (3) Acknowledgement from STC of fund request
- c. The RFR documents the evaluation of the continued economic and environmental feasibility of the project, including its social defensibility, the state of, or need for, real property rights and easements acquisition, and the SLO's commitment to the project.
- d. The RFR determines whether the current watershed project plan may be used to implement the project or if the plan needs to be modified. See 390 NWPM Part 503 for further guidance. The RFR consists of the following sections:
 - (1) Economics. Evaluate the watershed project plan being implemented and determine the benefits (both monetary and non-monetary) relative to the estimated costs for any remaining measures. Changes to land use and resulting changes to the benefits and costs since the watershed project plan was authorized must be documented.
 - (2) Environmental. Determine whether the existing environmental document reflects the current conditions and, if not, what environmental document is needed for compliance. Determine whether any change is required to the mitigation that was not covered by the original or supplemented watershed project plan.
 - (3) Social. Evaluate whether the project or measures being implemented protect all groups of people equally according to the legal non-discrimination requirements and meet current safety standards and performance criteria.
 - (a) NRCS State Responsibilities
 - Determine whether the SLO meets 390 NWPM § 500.11 requirements.
 - Determine if the SLO is willing and able to participate fully in the project (including to exercise eminent domain if necessary).
 - Determine the current status of operation, maintenance, and replacement (OM&R) on any implemented measures in the project.
 - (b) Land Rights and Easements
 - Determine whether there are any additional real property rights or easements needed for project and the estimated cost.
 - Determine whether there are any habitable structures in the floodplain (500-year event).
 - Determine whether there are areas of induced flooding upstream or downstream that need to be addressed.
 - (c) Determine the status of rural development loans under 7 CFR part 1781 (see 390 NWPM § 504.12) or advance of funds from NRCS (390 NWPM § 504.13).
- e. When the RFR is completed, if the STC plans to proceed with a full watershed planning effort, the entities listed in section 500.20(A)(1)(a) of this subpart (Executive Order 10584 § 3, Executive Order 13175, 7 CFR § 622.32, and TALC) must be notified.

B. SLO Request for Planning Assistance

1. It is the responsibility of the SLO to request NRCS planning assistance and authorization to develop either a WFPO watershed project plan under Pub. L. No. 83-566 or a subwatershed plan under Pub. L. No. 78-534. An application for assistance must consist of the following items:
 - a. STC-approved PIFR or STC-approved RFR
 - b. Letter of request to the STC for planning assistance

500.21 Watershed Project Planning Funding

- A. Development of a WFPO watershed project plan will begin after the STC requests funds from the national WFPO program manager to prepare a WFPO watershed project plan and is given funding authorization from the Chief to begin planning. The STC should only request planning authorization for watershed project plans they are ready to commit technical resources to.
- B. The planning authorization to develop a WFPO watershed project plan is limited to 5 years. If the watershed project plan is not in interagency review within 5 years, the authorization will be cancelled.
- C. Requests for a planning funding must include the following items:
 1. An STC-approved PIFR (390 NWPM § 501.20) or RFR (390 NWPM § 500.21(1)(b));
 2. The appropriate state agency's current priority rating for the project application, including indication of support or being not disapproved;
 3. Independent government estimate for development of the plan through NRCS contract or agreement; and
 4. A plan of work (390 NWPM § 501.21).
 5. If the application fits one of the situations described in Executive Order 10584 as amended by Executive Order 10913 § 4(a) as listed below, the STC must coordinate as needed.
 - a. Department of the Interior, Bureau of Reclamation. When an application applies to a watershed located in one of the 17 western reclamation states or Hawaii and a major objective is related to the conservation, development, use, and disposal of water for irrigation purposes, the STC must request the views of the Secretary of the Interior about the feasibility of achieving equivalent irrigation benefits through the Bureau of Reclamation's existing authorities.
 - b. Department of Defense, U.S. Army Corps of Engineers. When it appears that a major objective of an application is the reduction of flood damages in urban areas (as defined in the most recent census), the STC must request the views of the Secretary of the Army about the feasibility of achieving equivalent urban flood protection benefits through the U.S. Army Corps of Engineers' existing authorities.

- c. Tennessee Valley Authority. When an application applies to a watershed located in the Tennessee River drainage basin, the STC must request the views of the Board of Directors of the Tennessee Valley Authority about the feasibility of achieving the application's objectives through works of improvement for flood control or watershed protection constructed under the existing authorities of the Tennessee Valley Authority.
- D. The STC must notify the following, in writing, of all approvals or disapprovals of applications for planning assistance:
 - 1. The SLO
 - 2. State governors
 - 3. Other concerned federal agencies
 - 4. American Indian tribes (including Alaska Native communities) and NHOs that were notified when the PIFR was initiated
- E. Funding Period of Performance Timeframes
 - 1. The following timeframes for completion of the respective phase must be adhered to, unless project-specific timeframes are calculated from a plan of work:
 - a. PIFR – up to 6 months.
 - b. Plan – up to 18 months.
 - c. Design – up to 24 months.
 - d. Construction – 60 months.
 - 2. Funds that are used for contracts or agreements must be obligated within 4 months of allocation or by agency-mandated timelines.
 - 3. For contracts or agreements, the time begins on the contract award date with the contracting period of performance consistent with the timeframes in section 500.21(F)(1) of this subpart. For work completed by NRCS staff, the time begins upon receipt of funds.
 - 4. The STC is responsible for ensuring that any unused funds are promptly returned to NHQ after project planning is completed, considering any funds that may be needed for NRCS staff to complete administrative tasks or close out any associated agreements or contracts.

500.22 Withdraw or Termination of an Application

A. Feasible WFPO Watershed Project Plan

A feasible WFPO watershed project plan is one within legal limits of Pub. L. No. 83-566 or Pub. L. No. 78-534 authority and includes an alternative that is more beneficial to society than the no action alternative and still has SLOs meeting section 500.11 requirements.

B. Withdrawal of Application

If at any time NRCS and the SLO determine that there is no possibility of developing a feasible or acceptable WFPO watershed project plan, the STC will encourage the SLO to withdraw the application in writing. The STC then returns the withdrawn application to the supervisory state agency or governor. If the STC determines that the application is invalid or infeasible, but the SLO does not withdraw it, the STC will return the application to the supervisory state agency or governor and the SLO with a letter explaining why the project is not feasible. The watershed project plan status will become terminated in the approved program management database once the application is withdrawn or determined to be unfeasible by the STC and is returned.

C. Termination of Planning

1. If at any time it becomes apparent that a feasible watershed project plan cannot be developed, the STC must terminate planning assistance and document the project as terminated in the approved program management database.
2. The STC must notify the SLO in writing that planning assistance is terminated and specify the reasons for termination. At the same time, those notified under Executive Order 12372 of the receipt of a valid watershed project application must be provided written notification of the termination and a copy of the letter sent to the SLO. If NRCS had published a notice of intent to prepare an environmental impact statement for the plan in the Federal Register, then they must publish a notice of termination in the Federal Register.
3. Once planning is terminated by the STC, no more funds may be used on the project and the project may not be reactivated. All remaining funds must be returned to national headquarters. If conditions change and it becomes possible to develop a feasible plan, the SLO must submit a new application for the project, which will be treated as a new project.

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart D – Program Administrative Requirements

Amended June 2024

500.30 Civil Rights

Program activities must be conducted in accordance with the Secretary’s equal opportunity initiatives and in compliance with Executive Order 12898. This ensures elimination of any program practices that result in inequitable treatment of groups protected by the Civil Rights Act of 1964 (Pub. L. No. 88-352) and equal access to the benefits of the Watershed Program.

500.31 Administrative Record Requirement

An administrative record containing data used in project development must be established by NRCS at the beginning of project planning and maintained throughout the life of the project. The administrative record is a vital part of watershed project documentation and National Environmental Policy Act (NEPA) compliance. It is used throughout the development, review, installation, and operation, maintenance, and replacement phases of a project. The official administrative record will be maintained in the NRCS state office.

500.32 Federal Laws, Regulations, Executive Orders, Other Authorities

- A. In addition to Pub. L. No. 83-566, numerous other federal laws, rules, regulations, Executive orders, USDA regulations, and NRCS policies and procedures are directly related to the administration of the Watershed Program.
- B. All work undertaken and performed under Pub. L. No. 83-566 must comply with all applicable federal, state, and local laws, orders, and policy as well as any amendments. The following list provides guidance but may not include all federal laws, regulations, Executive orders, and departmental policies that apply to watershed planning. It does not include state laws and local laws and policies that apply to watershed planning.
 - 1. Public Laws:
 - a. Pub. L. No. 85-624, Fish and Wildlife Coordination Act (16 U.S.C. §§ 661–666(c))
 - b. Pub. L. No. 86-523, Reservoir Salvage Act of 1960
 - c. Pub. L. No. 89-272, Solid Waste Disposal Act of 1965 (42 U.S.C. § 6901)
 - d. Pub. L. No. 89-487, Freedom of Information Act of 1966

- e. Pub. L. No. 89-665, National Historic Preservation Act of 1966 (NHPA), as amended
 - f. Pub. L. No. 90-542, Wild and Scenic Rivers Act of 1968
 - g. Pub. L. No. 91-190, National Environmental Policy Act of 1969
 - h. Pub. L. No. 91-646, Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. §§ 4601 et seq.)
 - i. Pub. L. No. 92-203, Alaska Native Claims Settlement Act, as amended
 - j. Pub. L. No. 92-583, Coastal Zone Management Act of 1972, as amended
 - k. Pub. L. No. 93-112, Rehabilitation Act, as amended in 1998 (29 U.S.C. § 794(d))
 - l. Pub. L. No. 93-205, Endangered Species Act of 1973
 - m. Pub. L. No. 93-502, Freedom of Information Act, as amended in 1974
 - n. Pub. L. No. 93-638, Indian Self-Determination and Education Assistance Act, as amended
 - o. Pub. L. No. 94-265, Magnuson-Stevens Fishery Conservation and Management Act
 - p. Pub. L. No. 94-580, Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.)
 - q. Pub. L. No. 95-192, Soil and Water Resources Conservation Act of 1977
 - r. Pub. L. No. 95-341, American Indian Religious Freedom Act of 1978 as amended
 - s. Pub. L. No. 96-95, Archaeological Resources Protection Act of 1979
 - t. Pub. L. No. 96-510, Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601 et seq.)
 - u. Pub. L. No. 97-98, Agricultural and Food Act of 1981, as amended (7 U.S.C. §§ 4201 et seq.)
 - v. Pub. L. No. 99-198, Food Security Act of 1985, as amended
 - w. Pub. L. No. 89-487, Freedom of Information Reform Act of 1986
 - x. Pub. L. No. 101-601, Native American Graves Protection and Repatriation Act
 - y. Pub. L. No. 101-624, Food, Agriculture, Conservation, and Trade Act of 1990
 - z. Pub. L. No. 103-344, American Indian Religious Freedom Act Amendments of 1994
 - aa. Pub. L. No. 104-127, Federal Agriculture Improvement and Reform Act of 1996
 - bb. Pub. L. No. 104-231, Electronic Freedom of Information Act Amendments of 1996
 - cc. Pub. L. No. 92-500, Federal Water Pollution Control Act (a.k.a. the Clean Water Act), as amended
 - dd. Navigation and Navigable Waters, Flood Control (33 U.S.C. §§ 701(b)–711)
 - ee. The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703–712, 40 Stat. § 755)
 - ff. The Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. §§ 668–668(d))
 - gg. The Antiquities Act of 1906 (16 U.S.C. §§ 431–433)
 - hh. The Clean Air Act (42 U.S.C. §§ 7401–7671q)
 - ii. The Rivers and Harbors Act of 1899 (33 U.S.C. § 403, 30 Stat. § 1121)
 - jj. Controlled Substance Act (21 U.S.C. § 812)
2. Code of Federal Regulations:
- a. Watershed Projects, 7 CFR Part 622
 - b. Emergency Watershed Protection, 7 CFR Part 624
 - c. Compliance with NEPA, 7 CFR Part 650

- d. Uniform Federal Assistance Regulations, 7 CFR Part 3015
 - e. Drug-Free Workplace, 7 CFR Part 3021
 - f. Contracts under the Indian Self-Determination and Education Assistance Act, as amended, 25 CFR Part 900
 - g. National Register of Historic Places, 36 CFR Part 60
 - h. Procedures for State, Tribal, and Local Government Historic Preservation Programs, 36 CFR Part 61
 - i. Determinations of Eligibility for Inclusion in the National Register of Historic Places, 36 CFR Part 63
 - j. Protection of Historic Properties, 36 CFR Part 800
 - k. National Environmental Policy Act Implementing Regulations, 40 CFR Parts 1500–1508
 - l. Preservation of American Antiquities, 43 CFR Part 3
3. Executive Orders, Secretarial Orders, and Presidential Memoranda:
- a. Exec. Order No. 10584, as amended by 10913, Prescribing Rules and Regulations Relating to the Administration of the Watershed Protection and Flood Prevention Act
 - b. Exec. Order No. 11514, Protection and Enhancement of Environmental Quality
 - c. Exec. Order No. 11747, Delegating Certain Authority of the President under the Water Resources Planning Act, as amended
 - d. Exec. Order No. 11988, as amended by 13690, Floodplain Management
 - e. Exec. Order No. 11990, Protection of Wetlands
 - f. Exec. Order No. 12322, Water Resources Projects
 - g. Exec. Order No. 12372, Intergovernmental Review of Federal Programs
 - h. Exec. Order No. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
 - i. Exec. Order No. 12962, Recreational Fisheries
 - j. Exec. Order No. 13007, Indian Sacred Sites
 - k. Exec. Order No. 13045, Protection of Children from Environmental Health Risks and Safety Risks
 - l. Exec. Order No. 13089, Coral Reef Protection
 - m. Exec. Order No. 13112, Invasive Species
 - n. Exec. Order No. 13175, Consultation and Coordination with Indian Tribal Governments
 - o. Exec. Order No. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
 - p. Exec. Order No. 13287, Preserve America
 - q. Exec. Order No. 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input
 - r. Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act
 - s. Secretarial Order 3403, Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters
 - t. Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments (April 29, 1994)
 - u. Presidential Memorandum on Tribal Consultation (November 5, 2009)

- v. Presidential Memorandum (M-16-01) on Incorporating Ecosystem Services into Federal Decision Making (October 7, 2015)
 - w. Council on Environmental Quality (CEQ) Memorandum, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations (1981, amended 1986)
 - x. Office of Science and Technology Policy and Council on Environmental Quality (OSTP/CEQ) Joint Memorandum, Indigenous Traditional Ecological Knowledge and Federal Decision Making (November 15, 2021)
 - y. OSTP/CEQ Joint Memorandum, Guidance for Federal Departments and Agencies on Indigenous Knowledge (November 30, 2022)
 - z. OSTP/CEQ Joint Memorandum, Implementation of Guidance for Federal Departments and Agencies on Indigenous Knowledge (November 30, 2022).
4. USDA Regulations:
- a. Departmental Regulation (DR) 1350-001, Tribal Consultation (2008)
 - b. DR 1340-007, Policies on American Indians and Alaska Natives” (2008)
 - c. DR 4370-001, Collection of Race, Ethnicity, and Gender Data for Civil Rights Compliance and Other Purposes In Regard To Participation in the Programs Administered by the Farm Service Agency, the Natural Resources Conservation Service, the Risk Management Agency, the Rural Business Service, the Rural Housing Service, and the Rural Utilities Service (2011)
 - d. DR 5600-002, Environmental Justice (1997)
 - e. DR 9500-013, Conducting Analyses under the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water Resource Investments” (2017)
5. NRCS General Manual Policy:
- a. Title 120 General Manual, Part 404, Land Treatment Long-Term Contracting
 - b. Title 180 General Manual, Part 409, Conservation Planning Policy
 - c. Title 190 General Manual, Part 410, Compliance with NEPA
 - d. Title 230 General Manual, Part 402, Civil Rights Policies
 - e. Title 230 General Manual, Part 403, Special Emphasis Programs
 - f. Title 400 General Manual, Part 400, Public Participation Policy
 - g. Title 410 General Manual, Part 405, American Indians and Alaska Natives
 - h. Title 420 General Manual, Part 401, Cultural Resources (Archeological and Historic Properties)
 - i. Title 440 General Manual, Part 401, Providing Services to State and Local Government
 - j. Title 450 General Manual, Part 401, Technical Guides
6. NRCS Procedures:
- a. Title 180 National Planning Procedures Handbook, Part 600
 - b. Title 190 National Cultural Resources Procedures Handbook, Part 601
 - c. Title 190 National Environmental Compliance Handbook, Part 610
 - d. Title 190 National Instruction, Part 315, Tribal Ancestral Lands Consultation Under the National Historic Preservation Act—Guidance for Natural Resources Conservation Service Employees

- e. Title 180 National Operations and Maintenance Manual, Part 500
 - f. Title 200 National Resource Economics Handbook, Part 610
 - g. Title 210 National Engineering Manual, Parts 500–544
 - h. Title 390 National Watershed Program Handbook, Part 600
 - i. Title 390 National Instruction, Part 301, Instructions for Reviewing Watershed Plans
7. Miscellaneous Documents
- a. Office of Management and Budget Circular A-4, Regulatory Analysis
 - b. President’s CEQ and Advisory Council on Historic Preservation, NEPA and NHPA: A Handbook for Integrating NEPA and Section 106
 - c. United States Water Resources Council, Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (“P&G”)

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart E – Program Cost Sharing

Amended June 2024

500.40 Cost-Share Authority

- A. Public Law 83-566. Financial assistance to the sponsoring local organization (SLO) and individual land users is authorized under Pub. L. No. 83-566. Cost sharing with the SLO is implemented through cooperative agreements (390 NWPM § 504.0(B)).
- B. Other Federal Laws. Under Pub. L. No. 91-646, agencies receiving federal financial assistance must provide relocation payments and assistance to displaced persons. This law also states that the displacing agency must be eligible for federal financial assistance for these costs in the same manner and to the same extent as other program or project costs.

500.41 Cost-Share Policy

- A. Watershed project plans must be developed for one or more project purposes. Cost-share rates are based on the project purposes, except for projects under the Watershed Rehabilitation Program (see paragraph I of this section). Authorized project purposes are listed in section 500.3(B) of this manual.
- B. The state conservationist is responsible for setting cost-share rates for measures to be included in each project, provided such federal assistance is within the policy limits in this manual. Figures 500E-1 and 500E-2 summarize the cost-sharing provisions. Projects with multiple purposes must follow the process described in section 500.42(I) of this subpart.
- C. Cost sharing will not be provided for watershed protection measures or easements on federal land, except for Pub. L. No. 78-534 projects (7 CFR § 622.3(c)).
- D. The SLO must pay the costs of operating, maintaining, and replacing works of improvement as outlined in a formal operation, maintenance, and replacement agreement (Title 180 National Operations and Maintenance Manual, Part 500).
- E. The SLO must acquire, without cost to the Federal Government from funds appropriated for the purposes of Pub. L. No. 83-566, all land, easements, and right-of-ways needed for the works of improvement. See section 500.42 of this subpart for exceptions.
- F. Project administration costs are not cost shared. Each participating agency bears its own administration costs. SLO project administration may be included as in-kind contributions towards the SLO's cost-share requirement.

- G. Costs for works of improvement in excess of federal requirements or that are not part of a Pub. L. No. 83-566 purpose will not be cost shared.
- H. Costs for mitigation, mitigation banks and practice installation, or other mitigation costs will be cost shared according to the purpose of the associated works of improvement. This does not apply to easement and real property rights. See paragraphs I and J in this section.
- I. Watershed Program funds may be used for cost sharing amounting to no less than 50 percent of the cost of acquiring perpetual wetland and floodplain conservation easements. The easements to be acquired by the SLO must be used to perpetuate, restore, and enhance the natural capacity of wetlands and floodplains to retain excessive floodwaters, improve water quality and quantity, and provide habitat for fish and wildlife (Pub. L. No. 83-566 § 3(a)). Financial assistance for conservation easements will be based on the appraised market value of the land and the associated acquisition costs.
- J. Pub. L. No. 83-566 authorizes the use of Watershed Program funds for up to 50 percent of the cost of real property rights acquired or to be acquired by the SLO for mitigating fish and wildlife habitat losses. The rights must be acquired by either fee title or perpetual easement. The acquisition is not limited to the confines of the watershed boundary.

Figure 500E-1: Federal Cost-Sharing Percentage Provisions for Conservation Easements and Mitigation of Fish and Wildlife Habitat Losses¹

Type of Easement	Engineering and Technical Assistance	Real Property Rights
Conservation Easements Wetland or Floodplain	50 to 100 percent	50 to 100 percent
Mitigation of Fish and Wildlife Habitat Losses	0 to 50 percent	0 to 50 percent

- K. Cost share for Watershed Rehabilitation Program projects is limited to 65 percent of the total eligible costs of the rehabilitation project but must not exceed 100 percent of the actual eligible construction costs. Construction costs include the reconstruction or decommissioning of the dam and, when necessary, the relocation or floodproofing of downstream property. Watershed Rehabilitation Program funds may provide up to 100 percent of engineering and technical assistance costs, but these costs will not be a part of the watershed rehabilitation cost-share calculation. See 390 NWPM, Part 505, Subpart D, for further discussion of the Watershed Rehabilitation Program.

500.42 Cost-Share Rates for Watershed Program Purposes

The following is a summary of cost sharing authorized for the Watershed Program. Technical assistance funds needed for planning are paid up to 100 percent by NRCS. The cost-share rates for the design and implementation phases of the project are described in this section and displayed in Figures 500E-1 and 500E-2. The state conservationist must set the cost-share

¹ These provisions apply to acquisition of real property rights by purchase or easements (16 U.S.C. § 1003a).

rate similar to other federal programs.

A. Flood Prevention (Flood Damage Reduction)

1. Watershed Program funds must provide 100 percent of construction and engineering or technical assistance costs for works of improvement for flood damage reduction (Pub. L. No. 83-566 § 4(2)). Cost-sharing is not available to acquire land, easements, right of ways, or permits needed for works of improvement for this purpose, except when acquiring wetland or floodplain conservation easements.
2. Watershed Program assistance involving nonstructural flood prevention in floodplains may be used to move or reposition residential, commercial, industrial, and farm buildings to flood-free areas or to floodproof or otherwise protect such buildings from flood damage. Eligible costs associated with moving or repositioning structures must include replacement of comparable facilities or features such as basements, driveways, heating systems, and decks. The cost of improvements beyond the decent, safe, and sanitary requirements is a non-project cost and therefore not eligible for program assistance.
3. Watershed Program assistance may include funds necessary to acquire and demolish residential, commercial, industrial, and farm buildings and similar installations, including other associated costs of site restoration where it is more cost effective than moving, repositioning, or floodproofing the facilities and features. Watershed Program assistance is based on the appraised market value of the facilities and associated acquisition and site restoration costs.

B. Watershed Protection

1. Watershed Program funds may be used for agreements with the SLOs, who in turn have agreements with landowners and operators, individually or collectively, to install measures needed for enhancing water quality for developing and conserving the soil, water, woodland, wildlife, energy, and recreational resources of the land (Pub. L. No. 83-566 § 3(6)).
2. Federal funding assistance must not exceed the rate of assistance to program participants for similar practices under other existing national programs at the time of planning. Changes in the rate of assistance are subject to an exchange of correspondence with the project SLO. The participant's share of the cost of installing practices may come from any source other than federal funds without a reduction in NRCS funding as long as the total financial assistance to be received does not exceed 100 percent of the cost. If other federal funds are used, the NRCS share will be reduced by the amount of the other federal funding (120 GM § 404.33). Watershed Program funds may pay up to 100 percent of technical assistance costs to plan and apply land treatment practices.
3. Watershed Program funds may not be used for installing, operating, and maintaining land treatment on federal land. This restriction does not apply to the use of Pub. L. No. 78-534 funds on National Forest System lands.

C. Public Fish and Wildlife or Public Recreation Development

1. Fish and Wildlife. Watershed Program funds may provide up to 50 percent of real property rights costs, up to 50 percent of installation costs, and up to 100 percent of engineering or technical assistance costs for works of improvement.
2. Recreation. Watershed Program funds may provide up to 50 percent of real property rights costs, up to 50 percent of installation costs, and up to 100 percent of engineering and technical assistance costs for works of improvement. For minimum basic facilities, Watershed Program funds may provide up to 50 percent of real property rights costs, up to 50 percent of installation costs, and up to 100 percent of engineering and technical costs. The limitations set forth in subpart A of this part apply to recreation developments that include minimum basic facilities.

D. Agricultural Water Management

1. Financial assistance may not exceed the rate of assistance for measures installed for similar purposes through other available federal programs. Watershed Program funds may provide up to 100 percent of engineering or technical assistance costs.
2. Wells, water treatment facilities, pipelines, and similar practices for rural drinking water distribution systems are not eligible for Watershed Program assistance.

E. Municipal and Industrial Water Supply

1. Watershed Program funds may be used for cost sharing up to 50 percent of the construction costs for municipal and industrial (M&I) water supply reservoir storage to meet present water supply demands (16 U.S.C. § 1004(2B)).
2. The planning, design, and installation of M&I water wells, water treatment plants, distribution systems, and electric distribution facilities fall outside the scope of the Watershed Program and are not eligible for assistance from Pub. L. No. 83-566 funds.
3. The SLO is responsible for 100 percent of the construction cost of anticipated future water supply demands. (16 U.S.C. § 1004(2B)).
4. For single-purpose M&I water supply implementation, the SLO must provide all technical services for implementation (210 NEM § 505.16(4)). For multi-purpose M&I water supply projects, the SLO may request NRCS assistance for engineering services if the storage volume for M&I water is less than 20 percent of the total water storage volume (210 NEM § 505.16(5)).
5. Before beginning construction, the SLO must provide adequate assurances that USDA will be reimbursed for at least 50 percent of the construction cost of M&I storage for present water supply demands and 100 percent of the construction cost of M&I storage for future demand (Pub. L. No. 83-566 § 4(2B)). (See Figure 500E-2 in this subpart).
6. Watershed Program M&I water supply projects may be funded by loans through the USDA Rural Utilities Service (7 CFR Part 1780 for water loans with Rural Utilities Service and 7 CFR Part 1781 for PL 566 watershed loans). The cost of storage for future water supply demands is limited to loans. These loans must be repaid within 50 years.

7. Watershed Program funds may be advanced to the SLO to pay for storage capacity in reservoirs to meet anticipated future needs. The amount of advance is limited to 30 percent of the total cost of the structure. The advance must be repaid in full with interest within 50 years of construction of the retention reservoir or in a shorter period if required by law. Interest will not be charged until the water supply is first used or until 10 years after completing the structure, whichever is earlier (16 U.S.C. § 1004(2)(b)). Outlet works are eligible for advances when such works are a part of the structure.
8. Before Watershed Program funds being advanced or loaned for costs associated with additional storage for anticipated future demands, the state conservationist must require reasonable assurances and evidence from the SLO that demands for the additional storage will be made within a period of time that will allow for the funds to be repaid within the structure's lifetime (Pub. L. No. 83-566 § 4(2)).

F. Water Quality Management

1. Financial assistance may not exceed the rate of assistance for measures installed for similar purposes through other available federal programs. Watershed Program funds may provide up to 100 percent of engineering or technical assistance costs.

Figure 500E-2: Federal Cost-Sharing Percentage Provisions by Purpose

Purpose	Installation and Construction	Engineering and Technical Assistance	Real Property Rights ¹
Flood Prevention Works of Improvement	100 percent	100 percent	0 percent
Watershed Protection Works of improvement that develop or conserve: • Soil • Water quality and quantity • Woodland • Ecosystem restoration • Energy • Air quality • Cultural and aesthetic resources	Similar rate to other cost-share programs	100 percent	0 percent
Public Fish and Wildlife or Public Recreational Development • Works of Improvement • Recreation Minimum Basic Facilities	0 to 50 percent	50 to 100 percent	0 to 50 percent

¹ See 390 NWPM § 501.80(A)(14).

Purpose	Installation and Construction	Engineering and Technical Assistance	Real Property Rights ¹
Agricultural Water Management Works of improvement that involve: • Drainage • Irrigation • Ground Water Recharge • Agricultural (including rural community) Water Supply • Water Conservation • Water Quality	Similar rate to other cost-share programs	100 percent	0 percent
Municipal and Industrial Water Supply • Reservoir Structure	0 to 50 percent	0 percent	0 percent
Water Quality Management • Reservoir Storage	Similar rate to other cost-share programs	Up to 100 percent	0 percent

G. Multipurpose Projects Cost Allocation

1. Cost allocation is the process of apportioning total project financial costs among purposes served by a plan. The need for cost allocation stems from pricing and cost-sharing policies that vary among purposes.
2. Financial costs must be allocated to the project purposes. These purposes do not include other direct benefits (see § 1.7.2(d) of Economic and Environmental Principles and P&G) and use of otherwise unemployed or underemployed labor resources. All purposes must be treated comparably.
3. The Separable Cost Remaining Benefit (SCRB) methodology must be used for determining the appropriate cost allocation for multipurpose projects. The SCRB methodology is outlined in 390 NWPH.

500.43 Relocation Payments

Relocation payments are cost-shared in accordance with cost-share rates of assistance established for the purpose of the project measure that would cause the displacement. These payments are authorized by Pub. L. No. 91-646.

Title 390 – National Watershed Program Manual

Part 500 – Watershed Program Management

Subpart F – Requesting Funds

Amended June 2024

500.50 General

- A. When funding requests are submitted, the National Watershed Flood Prevention Operations (WFPO) and Rehabilitation program managers recommend to the deputy chief for Programs which projects to fund based on the following order: construction phase, design phase, planning phase, and preliminary investigation findings reports (PIFR) or assessments.
- B. Funding requests for a project must be submitted sequentially by phase: PIFR or assessment, then planning, design, and construction. NRCS will announce, as noted in section 500.52 of this subpart, if funding multiple phase funding requests will be permitted.
- C. Remedial projects are funded based on the risk and hazard classification associated with the remedial issue, percentage of evaluated life remaining at time of remedial funding request, and subject to the availability of funds.

500.51 NRCS State Responsibilities

- A. The state conservationist must only submit funding requests for projects that can be worked on immediately.
- B. The state conservationist must submit the documents listed in 390 NWPM §§ 500.21, 501.20(C), 504.1(G), or 505.34 depending on the type of funding request.

500.52 NRCS National Responsibilities

- A. National headquarters announces the procedures for requesting technical and financial assistance for projects in the WFPO and Rehabilitation programs, subject to funds being made available by Congress.
- B. Projects are selected based on balancing the existing project backlog, remediation of existing structures, and new projects. Selection will also consider the active project workload within a given state (i.e., how many projects are meeting the timelines outlined in section 500.21(F) of this part) as well as the projects funded within a given NRCS region.
- C. Projects may be given multiple phases of funding based on agency priorities or senior leadership decisions.

- D. The WFPO and Rehabilitation program managers coordinate the approval of funding requests through the deputy chief of Programs and NRCS senior leadership and prepare and distribute allocation letters to states receiving funds.

Part 501 – Development of Watershed Project Plans

Table of Contents

Amended June 2024

Subpart A – Background

- 501.0 Preparation of the Watershed Project Plan
- 501.1 Compliance with the National Environmental Policy Act
- 501.2 Consultation
 - Figure 501A-1: List of Resource Concern and Regulations and Consulting Entity
- 501.3 Cooperating Agencies
- 501.4 Collaboration
- 501.5 Basic Planning Efforts

Subpart B – Watershed Project Plan Requirements

- 501.10 Planning Standards and Criteria
- 501.11 Water Resource Projects
- 501.12 Plan Formulation

Subpart C – Planning Procedures

- 501.20 Preliminary Investigation Findings Report
- 501.21 Plan of Work
- 501.22 National Environmental Protection Act (NEPA) Documentation
- 501.23 Notice of Intent
- 501.24 Public Participation
 - Figure 501C-1: Resource Concerns and Applicable References
- 501.25 Pre-NEPA Watershed Project Plans
- 501.26 Watershed Project Plans

Subpart D – Watershed Project Plan Content and Format

501.30 Watershed Project Plan Content and Format

Figure 501D-1: USDA-NRCS PR&G Decision Matrix

Figure 501D-2: Format for Watershed Project Plan

501.31 Cover Sheet

501.32 Abstract (Fly Sheet)

501.33 Non-Discrimination Statement

501.34 Ancestral Land Acknowledgement

501.35 Watershed Agreement

501.36 Summary (Office of Management and Budget Fact Sheet)

501.37 Table of Contents

501.38 Changes Requiring a Supplement (for Supplemental Plans only)

501.39 Watershed Planning Background

501.40 Purpose and Need

501.41 Affected Environment: Current and Future Conditions

Figure 501D-3: Resource Categories of Concern and Ecosystem Services Identified During Scoping

501.42 Alternative Formulation

Figure 501D-4: Summary of Alternatives Preliminary Screening Evaluation

501.43 Environmental Consequences: Evaluate Alternatives

Figure 501D-5: Summary and Comparison of Alternatives – Planning Process

Figure 501D-6: Summary and Comparison of Alternatives – Ecosystems Services Tradeoff Analysis

Figure 501D-7: Summary and Comparison of Alternatives – Effects on Resource Concerns (NEPA Effects)

501.44 Preferred Alternative

501.45 Economic Table 1 – Estimated Installation Cost

Figure 501D-8: Estimated Installation Cost [Name of Watershed], [State] [Dollars]

501.46 Economic Table 2 – Estimated Cost Distribution

Figure 501D-9: Table 2 – Estimated Cost Distribution—Water Resource Project Measures [Name of Watershed], [State] [Dollars]

501.47 Economic Table 2a – Cost Allocation and Cost Sharing for Multipurpose Watershed Project Plans

- Figure 501D-10: Table 2a – Cost Allocation and Cost Sharing Summary for Multipurpose Watershed Project Plans [Name of Watershed], [State] [Dollars]
- 501.48 Economic Table 2b – Recreational Facilities—Estimated Construction Costs
Figure 501D-11: Table 2b – Recreational Facilities—Estimated Construction Costs [Name of Watershed], [State] [Dollars]
- 501.49 Structural Table 3 – Dams with Planned Storage Capacity
Figure 501D-12: Table 3 – Structural Data—Dams with Planned Storage Capacity [Name of Watershed] [State]
- 501.50 Structural Table 3a – Dikes
Figure 501D-13: Table 3a – Structural Data—Dikes [Name of Watershed], [State]
- 501.51 Structural Table 3b – Channel Work
Figure 501D-14: Table 3b – Structural Data—Channel Work [Name of Watershed], [State]
- 501.52 Economic Table 4 – Average Annual Preferred Alternative Costs
Figure 501D-15: Table 4 – Estimated Average Preferred Alternative Annual Costs [Name of Watershed], [State] [Dollars]
- 501.53 Economic Table 5 – Estimated Average Annual Flood Damage Reduction Benefits
Figure 501D-16: Table 5 – Estimated Average Annual Flood Damage Reduction Benefits [Name of Watershed], [State] [Dollars]
- 501.54 Economic Table 5a – Estimated Average Annual Watershed Protection Damage Reduction Benefits
Figure 501D-17: Table 5a – Estimated Average Annual Watershed Protection Damage Reduction Benefits [Name of Watershed], [State] [Dollars]
- 501.55 Economic Table 6 – Comparison of Preferred Alternative Benefits and Costs
Figure 501D-18: Table 6 – Comparison of Preferred Alternative Benefits and Costs [Name of Watershed], [State] [Dollars]
- 501.56 Consultation, Coordination, and Public Participation
- 501.57 References
- 501.58 List of Preparers
- 501.59 Index (Only Required for EIS)
- 501.60 Appendices

Subpart E – Watershed Agreement

- 501.70 Watershed Agreement

Subpart F – Cost Categories

501.80 Cost Categories

Part 501 – Development of Watershed Project Plans

Subpart A – Background

Amended June 2024

501.0 Preparation of the Watershed Project Plan

- A. Watershed projects are local projects installed with federal assistance. To determine whether a proposed watershed project is able to meet its purposes, NRCS, in cooperation with the sponsoring local organization (SLO), prepares the watershed project plan (7 CFR § 622.31). As the lead federal agency for the watershed project plan, NRCS is fully responsible for the watershed project plan's contents. This effort must be coordinated with other state and federal agencies. Once the NRCS and the SLO agree on a watershed project plan (using Watershed Program criteria), the Chief of NRCS decides whether to authorize NRCS assistance for installing the works of improvement.
 - 1. The agency is fully responsible for the accuracy, scope, and content of environmental documents prepared by the agency, an applicant, or third parties, such as technical service providers and contractors (40 CFR § 1506.5), under agency supervision.
 - 2. Third parties may prepare watershed project plans according to 40 CFR § 1506.5, but the NRCS is fully responsible for the accuracy, scope, and content of environmental documents.
- B. NRCS has leadership responsibility for providing the SLO with technical assistance, including the coordination, organization, and management of all watershed program activities (see 390 NWPM, Part 500, Subpart B). NRCS must use the watershed approach and the conservation planning process, described in 180 NPPH, Part 600, to assist the SLO in developing a watershed project plan.
- C. As part of its responsibility to provide technical assistance, NRCS must consult other agencies and groups in the formulation of the plan. For the national forest portion of a watershed project plan, the Forest Service is responsible for coordination (see 390 NWPH Exhibit 606.50). The SLO may choose to obtain technical assistance and coordination from sources other than NRCS and Forest Service.
- D. NRCS uses an interdisciplinary environmental planning approach in which specialists with different technical expertise jointly evaluate existing environmental conditions and the impact of future actions. The interdisciplinary team considers the structure and function of natural resource systems, complexity of problems, and the economic, social, and environmental effects of alternative actions. The watershed project planning and implementation process must include consideration of ecosystem services by appropriate interdisciplinary technical experts.

- E. Costs and benefits of project measures must be developed and documented in the administrative record when required by legislation and included in an authorized watershed project plan (390 NWPM, Part 500, Subpart D). Costs and benefits that are quantifiable, that can be evaluated at the completion of the project, and that will be used to assess the success of the project must be documented (16 U.S.C. 18 §§ 10 and 12(j)). Documentation will include details of the process used to collect data and how those data will be used to evaluate each performance outcome during the life of the project.
- F. At completion of the project, the state conservationist (STC) must complete a report documenting the results and accomplishments for each performance measure. The NRCS state office must maintain the official record and transmit the report to the deputy chief of Programs and national WFPO program manager.

501.1 Compliance with the National Environmental Policy Act

- A. When developing a plan environmental evaluation (EE), environmental assessment (EA), or environmental impact statement (EIS), follow NEPA procedures and document all resulting actions. Actions that fall under one of NRCS's documented categorical exclusion (CE) can be covered under a Plan-EE. CEs do not exclude a NEPA action but indicate that those types of action do not require the detailed analysis of an EA or EIS. The National Historic Preservation Act (NHPA), Endangered Species Act (ESA), and other related laws must still be considered when performing an EE under a CE. All valid CEs are documented in the agency's NEPA procedures published in 7 CFR Part 650.
- B. NRCS funding or required approval of a watershed project plan is a federal action that is subject to NEPA. Compliance with NEPA is the responsibility of the lead federal agency. NRCS is the lead federal agency when it is responsible for technical and financial assistance, even if the SLO obtains assistance from other sources. The only exception is when another federal agency involved with the project has NEPA compliance responsibilities and is designated as the lead federal agency for the project. In this case, NRCS must become a cooperating agency on the lead agency's document so that NRCS can adopt the EA or EIS to use in compliance with NEPA. If NRCS does adopt another agency's document, NRCS must still ensure that the project fully complies with NEPA and must prepare and issue a finding of no significant impact (FONSI) for an EA or a record of decision (ROD) for an EIS. NRCS must also ensure that the document meets the watershed plan requirements in subpart D of this part.
- C. If NRCS is not a NEPA cooperating agency for an environmental document, then it can only adopt the EA or EIS after adding the appropriate watershed plan components and recirculating the document to the public for the required public review of a watershed project plan's EA or EIS (see section 501.23 of subpart C, and subpart D of this part).
- D. The STC is the responsible federal official who ensures that the watershed project plan's EA or EIS complies with NEPA when NRCS has lead NEPA compliance responsibilities.

501.2 Consultation

- A. To comply with NEPA and NHPA, NRCS must consult with federal agencies, state agencies, certified local governments, tribal governments and native Hawaiian

organizations (NHO), special commissions with statutory authority to coordinate resource planning, and other agencies and entities, as applicable and required by laws and policies. Under NEPA, these entities may become “cooperating agencies” (see section 501.3 of this subpart). Under NHPA, these entities may become “consulting parties.” NEPA and NHPA consultations may involve the same entities, but they do not have the same purposes, processes, or results. NEPA consultations do not satisfy NHPA consultation requirements.

B. NHPA and 36 CFR Part 800 specifically list the state historic preservation officers, Indian tribes and NHOs (including tribal historic preservation officers), representatives of local governments, applicants for federal assistance, permits, and licenses, individuals and organizations with demonstrable interests in the undertaking, the public, and the Advisory Council for Historic Preservation as consulting parties. NHPA Section 106 consultations must take place:

1. at the beginning of project planning and development, including during development of a preliminary investigation findings report,
2. during identification and evaluation of cultural resources, which should take place as early as possible in the project development process,
3. during documentation of cultural resources (including in tribal or NHO ancestral and traditional use claims), in a project area of potential effects,
4. during considerations of cultural resource eligibility and effect,
5. during planning for avoidance or mitigation of adverse effects to cultural resources, and
6. when implementing the project causes unanticipated discoveries of cultural resources, including human remains.

C. The STC is responsible for NHPA section 106 consultation, and this responsibility cannot be delegated (see 36 CFR § 800.2). The STC is the responsible federal official who signs the initial NHPA Section 106 consultation letters to consulting parties. Subsequent consultation letters can be signed by the state cultural resources specialist (CRS) if the STC and the consulting parties agree (see 390 NWPM § 500.4(G)).

D. Tribal and NHO Consultations.

1. NEPA and its implementing regulations (40 CFR Parts 1500 et seq.) do not give specific directions for formal consultations with tribes and NHOs, except to say, “the federal agency consults early with appropriate state, Tribal, and local governments and with interested private persons and organizations when their involvement is reasonably foreseeable” (40 CFR § 1501.2(b)(4)(ii)) and to specify the commenting duties of tribes if they become cooperating agencies (40 CFR §§ 1503.1(a)(2)(i) and (ii), 1503.2, and 1503.3(d)).
2. Under NEPA, cultural resources, including tribal and NHO consultations, are a “special environmental concern” that must be addressed separately. NEPA, its implementing regulations, and NRCS policy and procedure shift direction and focus

of tribal and NHO consultations from NEPA to NHPA (see 190 NECH §§ Part 610, 36 CFR Part 800, 420 GM, Part 401, and 190 NRCPP, Part 601).

- E. The figure below lists the resource concerns or regulation and the appropriate consulting entity that may require consultation (see 390 NWPM § 500.32 for a more complete list).

Figure 501A-1: List of Resource Concern and Regulations and Consulting Entity

Resource Concern, Law, Regulation, Executive Order	Consulting Entity
Air Quality: – Clean Air Act (42 U.S.C. §§ 7401 et seq.)	Environmental Protection Agency (EPA), Office of Air and Radiation
Cultural Resources and Historic Properties: – Pub. L. No. 89-665, NHPA; Pub. L. No. 91-190, NEPA; see Tribal Interests, below	State historic preservation officers; Indian tribes, including Alaskan Natives, NHOs, and tribal historic preservation officers; local governments and certified local governments; other interested parties as defined in 36 CFR § 800.2; Advisory Council for Historic Preservation
Coastal Zones – Pub. L. No. 92-583, Coastal Zone Management Act	State Coastal Zone Program Office
Endangered and Threatened Species: – Pub. L. No. 93-205, ESA	USFWS and NMFS
Environmental Justice (EJ): – Executive Order 12898; DR 5600-002	Affected environmental justice groups
Essential Fish Habitat: – Pub. L. No. 94-265, Fishery Conservation and Management Act	NMFS
Fish and Wildlife: – Pub. L. No. 83-566, Watershed Protection and Flood Prevention Act § 12, and Fish and Wildlife Coordination Act	USFWS
Prime and Unique Farmland and Farmland of Statewide or Local Importance: – Farmland Protection Policy Act, Pub. L. No. 97-98, FPPA	NRCS

Resource Concern, Law, Regulation, Executive Order	Consulting Entity
Tribal Interests: Pub. L. No. 89-655, NHPA; Pub. L. No. 95-341, AIRFA; Pub. L. No. 101-601, NAGPRA; Pub. L. No. 103-344, AIRFA Amendments of 1994; Pub. L. No. 92-203, Alaska Native Claim Settlement Act; Pub. L. No. 93-638, Indian Self-Determination and Education Assistance Act; executive orders 13007 and 13175; Secretarial Orders 3206 and 3403; OSTP/CEQ Joint Memoranda, Indigenous Knowledge; PM, Government-to-Government Relations; PM, Uniform Standards; 230-GM, Part 403, Special Emphasis Programs; 410-GM, Part 405, American Indians and Alaska Natives; 190-NI, Part 315, TALC; DR 1350-001, Tribal Consultation; DR 1340-007, Policies on American Indians and Alaska Natives	Affected tribal governments, Alaska Native communities, and NHOs
Waters of the United States, including Wetlands: - Pub. L. No. 112-328, Federal Water Pollution Control Act (a.k.a. Clean Water Act)	USACE, state, or tribe and NHO governments who have assumed responsibility from EPA under the CWA
Water Quality: - Pub. L. No. 112-328, Federal Water Pollution Control Act (a.k.a. Clean Water Act)	State water quality regulatory agency; EPA Office of Water
Wild and Scenic Rivers: - Pub. L. No. 90-542, Wild and Scenic Rivers Act	State agency and the National Park Service

501.3 Cooperating Agencies

- A. At the onset of planning, NRCS must request the participation of other federal agencies, state governments and agencies, local governments and agencies, and tribe and NHO governments during the development of an NRCS Plan-EA or Plan-EIS (40 CFR § 1501 and 1503). Agencies that have special knowledge or expertise (such as state historic preservation officers and tribe and NHO governments) or jurisdiction by law (such as the permitting authority) over an action being proposed must get a written invitation to be cooperating agencies in the planning process and preparation of the NEPA document (see 390 NWPH § 606.52, for an example letter).
- B. Cooperating agencies are not required for the preparation of a Plan-EE.
- C. NRCS may also become a cooperating agency on other federal agency NEPA documents. The advantages for NRCS in becoming a cooperating agency include the ability to have the lead agency incorporate NRCS watershed planning actions into its NEPA document, adopt the analysis prepared by the lead agency for NRCS NEPA, and meet the intent of NEPA by reducing duplication of effort.

501.4 Collaboration

- A. The Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (PR&G) requires federal agencies to collaborate fully on water resources related activities with other affected federal agencies and with tribal, regional, state, local, and nongovernmental entities, as well as stakeholders (i.e., community groups, academia, and private landowners) to realize more comprehensive problem resolution and better-informed decision making. Collaboration ensures that federal activities reasonably consider the needs, interests, and concerns of stakeholders. Collaboration should provide adequate opportunities for all to participate throughout the decision-making process.
- B. The method and scope of the collaborative effort should be driven by the nature of the activity, problems, and likely solutions. Collaboration may include (but is not limited to): the sharing of science and data, analytical tools, or expertise unless protected from release by law; inclusion on interdisciplinary or interagency study teams; participation in independent or peer review of study products; development and implementation of complementary projects and programs by others; and post-project review and development of adaptive management strategies (PR&G, Chapter 2, § 1C “Collaboration”).
- C. Collaboration integrates nonfederal units of government and nongovernmental organizations into the planning process to develop alternative solutions. Collaboration complements and enhances the NEPA scoping process for assisting in alternative formulation and evaluation.

501.5 Basic Planning Efforts

When NRCS receives a request for planning assistance, a preliminary investigation findings report must be developed to justify the need for a planning effort. Once the Chief of NRCS authorizes the planning, NRCS prepares a watershed project plan. When the project plan is approved by the STC and authorized by the Chief (with approval from the appropriate Congressional Committee based on criteria in 390 NWPM § 502.30, as applicable), funding for implementation may be requested.

Part 501 – Development of Watershed Project Plans

Subpart B – Watershed Project Plan Requirements

Amended June 2024

501.10 Planning Standards and Criteria

Watershed Program planning must comply with the laws, regulations, executive orders, secretarial orders, Presidential memoranda, departmental regulations, handbooks, technical guides, circulars, and other documents listed in 390 NWPM § 500.32.

501.11 Water Resource Projects

- A. All Watershed Program projects are water resource projects and must be designed to accomplish one or more of the general purposes described in 390 NWPM Part 500, Subpart A. The watershed planning process must identify the most economically, socially, and environmentally beneficial means of achieving the purposes of an eligible project.
- B. For the purposes of this manual, “water resource project” includes projects with federal investments that by purpose, either directly or indirectly, affect water quality or quantity. The Federal Objective, as set forth in Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (PR&G) (Pub. L. No. 110-114 § 2031; DM 9500-013), specifies that federal water resource investments must reflect national priorities, encourage economic development, and protect the environment.
- C. Federal investments in water resources should maximize public benefits with appropriate consideration of costs. Public benefits encompass environmental, economic, and social goals, include monetary and nonmonetary effects, and considers both quantified and unquantified measures. Water resource project plans must meet the requirements of the PR&G and USDA-specific procedures.
- D. The watershed planning process consists of a formalized framework that shapes plan development from the initial identification of problems and opportunities to the final implementation and evaluation of the project. Watershed planning is interdisciplinary, iterative, and participatory. There are three interrelated planning processes, each with its own specific goals and requirements, that go into developing a watershed project plan.
 1. NRCS planning is described in 180 NPPH, Part 600. NRCS’s nine-step planning process focuses on developing and implementing plans that protect, conserve, and enhance natural resources and must be followed.
 2. PR&G outlines a similar eight-step planning process that provides more information for plan development and emphasizes an ecosystem service framework. The NRCS Chief’s decision memo approved on April 18, 2018, directs that all Pub. L. No. 83-566

projects must implement PR&G regardless of costs but taking costs into consideration for commensurate level of detail for the analysis.

3. The National Environmental Policy Act (NEPA) planning process ensures that federal actions comply with federal, state, and local laws and regulations and do not significantly impact the human environment.

501.12 Plan Formulation

A. Alternatives

1. All reasonable alternatives that address the purpose and need for action (40 CFR § 1502.13) must be formulated and presented in the watershed project plan. This includes alternatives not within the program authorities of the NRCS and not preferred by the sponsoring local organization (SLO). When formulating alternatives, use the following four criteria: completeness, effectiveness, efficiency, and acceptability (PR&G § 2.1(H)). Alternatives with multiple components should be considered together and as separate alternatives, if the components are independent, meaning there are no obvious dependencies or a scientific need to implement all the measures as a system. The no-action alternative must also be presented and evaluated in each watershed project plan.
2. For alternatives eliminated from detailed study, provide the rationale for this elimination. All alternatives considered or developed must be documented as part of the administrative record.
3. All relevant resource concerns identified by the public and NRCS during scoping must be addressed in the watershed project plan.
4. For a watershed project plan involving flood prevention, consideration must be given to nonstructural measures and alternatives to prevent or reduce flood damage, including, but not limited to, the following (33 U.S.C. § 701b-11):
 - a. Floodproofing buildings and facilities within the flood zone
 - b. Regulating floodplains
 - c. Acquiring floodplain lands for recreational, fish and wildlife, and other public purposes
 - d. Moving buildings and facilities from the flood zone
 - e. Conversion of land use to a natural or nature-based setting

B. Future Without Project (FWOP), Future Without Federal Investment (FWOFI), or No Action Alternative

1. The terms “No Action,” “FWOP,” and “FWOFI” are all baseline conditions that do not incorporate federal investment actions and are collectively referred to in the watershed project plan as the “No Action alternative.” The proposed action and alternatives must meet the purpose and need of the project (40 CFR § 1502.13). The projected No Action alternative must provide the baseline for comparing alternatives. When projecting the conditions of the No Action alternative, account for the effects of other programs and compliance with existing laws. Treat any alternative that has the possibility of nonfederal funding as another action alternative.

C. Evaluated Life and Period of Analysis

1. The evaluated life is the time over which an alternative will have significant beneficial or adverse effects as determined with nonstructural and structural works of improvement, assuming the conservation measures successfully function with the prescribed operation, maintenance, and replacement (OM&R) activities. Use the evaluated life for discounting and amortizing project benefits and costs and to determine the duration of OM&R agreements for project measures. The evaluated life may not exceed 100 years.
2. The period of analysis is the period of time for implementation (design and installation) plus the evaluated life.
3. The evaluated life should be the same for all alternatives. The period of analysis may potentially be different across alternatives given each alternative may have different implementation periods due to differences in design and installation times.

D. Discount Rate

1. The current discount rate for water resources investments is provided by the Bureau of the Public Debt (found in Table 4 of the Annual Interest Rate Certification for the fiscal year the analysis is performed in). This rate is used for the Water Resources Council Rules and Regulations (18 CFR § 704.39(a)).
2. The published rate does not include any adjustment that may be needed to show the maximum rate change of 0.25 percent per year. Agencies must follow this discount rate for federal water investments unless prohibited by other authorities responsible for the federal investment. See parts 503 and 504 of this manual for situations where other discount rates are used in addition to or instead of the current discount rate for supplemental plans and reaffirming feasibility reports.

E. Mitigation and Enhancement

1. Mitigation. Appropriate mitigation must be included in all alternatives.
 - a. Mitigation includes avoiding, minimizing, rectifying, reducing, or compensating for the impact on the resources or environment. Consult with the appropriate federal and state agencies to determine mitigation measures for offsetting or reducing adverse environmental, visual, scenic, and social effects of the alternatives and disclose these measures in the watershed project plan. Compensatory mitigation measures should be established in the watershed but may be established outside the watershed if appropriate. Costs for mitigation measures are allocated to the purposes of the work that requires the mitigation. The watershed project plan must address and evaluate the effects and significance of any proposed mitigation measures.
 - b. The state conservationist must ensure that the planned mitigation measures are properly installed, operated, and maintained by the SLO. The watershed project plan must specify how all mitigation addressed in the document will be implemented. Develop a monitoring plan for mitigation effectiveness as appropriate. For projects requiring an environmental impact statement, the record of decision must address a monitoring plan.

2. “Enhancement” is defined as environmentally beneficial activities undertaken by the SLO or others that are beyond the mitigation requirements of NEPA and other policies.
 - a. NRCS must encourage the SLO to include features in watershed project plans that will preserve, create, or otherwise enhance wetlands, fish, and wildlife habitats, landscape resources, cultural resources, important farmland and forest land, prime rangeland, and other important resources where feasible. These enhancement measures must be sponsored by the SLO. Watershed Program funds may not be used for enhancement features.
 - b. Fish and wildlife enhancement measures proposed by federal or state fish and wildlife agencies must be included if they are technically feasible and are acceptable to the SLO and NRCS. If additional SLOs are needed to carry out the recommended fish and wildlife enhancement measures, NRCS must assist in obtaining their participation. Costs for fish and wildlife enhancement measures are allocated to the fish and wildlife purpose.

Part 501 – Development of Watershed Project Plans

Subpart C – Planning Procedures

Amended June 2024

501.20 Preliminary Investigation Findings Report

- A. A preliminary investigation findings report (PIFR) must be developed when inquiries are received concerning a potential watershed project. The PIFR is a brief study that uses existing data and field information to determine whether a feasible plan addressing one or more Pub. L. No. 83-566 purposes can be developed and whether there are no insurmountable obstacles. For Watershed Rehabilitation projects, dam assessments are prepared instead of a PIFR at the request of a project sponsor as described in 390 NWPM §§ 505.30–31.
- B. It is recommended that PIFRs be completed by NRCS state staff or by using the existing NRCS indefinite deliverable indefinite quantity watershed contract.
- C. The state conservationist (STC) must submit a funding request to complete a PIFR. The request must include:
 - 1. Letter of request from the sponsor to the STC
 - 2. Letter of request from the STC to the deputy chief for Programs (or WS-3 form if request will include funding for multiple project phases)
 - 3. Plan of work
 - 4. Shapefile (ZIP file of proposed watershed project boundary)
- D. The PIFR contains the following sections.
 - 1. Summary. The summary should be no more than two pages and should briefly introduce the project effort and summarize the contents of the full report.
 - 2. Applicable Agency Authority and Authorized Purposes. This section documents that the project is eligible for federal assistance and meets statutory requirements.
 - 3. Potential for 20 Percent Agricultural (Rural) Benefits. This section documents the potential agricultural or rural benefits associated with the potential project's purposes. If there are none, document it in this section.
 - 4. Project Overview
 - a. Proposed Project Name
 - b. State
 - c. County or Parish
 - d. Congressional District

- e. U.S. Geological Survey Hydrologic Unit Code and Watershed Name
- f. General Coordinates of the Watershed
- g. Project Setting
- h. Potential Project Area Size
- i. Resource Information. Narrative description of all soils, water, air, plants, animals, energy, and human resources in the proposed project area. NRCS-identified resources of special concern must also be described. Use Form NRCS CPA-52 as the basis for the information in this section. The form does not have to be signed by the responsible federal official.
- j. Proposed Project Purpose and Need Statement
- k. Resource Concerns. This section describes the resource concerns that the proposed project may potentially impact. Use Form NRCS CPA-52 as the basis for the information in this section. The form does not have to be signed by the responsible federal official.
- l. Federal, State, and Tribal Governments, National Hawaiian Organization (NHO), and Other Stakeholder Engagement. Identify potential federal, state, tribal, NHO, and other stakeholders who might have an interest in the potential project.
- m. Potential Alternatives. This section presents the estimated positive and adverse impacts and effects for four alternatives. There should be at least four alternatives:
 - (1) No Action
 - (2) Structural (combination Structural and Non-Structural)
 - (3) Non-Structural
 - (4) No Restrictions (i.e., if money was no object and all rules, regulations, and permits were approved; may be an action outside of NRCS program authority)
- n. Opportunities. This section identifies factors that would help to make the planning and implementation of the potential project successful.
- o. Constraints. This section identifies factors that would make it more difficult to plan and implement the potential project.
- p. Program Compatibility. This section documents if the project is best suited for the Watershed and Flood Prevention Operations Program or if the objectives of the potential project could be accomplished more efficiently through another NRCS program.
- q. Environmental Document. The section identifies what type of watershed project plan environmental document will be developed for the potential project.
- r. Sponsors. This section summarizes the roles the sponsoring local organizations (SLO) will take in the potential project.
- s. Potential Cooperating Agencies. This section summarizes the federal, state, and tribe entities, NHOs, and other entities that may participate in the project as a cooperating agency and describes the role, resources, and contributions of each cooperating agency.
- t. Potential Stakeholders. Identifies and describes the role, resources, and contributions of each potential stakeholder who may be involved with the project.
- u. Notifications. Identify the communications made to the governor and other federal, state, tribal, and other stakeholders and cooperating agencies under Executive Order 10584 § 3, as outlined in 390 NWPM, 500.20(A)(1).

- v. Estimated Project Implementation Timeline. Provide an estimate of the overall project implementation timeline covering the planning, design, and construction phases.
- w. Recommendation. Document whether the proposed project appears to meet the statutory requirements of the Watershed Program and if it contains any apparent insurmountable obstacles. This section also documents NRCS's technical and programmatic concurrence with the findings of the PIFR as well as the STC's final decision to recommend or not recommend the potential project for planning funding.

501.21 Plan of Work

- A. The STC and planning team must prepare and use a plan of work (POW) during plan development. The POW identifies the tasks and sub-tasks needed and the disciplines required, as well as outlines the estimated amount of time needed to prepare the watershed project plan (see 390 NWPH, Exhibit 606.53 for an example).
 - 1. The POW must include the scope, tasks, level of effort by discipline, estimated cost, and schedule for completing the watershed project plan.
 - 2. Include the input of NRCS, other federal and state agencies, tribes, NHOs, and the SLO in the POW schedule.
 - 3. Identify tasks related to technical procedures (e.g., engineering hydrology and hydraulics analysis, economic analysis, environmental evaluation, and cultural resource investigations and consultations) and any necessary reviews or approvals.
 - 4. POW should be used as a baseline for development of an independent government estimate for work completed by SLOs or contractors.

501.22 National Environmental Protection Act Documentation

- A. The National Environmental Protection Act (NEPA) requires that an environmental impact statement (EIS) and record of decision (ROD) be prepared for any major federal action significantly affecting the quality of the human environment. If an EIS is not required, NRCS must prepare an environmental assessment (EA) and a finding of no significant impact (FONSI). In cases where the entirety of the project is covered by one or more categorical exclusion (CE), an EIS and ROD or EA and FONSI is not required. For projects covered by CEs, document the CE applicability on Form NRCS-CPA-52 and prepare an environmental evaluation (EE). NRCS CE activities may be found in 7 CFR § 650.6. If any part of the proposed action is not covered by a CE, as determined in the NRCS-CPA-52, the watershed project plan must include an EA or EIS that discusses the entire project, including staging areas, borrow areas, ingress and egress areas, all other ground-disturbance locations, and direct and indirect impacts.
- B. If a project is covered by CE, it must still be evaluated under the National Historic Preservation Act (NHPA) to determine if it is a federal undertaking with the potential to affect historic properties. If so, the project is subject to NHPA and the NHPA Section 106

process must be completed for the project. The results of the NHPA Section 106 process must be reported in the EE.

C. For project activities, an EIS is required for any of the following (7 CFR § 650.7):

1. Projects that include stream channel realignment or work to modify channel capacity by deepening or widening where significant aquatic or wildlife habitat exists;
2. Projects requiring congressional approval (see 390 NWPM §§ 502.30 and 502.32);
3. Projects determined to significantly affect the quality of the human environment. If it is difficult to determine whether there is a significant impact on the human environment, it may be necessary to complete an EA to decide whether an EIS is required.

501.23 Notice of Intent

A. Once it is determined that an EIS is required, the STC must publish a notice of intent to prepare an EIS in the Federal Register; circulate it to interested agencies, tribes, NHOs, groups, and individuals; and publish it in newspapers serving the area of the proposed action. The notice of intent must include:

1. A description of the proposed action and any initial alternatives and resource issues considered;
2. A description of the proposed scoping process with the date and time for any scoping meetings to be held before preparing the EIS; and
3. The name and address of the agency's project contact.

501.24 Public Participation

A. Public Participation

1. The STC must work with the SLO to ensure that all affected and interested individuals, groups, tribes, NHOs, and federal and state government agencies have opportunities to participate in developing the watershed project plan. All planning efforts by NRCS must include public meetings for public input (7 CFR § 622.30(C)). The STC must also announce or request the SLO announce these opportunities to the public through local newspapers and other media (Executive Order 12372 and Executive Order 10584).
2. Follow 400 GM Part 400 to develop a public participation plan for each watershed project plan. Outreach to identified environmental justice groups in the impacted areas must be included in the participation plan.
3. Tribe and NHO consultation are conducted at the government-to-government level by the STC and may not be delegated to the SLO or other agencies or individuals.

B. Scoping

1. Scoping is an early and open process used to identify the range of actions, issues, alternatives, and impacts for evaluation (40 CFR § 1501.7). Scoping is an iterative

process occurring throughout the development of the NEPA document. Scoping identifies the laws, regulations, and rules, including state, tribe, NHO, and local agency laws, regulations, and requirements, as well as resource concerns that must be addressed during project planning and evaluation. Scoping must also consider the ecosystem services that are relevant to the study and may potentially be impacted. Scoping must consider but is not limited to the concerns listed in Figure 501C-1. See 390 NWPM § 500.32 for a more complete list of federal laws, regulations, executive orders, and other authorities and complete citations.

Figure 501C-1: Resource Concerns and Applicable References

Item or Concern	Associated Laws, Executive Orders, and CFRs
Soil-Related Concerns	
Soil Resources	Resource Conservation and Recovery Act of 1976, as amended, Pub. L. No. 94-580 Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510
Prime and Unique Farmland, and Farmland of Statewide or Local Importance	Farmland Protection Policy Act, Pub. L. 97-98 7 CFR § 650.3(b)(9) 7 CFR § 658.5
Water-Related Concerns	
Water Resources	
Sole Source Aquifers	Safe Drinking Water Act of 1974, as amended, Pub. L. No. 93-523
Water Quality	Federal Water Pollution Control Act (a.k.a. the Clean Water Act), Pub. L. No. 92-500 Safe Drinking Water Act of 1974, as amended, Pub. L. No. 93-523 7 CFR § 650.3(b)(14) 40 CFR Part 232 Resource Conservation and Recovery Act of 1976, as amended, Pub. L. No. 94-580 Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, Pub. L. No. 96-510
Floodplain Management	Exec. Order No. 11,988, 42 Fed. Reg. 26,951, as amended by Exec. Order No. 13,690 7 CFR § 650.25
Coastal Zone Management Areas	Coastal Zone Management Act of 1972, Pub. L. No. 92-583
Waters of the U.S., Wetlands, & Special Aquatic Sites	Federal Water Pollution Control Act (the Clean Water Act), Pub. L. No. 112-328 Rivers and Harbors Act of 1899, 33 U.S.C. § 403 Food Security Act of 1985, Pub. L. No. 99-198 Exec. Order No. 11,990, 42 Fed. Reg. 26,961 33 U.S.C. § 701b-11 7 CFR § 650.3(b)(12)
Coral Reefs	Exec. Order No. 13,089, 63 Fed. Reg. 32,701 Federal Water Pollution Control Act (a.k.a. the Clean Water Act), Pub. L. No. 92-500
Regional Water Resource Plans (including coastal plans)	40 CFR § 1506.2(d)

Item or Concern	Associated Laws, Executive Orders, and CFRs
Wild and Scenic Rivers	Wild and Scenic Rivers Act of 1968, Pub. L. No. 90-542
Air-Related Concerns	
Air Quality	Clean Air Act, 42 U.S.C. §§ 7401–7671(q), 40 CFR § 70.2
Plant And Animal-Related Concerns	
Endangered and Threatened Species	Endangered Species Act of 1973, Pub. L. No. 93-205 7 CFR § 650.3(b)(12)
Migratory Birds	Migratory Bird Treaty Act of 1918, 16 U.S.C. §§ 703–712 Exec. Order No. 13,186, 77 Fed. Reg. 60,381
Bald and Golden Eagles	Protection of Bald and Golden Eagles Act of 1990, 16 U.S.C. §§ 668(a)–(d)
Essential Fish Habitat	Fishery Conservation & Management Act, Pub. L. No. 95-265 16 U.S.C § 1855(b)(2)
Ecologically Critical Areas	
Invasive Species	Exec. Order No. 13,112, 64 Fed. Reg. 6,183, as amended by Exec. Order No. 13,751
Fish and Wildlife (including coordination requirements)	Watershed Protection and Flood Prevention Act of 1964, Pub. L. No. 83,566, § 12
Natural Areas	7 CFR Part 650.23 190 GM, Part 410
Riparian Areas	190 GM § 411.3(D)
Forest Resources	
Human Use-Related Concerns	
Cultural Resources/Historic Properties and Tribal/NHO Consultation	The American Antiquities Act of 1906, 16 U.S.C. §§ 4431–4433 Reservoir Salvage Act of 1960, Pub. L. No. 86-523 National Historic Preservation Act, Pub. L. No. 89-665 Alaska Native Claim Settlement Act, as amended, Pub. L. No. 92-203 Indian Self-Determination and Education Assistance Act, as amended, Pub. L. No. 93-638 American Indian Religious Freedom Act of 1978, Pub. L. No. 95-341 Archaeological Resources Protection Act of 1979, Pub. L. No. 96-95 Native American Graves Protection and Repatriation Act, Pub. L. No. 101-601 American Indian Religious Freedom Act Amendments of 1994, Pub. L. No. 103-344 7 CFR § 650.3(b)(7) 25 CFR Part 900 36 CFR Part 60 36 CFR Part 61 36 CFR Part 63 36 CFR Part 65 36 CFR Part 800 43 CFR Part 3 Exec. Order No. 13,007, 61 Fed. Reg. 26,772

Item or Concern	Associated Laws, Executive Orders, and CFRs
	Exec. Order No. 13,175, 65 Fed. Reg. 67,249 Exec. Order No. 13287, 68 Fed. Reg. 10,635 Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act Secretarial Order 3403, Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters OSTP/CEQ Joint Memorandum, Indigenous Traditional Ecological Knowledge and Federal Decision Making OSTP/CEQ Joint Memorandum, Guidance for Federal Departments and Agencies on Indigenous Knowledge OSTP/CEQ Joint Memorandum, Implementation of Guidance for Federal Departments and Agencies on Indigenous Knowledge Presidential Memorandum, Government-to-Government Relations with Native American Tribal Governments Presidential Memorandum, Tribal Consultation 230 GM, Part 402 230 GM, Part 403 410 GM, Part 405 420 GM, Part 401 190 NI 315 190 NCRPH, Part 601 DR 1340-007 DR 1350-001 DR 4370-001
Environmental Justice and Civil Rights	Civil Rights Act of 1964, Pub. L. No. 88-352 Exec. Order No. 12,898, 60 Fed. Reg. 7,795 230 GM, Part 402 230 GM, Part 403 DR 5600-002
Social Issues	190 GM, Part 410
Local, Regional, and National Economy	
Public Health and Safety	190 GM, Part 410 Exec. Order No. 13,045, 62 Fed. Reg. 19,885
Scenic Beauty	190 GM § 410.24
Parklands (including National Parks, Monuments, and Historical Sites)	40 CFR § 1508.27(b)(3)
Significant Scientific Resources	40 CFR § 1508.27(b)(8)
Land Use	
Scoped Ecosystem Services of Concern	
Provisioning	OMB Memorandum M-16-01, Incorporating Ecosystem Services into Federal Decision Making
Regulating	OMB Memorandum M-16-01, Incorporating Ecosystem Services into Federal Decision Making

Item or Concern	Associated Laws, Executive Orders, and CFRs
Supporting	OMB Memorandum M-16-01, Incorporating Ecosystem Services into Federal Decision Making
Cultural	OMB Memorandum M-16-01, Incorporating Ecosystem Services into Federal Decision Making
Other Concerns Identified by SLO, Agencies, and the Public	

Table Abbreviations: Code of Federal Regulations (CFR), Office of Science and Technology Policy and Council on Environmental Quality (OSTP/CEQ), Office of Management and Budget (OMB)

501.25 Pre-NEPA Watershed Project Plans

- A. For watershed project plans approved before the passage of NEPA with some of the works of improvement installed, an appropriate level of environmental evaluation must be performed for the remainder of the project (either a supplemental EA and FONSI or an EIS and ROD, as appropriate).
- B. Sometimes the proposed activities may include only actions that are covered under CE. In such cases, complete the EE and document the applicability of the CE and evaluate whether these projects are a federal undertaking with the potential to affect historic properties. If a project is determined to be an undertaking with the potential to affect historic properties, the project is subject to NHPA and must go through the NHPA Section 106 process. The results of the NHPA Section 106 process must be reported in the EE.
- C. For watershed project plans being supplemented, prepare a combined document (Plan-EE, Plan-EA, or Plan-EIS).
- D. For watershed project plans approved before the passage of NEPA where no works of improvement were installed, develop a new watershed project plan.

501.26 Watershed Project Plans

- A. The watershed plan and the environmental documentation is referred to as a watershed project plan (40 CFR § 1506.4). This section explains the requirements for watershed project plans that include an EE, EA, or EIS.
- B. Designations of Watershed Project Plan – EE and EA
 1. Working copies developed during the planning process for internal use and informal review by others and National Water Management Center (NWMC) and Watershed Programs Branch review must be labeled as “Preliminary – Subject to Revision” and dated by month and year.
 2. The official status designations for plans of projects where all actions are covered by CEs are as follows:
 - a. Draft EE. A draft Plan-EE or draft supplemental Plan-EE becomes official when it is distributed for interagency review and made available to the public for comment.

- b. Final EE. A final Plan-EE or final supplemental Plan EE results from consideration and response to all comments received about the draft Plan-EE following interagency review and public comment.
- 3. The official status designations for reports of projects requiring an EA are as follows:
 - a. Draft EA. A draft Plan-EA or draft supplemental Plan-EA becomes official when it is distributed for interagency review and made available to the public for comment.
 - b. Final EA. A final Plan-EA or final supplemental Plan EA results from consideration and response to all comments received about the draft Plan-EA following interagency review and public comment.
- C. Designations of Watershed Project Plan – EIS
 - 1. Working copies of EISs developed during the planning process for internal use and informal review by others and by the NWMC and Watershed Programs Branch must be identified as “Preliminary – Subject to Revision” and dated by month and year.
 - 2. The official status designations that are recognized are as follows:
 - a. Draft Plan-EIS. A draft Plan-EIS or draft supplemental Plan-EIS becomes official when it is distributed for interagency review and made available to the public for comment.
 - b. Final Plan-EIS. A final Plan-EIS or final supplemental Plan-EIS is the result of the consideration and response to all comments received on the draft Plan-EIS following the interagency review and public comment period.

Part 501 – Development of Watershed Project Plans

Subpart D – Watershed Project Plan Content and Format

Amended June 2024

501.30 Watershed Project Plan Content and Format

- A. This policy specifies information needed to comply with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), and other requirements.
- B. The watershed project plan (environmental evaluation (EE), environmental assessment (EA), or environmental impact statements (EIS)) documents the planning decisions made by the NRCS and sponsoring local organization (SLO) and the technical and financial assistance needed for the project. The watershed project plan evaluates and assesses all reasonable alternatives (including No Action alternative) and their impacts in substantially equal detail.
- C. Watershed project plans must:
 - 1. Describe and, where possible, quantify social, cultural, economic, and environmental conditions.
 - 2. Describe all alternative solutions considered.
 - 3. Describe and assess the impacts of each reasonable alternative on the human environment in substantially equal detail.
 - 4. Describe the extent to which each alternative achieves the stated purpose and need of the proposed project.
 - 5. Describe tradeoffs in the economic, environmental, and social goals of the project across all considered alternatives. Tradeoffs are used to identify the alternative that best addresses the Federal Objective and Guiding Principles (DM 9500-013 § 4(e)(1)(a)(1)).
- D. Watershed project plans must set forth the arrangements and responsibilities for financing, installation, operation, maintenance, and replacement of the watershed project.
- E. The level of detail, scope, and complexity of Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (PR&G) analysis within watershed plans must be commensurate with the scale, impacts, costs, scientific complexities, uncertainties, risks, and other sensitivities (e.g., public concerns) of the possible decisions. The levels of detail for PR&G analysis are categorized as either Level I or Level II depending on the projected monetary costs of the project. Figure 501D-1 provides guidance on what level to use.

1. **PR&G Level I.** Under Level I analysis, the preferred alternative must be the alternative with greatest net monetary benefits that achieves the Federal Objective, Guiding Principles, and Project Objectives. This is the standard unless there are compelling reasons (tradeoffs) based on other non-monetary and unquantifiable ecosystem services benefits and costs identified during the planning process. Level I evaluations of alternatives must still consider potential ecosystem services or service flows and quantify and monetize ecosystem service benefits as much as possible.
2. **PR&G Level II.** Under Level II analysis, the preferred alternative must be the alternative that meets the purpose and need for the project in an environmentally acceptable manner while maximizing public benefits with consideration of costs. Public benefits include net monetary benefits and all non-monetary and unquantifiable ecosystem services. Level II analysis requires the robust development of an ecosystem service framework and resulting ecosystem services flows. Furthermore, the full accounting of monetized benefits and costs as well as non-monetized, quantifiable, and unquantifiable effects should be more comprehensive than the Level I analysis. These selection criteria align with the commensurate level of detail guidance in the NRCS Decision Memo of April 2018.

Figure 501D-1: USDA-NRCS PR&G Decision Matrix (Level II analyses shown in shaded rows)

Program	NEPA Document	Federal Share of Construction Cost	Project Type	PR&G Analysis Level
REHAB	EE, EA, or EIS	Less than \$10 million	Structural	Level I
REHAB	EE, EA, or EIS	More than \$10 million	Structural	Level II
WSOP*	EE	More than \$10 million	Land Treatment	Level I
WSOP*	EE, EA, or EIS	Less than \$10 million	Land Treatment	Level I
WSOP*	EA or EIS	More than \$10 million	Land Treatment	Level II
WSOP*	EE, EA, or EIS	Less than \$10 million	Structural	Level I
WSOP*	EE, EA, or EIS	More than \$10 million	Structural	Level II

*WSOP includes RCPP projects using Pub. L. No. 83-566 authorities for watershed plan authorization.

- F. Figure 501D-2 provides the format outline that must be followed for watershed project plans. Items shown in bold are meant to be major headings within the plan document. Bulleted items are subheadings. The rest of the subpart explains each of the major headings and subheadings and includes the content that must be provided in the watershed project plan. Rehabilitation projects require more information (see 390 NWPM § 505.35).

Figure 501D-2: Format for Watershed Project Plan

Cover Sheet
Abstract
Non-discrimination Statement
Ancestral Land Acknowledgement

Watershed Agreement

Summary (Office of Management and Budget Fact Sheet)

Table of Contents

0.0 Changes Requiring a Supplement (for Supplemental Plans only)

1.0 Watershed Planning Background

- 1.1 Authority
- 1.2 Sponsor
- 1.3 Cooperating Agencies
- 1.4 Planning Area [include map of the county or overall planning area in which the watershed is situated]
 - 1.4.1 Selected Watershed [include map of the watershed]
 - 1.4.2 Study Area [include map of study areas within the watershed] 
 - 1.4.3 Areas of Potential Effects for NHPA Section 106 Compliance
- 1.5 Planning Process and Study Scope
 - 1.5.1 Stepwise Planning Process
 - 1.5.2 Ecosystem Services Framework
 - 1.5.3 Period of Analysis
 - 1.5.4 Project Scope
 - 1.5.5 External Scoping
- 1.6 Related Projects and Studies

2.0 Purpose and Need

- 2.1 Purpose
 - 2.1.1 Federal Objective
 - 2.1.2 Project Objectives
 - 2.1.3 Constraints and Considerations
- 2.2 Need
 - 2.2.1 Problems
 - 2.2.2 Opportunities

3.0 Affected Environment: Current and Future Conditions

- 3.1 Resource Categories of Concern [include scoping table]
- 3.2 Inventory of Existing Resources and Conditions
 - 3.2.1 Subsections for all resources identified as relevant to the proposed action in Section 3.1
 - 3.2.2 Ecosystem Services
- 3.3 Forecast Future Conditions

4.0 Formation of Alternatives

- 4.1 Alternative Formulation Process
 - 4.1.1 Guiding Principles
 - 4.1.2 Alternative Formulation Criteria
 - 4.1.3 Risk and Uncertainty
- 4.2 Alternatives Considered
 - 4.2.1 No Action Alternative
 - 4.2.2 Future Without Project (FWOP)
 - 4.2.3 Action Alternatives
 - 4.2.4 Nonstructural Alternative
 - 4.2.5 Locally Preferred Alternative
 - 4.2.6 Environmentally Preferred Alternative
- 4.3 Alternatives Considered but Eliminated from Detailed Study
- 4.4 Final Array of Alternatives

5.0 Environmental Consequences: Evaluation of Alternatives

- 5.1 Summary and Comparison of Alternatives-Planning Process
- 5.2 Summary and Comparison of Alternatives-Ecosystem Services
- 5.3 Effects of Individual Alternatives Relative to Resource Concerns

6.0 Preferred Alternative

- 6.1 Rationale for the Preferred Alternative
- 6.2 Measures to be Installed
- 6.3 Irreversible or Irretrievable Commitment of Resources
- 6.4 Areas of Controversy
- 6.5 Permits and Compliance
- 6.6 Mitigation of Potential Effects
- 6.7 Costs and Cost-Sharing
- 6.8 Ecosystem Services Benefits
- 6.9 Installation and Financing
 - 6.9.1 Installation
 - 6.9.2 Responsibilities
 - 6.9.3 Contracting
 - 6.9.4 Real Property Rights
- 6.10 Operation, Maintenance, and Replacement
- 6.11 Emergency Action Plan (only as applicable)
- 6.12 Economic Tables and Structural Tables

7.0 Consultation, Coordination, and Public Participation

- 7.1 Consultation
 - 7.1.1 Standard Requirements
 - 7.1.2 Other applicable consultations
- 7.2 Coordination
- 7.3 Public Involvement
- 7.4 Plan Development and Review
- 7.5 Distribution List

8.0 References**9.0 List of Preparers****10.0 Index (Only required for Plan-EIS)****11.0 Appendices**

- Appendix A — Consultations, Comments and Responses
- Appendix B — Watershed Project Map
- Appendix C — Support Maps (as applicable)
- Appendix D — Investigation and Analysis Report
- Appendix E — Other Supporting Information (as applicable)

501.31 Cover Sheet

The cover sheet must include the document status (Draft, Preliminary—Subject to Revision, or Final), designation (Plan-EE, Plan-EA, or Plan-EIS), title of proposed action, name of watershed, location (county and state), month and year. The watershed project plan is a government document prepared by the NRCS. Do not include contractor names or logos on the cover sheet; contractors may be identified with their supporting roles in the List of Preparers section.

501.32 Abstract (Fly Sheet)

The abstract must not exceed one page and must include the following: document status (e.g., draft or final Plan-EE, EA, or EIS), title of proposed action, name of watershed, congressional district, location (county and state), lead and cooperating agencies, authority, abstract (one paragraph), due date for comments, and contact information (40 CFR Part 1502.11). The abstract must include the estimated total cost to prepare both the draft and final EIS, including the costs of NRCS full-time equivalent personnel hours, contractor costs, and other direct costs. NRCS should include costs incurred by cooperating and participating agencies, applicants, and contractors, if practicable, and note if not practicable.

501.33 Non-Discrimination Statement

The [current USDA non-discrimination statement](#) must be included on this page. There must also be a link to [the USDA “How to File a Program Discrimination Complaint” webpage](#).

501.34 Ancestral Land Acknowledgment

This page includes a brief summary identifying the tribes, native villages, or native Hawaiian organizations (NHO) who hold ancestral land, traditional use, or traditional cultural property claims in and near the project area.

501.35 Watershed Agreement

The watershed agreement is included for National Water Management Center review but not for external distribution. The watershed agreement must use the exact language and format found in the [watershed agreement template](#) as applicable to the required items of the agreement.

501.36 Summary (Office of Management and Budget Fact Sheet)

- A. This section is required for plans with an EA or EIS and must accurately summarize the plan and summarize the major conclusions, any areas of controversy (including issues raised by federal, state, and local agencies, tribes, NHOs, and the public), and issues to be resolved (including the choice among alternatives) (40 CFR Part 1502.12). The summary must stand on its own and include the following:
1. Title of proposed action
 2. Location (state, county)
 3. Congressional district
 4. Authority
 5. SLOs

6. Purpose and need for action
7. Description of the preferred alternative
8. Pertinent resource information
9. List of alternatives considered
10. Project costs by purpose and funding source
11. Project benefits (net economic benefits and non-monetary benefits)
12. Evaluation period
13. Project life
14. Discount rate
15. Summary of environmental impacts
16. Major conclusions
17. Areas of controversy
18. Issues to be resolved

B. For an example summary, see 390 NWPH Exhibit 606.17.

501.37 Table of Contents

The table of contents must list the headings as shown in Figure 501D-1 as well as any tables and figures. EEs do not require a table of contents.

501.38 Changes Requiring a Supplement (for Supplemental Plans only)

This section is only required for supplemental watershed plans. This section describes why the plan is being supplemented and what changes are being made.

501.39 Watershed Planning Background

- A. This section describes the general planning background for Watershed Program projects and specific planning background and setting for the proposed project. The section must include and describe the following:
 1. Authority
 - a. Briefly identifies the public authority by which the plan is carried out (e.g., laws, statutes, regulations), as discussed in 390 NWPM § 500.0, and the authorized purposes, as discussed in 390 NWPM § 500.3(B).
 2. Sponsor
 - a. Describes the nonfederal SLOs of the project in sufficient detail to demonstrate they meet the relevant SLO responsibilities in 390 NWPM § 500.11.
 3. Cooperating Agencies and Consulting Parties

- a. Describes all NEPA cooperating agencies such as federal, state, and local agencies, tribes, and NHOs, as discussed in 390 NWPM § 501.3. The timeline and technical scope of cooperation should also be described.
 - b. Describes all NHPA consulting parties, including the state historic preservation officer (SHPO), tribes, NHOs, local governments, interested parties, and the Advisory Council on Historic Preservation (ACHP), if included in consultations.
4. Planning Area
- a. Introduces the broad planning area in which the watershed is set (such as a county), including a planning area overview map that identifies the target watershed in its surrounding context.
 - (1) Describe the project watersheds including relevant sub-areas, with hydrologic unit codes and sizes. Include a watershed map showing the hydrologic continuity of the planning area.
 - (2) Identify and describe any specific study areas within the project area and provide a map placing study areas in the context of the project watershed.
 - b. Describes NHPA Section 106 areas of potential effects (APE).
 - (1) Discuss how the APEs were defined and whether and how they were modified during identification and assessment of project alternatives.
 - (2) Summarize consultations with the SHPO, tribes, NHOs, and other consulting parties concerning identification and modification of APEs during project planning.
5. Planning Process and Study Scope
- a. Describes the NRCS planning processes used in the development of the watershed plan, including a brief description of the NRCS planning process, along with other relevant planning processes, such as NEPA and NHPA Section 106.
 - b. Briefly defines, describes, and supports the specific ecosystem services framework and applicable approach used with relevant references from DM 9500-013 or other applicable ecosystem services literature from reputable sources. Explicitly defines distinctions between ecosystem functions and final ecosystem services, the period of analysis, and evaluation period.
 - c. The scope of the watershed project plan must include specific Watershed Program requirements and associated limits (e.g., watershed size limitations) and a description of the external scoping process conducted with applicable stakeholders or other entities with potential concerns (40 CFR § 1501.9). Note that this section only discusses the scoping process; the results are presented later in the Affected Environment: Current and Future Conditions section.
 - d. Documentation, such as letters of concurrence from regulatory agencies or citations of published technical papers, must be maintained as part of the administrative record and, as appropriate, included in the appendix of the plan. See 390 NWPH Exhibit 606.58 and Exhibit 606.59 for examples.
 - e. For rehabilitation projects with actions entirely covered by categorical exclusions, Form NRCS-CPA-52, and the watershed project Plan-EE template documents the relevant resource concerns and the issues to be addressed in the proposed plan.
6. Related Projects and Studies

- a. In defining the scope of issues to be addressed in the watershed project plan, focus on connected and cumulative actions associated with the proposed action. Any relevant projects or studies that have occurred within the watershed must be disclosed.

501.40 Purpose and Need

- A. Watershed project plans must alleviate problems and take advantage of opportunities in ways that contribute to the Federal Objective and inform what the purpose and need for the action is as applicable for NEPA.
- B. “Purpose” and “need” are NEPA terms. “Problems,” “opportunities,” “project objectives,” and “constraints” are associated with alternative analysis planning processes. The NEPA and planning process terms are closely related and should be described and aligned for logical consistency. All these terms must be used in the watershed project plan to meet the requirements for NEPA and demonstrate that a planning process has been followed. Defining the terms relative to a study are critical steps in the watershed project plan formulation process. Alternatives are solutions to problems to contribute to stated objectives, taking advantage of opportunities while avoiding constraints. Clearly defining these terms is also important for public participation and stakeholder engagement.
 1. Purpose. This subsection is a clear and concise summary statement of the purpose and need for the proposed action; this statement is used for all NEPA environmental documents such as notices, record of decisions (ROD), and finding of no significant impacts (FONSI). This is followed by at least one of the authorized program project purposes from 390 NWPM Part 500, Subpart B. The purpose is then further elaborated by describing the Federal Objective, project objectives, and constraints and considerations.
 2. Need. This subsection summarizes the predominant resource concerns in the watershed and then provides supporting detail on the problems leading to these concerns and on opportunities that could be gained by addressing those problems.
 3. Problems and Opportunities. This subsection is a clear statement of the problems to be solved and the opportunities to be gained (DR 9500-013 § 6(b)(1)). Water and related land resource problems and opportunities must be framed in terms of the Federal Objective and state and local stakeholder consideration of all potential concerns. The definitions of the problems and opportunities must include consideration of all possible alternatives to solve the problems and gaining the opportunities. Problems and opportunities statements must encompass current and future conditions and are dynamic in nature. These statements can be re-evaluated and modified over the course of the planning process.
 - a. Problems
 - (1) Problem definitions are a detailed description of negative issues affecting the human environment that are addressed by the project and plan. They begin with a specific and concise statement of the issues, followed by identification and detailed description of the underlying stressors.

- (2) In any ecosystem framework, stressors are specific physical, chemical, or biological disturbances that ecosystems and resources respond to. They can be natural or foreign to the system. Although problems are generally negative, stressors can be positive or negative. Examples of stressors include but are not limited to changes in temperature and precipitation, air pollution, water contaminants, altered hydrology, resource exploration and extraction, accidentally started fires, forest pests, and off-road vehicle use (noise and dust).
- (3) Drivers are human-related factors and activities or natural-system dynamics that help drive ecosystem resource conditions. Drivers tend to be large-scale and long-term and are not easily controlled or changed. They influence change in natural systems. Examples of drivers include but are not limited to climate change, energy production and resource extraction, biological resource use, human intrusion and disturbance, invasive and problematic species and pathogens, and agriculture.
- b. Opportunities
 - (1) Water resource projects must provide opportunities to positively address problems. Opportunity definitions specifically identify and describe all the foreseeable ways in which a proposed watershed project will:
 - (a) Positively resolve immediate problems (stressors).
 - (b) Promote positive, long-term stability and, as appropriate, change in large-scale issues (drivers) affecting the project area.
4. Objectives and Constraints. Planning objectives and constraints are statements of the reasons for the watershed planning effort. The objectives and constraints should reflect the views of coordinating agencies, consulting parties, and the public, identified during scoping and initial consultations regarding the problems and opportunities of the planning area. Objectives are the desired results of a watershed project. Constraints are conditions that limit a project's ability to achieve the objectives. Watershed project plans must be formulated to meet the project objectives and to avoid the constraints.
 - a. Planning objectives are statements that describe the desired results of the planning process by solving the identified problems and taking advantage of the identified opportunities. The planning objectives must be directly related to the identified problems and opportunities and are used to formulate and evaluate alternatives. Objectives must be clearly defined and provide information on the following:
 - (1) The desired effect (quantified, if possible)
 - (2) The subject of the objective (what accomplishing the objective will change)
 - (3) The location where the expected result will occur
 - (4) The timing of the effect (when would the effect occur)
 - (5) The duration of the effect
 - b. Constraints are the restrictions that limit the ability of the planning process or the project to achieve the federal or project-specific objectives. Constraints may be natural environmental conditions, economic factors, social or cultural circumstances, or a combination of all three. Constraint descriptions should be framed as simple concise statements followed by detailed discussions.

5. The Federal Objective must be stated in the watershed project plan as follows "Water resources investments shall reflect national priorities, encourage economic development, and protect the environment by:
 - a. seeking to maximize sustainable economic development;
 - b. seeking to avoid the unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood-prone area must be used; and
 - c. protecting and restoring the functions of natural systems and mitigating any unavoidable damage to natural systems.

501.41 Affected Environment: Current and Future Conditions

A. This section describes the current physical, biological, ecological, economic, cultural, and social environment for each relevant resource concern of the watershed and other areas of direct or indirect project impact including staging, borrow, ingress, egress, and spoil areas. Projected future conditions are also provided to the extent possible based on reasonably foreseeable trends and actions in the watershed (DM 9500-013 § 6(b)(3)).

1. Resource Categories and Ecosystem Services of Concern

- a. The Affected Environment begins with a summary table (Figure 501D-3) of the Resource Categories of Concern Identified During Scoping, including ecosystem services (see 390 NWPM § 501.25(B)). The table identifies how the potential resource concerns and ecosystem services are related to the proposed project. It also provides rationale for the consideration or dismissal of resource concerns based on their governing authority, their level of significance under NEPA, or both.
- b. Resource concerns identified as relevant to the proposed action are then detailed in the Affected Environment and Environmental Consequences sections of the watershed project plan. Resource concerns determined not relevant to the proposed project do not need to be discussed further in the document. This table includes the required resource concerns and any items and concerns identified during scoping by the public, other federal, state, and local agencies, tribes, and NHOs that are not otherwise covered under the required items.

Figure 501D-3: Resource Categories of Concern and Ecosystem Services Identified During Scoping

ITEM/CONCERN	RELEVANT TO THE PROPOSED ACTION (YES/NO)	RATIONALE
Soil-Related Concerns	Relevant to the Proposed Action (Yes/No)	Rationale
Soil Resources		
Prime and Unique Farmland, and Farmland of Statewide or Local Importance		

ITEM/CONCERN	RELEVANT TO THE PROPOSED ACTION (YES/NO)	RATIONALE
Water-Related Concerns	Relevant to the Proposed Action (Yes/No)	Rationale
Water Resources		
Sole Source Aquifers (SSA)		
Water Quality		
Floodplain Management		
Coastal Zone Management Areas		
Waters of the U.S., Wetlands, & Special Aquatic Sites		
Coral Reefs		
Regional Water Resource Plans (including coastal plans)		
Wild and Scenic Rivers		
Air-Related Concerns	Relevant to the Proposed Action (Yes/No)	Rationale
Air Quality		
Pub. L. No. Plant and Animal-Related Concerns	Relevant to the Proposed Action (Yes/No)	Rationale
Endangered and Threatened Species		
Migratory Birds		
Bald and Golden Eagles		
Essential Fish Habitat		
Ecologically Critical Areas		
Invasive Species		
Fish and Wildlife (including coordination requirements)		
Natural Areas		
Riparian Areas		
Forest Resources		
Human Use-Related Concerns	Relevant to the Proposed Action (Yes/No)	Rationale
Cultural Resources and Tribal Consultation		
Environmental Justice and Civil Rights		
Social Issues		
Local, Regional, and National Economy		
Public Health and Safety		
Scenic Beauty		
Parklands (including National Parks, Monuments, and Historical Sites)		
Significant Scientific Resources		

ITEM/CONCERN	RELEVANT TO THE PROPOSED ACTION (YES/NO)	RATIONALE
Land Use		
Scoped Ecosystem Services of Concern	Relevant to the Proposed Action (Yes/No)	Rationale
Provisioning		
Regulating		
Supporting		
Cultural		
Other Concerns Identified by SLO, Agencies, and the Public	Relevant to the Proposed Action (Yes/No)	Rationale

Prepared: Month/Year

2. Inventory of Existing Resources and Conditions

- a. Determining the affected environment begins with inventories of the existing resource conditions and the relevant ecosystem services of the watershed project area. The inventory section describes, qualifies, and quantifies each resource concern identified as relevant to the proposed action at a level of detail commensurate with the potential effects of the proposed action. The inventory of each resource concern must be sufficiently detailed to determine (1) the significance of any project impacts to that resource concern and (2) project compliance with the applicable laws and authorities for that resource. Inventories should include resource data and analysis appropriate for the identified resource concerns. Inventories must include the quantity and quality of current and potential environmental, economic, and social resources and ecosystem services in the watershed project area and their relationships. Inventories may suggest additional problems or opportunities and must list and describe the resources and services most likely to be impacted by the proposed project.
- b. Develop the inventories to facilitate analysis under an ecosystem services approach and describe existing resource conditions, ecosystem services provided, and local economic and social conditions. Inventories must include a list of ecosystem services that flow from the existing watershed project area ecosystems and infrastructure with identification of those that are likely to change because of any works of improvement that may be implemented.
- c. Data gathered during resource inventory and analyses of those data must be commensurate with the importance of the resource and impact to the project objectives (40 CFR § 1502.15). All information in this section must provide a context for forecasting the baseline conditions expected to exist under the No Action alternative.

3. Forecast Future Conditions

- a. Watershed project plans must present a reasonable forecast of future conditions (DM 9500-013 § 6(b)(3)). Some conditions will be constant throughout the evaluated life of the project, while others will be subject to change because of social, economic, and political influences. Reasonably foreseeable environmental,

economic, and social trends within the watershed area must be considered in the forecasting process.

- b. Following the inventory, existing resources and conditions must be projected into the future to establish a baseline for evaluating alternatives. The ecosystem services within in the watershed project area must be projected as well. In the analysis, this baseline is known as the No Action condition. (See 390 NWPM § 501.12(B) for clarification).
- c. The No Action condition is the most likely future condition or set of conditions if no effort is made to resolve existing project area problems and maximize opportunities or address project objectives and eliminate constraints. It includes any changes expected to result directly, indirectly, or cumulatively from all reasonably foreseeable circumstances without alternative actions. As alternatives are formulated, the No Action condition becomes the No Action alternative.

501.42 Alternative Formulation

- A. The alternative formulation process is the basis for selecting structural and nonstructural works of improvement. Although all works of improvement may not be appropriate for a particular alternative, a broad set of works of improvement that could accomplish project objectives must be considered. are summarized using the format in Figure 501D-3.
- B. All reasonable alternatives that meet the purpose and need for action, including those outside of NRCS jurisdiction, must be developed regardless of SLO preference. In accordance with the Federal Objective, Guiding Principles, and environmental, economic, and social effects, watershed plans must consider a range of alternatives to address the problems and opportunities associated with defined resource concerns. Alternative formulations use the following four criteria: completeness, effectiveness, efficiency, and acceptability.

1. Formulation Process

- a. Alternative solutions are formulated based on the issues relevant to defining the problems and opportunities. Alternatives must be formulated systematically to identify a range of reasonable alternatives. When formulating alternatives, include only increments (e.g., structural, nonstructural, monetary, nonmonetary) that provide combined beneficial effects that outweigh combined adverse effects.
- b. A complete alternative represents a combination of works of improvement that meet the project purpose and need, Federal Objective, Guiding Principles, and Project Objectives with appropriate consideration of cost. Nonstructural works of improvement must be formulated, if they exist, and carried forward into the final array of alternatives, combined with structural works of improvement, or both. This section must identify risk and uncertainty inherent in the analyses performed, as well as risk and uncertainty associated with future conditions, such as climate change, future land use, and adaptive management, and the potential future effects of each alternative. This includes describing the nature, likelihood, and magnitude of risks (quantified, if possible), as well as the uncertainties associated with key supporting data, projections, and evaluations for competing alternatives.

- c. A watershed project plan analysis must include a description of the residual risk associated with each alternative (i.e., the risk and severity of a specific event, considering any safety or mitigation measures included in the alternative). Risk and uncertainty are explained in the Environmental Consequences: Evaluate Alternatives section of the project plan (section 501.43 of this subpart) and listed in the corresponding Summary and Comparison of Alternatives tables.

2. Alternatives Considered

- a. NEPA requires formulation and comparison of alternatives (40 CFR § 1502.14). Plan preparers must:
 - (1) Explore and objectively evaluate all reasonable alternatives; for alternatives which were eliminated from detailed study, briefly discuss the reasons for eliminating them
 - (2) Detail each alternative (including the proposed action) substantially, so that reviewers and readers may understand how alternatives were selected and assessed and evaluate the comparative merits of the alternatives
 - (3) Include reasonable alternatives not under the lead agency's jurisdiction
 - (4) Include the No Action alternative
 - (5) Identify the NRCS-preferred alternative in the draft Plan-EA or Plan-EIS and in the final Plan-EA or Plan-EIS
 - (6) Include appropriate mitigation measures not already in the proposed action or alternatives
- b. NRCS may include an alternative preferred by the SLO or local interest with oversight or implementation responsibilities. If a locally preferred alternative is identified, it must be fully considered and carried forward into the final array of alternatives and given full and equal consideration in the decision-making process.
- c. The alternatives to be studied must be described in substantial and equal detail to support a logical comparison of the alternatives. The final analysis must include at least the following alternatives as applicable.
 - (1) No Action Alternative. Detailed analysis of the No Action alternative is required in all plans. Include a description of the hazard potential of each alternative if hazard potential is present; for example, an explanation of the rationale for dam classification and the risk of dam failure from overtopping or from other causes must be addressed and evaluated. Describe any damages and flood hazards expected after the project is installed.
 - (2) Nonstructural Alternative. For purposes of flood prevention and other purposes as applicable, at least one nonstructural alternative, if it exists, must be studied in detail and included in the final array of alternatives. Nonstructural alternatives can involve individual nonstructural works of improvement, a combination of nonstructural and structural works of improvement, or both.
 - (3) Locally Preferred Alternative. A reasonable SLO-financed alternative without federal investment may be analyzed as an alternative. The SLO-financed alternative may not, however, be presented as the No Action alternative to be compared with federal investment actions. If identified in collaboration with the SLO, this alternative must be fully considered and carried forward into the

final array of alternatives and given full and equal consideration in the decision-making process.

- (4) Environmentally Preferable Alternative. If NEPA analysis identifies an environmentally preferable alternative during EIS development, that alternative must be included in the final array of alternatives and given full and equal consideration in the decision-making process.

3. Alternatives Considered but Eliminated from Detailed Study

- a. This section describes the alternatives that were considered and eliminated from detailed study. This screening occurs between scoping and detailed alternative analysis. Any alternative that does not meet the purpose and need for action does not need to be considered in detail. Other criteria for eliminating an alternative are as follows:
 - (1) Completeness. The extent to which a given alternative accounts for all necessary investments or other actions, including any necessary actions by others, to achieve the planned effects. Assessing completeness may require relating the NRCS-preferred alternative to other types of public or private alternatives, particularly if the latter may be important for achieving the project objective. It does not necessarily mean that alternative actions need to be large in scope or scale.
 - (2) Effectiveness. The extent to which an alternative alleviates the specified problems and achieves the specified opportunities and objectives consistent with protecting the nation's environment.
 - (3) Efficiency. The extent to which an alternative plan is the most cost-effective means of alleviating the specified problems and constraints and achieving the specified opportunities and objectives consistent with protecting the Nation's environment.
 - (4) Acceptability. The viability and appropriateness of an alternative from the perspective of the public, consistent with existing federal and state laws, authorities, and public policies. It does not include local or regional preferences for solutions of political expediency.
- b. All alternatives are screened using criteria established based on the project objectives and constraints identified in the watershed project plan.
- c. For each alternative that is eliminated from detailed study, the watershed project plan must discuss the reasons for its elimination with sufficient detail to support the elimination decision (40 CFR § 1502.14(a)). Alternatives that initially appear reasonable but are determined to be unreasonable during analysis because of cost, logistics, existing technology, or environmental reasons must be included in this section. The reasons for elimination must be described with sufficiently detail to support the elimination decision. Alternatives cannot be eliminated solely because of the SLO's preference.
- d. The watershed project plan must clearly demonstrate how alternatives were eliminated from detailed study using the four screening criteria, project objectives, and constraints. Figure 501D-4 provides a template for presenting the information in the watershed project plan. This information in Figure 501D-4 lists which alternatives are eliminated from detailed study and which are analyzed in the final array of alternatives.

4. Final Array of Alternatives

This section provides a summarized narrative description in tabular format of the alternatives brought forward for detailed analysis. The alternatives must be summarized in comparative form in substantially equal detail and include major items used in the decision-making process.

Figure 501D-4: Summary of Alternatives Preliminary Screening Evaluation¹

Plan Description	No Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
NEPA Purpose & Need ²						
Contribution to Planning Objectives³	No Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Objective 1						
Objective 2						
Objective 3						
Objective 4						
Response to Planning Constraints⁴	No Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Constraint 1						
Constraint 2						
Constraint 3						
Constraint 4						
Response to Evaluation Criteria⁵	No Action	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Acceptability						
Completeness						
Efficiency						
Effectiveness						

Prepared: Month/Year

501.43 Environmental Consequences: Evaluate Alternatives

- A. The intent of this section is to provide the analytical basis for comparing the effects of each alternative (for projects covered by CEs, this section may be replaced with the EE or

¹ Add additional columns, rows, or pages as needed.

² Describe how well a given alternative meets the purpose and need.

³ Briefly describe how the alternative performs relative to each project objective developed during the planning

NRCS-CPA-52). This section must thoroughly describe the economic, environmental, and social effects of each alternative with enough detail to support an understanding of each alternative's comparative effects. This section uses an ecosystem services framework (DM 9500-13 § 9) to determine, trace, and measure ecosystem service effects from actions being undertaken at a level of detail applicable to the plan commensurate with its project type, associated risks, and monetary thresholds. All watershed projects started after August 18, 2018, must implement PR&G regardless of costs (see section 501.30 of this part). Identify risk and uncertainty inherent in the analyses performed and associated with the future conditions and potential effects of each alternative in this section and corresponding tables.

1. Evaluation of Alternatives through the Planning Process

- a. This section compares the alternatives on how well they resolve the problems identified, performance against the project objectives, their constraints, and evaluation criteria of completeness, acceptability, efficiency, and effectiveness. The comparison requires identifying and briefly describing the major works of improvement of each alternative after completing the final detailed analysis. Each alternative should have effects of varying degrees and must be described in comparative form and in substantial equal detail. The end of this section must have a table that summarizes this information. Use Figure 501D-5 to summarize and compare alternatives.

Figure 501D-5: Summary and Comparison of Alternatives - Planning Process¹

Item or Concern ² -	No Action ³	Alternative A	Alternative B	Alternative C	Alternative D
Alternative Major Features / Works of Improvement by Authorized Purpose					
Flood Prevention					
1.					
2.					
3.					
Watershed Protection					
1.					
2.					
3.					
Public Recreation					
1.					

process.

⁴ How the alternative avoids any constraints identified.

⁵ Briefly describe how the alternatives perform against the criteria.

¹ Add columns or pages as needed.

² This column lists the authorized purposes for which works of improvement applicable to the authorized purpose will be implemented to address issues.

³ Information presented in these columns reflects the expected effects of the works of improvement evaluated for each alternative. The information shall be consistent by type and detail across the alternatives.

Item or Concern ² -	No Action ³	Alternative A	Alternative B	Alternative C	Alternative D
Alternative Major Features / Works of Improvement by Authorized Purpose					
2.					
3.					
Public Fish & Wildlife					
1.					
2.					
3.					
Agricultural Water Management					
1.					
2.					
3.					
Municipal & Industrial Water Supply					
1.					
2.					
3.					
Water Quality Management					
1.					
2.					
3.					
Project Objectives⁴					
Objective 1.					
Objective 2.					
Objective 3.					
Constraints⁵					
Constraint 1.					
Constraint 2.					
Constraint 3.					
Evaluation Criteria⁶					
Completeness					
Efficiency					
Effectiveness					
Acceptability					

Prepared: Month/Year

⁴ Briefly describe how each alternative meets each project objective developed during the planning process.

⁵ Briefly describe how each alternative avoids any constraints identified during the planning process.

⁶ Briefly describe how each alternative performs against the criteria, in the respective column.

2. Evaluation of Alternatives through the Ecosystem Services Tradeoff Analysis
 - a. The PR&G requires a comparison of each alternative's contribution to the Federal Objective and Guiding Principles using an ecosystem services approach. This includes comparing and discussing the tradeoffs of each alternative.
 - b. Watershed project plans must explicitly identify tradeoffs within and between the environmental, economic, and social effects of each alternative being considered for detailed analysis. Thus, the comparison must explicitly discuss the respective tradeoffs between these effects as well as the degree to which federal, state, and local goals of the project are achieved. Consider both monetary and nonmonetary benefits during tradeoff analyses.
 - c. Excluding relevant benefits and costs biases the results and reduces the accuracy of a monetized benefit-cost analysis. Watershed project plan analysis must consider other quantified and qualified effects and include other nonmonetized benefits in the tradeoff analysis (e.g., social and environmental impacts) using the ecosystem services framework.
 - d. Elements of a tradeoff include:
 - (1) The alternatives brought into detailed study
 - (2) Brief description of major project features
 - (3) Total project investment
 - (4) Monetized net benefits
 - (5) Ecosystem services
 - (6) Regional economic impacts
 - e. Tradeoffs must be considered from the perspective of the specific circumstances of each alternative, including the study area, existing resources, and impacted populations. Ecosystem service tradeoffs must similarly briefly describe the monetized and nonmonetized effects.
 - f. This subsection ends with the Summary and Comparisons of Alternatives Tradeoff Analysis table. The Guiding Principles portion of the table must indicate whether each alternative meets each respective Guiding Principle. The table must also identify the suite of ecosystem services affected by the project and summarize any resulting effects identified as relevant. The preferred alternative must be identified within the table. Figure 501D-6 is a template for the tradeoff analysis.
 - g. Ecosystem Services listed below should be described in the narrative and table format. Describe only those relevant to the watershed project plan.
 - (1) Provisioning services are tangible goods provided for direct human use and consumption. Examples include food, (e.g., crops, fruit, fish) fiber and fuel (e.g., timber, wool; biochemicals, natural medicines, and pharmaceuticals), genetic resources (i.e., genes and genetic information used for biotechnology and animal and plant breeding), and ornamental resources (e.g., shells, flowers).
 - (2) Regulating services maintain a world in which it is possible for people to live by providing critical benefits that buffer against environmental catastrophe. Examples include air-quality maintenance (i.e., ecosystems contribute chemicals to and extract chemicals from the atmosphere), climate regulation (e.g., land cover can affect local temperature and precipitation, while globally

ecosystems affect greenhouse gas sequestration and emissions), water regulation ecosystems (affecting the timing and magnitude of factors such as runoff and flooding), erosion control (i.e., vegetative cover plays an important role in soil retention, prevention of land and asset erosion, and protection from natural hazards such as storms, floods, and landslides), water purification and detoxification (i.e., ecosystems filtering out and decompose organic waste), natural hazard protection (e.g., storms, floods, landslides), and bioremediation of waste (i.e., removal of pollutants through storage, dilution, transformation and burial).

- (3) Cultural services make the world a place in which people want to live by providing for recreational use, spiritual value, aesthetic viewsheds, or tribal values.
 - (a) Spiritual and religious value. Many religions attach spiritual and religious values to ecosystems. Ecosystems can provide inspiration for art, folklore, architecture, and other creative pursuits.
 - (b) Social relations. Ecosystems affect the establishment of social relations.
 - (c) Aesthetic values. Many people find beauty in various aspects of ecosystems.
 - (d) Cultural heritage values. Many societies place high value on maintaining important landscapes and plant and animal species. Ecosystems also provide opportunities for recreation and ecotourism.
- (4) Supporting services are underlying processes that maintain life on Earth, including nutrient cycling, soil formation and retention, primary production, water cycling, production of atmospheric oxygen, and provision of habitat.

h. Regional Economic Impacts

- (1) The watershed project plan must quantify the regional economic impacts of construction and operation on local and regional income, employment, and other measures of the regional economy in narrative form and in the Summary and Comparison Alternatives table. Where impacts are anticipated to be the same across all alternatives or not play a significant role in evaluating alternatives and recommending a plan, a qualitative assessment may suffice.
- (2) Quantifying economic impacts includes employment and income effects of the project due to the project construction. This typically is associated with short-term employment and income associated with project construction. Most watershed projects will not create long-term employment and income effects. However, long term effects are possible and must also be discussed. See the PR&G, the U.S. Army Corps of Engineers (USACE) Engineer Regulation 1105-2-100, and 200 NREH § 611.0503 for guidance.
- (3) It is important to ensure impacts are accounted for in the ecosystem services categories and attributed to regional economic impacts.

Figure 501D-6: Summary and Comparison of Alternatives – Ecosystems Services Tradeoff Analysis¹

Criterion ²	No Action	Alternative A	Alternative B	Alternative C	Alternative D
Alternative Identification					
Locally Preferred					
Non-structural					
Environmentally Preferred					
Maximum Net Monetized Benefits Plan					
Socially Preferred					
Preferred Alternative (Maximum Net public benefits identified through tradeoff analysis)					
Guiding Principles³ – Select the alternative that best meets each Guiding Principle.					
Healthy and Resilient Ecosystems (A primary objective of the analysis is identifying alternatives that will protect and restore the functions of ecosystems.)					
Sustainable Economic Development (Alternatives for resolving water resources problems should improve the economic well-being of the Nation for current and future generations.)					
Floodplains (Alternatives should avoid investments that adversely affect self-sustaining floodplain function.)					

¹ Add alternative columns or pages as needed.

² Indicate with X which alternative is associated with the type of alternative in the column of this section as applicable.

³ Describe how alternatives meet the corresponding Guiding Principle.

Criterion ²	No Action	Alternative A	Alternative B	Alternative C	Alternative D
Public Safety (Alternatives should reduce risks to people, including life, injury, property, essential public services, and environmental threats to air and water quality.)					
Environmental Justice (An objective of the watershed project plan evaluation process is the fair treatment of all people, including meaningful involvement in the public comment process.)					
Watershed Approach (A watershed approach recognizes that a water resources activity may have upstream and downstream impacts that are outside the applicable political or administrative boundaries.)					
Ecosystem Services Effects⁴ – Description of impacts monetized and non-monetized. Add lines as needed.					
Provisioning Services – Tangible good provided for direct human use (e.g., timber, food, fiber, and water).					
Provisioning Service 1 (monetized)					
Provisioning Service 1 (nonmonetized)					
Provisioning Service 2 (monetized)					
Provisioning Service 2 (nonmonetized)					

⁴ Briefly describe the non-monetized effects and indicate the monetized value of ecosystem services resulting effects identified as relevant from scoping, by each alternative, as applicable. Add lines as needed.

Criterion ²	No Action	Alternative A	Alternative B	Alternative C	Alternative D
Regulating Services – List relevant services which maintain the world we live in (e.g., flood control, protecting infrastructure, crop pollination).					
Regulating Services 1 (monetized)					
Regulating Services 1 (nonmonetized)					
Regulating Services 2 (monetized)					
Regulating Services 2 (nonmonetized)					
Cultural Services – List relevant service which make the world a place people want to live (e.g., recreation, spiritual, habitat, aesthetics).					
Cultural Service 1 (monetized)					
Cultural Service 1 (nonmonetized)					
Cultural Service 2 (monetized)					
Cultural Service 2 (nonmonetized)					
Supporting Services – List relevant services which refer to the underlying processes maintaining conditions for life on Earth (e.g., nutrient cycling, soil formation, and primary production).					
Supporting Services 1 (monetized)					
Supporting Services 1 (nonmonetized)					
Supporting Services 2 (monetized)					
Supporting Services 2 (nonmonetized)					

Criterion ²	No Action	Alternative A	Alternative B	Alternative C	Alternative D
Economic Analysis ⁵					
Costs					
Total Project Investment					
Annual Project Investment					
Annual OM&R Costs					
Total Annual Project Costs					
Monetized Benefits for Ecosystem Services⁶					
Provisioning					
Regulating					
Cultural					
Supporting					
Total Annual Monetized Benefits⁷					
Total Annual Monetized Costs⁸					
Benefit-Cost Ratio					
Annual Monetized Net Benefit					
Regional Economic Development/Economic Impact Assessment					
Regional Employment					
Regional Income					
Regional Impacts (Other)					

Prepared: Month/Year

3. Evaluation of Alternatives Relative to Resource Concerns

- a. This subsection provides the analytical basis for the comparisons of effects of the alternatives and must describe the economic, environmental, and social effects of each alternative relative to NEPA. For projects covered by CEs, this section may be replaced with the EE or NRCS-CPA-52.
- b. This subsection must identify and describe the specific types of effects each alternative will have on each resource concern, describe the effects on resources, and provide a summary table of effects by alternative. Types of effects that must be evaluated are direct, indirect, and cumulative.
 - (1) Cumulative impacts are the impacts on the environment that result from the incremental impact of the considered alternatives when added to other past, present, and reasonably foreseeable future actions regardless of what agency

⁵ The information listed in this section should be relevant to the economic analysis conducted in Appendix D of the watershed project plan.

⁶ Indicate the aggregated monetized value for ecosystem services and authorized purposes, as applicable from above. This is the aggregated monetized ecosystem services benefits from footnote 4.

⁷ Total monetized benefits for each respective alternative aggregated from benefit categories in footnotes 6 and 7.

⁸ Total monetized costs for each respective alternative.

(federal or nonfederal) or person undertakes such actions. Cumulative impacts include the direct and indirect impacts of a project together with the past, present, and reasonably foreseeable actions of other projects. Cumulative impacts must be specifically considered during the evaluation of alternatives (40 CFR § 1508.1(g)(3)). Guidance on cumulative effects analysis is available in the 190 NECH Part 610.

- (2) The subsection may also define significance criteria for evaluating effects. Significance criteria may be defined in terms of the magnitude, extent, duration, and likelihood of impact. These criteria serve as the analytical basis for determining whether impacts would be considered significant in a NEPA context.
- c. The results of the NEPA scoping process and NHPA Section 106 Step 1 investigations and consultations determine which resources must be addressed and in how much detail (40 CFR § 1501.7). The type of information depends on the location, type, scope, and complexity of the planned action. The discussion must be commensurate to the level of concern. All alternatives, including the No Action alternative, must be identified, described, and discussed in substantially equal detail. All direct, indirect, and cumulative effects on each resource relevant to the proposed action must be addressed for each alternative.
- d. Discussion must include the significance (context and intensity) of all effects and disclose any appropriate measures included to avoid, minimize, or mitigate adverse impacts. Any mitigations or best management practices discussed in the watershed project plan must be implemented during the permitting, construction, and operations phases exactly as described within the plan.
- e. Include information identifying any approved regional plans for water resource management in the study area (40 CFR § 1506.2(d)) and an explicit statement as to whether the proposed project is consistent with such plans (7 CFR § 650.11(b)(3)(iii)).
- f. A summary table must be included at the end of this subsection with a clear, concise determination for each resource by alternative. The effect determination must include the quantity, quality, duration, and significance of the effect and may include the significance criteria if previously defined.

Figure 501D-7: Summary and Comparison of Alternatives – Effects on Resource Concerns¹

Resources	No Action	Alternative A	Alternative B	Alternative C	Alternative D
SOIL-RELATED CONCERNS					
Soil Resources					
Prime and Unique Farmland and Farmland of Statewide or Local Importance					

¹ Only include resource concerns determined to be relevant for this study. Add alternative columns and pages as needed.

Resources	No Actio n	Altern ative A	Altern ative B	Altern ative C	Altern ative D
WATER-RELATED CONCERNS					
Water Resources					
Sole Source Aquifers (SSA)					
Water Quality					
Floodplain Management					
Coastal Zone Management Areas					
Waters of the U.S., Wetlands, & Special Aquatic Sites					
Coral Reefs					
Regional Water Resource Plans (including coastal plans)					
Wild and Scenic Rivers					
AIR-RELATED CONCERNS					
Air Quality					
PLANT AND ANIMAL RELATED CONCERNS					
Plant and Animal - Endangered and Threatened Species					
Migratory Birds					
Bald and Golden Eagles					
Essential Fish Habitat					
Ecologically Critical Areas					
Invasive Species					
Fish and Wildlife (including coordination requirements)					
Natural Areas					
Riparian Areas					
Forest Resources					
HUMAN-USE RELATED CONCERNS					
Cultural Resources and Tribal Consultation					
Environmental Justice and Civil Rights					
Social Issues					
Local, Regional, and National Economy					
Public Health and Safety					
Scenic Beauty					
Parklands (including national parks, monuments, and historical sites)					
Significant Scientific Resources					
Land Use					

501.44 Preferred Alternative

- A. This section describes the preferred alternative and provides supporting rationale for the preference. The preferred alternative is the NRCS preferred alternative and complies fully with NEPA. It is determined in cooperation with the SLO, though it may not be the SLO's preferred alternative. If the preferred alternative requires any NRCS policy waivers or technical variances, the waivers and variances must be approved in writing before submitting the plan for National Water Management Center review (see 390 NWPM Part 502, Subpart A).
1. Rationale for the Preferred Alternative. Alternatives may produce varying kinds and degrees of effects relative to environmental, economic, and social goals. Because these goals do not have a predetermined hierarchical relationship, tradeoffs between potential solutions must be evaluated and communicated during the decision-making process. Prioritizing these goals during the planning process helps preparers, the SLO, coordinating agencies, and consulting parties to understand the preferred alternative selection with any tradeoff considerations.
 - a. The preferred alternative must be the alternative that most effectively and efficiently addresses the purpose and need for the project in an environmentally acceptable manner while maximizing net public benefits, taking the tradeoffs into account. In a Level I analysis, if monetized costs outweigh monetized benefits, a tradeoff analysis must demonstrate that nonmonetized effects will benefit the public. In a Level II analysis, conduct robust comparisons of the net public benefits of the project, including all monetized and nonmonetized benefits and costs.
 - b. For detailed explanation of categorizing alternatives by level of analyses, see section 501.30(E) of this subpart.
 - c. For projects primarily providing nonmonetary benefits such as ecosystem restoration, the preferred alternative most effectively and efficiently addresses the purpose and need at the least cost. Describe the key factors influencing the selection and summarize the ecosystem service impacts of the selected alternative.
 2. Works of Improvement. This subsection describes the works of improvement required to accomplish the project goals. It also describes any required mitigation features. Works of improvement also includes ingress, borrow, egress, staging areas, and other locations of direct and indirect effect from the action in detail, as well as any required mitigation features and other locations of direct and indirect effect from the action.
 3. Irreversible or Irretrievable Commitment of Resources. This subsection describes any irreversible or irretrievable commitment of resources that would occur due to the preferred alternative. These resources typically include the costs of the project as well as any permanent effects on environmental resources and ecosystem services.

4. Areas of Controversy. This subsection identifies potential areas of controversy associated with implementing the preferred alternative. It also identifies all actions, plans, and works of improvement that would be needed to mitigate each controversy.
5. Permits and Compliance. This subsection identifies regulatory, permitting and compliance requirements of the preferred alternative and the projected permitting timeline.
6. Costs and Cost Sharing. All costs of the preferred alternative must be identified and justified in this subsection. These include non-project costs that are necessary for its implementation. Costs must be provided in as much detail as is necessary to incrementally justify including each separable element.
7. Ecosystem Services Benefits. This subsection details the ecosystem services benefits resulting from the preferred alternative.
8. Installation and Financing. This subsection details the installation, responsibilities, contracting, real property rights, and financing of the preferred alternative.
9. Operation, Maintenance, and Replacement. This subsection describes the required operation, maintenance, and replacement responsibilities of the SLO. Average annual operation and maintenance costs must be calculated and justified in this subsection.
10. Emergency Action Plan (only as applicable). The emergency action plan (EAP) outlines procedures to minimize risks to downstream life and property when the integrity of a dam or similar structure may be in jeopardy. The EAP must consider all potential emergency situations, both natural and man-made, and must identify appropriate notifications and responses.

An EAP is required for each dam or similar structure where failure may cause loss of life or as required by state and local regulations. The EAP must meet the minimum content specified in 180 NOMM § 500.52 and meet applicable state agency dam safety requirements. The state conservationist must ensure that an EAP is prepared before construction of the works of improvement. EAPs must be reviewed and updated by the SLOs annually.

11. Economic and Structural Tables. These tables must be included for the preferred alternative and formatted as shown in Figure 501D-7 and the tables in sections 501.45–54 in this subpart. Economic tables must include information relevant to the costs and benefits of the watershed project plan. Structural tables must include information relevant to the design of the works of improvement.
 - a. Date all tables with the month and year. The date must be reasonably current. Dollar values in the tables should be rounded to a practical level of significance.
 - b. All costs should be allocated by Pub. L. No. 83-566 purpose. Multipurpose watershed plans must account for separable and joint costs. These separable and joint costs are allocated using the separable cost - remaining benefit method (200 NREH § 611.0601(b)(1)).

501.45 Economic Table 1 – Estimated and Installation Cost

- A. All works of improvement with their total estimated costs are to be shown in Figure 501D-8 by federal agency and land ownership category, if applicable. This table is the basis for providing technical, cost sharing, and credit assistance using Pub. L. No. 83-566 funds. To prepare the table, follow these instructions.
1. List works of improvement by major types, such as land treatment, floodplain acquisition, flood warning system, floodproofing, floodwater-retarding structures, multipurpose structures, irrigation structures, or channel work. Do not list by purpose or group works of improvement under a purpose designation.
 2. In cases where land treatment is not associated with another structural work of improvement, list land treatment by land use and evaluation unit. When associated with a structural measure, include it with the related structural work of improvement.
 3. If federal agencies other than the NRCS participate in the installation of works of improvement, add columns to the table to show their participation. Columns that do not have entries (for example, if the Forest Service is not participating) may be omitted.
 4. The estimated number of works of improvement units on federal and nonfederal land and the estimated cost to be paid from Pub. L. No. 83-566 funds and other sources for works of improvement must be shown in the body of the table. Estimated costs include any accelerated help that may be provided by other programs for cost sharing and technical assistance on nonfederal land and works of improvement on federal lands.

Figure 501D-8: Table 1 – Estimated Installation Cost [Name of Watershed], [State] [Dollars]

Works of Improvement	Units	Federal Land - Number	Non-federal Land - Number	Total - Number	Public Law 83-566 Estimated Cost - Federal Land (Dollars)	Public Law 83-566 Estimated Cost - Non-federal Land (Dollars)	Public Law 83-566 Estimated Cost - Total (Dollars)	Other Funds Estimated Cost - Federal Land (Dollars)	Other Funds Estimated Cost - Non-federal Land (Dollars)	Other Funds Estimated Cost - Total (Dollars)	Estimated Cost - Total (Dollars)
Land treatment evaluation unit											
Land treatment evaluation unit A											
Land treatment evaluation unit B											
Land treatment evaluation unit, Technical assistance											
Subtotal Land Treatment											

Works of Improvement	Units	Federal Land - Number	Non-federal Land - Number	Total - Number	Public Law 83-566 Estimated Cost - Federal Land (Dollars)	Public Law 83-566 Estimated Cost - Non-federal Land (Dollars)	Public Law 83-566 Estimated Cost - Total (Dollars)	Other Funds Estimated Cost - Federal Land (Dollars)	Other Funds Estimated Cost - Non-federal Land (Dollars)	Other Funds Estimated Cost - Total (Dollars)	Estimated Cost - Total (Dollars)
Nonstructural Preservation Easements											
Nonstructural Preservation Easements, Flood proofing											
Nonstructural Preservation Easements, Land acquisition											
Nonstructural Preservation Easements, Flood warning system											
Nonstructural Preservation Easements, Relocation											
Subtotal Nonstructural											

Works of Improvement	Units	Federal Land - Number	Non-federal Land - Number	Total - Number	Public Law 83-566 Estimated Cost - Federal Land (Dollars)	Public Law 83-566 Estimated Cost - Non-federal Land (Dollars)	Public Law 83-566 Estimated Cost - Total (Dollars)	Other Funds Estimated Cost - Federal Land (Dollars)	Other Funds Estimated Cost - Non-federal Land (Dollars)	Other Funds Estimated Cost - Total (Dollars)	Estimated Cost - Total (Dollars)
Structural Measures											
Structural Measures, Floodwater-retarding structures											
Structural Measures, Multi-purpose structures											
Structural Measures, Channel work											
Subtotal Structural											
Total project											

Prepared: Month/Year

501.46 Economic Table 2 – Estimated Cost Distribution

- A. For watershed protection and flood prevention watershed project plans, use Economic Table 2 (see Figure 501D-9) to show the various items of installation cost for individual works of improvement. This table determines the percentages of costs to be shared by the SLO and NRCS for each work of improvement.
- B. For dam rehabilitation plans, there is a spreadsheet for calculating the installation costs for Table 2 the total eligible project cost for determining cost-share amounts. The spreadsheet is available on the Watershed Program Branch REHAB SharePoint.
- C. To prepare the table, follow these instructions.
 1. Under the “Works of Improvement” column, list each measure that has a separate cost estimate. Use the same number or name in this table as is used on the project map. Grade stabilization structures may be grouped when there is no separate estimate for each structure in a system.
 2. Ensure that individual measures are only grouped with other measures if they have the same cost sharing. Specific cost items and recreation facilities must be included as separate line items.
 3. The estimated construction cost includes costs expected to be incurred during the installation period (e.g., costs for cultural resource protection and other mitigation) and a realistic allowance for inflation and other factors following good estimating practices. For a detailed list of potential construction costs, see 390 NWPM § 501.80.
 4. The estimated real property acquisition cost consists of all costs, including those needed for cultural resource protection and other mitigation, for purchasing the needed real property.
 5. For measures incorporating non-project features, the non-project cost (enhancements) is shown in brackets below the project cost in the appropriate columns with an explanatory footnote. The grand total cost includes only project costs.
 6. Incorporate the estimated cost for project administration as part of each item listed. The project administration part of the installation cost to be borne by the SLOs includes the costs of administering construction contracts and relocation assistance advisory services.
 7. When applicable, use footnotes to identify such items as:
 - a. Legal fees, survey costs, or floodplain easements and their values
 - b. Engineering service contract costs to be borne by Public Law 83-566 funds and others
 - c. Non-project cost items
 - d. Kind and value of modifications or alterations included with the real property costs
 - e. The cost of cultural resource protection and mitigation
 - f. The cost of other environmental or social mitigation measures

- g. Project costs for nonstructural measures not applicable in benefit-cost framework (not part of calculation of net monetized benefits as applicable to the preferred alternative for which tables are completed)

Figure 501D-9: Table 2 – Estimated Cost Distribution—Water Resource Project Measures [Name of Watershed], [State] [Dollars]¹

Works of Improvement Installation Cost	Public Law 83-566 Construct-ion ²	Public Law 83-566 - Engineeri-ng ³	Public Law 83-566 - Real property rights ^{4 5}	Public Law 83-566 - Relocation payments	Public Law 83-566 -Project admin.	Total Public Law 566	Other Funds - Construct-ion ²	Other Funds - Engi-neering ³	Other Funds - Real prop. Rights ^{4, 5}	Other Funds - Water rights	Other Funds - Relocation payments	Other Funds - Project admin. ⁶	Total other	Total - Installation costs
Floodwater retarding structure No. 1														
Multiple purpose structure														
No. 2 Recreational development and facilities														
No. 3 Water supply intake tower														
Channel work Main A 10+00-40+00														

¹ Price base: _____

² Includes \$ _____ of Public Law 83-566 funds and \$ _____ of other funds for cultural resource protection and mitigation measures.

³ Engineering services contract cost to be borne: \$ _____ by Public Law 83-566 funds and \$ _____ by other funds.

⁴ Includes \$ _____ of real property cost for mitigation.

⁵ Includes \$ _____ or surveys, legal fees, other costs.

⁶ Includes \$ _____ for relocation assistance advisory service.

Works of Improvement Installation Cost	Public Law 83-566 Construct-ion ²	Public Law 83-566 - Engineeri-ng ³	Public Law 83-566 - Real property rights ^{4 5}	Public Law 83-566 - Relocation payments	Public Law 83-566 -Project admin.	Total Public Law 566	Other Funds - Construct-ion ²	Other Funds - Engi-neering ³	Other Funds - Real prop. Rights ^{4, 5}	Other Funds - Water rights	Other Funds - Relocation payments	Other Funds - Project admin. ⁶	Total other	Total - Installation costs
Lateral A 10+00-20+00														
Relocation of properties														
Flood-proofing														
Floodplain acquisition														
Flood-warning system														
Land Treatment														
Total														

Prepared: Month/Year

Add additional table footnotes as applicable.

501.47 Economic Table 2a – Cost Allocation and Cost Sharing for Multipurpose Watershed Project Plans

- A. Pub. L. No. 83-566 requires costs be allocated to the various purposes for cost-sharing requirements. Table 2a (see Figure 501D-10) shows the installation costs allocated to various purposes in multipurpose projects, as well as the sharing of costs allocated to each purpose. Include relocation payments in the same manner as those for construction, real property rights, and engineering costs. Use as many columns as necessary to show each project purpose. To prepare the table, follow these instructions.
1. Each of the individual purposes served by project measures must be entered under the cost allocation purpose columns.
 2. All single-purpose works of improvement serving the same purpose may be grouped by purpose under Works of Improvement. Each multipurpose work of improvement and specific cost items must be listed separately in the same manner as shown in Figure 501D-9. Use a footnote to indicate the method of cost allocation for multipurpose works of improvement.
 3. In the cost-sharing section of the table, distribute the total cost allocated to each purpose to Pub. L. No. 83-566 funds and other funds according to applicable cost-sharing policy.

Figure 501D-10: Table 2a – Cost Allocation and Cost Sharing Summary for Multipurpose Watershed Project Plans [Name of Watershed], [State]
[Dollars]¹

Works of Improvement	Cost Allocation - Flood Prevention Purpose	Cost Allocation - Watershed Protection Purpose	Cost Allocation - Ag Water Management Purpose	Cost Allocation by Purpose - Total	Public Law 83-566 Cost Share Flood Prevention	Public Law 83-566 Cost Share Watershed Protection	Public Law 83-566 Cost Share Ag Water Management	Public Law 83-566 Cost Share Total	Other Funds Cost Share - Flood Prevention	Other Funds Cost Share Watershed Protection	Other Funds Cost Share Ag Water Management	Other Funds Cost Share Total
Grade stabilization structure (GSS)												
GSS Construction												
GSS Engineering												
GSS Relocation												
GSS Real property rights												
GSS Project admin.												
GSS Subtotal												
Multiple purpose (MP)												
MP Structure No.												
MP Construction												

¹ Price base: _____

Works of Improvement	Cost Allocation - Flood Prevention Purpose	Cost Allocation - Watershed Protection Purpose	Cost Allocation - Ag Water Management Purpose	Cost Allocation by Purpose - Total	Public Law 83-566 Cost Share Flood Prevention	Public Law 83-566 Cost Share Watershed Protection	Public Law 83-566 Cost Share Ag Water Management	Public Law 83-566 Cost Share Total	Other Funds Cost Share - Flood Prevention	Other Funds Cost Share Watershed Protection	Other Funds Cost Share Ag Water Management	Other Funds Cost Share Total
MP Engineering												
MP Relocation												
MP Real property rights												
MP Acquisition												
MP Legal fees												
MP Easements												
MP Road & utility modification												
MP Project administration												
MP Subtotal												
Recreation facilities (RF)												
RF Construction												
RF Engineering												

Works of Improvement	Cost Allocation - Flood Prevention Purpose	Cost Allocation - Watershed Protection Purpose	Cost Allocation - Ag Water Management Purpose	Cost Allocation by Purpose - Total	Public Law 83-566 Cost Share Flood Prevention	Public Law 83-566 Cost Share Watershed Protection	Public Law 83-566 Cost Share Ag Water Management	Public Law 83-566 Cost Share Total	Other Funds Cost Share - Flood Prevention	Other Funds Cost Share Watershed Protection	Other Funds Cost Share Ag Water Management	Other Funds Cost Share Total
RF Real property rights												
RF Acquisition												
RF Legal fees												
RF Easements												
RF Project administration												
RF Subtotal												
Total												

Prepared: Month/Year

501.48 Economic Table 2b – Recreational Facilities—Estimated Construction Costs

- A. Table 2b (see Figure 501D-11) shows the number, estimated unit construction cost, NRCS and SLO cost share, and total cost for each type of recreational facility. This table is included if recreational development is an integral part of the plan and recreational benefits for a planned development are evaluated monetarily, regardless of whether Pub. L. No. 83-566 funds will share any of the cost for facilities. To prepare the table, follow these instructions.
1. Where more than one development is involved, identify the facilities to be installed at each development. Types of facilities may include access roads, parking lots, water supply, sanitary facilities, beach development, boat docks, picnic tables, or fireplaces.
 2. Under Number, show the number of each type of facility planned. Include a footnote to indicate which items are estimated and subject to minor variation.
 3. Use a footnote to indicate the total federal and nonfederal costs of works to be constructed.

Figure 501D-11: Table 2b – Recreational Facilities—Estimated Construction Costs
[Name of Watershed], [State] [Dollars)]¹

Works of Improvement	Number ²	Estimated unit cost	Total Construction Cost
Total			

Prepared: Month/Year

501.49 Structural Table 3 – Dams with Planned Storage Capacity

- A. Use Table 3 (see Figure 501D-12) to show the planned storage capacity of dams. To prepare the table, follow these instructions.
1. Class of structure should be indicated as low, significant, or high hazard potential as defined in 210 NEM § 520.21(E).
 2. Total drainage area includes the controlled and uncontrolled drainage area above the planned structure. If two or more structures are in series, the drainage area above the upstream structures is the controlled drainage area and the area between the upstream structure and the structure being listed is the uncontrolled drainage area.

¹ Price base: _____

² Estimated quantity, subject to minor variation at time of detailed planning.

3. The auxiliary spillway type refers to the type of material, such as vegetated, rock, earth, or concrete.
4. Show the 1-day runoff curve number used for design of the structures. Note any deviation from the use of an antecedent moisture condition II runoff curve number.
5. The floodwater-retarding pool is the reservoir space allotted for temporary impoundment of floodwater and aerated sediment. Its upper limit is the elevation of the crest of the lowest auxiliary spillway. Floodwater-retarding capacity is the volume in the floodwater-retarding pool less the aerated sediment. The surface area of the floodwater retarding pool is the area at the crest elevation of the lowest auxiliary spillway.
6. The submerged sediment capacity must account for all the reservoir space allotted to the accumulation of submerged sediment during the life of the structure. Sediment aerated is the volume of sediment that deposits above the lowest ungated outlet.
7. The surface area for the sediment pool is the area of the reservoir at the elevation of the anticipated sediment accumulation at the dam. If the lowest ungated outlet is below the sediment pool elevation, show the area to initially store water by footnote or by adding another line. The sediment pool area is shown in parentheses if the reservoir contains beneficial storage or the sediment capacity will not store water.
8. Show beneficial use storage separately for each applicable purpose, including the capacity needed for losses.
9. In listing the surface area for the beneficial use pool, identify the use of recreation or fish and wildlife pools, when applicable. Water storage for either of these purposes normally is considered the first increment above the sediment pool. Show the maximum water surface area for all beneficial uses.
10. This table is also used for joint-use storage structures. Joint-use storage is reservoir storage capacity partly allocated to flood prevention but is also used for conservation or beneficial storage during seasons when floods normally do not occur. Change the table headings as appropriate to show capacities for separate storage purposes and capacities for beneficial use storage shared with floodwater-retarding capacity.
11. The principal spillway is the lowest ungated spillway designated to convey the water from the floodwater-retarding pool. Type of conduit refers to the material used, such as reinforced concrete pipe or polyethylene pipe.
12. The auxiliary spillway system of a dam is the spillway system designed to convey water exceeding the water impounded for flood prevention or other beneficial purposes.
13. The exit channel of an earth, vegetated, or rock auxiliary spillway is the part of the channel downstream from the control section that safely conducts the water to where it may be released without jeopardizing the integrity of the structure. V_e is the maximum velocity of flow in the exit channel for the stability design hydrograph.
14. The stability design hydrograph establishes the minimum design dimensions of the earth or rock auxiliary spillway.

15. The freeboard hydrograph establishes the minimum elevation of the top of the dam.
16. Elevations are to be referenced to mean sea level.
17. All flow capacities are to be shown as maximum or peak.

Figure 501D-12: Table 3 – Structural Data—Dams with Planned Storage Capacity
[Name of Watershed], [State]

Item	Unit	Structure No. [1, 2, 3, 4, etc.]	Total
Class of structure			
Peak Ground Acceleration	g		
Uncontrolled drainage area	mi ²		
Controlled drainage area	mi ²		
Total drainage area	mi ²		
Runoff curve No. (1-day) (AMC II)			
Time of concentration (T _c)	hours		
Elevation top dam	ft		
Elevation crest auxiliary spillway	ft		
Elevation crest high stage inlet	ft		
Elevation crest low stage inlet	ft		
Auxiliary spillway type			
Auxiliary spillway bottom width	ft		
Auxiliary spillway exit slope	percent		
Maximum height of dam	ft		
Volume of fill	yd ³		
Total capacity ¹	acre-ft		
Sediment submerged	acre-ft		
Sediment aerated	acre-ft		
Beneficial use (identify use)	acre-ft		
Floodwater retarding	acre-ft		
Between high and low stage	acre-ft		
Surface area			
Sediment pool ²	acres		
Beneficial use pool (identify use)	acres		
Floodwater retarding	acres		
Principal spillway design			
Rainfall volume (1-day)	in		
Rainfall volume (10-day)	in		
Runoff volume (10-day)	in		
Capacity of low stage (maximum)	ft ³ /s		
Capacity of high stage (maximum)	ft ³ /s		
Dimensions of conduit	ft/in		

¹ Crest of auxiliary spillway.

² If reservoir contains beneficial storage or if sediment capacity will not store water, show area in parenthesis and footnote accordingly.

Item	Unit	Structure No. [1, 2, 3, 4, etc.]	Total
Type of conduit			
Frequency operation-auxiliary spillway	percent chance		
Auxiliary spillway hydrograph			
Rainfall volume	in		
Runoff volume	in		
Storm duration	hours		
Velocity of flow (V_e)	ft/s		
Max. reservoir water surface elevation	ft		
Freeboard hydrograph			
Rainfall volume	in		
Runoff volume	in		
Storm duration	hours		
Max. reservoir water surface elevation	ft		
Capacity equivalents			
Sediment volume	in		
Floodwater retarding volume	in		
Beneficial volume (identify use)	in		

Prepared: Month/Year

501.50 Structural Table 3a – Dikes

Structural Table 3a (see Figure 501D-13) shows each dike separately. Data in each column to the right of Stationing should be entered on the same line as the station location.

Figure 501D-13: Table 3a – Structural Data—Dikes¹ [Name of Watershed], [State]

Dike No.	Stationing	Top Width (ft)	Average Side Slope	Average Height of Dike (ft)	100-Year Frequency Velocity (ft/s)	Dike Protection	Volume of Earth Fill (yd ³)

Prepared: Month/Year

501.51 Structural Table 3b – Channel Work

A. Structural Table 3b (see Figure 501D-14) is for flood channels, irrigation canals, and drainage channels. To prepare the table, follow these instructions.

1. The data in each column to the right of station is to be entered on the same line as the station location it represents.

¹ Dike classification (see NRCS Conservation Practice Standard No. 356).

2. Data, such as hydraulic gradient, n value, and excavation volume, is entered to represent values between the station given and the preceding station or is entered on intervening lines.
3. Drainage area is the uncontrolled area at the station.
4. As-built and aged velocities entered in the table are the velocities associated with the discharges used for stability analysis. If velocities are for other than design discharge, explain by footnote.
5. The information in footnotes may be shown in a separate legend sheet.
6. Show the totals for length of channel work and volume of excavation.
7. If design discharge includes overbank flow, indicate this through a footnote.
8. If the design discharge cannot be expressed in meaningful terms by frequency, show the basis for design.

Figure 501D-14: Table 3b – Structural Data—Channel Work [Name of Watershed], [State]

Channel name (reach)	Station	Drainage area (mi ²)	Year frequency design discharge (fps)	Water surface elevation feet (NAVD88)	Hydraulic Gradient (ft/ft)	Channel Dimensions ¹ Gradient (ft/ft)	Channel Dimensions ¹ Bottom width (ft)	Channel Dimensions ¹ Elevation (NAVD88)	Channel Dimensions ¹ Side slope	n Value Aged	n Value As-built	Velocities (ft/s) ² 5/Aged	Velocities (ft/s) ² As built	Excavation volume (yd ³)	Type of work ¹	Existing channel type ²	Present Flow cond. ³

Prepared: Month/Year

Note: A subscript "L" should be added to the Roman numeral classification to indicate an impervious lining.

¹ II - Enlargement or realignment of existing channel or stream.

III - Cleaning out natural or manmade channel (including bar removal and major clearing and snagging operations).

IV - Clearing and removal of loose debris within channel section.

V - Stabilization as primary purpose (by continuous treatment or localized problem areas—present capacity adequate).

² N - An unmodified, well-defined natural channel or stream.

M - Manmade ditch or previously modified channel or stream (show approximate date of original construction in parenthesis).

O - None or practically no defined channel.

³ Pr - Perennial—Flows at all times except during extreme drought.

I - Intermittent—Continuous flow through some seasons of the year.

E - Ephemeral—Flows only during periods of surface runoff, otherwise dry.

S - Ponded water with no noticeable flow—Caused by lack of outlet or high groundwater table.

501.52 Economic Table 4 – Average Annual Preferred Alternative Costs

- A. Use Table 4 (see Figure 501D-15) to show the estimated average annual preferred alternative plan costs. To prepare the table, follow these instructions.
1. List measures, singly or in groups, as used for evaluation purposes. Use the same groupings of measures in Table 4 and 6. Each evaluation unit must include costs of all items regardless of whether benefits can be evaluated monetarily. Include all these costs in the Total row and the Average Annual Costs column of Table 6. The reasons for including uneconomical or unevaluated increments should be in the narrative.
 2. Enter the appropriate annual costs for each of the evaluation units. Include the annual project administration cost in each evaluation unit and the total.
 3. Show the current price base for the installation, operation, maintenance, and replacement cost estimates.
 4. Because of its magnitude and importance, the operation, maintenance, and replacement cost for recreational or fish and wildlife developments must be identified by footnote.
 5. This table does not include land treatment costs that have been netted out of the benefits. All Pub. L. No. 83-566 costs, including technical assistance for non-cost-shared measures, must be included in this table.
 6. Items that might be considered other direct costs are discussed in DM 9500-013 § 9(a)(2)(c).

Figure 501D-15: Table 4 – Estimated Average Preferred Alternative Annual Costs [Name of Watershed], [State] [Dollars]¹

Works of Improvement	Amortization of Installation Cost	Operation, Maintenance and Replacement Cost ²	Other Direct Costs	Total
Land treatment				
Evaluation unit 1				
Evaluation unit 2				
Reaches 1 to 6				
Multipurpose channel, dam, etc.				
Land treatment ³				
Reaches 7 and 8				
Multipurpose channel, etc.				
Total				

Prepared: Month/Year

¹ Price base: _____, amortized over _____ years at a discount rate of _____ percent.

² Includes \$ _____ for operation, maintenance, and replacement for recreation development.

³ Costs for technical assistance to install measures in this evaluation unit are included.

501.53 Economic Table 5 – Estimated Average Annual Flood Damage Reduction Benefits

- A. Use Table 5 (see Figure 501D-16) to show the estimated average annual flood damage reduction benefits. To prepare the table, follow these instructions.
1. Under Item, enter the types of flood damage that have been evaluated and will be affected by the works of improvement included in the plan.
 2. Do not include erosion not associated with flood damage reduction. Gully erosion damage includes losses resulting from land voiding and any ephemeral gully damage, sheet and rill erosion damage, or impaired land use that is related to gully erosion.
 3. Enter the average annual damage that will be incurred without project installation and with project installation under Without Project and With Project respectively.
 4. Enter the difference between the average annual damage with and without project to show the project's total damage reduction benefits in the Damage Reduction Benefit column.
 5. If the table indicates no remaining damage in a category, use a footnote to show that damages and benefits were not evaluated completely. Examples of appropriate footnotes might be “damages and benefits will accrue from floods of greater magnitude than the frequency event, but these were not evaluated” or “this includes only the damages and benefits occurring from land voiding or deterioration that will be affected by the structural measures.”
 6. Do not distinguish between benefits accruing within or outside the watershed unless some unusual circumstances make it necessary or desirable.
 7. The price base must be specific, such as “Price base: 2022 current normalized prices for cropland and pasture; 2023 prices for all others.”

Figure 501D-16: Table 5 – Estimated Average Annual Flood Damage Reduction Benefits
[Name of Watershed], [State] [Dollars]¹

Item	Estimated Average Annual Damage Without Project Agriculture related ²	Estimated Average Annual Damage Without Project Non-agriculture related	Estimated Average Annual Damage with Project Agriculture Related ²	Estimated Average Annual Damage with Project Non-agriculture related	Damage Reduction Benefit ^{3 4} Agriculture related ²	Damage Reduction Benefit ^{3 4} Non-agriculture related
Floodwater						
Crop and pasture						
Other agricultural						
Residential						
Commercial						
Other						
Subtotal						
Sediment						
Overbank deposition						
Reservoirs						
Other						
[list important items]						
Subtotal						
Erosion						
Floodplain scour						
Stream bank						
Gullies						

¹ Price base: _____

² Agriculture-related damage includes damage to rural communities.

³ Includes effects of land-treatment measures.

⁴ Costs and benefits for on farmland treatment have been netted out.

Item	Estimated Average Annual Damage Without Project Agriculture related ²	Estimated Average Annual Damage Without Project Non-agriculture related	Estimated Average Annual Damage with Project Agriculture Related ²	Estimated Average Annual Damage with Project Non-agriculture related	Damage Reduction Benefit ^{3 4} Agriculture related ²	Damage Reduction Benefit ^{3 4} Non-agriculture related
Subtotal						
Grand Total						

Prepared: Month/Year

501.54 Economic Table 5a – Estimated Average Annual Watershed Protection Damage Reduction Benefits

A. Use Table 5a (see Figure 501D-17) to show the estimated average annual watershed protection damage reduction benefits. Prepare the table by following these instructions.

1. Onsite:

- Crop-Stand Damage—Dollar value of benefits attributed to a reduction in crop-stand damage caused by erosion or sedimentation.
- Land Voiding and Depreciation—Dollar value of benefits attributed to a decrease in land voiding and depreciation.
- Water Conservation—Dollar value of benefits attributed to onsite savings in water.
- Maintaining Productivity—Dollar value of benefits attributed to maintaining productivity over the evaluation period.
- Other—Dollar value of other types of onsite benefits.
- Subtotal—Total dollar value of onsite benefits in average annual values.

2. Offsite/Public:

- Maintaining Productivity—Dollar value of benefits attributed to maintaining productivity for future generations. This is the part of the maintaining productivity benefits that occurs after the end of the evaluation period.
- Sediment Damages—Dollar value of benefits attributed to offsite sediment reduction.
- Property Values—Dollar values of benefits attributed to an increase in values of offsite properties. Avoid double counting when evaluating these benefits.
- Water Treatment—Dollar value of benefits attributed to a reduction in costs of treating municipal and industrial water supply.
- Recreation—Dollar value of benefits attributed to an increase in recreation quality or quantity.
- Fish and Wildlife—Dollar value of benefits attributed to an increase in fish and wildlife values.

- g. Water Conservation—Dollar value of benefits attributed to offsite savings in water.
- h. Other—Dollar value of other types of offsite benefits.
- i. Subtotal—Total dollar value of offsite or public benefits, or both, in average annual values.
- j. Grand Total—Total annual benefits in dollars (equal to the sum of onsite and offsite/public).

Figure 501D-17: Table 5a – Estimated Average Annual Watershed Protection Damage Reduction Benefits [Name of Watershed], [State] [Dollars]¹

Item	Damage Reduction Benefit Average Annual Agricultural- related	Damage Reduction Benefit Average Annual Nonagricultural-related
Onsite		
Crop-Stand Damage		
Land Voiding and Depreciation		
Water Conservation		
Maintaining Productivity		
Other		
Subtotal		
Offsite/Public		
Maintaining Productivity for Future Generations		
Sediment Damages		
Property Values		
Water Treatment		
Recreation		
Fish and Wildlife		
Water Conservation		
Other		
Subtotal		
Grand Total		

Prepared: Month/Year

501.55 Economic Table 6 – Comparison of Preferred Alternative Benefits and Costs

- A. Use Table 6 (see Figure 501D-18) to show the estimated average annual benefits and costs and the benefit-cost ratios for project measures. To prepare the table, follow these instructions.
 - 1. List measures, singly or in groups, as used for evaluation purposes. Use the same groupings of measures in Table 4 and 6.

¹ Price base

2. Show only preferred alternative benefits on Table 6. Damage reduction benefits must agree with those in Tables 5 and 5a.
3. Enter the appropriate average annual benefit. For each evaluation unit for the land treatment part, show all costs and benefits accruing to land treatment to protect the soil resource base for sustained productivity, conserve water, improve water quality, and reduce sediment damage. The land treatment costs and benefits upstream of dams and channel improvements must be shown with the structural evaluation unit. Use the same price base and evaluation period for both benefits and costs. Unemployed labor benefits are those stemming from the use of unemployed and underemployed labor.
4. Include only the column headings necessary to show the project benefits. Include additional or substitute columns for any other evaluated benefits that are not listed in the sample table (such benefits must be consistent with PR&G). Describe the nature of these benefits in the narrative. Report all sustained production benefits and other watershed protection benefits from Table 5a under the Other Economic Effects column.
5. Enter the average annual cost for each evaluation unit. These tables must agree with those in Table 4.
6. Enter the relationship of benefits to costs, with costs expressed as 1.0. Express the ratio to the nearest tenth.
7. If a benefit-cost ratio is less than 1.0, use a footnote to give the reasoning for selecting the plan.

Figure 501D-18: Table 6 – Comparison of Preferred Alternative Benefits and Costs [Name of Watershed], [State] [Dollars]¹

Works of Improvement	Agricultural-Related Damage Reduction Flood Prevention	Agricultural-Related Intensification	Nonagricultural Residential	Nonagricultural Commercial	Nonagricultural Other	Recreation	M&I Water Supply	Unemployed Labor	Other Econ Effects	Average Annual Benefits	Average Annual Costs ²	Benefit-Cost Ratio
Land Treatment (acres)												
Evaluation Unit 1												
Evaluation Unit 2												
Reaches 1 to 6												

¹ Price base: _____

² From Table 4.

Works of Improvement	Agricultural-Related Reduction Flood Prevention	Agricultural-Related Intensification	Nonagricultural Residential	Nonagricultural Commercial	Nonagricultural Other	Recreation	M&I Water Supply	Unemployed Labor	Other Econ Effects	Average Annual Benefits	Average Annual Costs ²	Benefit-Cost Ratio
Multipurpose channel, dam, etc.												
Land Treatment												
Reaches 7 & 8												
Multipurpose channel												
Total												

Prepared: Month/Year

501.56 Consultation, Coordination, and Public Participation

A. This section summarizes consultation and coordination processes with other agencies. The section also describes the opportunities for public participation throughout the planning process, from the initial request for NRCS assistance to preparation of the final watershed project plan.

1. Consultation. This subsection summarizes the timing, content, and results of required consultations. All plans require consultation with:
 - a. Endangered Species Act consultation with U.S. Fish and Wildlife Services (16 U.S.C. § 1008) and National Oceanic and Atmospheric Administration Fisheries, as applicable.
 - b. NHPA Section 106 consultation with SHPO; tribes and NHOs with ancestral land, traditional use, or traditional cultural property claims in and near the project area (including tribal historic preservation officers, if present); local governments; and other interested parties identified in 36 CFR Part 800.3(f). NHPA Section 106 consultations may also require ACHP if the ACHP requests to participate or if the project involves adverse effects to cultural resources or historic properties that require resolution (36 CFR Part 800.6).
 - (1) Identify the SHPOs consulted.
 - (2) Describe the methods used to identify federally recognized tribes and NHOs who hold ancestral land, traditional use, or traditional cultural property claims in and near the project area. List the databases, literature, and other sources used to identify tribes and NHOs.

- (3) List the tribes and NHOs who hold ancestral land, traditional use, or traditional cultural property claims in and near the project area.
 - (4) Describe how reasonable and good faith efforts (36 CFR Part 800.3(f)(2)) were made to consult with those tribes and NHOs (see 390 NWPM § 500.4(H)(2)).
 - (5) List the tribes and NHOs that did not respond to efforts to consult, that responded but did not express interest in being consulting parties, and that expressed interest in being consulting parties.
 - (6) Discuss in detail the results of consultations with SHPOs, tribes and NHOs that requested to be consulting parties, local governments, the ACHP, and other interested consulting parties. Describe information provided and issues raised by the consulting parties, responses to those issues made by NRCS and SLO, as appropriate, and how the issues and responses were incorporated in identifying and assessing project alternatives and selection of the preferred alternative.
 - (7) Include documentation of consultation efforts and results in Appendix E in the watershed project plan.
- c. Other consultations may be required based on the specifics of the watershed project plan. See section 501.3 of this part for other required consultations.
2. Coordination. This subsection summarizes the timing, content, and results of coordination and discussion with any federal, state, and local agencies that may have interests in the development of the plan. All plans must include coordination with the USACE on the Clean Water Act Section 404 permitting process, except in areas where state or tribes have assumed permitting responsibility. Plans where states or tribes have assumed responsibility must include coordination with applicable state or tribal agencies.
 3. Public Involvement. This subsection describes all outreach activities to the public. The section must include the date, type, and purpose of the outreach, as well as list of participating organizations and the public.
 4. Watershed Project Plan Development and Review. This subsection describes the watershed project plan development and review process. It should cover the required reviews in 390 NWPM Part 502, Subparts B and C, how the results of those reviews were integrated into the document, and major NEPA milestones such as notice of intent, notice of availability, FONSI, and ROD, as applicable. Include the dates and locations of relevant publications and copies of notices in Appendix A of the watershed project plan.
 5. Distribution List. This is a listing of the federal, state, and local agencies, tribes and NHOs, organizations, and persons that the watershed project plan is sent to.

501.57 References

- A. This section provides the sources of documents cited as references in the watershed project plan (including Appendix D, Investigation and Analysis). If supporting data are incorporated by reference, then the material being referenced must be briefly summarized for the reader to understand the context of the material being incorporated.

- B. This section also includes information on how the reader can obtain and review the material referenced. Material based on proprietary data that are not available for review may not be incorporated by reference (see 40 CFR § 1502.21).

501.58 List of Preparers

The list of preparers includes the key NRCS state, area, and field office personnel who provided significant input in preparing the watershed project plan. Consultants, individuals, and personnel from other agencies are included if they contributed significant input. The list must include the person's name, current title, discipline covered in the planning process (e.g., biology, cultural resources, economics, and hydraulics and hydrology), education, experience, employer, and other pertinent qualifications, publications, and professional licenses.

501.59 Index (Only Required for EIS)

This section lists key words, phrases, or subheadings along with appropriate page numbers. If other agencies or organizations are mentioned in the document, they must be included in the index.

501.60 Appendices

- A. The appendices listed in this section provide supplemental information for the watershed project plan. Where applicable, the watershed project plan should summarize information from the appendices, but not duplicate it. However, discussions in the watershed project plan may not simply reference appendices for the sake of brevity. When using information from the appendices in the watershed project plan, it should be cross-referenced to the applicable location in the appendix.
1. Appendix A, Consultations, Comments and Responses. This appendix contains correspondence (e.g., letters, emails, phone logs, and social media) to support the required consultation and compliance with the laws and policies (See subpart A of this part). This appendix also contains the written and oral comments received during scoping (both NEPA and NHPA), coordination with agencies, and consultation with other parties. It also incorporates comments and responses to comments received on the draft and final plan. Add the following statement on the draft plan: "Comments received and the associated responses on the Draft Watershed Project Plan will be included in the Final Watershed Project Plan."
 2. Appendix B, Watershed Project Map. All project plans must have a project map. A project map must label and show the location of important works of improvement and the location and extent of important watershed conditions that will be affected by the works of improvement to be installed. The map must also show the location and kind of measures, watershed areas above structures with floodwater-retarding capacity, and areas that will benefit from the project. Rehabilitation plans should also include the original watershed project map.

3. Appendix C, Support Maps. This appendix contains support maps for the watershed project plan presented at scales sufficient to present a clear understanding of the information being presented. It includes the following, as applicable.
 - a. Layout Maps
 - (1) Scaled drawings of existing and proposed structures
 - (2) Limits of work area
 - (3) Areas of potential effects
 - b. Floodplain Maps
 - (1) The most current flood insurance rate maps notated with changes made by effective letters of map change within affected reaches
 - (2) Updated floodplain maps (100-year and 500-year at a minimum) for pre-dam, existing dam in-place (for rehabilitation projects), and all alternatives studied in detail (7 CFR § 650.25)
 - (3) Breach Inundation Maps. At a minimum for the preferred alternative. However, if there are substantial differences in the extents of the breach inundations and the potential hazard locations (buildings, facilities, roads, etc.) for the existing dam in-place (for rehabilitation projects) and for other alternatives studied in detail that would be helpful for the reader to understand those differences apart from the effects and consequences described in the plan, breach inundation maps for those should also be included.
 - (4) Recreation Map (required if recreation was an original project purpose)
 - c. Other Support Maps
4. Appendix D, Investigations and Analyses Report. The purpose of the investigations and analyses (I&A) report is to present information that supports the formulation, evaluation, and conclusions of the watershed project plan. All plans must have a report in this appendix. The report is organized under appropriate headings, such as project formulation, detailed cost estimates, cost allocation by purpose, engineering, biology, hydrology, geology, land use, water quality, economics, cultural resources, and real property rights and zoning details to support policy.
 - a. The procedures, techniques, assumptions, and scope and intensity of the investigations for each subject must be described in sufficient detail so that a reader not familiar with the watershed or its problems can form an opinion on the plan's adequacy. This report supplements information contained in the plan and does not replace or duplicate such information; however, the plan must reasonably summarize the information in the report, cross-referencing where necessary to aid in understanding. For example, all the raw economic data associated with structures affected by inundation, depths of inundation, damages, and other factors can be summarized in various tables in the Economics section of the I&A with narrative description. The raw data should be tabulated to show the information visually, complementing the narrative summaries of the data and analysis.
 - b. Technical memoranda, reports, and other similar material prepared independent of the I&A report may be cited but should not be included. Only include pertinent information from technical memoranda and data. The pertinent information must be tabulated, summarized, and narratively described to minimize the need for

continually referencing the technical memoranda. The information in the appendix should stand on its own as much as possible. If waivers to NRCS policy or technical variances were approved, include a discussion and copy in the I&A.

5. Appendix E, Other Supporting Information (as applicable). If tabular or other supporting data are needed to support or clarify information, use this section instead of the body of the plan document. If material incorporated by reference needs further explanation, this section can expand on the discussion provided in the main body of the plan's text.
 - a. As with Appendix D, this appendix does not replace or duplicate the targeted plan discussion; however, the plan must reasonably summarize the information in the report and cross-reference when necessary to aid in understanding. Technical memoranda, reports, and other similar material prepared independent of the report may be cited but should not be included. Include only pertinent information from technical memoranda and data.
 - b. For draft and final EAs and EISs distributed for interagency and public review, this appendix must include copies of all reports of cultural resources, archaeological and historic structure surveys, and other investigations that meet the requirements of NHPA Section 304. All locational information and information that is or may be considered culturally sensitive by tribes, NHOs, and other consulting parties must be redacted from the copies of cultural resources reports included in the final Appendix E.

Part 501 – Development of Watershed Project Plans

Subpart E – Watershed Agreement

Amended June 2024

501.70 Watershed Agreement

- A. The watershed agreement is the legal document that records the sponsoring local organizations and NRCS responsibilities for implementing a watershed project plan. Use the [watershed agreement template](#) except for sections not applicable to the planned watershed project.
- B. Place the signed watershed agreement immediately following the abstract (fly sheet) of the final watershed plan. Do not include the watershed agreement in draft watershed project plans that are distributed for public or interagency review.
- C. The watershed agreement must not be signed until the National Watershed Program manager's programmatic review is completed and comments and concerns are addressed, and the final watershed project plan reflects resolution of the comments and concerns provided by the public, other agencies or NRCS technical or programmatic reviews.

Part 501 – Development of Watershed Project Plans

Subpart F – Cost Categories

Amended June 2024

501.80 Cost Categories

- A. **Associated Costs.** Associated costs are the costs for works of improvement needed over and above the project works of improvement to achieve the benefits claimed in the analysis. An example is the cost of on-farm irrigation or drainage systems required to produce the increased outputs that the benefits of a group distribution or collection system were based on.
1. **Avoided Costs.** Cost savings resulting from project measures undertaken when comparing without project condition to with project condition. These costs are associated with the damage reduction benefits of the alternatives compared with the baseline condition. Do not count avoided costs of one alternative as a benefit over other alternatives.
 2. **Construction Cost.** The expenses incurred during the installation period for labor, material, equipment, and services; contractors overhead and profit; and other direct costs associated with items such as earthwork removal or replacement, purchase and installation of materials and appurtenances plus a realistic contingency allowance. They include:
 - a. For rehabilitation projects, reconstructing or decommissioning the dam and relocating or floodproofing of downstream property.
 - b. Reinforcing, underpinning, or reconstructing existing railroad and public road bridge piers and abutments, made necessary by channel modification or the replacement of a closed conduit crossing of a public road or railroad that is integral to the closed conduit system. These costs are limited to those required for facility comparable in quality and performance to the existing bridge or culvert.
 - c. Clearing of sites (e.g., removing buildings, bridges, fences, or other improvements) for project purposes.
 - d. Relocating structures from flood-prone land to flood-free land as a nonstructural flood damage reduction measure. This applies in cases where a sponsoring local organization (SLO) does not take title to the property.
 - e. Floodproofing buildings as a nonstructural flood damage reduction measure.
 - f. Constructing pumping plants and pressure conduits, gates, or other structures to convey interior drainage through dikes or floodwalls.
 - g. Constructing diversion dikes and practices for conveying surface water to project outlets or pumping plants for interior discharge.

- h. Constructing necessary structures to provide controlled inlets for drainage from adjacent fields and internal ditches into the project measure.
 - i. Providing flaggers and protective devices, such as barriers or lights, to protect workers or the public during construction.
 - j. Modifying or reconstructing existing irrigation or drainage facilities made necessary by project works of improvement.
 - k. Providing needed maintenance access, including necessary culverts and fords.
 - l. Obtaining borrow material from land purchased by the SLO for the specific purpose of obtaining borrow material. The cost may not exceed either the difference in land value before and after borrow removal or the actual cost of acquiring the borrow materials (without purchasing the land), whichever is the least cost.
 - m. Constructing catwalks, handrails, fences, gates, and other features needed for the proper functioning of the structural measures and for the operator's and public's safety. This also includes any safety features needed for public recreation or fish and wildlife in a project.
 - n. Disposing waste spoil according to sound engineering and environmental principles, considering customary practices in the area, width and planned land use of floodplain, wildlife and environmental values of contiguous oxbows, vegetation, and threatened and endangered species. Agreement on the specifics of spoil disposal should be reached in the planning stage.
 - o. Paying premiums for construction liability insurance when the construction contractor is made the principal.
 - p. Providing fire prevention and suppression made necessary by project construction activities.
 - q. Establishing vegetation or other protective cover on all construction sites and in areas disturbed during construction to prevent erosion, improve stability, and restore or maintain wildlife habitat and the landscape quality. Such establishment includes herbaceous and woody plantings for erosion control, wildlife food and shelter, walkways, and screening or improving the appearance of structural measures.
 - r. Providing identification signs and plaques, if desired by the SLO, if there is reasonable assurance that these signs will not be vandalized.
 - s. Protecting cultural resources and paying for mitigation for adverse impacts to cultural resources.
 - t. Paying for mitigation required by project impacts.
 - u. Cost to develop flood maps due to authorized works of improvement.
3. Engineering Cost. Expenses incurred in formulating the engineering design. These expenses include the direct cost of surveys, investigations, designs, and preparation of plans and specifications for structural and nonstructural measures (including associated vegetative work), and preparation of operation, maintenance, and replacement plans. Engineering costs also include engineering services related to the review of engineering plans and specifications prepared by others and necessary quality assurance during construction to ensure that measures are installed according to the plans and specifications. It does not include the cost of similar services for real property rights, obtaining permits, or contract administration for the project.

4. Indirect Costs. Indirect costs are defined in 2 CFR § 200.1 under “Indirect (facilities & administrative (F&A)) costs.” Indirect costs associated with technical and financial assistance are not allowed for Pub. L. No. 83-566 program.
5. Land Treatment Financial Assistance Cost. The cost of installing land treatment practices, excluding technical assistance, engineering, and project administration costs.
6. Mitigation Costs. Mitigation costs are included in the construction costs for the project, including mitigation banks, practice installation, or other mitigation costs, and are cost-shared according to the purpose of the associated works of improvement.
7. Non-Project Installation Costs. Costs for features not required for project purposes that are incurred at the time of project installation. These costs are not eligible for assistance under Pub. L. No. 83-566. They are not included in cost tabulations or accounts as national economic costs nor are they considered a part of the SLO’s contribution to the installation cost, but they should be documented in Tables 1 through 6 in the plan as a footnote or in special table sections.
8. Operation and Maintenance Costs. Costs for the materials, equipment, services, and facilities needed to operate the project and make repairs and replacements necessary to maintain sound operating condition during the project’s evaluated life. This includes the cost of repairs, replacements, or additions, and an appropriate charge for inspection, engineering, supervision, custodial service, and general overhead.
9. Permits. All expenditures made in acquiring required federal, state, and local permits or clearances.
10. Planning Cost. All expenditures from Pub. L. No. 83-566 and other funds for surveys and investigations, environmental studies, evaluation of alternatives, and preparation of plans before the authorization of assistance for installing works of improvement.
11. Program Cost. All expenditures from appropriations made under Pub. L. No. 83-566.
12. Project Administration. Pub. L. No. 83-566 costs and other administrative costs associated with the installation of financially assisted measures, including contract administration, government representatives, permit acquisition, relocation assistance advisory services, and administrative functions connected with relocation payments.
13. Project Installation Cost. All Pub. L. No. 83-566 and other costs for designing and constructing the works of improvement after the project is authorized for implementation.
14. Real Property Rights. The cost of real property rights includes all costs for the following items, including elements of work that involves planning, design, acquisition, construction, mitigation for fish and wildlife habitat losses, and administrative services directly associated with real property. All expenditures made in acquiring needed real property rights and other interests must follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. §§ 4601 et seq., as implemented by 49 CFR Part 24).

- a. Removal of buildings, improvements, or timber for salvage or relocation, or the construction of dikes or other protective works. This does not include moving of buildings or other improvements from flood-prone to flood-free land as a nonstructural flood damage reduction measure.
 - b. Salvaging, moving, or reconstructing fences not needed for the proper operation, maintenance, public safety, or inspection of the works of improvement. This does not include constructing fences for conservation easements and fish and wildlife habitat loss mitigation requirements.
 - c. Changes of existing telephone, power, gas, water, and sewer lines or other utilities made necessary by the works of improvement, conservation easements, or fish and wildlife habitat loss mitigation requirements. For works of improvement, this does not include changes to existing irrigation or drainage facilities.
 - d. All new roads and changes of existing public roads or private roads, or railroad bridges, culverts, approaches, and other crossings, including approaches. This does not include costs of reinforcing, underpinning, or reconstructing existing bridge piers and abutments of public roads and railroads made necessary by channel modification. This also does not include the cost for the excavation and installation of a closed conduit crossing of a public road or railroad when it is an integral part of an overall closed conduit structural measure.
 - e. All modifications and changes of roads and railroads that must remain serviceable after project installation.
 - f. Premiums for construction liability insurance when someone other than the construction contractor is made the principal.
 - g. Relocation Costs. Pub. L. No. 83-566 costs and other costs associated with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24). Relocation payments include moving and related expenses for a displaced person, business, or farm operation as well as financial assistance for replacement housing for the displaced person who qualifies and whose dwelling is acquired because of the project. Costs above replacement in kind are treated as non-project costs.
15. Technical Assistance. Technical assistance costs are the costs for salaries and expenses other than financial assistance, except those related to real property rights and permit acquisition.
16. Water, Mineral, or Other Subsurface Rights. The actual cost or value, based on appraisals, of water, mineral, or other subsurface rights acquired by local interests for carrying out, operating, and maintaining the project.

Title 390 – National Watershed Program Manual
Part 502 – Reviews and Approvals
Table of Contents
Amended June 2024

Subpart A – Approval for Variances and Waivers

- 502.0 General
- 502.1 Variances
- 502.2 Waivers

Subpart B – Technical and Policy Reviews

- 502.10 Plan Review
- 502.11 NRCS State Reviews
- 502.12 NRCS National Reviews

Subpart C – Public and Interagency Review

- 502.20 Inviting Comments
- 502.21 National Environmental Policy Act Watershed Project Plan Review Requirements
- 502.22 Consideration of Review Comments
- 502.23 Making the Decision

Subpart D – Implementation Authorization

- 502.30 Approval Authorities for Watershed Project Plans
 - Figure 502D-1: Watershed Project Plan Approval Authorities as Required by PL 83-566, Section 2
- 502.31 Plans That Require Administrative Approval
- 502.32 Plans That Require Congressional Approval
- 502.33 Notification of Pub. L. No. 83-566 Implementation Authorization
- 502.34 Approval of Pub. L. No. 78-534 Watershed Project Plans

Title 390 – National Watershed Program Manual

Part 502 – Reviews and Approvals

Subpart A – Approval for Variances and Waivers

Amended June 2024

502.0 General

- A. Request for variances and waivers must be justified and supported with sufficient documentation that adequately addresses the nature and need for the waiver or variance for the project to be successful. A request must be submitted as soon as the need is recognized.
- B. A waiver or variance, if included in the watershed plan, must be approved in writing before a draft watershed project plan is submitted to the National Water Management Center for review.

502.1 Variances

- A. Project site conditions may justify a request for a variance from a practice standard. Variances may be approved when there is a documented need to establish additional purposes for an existing standard or less restrictive quality criteria than required in the national practice standard. Variances from the requirements of conservation practice standards (CPS) listed in 450 NHCP Part 620 are addressed in 450 GM § 401.16.
- B. The request must include the CPS purpose to be added or criteria to be changed with supporting rationale for the change. Only the directors of the Conservation Engineering Division or Ecological Sciences Division can approve variances from the requirements of a national CPS. The division director's decision regarding a variance must be finalized in writing to the state conservationist (STC).

502.2 Waivers

- A. Plan Element Waiver
 - 1. A waiver is required for any plan element that does not meet policy. Waivers must be consistent with applicable statutes and regulations. The STC must submit a waiver to NRCS policy to the Watershed Branch for review through the deputy chief for Programs. Following review by the Watershed Branch, the request will be forwarded to the deputy chief for Programs for a decision. The deputy chief's decision regarding a waiver is finalized in writing to the STC.
- B. Watershed Plan Waiver Background

1. Section 2401 of the 2018 Farm Bill authorizes the Secretary to waive watershed plans for works of improvement under Pub. L. No. 83-566. NRCS incorporated this waiver authority in 7 CFR § 622.31. The waiver authority does not apply to the flood prevention projects under Pub. L. No. 78-534.
2. Before NRCS may waive the requirement for a watershed plan, NRCS must determine:
 - a. That the watershed plan is either unnecessary or duplicative.
 - b. That the works of improvement meet the requirements of Pub. L. No. 83-566. These requirements are conditions for the sponsoring local organization (SLO) to receive federal assistance for the installation of works of improvement. The requirements include:
 - (1) Acquisition of the necessary real property rights for installation of the works of improvement.
 - (2) Cost share that is proportionate and equitable to other similar water resources projects.
 - (3) Consistency with the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (PR&G) standards and regulations adopted by the Water Resources Council on federal cost sharing for water quality management.
 - (4) Arrangements to ensure operation, maintenance, and replacement.
 - (5) Certain assurances to landowners and water users.
 - (6) Agreements that recommended soil conservation measures and proper farm plans on no less than 50 percent of the land situated in the drainage area above each retention reservoir to be installed with federal assistance.
 - (7) A loan repayment plan for any loan or advancement made under Pub. L. No. 83-566 § 6a.
3. Situations in which NRCS would determine that a watershed plan is unnecessary are limited, given that the role of a watershed project plan is to ensure the legal requirements such as PR&G, the National Environmental Policy Act (NEPA), and the National Historic Preservation Act (NHPA) are met. Generally, the only time this would be determined is if the work of improvement meets a categorical exclusion under 7 CFR Part 650.
4. More often, NRCS may determine that a watershed project plan is duplicative. This is a situation in which a plan developed by another entity can serve the same requirements as an NRCS watershed plan. NRCS must determine whether the other entity sufficiently duplicates the information that would be encompassed by a watershed project plan. This includes determining whether NRCS can meet its nondelegable duties and that the plan otherwise meets required watershed requirements such as PR&G, the NEPA, and the NHPA. Plans developed by other entities require NRCS technical and programmatic review and approval before authorization.

C. Watershed Plan Waiver

1. SLOs can request the STC to waive a watershed project plan prepared by them or other entities (e.g., technical service providers, contractors).

2. If the Chief of NRCS determines that the watershed project plan for works of improvement can be waived, NRCS must still complete certain responsibilities to provide Pub. L. No. 83-566 funding for implementing the watershed project. Some of these responsibilities cannot be waived or delegated to other agencies. NRCS must ensure that its Pub. L. No. 83-566 funding meets the requirements of PR&G, the NEPA, and the NHPA.
 - a. NRCS must determine that the plan complies with the NEPA, the NHPA, and the Endangered Species Act (ESA). NRCS must determine that the NEPA review of the project:
 - (1) Sufficiently reached the interested public and any persons potentially impacted by the watershed plan, including minority populations and low-income populations, as required by Exec. Order No. 12898.
 - (2) Sufficiently meets the consultation requirements, such as those under the Fish and Wildlife Coordination Act, ESA, NHPA, and Exec. Order No. 13175.
 - b. NRCS must conduct all consultations with tribes, including Alaska Natives, and NHOs as required by NHPA, Exec. Order No. 13175, DR 1350-001, tribal ancestral lands consultation, and other legal, regulatory, executive, departmental, and agency requirements (see the Cultural Resources/Historic Properties and Tribal/Native Hawaiian Organizations (NHO) Consultation concern in 390 NWPM § 501.24, Figure 501C-1).
 - c. ESA allows NRCS to designate in writing a person, agency, or organization as its nonfederal representative to conduct informal consultation. This can only be used when all impacts to all listed species are expected to be insignificant, discountable, or beneficial (i.e., Not Likely to Adversely Affect) and critical habitat will not be destroyed or adversely modified. Formal consultation must be conducted by NRCS when species are likely to be adversely affected or critical habitat destroyed or adversely modified. In addition, the ultimate responsibility for complying with ESA Section 7 obligations remain with NRCS. Coordination with the U.S. Fish and Wildlife Service is not the same as ESA consultation. Some species are under National Marine Fisheries Service jurisdiction, so some watershed projects require consultation with both.
 - d. NRCS must coordinate with all federal agencies with legal and regulatory jurisdiction over a watershed project to fully incorporate recommendations for the conservation and development of wildlife resources into the watershed plan.
 - e. The watershed project plan is subject to NRCS technical review, SLO and other local party review, interagency review by other federal, state, and concerned groups, and a final programmatic review.
 - f. NRCS must conduct its own internal state, technical, and programmatic reviews of watershed project plans. If, after completing its non-delegable responsibilities and thorough reviews of the plan, NRCS determines that the plan meets all laws, rules, and regulations, NRCS and the SLOs can accept the watershed project plan by signing the watershed agreement.

Title 390 – National Watershed Program Manual
Part 502 – Reviews and Approvals
Subpart B – Technical and Policy Reviews
Amended June 2024

502.10 Plan Review

- A. All watershed project plans must have technical and programmatic reviews. This subpart describes the procedures for technical and programmatic reviews of watershed project plans.
- B. The state conservationist (STC) must ensure that the watershed project plan complies with applicable federal laws, regulations, executive orders, USDA regulations and NRCS policy. The watershed project plan must also conform to current technical standards. The STC is responsible for ensuring public and interagency participation throughout the watershed project planning process, including scoping, public meetings, and required consultations. After the preliminary draft watershed project plan has been prepared by the state, the review process is conducted in the following sequence:
 - 1. An interdisciplinary team of NRCS state-level staff conducts a state-level technical review according to section 502.11(A) of this subpart.
 - 2. The National Water Management Center (NWMC) conducts a national-level technical review according to section 502.12(A) of this subpart.
 - 3. The appropriate national watershed program manager conducts a programmatic review to verify the preliminary draft plan meets programmatic requirements according to section 502.12(B) of this subpart.
 - 4. Public and interagency review are conducted according to subpart C of this part.
 - 5. Before the Chief authorizes the implementation of the watershed project plan, the appropriate national watershed program manager reviews the final watershed project plan and associated documents according to section 502.12(B) of this subpart.

502.11 NRCS State Reviews

- A. The STC must confirm that the preliminary draft plan meets the following criteria.
 - 1. The technical and policy reviews of the plan have been performed by the NRCS state interdisciplinary team.
 - 2. Interdisciplinary planning and evaluation procedures have been followed, and the formulated plan addresses the concerns of the sponsoring local organization and the mission of NRCS while considering economic, environmental, and social impacts.

3. All surveys, investigations, consultation requirements, and analyses have been conducted and coordinated in the watershed project plan development and are sufficiently documented to support the project.
 4. Project alternatives have been effectively identified and evaluated using the results of the surveys, investigations, consultations, and analyses.
 5. Public and interagency participation are sufficiently planned, discussed, and documented to ensure that the watershed project plan addresses concerns of the public and other agencies, and that formulation, evaluation, and selection of any alternative are not biased towards any one group.
 6. The watershed project plan clearly and correctly reflects watershed conditions and problems, with and without the project.
 7. The kind, nature, and estimated cost of measures to be installed, including appropriate mitigation, are properly documented in the watershed project plan.
 8. The anticipated effects on the environment and for solving the problems, including the evaluation of benefits and impacts, have been documented and mitigation has been provided as appropriate.
 9. The manner of financing, installing, operating, maintaining and replacing components of agreed to works of improvement for the project have been documented.
 10. The project, as formulated, meets the requirements of Pub. L. No. 83-566, NRCS policy, regulatory criteria, Presidential memoranda and Executive orders, the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), Principles, Requirements and Guidelines for Water and Land Related Resources Implementation Studies (PR&G), interagency guidelines, supporting agency-specific procedures (DR 9500-013 and DM 9500-013) and other applicable laws and regulations.
 11. The watershed project plan meets established standards and NRCS requirements for technical quality.
 12. The development and evaluation of watershed project plan alternatives includes consideration of requirements for permits, consultation, and mitigation.
 13. The watershed project plan content and format meet the requirements of 390 NWPM Part 501, Subpart D.
 14. Any waivers to NRCS policy or variances to conservation practice standards in accordance with subpart A of this part are approved before submitting the preliminary draft watershed project plan-environmental assessment or environmental impact statement to the NWMC for technical review.
 15. NRCS state staff has conducted an internal interdisciplinary review of each watershed project. All comments and resolutions made during this state-level review have been documented.
- B. After the plan meets all the criteria, the STC submits a copy of the draft plan with state review comments, and resolutions will be submitted to the NWMC for technical review.

502.12 NRCS National Reviews

A. Technical Review

1. The STC must provide an electronic copy of the unsigned preliminary draft watershed project plan and watershed agreement to the to the NWMC director and Watershed Programs Branch chief. The documents, in the currently accepted editable file format, must be uploaded to the NWMC SharePoint with a signed copy of the planning requirements [checklist](#). The preliminary draft watershed project plan must be submitted after completing applicable public scoping meetings and NEPA and National Historic Preservation Act consultations and the state-level interdisciplinary review have been completed, according to section 502.11 of this subpart.
2. NWMC reviews the preliminary draft watershed project plan to determine whether it follows the planning process, provides the rationale for plan selection, and conforms to NRCS policy, watershed planning standards, and programmatic requirements. If the watershed project plan has not adequately followed the planning process, or if significant requirements or information needed to determine the adequacy of the analysis and rationale for its conclusions are not included, the NWMC director may return the watershed project plan to correct the deficiencies before the technical review.
3. The NWMC prepares written comments on the preliminary draft watershed project plan and watershed agreement and provides them to the STC. Comments include appropriate recommendations for resolving deficiencies.
4. The STC documents the disposition for each comment and references where the rewritten draft addresses each comment.
5. Following STC disposition of NWMC comments, a copy of the preliminary draft watershed project plan that addresses NWMC comments will be provided to the NWMC director.
6. A copy the preliminary draft watershed project plan with technical review comments and state resolutions is then submitted to the appropriate national watershed program manager for programmatic review.

B. Programmatic Review

1. The appropriate national watershed program manager conducts the programmatic review after the state has addressed NWMC comments on the preliminary draft watershed project plan.
2. The national watershed program manager reviews the preliminary draft watershed project plan disposition of comments provided by the STC. This programmatic review documents all policy issues that must be addressed in the preliminary draft watershed project plan before the public and interagency review.
3. The national watershed program manager prepares written comments on the preliminary draft watershed project plan. Comments include recommendations for resolving programmatic issues found during the programmatic review.

4. The national watershed program manager sends the preliminary draft watershed project plan and programmatic review comments back to the STC.
5. The national watershed program manager may meet with the STC or state staff to discuss programmatic review comments and their resolutions. More than one meeting may be necessary.
6. The STC, as the responsible federal official, must ensure that the preliminary watershed project plan incorporates all necessary technical and programmatic review changes for compliance with legal, regulatory, and NRCS policy requirements, if any.
7. After the preliminary draft fully complies with legal, regulatory, and NRCS policy requirements, the STC may release the plan for interagency, public, and SLO review as the draft watershed project plan.

Title 390 – National Watershed Program Manual
Part 502 – Reviews and Approvals
Subpart C – Public and Interagency Review
Amended June 2024

502.20 Inviting Comments

- A. NRCS and the sponsoring local organization (SLO) must invite public and agency input throughout the planning process, in compliance with the National Environmental Policy Act (NEPA) and National Historic Preservation Act. Following technical and programmatic review, NRCS must solicit public and interagency review from the following:
1. The U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers or the Tennessee Valley Authority (section 12 of Pub. L. No. 83-566 and Exec. Order No. 10584, as amended).
 2. Any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in the watershed project plan or that is authorized to develop and enforce environmental standards.
 3. The governor or state agencies designated by the governor to review watershed project plans (Exec. Order No. 10584, as amended).
 4. Appropriate state and local agencies with legal jurisdiction or special expertise that are authorized to develop and enforce environmental or safety standards.
 5. American Indian tribes, Alaska Native communities, and native Hawaiian organizations (NHO).
 6. Any agency that has requested that it receive statements on actions of the kind proposed.
 7. Persons or organizations that may be interested or affected and consulting parties with relevant knowledge and expertise.

502.21 National Environmental Policy Act Watershed Project Plan Review Requirements

- A. Watershed Project Plan-Environmental Evaluation (EE)
1. All draft EEs must have a review and comment period to meet public and agency involvement requirements (see section 502.20 of this subpart). The duration of the review and comment period is at the discretion of the state conservationist (STC). The STC may require additional comments or review periods if they would be helpful to

further public involvement before taking administrative action. NRCS may take administrative action after the Watershed Project Plan-EE is finalized.

B. Watershed Project Plan-Environmental Assessment (EA)

1. The public must be informed of the availability of the draft watershed project plan-EA through appropriate local and state media for public review and comment.
2. A well-publicized public meeting must be held during or immediately before the review and comment period to review the watershed project plan-EA (7 CFR § 622.32 and Exec. Order No. 10584 § 2(h)).
3. The finding of no significant impact (FONSI) must be distributed to potentially affected stakeholders, as appropriate (40 CFR § 1501.6).
4. A 30-day public review period of the watershed project plan-EA and FONSI is required for the following situations:
 - a. When the proposed action would normally require an environmental impact statement (EIS) (7 CFR § 650.12(d)).
 - b. When the proposed action is without precedent (7 CFR 650.12(d)).
 - c. When early public review has not been afforded because the proposed action may involve new construction in a wetland (Exec. Order No. 11990 § 2(b)).
 - d. When the proposed action is conducted, supported, or located in a floodplain (Council on Environmental Quality (CEQ) Memorandum, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations (1981, amended 1986) referencing Exec. Order No. 11988).
5. NRCS may take administrative action after issuing the FONSI and publishing the notice of availability (NOA) through appropriate local and state media. In these cases, there is no formal requirement for a waiting period after preparation of the FONSI.

C. Watershed Project Plan-Environmental Impact Statement (EIS)

1. The STC must file the draft and final watershed project plan-EIS with the Environmental Protection Agency (EPA) using the Central Data Exchange (eNEPA). Detailed instructions are provided in 190 NECH § 610.74.
2. NRCS must prepare an NOA of the draft and final watershed project plan-EIS and submit it to the Farm Production and Conservation (FPAC), Business Center.
2. EPA is responsible for publishing the NOA in the Federal Register.
3. The STC must provide copies of the draft and final watershed project plan-EIS to the SLO, the USFWS, other participating federal, state, and local agencies, tribes and NHOs, consulting parties, and other groups and individuals who provided substantive comments on the draft.
4. The minimum public review comment period for a draft watershed project plan-EIS is 45 calendar days, beginning on the date that EPA publishes the NOA in the Federal Register.

5. The minimum public review comment period for a final watershed project plan-EIS is 45 calendar days, beginning on the date that EPA publishes the NOA in the Federal Register.
6. In addition to these public review timeframes, no decision or preparation of the record of decision (ROD) on the proposed action may be made or recorded by a federal agency before the following dates.
 - a. For a draft watershed project plan-EIS: 90 calendar days after publication of the notice.
 - b. For a final watershed project plan-EIS: 30 calendar days after publication of the notice.

502.22 Consideration of Review Comments

NRCS must fully address all substantive comments received during the comment period in the final watershed project plan. The comments and NRCS responses must be included in Appendix A of the final watershed project plan.

502.23 Making the Decision

A. Watershed Project Plan-EE

1. The STC must verify through the watershed project plan-EE documentation that the entirety of the proposed actions is clearly within a class of actions that are categorical exclusions and that there are no extraordinary circumstances (see Form NRCS-CPA-52) that would prevent the action from being eligible. The watershed agreement in the Plan-EE must then be signed, first by the SLO and then by the STC.
2. The STC must send the final watershed project plan-EE with a signed copy of the watershed agreement to each SLO and inform each SLO that a request for implementation authorization will be submitted to the Chief.

B. Watershed Project Plan-EA

1. After verifying through the watershed project plan-EA documentation that the impacts will not be significant, adverse effects have been resolved, and a watershed project plan-EIS is not required, the STC must prepare and sign a FONSI and publish an NOA in a local or regional newspaper and, if the action has national significance, in the Federal Register.
2. The watershed agreement in the watershed project plan-EA must then be signed, first by the SLO and then the STC. NRCS can act once the FONSI has been signed unless a 30-day waiting period is required.
3. The STC must send a signed copy of the watershed agreement to each SLO and inform each SLO that a request for implementation authorization will be submitted to the Chief.

C. Watershed Project Plan-EIS

1. The STC must prepare and sign a ROD, and the SLO and STC must sign the watershed agreement in the final watershed project plan-EIS.
2. The STC must send a copy of the ROD to the SLO, the USFWS, other participating federal, state, and local agencies, tribes and NHOs, consulting parties, and other groups and individuals who provided comments on the draft and final watershed project plan-.
3. The STC must also publish an NOA of the ROD in the Federal Register. The NOA must clearly state the decision regarding implementation of the project.
4. The STC must send a signed copy of the ROD documenting the decision and the basis for the decision and a signed copy of the watershed agreement to each SLO and inform each SLO that a request for implementation authorization will be submitted to the Chief.

Title 390 – National Watershed Program Manual

Part 502 – Reviews and Approvals

Subpart D – Implementation Authorization

Amended June 2024

502.30 Approval Authorities for Watershed Project Plans

- A. The signed watershed project plan is complete when it is approved by the state conservationist (STC), ensuring technical and policy adherence and concurrence with the appropriate national watershed program manager for programmatic compliance.
- B. The STC then sends the completed signed final watershed project plan to the Chief with a letter requesting implementation authorization and other documents as outlined in section 502.31.
- C. The Chief authorizes implementation funding on behalf of the Secretary of Agriculture (Pub. L. No. 83-566 § 5(1)). In some cases, including for rehabilitation, the plan must be approved by the appropriate committees of Congress before the Chief may authorize implementation funding. Watershed project plans that do not require congressional committee approval are administratively approved plans.
- D. Figure 502D-1 summarizes approval authorities for new watershed project plans. The total capacity of any single structure is the total volume of space available for water and sediment upstream of a dam that is below the elevation at which discharge begins in the primary auxiliary spillway.

Figure 502D-1: Watershed Project Plan Approval Authorities as Required by Pub. L. No. 83-566 § 1002

Construction Cost	Total Capacity of Any Single Structure	Approval Required
Less than \$25 million	2,500 acre-feet or less	<u>Watershed project plan approval</u> – STC <u>Congressional approval</u> - None <u>Implementation funding authorization</u> – Chief
\$25 million or more	4,000 acre-feet or less	<u>Plan approval</u> – STC <u>Congressional approval</u> - Senate Committee on Agriculture, Nutrition, and Forestry; House of Representatives Committee on Agriculture <u>Implementation funding authorization</u> – Chief, subject to Congressional approval
Any amount	More than 2,500 acre-feet and less than or equal to 4,000 acre-feet	<u>Plan approval</u> – STC <u>Congressional approval</u> - Senate Committee on Agriculture, Nutrition, and Forestry; House of Representatives Committee on Agriculture <u>Implementation funding authorization</u> – Chief, subject to Congressional approval
Any amount	More than 4,000 acre-feet	<u>Plan approval</u> – STC <u>Congressional approval</u> - Senate Committee on Agriculture, Nutrition, and Forestry; House of Representatives Committee on Agriculture <u>Funding authorization</u> – Chief, subject to Congressional approval

502.31 Watershed Project Plan Chief Authorization

- A. The STC must request funding for authorized watershed project plans by submitting a letter to the Chief. The letter must include the names and addresses of the Senators and Representatives of the watershed project area, the congressional district number, and hydrologic unit number.
- B. The STC must provide signed electronic copies of the following items, as applicable, to the appropriate national watershed program manager:
 1. The final watershed project plan, with a signed watershed agreement (see 390 NWPM § 502.21).
 2. Disposition of the National Water Management Center (NWMC) technical review comments and national watershed program manager programmatic review comments (see 390 NWPM Part 502, Subpart B).
 3. Templates will be provided for the required documents to be submitted below:
 - a. Summary Office of Management and Budget (OMB) fact sheet
 - b. Executive summary
 - c. STC-signed copy of finding of no significant impact (FONSI) or record of decision (ROD)
 - d. Notice of availability of FONSI or ROD

- e. A copy of the STC-signed memo to the NWMC transmitting the final watershed project plan
 - f. The draft memo from the Chief to the STC authorizing the watershed project plan
 - g. The draft letter from the Chief to the congressional delegation authorizing the watershed project plan
- C. The STC must also submit the final watershed project plan, including disposition of technical and programmatic review comments, to the NWMC director.
- D. The national watershed program manager then prepares a letter for the Chief's signature for watershed project plan authorization. All watershed project plans must be authorized by the Chief before any federal funds may be used for implementation (i.e., design and construction).

502.32 Plans That Require Congressional Approval

- A. State and National Headquarters Responsibilities
1. The STC must submit a letter to the Chief to request implementation authorization. The letter must include the names and addresses of the Senators and Representatives of the watershed project area and congressional district number.
 2. The STC must provide electronic copies of the following to the national watershed program manager:
 - a. An electronic copy of the final watershed project plan-EIS and signed watershed agreement (watershed project plans that require congressional approval must be prepared as an EIS (7 CFR § 650.7(a)(2));
 - b. Disposition and resolution of the NWMC technical review comments and watershed project plan;
 - c. Summary OMB fact sheet; and
 - d. STC-signed ROD.
 3. The STC must also submit the final watershed project plan-EIS, including disposition of technical and programmatic comments, to the NWMC director.
 4. The national watershed program manager will prepare correspondence to transmit the watershed project plan from the Chief to the Secretary of Agriculture and subsequently to OMB.
 5. After concurrence by OMB, the national watershed program manager will prepare correspondence to transmit the watershed project plan and fact sheet from the Chief to the appropriate Senate and House congressional committees.
 6. After the congressional committees approve the project, the Chief notifies the applicable Senators and Representatives (with copies of the OMB fact sheet and executive summary) and the STC.
 7. After the STC receives notification of congressional approval from the Chief, the STC must notify the sponsoring local organization (SLO) and the state governor or agency with supervisory responsibility over Pub. L. No. 83-566 programs that the project has been approved.

8. If the project is not approved by congressional committees, the Chief informs the STC of the reasons and make recommendations for revising the watershed project plan to obtain congressional approval.
 - a. The STC works with the SLO to resolve any issues raised by congressional committees. When the STC has determined that issues raised by congressional committees have been resolved, the STC repeats steps 1 through 3 to resubmit the plan for authorization. The national watershed program manager repeats steps 4 through 6 and resubmits the project for congressional approval.
 - b. After project approval by Congressional committees, the Chief will notify the State Congressional delegation and the STC. The STC will notify the SLO and the state governor or supervisory agency.

502.33 Notification of Pub. L. No. 83-566 Implementation Authorization

A. National Headquarters Responsibilities

The Chief sends a letter to the STC authorizing the watershed project for implementation. The Chief notifies congressional delegations of watershed project implementation authorization with a copy to the STC.

B. State NRCS Responsibilities

1. Upon receiving the letter from the Chief, the STC notifies the SLO, the state governor or state agency with supervisory responsibility over Pub. L. No. 83-566 programs, and the regional, area, and local offices of appropriate federal and state agencies. The STC may issue a press release if appropriate.
2. The STC provides a copy of the final watershed project plan to each Senator within the state and each Congressional Representative within whose district the watershed project is located.

502.34 Approval of Pub. L. No. 78-534 Watershed Project Plans

Review and approval for Pub. L. No. 78-534 watershed project plans are carried out in the same manner as administratively approved Pub. L. No. 83-566 watershed projects. Exceptions to this procedure occur if the project proposes financial or credit assistance for purposes other than flood damage reduction. In such cases, the Chief sends one copy of the plan to OMB. The STC may not sign the plan until authorized to do so by the Chief.

Title 390 – National Watershed Program Manual

Part 503 – Watershed Project Plan Modifications

Table of Contents

Amended June 2024

Subpart A – Preparation of Revised and Supplemental Watershed Project Plans

- 503.0 Introduction
- 503.1 Revised Watershed Project Plan
- 503.2 Supplemental Watershed Project Plan
- 503.3 Exchange of Correspondence

Subpart B – Review and Approval of Watershed Project Plan Modifications

- 503.10 Introduction
- 503.11 Review and Notification Procedures
- 503.12 Approval and Authorization
- 503.13 Approval and Authorization of Pub. L. No. 78-534 Projects

Part 503 – Watershed Project Plan Modifications

Subpart A – Preparation of Revised and Supplemental Watershed Project Plans

Amended June 2024

503.0 Introduction

- A. The watershed agreement and watershed project plan are the official documents for implementing a watershed project. If the terms, conditions, and stipulations of a watershed project plan must be modified, changes must be documented with a revised or supplemental watershed project plan and appropriately approved and authorized or by an exchange of correspondence with the sponsoring local organizations (SLO).
- B. Federal, state, and local agencies, National Historic Preservation Act consulting parties, and the public must be informed of any major changes in the watershed project plan and formally invited to participate in the supplemental watershed project plan.
- C. The process for preparation, review, and approval of revised and supplemental Pub. L. No. 78-534 watershed project plans are the same as those for administratively approved Pub. L. No. 83-566 project plans.

503.1 Revised Watershed Project Plan

- A. A revised watershed project plan is a new watershed project plan in an area where a watershed project plan was previously completed. It is required if:
 - 1. New resource concerns or problems that require federal assistance are identified.
 - 2. There are numerous complex changes in the planned works of improvement.
- B. A revised watershed project plan replaces an existing watershed project plan when the existing watershed project plan no longer represents the original resource conditions, planned objectives, or works of improvement. The revised watershed project plan must include all information needed to install a watershed project without reference to the original watershed project plan or previous supplemental watershed project plans. The revision must include information from the previous watershed project plans and supplements that relate to environmental information, environmental effects, cumulative effects, agreements, responsibilities, and obligations, including those related to the operation and management of installed works of improvement.
- C. Revised watershed project plans follow the same format and content as new watershed project plans.

- D. All revised watershed project plans must be formulated and evaluated using current procedures and the current discount rate for federal water resources planning.
- E. All revised watershed project plans must use revised watershed agreements. Because the agreement is a revision, a special opening section is required (see 390 NWPH Exhibit 606.92 for a template). After the introductory paragraphs, the remaining items in the opening section are used as shown in the exhibit. Place the revised watershed agreement immediately following the abstract (fly sheet) of the final watershed project plan. Do not include the watershed agreement in draft watershed project plans distributed for public or interagency reviews.

503.2 Supplemental Watershed Project Plan

- A. A supplemental watershed project plan is a document that makes changes to an existing watershed project plan that does not require a revised project plan (see section 503.1(A) of this subpart).
- B. Conditions requiring modifications by a supplemental watershed project plan include:
 - 1. Change in Purpose—Addition or deletion of one or more project purposes from an approved watershed project plan.
 - 2. Change in Scope—Planned increase or decrease in the watershed project boundary.
 - 3. Change in Major Features—Identified as either:
 - a. Using changed methods to achieve agreed-upon objectives without changes in purpose or scope.
 - b. Adding provisions for Watershed Program credit assistance.
 - 4. Dam Rehabilitation Projects.
- C. Modifications or changes to the proposed action that have a bearing on environmental effects require environmental assessments (EA) or environmental impact statements (EIS).
- D. Supplemental watershed project plans involving actions not affecting the environment or actions that are covered by categorical exclusions do not require an EA or EIS. This may include actions such as eliminating a project purpose. For such actions, conduct an environmental evaluation (EE) and include Form NRCS-CPA-52 in the watershed project plan to document that an EA or EIS is not required.
- E. Supplemental watershed project plans must be prepared according to 390 NWPM Part 501. The complexity and effects of the proposed action for which a supplemental watershed project plan is being prepared determine whether the supplement should contain or be accompanied by a new or supplemental watershed project plan-EE, watershed project plan-EA, or watershed project plan-EIS.
- F. Modifications by a supplemental watershed project plan that increases the Pub. L. No. 83-566 project cost (indexed to current value) by 40 percent or more or adds a cost-sharing purpose must be evaluated using current procedures.

1. All works of improvement in evaluation units that will be significantly affected by the proposed modification must be evaluated using the current discount rate and procedures for federal water resources planning.
 2. For works of improvement that will not be significantly impacted by proposed changes, use the discount rate and procedures from the original watershed project plan formulation for both installed works and works yet to be installed.
- G. For projects that require a new or supplemental watershed project plan-EIS, the works of improvement yet to be installed must be evaluated with the works already installed using both original and current discount rates. The discount rates must be displayed in the supplemental watershed project plan-EIS.
- H. Supplemental watershed project plans must begin with a section titled “Changes Requiring Preparation of a Supplement,” describing why the watershed project plan is being supplemented and what changes are being made.
- I. The supplemental watershed project plan must summarize or incorporate by reference the general discussions (such as descriptions of the affected environment if they have not changed since the original watershed project plan) and focus in more detail on the new issues specific to the action at hand. The supplemental watershed project plan-EA or watershed project plan-EIS must contain adequate information to stand on its own and allow the public to understand the full nature of the proposed action and its effects.
- J. Supplemental watershed project plans for rehabilitation must result in a new or supplemental watershed project plan-EA or a new watershed project plan-EIS, unless the entirety of the proposed action clearly falls under NRCS categorical exclusion activities or the project is within the scope of a statewide programmatic NEPA document prepared for the rehabilitation program. In such cases, the supplemental watershed project plan-EE will be prepared. The environmental document, whether a watershed project plan-EE, watershed project plan-EA, or watershed project plan-EIS, is based on the proposed action and its effects and not on the type of environmental document used for the original watershed project plan.
- K. Supplemental watershed agreements must be used with all supplemental watershed project plans. The supplemental agreement must specify the nature of the modification, which provisions of the original agreement (as supplemented, if appropriate) are being modified and which are not, and the changes resulting from new laws or policy. Place the supplemental watershed agreement immediately after the abstract of the final supplemental watershed project plan.

503.3 Exchange of Correspondence

- A. An exchange of correspondence is initiated when the state conservationist receives a request from the SLO to modify the watershed agreement or the watershed project plan.
- B. Changes in the terms, conditions, and stipulations of the approved watershed project plan that do not require a revised or supplemental watershed project plan may be documented by an exchange of correspondence. Examples of changes to an approved watershed project plan that can be done through exchange of correspondence include:

1. Changes in the works of improvement that do not involve a change in purpose, scope, or environmental effects already analyzed in the authorized watershed project plan or major features of the works of improvement.
 2. Changes in costs that are less than 40 percent.
 3. Changes in SLOs that do not result in changes in project purpose, scope, environmental effects, or features of the works of improvement.
 4. Change or transfer in SLO responsibilities.
 5. Changes in the cost-sharing arrangements set forth in the watershed agreement.
 6. A change from local to federal or federal to local contracting.
- C. A copy of every exchange of correspondence between NRCS and SLO must be sent to the Watershed Program Branch chief.

Part 503 – Watershed Project Plan Modifications

Subpart B – Review and Approval of Watershed Project Plan Modifications

Amended June 2024

503.10 Introduction

The review of revised and supplemental watershed project plans must be commensurate with the magnitude of the changes being proposed. Input by federal, state, and local agencies, consulting parties, and concerned groups must be obtained and documented.

503.11 Review and Notification Procedures

The review and notification procedure in 390 NWPM Part 502, must be followed for all revised and supplemental watershed project plans.

503.12 Approval and Authorization

- A. Revised and supplemental watershed project plans must be reviewed by the appropriate national watershed program manager for compliance with national policy.
- B. Revised and supplemental watershed project plan modifications must be approved and authorized for funding according to 390 NWPM Part 502, Subpart D. Watershed project plans that were originally approved by a congressional committee do not require approval of modifications from the same committees. However, if a modification causes a project to exceed limits in 16 U.S.C. § 1002, then the modified plan must be approved by the appropriate congressional committees before the Chief of NRCS may authorize implementation funding.
- C. Modifications may not exceed Watershed Program statutory authorities.

503.13 Approval and Authorization of Pub. L. No. 78-534 Projects

Revisions and supplements to a sub-watershed project plan for Pub. L. No. 78-534 projects are the same as those for administratively approved Pub. L. No. 83-566 projects.

Title 390 – National Watershed Program Manual

Part 504 – Project Installation

Table of Contents

Amended June 2024

Subpart A – General Provisions

- 504.0 Introduction
- 504.1 Project Implementation
- 504.2 Agreements Required
- 504.3 Real Property Rights
- 504.4 Easement Monitoring and Enforcement

Subpart B – Financing Provisions

- 504.10 Introduction
- 504.11 In-kind Contributions
- 504.12 Loans
- 504.13 Advance of Funds by NRCS

Subpart C – Completion of Projects

- 504.20 Fully Installed Projects
- 504.21 Completion of Partially Installed Projects
- 504.22 Deauthorized Projects

Subpart D – Reports

- 504.30 Introduction
- 504.31 Annual Operation Budget Estimates
- 504.32 Progress Summaries

Title 390 – National Watershed Program Manual

Part 504 – Project Installation

Subpart A – General Provisions

Amended June 2024

504.0 Introduction

- A. Installation is the phase of project development that begins after the watershed project plan has been approved and federal assistance for installing the project has been authorized by the Chief. Watershed Program funds may not be used for developing final layout and structural details before federal installation assistance is authorized. The installation phase continues until the construction of the works of improvement are complete.
- B. Installation of works of improvement must be implemented according to cooperative agreements between the NRCS and the sponsoring local organizations (SLO). Cooperative agreements detail the working arrangements, funding, and responsibilities of each party for carrying out specified elements of work.
- C. The SLO is responsible for carrying out the approved watershed project plan. NRCS is responsible for providing assistance authorized by the approved watershed project plan. As stated in the watershed agreement, no work may be initiated by either party before a cooperative agreement that details the working arrangements has been executed.

504.1 Project Implementation

A. Design Phase

Design of works of improvement must conform to the authorized watershed project plan. Designs that deviate from the authorized plan must be compared to the economic, environmental, and social impacts described in the authorized plan and must be documented in the reaffirming feasibility report (RFR) (see section 504.1(C)). If the design is more than 5 years old, it should be reviewed by the state conservation engineer to ensure the design meets current federal, state, and local criteria. If design changes will result in impacts not accounted for in the authorized watershed project plan, the plan must be modified as described in 390 NWPM Part 503.

B. Construction Phase

Construction of works of improvement must conform to the criteria outlined in the authorized watershed project plan and the approved design. Construction of works of improvement that deviates from the approved design or the authorized watershed plan must be compared to the economic, environmental, and social impacts described in the authorized watershed project plan and documented in an RFR. If the design is more than

5 years old, it should be reviewed by the state conservation engineer to ensure the design meets current federal, state, and local criteria. If construction changes will result in impacts not accounted for in the authorized watershed project plan, the plan must be modified as described in 390 NWPM Part 503.

C. Reaffirming Feasibility Report

An RFR is a comparison and analysis of the authorized watershed project plan and any changes that were identified in the design or construction phase or changes in watershed condition since the watershed plan was authorized. RFRs are prepared for authorized watershed project plans that are older than 5 years to determine if they need to be modified or if there have been changes in the costs of the design or construction phases. See 390 NWPM Part 503 and 190 NECH § 610.82.

1. An RFR must consider the following, at a minimum:
 - a. SLO commitment to the project
 - b. Social feasibility of the project
 - c. Environmental feasibility of the project
 - d. Economic feasibility of the project
2. If the RFR confirms that the project remains feasible and there are no changes with respect to 390 NWPM § 503.3, then an exchange of correspondence is required for the administrative record, with a copy sent to the Watershed Program Branch chief (see 390 NWPM § 503.3(C)).
3. If the RFR reveals that the project is no longer feasible, follow procedures for either a revised plan or a supplemental plan (see 390 NWPM Part 503, Subpart A). Revised and supplemental plans must be reviewed and approved following procedures in 390 NWPM Part 503, Subpart B.

D. Increases in Federal Share of the Construction Cost for Authorized Plans

1. A supplemental watershed plan is required if the estimated cost increases before construction and any of the following apply:
 - a. The federal share of the construction increases by more than 40 percent of the authorized amount in the plan after being adjusted for inflation.
 - b. The federal share of the construction cost exceeds \$25 million. In this case, the supplemental plan must have congressional approval.
2. If the federal share of the construction cost increases during construction, an exchange of correspondence is required, with a copy sent to the Watershed Program Branch chief (see 390 NWPM § 503.3(C)).

E. Increases in Storage Capacity for Works of Improvement

If a supplemental watershed project plan causes the total capacity of any single structure to exceed 2,500 acre-feet, the supplemental watershed project plan must be approved by appropriate congressional committees (see 390 NWPM § 502.30, Figure 502D-1).

F. Implementation Schedule

The state conservationist (STC) must develop an implementation schedule for each watershed project. Because of variations in the availability of funds and acquisition of real property rights, the actual implementation schedule may vary considerably from the planned implementation schedule. The SLO must be advised and consulted at all stages of scheduling and performing work.

G. Funding Requests, Fund Management, and Claims

1. Funding Requests. The STC must submit funding requests for technical and financial assistance funds for implementation. The request must include:

a. Design

- (1) Request from STC to the deputy chief of Programs
- (1) Confirmation of a completed watershed project plan
- (2) Plan of work for NRCS staff
- (3) Independent government estimate for any work contracted through NRCS or sponsor

b. Construction

- (1) Letter of request from the SLO
- (2) Request from STC to the deputy chief of Programs
- (3) Confirmation that all land rights and permits have been obtained
- (4) Confirmation that a 90 percent design review has been completed
- (5) Plan of work for NRCS staff
- (6) Independent government estimate for any work contracted through NRCS or sponsor
- (7) Updated shapefiles of watershed boundary and proposed location of any measures to be constructed (point or lines)

c. The deputy chief for Programs must coordinate the review of the funds request with appropriate national headquarters staff.

2. Fund Management.

- a. National headquarters staff will analyze obligations each quarter and work with states to return unused funds to headquarters for redistribution to projects where funds can be obligated.
- b. Funds that will not be obligated in the current fiscal year may be recalled by national headquarters staff at the end of the third quarter of the fiscal year for redistribution to projects where funds can be obligated.
- c. Before the end of each fiscal year, each state program manager will determine what funds need to be rolled over into the new fiscal year or returned to headquarters.
- d. State program managers should notify the appropriate national program manager when agreements or contracts are closed that include funds that should be returned to headquarters.
- e. The STC is responsible for ensuring that any unused funds are promptly returned to national headquarters after project design or construction is completed, considering any funds that may be needed for NRCS staff to complete administrative tasks or close out any associated agreements or contracts.

3. Claims Management. The STC must monitor all aspects of contract administration. The STC must ensure that efforts are made to avoid litigation and resolve all contractual issues by mutual agreement at the contracting officer (CO) level. If a contractor appeals the decision of the CO decisions for claims exceeding \$100,000, the STC must notify the deputy chief for Programs and provide the information needed for the claims database. The deputy chief for Programs, in consultation with the deputy chief for Management and Strategy, must appoint an independent review team. The team reviews the case and recommend alternative actions to resolve contractual issues and minimize NRCS litigation risks.

H. Water Resources Long-Range Plans

1. NRCS must update a state water resources long-range plan every 3 to 5 years for the Watershed and Flood Prevention Operations (WFPO) and Watershed Rehabilitation Programs. Long-range plans are not required for completed watershed projects.
2. The state water resources long-range plan must include the following:
 - a. Anticipated projects and plan to implement.
 - b. Preliminary investigation findings report for WFPO projects.
 - c. Assessments of dams for rehabilitation.
 - d. Status of WFPO and Rehabilitation projects.
 - e. WFPO and Rehabilitation project planning and implementation priorities.
 - f. Reportable deliverables to be produced for WFPO and Rehabilitation projects.
 - g. Estimated technical and financial assistance funds for WFPO and Rehabilitation projects.
 - h. Staffing needs for planning and implementing WFPO and Rehabilitation projects.
3. For authorized watershed projects, the long-range plan must also include the following:
 - a. Remaining work in current technical and financial assistance dollars to complete each project. This is used to estimate unfunded commitment.
 - b. The likelihood of implementing the authorized watershed projects considering land use or other changes in the watershed, local interest, and SLO's capability to proceed with installation.
 - c. The current status of each project.

504.2 Agreements Required

- A. Before federal financial assistance funds are granted, the STC must execute the following:
 1. Cooperative Agreement
 - a. Cooperative agreements include any agreement entered into by NRCS and the SLO in which detailed working arrangements are established for the installation of works of improvement. Cooperative agreements provide, as appropriate, adequate documentation for changes in costs that do not modify the cost-sharing rate. These may include changes in costs that occur due to site adaptation in the final design or changes in price levels. Further information and coordination are

available through the Grant and Agreements Division or other appropriate administrative staff.

2. Real Property Acquisition Assurance

- a. Real property acquisition assurance is necessary if real property interests were acquired for installing works of improvement. Form NRCS-ADS-78 must be completed, signed by the SLO, and provided to the STC before federal financial assistance is granted. The NRCS-ADS-78 must be supported by an attorney's opinion.
- b. When real property acquisition is needed, acquisition procedures must conform to Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. §§ 4601 et. seq.).

3. Operation, Maintenance, and Replacement Agreement

- a. Arrangements for operating and maintaining planned practices, as well as replacing practice elements whose design life is less than the overall practice or project life, must be included in an operation, maintenance, and replacement (OM&R) agreement and OM&R plan between the SLO or land user and NRCS. The OM&R agreement, OM&R plan, or both must be executed before NRCS provides financial assistance for real property acquisition, relocation assistance, or installation of any planned measures. OM&R agreements and plans must comply with 180 NOMM Part 500. To receive federal assistance for installing works of improvement, the SLO must make arrangements satisfactory to NRCS for paying the costs of operating and maintaining works of improvement (see 180 NOMM § 500.22).

4. Cultural Resources Programmatic Agreement or Memorandum of Agreement

- a. If a watershed project will result in adverse effects to historic properties, those adverse effects must be resolved by consulting with the Advisory Council on Historic Preservation (ACHP), state historic preservation officers (SHPO), tribes and native Hawaiian organizations (NHO), and other consulting parties as appropriate, and seeking concurrence on a mitigative treatment plan. Concurrence will result in an agreement binding the parties to the treatment plan.
- b. Typically, a memorandum of agreement (MOA) is executed between the parties if the adverse effect and mitigative treatment are a one-time activity. Concurrence may result in a programmatic agreement (PA) between the parties if the effects and mitigative treatments will be ongoing or cannot be foreseen. If a watershed project will result in adverse effects to historic properties, the project may not begin implementation before the MOA or PA has been executed (36 CFR Part 800; 190 NCRPH § 601.25(D)).

504.3 Real Property Rights

A. Definition

1. Real property rights involve obtaining needed land, water, mineral and other subsurface rights, and required federal, state, and local permits or clearances for

installing planned measures. Real property rights may be acquired through fee simple titles, easements, and rights of way or through permits and clearances as required by applicable state laws and regulations.

B. Responsibilities

1. Pub. L. No. 83-566 does not give the Federal Government the authority to acquire land. The SLO must acquire all rights needed for investigations, surveys, installation, operation, maintenance, and inspection of works of improvement to install them on nonfederal lands using federal financial assistance (Pub. L. No. 83-566 § 4(2)). This includes rights for ingress and egress routes. No cost sharing will be provided for engineering, legal, or administrative costs incurred by the SLO for acquiring real property rights except for real estate appraisals in connection with cost-shared real property rights acquisition, such as for conservation easements and mitigation of habitat losses.
2. Water and other resource rights are the responsibility of the SLO. The SLO must obtain the water and other resource rights necessary before the cooperative agreement is signed. The SLO must also present satisfactory evidence that water and other resource rights are held or can be obtained by landowners or their organizations or associations for the quantity, seasonal use, and storage of water, if required, to supply anticipated need.
3. NRCS must provide a real property rights work map showing the minimum area and rights needed for each work of improvement. The STC must ensure that a real property rights work map is developed and provided to the SLO. The map must be a cartographic presentation of the proposed works of improvement as it relates to existing physical features at the site and include information needed to acquire real property rights. The map must show the following:
 - a. Location of the works of improvement and a delineation or description of the minimum land areas needed for the works of improvement, including, but not limited to, spoil, borrow, and disposal areas; diversion of water; construction; flowage; wildlife compensation; temporary rights needed during installation of the measures; ingress and egress routes when applicable; staging areas; reservoir areas (including permanent and temporary water storage areas); spillways; areas for spillway discharge; mitigation areas; and areas for other identified activities, including OM&R. To the extent known, the map must also show any subsurface rights needed for mineral or other outstanding rights.
 - b. Topographic information related to the works of improvement such as water, flood and flowage, and other contour or elevation lines, landmarks, and control and other points.
 - c. Existing structures and improvements that will or may be affected by the works of improvement, including roads, sidewalks and bridges, railroads, buildings, aboveground and buried utilities, canals and pipelines, water sources (e.g., permanent and intermittent rivers and streams, springs, and wells), and fences.
 - d. Apparent ownerships, acreages, and boundaries known to NRCS. If ownerships and boundaries are unknown to NRCS or there is a reason to believe that they are questionable or in dispute, no attempt should be made to display this information.

SLOs are responsible for the legal aspects of property titles, boundaries, and descriptions. If state law or local practice requires that SLOs make legal plats, the STC may waive showing any ownership or boundary information on real property rights work maps.

- e. If federal financial assistance is not involved in acquiring real property rights, the map must include a tract index to show or reference the land tracts and the minimum real property rights based on apparent ownerships. However, if ownership or boundary information is not shown, the index should be prepared on a tract basis.
 - f. If federal cost-sharing is involved in acquiring real property rights, the real property rights work map must be expanded to serve as the base document for establishing federal cost-sharing arrangements. After the real property rights work map is provided to the SLO, the SLO is responsible for converting the map or developing a new map that shows actual ownerships, boundaries, outstanding prior surface, subsurface, and other rights, and other information needed to document the acquisition requirements. NRCS must use the expanded work map to develop a tract register to document the tracts or rights needed, appraisal values, acquisition costs, and cost sharing values.
- 4. The STC must approve in writing all real property rights work maps and all subsequent changes required by NRCS. Changes may be made only after consulting with the SLO. The final real property rights work map must include the acquired real property rights areas and the required minimum real property rights areas.
 - 5. Before construction of any project for local flood prevention, the SLO must agree to participate in and comply with applicable federal floodplain management and flood insurance programs (33 USC § 701b-12(a-b)) as described in the watershed agreement. See 390 NWPH § 606.40 for Watershed Agreement exhibit.

C. Requirements

1. Dams

- a. NRCS must provide the real property rights work map to the SLO before land rights acquisition (see section 504.3(B)(3) of this subpart). The real property rights work map must show the areas where real property rights are required. The real property rights map must also show areas where water may reach an elevation equal to or greater than elevations occurring without the dam in place.
- b. For new construction, the STC must inform the SLO whether the dam's water may reach an elevation equal to or greater than the top of dam. At a minimum, the SLO must acquire all real property rights upstream to the top of dam.
- c. For rehabilitation, the SLO must be encouraged to acquire all real property rights upstream to the top of the dam. If the SLO does not acquire these rights, the SLO must acknowledge the risk of flooding upstream areas and accept that liability in writing as a part of the watershed agreement. At a minimum, land rights must be acquired to an elevation no lower than the maximum water surface elevation during passage of a 100-year, 24-hour storm through the dam.
- d. For new construction in areas downstream of the dam, real property rights for induced flooding should be acquired for the entire area where water elevations for

- any flood event, up to and including that produced by a probable maximum precipitation event, are higher with the dam than without the dam. For rehabilitation in areas downstream of the dam, real property rights for induced flooding should be acquired for the entire area where water elevations for any flood event, up to and including that produced by a probable maximum precipitation event, are higher with the rehabilitation than with the existing dam.
- e. For the breach inundation area downstream of low- and significant-hazard dams, the STC must consider existing and future downstream development, including controls for future development. For new dams or existing dams to be rehabilitated, certification that adequate controls on future development within the potential impact area which may be determined by performing breach routings or by other methods (as defined in 210 NEM § 520.28) are in force. The controls must limit improvements within the potential impact area such that the hazard potential class does not increase during the evaluated life of the project. The land-use controls must include a prohibition on future construction of habitable dwellings and buildings intended to contain valuable property, industrial and commercial buildings, important public utilities, main highways, or railroads or other development that would cause the dam to be reclassified to high hazard under state dam safety regulations and dam permitting requirements.
 - f. On privately owned land, real property rights must be acquired through one of the following:
 - (1) Fee simple title.
 - (2) Term easements for at least the length of the period of analysis. These are required for the dam, spillways, ingress and egress routes, and pool areas.
 - (3) Flowage easements. These may be obtained instead of fee simple titles for the upstream flood pool (temporary water storage), downstream areas of induced flooding due to spillway discharge, and areas needed only for construction or disposal of spoil.
 - g. Temporary easements may be obtained instead of permanent rights-of-way to install measures for mitigating unavoidable adverse landscape resource effects.
 - (1) On publicly owned lands, the SLO must acquire special use or occupancy permits from the appropriate land-managing agency during detailed planning and before implementing structural works of improvement. The SLO must apply for permits with sufficient lead time to ensure an orderly installation of the project.
 - (2) Before obligating funds for construction of high hazard potential class dams, the STC must verify in the project administrative record that the SLO has prepared a current emergency action plan consistent with 210 NEM § 520.27 and 180 NOMM Part 500, Subpart F.
 - h. Channels
 - i. The STC must ensure that all of the following are included in the minimum area of real property rights to be acquired for the channel work:
 - (1) Areas within the channel's designed top and berm width necessary on each channel bank to ensure stability of the channel, channel banks, and side slopes.

- (2) Areas needed for installation, inspection, design, OM&R, ingress and egress, and disposal and diversion of water.
 - (3) Areas needed for environmental protection features.
 - (4) Other areas adversely affected by changed stream flow characteristics or induced flooding during the passage of all floods up to the 100-year, 24-hour storm.
 - j. Fee simple title or term easements for the period of analysis must be acquired for the channel itself, appurtenances, any needed diversions, and areas needed for ingress and egress to allow for OM&R of the works of improvement. In addition, fee simple title or term easements are required for any areas, including downstream areas that may be subjected to adverse effects by changed stream flow characteristics, such as extended flooding of low-water crossings and more than negligible flood damage to property.
2. Induced Flooding
- a. Induced flooding is any flooding due to a work of improvement greater than the flooding that would have occurred without the work of improvement. Except as stated otherwise, the STC must ensure that the real property rights work map includes all areas of induced flooding resulting from the project measure during the 100-year, 24-hour storm.
 - b. In cases where the installation could result in induced flooding, the following criteria must be met with respect to various types of works of improvement.
 - (1) Flooding of Roads and Railroads
 - (a) During the 100-year 24-hour storm event, the maximum water surface elevation (or higher if required by the road authority) through a dam may not be higher than upstream highways and public roads. An exception may be made if it is possible to close the highway or public road when necessary and use an alternate all-weather route with minimum inconvenience. A written right or permission to flood the highway or public road must be obtained from the state, county, or agency having jurisdiction over the highway or public road. The written right or permission may be an easement, court order, or, if those may not legally be given, a permit. The written right or permission must be accompanied by a citation of the applicable state statute or a written opinion of the state's Attorney General stating that the state, county, or agency granting the permission has legal authority to allow the road to be closed due to flooding.
 - (b) Occupied dwellings affected by the temporary closing of the flooded road must be accessible by an all-weather road that will not flood more frequently than it did under preconstruction conditions. If a road providing the only access to a dwelling is at a lower elevation than that of the water surface during the 100-year 24-hour storm event, a historical record of preconstruction temporary flooding must be developed and documented in the administrative record.
 - (c) Public roads on or upstream of dams must be at the same elevation as the maximum water surface during the 100-year 24-hour event, or higher if required by the road authority, or below the water surface elevation (such

as in the case of a road located in or across the auxiliary spillways of dams), if any of the following apply:

- Due to the nature of the terrain adjacent to the dam area (such as in mountainous areas), the road must have one or more points of the road crown at or above the water surface.
- Natural flooding of one or more points along the road above or below the project area would make the road impassable before any flooding caused by the structure would take effect, and state law permits flooding of roads under those conditions.
- Flow through the auxiliary spillway is at a lesser frequency than that at which the road flooded before construction of the structure.

(d) Railroads in use may not be flooded.

(2) Flooding of Buildings

- (a) The STC may not allow dwellings, including basements, or buildings that contain property or may be used as permanent or seasonal living quarters to remain upstream of a dam or below the top of the dam unless they are floodproofed or otherwise protected from damage. Before financial assistance is made available to the SLO, any dwellings or buildings must be demolished, relocated, raised, floodproofed, or protected by a floodwall. No buildings or structures in the area downstream from the dam within the flow path of the auxiliary spillway may remain or be constructed.
- (b) If requested by the SLO and approved by the STC, other buildings, such as barns and garages, may remain in the flowage easement area. Approval for flooding buildings of this type will not be granted if the building is used to store feed, regulated chemicals, perishables, supplies, equipment, or other items that would be substantially damaged by flooding or that could interfere with the designed function of the dam's principal or auxiliary spillways. This prohibition also applies to buildings used for other purposes if flooding would cause an interruption or delay of operations in the building or if a death or damage to the building's contents could occur.

(3) Flooding of Water Sources

Flooding of water sources (e.g., springs, wells, or stream diversions) or the interruption of delivery, conveyance, and disposal systems is prohibited until the SLO has complied with state laws, ordinances, and regulations relating to water sources.

(4) Flooding of Utilities

Public or private utilities may not be flooded unless the utility company or owner has determined that the function of the facility will not be adversely affected and a subordination agreement has been obtained.

(5) Flooding of Human Burial Locations

- (a) Human burial locations, including marked and unmarked cemeteries, historic and pre-European contact Indian, Native Alaskan, or Native

Hawaiian cemeteries and locations of other human remains, and marked and unmarked private family burial plots, regardless of land ownership, are subject to numerous federal and state cultural resources and tribe and NHO laws, regulations, Presidential memoranda and Executive orders, joint council memoranda, secretarial orders, departmental regulations, and NRCS policies and procedures (see 390 NWPM § 501.24, Figure 501C-1).

- (b) Induced flooding of such locations may constitute one or more adverse effects to historic properties and locations of cultural significance (36 CFR § 800.5). Consultations with SHPO, tribes and NHOs, and other National Historic Preservation Act (NHPA) consulting parties are required to identify and resolve adverse effects (36 CFR § 800.6). Additionally, resolution of adverse effects requires consultation with the ACHP (36 CFR § 800.6(a)(1)) and may require a mitigation MOA or PA.
 - (c) If, after recording, consultations, and evaluation, the appropriate mitigative treatment is determined to be disinterment and reburial of historic and pre-European contact human remains, those measures may not take place until government-to-government consultations between NRCS and tribe and NHO officials as well as consultations between NRCS and SHPO are complete. These consultations must be conducted by the lead federal agency (i.e., NRCS) and cannot be initiated or conducted by SLOs, other entities, technical service providers, contractors, or other individuals. Consultations will identify and agree upon conditions and procedures under which disinterment and reburial can take place. Disinterment and reburial must fully comply with conditions and procedures agreed upon by NRCS, SHPO, tribe and NHOs, and other consulting parties as appropriate. This complies with the NHPA Section 106 process.
 - (d) Human burial locations are also subject to state laws and regulations, including criminal laws, regardless of land ownership. Induced flooding of these locations may require mitigation measures, mandated by state laws, to be completed. NRCS must identify and comply with applicable state burial laws. The STC is the responsible federal official for compliance with state burial laws.
- (6) Flooding of Cultural Resources, Historical Properties, Historic Transportation Corridors, Historic Monuments, and Ancestral/Traditional Claims
- (a) Water control features (e.g., dams, levees, and channels), water sources (e.g., wells, springs, and river, stream, and channel diversions), transportation features (e.g., streets, roads, highways, trails, railroad beds and tracks, and associated appurtenances such as sideways and bridges), buildings and building locations, agricultural fields and structures, and industrial features and structures are considered historic if they were built or used more than 50 years before rehabilitation or WFPO modification. Regardless of land ownership, they are cultural resources and may be historic properties as defined by NHPA and are subject to federal and state cultural resources and tribal and NHO laws and regulations.
 - (b) Sites, monuments, roads, and trails listed on the National Register of Historic Places or state and local registers of historic properties and

cultural resources have previously been identified as historic and are subject to the same laws and regulations. Additionally, natural geographic features such rivers, streams, natural ponds, natural springs, mountains, and volcanos may be locations of ancestral claims, traditional use claims, or traditional cultural property claims and may therefore have cultural significance to tribes, NHOs, and other cultural groups.

- (c) Cultural resources, historic properties and monuments, and locations of ancestral or traditional claims and locations of cultural significance are subject to the NHPA Section 106 process of identifying, evaluating, and resolving adverse effects. Induced flooding of these locations may constitute one or more adverse effects to historic properties or water sources of cultural significance (36 CFR § 800.5). Consultations with SHPO, tribes and NHOs, and other NHPA consulting parties are required to identify and resolve adverse effects (36 CFR § 800.6). Additionally, resolution of adverse effects requires consultation with the ACHP (36 CFR § 800.6(a)(1)) and may require a mitigation MOA or PA.
- (d) NRCS is responsible for ensuring that all watershed projects comply with the full NHPA Section 106 process before a watershed project plan is submitted for technical and programmatic review. NRCS must assist the SLO in completing cultural resources investigations. NRCS must undertake and complete all necessary consultations concerning cultural resources and ancestral and traditional claims with SHPO, tribes and NHOs, and other NHPA consulting parties.
- (e) NRCS must ensure that the results, along with NRCS consultations, are used to identify and assess alternatives and potential mitigative measures. If the project will have adverse effects on historic properties, including locations of cultural significance, project installation may not begin before a treatment plan to mitigate the adverse effects has been executed by NRCS, SHPO, and other consulting parties and the plan is fully compliant with NHPA Section 106 and other applicable laws.

3. Permit or Term Easements for Project Installation

Permits or term easements must be acquired for areas needed for surveys and investigation, one-time operations, construction performance (e.g., construction ingress and egress, borrow, equipment staging, parking lots), and spoil spreading. This is in addition to permits and easements covered in sections 504.3(C)(1)–(3) of this subpart.

4. Public Recreation and Public Fish and Wildlife Habitat Improvements and Developments

Fee simple title is required for all privately-owned land acquired for public recreation and public fish and wildlife habitat purposes when Watershed Program cost-share assistance is provided. If it is not possible to obtain a fee simple title, the SLO must obtain a perpetual easement. On federal land, the SLO must obtain a special use permit or equivalent.

5. At least one access road must be provided for public utilities service to all principal recreation areas. SLO must obtain real property rights for access roads through fee simple title or perpetual easement rights-of-way.
6. Construction of private facilities on land acquired with federal cost-share funds is prohibited. The only exceptions are facilities constructed by the SLO and the state, county, or local government for public information and interpretations, toilets, and permitted concessions that are approved by the SLO and STC.
7. Wetland or Floodplain Acquisition

The SLO must acquire needed wetland and floodplain property through conservation easements or fee simple title when using Watershed Program cost share to reduce flood damage, retain excessive floodwaters, improve water quality and quantity, and provide fish and wildlife habitat.
8. Real property must be addressed in the OM&R agreement, including limiting uses and maintaining conservation purposes.
9. When acquired for flood damage reduction, the use must be compatible with flood mitigation. Land uses must be limited to purposes that provide public benefits such as recreation, fish and wildlife habitat, water quality improvement, and other purposes that are compatible with the remaining flood hazard.

504.4 Easement Monitoring and Enforcement

The SLO must operate and maintain wetland, floodplain, and mitigation easements acquired with Watershed Program funds according to an OM&R plan and agreement. Any monitoring protocol established must be discussed and be addressed in the watershed project plan and the associated finding of no significant impact or record of decision. The OM&R plan and agreement must require that federally funded easements be protected as applicable to the intended purpose of the easement. Signage must be used, as needed, to protect easements.

Title 390 – National Watershed Program Manual

Part 504 – Project Installation

Subpart B – Financing Provisions

Amended June 2024

504.10 Introduction

- A. The watershed project plan must be authorized before providing funding for project installation. Watershed Program assistance may include technical and financial assistance, advances, and loans. The watershed agreement must specify the Watershed Program assistance to be provided and show evidence of the sponsoring local organization's (SLO) commitment for funding, installing, and operating and maintaining the project.
- B. The Chief allocates Watershed Program funds for watershed projects from appropriations made for this program. USDA Rural Utilities Service (RUS) may also receive appropriations for Watershed Program loans (7 CFR Part 1781).
- C. The SLO must provide its share of installation costs from sources other than Watershed Program funds. Local financing may include state, county, and other local funds, such as watershed or special purpose district taxes. Loans or grants of funds from other federal programs may be used unless prohibited. It is the responsibility of the SLO to provide documentation that the subject non-NRCS federal funds may be used for its share of installation costs.

504.11 In-kind Contributions

- A. In-kind contributions are applicable only to projects that will be approved administratively or were transmitted to the Office of Management and Budget (OMB) after May 1, 1979. No exceptions will be allowed for any other projects regardless of the date or nature of project supplements. Property purchased with federal funds may be considered the grantee's in-kind contribution only when authorized by federal legislation.
- B. In no case will the amount of an in-kind contribution exceed the SLO share of the cost for the works of improvement. The maximum cost eligible for in-kind credit is to be the same as that for cost sharing. The SLO will receive no cash reimbursement for in-kind contributions of real property. Real property already dedicated to and improved for public recreation or fish and wildlife use will not be eligible as an in-kind contribution.
- C. The value allowed as an in-kind contribution for real property acquired by the sponsor by means other than donation cannot exceed the sponsor's actual costs. The basis for determining the value for personnel services, material, equipment, buildings, and land

must be documented. In-kind contribution arrangements must be documented in the cooperative agreement.

504.12 Loans

The USDA RUS may make watershed loans to the SLO to finance the local share of project costs set forth in approved watershed project plans. RUS has developed notices and procedures for granting these loans for all or part of the local cost for a watershed work of improvement (7 CFR Part 1781). A memorandum of understanding between NRCS and RUS was established to describe the working relationship between agencies for watershed loans (see 7 CFR Part 622).

504.13 Advance of Funds by NRCS

- A. In some situations, the state conservationist may advance funds to the SLO for engineering and construction costs, purchase of real property rights where allowable (390 NWPM § 500.42), or engineering services. A cooperative agreement must be signed by NRCS and the SLO before any funds can be advanced. The cooperative agreement must specify all of the following:
 - 1. Purpose of the advance.
 - 2. Amount of the advance.
 - 3. Repayment plan, which lists the NRCS representative who ensures funds are collected.
 - 4. Interest terms.
- B. The special conditions that follow must be met in all cases.
 - 1. Engineering and Construction Costs for Municipal and Industrial Water Supply. Engineering and construction costs to provide storage capacity for anticipated future municipal and industrial water supply are eligible for an advance of funds. These costs may not exceed 30 percent of the total cost of the structure. The advance must be repaid with interest within 50 years after the retention reservoir is constructed or in a shorter period if required by state law. Interest is not charged on the advanced funds until the future water supply from the structure is first used or until 10 years after the date of completion of the structure, whichever is sooner.
 - 2. Real Property Rights. The SLO must repay the advance and accrued interest for purchasing real property rights before the works of improvement are constructed. Funds may be advanced to purchase real property rights if the following conditions are met:
 - a. The immediate purchase is essential to preserve the site for project works of improvement.
 - b. A watershed project plan has been approved.
 - c. NRCS and the SLO have signed an agreement covering the acquisition of real property rights.
 - d. RUS has approved the repayment by the date the advance is made to the SLO.

3. Engineering Services. Funds may be advanced for engineering services for works of improvement if the following conditions are met:
 - a. The work of improvement is included in the watershed project plan.
 - b. The engineers retained or employed by the SLO are satisfactory to NRCS.
 - c. The total advance does not exceed 5 percent of the estimated installation cost of the works of improvement.

Title 390 – National Watershed Program Manual

Part 504 – Project Installation

Subpart C – Completion of Projects

Amended June 2024

504.20 Fully Installed Projects

- A. Watershed projects are complete when all planned measures, including mitigation and land treatment, installed using Watershed Program assistance are in compliance with the watershed project plan as amended or supplemented.
- B. The state conservationist (STC) must provide a completion report to the deputy chief for Programs after all planned measures that have been installed. The sponsoring local organization (SLO) must be requested to concur with the completion letter, but concurrence is not required for a completed project. The completion report must include the number and purposes of installed works of improvement and an estimate of the Watershed Program costs and local costs. The estimated costs include real property rights, technical assistance, financial assistance, and administration costs.
- C. The STC must send the SLOs a letter informing them of the official completion date of the project and reminding them of their operation, maintenance, and replacement responsibilities.

504.21 Completion of Partially Installed Projects

- A. If a project is partially implemented and it is not likely that the remaining works will be installed, the STC and the SLO must review the project status. If they agree that no further progress can be made, the project will be considered completed, subject to the following:
 - 1. A supplemental watershed agreement must be prepared to delete the measures that have not been installed.
 - 2. An exchange of correspondence must document the decision to delete the measures that have not been installed, following commensurate NEPA analysis.
 - 3. A completion report with total installation costs (see 390 NWPM § 501.45, Figure 501D-8) must be submitted to the deputy chief for Programs.
 - 4. The project status must be reported as installation complete by the deputy chief for Programs upon receipt of the completion report.
- B. If the STC and the SLO agree that additional progress can be made, a schedule for installing the remaining measures must be prepared. If progress is not made according to

the schedule, the STC must review the likelihood of project completion again and reassess actions to bring the project to completion.

504.22 Deauthorized Projects

- A. Deauthorization applies only to projects in which no works of improvement have been installed or where no operation, maintenance, and replacement agreements are in effect.
- B. If it becomes evident that the proposed works of improvement will not be installed, the STC must consult with the SLO to seek concurrence to deauthorize funding for the project. Agreements with the SLO to deauthorize funding for the project must be documented by an exchange of correspondence.
- C. If the SLO does not concur with deauthorization, the STC must submit the matter to the deputy chief for Programs, setting forth the facts and the reasons why the SLO does not agree. The deputy chief for Programs must decide whether to deauthorize a project based on a case-by-case review of the information provided.
- D. The STC must send a notice to the SLO of the decision to deauthorize the project.

Title 390 – National Watershed Program Manual

Part 504 – Project Installation

Subpart D – Reports

Amended June 2024

504.30 Introduction

- A. The state conservationist (STC) must ensure approved databases are used to enter and maintain project information involving Watershed Operations and Watershed Rehabilitation Programs. Other databases that may require data maintenance or are used for reference include, but are not limited to, the following:
1. National Inventory of Dams and [GeoObserver](#).
 2. Cumulative total of obligated watershed construction funds.
 3. [DamWatch](#).

504.31 Annual Operation Budget Estimates

- A. After fund request data are entered into the approved database, the STC must keep the project status and related information up to date so that accurate budget estimates and allocations can be prepared. New projects that are approved or changes made during the year should be added to the database. The annual budget estimates should include the following factors:
1. The approval date for watershed project authorization.
 2. The schedule for installation of planned measures.
 3. The NRCS state's program analysis and long-range plan.
 4. Business plan.
 5. The sponsoring local organization's progress in fulfilling its obligations.
 6. The sponsoring local organization's capability to proceed with installation.

504.32 Progress Summaries

- A. Watershed Program status summaries are made available from approved databases maintained by the Watershed Programs Branch. The reports are used at the national and state level to inform Congress, stakeholders, project sponsoring local organizations, and others about watershed project planning and implementation activities and program achievements. The planning, operational, and rehabilitation status of watershed projects

must be maintained in the approved database so that accurate reports can be prepared for projects in the various stages of planning and implementation.

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Table of Contents

Amended June 2024

Subpart A – Overview

- 505.0 Introduction
- 505.1 Determining Type of Post-Installation Assistance
- 505.2 Additional Work

Subpart B – Operation, Maintenance, and Replacement

- 505.10 Operation, Maintenance, and Replacement
- 505.11 Operation, Maintenance, and Replacement Requirements
- 505.12 Responsibilities
- 505.13 Operation, Maintenance, and Replacement Time Periods

Subpart C – Remedial Assistance

- 505.20 Remedial Assistance Defined
- 505.21 Remedial Assistance Procedure

Subpart D – Watershed Rehabilitation Program

- 505.30 Introduction
- 505.31 Assessment Assistance
- 505.32 Application for Rehabilitation Assistance
- 505.33 Application Ranking
- 505.34 Request for Funding
- 505.35 Development of Rehabilitation Watershed Project Plans
 - Figure 505D-1: Comparison of Plan Installation Cost and Eligible Cost Share
- 505.36 Project Implementation
- 505.37 Operation and Maintenance
- 505.38 Data Management

Subpart E – Completion of Federal Interest

505.40 Introduction

505.41 Procedure

505.42 Technical Assistance

Subpart F – Closed Projects

505.50 Closed Projects

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart A – Overview

Amended June 2024

505.0 Introduction

Part 505 establishes policy for administering the operation, maintenance, and replacement requirements for any measure installed with NRCS assistance under Pub. L. No. 83-566, Pub. L. No. 78-534, the Pilot Watershed Program, and the Resource Conservation and Development Programs. It also includes provisions for additional work, remedial assistance, rehabilitation, and completion of federal interest work.

505.1 Determining Type of Post-Installation Assistance

At the request of, and with input from, the sponsoring local organization, NRCS determines the type of post installation assistance needed.

505.2 Additional Work

- A. Additional work may be considered in watershed projects. This includes installing works of improvement to benefit new beneficiaries or the same beneficiaries to a different degree. It may include installing works of improvement to serve an additional purpose.
- B. Additional work considered for active and completed projects must follow the policies in 390 NWPM Part 503.

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart B – Operation, Maintenance, and Replacement

Amended June 2024

505.10 Operation, Maintenance, and Replacement

A. Operation

1. Operation, as defined in 180 NOMM § 500.02, includes the “administration, management, and performance of non-maintenance activities necessary to keep a practice safe and functioning as planned.” This includes being informed of changes in watershed conditions that may alter the overall function of the project, so appropriate actions can be taken.

B. Maintenance

1. Maintenance, as defined in 180 NOMM § 500.02, includes the recurring activities necessary to keep a practice in a safe and functioning condition, including management of vegetation, repair or replacement of failed components, prevention or treatment of deterioration, and repair of damages caused by flooding and vandalism.
2. Damages to structures installed under Pub. L. No. 83-566, Pub. L. No. 78-534, the Pilot Watershed Program, and the Resource Conservation and Development Program that are caused by catastrophic events may be repaired with assistance from the Emergency Watershed Protection Program. Damages to dams installed under these programs may also be repaired as part of rehabilitation work in subpart D of this part.
3. Maintenance does not include assistance needed to correct problems caused by a mistake by NRCS during the installation of a work of improvement or by latent site conditions unknown to NRCS or the sponsoring local organization or land user at the time of installation. See 390 NWPM Part 505, Subpart C for NRCS remedial assistance policy.

C. Replacement

1. Replacement means the removal of a practice or component and installation of a similar, functional practice or component (180 NOMM § 500.02).

505.11 Operation, Maintenance, and Replacement Requirements

The state conservationist (STC) must ensure that operation, maintenance, and replacement (OM&R) requirements for post-installation works are included in an OM&R agreement or in the contract documents before obtaining Watershed Program financial assistance.

505.12 Responsibilities

- A. Responsibilities for OM&R of watershed works of improvement are described in 180 NOMM §§ 500.03 and 500.04. The OM&R requirements must be documented in an OM&R agreement or contract document with the sponsoring local organization (SLO). The STC must ensure that an effective OM&R program is carried out. NRCS must manage OM&R agreements throughout the term of the agreement using conservation technical assistance (CTA) funds.
- B. Upon request from the SLO, NRCS may continue to provide technical assistance for measures after their evaluated life. The SLO must request assistance in writing to the STC and specify the type of assistance needed. The STC determines the level of technical assistance that can be provided based on available funding and staff resources. NRCS may provide technical assistance using CTA funds.

505.13 Operation, Maintenance, and Replacement Time Periods

- A. The SLO responsibility for OM&R begins when a structure is determined to be complete by NRCS. If applicable, during the vegetation establishment period following construction, the SLO must perform maintenance to ensure adequate vegetative establishment. However, NRCS may provide for repairs associated with the initial establishment of vegetation if deficiencies are due to natural causes.
- B. As appropriate, following the vegetative establishment period, the STC must notify the SLO by letter that the vegetative cover is performing as designed and remind the SLO of its responsibility to continue the obligations of the OM&R agreement throughout the evaluated life.
- C. The SLO's OM&R obligation continues until the measure reaches its evaluated life. When the evaluated life of the works of improvement has ended, the STC must notify the SLO in writing that the OM&R agreement has expired. The STC should also remind the SLO in writing that the SLO may have continued OM&R responsibilities on the works of improvement to stay compliant with applicable federal, state, and local laws, regulations, and ordinances. The STC must determine whether to modify the OM&R agreement to remove the works of improvement that have completed their evaluated life.
- D. OM&R agreements that do not have a specified end date should use the evaluated life specified in the watershed plan from the date of construction. If no date is specified in the plan, then NRCS should assume 50 years of life from the date of construction.

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart C – Remedial Assistance

Amended June 2024

505.20 Remedial Assistance Defined

- A. Remedial assistance is defined as assistance needed to correct problems caused by a mistake by NRCS during the installation of a work of improvement or by latent site conditions unknown to NRCS or the sponsoring local organization or land user at the time of installation. Changes in policy, technical standards, or engineering concepts developed after installation of the original work of improvement are not considered mistakes by NRCS. The following may be considered for remedial assistance:
1. Repair of works of improvement that deteriorate more rapidly than planned or do not perform as expected because of unusual or latent conditions.
 2. Reconstruction or repair of completed works of improvement that malfunctioned or failed because of a design or construction deficiency.
 3. Modification of a structure, relocation of property, or addition of other measures, as covered in 390 NWPM § 505.35(D)(1)(f), that are the most cost-effective way to meet the criteria for a higher hazard classification where a structure was classified incorrectly before installation.
 4. Remedial assistance is only available to works of improvement that are within their evaluated life. For projects that do not have a specified evaluated life end date, NRCS should use the evaluated life specified in the watershed plan from the date of construction. For dams, if no date is specified in the plan, then NRCS should assume 50 years of life from the date of construction.

505.21 Remedial Assistance Procedure

- A. Remedial assistance may be necessary in watershed projects that have active, inactive, or installation complete status. Works of improvement that have reached their evaluated life are not eligible for remedial assistance.
- B. The need for remedial assistance must be documented by a program report. The environmental evaluation (EE) documented on Form NRCS CPA-52 helps the responsible federal official to determine whether an environmental assessment or environmental impact statement should be prepared or whether the proposed action is covered by one or more categorical exclusions. If categorical exclusions apply to the entirety of the proposed action, the program report must include the EE documentation. If a categorical exclusion does not apply, the responsible federal official must complete an

environmental assessment or environmental impact statement as part of the program report.

C. The program report must contain the following:

1. Site or project background
 - a. Name of original watershed plan or work plan (submit separately an electronic copy of the original watershed or work plan).
 - b. Description of the original project and the measure.
 - c. When was the measure installed?
 - d. What is the project life of the project and design life of the measure?
 - e. Is the measure still within its design life?
 - f. What was the original cost share that the measure was installed under?
 2. Factors leading to the need for remedial work.
 3. Alternatives considered.
 - a. Must include a minimum of two engineering alternatives, or one engineering alternative and one nonstructural alternative.
 4. Analysis of the cost effectiveness of alternatives
 - a. Discuss the reasonableness and acceptability of each alternative.
 5. Estimated technical and financial costs, benefits, and environmental effects.
 - a. Estimate of technical assistance for NRCS.
 - b. Estimate of technical assistance for sponsor (if planning to request reimbursement for contract administration).
 - c. Estimate of financial assistance.
 - d. Estimated benefits from implementing the alternative.
 - e. Environmental effects.
 6. Summary of EE outcome
 - a. Are there any known cultural resource issues at the site that will affect the implementation of the alternative?
 - b. Are there any known threatened and endangered species issues at the site that will affect the implementation of the alternative?
 - c. Are there any environmental effects that will result in additional costs (e.g., costs for biological assessments or phase 1 or phase 2 archaeological reports)?
 - d. Will an environmental assessment or environmental impact statement be needed to implement the alternative or does an NRCS-CPA-52 or EE sufficiently cover the necessary regulatory planning requirements?
 7. Recommended solution.
 8. An engineering report meeting requirements in 210 NEM Part 504, if engineering issues are involved.
 9. NRCS-CPA-52 documenting the appropriate environmental document required.
- D. Technical input from the appropriate state or national technical specialists should be included in the program report as appropriate.

- E. NRCS may provide remedial cost-sharing assistance up to the same cost-sharing rate used for the original installation. Waivers to the cost-share policy may be granted for unusual or extenuating circumstances. The STC must request waivers from the deputy chief for Programs, see 390 NWPM Part 502, Subpart A.
- F. Funding for remedial assistance must be requested from the deputy chief for Programs.

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart D – Watershed Rehabilitation Program

Amended June 2024

505.30 Introduction

- A. This subpart refers to the Watershed Rehabilitation Program authorized by Pub. L. No. 83-566 § 14.
- B. The term “rehabilitation” in this context means the completion of all work necessary to extend the service life of the structural measure and meet applicable safety and performance standards (Pub. L. No. 83-566 § 14(a)(1)). The term “structural measure” means a physical work of improvement that impounds water, commonly referred to as a dam (Pub. L. No. 83-566 § 14(a)(3)). Only dams originally constructed with assistance from the following four programs are eligible for rehabilitation assistance:
 - 1. Pub. L. No. 83-566
 - 2. Pub. L. No. 78-534
 - 3. Pilot Watershed Program authorized under the Department of Agriculture Appropriation Act of 1954
 - 4. Resource Conservation and Development Program authorized by the Agriculture and Food Act of 1981
- C. Rehabilitation work may include any of the following:
 - 1. Protecting the integrity of the dam or extending the useful life of the dam beyond the original evaluated life expectancy.
 - 2. Repairing damage to the dam from a catastrophic event.
 - 3. Repairing structural components that are deteriorating at an abnormal rate.
 - 4. Upgrading the structural works of improvement to meet changed land use conditions in the watershed served by the structural works of improvement or changed safety criteria applicable to the structural measure.
 - 5. Decommissioning (removing) the structure and stabilizing the site, if requested by the sponsoring local organization (SLO).
- D. The implementation strategy for the Watershed Rehabilitation Program includes an assessment of the condition of dams, dam rehabilitation planning, and rehabilitation of eligible watershed project dams. Dam assessments provide SLOs with data about the condition of a dam, risks to the public should a dam fail, and estimated rehabilitation alternatives and costs. Dam assessments requested by SLOs must be completed for all dams, beginning with dams classified as high hazard potential according to 210 NEM

Part 520, Subpart C. Dams classified as significant or low hazard potential will be assessed after all high-hazard potential dams have been assessed. NRCS uses a portion of the annual program funds to fund dam assessments and maintain a portfolio of potential high-priority dam rehabilitation projects.

- E. Rehabilitation work does not include operation, maintenance, and replacement (OM&R) activities specified in the OM&R agreement (see subpart B of this part). A dam is not eligible for rehabilitation assistance if there are maintenance needs that have not been addressed or if the need for rehabilitation is due to lack of maintenance (Pub. L. No. 83-566 § 14(d)(1)).
- F. Rehabilitation projects that add purposes must follow the policies set forth in 390 NWPM Part 503. These projects must be planned according to policies set forth in 390 NWPM Parts 501 and 502 except for an assessment, as outlined in section 505.31 of this subpart, takes the place of the preliminary investigation findings report (PIFR) to begin the planning process.
- G. The completion of rehabilitation work on any works of improvement will redefine the evaluated life and the OM&R responsibilities of the SLO relative to the rehabilitated work of improvement.
- H. Applications submitted by SLOs for rehabilitation planning and implementation assistance are ranked and funded annually based on the condition of the dam and risk to loss of life should the dam fail. Dams with the highest risk of failure and threat to loss of life are prioritized for program planning and implementation.
- I. The state conservationist (STC) in each state will coordinate with the state dam safety and regulatory agencies to determine the priorities for assessments, planning, and rehabilitation of dams.

505.31 Assessment Assistance

- A. Introduction. Assessing the condition of a dam provides the SLO with valuable information on the dam's condition and assists in determining whether to proceed with rehabilitation of the dam.
- B. Request for Assistance. A request for assistance for the dam assessment, in the form of a letter to the STC, must be signed and submitted by the SLO with OM&R responsibility. If the state dam safety agency has ordered any action on the dam, the SLO must attach a copy of the order to the request.
- C. Scope of the Assessment. An assessment is limited in scope. It is a preliminary investigation on the condition of a dam. It includes information about the condition of all structural components, the designed and current potential hazard classification, and the associated risks for loss of life and property. Assessments must include all of the following:
 - 1. Field assessment of a dam.
 - 2. Topographic information to estimate breach routings if other sources of information do not exist.

3. Breach routings for estimates as necessary (not performed to the detail required during the dam rehabilitation planning or design process and not including inundation maps).
 4. Engineering risk assessment using Evaluation of Potential Rehabilitation Projects spreadsheet, which is available on the Watershed Program Branch SharePoint.
- D. Assessment Report. The STC must prepare a report to respond to the SLO request for an assessment. The report must include the following:
1. Description of the existing condition of the dam and appurtenances.
 2. Original and current NRCS hazard classification.
 3. Rehabilitation needs as determined during the assessment.
 4. Adequacy of OM&R of the dam.
 5. Eligibility of the dam for rehabilitation.
 6. Failure index, risk index, and population at risk.
 7. Potential for addressing other resource concerns during rehabilitation of the dam.
 8. Potential scope of a rehabilitation project including estimated costs.
- E. Final Report. The state conservation engineer (SCE) provides final approval and acceptance of the assessment report for NRCS. For assessment reports prepared by an architectural and engineering firm or other qualified entity, the SCE must sign and date the acceptance report for concurrence by NRCS. For reports prepared by NRCS staff, the SCE must sign and date the report as approved.
1. The final report must be provided to and discussed with each SLO of the watershed rehabilitation project.
 2. The STC must provide an electronic signed copy of the report to the National Watershed Rehabilitation Program manager.

505.32 Application for Rehabilitation Assistance

A. Introduction

1. This section sets forth requirements for preparing and submitting an application for rehabilitation assistance. See 390 NWPM § 500.20 for Watershed Flood and Prevention Operations Program application requirements.

B. Application Content

1. Application for rehabilitation planning assistance, in the form of a letter, must be signed and submitted by the SLO with OM&R responsibility. The following information must be included in the letter:
 - a. Project name.
 - b. Dam number.
 - c. Original project authority.
 - d. Dam location (legal description).
 - e. A list of SLOs with O&M responsibilities for the dam.

- f. The names, addresses, and contact information for the SLO-designated contact persons.
- g. Year the dam was constructed.
- h. Description of existing condition and known rehabilitation needs of the dam, including status of operation and management.
- i. Description of the current benefits provided by the dam (including documentation of reduced flooding damages from past events if it is available).
- j. Dam safety agency information, permit needs, comments, recommendations on rehabilitation needs for the specific dam, and a copy of any action order issued by the state dam safety agency.
- k. Statements from the SLO that they will commit to all of the following:
 - (1) SLO's ability and commitment to assist in leading locally led planning efforts.
 - (2) SLO's ability and commitment to obtain needed real property rights, including the use of power of eminent domain, if necessary.
 - (3) SLO's ability and commitment to provide local cost-share funds, in-kind services, or both to provide the required 35 percent of total eligible project costs.
 - (4) SLO's ability and commitment to enter into a new OM&R agreement with NRCS, with the understanding of the terms of the new agreement.
 - (5) SLO's ability and commitment to provide funds for continuing OM&R actions.
 - (6) SLO's ability and commitment to obtain required permits and approvals at their own cost.
 - (7) SLO's ability and commitment to ensure appropriate land use controls are enacted or acquired for downstream areas before construction if a low or significant hazard dam is involved.
 - (8) SLO's ability and commitment to prepare an emergency action plan before construction if a high hazard dam is involved.
 - (9) SLO's ability and commitment to ensure adequate land treatment measures have been installed and maintained on at least 50 percent of the watershed area above the dam (Pub. L. No. 83-566 § 4(5)) where sedimentation in the reservoir is significant.
 - (10) SLO's ability and commitment to execute a memorandum of understanding (MOU) with NRCS before being credited with the value of any in-kind contribution.

C. Submission of Application

- 1. Applications must:
 - a. Have sponsorship by qualified local organizations (7 CFR § 622.10).
 - b. Conform with federal policies on nondiscrimination (7 CFR Part 15).
 - c. Comply with the requirements of Pub. L. No. 83-566 (7 CFR § 622.11).
 - d. Include documentation of compliance with Exec. Order No. 12372.
- 2. The application must be submitted by the SLO to the state governor or applicable state agency (Exec. Order No. 12372 and Pub. L. No. 83-566 § 3).
 - a. The SLO must follow state-developed procedures for coordination of proposed federal financial assistance and direct federal development. USDA and NRCS

regulations envision a single state point of contact that provides state process recommendations (7 CFR §§ 3015.308, 622.7, and 622.20). The STC must allow state, area, regional, and local officials and entities 60 calendar days for comment, starting from the date of application submission to the state point of contact. Federally recognized tribes and native Hawaiian organizations (NHO) acting as SLOs are not required to use the state process.

- b. Additionally, Pub. L. No. 83-566 § 3 requires SLOs to submit applications to the state agency with supervisory responsibility (i.e., supervisory state agency) or the state governor if there is no supervisory state agency.
- c. The governor or supervisory state agency approves or disapproves the application. If disapproved, no further action is required of NRCS. If approved or not disapproved within 45 calendar days, the SLO will then send the application to the STC.

D. Acknowledging the Application

1. The STC must provide the SLO with written acknowledgement of receipt of the application after determining that the application is valid.

E. Return of Application

1. If the STC determines that the dam is not eligible for rehabilitation assistance (see section 505.30 of this subpart), that the application does not meet the requirements of this section, or that there is little possibility to implement a feasible rehabilitation project, the STC must return the application to the SLO with a letter explaining why it is being returned. Copies of the letter must be provided to the designated state agency and the state dam safety agency.

F. Withdrawal of Application

1. If the SLO decides to withdraw the original application for rehabilitation assistance, the SLO must submit a written request to withdraw the application to STC. The SLO must also send a copy of the withdrawal request letter to the designated state agency and the state dam safety agency. Upon receipt of the request, the STC must return the application.

505.33 Application Ranking

- A. The STC must evaluate each dam with a valid application by computing a risk index and preparing an evaluation of consequences of failure for each dam. The failure index and consequences of failure must be evaluated using the process prescribed by the Evaluation of Potential Rehabilitation Projects spreadsheet found on the Watershed Programs Branch SharePoint.
- B. The STC must evaluate this information in consultation with the designated state agency and the state dam safety agency (if state permits are required). Where there are multiple applications, the STC must consult with the designated state agency and then assign a consecutive priority ranking (1, 2, 3, etc.) for each dam with a valid application.

505.34 Request for Funding

- A. For planning, design, or construction fund requests, the STC must submit the priority ranking and other project data in the approved database.
- B. The STC must prepare a plan of work for any funding request that is submitted. The plan of work includes a schedule for the completion of project milestones and an estimate of staffing, costs, and other expenses for NRCS, sponsor, and contract expenses. If applicable, the plan also includes an independent government estimate for federal contract or sponsor contract expenses that have not already been contracted out.
- C. The National Watershed Rehabilitation Program manager ranks all applications in each phase according to the risk index and makes a funding recommendation to the deputy chief for Programs (see 390 NWPM Part 500, Subpart F).

505.35 Development of Rehabilitation Watershed Project Plans

A. Introduction

- 1. Planning of rehabilitation projects must follow the planning procedures contained in 390 NWPM Part 501. For watershed rehabilitation projects, the dam assessment replaces the PIFR. Rehabilitation work and action require a supplemental watershed project plan to address the effects of the rehabilitation action. When categorical exclusions apply to the entirety of the proposed action, an environmental evaluation for the supplemental watershed project may be prepared.
 - 2. A supplemental watershed project plan to rehabilitate a dam differs from an initial watershed project plan in that the analysis for rehabilitation focuses on performing all necessary work to extend the service life of the structural measure and meeting applicable safety and performance standards in 16 U.S.C. § 1012. If there is a benefit to analyzing more than one dam in a watershed project plan for rehabilitation, then the STC may choose to combine more than one dam in a supplemental watershed project plan.
 - 3. The rehabilitation watershed project plan focuses only on the required information for the dams being rehabilitated in the supplemental watershed project plan. Detailed information for works of improvement installed or to be installed in the project area should not be updated or displayed. Discussion regarding installed or to be installed structures must be included to the degree necessary to adequately address cumulative impacts.
- B. In addition to the information outlined in 390 NWPM Part 501, Subpart D, the Affected Environment – Current and Future Conditions section of a rehabilitation watershed project plan must discuss the status of OM&R of the dam, sedimentation rates (originally planned, actual, and future), breach analysis (assumed parameters), hazard classification (NRCS and state agency), potential modes of dam failure (stability, hydrologic, seismic, seepage, material deterioration, etc.), consequences of dam failure (impacts of breach discharge), and the reasons why the structure fails to meet current NRCS and state standards of safety and performance.

C. Historic dams (originally constructed 50 years or more before rehabilitation), regardless of land ownership, are subject to numerous federal and state cultural resources and tribe and NHO consultation laws, regulations, Presidential memoranda and Executive orders, joint council memoranda, secretarial orders, departmental regulations, and NRCS policies and procedures (390 NWPM § 501.24, Figure 501C-1). Historic dams must be recorded as built-environment features and evaluated for National Register of Historic Places eligibility and finding of effect from the proposed undertaking. Rehabilitation of historic dams may constitute one or more adverse effects to historic properties (36 CFR § 800.5). Consultations with state historic preservation officers, tribes and NHOs, and other National Historic Preservation Act consulting parties are required to identify and resolve adverse effects (36 CFR § 800.6). Resolution of adverse effects requires consultation with the Advisory Council of Historic Preservation (36 CFR § 800.6(a)(1)) and may require a mitigation memorandum of agreement or programmatic agreement.

D. Alternatives to Evaluate

1. Evaluate the following alternatives and expected consequences.

- a. No-action alternative is the most likely future condition if no actions are taken. This alternative is required to form an analytical baseline. Any modifications to the dam that are not federally assisted must be formulated into a separate action alternative to compare to this baseline in the final array of alternatives.
- b. Decommissioning the dam involves removing the embankment or other artificial barrier such that it can no longer impound or divert water during a 100-year flood event and stabilizing the site. The decommissioning alternative must address the purpose and need for the proposed action and be consistent with addressing project objectives. This may include a combination of structural and nonstructural measures. The decommissioning alternative must be considered in the initial array of alternatives but may be eliminated from detailed study if another nonstructural alternative is brought into the final array of alternatives (see next paragraph).
- c. At least one nonstructural alternative, which could include decommissioning, must be developed to address the purpose and need for the proposed action and be consistent with addressing project objectives. This alternative may include a combination of structural and nonstructural works of improvement. At least one nonstructural alternative must be in the final array of alternatives.
- d. Structural rehabilitation of the existing dam includes protecting the dam integrity, correcting damage from catastrophic events or deterioration of structural components, or upgrading the dam to meet changed land use conditions, safety and performance criteria, or both.
- e. The preferred alternative is the alternative with the greatest net public benefits that addresses the dam's structural deficiencies and must include ecosystem tradeoffs as part of the public benefits determination. See 390 NWPM § 500.4(E) for information on determining public benefits.
- f. Other works of improvement as part of an alternative may include:
 - (1) Relocating or floodproofing homes, businesses, and other structures downstream from a dam that constitutes a risk or potential threat to loss of life from a sudden dam failure.
 - (2) Purchasing development rights or easements or adopting zoning in the breach inundation area downstream from the dam.

- (3) Extending the service life of the structural work of improvement by treating critically eroding areas that significantly affect its design. These land treatment works of improvement for rehabilitation must be included in the SLO operation, management, and replacement agreement for the evaluated life of the rehabilitation project.
- (4) Rehabilitating the existing dam with added project purposes.
- g. All other reasonable alternatives that meet the purpose and need.

E. Sediment Storage

The rehabilitation watershed project plan must discuss the rationale for the selection of the sediment storage life. The rationale must be based on a range of potential sediment storage values that, together with removals (either during the installation or operation period), covers the entire evaluated life and considers costs, benefits, project objectives, site constraints, and other identified concerns. In no case may the evaluation period be less than 50 years or more than 100 years.

F. Computation of Cost of Rehabilitation Projects

1. The total installation cost of rehabilitation projects for the economic analysis is different from the total eligible project cost for determining cost-share amounts.
2. A spreadsheet has been developed for calculating the installation costs for Economic Table 2 – Estimated Cost Distribution (see 390 NWPM § 501.46) of the plan and the computation of total eligible project cost to determine the cost-share amounts for single purpose (flood damage reduction) watershed rehabilitation projects. The spreadsheet is also used to determine percentages and values in the Cost-share Table for Watershed Operation or Rehabilitation Projects section in the watershed agreement. The spreadsheet is available in the Watershed Programs Branch SharePoint.

G. Installation Cost for the Economic Analysis

1. The total installation cost of the rehabilitation project for the purpose of conducting an economic analysis must include federal and nonfederal costs (e.g., construction, engineering, real property rights, natural resource rights, permitting, replacement in-kind relocation payments, and project administration). The value of eligible in-kind contributions must be included in the total installation cost (see section 505.35(H) of this subpart).
2. The installation costs shown in Economic Table 1 (390 NWPM § 501.45) and Economic Table 2 – Estimated Cost Distribution (390 NWPM § 501.42) must not include federal or nonfederal technical assistance for project planning.

H. Eligible Project Cost for Computation of Cost Share

1. When calculating the federal cost-share amount, the total eligible project cost must include federal and nonfederal costs (e.g., construction, replacement in-kind and required safe and sanitary relocation payments, real property rights, and nonfederal technical assistance for planning, engineering, and project administration). The value of eligible in-kind contributions (390 NWPM Part 505, Subpart D) must be included in the total eligible project cost. The cost of technical assistance provided by NRCS must not be considered as part of the total eligible project cost. Costs for works of

improvement that exceeds federal requirements or that are not part of a Pub. L. No. 83-566 purpose are not cost-shared. The SLO is responsible for the cost of all water, mineral, and other resource rights, all federal, state, and local permits, and OM&R, none of which are considered part of the total eligible project cost.

2. In-Kind Contributions

- a. An MOU must be executed with NRCS before being credited with the value of any in-kind contribution. No credit is given for in-kind costs incurred by the SLO before the execution of the MOU or other agreement specifying allowable in-kind costs by category and amount. In no case may the amount of an in-kind contribution exceed the SLO share of the cost for the works of improvement. The maximum cost eligible for in-kind credit is the same as that for cost sharing. The SLO does not receive cash reimbursement for in-kind contributions of real property. Real property already dedicated to and improved for public recreation or fish and wildlife use are not eligible as an in-kind contribution.

3. Value of In-Kind Contributions

- a. The value allowed as an in-kind contribution for real property acquired by the SLO by means other than donation cannot exceed the SLO's actual costs. The basis for determining the value of personnel services, material, equipment, buildings, and land must be documented. In-kind contribution arrangements must be documented in the cooperative agreement.
- b. The eligible project costs shown in the watershed agreement differs from the installation costs in the watershed project plan (see figure below). These differences must be explained in the watershed project plan and in the watershed agreement.

Figure 505D-1: Comparison of Plan Installation Cost and Eligible Cost Share

Cost Category	Installation Cost for Economic Tables	Eligible Project Cost for Cost Share Computation
Federal Technical Assistance: - Planning¹ - Engineering (Design and Construction) - Project Administration²	No Yes Yes	No No No
Non-Federal Technical Assistance: - Planning - Engineering (Design and Construction) - Project Administration	No Yes Yes	Yes Yes Yes
Real Property Rights ³	Yes	Yes
Natural Resource Rights	Yes	No
Federal, State, and Local Permits	Yes	No
Construction	Yes	Yes

¹ Planning includes inventory and analysis necessary to formulate and evaluate alternatives and prepare the project plan.

² Engineering includes relocation assistance advisory services.

³ Real property rights include rights associated with relocation.

Cost Category	Installation Cost for Economic Tables	Eligible Project Cost for Cost Share Computation
Relocation Payments:		
• Replacement In-Kind	Yes	Yes
• Required Decent, Safe, Sanitary	No	Yes
• Beyond Required Safe and Sanitary	No	No

I. Federal Cost-Share Limitations

1. Federal cost-share must be equal to 65 percent of the total eligible project cost but must not exceed 100 percent of the actual construction cost of the rehabilitation project (Pub. L. No. 83-566 § 14(b)(2)). Construction costs must include the reconstruction or decommissioning of the dam and the relocation or floodproofing of downstream property.
2. Costs for meeting additional water supply storage needs are cost-shared up to 65 percent of the eligible project cost allocated to the existing water supply purpose.
3. Costs for adding new water supply storage purposes to the rehabilitation project may be cost-shared with watershed rehabilitation funds. If adding water supply is approved, the cost-share rate must be up to 65 percent of the eligible project cost allocated to the new water supply storage purpose.
4. Costs for adding new project purposes that do not involve water supply storage are not cost-shared with watershed rehabilitation funds. The costs allocated to these new project purposes are borne by the SLO.
5. Needed outlet works and pipelines to convey water from the reservoir to the existing or proposed treatment facilities or water system are also considered project works of improvement. The planning, design, and installation of rural drinking water wells and any necessary power supply for operating the well may be considered watershed project works of improvement. Water treatment components, distribution systems, and electric distribution facilities fall outside the scope of the Watershed Program and are not eligible project costs.

J. Nonfederal Contributions

1. The SLO is responsible for the nonfederal share of the cost of the rehabilitation project. Nonfederal shares may be provided through any of the following:
 - a. Cash
 - b. In-kind services
 - c. Value of real property rights in addition to those previously acquired for the current project.
 - d. Any combination of the above
2. The value of in-kind contributions provided by nonfederal entities may be credited towards the SLO's 35 percent cost-share requirement. The value of all real property rights must be determined by a qualified professional appraiser and certified by the responsible SLO official. Consult with appropriate NRCS administrative staff for requirements on determining the value of in-kind contributions.

3. The SLO may not receive cash reimbursement for in-kind contributions that exceed the 35 percent cost-share amount. No credit is given for SLO actions needed for carrying out previously assigned responsibilities of the project.
4. The STC must concur with the services provided before credit for the in-kind contribution may be given.
5. An MOU must be prepared between NRCS and the SLO that defines and establishes a maximum value of the nonfederal in-kind contributions. The MOU must be modified when the scope of the in-kind contributions change. All SLOs providing in-kind services, real property rights, or both must sign the MOU.
6. Only costs accrued for activities included in this MOU may be considered as part of the nonfederal in-kind contribution. Determination of the final amount to be credited is at the sole discretion of NRCS. If more than one dam is included in an MOU, accounting of costs for each dam must be kept separate.

K. Rehabilitation Watershed Project Plan Review, Approval, and Authorization

1. Rehabilitation watershed project plans must be reviewed, approved, and authorized in accordance with 390 NWPM Part 502, Subparts B, C, and D.
2. After considering and addressing all review comments received, the STC may approve the rehabilitation watershed project plan.

505.36 Project Implementation

- A. Project implementation must be in accordance with 390 NWPM Part 504.
- B. Before obligating funds for implementing a rehabilitation project, the STC must execute a new OM&R agreement and plan that covers the new evaluated life of the rehabilitation project, according to 180 NOMM Part 500, Subparts C and D, and 390 NWPM § 504.2(A)(3).

505.37 Operation and Maintenance

- A. OM&R of rehabilitation work must be performed according to 180 NOMM Part 500 and subpart B of this part.

505.38 Data Management

- A. The STC must update the NRCS dam inventory in GeoObserver (210 NEM Part 521) upon completion of rehabilitation work.
- B. The STC must prepare and submit a completion report that verifies the completion of rehabilitation work according to the approved watershed project plan within 90 days of completion. The STC must send the completion report to the National Watershed Rehabilitation Program manager and ensure that the following information is provided:
 1. Project (dam) name and number
 2. Name of SLO

3. Completion date
4. The total project costs displayed by works of improvement (cost-share and non-cost-share items) and associated cost-share rates as shown in the watershed agreement.
5. Federal share of the construction cost (financial assistance)

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart E – Completion of Federal Interest

Amended June 2024

505.40 Introduction

- A. Completion of federal interest is taking a work of improvement out of service before reaching its evaluated life or when the Federal Government's financial interest has been purchased by the sponsoring local organization (SLO) or another entity. The remaining federal interest is the unrealized benefits associated with the measure. When the evaluation period of a project expires, the federal interest has been met so a completion of federal interest is not required.
- B. At any time during the evaluated life of a structure, the SLO or third party may request to purchase all the rights and responsibilities of a structure for their use. If it is determined to be in the best interest of the Federal Government, NRCS may work with the SLO or third parties to divest the Federal Government's interest and responsibilities in the structure.
- C. Completion of federal interest must be documented for the considered works of improvement. Guidance and sample documents for recording the completion of federal interest decision are provided in 390 NWPH Part 605, Subpart E.

505.41 Procedure

- A. The SLO must provide a written request to the state conservationist (STC) requesting a completion of federal interest.
- B. The decision to release or not release the remaining federal interest is a federal decision which requires documentation of the effects of the agency's decision on the quality of the human environment under the National Environmental Policy Act. NRCS must prepare an environmental assessment or environmental impact statement before finalizing the completion of federal interest.
- C. Before the works of improvement may be released, the SLO must:
 - 1. Complete an assessment of the works of improvement, documenting its current condition, function, and operation.
 - 2. Coordinate with NRCS to complete an inspection of the work of improvement.
 - 3. Notify NRCS of any planned structural or hydraulic changes to the work of improvement that may affect the watershed project.

4. The SLO may need NRCS to provide a technical review of the modifications to the work of improvement.
 5. Ensure that modifications to the work of improvement will meet current state dam safety requirements.
- D. If NRCS determines that it is not in the best interest of the government to allow the SLO to complete the federal interest of the project, the SLO must maintain the work of improvement for its remaining evaluated life according to the watershed project agreement.
 - E. Failure of the SLO to follow NRCS's decision jeopardizes future funding for projects within the watershed and requires the SLO to provide full payment of the remaining federal interest.
 - F. NRCS must document information about the completion of federal interest in a program report. The report must specify the cause of the situation, alternatives considered, estimated cost, and selected alternative. An informational copy of the final report must be sent to the deputy chief for Programs for a decision whether to release the federal interest.
 - G. When the Federal Government's financial interest is purchased by the SLO or another entity, calculation of the remaining benefits not yet accrued by the work of improvement will determine the value of the federal interest.
 - H. The completion of federal interest must be documented by an exchange of correspondence from the STC to the SLOs and the third parties, if applicable. The exchange of correspondence identifies the works of improvement and the termination date of the operation and maintenance (OM&R) agreement. A copy of the exchange must be provided to the deputy chief for Programs.
 - I. The watershed project plan must be amended to delete the works of improvement to reflect the completion of federal interest.
 - J. If the watershed project agreement includes more than one work of improvement, the OM&R agreement must be modified to reflect the completion of federal interest of the installed works of improvement.

505.42 Technical Assistance

- A. NRCS may provide technical assistance for completion of federal interest work using conservation technical assistance funds.
- B. Upon request from the SLO, NRCS may continue to provide technical assistance for the work of improvement following the completion of federal interest if the SLO maintains the work of improvement according to an approved NRCS OM&R plan. The SLO should request assistance in writing to the STC and specify the type of assistance needed. The STC determines the level of technical assistance depending on funding and staff resource.
- C. NRCS may not provide technical assistance for works of improvement that were modified without NRCS concurrence or that do not meet NRCS standards.

Title 390 – National Watershed Program Manual

Part 505 – Post-Installation Assistance

Subpart F – Closed Projects

Amended June 2024

505.50 Closed Projects

- A. Projects are closed when all planned measures in the watershed project plan are implemented and the evaluated life of the installed measures has ended. The state conservationist must notify the sponsoring local organization in writing when a watershed project is closed.

Title 390 – National Watershed Program Manual

Part 506 – Watershed Program References

Table of Contents

Amended June 2024

Subpart A – Glossary and Abbreviations

506.0 Glossary

506.1 Abbreviations and Acronyms

Title 390 – National Watershed Program Manual

Part 506 – Watershed Program References

Subpart A – Glossary and Abbreviations

Amended June 2024

506.0 Glossary

- A. The following is a list of terms specific to the National Watershed Program.
1. **Acceptability**—The viability and appropriateness of an alternative from the perspective of the Nation’s general public and consistency with existing federal laws, authorities, and public policies. It does not include local (including the sponsoring local organization (SLO)) or regional preferences for particular solutions or political expediency.
 2. **Adaptive management**—A deliberate, iterative, and scientific based process of designing, implementing, monitoring, and adjusting an action, work of improvement, or project to address changing circumstances and outcomes, reduce uncertainty, and maximize one or more goals over time.
 3. **Administrative record**—The set of documents of all types (papers, studies, data, references, maps, correspondence, notes, modeling, etc.) and in all formats (paper and digital media) that support the decision-making process. This is NRCS’s collection of the evidence that decision makers understood the law applying to the decision, considered all the relevant factors, and made a reasoned decision.
 - a. Also included in the administrative record are documents, including fact sheets, informational articles, results of public participation activities, that are readily available for public dissemination to inform agencies and the public about NRCS activities.
 - b. A separate administrative record must be maintained for each watershed project. The record contains items such as lists of people or groups invited to participate, signup sheets or other records of attendance, meeting notes, issues discussed, extent of controversy, views expressed, positions taken, and decisions made. The administrative record may also include views expressed in correspondence.
 4. **Advisory Council on Historic Preservation (ACHP)**—The independent agency mandated to advise the President, Congress, and federal agencies and review their activities related to historic properties. ACHP was established under the National Historic Preservation Act (NHPA) (54 U.S.C. § 3401). ACHP is a consulting party in NHPA Section 106 consultations (36 CFR § 800.2(b)).
 5. **Aerated sediment**—Sediment that accumulates in the flood retarding pool and above the normal pool of a reservoir.

6. **Affected environment**—The physical, ecological, economic, and social characteristics of the area and relevant resources impacted by the project.
7. **Area of Potential Effects (APE)**—“The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” (36 CFR § 800.16(d)). From 420 GM § 401.2(1): “...within which an undertaking (project, activity, program, or practice) may cause changes in the character or use of historic properties.” From 190 National Cultural Resources Procedures Handbook (NCRPH) § 601.22(A)(3)(i): “The APE should include all borrow, fill or temporary storage areas, access roads and any other lands that would be directly or indirectly affected by the proposed undertaking. In some cases, with very large or elevated projects, the APE may include visual effects.” Because the APE includes all geographic areas where an undertaking may directly or indirectly affect the character of historic properties, the APE cannot, by definition, be the same as the limits of disturbance (LOD). Defining the APE is the sole responsibility of NRCS (36 CFR § 800.4(a)(1)) and cannot be delegated to SLO, state historic preservation officers (SHPO), tribes and national Hawaiian organizations (NHO), or any other agency, group, or individual.
8. **Benefited area**—The extents of an area that receives benefits from the proposed works of improvement. This area is shown on the project map in Appendix B of the plan.
9. **Catastrophic event**—For the purpose of determining eligibility for the dam rehabilitation program, a catastrophic event is defined as an event that causes damage to the structural components or embankment, or a more than 100-year frequency rainfall or storm event producing a flow that causes erosion in the auxiliary spillway.
10. **Closed project**—A project may be considered closed when all works have been implemented, and the evaluated life of all works of improvement has ended.
11. **Completed project**—A project is completed when all works of improvement, including mitigation and land treatment, involving Watershed Program assistance are installed in compliance with the watershed project plan as amended or supplemented.
12. **Completion of federal interest**—Completion of federal interest is taking a works of improvement out of service in an environmentally sound and safe manner or when the Federal Government’s financial interest has been realized or purchased by the SLO or another entity. Completion of federal interest applies to works of improvement that have not met their evaluated life. The federal interest is the remaining unrealized benefits due to removing the works of improvement before the end of the evaluated life.
13. **Completeness**—The extent to which an alternative provides and accounts for all features, investments, or other actions necessary to realize the planned effects, including any necessary actions by others. It does not necessarily mean that alternative actions need to be large in scope or scale.

14. **Cooperative Agreement**—An agreement entered into by NRCS and the SLO in which detailed working arrangements, including costs and cost sharing, are established for the technical assistance installation of works of improvement.
15. **Cost Allocation**—The process of apportioning total project financial costs among purposes served by a plan.
16. **Cost Allocation (multipurpose)**—Separation of costs associated with a work of improvement that provides benefits among more than one purpose by authority.
- a. **Joint cost**—The total financial cost for a structure minus the sum of separable financial costs for all project purposes.
 - b. **Separable cost**—The reduction in financial cost that would result if the purpose were excluded from the structure. This reduction includes the financial cost of measures serving only the excluded purpose and the reductions in the financial cost of measures serving the multiple project purposes.
 - c. **Separable cost—remaining benefit method**—The separable cost - remaining benefit (SCRB) method provides for assigning to each purpose its separable cost and a share of the joint cost in proportion to the remaining benefits. This method allows for an equitable sharing among the various project purposes including any savings that may result from multiple-purpose development.
17. **Cultural resources**—Cultural resources refer to historic, aesthetic, and cultural aspects of the human environment. In NRCS, the term is also used to refer to any historic or archaeological properties that have been identified during planning or to historic properties as defined by ACHP regulations (see below). Cultural resources may also refer to:
- a. Resources that have little or no historic values but do have contemporary cultural value.
 - b. Resources included in or determined eligible for inclusion in the National Register of Historic Places or an equivalent register maintained at the state or local level.
 - c. Unevaluated resources that may be eligible for inclusion in the National Register or an equivalent.
 - d. Properties that may qualify for the protections afforded by the Archeological Resources Protection Act or the Native American Graves Protection and Repatriation Act (see 190 NCRPH § 601.60).
18. **Cumulative effects**—Cumulative effects are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.
19. **Dam**—A dam is a barrier to confine or raise water for storage or diversion, create a hydraulic head, prevent gully erosion, or retain soil, rock, or other debris. A dam is a physical improvement that impounds water and may include a sediment, conservation, and flood pool.

20. **Deauthorized project**—An authorized watershed project can be deauthorized if no planned works of improvement have been installed or if works of improvement have reached the end of the evaluated life.
21. **Decommission**—Taking a practice out of service in an environmentally sound and safe manner or converting it to another purpose.
22. **Design life**—The intended period of time that the practice will function successfully with routine maintenance. It is determined during the design phase.
23. **Designated state agency**—The agency designated by the state governor as having supervisory responsibility over programs provided for in Pub. L. No. 83-566.
24. **Ecosystem functions**—The interactions among organisms and between organisms and their environment.
25. **Ecosystem services**—The direct or indirect contributions, including economic, environmental, and social effects, which ecosystems make to the environment and human populations. Potential types of ecosystem services:
- a. Provisioning services are tangible goods provided for direct human use and consumption, such as food, fiber, water, timber, or biomass. Examples include food (e.g., crops, fruit, fish), fiber and fuel (e.g., timber, wool), biochemicals, natural medicines, and pharmaceuticals, genetic resources (i.e., genes and genetic information used for animal and plant breeding and biotechnology), and ornamental resources (e.g., shells, flowers).
 - b. Regulating services maintain a world in which it is possible for people to live, providing critical benefits that buffer against environmental catastrophe. Examples include flood and disease control, water filtration, climate stabilization, or crop pollination, air-quality maintenance (i.e., contributing chemicals to and extracting chemicals from the atmosphere), climate regulation (e.g., affecting local temperature and precipitation through land cover, affecting greenhouse gas sequestration and emissions), water regulation (e.g. timing and magnitude of runoff, flooding), erosion control (e.g., effects of vegetative cover on soil retention and prevention of land and asset erosion), water purification and detoxification (e.g., filtering and decomposing organic waste), natural hazard protection (e.g., from storms, floods, landslides), and bioremediation of waste (i.e., removal of pollutants through storage, dilution, transformation and burial).
 - c. Cultural services make the world a place in which people want to live by providing recreational use, spiritual values, aesthetic viewsheds, or tribal values.
 - (1) Spiritual and religious value: many religions attach spiritual and religious values to ecosystems.
 - (2) Inspiration for art, folklore, architecture, and other creative pursuits.
 - (3) Social relations: ecosystems affect the types of social relations that are established (e.g., fishing societies).
 - (4) Aesthetic values: many people find beauty in various aspects of ecosystems.
 - (5) Cultural heritage values: many societies place high value on the maintenance of important landscapes or species.

(6) Recreation and ecotourism.

- d. Supporting services are the underlying processes maintaining conditions for life on Earth, including nutrient cycling, soil formation and retention, primary production, water cycling, production of atmospheric oxygen, and provision of habitat.
26. **Effectiveness**—The extent to which an alternative alleviates the specified problems and achieves the specified opportunities.
27. **Efficiency**—The extent to which an alternative alleviates the specified problems and realizes the specified opportunities at the least cost.
28. **Emergency action plan**—A plan of action to reduce the potential for property damage and loss of life in an area affected by the failure of a dam or other potentially hazardous practice.
29. **Environmental assessment (EA)**—A concise public document that briefly provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
30. **Environmental evaluation (EE)**—The process of evaluating the environmental effects of a proposed action. Form NRCS-CPA-52 provides summary documentation of the EE of the planned actions. The EE is “a concurrent part of the planning process in which the potential long-term and short-term impacts of an action on people, their physical surroundings, and nature are evaluated, and alternative actions explored.”
31. **Environmental impact statement (EIS)**—An EIS is a document detailing the environmental impact of a proposed law, construction project, or other major action that may significantly affect the quality of the environment. The National Environmental Policy Act (NEPA) and various state environmental laws may require an EIS.
32. **Evaluated life**—The evaluated life is the time over which an alternative will have significant beneficial or adverse effects when the works of improvement function successfully with prescribed operation, maintenance, and replacement activities. The evaluated life is used in the watershed project plan for discounting and amortizing project benefits and costs. It is also used to determine the duration of operation and maintenance agreements for project works of improvement. The evaluated life may not exceed 100 years.
33. **Evaluation units**—Areas that may be grouped based on like physical characteristics, like treatment requirements, or both.
34. **Finding of no significant impact (FONSI)**—Finding of no significant impact means a document by a federal agency briefly presenting the reasons why an action, not otherwise categorically excluded, will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared.
35. **Future-without-Project (FWOP)**—The FWOP is an estimation of the most probable future condition expected to occur in the absence of any of the study's alternative plans. The FWOP condition includes any changes expected to directly,

indirectly, or cumulatively result from all reasonably foreseeable actions without any of the study's alternative plans. See "No action alternative."

36. **Future-without Federal Investment (FWOFI)**—The FWOFI is the baseline condition used to evaluate action alternatives. See "No action alternative."
37. **Historic property**—Historic properties are defined by the NHPA and expanded in the 36 CFR Part 800 regulations as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places." Additionally, historic properties are generally, though not always, at least 50 years old at the time they are recorded. This term includes artifacts, records, and remains that are related to and located within such properties. The term also includes historic and cultural landscapes, properties of tradition and cultural importance to American Indian tribes or NHOs, and properties that meet the National Register criteria (see 190 NCRPH, § 601.60).
38. **Indian Tribe**—An Indian tribe, band, nation, or other organized group or community, including Alaska Native villages, regional corporations, or village corporations, as defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. § 1602), that is recognized as eligible for the special programs and services provided by the United States to Indians due to their status as Native Americans (36 CFR § 800.169(m), 54 U.S.C. § 300309).
39. **Induced Flooding**—Induced flooding is any flooding caused by the presence of a work of improvement that is greater than the flooding that would have occurred without the work of improvement.
40. **Interdisciplinary team**—A group of individuals with diverse education, training, and knowledge interacting to accomplish a common goal.
41. **Locally preferred alternative**—When not already incorporated as the preferred alternative in the watershed project plan, this is a reasonable alternative developed in cooperation with local interests and the SLO. This SLO-financed alternative without federal investment may be analyzed as an action alternative. However, the SLO-financed alternative should not be presented as the no action alternative to which other investment actions are compared.
42. **Maintenance**—The recurring activities necessary to retain or restore a practice in a safe and functioning condition, including the management of vegetation, the repair or replacement of failed components, the prevention or treatment of deterioration, and the repair of damages caused by flooding or vandalism.
43. **Minimum basic facilities**—The adequate and appropriate facilities needed to achieve the intended use and provide public health and safety and access to a project area that includes public recreation or fish and wildlife purposes (16 U.S.C. § 1004(1)(b)). This may include parking, sanitary, and other facilities needed to accommodate the public and provide for health and safety on site.
44. **Mitigation**—Measures taken to avoid, minimize, rectify, reduce, or eliminate over time, or compensate for environmental impacts (see 40 CFR § 1508.20).

45. **Native Hawaiian Organization (NHO)**—Any organization that serves and represents the interests of Native Hawaiians, has as a primary and stated purpose the provision of services to Native Hawaiians, and has demonstrated expertise in aspects of historic preservation that are significant to Native Hawaiians (36 CFR § 800.3).
46. **National Register of Historic Places (NRHP)**—The Nation's official list of districts, sites, buildings, structures, and objects that meet specific criteria and are worthy of preservation due to their importance in American history, prehistory, architecture, archeology, and culture. The NRHP is maintained by the Secretary of the Interior under the authority of the NHPA Section 101.
47. **No action alternative**—The no action condition is the most likely future condition if no change to existing activities occurs. It includes any changes expected to directly, indirectly, or cumulatively result from all reasonably foreseeable actions without any of the action alternatives.
48. **Nonstructural flood damage reduction measure**—A flood-control measure that reduces susceptibility to flood damage without significantly changing the depth or extent of flooding. They do this by changing the use made of the flood plains or by accommodating existing uses to the flood hazard. Measures include moving structures (relocation of structures), demolishing or removing structures, floodproofing or blocking openings, acquiring floodplain, and installing works of improvement such as flood warning systems.
49. **Notice of intent (NOI)**—A notice of intent is a brief statement announcing a decision by the responsible federal official (RFO) to prepare an EIS for a major federal action and inviting public input to the decision (see 40 CFR § 1508.22).
50. **Operation**—The administration, management, and performance of non-maintenance activities necessary to keep a practice safe and functioning as planned (see 180 NOMM § 500.02).
51. **Peer review**—An interdisciplinary review to ensure that the plan meets NRCS technical and program requirements.
52. **Period of analysis**—The time required for implementation (design and construction) plus the evaluated life of the project. See “Evaluated life.”
53. **Period of Performance**
- a. **Funding Period of Performance**—The time to complete an action upon receiving federal funds, whether the action is performed by NRCS, a federal contractor, or by the SLO using a cooperative agreement.
 - b. **Contracting Period of Performance**—The timeframe identified in contracting documents setting the contract beginning and end dates for the performance and completion of all actions required in the contract.
54. **PR&G Plans**—PR&G requires identification of plans based on preference and optimal production of public benefits (DM 9500-013 § 6(b)(4)(b)) from all reasonable alternatives carried through detailed analysis (locally preferred, nonstructural, and environmentally preferable).

55. **Preferred alternative**—The preferred alternative is the alternative that the NRCS, in cooperation with the SLO in the planning process, determines would best accomplish the purpose and need of the proposed action while fulfilling its statutory mission and responsibilities, considering economic, environmental, technical, and other factors.
56. **Preliminary investigation findings report (PIFR)**—A brief study using existing data and field information. The purpose of the investigation is to provide reasonable assurance that a feasible plan that addresses a Pub. L. No. 83-566 purpose can be developed and that there are no apparent insurmountable obstacles.
57. **Primary auxiliary spillway**—The spillway with the lowest crest elevation in an auxiliary spillway system.
58. **Project actions**—A project action is a formally planned undertaking that SLOs carried out within a specified area for the benefit of the general public. See “Sponsoring local organization (SLO).”
59. **Project life**—The period over which the project will perform the intended functions and is same as the evaluated life.
60. **Project sponsors**—See “Sponsoring local organization (SLO).”
61. **Proper farm plan**—This term is used in section 4(5) of the Watershed Protection and Flood Prevention Act and refers to a conservation plan that provides for the essential treatment to protect the resource base and ensure the proper functioning of structural measures.
62. **Public benefits**—Public benefits encompass environmental, economic, and social goals, including monetary and nonmonetary effects, and allow for the inclusion of quantified and unquantified measures.
63. **Real property**—Real property acquisition includes obtaining needed land, water, mineral, and other subsurface rights and required federal, state, and local permits or clearances for installation of works of improvement. Acquisition of rights may be obtained with the use of fee simple title, easements, and rights of way, or by permits and clearances as required by applicable state regulations.
64. **Rehabilitation**—The completion of all work necessary to extend the service life of the structural measure and meet applicable safety and performance standards (see 180 NOMM § 500.2).
65. **Remedial assistance**—Assistance needed to correct problems caused by a mistake or misjudgment by NRCS during the installation of a measure or by latent site conditions unknown to NRCS or the SLO or land user at the time of installation. Changes in policy or technical standards and engineering concepts developed after the installation of the original measure are not considered mistakes or misjudgments by NRCS (see 390 NWPM Part 505, Subpart C).
66. **Replacement**—Replacement of works of improvement or components of works of improvement that have a service life which is less than the evaluated life identified in the watershed project plan and economic analysis.

67. **Required land treatment**—Land treatment required by federal or state statutes or USDA regulations in the upstream portion of a watershed to ensure the proper functioning of works of improvement installed as part of the watershed project plan. (See section 4(5) of Pub. L. No. 83-566.)
68. **Requirements**—Inputs to alternative plans, programs, designs, strategies, or actions that should be incorporated into analyses for federal investment.
69. **Resilience**—The capacity of an ecosystem or community to respond to changes, including climate changes.
70. **Responsible federal official (RFO)**—For watershed project plans, the NRCS state conservationist is the RFO for compliance with the provisions of NEPA (see 190 GM § 410.4 and NHPA (36 CFR § 800.2(a))).
71. **Restore**—To return to a less degraded state.
72. **Retention Reservoir**—Although classically defined as a structure designed to hold water for an extended period possibly for later water supply withdrawals, for the purposes of PL 83-566 and this manual, it is any reservoir behind a dam.
73. **Rural or rural communities**—All communities with a population of less than 50,000 according to the latest decennial census of the United States.
74. **Scoping**—An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.
75. **Separable cost**—This term is used in reference to multipurpose structures. The separable cost for a purpose is the reduction in financial cost that would result if the purpose were excluded from the structure. This reduction includes the financial cost of measures serving only the excluded purpose and the reductions in the financial cost of measures serving the multiple purposes.
76. **Sponsoring local organization (SLO)**—
- a. SLOs are project sponsors that have legal authority and resources to carry out, maintain, and operate works of improvement (Pub. L. No. 83566 § 2). SLOs may include:
 - (1) Any state agency or political subdivision thereof, soil or water conservation district, flood prevention or control district, or combinations thereof, or other agency.
 - (2) Any irrigation or reservoir company, water users' association, or similar organization not being operated for profit that may be approved by the Secretary.
 - (3) Any Indian tribe or tribal organization (defined in 25 U.S.C. § 450(b)).
 - b. SLOs are also referred to as sponsors, local organizations, local sponsors, and local sponsoring organizations.
77. **State historic preservation officer (SHPO)**—The official appointed by the state governor or designated by state statute under NHPA (54 U.S.C. § 302303). The SHPO is responsible for administering the NHPA and state historic preservation program within the state jurisdiction.

78. **Structural works of improvement**—Structural works of improvement are physical modifications designed to reduce the frequency of damaging levels of flood inundation. Structural measures include dams with reservoirs, dry dams, channelization measures, levees, walls, diversion channels, pumps, ice-control structures, and bridge modifications.
79. **Submerged sediment**—Sediment that accumulates in the normal pool of a reservoir but not the aerated sediment in the flood retarding pool.
80. **Sustainable**—The creation and maintenance of conditions under which humans and nature can coexist in the present and into future.
81. **Tribal historic preservation officer (THPO)**—The tribal official, appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program, who has assumed the responsibilities of the SHPO for purposes of NHPA Section 106 compliance on tribal lands in accordance with 36 CFR § 800.2(c)(2)(A). This official assumes the responsibilities of the SHPO on tribal land (190 NCRPH § 601.60).
82. **Unwise use of floodplains**—Any action or change that diminishes public health and safety or an action that is incompatible with or adversely impacts one or more floodplain functions that leads to a floodplain no longer able to sustain itself.
83. **Variance**—An approved request to vary from national standards. Only the appropriate division director may approve a variance. Variances are approved when there is a documented need to establish additional purposes for an existing standard or a less restrictive quality criterion than those required by established national standards.
84. **Waiver**—An approved request to vary from existing NRCS policy. Only the Chief (through the deputy chief for Programs) may approve a waiver. Waivers may be approved when there is a documented need for less restrictive criteria than required by NRCS policy and not otherwise subject to law, regulation, or Executive order.
85. **Water resources project**—Projects having one or more of the following project purposes: flood prevention, water supply, water-based recreation, water quality management (as defined in Pub. L. No. 83-566 § 4), or large-scale irrigation or drainage projects. Water resources projects are implemented by local organizations (as defined in Pub. L. No. 83-566 § 2). For PR&G, it is defined as the federal investments that by purpose, either directly or indirectly, affects water quality or water quantity, including ecosystem restoration or land management activities.
86. **Watershed**—A watershed area comprises all land and water within the confines of a drainage divide and must follow hydrologic boundaries. In the case of irrigation or salinity projects, the watershed boundary may be based on the irrigation problem area or subsurface hydrologic area, respectively. A watershed area may comprise the land and water of two or more minor drainageways that are separate tributaries to a stream, artificial waterway, lake, or tidal area. Areas from which water is brought in by diversion may be excluded from the watershed if these sources of water have no significant effect on the flood prevention and water management problems of the watershed area. The watershed area must include all direct tributary drainageways

and lands from which, after project installation, water and sediment could adversely affect any proposed structural works of improvement, such as an irrigation or drainage canal, floodway, or floodwater retarding structure, included in the plan.

87. **Watershed project plan**—A document that contains project actions, which are formally planned works of improvement carried out within a specified area by SLOs for the benefit of the general public. A watershed project plan analyzes all viable alternatives, records SLO decisions, and describes the framework and responsibilities for carrying it out. Watershed project plans may also be referred to as watershed plans, watershed program plans, or plans. A watershed project plan includes the required NEPA documentation or references an existing NEPA document.
88. **Works of improvement**—An undertaking, including rehabilitation, for any of the following purposes:
- a. Flood prevention (including structural, nonstructural, and land-treatment measures).
 - b. The conservation, development, use, and disposal of water.
 - c. The conservation and proper utilization of land in watershed or subwatershed areas not exceeding 250,000 acres in which such activities can be undertaken for the primary purpose of flood prevention (including structural and land treatment works of improvement) and not including any single structure that provides more than 12,500 acre-feet of floodwater detention capacity and more than 25,000 acre-feet of total capacity.

506.1 Abbreviations and Acronyms

- A. The following is a list of abbreviations and acronyms specific to the National Watershed Program.
1. ACHPAdvisory Council on Historic Preservation
 2. CECategorical exclusion
 3. CED.....Conservation Engineering Division
 4. CEQ.....Council on Environmental Quality
 5. CFR.....Code of Federal Regulations
 6. CPPE.....Conservation Practice Physical Effects
 7. CTA.....Conservation and technical assistance
 8. DEADraft environmental assessment
 9. DEIS.....Draft environmental impact statement
 10. DSEISDraft supplemental environmental impact statement
 11. EAEnvironmental assessment
 12. EAPEmergency action plan
 13. EE.....Environmental evaluation

- 14. EIS.....Environmental impact statement
- 15. EPA.....Environmental Protection Agency
- 16. ESA.....Endangered Species Act
- 17. FA.....Financial assistance
- 18. FEIS.....Final environmental impact statement
- 19. FONSI.....Finding of no significant impact
- 20. FOTG.....Field Office Technical Guide
- 21. FR.....Federal Register
- 22. FS.....Forest Service
- 23. FSA.....Farm Services Agency or Food Security Act
- 24. FSEIS.....Final supplemental environmental impact statement
- 25. FWOFI.....Future without Federal investment
- 26. FWOP.....Future without project
- 27. GM.....General Manual
- 28. M&I.....Municipal and industrial water supply
- 29. MOU.....Memorandum of understanding
- 30. NCRH.....National Cultural Resources Handbook
- 31. NECH.....National Environmental Compliance Handbook
- 32. NEM.....National Engineering Manual
- 33. NEPA.....National Environmental Policy Act
- 34. NFIP.....National Flood Insurance Program
- 35. NHCP.....National Handbook of Conservation Practices
- 36. NHPA.....National Historic Preservation Act
- 37. NHO.....Native Hawaiian Organizations
- 38. NHQ.....National Headquarters (NRCS)
- 39. NMFS.....National Marine Fisheries Service
- 40. NOA.....Notice of availability
- 41. NOAA.....National Oceanic and Atmospheric Administration
- 42. NOI.....Notice of intent
- 43. NOMM.....National Operation and Maintenance Manual
- 44. NPPH.....National Planning Procedures Handbook
- 45. NRCS.....Natural Resources Conservation Service
- 46. NRD.....Natural resources district

47. NRHPNational Register of Historic Places
48. NWMC.....National Water Management Center
49. NWPH.....National Watershed Program Handbook
50. NWPMNational Watershed Program Manual
51. OM&ROperation, maintenance, and replacement
52. OMBOffice of Management and Budget
53. OM&ROperation, maintenance, and replacement
54. P&GEconomic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies
55. PR&G.....Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies
56. RC&DResource conservation and development
57. RFO.....Responsible federal official
58. RODRecord of decision
59. RUS.....Rural Utilities Service
60. SFStandard form
61. SHPOState historic preservation officer
62. SLOSponsoring local organization
63. STCState conservationist
64. SWCD.....Soil and water conservation district
65. TATechnical assistance
66. TALCTribal Ancestral Lands Consultation; National Instruction 315
67. THPOTribal historic preservation officer
68. TVATennessee Valley Authority
69. USACEU.S. Army Corps of Engineers
70. U.S.C.....U.S. Code
71. USDA.....U.S. Department of Agriculture
72. USDA-RD...U.S. Department of Agriculture, Rural Development
73. USFWSU.S. Fish and Wildlife Service