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National Watershed Program Handbook

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National Watershed Program Handbook

Preface

A. The National Watershed Program Handbook (NWPH) is a companion document to the National Watershed Program Manual (NWPM). It provides guidance and suggestions for working through the various stages of watershed projects, from working with potential sponsors to providing project rehabilitation assistance. The Part, Subpart, and Sections correspond to those of the NWPM.

B. The electronic versions of the NWPH and NWPM include many links to each other, connecting the "why" of policy to the "how" of how to get work done. Both documents are also linked electronically to other important policy documents and technical resources.

C. This Handbook is intended to be a useful reference. Policy is contained in the NWPM, the Natural Resources Conservation Service (NRCS) General Manual, and other NRCS program and administrative manuals.

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Part 600 – Watershed Program Management

Subpart A – Program Criteria

600.0 Authority, Purpose, and Scope

A. Authority

The National Watershed Program Handbook (NWPH) is intended for use by persons providing technical and financial assistance authorized by either of the following:

(1) Public Law 83-566 (as amended), the Watershed Protection and Flood Prevention Act of 1954

(2) Public Law 78-534, the Flood Control Act of 1944

B. Purpose

The purpose of this handbook is to provide guidance and procedures for the delivery of the policy in the Title 390, National Watershed Program Manual (NWPM). The Watershed Protection and Flood Prevention Act (Public Law 83-566, as amended) is codified in 16 U.S.C. Sections 1001 to 1008, 1010, and 1012, which is in 390-NWPM, Part 506, Subpart A, Section 506.0, and will be referred to in this document as Public Law 83-566. The 7 Code of Federal Regulations (CFR) 622, Watershed Projects, sets forth the general policies for planning and carrying out watershed projects under Public Law 83-566, and flood prevention projects under Public Law 78-534 (see 390-NWPM, Part 506, Subpart A, Section 506.1).

C. Scope

(1) The NWPM sets forth the policy for all watershed plans developed under the Watershed Program, this includes projects which are earmarked or funded in any other way.

(2) Federal laws, Executive orders and regulations found in 390-NWPM, Part 500, Subpart D, Section 500.32, can be located at the following websites:

(1) Public laws can be found at http://straylight.law.cornell.edu/uscode. For Public Law 83-566, Watershed Protection and Flood Prevention Act, select "All Titles, Title 16, Chapter 18," and all sections except 7 and 11 of the statute will be listed, including amendments since the original law was authorized. Also see 390-NWPM, Part 506, Subpart A, Section 506.0.

(2) Further information about the CFR can be found at http://www.gpoaccess.gov/cfr/index.html. For Public Law 83-566, select "most current data," enter "7 CFR 622," and "submit." Then choose "Part 622–Watershed Projects." Also see 390-NWPM, Part 506, Subpart A, Section 506.2.

(3) Further information about specific executive orders, secretarial orders, and presidential memoranda can be found at http://www.usa.gov. Find "search" on the page and enter "Executive order and the topic." For example, enter "Executive order floodplain management."

(4) Further information about departmental regulations can be found at http://www.ocio.usda.gov/directives. For example, in the search line, enter “1350-001” for departmental regulation 1350-001, “Tribal Consultation”.

600.1 Watershed Program Overview

A. See 390-NWPM, Part 500, Subpart A, Section 500.1 for general description of the Watershed Program.

B. Congress made it clear that the authority provided under Public Law 83-566 should be used to “supplement both our present agricultural soil and water conservation programs and our programs for development and flood protection of major river valleys. It will bridge the gap between these two types of programs and greatly enhance the ultimate benefits of both” (House of Representatives Report No. 1140, 83d Congress, 2d Session).

C. “Federal help under the Act is available only to assist local organizations to plan and install needed water management and flood prevention measures that cannot feasibly be installed under other current Federal conservation programs" (Committee Print, H.R. Committee on Agriculture, August 25, 1954, 83d Congress, 2d Session, Watershed Conservation and Flood Prevention, answer to question 4).

D. Interpretation of Public Law 83-566 by the Office of the President is in Executive Order 10584, reprinted in 390-NWPM, Part 506, Subpart A, Section 506.3.

600.2 Relationship to Other Programs

Watershed projects should be developed when land or water resource issues in a watershed cannot be adequately addressed by individuals or groups making use of other U.S. Department of Agriculture (USDA) conservation programs. Projects should not be developed for the purpose of providing higher cost-sharing rates than those available through other USDA conservation programs.

600.3 Eligible Purposes

A. General Purposes

The general purposes of the Watershed Protection and Flood Prevention Act are stated broadly in the act itself 390-NWPM, Part 506, Subpart A, Section 506.0). They provide for a wide range of activities related to land and water resources within the limits related to watershed size (250,000 acres) and reservoir storage capacity (25,000 acre-feet total).

B. Authorized Project Purposes

Sections 3 and 4 of Public Law 83-566 provide for Federal assistance for the following authorized project purposes:

(1) Flood Prevention Flood Damage Reduction)

(i) Flood damage reduction or flood prevention measures are defined in 390-NWPM, Part 500, Subpart A, Section 500.3 B(1).

(ii) Conservation practices that protect the watershed should be considered and evaluated. These practices reduce the rate and amount of runoff and erosion, thereby resulting in the reduction of downstream flood peaks, sedimentation, and the delivery of other damaging material carried by floodwater.

(iii) Measures that alleviate flood losses by modifying the susceptibility of land, people, and property to flood damage or by modifying the impact of flooding should also be considered.

(iv) Measures to acquire, perpetuate, restore, and enhance the natural capability of wetlands and floodplains to retain excessive floodwaters, improve water quality and quantity, and provide fish and wildlife habitat should also be considered for inclusion in project plans.

(v) Measures for this purpose include, but are not limited to:

- **(a) Removal or Relocation of Existing Floodplain Properties**
  Moving residential, commercial, industrial, and farm buildings may be the most economically, socially, and environmentally acceptable means of reducing or preventing flood damage. Relocation of existing floodplain properties is intended to reposition buildings into flood-free areas of the landowner's property or on other flood-free land. Land that is evacuated for relocation must have some type of deed restriction to prohibit building on that land. Where State law prohibits building on floodplains, deed restrictions are not required. If floodplain properties are historic properties, historic property consultation is required and mitigation may be needed.
- **(b) Flood Warning System**
  Wherever properties remain in a flood-prone area, a flood warning system should be used in conjunction with other measures to reduce flood damage. A flood warning system may include monitoring of weather or stream conditions coupled with a projection of anticipated flood depths. An alert or warning system may be included to notify floodplain occupants in time to protect property from damage, to evacuate the area, or both.
- **(c) Floodproofing**
  This measure applies to individual buildings. It includes dikes for individual buildings, blocking off low-level entrances and windows, installing one-way valves in drains, strengthening walls and foundations, installing protective walls, elevating the building or contents to minimize flood losses, and other appropriate measures. Individual buildings must be evaluated to determine if they are historic properties prior to floodproofing.
- **(d) Floodplain and Wetland Acquisition**
  - Floodplain acquisition consists of purchasing residential and commercial properties that have been subjected to repeat flooding.
  - Perpetual easements on floodplains and wetlands in undeveloped areas offer the opportunity to perpetuate, restore, and enhance the natural capability of wetlands and floodplains to retain excessive floodwaters.
- **(e) Other Engineered Practice Measures**
  Floodwater retarding structures, channel work, dikes, floodways, floodwater diversions, sediment basins, grade stabilization structures, stream bank stabilization, and other engineering practices are all commonly used practices for flood damage prevention. These practices and their appropriate uses are described in the National Handbook of Conservation Practices (NHCP).

(2) Watershed Protection

(i) Watershed protection consists of onsite treatment of watershed natural resource concerns for the primary purpose of reducing offsite floodwater, erosion, sediment, and agriculture-related pollutants. Watershed protection plans may include ecosystem restoration. Any practice or combination of practices listed in the NHCP may be considered for inclusion in the systems of practices included in a watershed protection project plan. Project measures for watershed protection include land treatment practices installed to conserve and develop any of the following:

- Soil
- Water quality and quantity
- Woodland
- Fish and wildlife habitats
- Energy
- Recreation and scenic resources

(ii) The area needed to meet the 50-percent land treatment requirement cited in 390-NWPM, Part 506, Subpart A, Section 500.3B(2), should be determined by measuring the land within a detention structure drainage area, not including the land under the structure itself or its retention reservoir. Stream bank erosion within the drainage area should be considered and treated as part of the project action.

(iii) In the case of channels, land treatment should be provided that helps ensure a stable channel without excessive sediment accumulation. Stream dynamics should be carefully considered in determining the amount and kind of land treatment needed. The amount of land treatment needed to help ensure a stable channel should be considered an integral part of the channel measure.

(iv) Assistance for ecosystem restoration measures may be provided under this purpose.

(3) Public Recreation

(i) Recreation measures include any practice that creates or improves a water resource or surrounding area for recreational purposes and the facilities needed to realize the recreational potential of the water area.

(4) Public Fish and Wildlife

(i) Public fish and wildlife measures include any practice that creates or improves a water resource or other area for fish and wildlife habitat and the associated facilities necessary for the intended use of the water resource for fish and wildlife. Examples include, but are not limited to the following:

- Water level control structures
- Fish ladders and shelters
- Marsh and pit development to provide fish pools in marshes
- Breeding and nesting areas for migratory waterfowl, terrestrial and aquatic wildlife, amphibians and reptiles

(ii) Assistance for ecosystem restoration measures is also provided under this purpose.

(5) Agricultural Water Management

(i) Drainage

(a) Drainage projects include measures planned primarily to increase the efficiency of land use on farms or ranches by the rehabilitation and improvement of existing drainage systems or the construction of new drainage systems to serve cropland, woodland, and grassland. Drainage is accomplished by lowering the water level in areas where naturally high water tables, normal precipitation, normal tidal

action, seepage, or excess irrigation water limit agricultural production. Drainage projects include measures planned for surface drainage, subsurface drainage, or both.

(b) Surface drainage is the removal of excess water above the surface of the ground. Subsurface drainage is the removal of excess ground water below the surface. Such projects are in watershed or subwatershed areas composed partially or totally of lands that have been drained or are proposed to be drained. The area may be a water problem area whose boundaries consist of artificial barriers that prevent the inflow of water originating outside of the area. Drainage facilities are primarily for rural areas. Measures for drainage could include, but are not limited to the following:

- Construction or rehabilitation of artificial channels
- Construction or rehabilitation of subsurface tile drains
- Restoration and improvement of natural channels

(c) Drains may have gravity outlets or may convey drainage water to pumping plants for disposal.

(ii) Ground Water Recharge

(a) Measures include recharge of ground water aquifers for use by rural communities, use by livestock, orchard and crop spraying, and similar agricultural uses.

(b) Measures for ground water recharge could include, but are not limited to the following:

- Water supply reservoirs
- Water spreading systems
- Other measures to recharge groundwater

(iii) Irrigation

(a) Projects to improve irrigation include measures planned primarily to increase the efficiency of water use on cropland, grassland, and woodland and to obtain the maximum practical benefits for existing investments in irrigation. Such projects involve watershed or subwatershed areas composed partly or totally of lands irrigated or proposed to be irrigated. Project areas could be water problem areas whose boundaries might or might not coincide with surface drainage divides.

(b) Land treatment practices are needed to ensure that the irrigation benefits are realized. They include those needed for on-farm irrigation, those needed to reduce erosion and sedimentation of structural measures, and channels installed to supply irrigation water.

(c) Measures for irrigation water conservation include, but are not limited to the following:

- Water supply reservoirs
- Diversion dams
- Pumping plants
- Sluices
- Land leveling
- Canal headworks
- Canal and laterals
- Main distribution system pipelines to convey project water to each farm unit or noncontiguous tract within a farm unit
- Canal lining and lining or sealing storage reservoirs
- Appurtenant sediment control and stabilization measures
- Measuring devices

- Other measures needed to conserve and efficiently use present and potential water supplies and to convey them to individual farms with the least practical loss

(iv) Agricultural Water Supply

(a) Agricultural water supply measures include those installed for the establishment of group water supplies primarily for agricultural use in rural areas. This includes all uses of water in rural areas to meet the needs of households, farmsteads, or community facilities. Rural areas are those areas where residents live on farms or in small towns where agriculture provides the primary employment base. Rural areas include communities having a population of less than 50,000 according to the latest decennial census of the United States.

(b) Project measures normally consist of measures to provide a dependable water supply to meet existing needs. Measures include providing storage capacity in surface reservoirs, intake structures, and associated diversion works and transmission lines to a treatment plant. Although treatment facilities and transmission lines from the treatment plant need to be considered in developing the proposal, they are considered nonproject (associated) measures.

(c) Land treatment measures to protect and improve water quality should also be considered in the formulation of plans for developing agricultural water supplies.

(v) Water Conservation

Water conservation measures include those that increase the efficiency of use of agricultural water so that more is available for other uses.

(vi) Water Quality

Water quality measures include those that reduce water quality impairments by trapping or reducing pollutants from primarily agricultural land, or that benefit agriculture.

(6) Municipal and Industrial Water Supply

There is no further guidance in the handbook corresponding to this section in the manual.

(7) Water Quality Management

There is no further guidance in the handbook corresponding to this section in the manual.

(8) Watershed Structure Rehabilitation

There is no further guidance in the handbook corresponding to this section in the manual.

600.4 Project Scope

A. Maximum Watershed Size

(1) The maximum watershed size or subwatershed area authorized is 250,000 acres, in accordance with Public Law 83-566, Section 2. Please note that the Public Law 83-566 stipulates, if the Sponsoring Local Organization (SLO) so desires, a number of subwatersheds that are less than 250,000 acres in size may be planned together if they are component parts of a larger watershed. Public Law 78-534 does not limit the size of the subwatersheds developed for the 11 authorized watersheds.

(2) 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 can be based on the irrigation problem area or subsurface hydrologic area, respectively. A watershed area can 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 can 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 should include all direct tributary drainageways and lands from which, after project installation, water and sediment could adversely affect proposed measures included in the plan, such as an irrigation or drainage canal, floodways, or floodwater retarding structures. However, no single plan can be submitted for a watershed or subwatershed area exceeding 250,000 acres.

(3) If a plan calls for the Watershed Program's contribution to construction costs to exceed $5 million, it must be approved by the appropriate Senate and House of Representatives committees (Public Law 83-566, Section 2).

B. Maximum Structure Size

(1) The reservoir capacity is limited by the single-structure size—no more than 12,500 acre-feet of floodwater detention capacity or no more than 25,000 acre-feet of total capacity may be included in the plan. 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. Plans with a single-structure capacity exceeding 2,500 acre-feet must be submitted to the appropriate Senate and House of Representatives committees for approval. Public Law 78-534 does not limit the reservoir capacity developed for the 11 authorized watersheds.

(2) The Public Law 83-566 limits the floodwater detention capacity to 12,500 acre-feet between the principal spillway and the crest of the auxiliary spillway. For a multipurpose structure, the total capacity is limited to 25,000 acre-feet. The structure may include 2,500 acre-feet for sediment storage, 5,000 acre-feet for recreation, 7,500 acre-feet for water supply and 10,000 acre-feet for floodwater detention for a total capacity to 25,000 acre-feet. Public Law 83-566 sets two separate limiting criteria for single-structure capacity.

C. Economic Analysis

(1) Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G) are cited in the NWPM, and will be used to formulate and evaluate all water resources projects. The Principles are intended to ensure proper and consistent planning by Federal agencies in the formulation and evaluation of water and related land resources implementation studies. The Guidelines (Chapter I of P&G) establish the procedures for use in water resource planning and implement the principles.

(2) Benefits and costs are estimated using the best current techniques and are calculated accurately, consistently, and in compliance with P&G and other economic evaluation requirements. These National Economic Development (NED) procedures are found in Chapter II of P&G.

D. Recreation Development Limitations

(1) Pursuant to specific language in the Public Law 83-566 Section 4(1b), recreational development can only be provided to the extent that is demonstrated by need. Therefore, recreational development plans must take into account the anticipated use (measured in user-days), and existing regional outdoor water-based recreational developments.

(2) P&G Chapter II, Section VIII, provides detailed guidance on procedures that can be used to evaluate the demand and potential use for recreational measures in a project. This information can be used as part of the economic evaluation of the project. Although P&G provides guidance on how to assign economic values to user days, other publications, studies, websites, etc. dealing with the value of recreational development can also be used as part of the economic evaluation. However, be sure the information in such materials is actually applicable to the location and attributes of the designated project area.

(3) The improvement must be available to the general public (not limited to certain classes or organized groups) unless the improvement is for fish and wildlife propagation, preservation, or protection. This includes real property rights that guarantee public access to the entire reservoir area and access corridors to one or more locations on the reservoir perimeter of adequate width and quality to safely accommodate public use of the site. It also includes real property rights to provide space for parking areas and sanitary or other facilities needed to accommodate the public.

(4) Adequate sanitary facilities should be provided to serve the public use contemplated. If public use is not contemplated, adequate provisions should be made to exclude the public, if necessary, to prevent the creation of unsanitary conditions. The provisions for water pollution control set forth in Executive Orders 11507 and 11514 must be satisfied. In the absence of adequate local standards, those recommended in the Department of Health and Human Service's Publication (HSM) 72-10009, Environmental Health Practices in Recreational Areas, will be used as a guide for planning, design, operation, and maintenance.

(5) Areas developed as recreational facilities for which Federal cost sharing is provided must be designed and constructed to ensure accessibility and usability by individuals with disabilities in accordance with 36 CFR Part 1195, the Architectural Barriers Act (Public Law 90-480); the Americans with Disabilities Act of 1990, as amended; and the Accessibility Guidelines for Outdoor Developed Areas. Facilities and elements such as visitor centers, parking lots, plumbed toilets and bathing facilities, drinking fountains, recreational boating facilities, and fishing piers and platforms must comply with the Architectural Barriers Act Accessibility Guidelines issued in 2004.

E. Water Quality Management Reservoir Storage Limitations

There is no further guidance in the handbook corresponding to this section in the manual.

Part 600 – Watershed Program Management

Subpart B – Responsible Parties

600.10 NRCS Responsibilities

A. NRCS State Responsibilities

Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart B, Section 500.10, outlines NRCS responsibilities for Watershed Program management. The State Conservationist (STC) provides oversight for plan development in accordance with the plan of work (POW). The POW is to be used throughout the plan development to schedule and coordinate planning activities and to monitor progress. If project objectives change, unforeseen problems or delays arise, or opportunities to accelerate completion of the process occur, the POW should be revised.

(1) Adherence to State and Federal Requirements

(a) Public Law 83-566 projects are local projects installed with Federal assistance, not Federal projects, and are exempt from the provisions of the Fish and Wildlife Coordination Act (FWCA). However, Public Law 85-624, which contained the 1958 amendments to the FWCA, also added section 12 to Public Law 83-566. Section 12 (16 U.S.C. Section 1008) applies the principles of the FWCA to the Public Law 83-566 program. The U.S. Fish and Wildlife Service (FWS) should be invited to carry out surveys and investigations and to prepare a report with recommendations concerning the conservation and development of wildlife resources. The report should include technical and economically feasible works of improvement for wildlife.

(b) With the concurrence of the project sponsors the FWS may also be invited to assist with the preparation of a watershed plan that meets the sponsors' goals. If components of the report are incorporated into the final plan, the FWS may request that the initial report accompany the plan when funding authorization is requested from the Chief of the NRCS or when the plan is submitted to Congress for approval.

(2) Watershed Program Information Assistance

The NRCS should take all reasonable actions to ensure that sponsoring local organizations (SLOs) understand the responsibilities and obligations expected of them. Specifically, SLOs must be willing and able to carry out short-term and long-term financial commitments regarding non-cost-share obligations (for example—land rights acquisition, permits, licenses, operation and maintenance, etc.). Regarding long-term commitments (for example, operation and maintenance of structural components for 50-100 years), NRCS should take all reasonable actions to ensure that SLOs understand their responsibilities as outlined in the Operation and Maintenance (O&M) agreement. Specifically, the SLO responsible for funding should understand and be aware of the affect such long-term funding commitments will have on parties responsible for funding of non-cost-share obligations in the future.

(3) Preparation of the Watershed Project Plan

(a) The NRCS has leadership responsibility for providing technical assistance to the SLO. As part of this responsibility, NRCS coordinates input of other agencies and groups in the formulation of the plan. The U.S. Forest Service has coordination responsibility for the forestland part of the plan.

(b) The NRCS ensures compliance with the National Environmental Policy Act of 1969 (NEPA). The STC is the responsible Federal official who ensures that the watershed Plan-EIS or plan-EA complies with NEPA. Chapter III of the P&G contains procedures to establish the process for identifying Environmental Quality (EQ) problems. The procedures are intended to aid in complying with NEPA requirements.

(c) The NRCS ensures compliance with the National Historic Preservation Act (NHPA) of 1966, as amended. The STC is the responsible Federal official who ensures that the watershed plan-EIS or plan-EA complies with NHPA. This includes a nation-to-nation consultation with Tribal governments regarding cultural resources, sacred, and cultural sites.

(d) The NRCS ensures compliance and consultation with Tribal Governments in regard to natural and other resource concerns in accordance with Executive Order 13007, Executive Order 13175, Secretarial Order 3206, and Presidential Memoranda (April 29, 1994 and November 5, 2009).

(e) All planning efforts by NRCS and the SLO should include well-publicized public meetings to obtain public input and views on the project (see Title 390, National Watershed Program Handbook (NWPH), Part 601, Subpart C, Section 601.24, for more information on public participation).

(4) Implementation Assistance

To ensure fund integrity, Technical Assistance (TA) should not be charged to a project unless funds have been allocated in the Program Operations Information Tracking System (POINTS).

(5) Real Property Rights Work Maps

Acquisition of real property is a major step in project implementation. Because real property acquisition is one of the most important responsibilities of the SLO, NRCS should develop real property work maps using the most accurate information possible. Work maps should be prepared in close communication with the SLO, giving attention to detail and follow up as needed.

(6) Operation and Maintenance Assistance

Field personnel should review the Operation and Maintenance (O&M) agreement with the SLO as outlined in the agreement or at a predetermined frequency determined by State policy. NRCS should assist the SLO in completing inspection reports, if so requested.

B. NRCS National Headquarters Responsibilities

See 390-NWPM, Part 500, Subpart B, Section 500.10 B, for NRCS National Headquarters' responsibilities. There is no further guidance in the handbook corresponding to this section in the manual.

600.11 Sponsor Responsibilities

See 390-NWPM, Part 500, Subpart B, Section 500.11, for SLO responsibilities. There is no further guidance in the handbook corresponding to this section in the manual.

Part 600 – Watershed Program Management

Subpart C – Application for Assistance

600.20 Request for NRCS Planning Assistance

A. To develop a watershed project plan in the Watershed Program under either Public Law 83-566 or Public Law 78-534 a request for NRCS planning assistance is required. The request for planning assistance and authorization is supported by the following:

(1) Preliminary investigation report indicating project feasibility
(2) Valid application (Standard Form (SF) 424)

B. An application covering a watershed including non-Federal land in two or more States must be submitted to the designated State agencies and the single point of contact for Federal assistance of each State concerned. The application will be processed in accordance with arrangements mutually satisfactory to the concerned State Conservationists (STCs) and the designated State agencies.

C. An amendment to the application should be submitted in the same manner as the original application. The SLO can be officially added or dropped by an amended application. This can also be accomplished when a watershed plan is prepared by a supplement thereto. Unless a change in SLO will affect a watershed's priority rating, there is generally no advantage to using an amended application to reflect only a change in sponsorship. Changes that only modify or supplement the information in the application can be handled by correspondence. Amendments to the application are used primarily to change the size of the area considered by adding or deleting part of the watershed area. The SLO should send a letter to the STC, through the designated State agency, stating what the change consists of and why it is needed.

D. Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart C, describes the policy and process for an SLO to request an authorization to develop a watershed project plan, including an Environmental Assessment (EA) or Environmental Impact Statement (EIS), that is to be implemented under the Watershed Program.

600.21 Planning Authorization

There is no further guidance in the handbook corresponding to this section in the manual.

600.22 Amendment to an Application

There is no further guidance in the handbook corresponding to this section in the manual.

Part 600 – Watershed Program Management

Subpart D – Program Administrative Requirements

600.30 Civil Rights

A. The requirement of nondisparate delivery of services goes beyond the requirements of the Civil Rights Act. It also relates to Executive Order 12898, which was issued February 11, 1994. This Executive order outlines the requirements for environmental justice. The key parts of this Executive order are as follows:

(1) Provide all populations an opportunity to comment before decisions are rendered on a proposed Federal action.
(2) All populations are allowed to share in the benefits of the proposed action.
(3) No population is to be disproportionately affected in a severely adverse manner.

B. The specific populations of concern are the following:

(1) Minorities
(2) Low income
(3) Indian Tribes

C. If any of the specific populations mentioned above exist in the affected project area, which includes downstream offsite populations, the "Public Participation" section of a plan should document efforts to include the above-mentioned populations in the planning process.

D. See Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart D, Section 500.30 for a general description of civil rights.

600.31 Administrative Record Requirement

A. The administrative record is vital for reference throughout the development, review, installation, and operation and maintenance phases of a watershed project. This file provides a comprehensive administrative record of pertinent facts, observations, computations, procedures, assumptions, expert opinion, and rationale used in reaching planning and implementation decisions. The administrative file should be organized and usable by staff disciplines involved in plan development and others. It should be organized into logical sections for each principal environmental concern or by discipline where appropriate, and it should be indexed for ease of reference. Sections should include narrative, data, charts, maps, and computations, arranged in a sequence consistent with the steps of planning so that the documentation leads to a clear understanding of the study, the methodology used, and the conclusions reached.

B. The goal for a good administrative record is to reflect what the agency did and why it did what it did. It should reflect the process the agency used to arrive at its decision as well as what the decision was. It should reflect factors that support the decision, and should reflect factors that are contrary to the decision and how the agency handled them.

C. Public participation activities and publicly releasable information should be documented in their own file so that the requirement for a reviewable record is met. The reviewable record can be a subset of the information contained in the administrative record. The terms "reviewable record" and "administrative record" are defined further in the glossary.

D. The administrative record includes documents of all types—papers, studies, data, references, maps, correspondence, computer runs, etc.—in all formats—paper, hard drive, floppy disk, magnetic tape, etc.—that supports the decision-making process. This is the agency's collection of the evidence that proves that decision-makers understood the law applying to the decision, considered all the relevant factors, and made a reasoned decision.

E. The administrative record also goes by other names—analysis file, project file, etc. Normally, the entire administrative record (or an index of it) is filed with the court when there is litigation. Legal positions taken by both sides are based on what is in—or missing from—the administrative record. The general rule is that an administrative record, which should be considered to be the support for the decision at the time the decision was made, cannot be supplemented by either side once it is compiled and filed with a court. However, the court often admits explanatory material offered by both sides in the form of affidavits or other additional documentation.

F. The biggest mistake for an administrative record is omission. The most common omission is failure to explain action. When the basis for decisions is not explicitly disclosed by the agency, the court is free to draw its own conclusions. When a particular law or regulation requires the consideration of specific factors, the administrative record must reflect those factors and how they were considered. Omission of a single factor can be fatal to a decision.

600.32 Federal Laws, Regulations, Executive Orders, Other Authorities

There is no further guidance in the handbook corresponding to this section in the manual.

Part 600 – Watershed Program Management

Subpart E – Program Cost Sharing

600.40 Cost-Share Authority

See Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart E, Section 500.40, for cost sharing authorized by Public Law 83-566.

600.41 Cost-Share Policy

A. Cost-share rates depend on the type of measure and the purpose to which the cost is allocated (see 390-NWPM Tables 500.1 and 500.2 for a summary of cost-sharing provisions).

B. When watershed projects contain multiple purposes, Public Law 83-566, as amended, authorizes the Secretary "to make allocations of costs to the various purposes, and to show the basis of such allocations and to determine whether benefits exceed costs." NRCS national policy directs that when allocating total project financial costs among the purposes served by the project or plan, "separable costs will be assigned to their respective purposes, and all joint costs will be allocated to purposes for which the project was formulated."

C. In evaluating multipurpose projects, it is necessary to allocate costs to the appropriate purpose because pricing and cost-sharing rates vary among purposes. NRCS utilizes a procedure called the "Separable Cost-Remaining Benefit" (SCRB) method. The primary reference is P&G Chapter 1, Section IX, 1.9.1. Additional information on cost allocation may be found in Title 200, Natural Resource Economics Handbook, Part 611 "Water Resources Handbook for Economics".

D. The procedure uses several cost estimates. The alternative cost for a purpose is the cost of a single-purpose measure that achieves the same benefits. The separable cost for a purpose is the difference between the cost of the multipurpose measure and the cost of a measure with that purpose omitted. The joint cost is the cost of the multipurpose measure minus the sum of the separable costs for all purposes. (For examples see the following exhibits: Title 390, National Watershed Program Handbook (NWPH), Part 606, Subpart A, Section 606.0, Section 606.1 for SCRB—Cost by Purpose, Section 606.2 for SCRB—Cost Allocation, and Section 606.3 for an example of Cost Allocation and Cost Sharing—Summary.)

E. For example, in order to perform a cost allocation for a multipurpose structure that includes flood prevention, recreation, and agricultural water supply, it is necessary to design and compute seven cost estimates with varying purposes, as shown in 390-NWPH, Part 606, Subpart A, Section 606.0 (of this handbook).

(1) Flood prevention (single purpose)
(2) Recreation (single purpose)
(3) Agricultural water supply (single purpose)

(4) Flood prevention and recreation (agricultural water supply excluded)
(5) Flood prevention and agricultural water supply (recreation excluded)
(6) Agricultural water supply and recreation (flood prevention excluded)
(7) Multiple-purpose (includes flood prevention, recreation, and agricultural water supply)

F. Sediment storage in a multipurpose structure is considered joint use storage when allocating joint costs by the use of facilities option stated in section 1.9.3(b) of the P&G. The designated storage capacity for a specific purpose is used to determine its proportional use of the facility.

G. Mitigation costs are separated into the cost of the feature and the cost of land components. The cost of the land is a real property rights cost, while all other costs are construction costs. Mitigation costs are calculated when determining the cost of the multipurpose structure, the cost of the structures used to estimate separable costs, and the cost of the single-purpose measure used to determine alternative cost estimates.

H. The single-purpose measure used to determine the alternative cost for a purpose does not need to be physically located at the site of the multipurpose structure.

I. Estimates of the National Economic Development (NED) benefits for each purpose are also needed.

J. After these costs and benefits have been calculated, the procedure is as follows:

(1) For each purpose, compare the benefits and alternative costs and choose the lesser of the two.
(2) For each purpose, subtract the separable cost from the lesser of the two. The difference is called the remaining benefits.
(3) Allocate the joint costs to purposes in proportion to the remaining benefits.
(4) The cost allocated to each purpose is the sum of the separable cost and the allocated joint cost.

K. For multiple-purpose flood prevention–drainage channels, the cost allocation will be 50-50 in all instances in accordance with P&G Section 2.3.8(c).

L. Cost sharing is available when installing watershed protection measures on Federal land for Public Law 78-534 projects: "Financial assistance available differs only in that program funds may be used for the purchase of land rights for single-purpose flood prevention structures and installing land treatment on Federal lands" (7 CFR Section 622.3(c)).

600.42 Cost-Share Rates for Watershed Program Projects

A. Wetland and Floodplain Conservation Easements

(1) The cost-share rate for easement acquisition may range from 50 to 100 percent but should be consistent with other Federal programs within the State.

(2) Flood-prone lands in developed areas may be acquired with program cost-share assistance. Developed land is defined as areas that have existing residential development, commercial development, or both. Land that has been improved for urban use with existing streets, sewers, and waterlines, or where local authorities have granted permits

for such improvements before applying for assistance under Public Law 83-566, is considered developed land.

(3) Perpetual easements on floodplains and wetlands in undeveloped areas may be acquired with program cost-share assistance to perpetuate, restore, and enhance the natural capability of wetlands and floodplains to retain excessive floodwaters.

(4) Tracts of land acquired as a measure may be used for public benefit, such as recreation and fish and wildlife habitat preservation. Such land should be acquired by fee title or perpetual easement. Facilities for public use on this land may be eligible for Federal cost sharing if they are consistent with existing program requirements.

(5) Easements to be acquired by the SLO should take into consideration the fair market value of the land. The fair market value of the land should be determined by appraisal or an area-wide market analysis or survey. Reports from universities or other reputable sources can be used to obtain market analysis or surveys. The purpose of the area-wide market analysis or survey is to establish a firm market value of easements in a defined area. The easement value should not exceed the value of the land. Only in extremely rare circumstances would the fair market value of the land be appropriate compensation for the easement.

B. Mitigation for Fish and Wildlife Habitat Losses

(1) The cost-share rate for mitigation of fish and wildlife habitat losses may range from 0 to 50 percent but should be consistent with other Federal programs within the State.

(2) The cost-share for the installation cost of the mitigation should be the same as the cost share of the Public Law 83-566 project purpose requiring the mitigation.

(3) Contingent on approval by the U.S. Army Corps of Engineers (USACE), NRCS may help the SLO investigate the possibility of purchasing credits from authorized mitigation banks in lieu of or in combination with other options as compensatory mitigation for unavoidable adverse impacts to waters of the United States due to project activities.

C. Flood Damage Reduction

(1) The Watershed Program funds provide 100 percent of construction and engineering costs for works of improvement for flood damage reduction in accordance with 16 U.S.C. Section 1004. "All of the cost of installing any portion of such works applicable to other purposes except that any part of the construction cost (including engineering costs) applicable to flood prevention and features relating thereto shall be borne by the Federal Government and paid for by the Secretary out of funds appropriated for the purposes of this chapter."

(2) In accordance with 16 U.S.C. Section 1004, no cost sharing is available to acquire land, easements or rights-of-way needed in connection with works of improvement for this purpose, except for acquisition of wetland or floodplain conservation easements and Public Law 78-534 projects. "The Secretary shall require as a condition to providing Federal assistance for the installation of works of improvement that local organizations shall – (1) acquire, or with respect to interests in land to be acquired by condemnation provide assurances satisfactory to the Secretary that they will acquire, without cost to the

Federal Government from funds appropriated for the purposes of this chapter, such land, easements, or rights-of-way as will be needed in connection with works of improvement installed with Federal assistance." Financial assistance for Public Law 78-534 subwatershed plans land rights differ from Public Law 83-566. "Financial assistance available differs only in that program funds may be used for the purchase of land rights for single-purpose flood prevention structures and installing land treatment on Federal lands"(see 7 CFR Section 622.3(c)).

(3) Actual repositioning and related costs are based on replacement in kind and are eligible for cost sharing. This is a National Economic Development (NED) cost to be used in benefit-cost comparisons. Costs of measures taken to allow the relocated property to meet decent, safe, and sanitary requirements are eligible for cost sharing at the relocation cost-share rate, but are not to be included as an NED cost. The cost of additional improvements beyond decent, safe, and sanitary requirements is a nonproject cost, and is ineligible for assistance under the Public Law 83-566.

(4) Effective forecasting and warning systems are supported by an evacuation and emergency action plan. Federal cost-sharing assistance could include such items as design of the system, stream and rain gauges, the communications network, and the warning system. Costs of monitoring the flood warning system, training personnel, and testing must be included as part of operation and maintenance. Systems receiving assistance from another Federal agency are excluded from cost sharing.

(5) New storm and sanitary sewers, or relocations and changes to existing sewer facilities, in urban or built-up areas are the responsibility of the sponsor. Public Law 83-566 cost share is not available for these features. Storm sewers include facilities for the collection and conveyance of urban runoff to outlets in natural drainageways or channels. However, this restriction does not apply to measures to improve natural drainageways or channels to prevent significant flood damage to existing developed property. Such measures are not considered to be storm sewers and are, therefore, eligible for assistance.

(6) Cost sharing for all flood protection measures will be 100 percent, as required by Public Law 83-566. This includes both nonstructural and structural flood protection measures.

D. Watershed Protection

(1) Federal funding assistance must not exceed the rate of assistance or funding limits to program participants for similar practices under other existing national programs, in accordance with 16 U.S.C. Section 1003. "The portion of such costs, including labor, to be shared shall be that part which the Secretary determines is appropriate and in the public interest for the carrying out of the practices and measures set forth in the agreement, except that the Federal assistance shall not exceed the rate of assistance for similar practices and measures under existing national programs."

(2) The watershed plan should describe the system of practices included in the selected plan and designate those eligible for cost sharing. Watershed Program financial assistance (cost sharing) is limited to the installation of enduring practices planned for the primary purpose of addressing public (offsite) problems. Enduring practices are practices that, when properly installed and maintained, remain on the land and continue to function

without reconstruction or reestablishment for a minimum of 5 years. They may need to be supplemented with management practices.

(3) All practices needed to ensure that the selected system of practices will function and produce the projected benefits must be included in the cost estimates and long-term contracts. This includes practices for which financial assistance is not provided.

(4) Systems of practices other than the system in the selected plan may be cost shared if the alternative system of practices will achieve the same or greater results. The Public Law 83-566 cost sharing will be limited by the lesser of the cost-sharing percentage established for the practices in the recommended plan, or the cost-share amount that would have been received if the recommended system were installed.

(5) The cost of accelerated technical assistance needed to install the recommended system of practices may be provided by NRCS without charge to the land user. Project administration costs will be borne by the party that incurs them.

(6) Any supplementary funds needed to install and maintain practices on Federal land will be sought by the land-administering agency through its usual budgetary process.

E. Public Fish and Wildlife or Public Recreation Development

(1) Recreation facilities are eligible for Public Law 83-566 assistance if they are part of a project development. Only those facilities to be owned, operated, and maintained by the SLO are eligible for cost sharing. This includes parking areas and the sanitary or other facilities needed to accommodate the public. Landscaping and other vegetative treatment measures to preserve and protect the area of use by people or fish and wildlife also are eligible.

(2) The SLO contribution can be from any non-Public Law 83-566 source. Also, Public Law 83-566 does not prohibit the use of other Federal funds for that part that is not Public Law 83-566 share.

F. Agricultural Water Management

(1) Agricultural Water Management measures benefit communities or multiple land users, and are contracted with public sponsors using Federal contracts or project agreements.

(2) The maximum cost-share rate is 75 percent. There may be agricultural water management purposes (for example, water conservation) where individuals receive a lower cost-share rate under Watershed Protection or other Federal programs. In that case, the agricultural water management cost-share rate for a water conservation measure would be the lower cost-share rate. The intent is to have similar rates so as to conform to Public Law 83-566 Section 4(2)(A) which requires the rate to be a proportionate share, as determined by the Secretary to be equitable in consideration of national needs and assistance authorized for similar purposes under other Federal programs.

G. Municipal and Industrial Waters Supply

There is no further guidance in the handbook corresponding to this section in the manual.

H. Water Quality Management

There is no further guidance in the handbook corresponding to this section in the manual.

I. Watershed Structure Rehabilitation

The Public Law 83-566 states that Federal funds for the rehabilitation projects "shall be equal to 65 percent of the total rehabilitation project costs." The law also restricts funding to 100 percent of the actual construction costs. The sponsors are responsible for the costs of resource rights and permits. The cost-share percentage may not necessarily equal 65 percent of the total rehabilitation costs because of the restrictions in the law.

600.43 Relocation Payments

Actual repositioning and related costs should be based on replacement in-kind and are eligible for cost sharing. This is a NED cost to be used in benefit-cost comparisons. Costs of measures taken to allow the relocated property to meet decent, safe, and sanitary requirements are eligible for cost sharing at the relocation cost-share rate, but are not to be included as a NED cost. The cost of additional improvements beyond decent, safe, and sanitary requirements is a non-project cost ineligible for assistance under the Public Law 83-566.

Part 601 – Development of Watershed Project Plans

Subpart A – Background

601.0 Preparation of the Watershed Project Plan

NRCS has leadership responsibility for providing technical assistance to the SLO. As part of this responsibility, NRCS may coordinate input from other agencies and groups in the formulation of the plan. The U.S. Forest Service (FS) has coordination responsibility for the National Forest portion of a watershed project plan. Forest Service and NRCS (formerly Soil Conservation Service) entered into a Memorandum of Understanding (MOU) in 1992; the MOU is included in 390-NWPH, Part 606, Subpart B, Section 606.10 (of this handbook).

601.1 Compliance with the National Environmental Policy Act

A. The National Environmental Policy Act (NEPA) requires NRCS, where NRCS has control or responsibility over the action, to analyze the environmental impacts of such actions and make the analysis available to the public before decisions are made and actions are taken unless the action is categorically excluded. The analysis and finding begins by conducting an environmental evaluation to determine whether an EA and Finding of No Significant Impact (FONSI), an EIS and Record of Decision (ROD), or a categorical exclusion is the appropriate form of documentation. Specific conditions that require certain documentation are prescribed in 7 CFR Sections 650.6 to 650.8. Categorically excluded actions for NRCS may be found at 7 CFR Section 650.6. Note that before a categorical exclusion is valid, any action carried out under it must be reviewed for extraordinary circumstances, in accordance with the criteria in 40 CFR Section 1508.27, and found not to be significant.

B. NRCS regulations for complying with NEPA may be found in 7 CFR Section 650. Further guidance for complying with NEPA requirements is found in the Title 160, National Environmental Compliance Handbook (NECH), Part 610.

601.2 Consultation

A. The following table lists the resource concerns or regulation and the appropriate consulting entity that may require consultation:

Resource Concern / Regulation	Consulting Entity
Air Quality	EPA Office of Air and Radiation
Water Quality	State water quality regulatory agency / EPA Office of Water
Cultural Resources (Historic Properties)	SHPO / THPO / Federally recognized Tribe
Costal Zones	State Coastal Zone Program Office
Endangered and Threatened Species	USFWS / NMFS
Essential Fish Habitat	NMFS
Tribal Interests	Affected Tribal Government
Waters of the United States, Including Wetlands	USACE
Wild and Scenic Rivers	NPS

B. Consultations are tied to the Federal action and are the responsibility of the lead Federal agency (NRCS in most cases) regardless of partners, cooperating entities, or the sponsors involved. NRCS may delegate consultations to third-party contractors or other entities (except for historic property consultation), but NRCS remains the responsible party for conducting the consultation.

C. Any foreseen consultations should be initiated as early as possible as they often have a bearing on the formulation of alternatives, costs, and any needed mitigation. For these reasons, final decisions, such as the choice of alternatives, should not be made until all necessary consultations are complete.

601.3 Cooperating Agencies

A. If a Federal, State, or Tribal agency or government has special expertise or jurisdiction by law (such as permitting authority) over an action being proposed, these agencies and Tribes will be invited in writing to be cooperating agencies in the development of an NRCS Plan-EA or Plan-EIS.

B. Cooperating agency status is a major component of agency stakeholder involvement that neither enlarges nor diminishes the decisionmaking authority of any agency involved in the NEPA process.

C. The benefits of enhanced cooperating agency participation in the planning of watershed projects include: disclosing relevant information early in the analytical process; applying available technical expertise and staff support; avoiding duplication with other Federal, State, Tribal and local procedures; and establishing a mechanism for addressing intergovernmental

issues. Other benefits of enhanced cooperating agency participation include fostering intra- and intergovernmental trust (for example, partnerships at the community level) and a common understanding and appreciation for various governmental roles in the regulatory processes, as well as enhancing agencies' ability to adopt environmental documents.

D. In order to ensure that project planning and formulation proceeds efficiently, cooperating agencies should be included in the development of plans of work to set time limits, identify milestones, assign responsibilities for analysis and documentation, specify the scope and detail of the cooperating agency's contribution, and establish other appropriate ground rules to address issues, such as availability of predecisional information.

Part 601 – Development of Watershed Project Plans

Subpart B – Project Plan Requirements

601.10 Planning Standards and Criteria

A. NRCS National Planning Procedures Handbook (NPPH)

The NPPH provides guidance in the planning aspects of NRCS technical assistance for all programs.

B. NRCS Field Office Technical Guide (FOTG)

The FOTG provides resource information that is helpful in planning. It provides "Quality Criteria and Guidelines" for the development of conservation systems. The practice standards provide direction during project planning and implementation. The "Conservation Practice Physical Effects" component provides a method to evaluate alternative conservation systems.

C. Principles and Guidelines (P&G)

Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G) was prepared by the President's Water Resources Council to facilitate a consistent format for water resources project plans to be funded with Federal dollars. P&G also provides guidance for the development of a NED plan, which is required for all water resource plans.

D. Channel Modification Guidelines

The Channel Modification Guidelines provide policy on channel modifications and the coordination requirements between the U.S. Fish and Wildlife Service and NRCS during the planning process. These guidelines are found in Title 190, General Manual (GM), Part 410, Subpart B, Sections 410.27 and 410.28.

601.11 Water Resource Projects

A. Water Resource Projects

Many traditional NRCS watershed projects qualify as water resource projects. These projects identify monetary benefits. If the project involves financial assistance for a reservoir larger than a farm pond, it probably qualifies as a water resource project. For these watershed projects the P&G is utilized to develop the NED plan.

B. Non-Water Resource Projects

Many types of projects qualify as non-water-resource projects. Projects with non-monetary benefits may qualify. Projects for watershed protection to address soil erosion, water quality, water conservation, fish and wildlife habitat restoration, ecosystem restoration and energy conservation usually qualify as non-water-resource projects. Projects may address ground water as well as surface water quality. The NED plan development is not required for non-water-resource projects. The recommended plan should be the least costly environmentally acceptable method of achieving the agreed upon level of protection. Locally implemented projects, without Federal financial assistance, also qualify as non-water-resource projects.

601.12 Plan Formulation

A. Alternatives

(1) Practical systematic procedures for formulating alternatives are discussed in the NPPH. The procedure used will be described in the plan.

(2) Ensure that all necessary conservation practices are included in each alternative so that it will function as planned and produce the effects intended. Interdependent practices should be treated as one practice.

(3) Develop alternatives using incremental analysis, to allow the project sponsors to understand the impact of an added increment of treatment in terms of economics, environmental effects, and project costs.

(4) Estimate the expected land user participation for each alternative plan that includes long-term contracts with land users whose participation is voluntary. Participation rates are used to determine the total costs and benefits of the alternatives. Participation rates should be developed through the public participation process and documented in the plan.

(5) The analysis of alternatives should not include significant changes in cropping sequence or land use conversion (except on Class VI through VIII cropland) unless it has been determined that the changes will most likely take place.

(6) The analysis of alternatives includes the effects on each of the concerns identified during scoping. This can be accomplished by computing the change from the current condition to the resource indicator chosen for the particular concern.

(7) The analysis of alternatives includes all costs, including operation, maintenance, and replacement, expected to be incurred over the period of analysis.

(8) Water resource projects are developed utilizing the P&G. The P&G states that, “The Federal objective of water and related land resources project planning is to contribute to national economic development consistent with protecting the Nation’s environment, pursuant to national environmental statutes, applicable executive orders, and other Federal planning requirements” (P&G, Principles Section 2).

(9) During the planning of a water resource project, an alternative that reasonably maximizes net national economic development benefits, consistent with the Federal objective, is to be formulated. The NED account identified in P&G is used to determine which alternative reasonably maximizes net national economic development benefits.

This plan is to be identified as the NED plan (P&G, Guidelines Section 1.6.3). The NED plan is to be selected unless the Secretary of a Department or head of an independent agency grants an exception when there is some overriding reason for selecting another alternative based upon other Federal, State, local or international concerns (P&G, Guidelines Section 1.10.2(a)).

(10) When planning a non-water-resource project, the recommended plan should be the least costly environmentally acceptable method of achieving the agreed upon level of protection. The range of measures studied should be limited to those considered to be acceptable for installation in the watershed. This does not mean that only those measures desired by land users will be considered. The determination is an equal responsibility of the SLO, the public, and NRCS. Each option does not necessarily need to eliminate all problems or reach a predetermined level of resource protection.

(11) Watershed Program projects are federally assisted local projects. The SLO must select an alternative. Likewise, if the Responsible Federal Official (RFO) has preferences among the alternatives, they must be disclosed to the public along with the rationale. The planning process may reveal an alternative preferred by the SLO that the SLO can implement without Federal financial or technical assistance. Sponsors may recommend selection of a plan other than the NED plan. The RFO is to determine whether the reasons for selecting a plan other than the NED plan merit the granting of an exception (P&G, Guidelines Section 1.10.2(c)). The Chief of NRCS is the RFO and decides whether to grant an exception to the NED plan requirement.

(12) Exceptions may be granted to address any local, State, national, or international concern. Even so, NRCS assistance will still be limited to the purposes authorized by the Public Law 83-566.

(13) Watershed projects will be formulated in keeping with the intent of Executive Order 11988, Floodplain Management (7 CFR Section 650.25).

(i) If the recommended plan leaves a risk of loss of life from the 100-year flood, the plan must include the following:
    - A thorough description of the remaining flood hazard in the benefit area for the 100-year and 500-year floods, including the approximate number, kinds, and location of properties subject to continued flooding and the depths and velocities of flooding.
    - A map showing the urban areas expected to be flooded by the 100-year and 500-year floods with and without the project.

(ii) To ensure land use is compatible with the level of protection or remaining hazard, the SLO must agree to adopt (or see that the appropriate unit of government adopts) land use regulations that meet the standards for the regular National Flood Insurance Program, unless such regulations are already in place. This is a statutory prerequisite to financial assistance for flood prevention measures and is one of the provisions in the watershed agreement. These floodplain management features should be included as nonproject features of the plan.

(14) If the NED plan leaves a risk of loss of life in an urban or built-up area, consideration will be given to adding to the NED plan to reduce the risk. Because this would require an exception to the NED requirement, there must be adequate rationale for adding increments to the NED plan. In determining the apparent risk of loss of life,

consideration should be given to the structural and use characteristics of the improvement, the depth of flooding, and the velocity of flood flow in and immediately adjacent to the improvement.

(15) Urban and built-up areas are those areas which are either present or likely future (within the next 20 years) areas to be used for residences, industrial sites, commercial sites, construction sites, institutional sites, public administration sites, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, and water control structures and spillways. This land should be in contiguous units of at least 40 acres. Generally, the density should average one or more residences or other structures per 1.5 acres. In strip developments, the density should be 20 or more residences or other structures per mile. The likelihood of future development can be determined from existing land use plans, trends, and local, State, and Federal policy concerning land use and development needs.

B. Future-Without-Project or No Action Alternative

The fture-without-project (FWOP) conditions alternative is required to be developed to meet NEPA, P&G, and NRCS planning criteria. It projects the changes in resource concerns from the current condition to the condition that would exist in the future if no NRCS action is taken. The evaluation period of this alternative should be the same as that of other alternatives so that a consistent comparison can be made. The effects of all alternatives on resource concerns are measured from the current conditions. The FWOP conditions alternative is utilized by SLOs and RFOs to make decisions about which alternative is selected.

C. Evaluation Period

There is no further guidance in the handbook corresponding to this section in the manual.

D. Enhancement and Mitigation of Environmental and Visual Values

Mitigation measures should be identified and described in all plans. NRCS often performs mitigation without recognizing it and taking credit. The various forms of mitigation include the following:

(1) Avoiding the impact altogether by not taking a certain action or parts of an action
(2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation
(3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
(4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
(5) Compensating for the impact by replacing or providing substitute resources or environments

Part 601 – Development of Watershed Project Plans

Subpart C – Plan Procedures

601.20 Preliminary Investigation

A. A preliminary investigation is conducted based on a written request from a SLO. The investigation should use an interdisciplinary team to conduct an Environmental Evaluation (EE). The investigation will determine if the proposed project meets the program criteria found in Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart A, Sections 500.3 and 500.4. All locally identified rural development needs of the communities in the watershed should be considered.

B. A feasibility report is a summary of the results of planning done to date. The report should include the extent and magnitude of problems, goals, alternatives for solving the identified problems, the estimated cost, and any effects of proposed alternatives. An example "Feasibility Report Outline" is provided in 390-NWPH, Part 606, Subpart B, Section 606.11 (of this handbook).

C. The feasibility report should have enough detailed information for the potential sponsor to understand the merits of the project. Any unresolved conflicts should be resolved in the Watershed Project Plan development phase, and the report should show that this is possible.

601.21 Plan of Work

A. A plan of work (POW) should be prepared to guide and assist in the management of the planning process and environmental analysis. The POW should follow the nine steps of planning used in the Title 180, National Planning Procedures Handbook (NPPH), Part 600. An example POW format is provided in section 390-NWPH, Part 606, Subpart B, Section 606.13 (of this handbook); edit and use only the sections needed.

B. The POW should show the tasks to be performed in each planning step, the estimated time required for each task, the technical procedure associated with each task, the product of each task, the responsible person for each task, and the planned completion date.

C. Selection of technical procedures should be based on existing rules, regulations, and guidelines; the nature of the watershed problems and project objectives; and the complexity of potential solutions; and their ability to detect and quantify change. Procedures should be compatible from one discipline to another and should be similar in scope and detail.

D. Project sponsors and cooperating agencies should be included in the development of the POW and should expect to be assigned and complete tasks. A signature page should be included to officially commit the resources of other staffs, sponsors, and cooperating agencies.

601.22 NEPA Documentation

A. NEPA documentation may vary depending on the nature and extent of the proposed action. Aside from the requirements found in 7 CFR Sections 650.6 to 650.8 and 390-NWPM, Part 501, Subpart C, Section 501.22 that specify conditions when a particular document is required, several options exist. The required content for each of the various NEPA documents when combined with a plan may be found in the 390-NWPM, Part 501, Subpart D. When a categorical exclusion applies to the entire project, the "Environmental Consequences" section of the watershed plan will be replaced by the EE documenting the applicability of the categorical exclusion or exclusions. Additional information regarding NEPA documentation is available in Title 190, National Environmental Compliance Handbook (NECH), Part 610, Subpart C, Sections 610.51 to 610.55. The options are as follows:

(1) Categorical Exclusion (CE)—If the proposed action is listed as an NRCS or USDA categorical exclusion, and there are no extraordinary circumstances (such as historic properties or threatened and endangered species) that would prevent the action from being eligible, then documentation that the CE is being invoked (along with the review and documentation for extraordinary circumstances (EE/CPA-52)), satisfies the NEPA requirement. A list of CEs may be found in 7 CFR Part 650.

(2) Environmental Assessment (EA)—If the impacts of the proposed action are not anticipated to be significant, then an EA is prepared to verify that assumption. An EA is a brief document (10 to 15 pages) that evaluates the impacts of a proposed action in order to provide sufficient evidence to determine if the action will or will not result in significant impacts. If no significant impacts are identified a Finding of No Significant Impact (FONSI) is prepared. If the EA identifies significant impacts, an EIS and ROD must be prepared. Additional guidance for EA content may be found in section 610.51 of the NECH. Additional guidance for a FONSI is in 390-NWPH, Part 602, Subpart C, Section 602.23A (of this handbook). An example of a FONSI and a Notice of Intent (NOI) for a FONSI are found in 390-NWPH, Part 606, Subpart C, Section 606.35 and 606.36 (of this handbook).

(3) Environmental Impact Statement (EIS)—An EIS is a detailed statement that fully analyzes the impacts of a proposed action. If an EIS is required by the criteria found in 7 CFR Sections 650.6 to 650.8 and 390-NWPM, Part 501, Subpart C, Section 501.22, or if the impacts of the proposed action are anticipated to be significant, the RFO issues a NOI to prepare an EIS. The NOI is used to request the assistance of agencies, groups, and persons to determine the scope of evaluations to be conducted. It must be published in the Federal Register early enough to allow for meaningful participation in the process. When describing the proposed action and alternatives, enough detail should be provided to give a clear picture of what types of treatment measures are being considered and where they would be located within the project area. The scoping activities noted in the public participation plan should be described in detail including dates, times and places. The name and address of the NRCS contact should also be included. The EIS process concludes with the issuance of a Record of Decision (ROD). A NOI to prepare and notice of availability (NOA) are required to be published in the Federal Register when an EIS and ROD are prepared. Additional information on EIS content requirements may be found in sections 610.54 and 610.55 of the NECH. Additional guidance for RODs may be found in section 602.23B of this handbook. An example of a NOI is found in section 606.14 of this handbook.

B. In addition to NEPA requirements, documentation of compliance with other laws, regulations, policies, and Executive orders (such as Endangered Species Act (ESA) biological assessments and biological opinions) should be maintained as a part of the administrative record. The results from these analyses are included in the plan/environmental document, and the additional documents will normally be referenced or cited.

C. Environmental documents older that 5 years are generally considered obsolete. These analyses should be reviewed to determine whether the analysis is still sufficient or if it is in need of supplementation. Supplements should contain analyses based on new information or changed circumstances that, when combined with the original analysis, provide sufficient evaluation. The procedures for supplements follow the same procedures as new analyses.

601.23 Notice of Intent

The Notice of Intent (NOI) to prepare an EIS is used to request the assistance of agencies, groups, and persons to determine the scope of evaluations to be conducted. It must be published in the Federal Register early enough to allow for meaningful participation in the process. When describing the proposed action and alternatives, enough detail should be provided to give a clear picture of what types of treatment measures are being considered and where they would be located within the project area. The scoping activities noted in the public participation plan should be described in some detail including dates, times and places. An example of a "Notice of Intent to Prepare an EIS" is found in 390-NWPH, Part 606, Subpart B, Section 606.14 (of this handbook).

601.24 Public Participation

A. Public Information Participation

(1) A public participation plan should be developed after an application for assistance has been received and the STC decides to provide the assistance. The plan includes an outline of the planning or decisionmaking process and identifies stages when the public is to be invited to participate. Public participation may include meetings, workshops, tours, or open houses. It also includes notations of public hearings required by others. Implementation of the public participation plan (incorporate guidance to meet requirements of Title 400, General Manual (GM), Part 400) should be documented and will become a part of the required reviewable record.

(2) Public meetings—Discuss required time frames, such as time for notice of public meeting, etc.

(3) Before project action decisions are made, public and interagency review of the planning documents should be solicited through direct mailings to all parties expected to have an interest in the proposed action, including owners or occupants of nearby or affected properties.

B. Scoping

(1) A preliminary public scoping meeting should be used to identify natural resource concerns of the communities in the watershed, and ensure problems, opportunities, measures, plans, or effects are considered so that efficient analysis and choice among alternative plans can be made.

(2) Scoping is a systematic approach used to obtain the input of watershed stakeholders and focus on the most relevant issues. It is to be used early and throughout planning. A scoping plan or outline should be prepared with the SLO to effectively engage public input. This will ensure that all significant decision-making factors are addressed and that unnecessary and extraneous studies are not undertaken.

(3) The goals of scoping should include the following:

- Identify public and agency concerns.
- Clearly define environmental issues.
- Identify alternatives to be examined.
- Identify related issues that originate from separate legislation, regulation or Executive order.
- Identify State, Tribal government, and local agency requirements that must be addressed.

(4) All soil, water, air, plant, animal and human (SWAPA+H) resources should be discussed during scoping. The context and intensity of the related concerns should be identified to the extent possible during this process. During initial scoping meetings the resource concerns presented in 390-NWPH, Part 606, Subpart B, Section 606.18 (of this handbook), should be considered.

(5) Two methods of scoping that are commonly used are the "Nominal Group Technique" and the "Paired Ranking Analysis Technique." The result should be prioritized lists. The public and Federal, State, and local agencies having expertise in areas that may be affected should be involved in the scoping process. Coordination with agencies and groups, and other public participation, should be documented in the reviewable record as a part of the administrative record. The reviewable record is generally organized by subject (for example, soils, geology, engineering, public participation, etc.). Scoping is an iterative process, which continues throughout the entire planning process.

(6) The scope and intensity of plan development studies should be sufficiently detailed to provide reliable estimates for the plan. Investigations should be detailed enough for firm determination of location, feasibility, and the general features of project measures. Structural measures in the proposed action should be analyzed in enough detail to develop real property work maps. When a plan includes a number of grade stabilization structures or land treatment measures of similar size and nominal cost, separate site locations and feasibility studies may not be feasible.

(7) Public meetings or hearings are held at the discretion of the STC after consultation with the SLO. Several formats may be used for meetings. These include but are not limited to workshops, tours, and open houses.

(8) Notices of public meetings or hearings should be submitted to State and areawide clearinghouses if they exist; submitted to Indian Tribes; published in local papers; distributed through other media; provided to potentially interested community organizations including small business associations; published in newsletters; mailed directly to owners and occupants of nearby or affected property; and posted onsite and offsite in the area where the action is to be located. Meeting notices should be published in the legal notice section of local papers in addition to other sections.

(9) Information packets should be prepared for distribution for all public meetings. Consider whether one or several meetings will be necessary and whether different groups should be targeted at different meetings. The public hearing procedures of all appropriate State and Federal agencies should be identified.

(10) The public should be kept informed of the results of the scoping process. The results should also be documented in the administrative record.

601.25 Pre-NEPA Plans

A. Either an EA and a FONSI or an EIS and a ROD, as appropriate, will be prepared for works of improvement for pre-NEPA projects. The environment document must stand on its own and should be prepared in sufficient detail to clearly describe the alternatives; direct, indirect, and cumulative effects; and public participation activities. Supplements may be combined or kept separate from the environmental document and handled according to procedures outlined in 390-NWPH, Part 603 of this handbook.

B. If a modified pre-NEPA plan results in a Revised Watershed Project Plan (390-NWPM, Part 503), the EA or EIS and revised plan will be one document. The revised Plan-EA or EIS replaces the original pre-NEPA plan.

601.26 Status

If a plan is a supplement or revision to an existing plan, it should be identified appropriately in the title and should be numbered in sequence. Working copies developed during the planning process for internal use and informal review by others should be appropriately labeled. Examples of proper status labeling may be found in 390-NWPH, Part 606, Subpart B, Sections 606.15 and 606.16.

Part 601 – Development of Watershed Project Plans

Subpart D – Watershed Project Plan Content and Format

601.30 Project Plan Content

A. The documents should be brief, concise, and written in nontechnical language. Unusual terms should be defined or explained as needed to give the reader a clear understanding of their meaning.

B. Numbers of various units (acres, dollars, farms) in a plan should be rounded to the nearest 10, 100, or 1,000 depending on the amount of precision used in developing the data. Certain figures in "Structural Table 3 - Dams With Planned Storage Capacity" (Title 390, National Watershed Program Manual (NWPM), Part 506, Subpart B, Section 506.15), however, may be an exception.

C. Appropriate drawings, tables, and maps should be included to provide a clear understanding of the measures and how they will function. Information in tables, maps, and other graphics should be referenced and not repeated in the narrative. However, the highlights of a table should be in the narrative.

D. Maps should be included as appropriate. Some examples are a floodplain strip map, general soils map, general geologic map, general land use map, gross erosion map, sediment yield map (for specific locations), water supply distribution map, condensed profiles, wetlands map, and wildlife mitigation map. Do not include maps that show the location of archaeological or historic properties.

E. Graphics could include drawings for a typical reservoir showing plan view, area-capacity-discharge curves, typical zoned fill section, section through outlet works, centerline profile of dam, and emergency spillway profile; typical channel cross sections showing spoil disposal, special environmental considerations, and other features; and perspective drawings illustrating the appearance of project measures from one or more significant views. Visual simulations of project alternatives and measures are encouraged. From simple two-dimensional simulations depicting existing and proposed views to computer-generated three-dimensional images of the project installed on the proposed site can be highly effective in aiding reader understanding.

F. The recommended plan should be described in sufficient detail to—

- Provide a basis for authorization.
- Guide the implementation, and operation and maintenance.
- Convey to the reader the relationship of the plan to problems, opportunities, and effects.

G. Each element should be described clearly enough to enable the reader to gain a clear picture of what is to be constructed. Noncritical features of individual measures should be described in a manner that will permit alternative solutions during final design, providing that neither the overall performance of the measures nor environmental impacts are affected.

H. Normally, methodologies used in the plan formulation should be described in the "Inventory and Analysis" section. Reference sources of data in the document.

601.31 Plan Format Outline

A suitable heavyweight material should be used for the front and back covers to provide protection and enhance the appearance of the final plan. A photographic background or art design may be used. An example of a "Front Cover Page for Watershed Plan-EA - Example" may be found in 390-NWPH, Part 606, Subpart B, Section 606.15 of this handbook. No specific format is required; however, at a minimum, the front cover should identify the document as shown:

- [Draft/Final]
- Name of watershed
- State
- Watershed Plan-Environmental Impact Statement or Environmental Assessment ("Supplemental" or "Revised" should precede "Watershed" for modified plans)
- Month and year (may be stamped)

601.32 Abstract (Fly Sheet)

A sample of a "Fly Sheet" including an abstract, may be found in 390-NWPH, Part 606, Subpart B, Section 606.16 of this handbook.

601.33 Summary (OMB Fact Sheet)

The "Summary" (or Office of Management and Budget (OMB) fact sheet) section of the watershed plan is a brief version of the plan. Nothing should be included that is not described in the body of the plan. The summary should be able to stand on its own if circulated without the rest of the document. To ensure that adequate information is provided, the form illustrated in 390-NWPH, Part 606, Subpart B, Section 606.17 may be used. This format also provides a quickly reproducible document for use at briefings, meetings, and other events.

601.34 Purpose and Need for Action

A. The "Purpose and Need for Action" section of the watershed plan should begin with a brief (one paragraph) statement that clearly states the purpose and need for the action. This will be followed by discussion sufficient to support these statements, describing the problems and opportunities and the goals to be achieved by NRCS and the SLO. It must include at least one of the eligible program purposes from 390-NWPM, Part 500, Subpart A, Section 500.3(B). This is initially established in steps one and two of the NRCS planning process and should be further refined as scoping, resource analysis, and alternative analysis validate the needs and resource conditions. It is important to accurately craft this statement as it defines the range of reasonable alternatives that will be considered in the analysis.

B. The P&G and NEPA require all reasonable alternatives to be developed and evaluated. The purpose and need for action should be scoped to limit the range of alternatives, but not so limited as to preselect an alternative.

C. The purpose and need statement should be followed by supporting information that clearly quantifies the extent and magnitude of each need to be addressed. The supporting information should include:

- What is being damaged?
- How much damage is occurring?
- Where does the damage occur?
- How frequent is the damage?

D. The needs should be stated for both present and future conditions. These should be consistent with the conditions described in the "Affected Environment" section. Desired conditions for the future should also be explicitly stated. General graphic displays depicting trends and magnitude of resource and economic conditions are useful.

E. Some problems identified during the public participation process may prove to be irrelevant to the project. These problems should be identified in this section even though they may have not been thoroughly investigated, evaluated, or addressed in planning. If it is clear that nothing can be done to address a problem, this should be explained.

F. Opportunities for improving the quality of life and enhancing environmental values should be discussed. These opportunities must reflect specific effects desired by concerned groups and individuals.

601.35 Scope of the EA/EIS

A. The "Scope of the EA/EIS" section includes results that are documented in accordance with P&G and 40 CFR Section 1501.7. The Council on Environmental Quality (CEQ) defines scope as the range of actions, alternatives, and impacts to be considered in an EIS (40 CFR Section 1508.25).

B. The issues relevant in defining the problems and formulating and evaluating alternative solutions are to be identified by the resource inventory, formal scoping process, and public participation activities. The scoping section should include a record of the issues that were considered, but found not to require detailed discussion in the plan. Stakeholders involved in the scoping process should agree upon the relevance of the issues, allowing the main text to focus on the important items. When a resource concern is found to be irrelevant, and sufficient rationale is provided, the concern can be eliminated from further consideration. Documentation such as letters of concurrence from regulatory agencies or citations of published technical papers, should be maintained as part of the administrative record.

C. Certain items should always be addressed in this section. The required "Resource Concerns for Scoping" are listed in 390-NWPH, Part 606, Subpart B, Section 606.18.

D. Title 390, NWPH, Part 606, Subpart B, Section 606.19 of this handbook is an example of a "Summary of Scoping," the results of the scoping process.

601.36 Affected Environment

A. The "Affected Environment" section describes pertinent physical, ecological, economic, and social information for the watershed and other areas of project impact. This provides the context for determining the effects of alternatives. Relevant concerns identified during scoping should be described. These concerns are related to resources such as water, soils, historic properties, etc. These resources have various attributes. The Conservation Practice Physical Effects (CPPE) matrix in the FOTG is a good reference when identifying attributes. In the case of water one such attribute would be clarity. An indicator of clarity is the depth to which you can see an object below the surface. This depth of clarity can be measured with a Secchi disk. The units of measure for clarity in this case might be meters. These units would be used in forecasting effects. It is in this section that the presence or absence of invasive species should be documented. 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. The information must be adequate to forecast the conditions expected to exist in the future with and without the project. The same measurement units used during the resource inventory are used for forecasting. Refer to P&G Section 3.2.1 and Appendix A, Table 2. The measurement units are used in the "Environmental Consequences" plan section and also in the "Summary and Comparison of Candidate Plans" table. These units may be associated with surrogate indicators where direct measurement of an indicator is not possible.

B. The following types of information should be provided in this section. Use of tabular data is encouraged wherever it reduces the need for narrative.

(1) Physical conditions, such as size and location, stream systems, climate, geology, soils, and topography. A brief cultural and historical overview should also be included.

(2) Ecological conditions, such as water quality, air quality, watershed or ecosystem health, species diversity and richness. The indicators used to establish conditions should be discussed.

(3) Economic and social conditions within the watershed. Discuss the major social, cultural, and political factors that may influence major changes in land use or management of the soil, water, air, plant, or animal resources. Include only those items that would, if realized, affect the various alternatives being considered. If none are anticipated, it should be stated. A discussion of population centers and transportation infrastructure should be included.

(4) Present and future general land cover and uses (using the categories given in Title 180, National Planning Procedures Handbook (NPPH), Part 600) based on the predicted social and political factors described previously.

(5) Other watershed amenities which are relevant to the affected area. These amenities as well other groups previously mentioned have value based on institutional recognition, public recognition, or are technically recognized. Refer to P&G Section 3.4.3 for guidance.

C. The "Affected Environment" section for supplemental plans should only describe the areas and conditions that have changed from the information presented in the original plan or that is necessary to convey the context of the supplemental action. If the supplement includes

or is accompanied by an EA or EIS, the EA or EIS should contain enough description to allow the document to stand alone.

601.37 Alternatives

A. General

This part should help the reader follow the rationale of plan formulation from the development and comparison of alternatives to the identification of the preferred alternative.

B. Formulation Process

(1) The formulation process is the basis for selecting combinations of measures to include as alternatives.

(2) Studies made to establish various combinations of measures (land treatment, structural, and nonstructural) should be included. Include such items as how the evaluation units were established and the incremental analysis made to determine the alternative that reasonably maximizes net contributions to NED (see 390-NWPH, Part 606, Subpart B, Section 606.20 for an example of "Incremental Analysis").

(3) The plan should clearly state the project goals if optimizing NED benefits is not the only governing criterion.

(4) In the formulation of alternative plans, include only increments that provide combined beneficial effects outweighing combined adverse effects.

(5) Every identified resource concern should be addressed either by a remedial measure in at least one alternative plan or by an explanation as to why the concern could not be addressed. This might include a statement as to why a concern cannot be addressed by this program.

(6) Include the scope of measures or methods considered but not developed into complete alternative plans and the procedure or criteria used to screen them. For example, initial studies may identify potential sites for 40 floodwater retarding structures, but further studies may eliminate 25 sites from detailed consideration because of size, costs, or adverse environmental impacts.

(7) "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated" (40 CFR Section 1502.14(a)).

C. Alternatives Eliminated From Detailed Study

(1) Any alternative that does not meet the stated need for action should not be considered or included in the plan.

(2) Alternatives that meet the need for action but do not achieve the purposes may be eliminated from detailed study. These alternatives should be briefly discussed to indicate that they were considered and the reasons why they do not meet the purposes.

(3) Alternatives may not be eliminated from detailed study simply because they are not preferred by the SLO, they are objectionable to some other parties, or NRCS has no authority to implement them. For any alternative eliminated from detailed study, the following question needs to be answered: "What is it about this alternative that makes it unreasonable?"

D. Alternative Description

(1) Describe and compare the alternatives. The alternatives should be described in substantially equal detail. Each alternative plan, including any mitigation, should be clear regarding its components, their functions, and costs. Actions taken to address the spread of invasive species are described in this section. A map showing the location of the plan elements for each alternative plan should be included if needed for clarity. Land treatment measure locations need not be shown, but the general area to be treated should be shown on the map or described.

(2) Where applicable, include a description of the hazard potential of each alternative, such as an explanation of the rationale for dam classification and the risk of dam failure from overtopping or other causes. Any damages and flood hazards expected after the project is installed should be described.

(3) The FWOP or "No Action" alternative is required for all plans and is not to be eliminated from detailed study (Council on Environmental Quality – NEPA's Forty Most Asked Questions (40 MAQ's), Response to Question 3).

(4) The NED alternative in water resource plans or an alternative that achieves an acceptable reduction in the offsite or public problem being addressed in watershed protection plans is required in all plans.

E. Summary and Comparison of Alternative Plans Table

(1) Summarize the alternative plans in a comparative form, in substantially equal detail, by using a "Summary and Comparison of Alternative Plans" table. Include major items used in the decisionmaking process. Those concerns determined to be relevant from the table "Summary of Scoping" (see 390-NWPH, Part 606, Subpart B, Section 606.19 in this handbook) should be included as a minimum. Significant differences between the alternative plans should be shown. The FWOP (no-action) conditions should be included to allow a complete comparison. Estimated costs and cost sharing should also be included. This table allows the reader to see what the Public Law 83-566 contribution to each alternative would be. An example table for the "Summary and Comparison of Alternative Plans" is shown in 390-NWPH, Part 606, Subpart B, Section 606.21 of this handbook.

(2) Discussion of the environmental impacts of the alternatives should be limited to a concise descriptive summary of the impacts in a comparative form, including charts or tables that sharply define the issues and provide a clear basis for choice among options. The "Environmental Consequences" section of the plan provides the detailed analysis. Items that are being tracked in the NRCS benefits database should be included wherever applicable.

(3) The four accounts (NED, Environmental Quality (EQ), Other Social Effects (OSE), and Regional Economic Development (RED)) of the P&G may be used as a framework for the comparison. The relevant concerns in the "Summary of Scoping" table could be broken down into the following accounts. Other items that might be incorporated include but are not limited to the following:

(i) NED Account (required for water resource projects). The NED account tracks the following kinds of costs and benefits in dollar terms:

- Reduced crop damage from flooding, erosion, or sedimentation
- Land voiding and depreciation
- Onsite savings in water
- Maintaining productivity for the evaluation period
- Maintaining productivity for future generations
- Offsite sediment damage reduction
- Increased values of offsite properties
- Reduced treatment costs for Municipal and Industrial (M&I) water
- Increased recreation use
- Increased fish and wildlife values
- Offsite savings in water

(ii) EQ Account

- Degree to which State standards are met
- Fish and wildlife improvements
- Scenic or aesthetic improvements
- Rare, threatened, and endangered species habitat improvement
- Other downstream effects

(iii) OSE Account

- Effects to historic properties
- Impact on disadvantaged persons
- Impact on rural development
- Nuisance or safety effects
- Health effects
- Social well-being
- Social indicators
- Length of time in farming, land tenure, planning horizons, educational level, and ethnic groupings
- Risk of loss of life
- Social effects of maintaining productivity

(iv) RED Account

- Effects on employment
- Effects on income
- Effects on other regional economic activity
- Miscellaneous effects on rural development

(4) The P&G subdivides the EQ account into ecological, cultural, and aesthetic attributes. It may be helpful to further subdivide the ecological attributes into the five resources addressed by the FOTG: soil, water, air, plants, and animals.

601.38 Environmental Consequences

A. The intent of the Environmental Consequences section is to provide the analytical basis for the comparisons of effects presented in the alternatives. This section will describe the economic, environmental, and social effects of each alternative. The relevant concerns identified in the scoping table (390-NWPH, Part 606, Subpart B, Section 606.18 "Resource Concerns for Scoping") should be discussed in this section of the plan. The type and kind of information depend on the location, type, scope, and complexity of the planned action. All alternatives including FWOP (no action) should be treated in substantially equal detail. The description of impacts should be expressed in resource concern indicator measurement units or environmental concern. The items listed should be the same as the relevant concerns in the scoping table. All relevant concerns should be addressed.

B. The discussion for each concern should begin with a description of existing conditions related to that concern. Existing conditions may be summarized from the "Affected Environment" section, or reference provided. This should be followed by FWOP conditions, and then by the impacts of each alternative plan. An example outline follows:

(1) Floodwater Damage
- Existing conditions
- FWOP (no-action)
- Alternative 1
- Alternative 2

(2) Wetlands
- Existing conditions
- FWOP (no-action)
- Alternative 1
- Alternative 2

C. This is an outline for the discussion, not a summary table. The discussion should continue in similar fashion for all the relevant concerns considering the context and intensity of impacts to each. The discussion of existing resources should give the reader a general knowledge of those resources in the area that would be affected by the various alternative plans.

D. Problems or opportunities should be described by evaluation unit. Give as much detail as needed to explain the existence of a problem or the affect of each alternative on a resource. Avoid repeating information given in the "Affected Environment" or "Purpose and Need" sections. The FWOP discussion would present the most likely future conditions. The basis for forecasting must be stated. The effects of the conservation compliance and conservation reserve provisions of the Food Security Act should be included in the projections.

E. If erosion and sediment problems have been identified or if cost-shared land treatment is proposed, the ongoing land treatment program should be described. Indicate how long the ongoing program would take to complete the job. In cases where a project is addressing resource deterioration (as opposed to, for example, recurring flood damage to existing land uses), the FWOP discussion should describe that aspect of the problem.

F. Evaluation units and time frames should be used where appropriate. Impacts should be described for each alternative. Direct, indirect, and cumulative effects should be identified. The narrative should present data in summary form, using tables, drawings, maps, and other

graphics. If an extensive listing of data needs to be included, it should be shown in an appendix. The "Effects of Alternative Plans" section should fully explain the degree or extent to which each problem or opportunity is satisfied. For example, if flooding is a problem, any damages and flood hazards expected after the project is installed should be clearly described.

G. If the project has recreational benefits and must go to the Public Works Committee, describe the usage of other similar public recreational facilities within the general area of the project and the anticipated impact of the alternatives on the usage of such existing recreational facilities (see section 928 of Public Law 99-662).

H. Describe the relationship of the alternatives to local and regional comprehensive plans and land and water use plans, policies, and controls. Discuss compliance with Executive Orders 11988 and 11990, when applicable. Also include the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources that would be caused by the installation of an alternative. These items are probably best handled in separate subsections after all the items from the "Identified Concerns" table have been addressed.

I. The context of the impacts is to be provided in relation to the severity of the impacts. Different contexts are often a matter of scale such as the site, stream reach, stream segment, watershed, or river basin. For example, the loss of 10 acres of bottomland hardwoods may or may not constitute a significant impact based on the context. If the 10-acre loss is in the midst of 10,000 acres in the immediate vicinity, the loss may be negligible compared to the loss of 10 acres of the last remaining 100-acre block of bottomland hardwoods in the watershed. Both short-term and long-term impacts should be considered. See CEQ regulations in CFR Section 1508.27(a).

J. The phrase "intensity of the impacts" refers to the severity of impacts. See CEQ regulations in CFR Section 1508.27(b).

K. The following factors, when relevant, should be evaluated to determine if the action will have a significant effect on the human environment appropriate to the degree of an EA or an EIS.

(1) Environmental Effects—Effects should be quantitative or qualitative and discussed in terms of context and intensity. The Investigation and Analysis appendix should substantiate the fact that the effects are based on sound factual economic, social, and scientific evidence acquired through various analytical approaches. It is better for instance, to simply identify a 40-acre reduction in lacustrine habitat, than to categorize it as being an adverse effect. Within the context of cost-benefit analysis however, it would be inappropriate to ignore the longstanding conventions of identifying expenditures as costs or adverse effects, and returns as benefits or beneficial effects.

(2) Public Health and Safety—Effects in this category include such items as risk of flood, drought, or other disaster affecting the security of life or health; potential loss of life, property, and essential public services due to structural failure; and other environmental effects such as changes in air or water quality. It is not sufficient to state that these concerns have been fully addressed by simply complying with existing safety and performance criteria. These criteria have changed in the past and are likely to change in the future. They may become more or less stringent.

Remaining hazards are to be identified. Do not indicate that the possibility of future damages has been eliminated.

(3) Unique Geographic Characteristics—Additional characteristics may include unique land forms, scenic vistas, karst topography, aquifer recharge areas, etc. This is a broad category and the proceeding list is not all-inclusive.

(4) Historic and Cultural Properties—Effects to historic and cultural properties (that is, those districts, sites, structures, or objects, listed on or eligible for listing on the National Register of Historic Places or sites of significance to an American Indian Tribe, Alaska Natives, or Native Hawaiians) will require consultation with State Historic Preservation Officers, Tribal Historic Preservation Officers, federally recognized Tribes, Advisory Council on Historic Preservation, and other concerned and affected organizations and individuals. Mitigation or other appropriate actions may be required. For further information, consult the Title 190, National Cultural Resources Handbook (NCRH), Part 601.

(5) Parklands—Describe the effects on any State, county or national parkland.

(6) Prime Farmlands—Describe the degree that the proposed action will affect prime or unique farmland, or farmlands of statewide or local importance.

(7) Wetlands—The effects section should include the probable beneficial or adverse effects on identified wetlands and how these effects relate to the wetland conversion provisions of the Food Security Act. Special attention should be given to jurisdictional wetlands that may be affected by project activity.

(8) Floodplains—If the preferred plan leaves a risk of loss of life from the 100-year flood, the plan should include the following information:

(i) A thorough description of the remaining flood hazard in the benefitted area for the 100-year and 500-year floods, including the approximate number, kinds, and location of properties subject to continued flooding and the depths and velocities of flooding.

(ii) A map showing the urban areas expected to be flooded by the 100-year and 500-year floods with and without the project.

(9) Wild and Scenic Rivers—Each designated river is administered by either a Federal or State agency. Designated segments may not include the entire river and may include tributaries. Consult with the administrating agency (invite to be a cooperating agency if appropriate), and then discuss the consultation and describe the impacts to the river in the document.

(10) Ecologically Critical Areas—This may include resources such as riparian areas, natural areas, or special aquatic sites.

(11) Controversy—Almost anytime that a diverse group of agencies and individuals participate in a project, there will be some disagreement over the proposed action or the determination of the effects. This should be expected. A high level of controversy may indicate other weaknesses in the analysis and may mean the nature or extent of the impact is significant.

(12) Risk and Uncertainty—Alternatives and their effects should be examined to determine the level of uncertainty inherent in the data or various assumptions of future economic, demographic, social, attitudinal, environmental, and technological trends. Methods for making these determinations are described in P&G Section 1.4.13. This section should discuss the areas of sensitivity in each of the alternatives. Risk and uncertainty may involve increased costs or reduced benefits through adjustments in design. These facts should be clearly described in order to show the effects on each alternative. This section does not eliminate the need for discussing risk and uncertainty in other parts of the plan where appropriate.

(13) Precedent—If the proposed action would set a precedent for future actions with significant effects, or represents a decision in principle about a future consideration, the action is likely significant.
(14) Cumulative Impacts—Describe the impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Further guidance can be found in the NECH and at the "Considering Cumulative Effects Under the National Environmental Policy Act" website: http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm.
(15) Endangered and Threatened Species—Consult with the FWS regarding the presence of Threatened and Endangered (T&E) species within areas that may be affected by the proposed action, and if present, the potential for impacts. Further consultation may be required. For further information see the NECH.
(16) Visual Impacts—Determine the potential visual impacts of the proposed project alternatives by conducting a visual impact assessment. This is especially important if the project site has a high visual quality, is in a field of view where large numbers of people can see the project, or if visible in a very scenic landscape or from a protected scenic corridor or byway.
(17) Compliance with Federal, State, and local laws (including any permit requirements).

L. The following are commonly identified as requiring additional analysis in an EIS. Some of them also apply to an EA.

(1) Adverse effects that cannot be avoided
(2) The relationship between short-term use and long-term productivity
(3) Irreversible or irretrievable commitments of resources
(4) Possible conflicts with land use plans, policies, and controls for the area
(5) Energy and natural or depletable resource requirements (conservation potential of various alternatives and mitigation measures)
(6) Urban quality and the design of the built environment
(7) Means to mitigate adverse environmental impacts

601.39 Consultation, Coordination, and Public Participation

A. If minorities, low-income populations, or Indian Tribes are identified in the plan summary demographic information, specific efforts to engage these groups in the planning process need to be documented in this section of the plan. Special note should be made of consultation requirements with the State Historic Preservation Officer and appropriate federally recognized Tribes regarding consultation under the National Historic Preservation Act, Section 106, as amended. Several other executive orders, secretarial orders, departmental regulations, and presidential memoranda require nation-to-nation consultation with Tribal governments. The Fish and Wildlife Service and the National Marine Fisheries Service also require consultation for threatened and endangered species.

B. If the Fish and Wildlife Service has prepared a report as provided for in Public Law 83-566, Section 12, it should be mentioned here.

C. Where a project will affect wetlands that could be converted to a commodity crop, show that the SLO and land users have been informed and are aware of the potential effect of the wetland conversion provisions and of the actions needed to avoid loss of program benefits.

D. List of Persons and Agencies Consulted—List the persons and agencies that were consulted during the planning process. This may include any agency that provided formal or required consultation, or individuals who were conferred with and who provided substantial input.

E. Final Plans—The final plan should include a discussion of the interagency and public review of the draft. For a Plan-EIS, responses to all comments should be included. The most convenient way to do this is usually to include responses in an appendix with the comment letters. For a Plan-EA, a summary in this section of the comments received and actions taken is normally sufficient.

601.40 The Preferred Alternative

A. Rationale for Plan Preference

If the NED plan is selected for a "Water Resource Project," the rationale need not be extensive because the primary objective is to maximize net economic benefits. Key factors that influenced the decision should be described. If the NED plan is not selected for a "Water Resource Project," an exception to the P&G rule is needed. The following information should be provided as appropriate:

(1) Status of the NED exception.

(2) A description of the NED plan is always required.

(3) A description of the preferred plan is always required.

(4) A description of the added increment that reduces NED net benefits.

(5) Sometimes the preferred plan differs from the NED plan in ways that can easily be described as a separate increment, such as when a structural auxiliary spillway is to be used rather than a less-costly nonstructural auxiliary spillway. The incremental cost is being undertaken to reduce the likelihood of an auxiliary spillway failure associated with events whose flows exceed design parameters. In other cases, it might be more difficult to think of the preferred plan as constituting an added increment. This might occur when entirely different approaches are being used to address the purpose and need, such as when one alternative would address a flood problem with a dam and another would address that same problem by relocating downstream residences. There may even be instances in which the added increment is achieved with a reduction in costs. The increment is that improvement which is achieved by the identified reduction in NED net benefits.

(6) All beneficial effects, including the NED benefits, of the added increment.

(7) All adverse effects, including the NED costs, of the added increment.

(8) The reduction in NED net benefits associated with the added increment. These constitute the net economic benefits foregone by including the added increment. This represents the net economic cost of obtaining the noneconomic net benefits of the added increment.

(9) A description of the other Federal, State, or local concerns being addressed and the degree to which they are satisfied by the added increment. The information is to be presented objectively, but the discussion is to make clear why the SLO is asking for an exception and how the reduction in NED net benefits is justified by the increase in non-NED net benefits.

(10) A statement that, in comparing the preferred plan and the NED plan, the preferred plan has an increase in net benefits associated with the non-NED accounts greater than the reduction in net benefits associated with the NED account. For instance, in selecting the preferred plan in the following table, the RFO is saying that the identified reduction in the likelihood of auxiliary spillway failure is worth at least $9,000 annually over the period of the analysis at the specified discount rate.

	NED Plan (Vegetated Auxiliary Spillway)	Preferred Plan (Structural Auxiliary Spillway)	Added Increment
NED Benefits	$80,000	$81,000	$1,000
NED Costs	$30,000	$40,000	$10,000
NED Net Benefits	$50,000	$41,000	-$9,000
Non-NED Consideration: Probability of auxiliary spillway failure in any given year	1/1,000	1/100,000	Reduction in the likelihood of auxiliary spillway failure in any given year from 1/1,000 to 1/100,000

- In the following table, the RFO would have to conclude that it was worth a $10,000 reduction in average annual NED net benefits over the period of the analysis at the prescribed discount rate in order to reduce the population at risk by 9,000 from the **500-year event**.
- Both of these examples are admittedly simplistic in that there is a single tradeoff—reductions in NED net benefits for a single non-NED net benefit improvement. The more variables, the more subjective the decision becomes.

	NED Plan (Dam)	Preferred Plan (Relocation)	Added Increment
NED Benefits	$90,000	$45,000	-$45,000
NED Costs	$70,000	$35,000	-$35,000

NED Net Benefits	$20,000	$10,000	-$10,000
Non-NED Consideration: Population at risk from the **500-year event**, with the project functioning correctly.	10,000	1,000	9,000 fewer people at risk from the **500-year event**

B. Measures to be Installed

This section describes the measures to be installed by the preferred alternative, including any mitigation.

(1) State that there are limitations on technical and financial assistance. For example, assistance will be provided only when it contributes to achieving project objectives. Similar structures may be grouped for discussion purposes.

(2) Acknowledge the measures associated with the watershed project are one component of many efforts for natural resources management in the project area. Identify other efforts, beyond NRCS, to address natural resource issues and concerns. Describe the relationship of the ongoing programs to the Watershed Program. Indicate the ongoing programs that will be implemented without project action and if the Watershed Program will supplement the ongoing program.

(3) Emphasize that participation in the Watershed Program is voluntary and that the SLO, the land user, or both make final decisions on measures to be installed. If the plan includes cost sharing for onfarm conservation measures, provide an estimate of the participation rate. The types and amounts of assistance (technical and financial) that will be provided should be described. Technical assistance may be described in terms of person-years and category (for example, soil surveys, conservation planning, or practice application) or costs. Financial assistance costs in terms of the types and amounts of measures, or interdependent practices, for which assistance will be provided.

(4) Separate discussions are needed for each evaluation unit. Describe the amount of erosion, condition of the impaired use, and sediment damage that will remain after installation of the measures. State that alternative practices that provide equal or greater benefits are permitted, but that cost-share amount is limited to the amount that would have been paid for the practices in the selected plan.

(5) Problem areas, for which assistance is to be provided, should be identified on maps in sufficient detail to guide the implementation of the plan, but it is not intended that every acre be identified. Describe any specific criteria to be used to make a final determination of eligibility during implementation. Describe the practices, or interdependent practices, expected to be used to solve identified problems and achieve identified objectives. Also, provide an estimate of the acres by land use for which technical and financial assistance will be provided.

(6) For Federal land, describe the conservation land treatment measures jointly agreed upon by NRCS, the land administering agency, and the SLO. Give any other pertinent information that would clarify the work to be done.

(7) For wetland or floodplain acquisition or conservation easements, describe the location and amount of land, the type of rights to be acquired, and the planned land use, and include a map. It should be evident that the land rights to be acquired are needed to provide a floodway and that elements are included to provide for any changed land use. Any new property acquired as the result of floodplain acquisition should become a part of required assessments for environmental, historic property, and cultural resources impacts.

(8) Identify locations of buildings and the type of floodproofing. The plan should include sufficient details concerning the existing buildings to show that they are suitable for floodproofing. If a flood warning system is to be provided, describe its type and location and include sufficient details concerning its operation to show that the system will function. Buildings considered for floodproofing must have an historic property evaluation as part of the planning process.

(9) Describe the type, number, and location of existing floodplain buildings and facilities to be moved. Make it clear that the repositioned properties are located in flood-free areas. Buildings considered for moving must have an historic property evaluation as part of the planning process.

(10) The narrative should describe reservoir type structures. The narrative should refer to "Structural Table 3 - Dams with Planned Storage Capacity" (390-NWPM, Part 506, Subpart B, Section 506.15). It should include such items as the following:

- Foundation conditions
- Kind of principal spillway (including the type of inlet and outlet)
- Kind of auxiliary spillway (that is, rock, earth, structural, other)
- Frequency of storm controlled by the principal spillway and retarding storage
- Type of fill material
- Type and extent of clearing to be performed
- Design life of structures and portion of sediment capacity that will initially store water
- Borrow (type, location, relation to geology, and land rights)
- Provisions for safeguarding public health, water quality, sanitation, and safety

(11) The text should describe the potential hazard induced by risk of failure of a dam. Point out that although a dam failure is not expected, there is always some remote possibility of failure and that failure, if it were to occur, would endanger any development in the breach inundation area. Also include information on the geologic or design factors that could contribute to the possible failure of a dam, and design features that have been included to reduce the risk.

(12) The text should refer to the breach inundation map in the appendix of the plan. Explain the rationale for determining the dam classification. Explain that class "low" and "significant" dams are designed for less than the probable maximum flood and therefore, overtopping and subsequent failure are a possibility. The assigned NRCS hazard classification determined from technical evaluations must have concurrence by the RFO, usually the State conservation engineer. Include precautions against future development within the breach inundation area of class "low" and "significant" dams. The SLO is responsible for any required structural modifications as a result of safety hazard class changes associated with development within the breach inundation area. For class "high"

dams, explain that an emergency action plan needs to be developed by the SLO and other local groups before initiating construction.

(13) The text should describe channel characteristics by reaches along the path of the proposed channel work, including the materials through which channels will be constructed. The narrative should refer to "Structural Table 3b - Channel Work" (390-NWPM, Part 506, Subpart B, Section 506.17). The nature of the planned construction, operation, and maintenance by reaches should be further subdivided as follows:

- Establishment of new channel including necessary stabilization measures.
- Enlargement or alignment of existing channel or stream
- Cleanout of natural or manmade channel (includes bar removal, removal of loose debris, and major clearing and snagging)
- Stabilization as the primary purpose by continuous treatment or treatment of localized problem areas—present capacity adequate
- Measures or means provided to prevent private landowners from using federally cost-shared channels as outlets for private onfarm drainage of wetlands or bottom land hardwood habitat
- Presence of rock or other material that will significantly affect the design of the channel

(14) The text should refer to "Economic Table 2b - Recreational Facilities, Estimated Construction Costs" (390-NWPM, Part 506, Subpart B, Section 506.14) for basic recreational facilities. Write narrative on public recreation facilities to include information on the following:

- Land and water areas made available for recreational use by project action
- Kind and nature of recreational facilities to be installed in sufficient detail to indicate their quality
- Relationship between the components of the development—water resource improvements and associated facilities
- Provisions for public access, health, sanitation, safety, and accessibility and usability by individuals with disabilities

(15) The following information for each measure should be included:

- Minimum land rights (acres) by proposed use and availability for public use
- Approximate planned amount of each plan element
- Planned appurtenances
- Alteration, modification, or change in existing improvements
- Number and kind of relocations that will result from acquisition of real property rights including number of persons or families affected
- Action to be taken to minimize soil erosion, and water, air, and noise pollution during construction
- Identification and possible effects to historic properties and cultural resources, all consultation undertaken, and any proposed mitigation actions
- Nonproject features—steps to be taken to minimize the project effects on these values
- Actions to be taken to prevent the spread of noxious weeds

C. Mitigation Features

Features or provisions to mitigate losses and other adverse effects should be discussed. Whatever the feature is mitigating should be clear (40 CFR Section 1502.16(h)). Discuss the monitoring requirements and develop of a monitoring plan for the mitigation features. If the project does not have mitigation features, this section may be omitted.

D. Permits and Compliance

A list of all Federal, State and local permits and other entitlements that must be obtained and consultation that must be completed to implement the preferred plan should be included. If none are required, include a sentence so stating (40 CFR Section 1502.25). If the plan will also be used in its present form to obtain a permit, that should be noted here with all supporting information included in the appendix. If a "404" permit will be required, consider compliance with EPA's Clean Water Act, Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredged or Fill Material." Explain if additional cultural resources or endangered species consultation will be required before project or practice installation.

E. Costs

(1) Explain the costs shown on Tables 1, 2, 2a, 2b, and 4 (see exhibits 390-NWPM, Part 506, Subpart B). Make reference to the appropriate table. Avoid repeating the figures in the tables. The explanation of the costs should be in enough detail to ensure that the SLO has a full understanding of their obligations. The narrative should describe each cost category (that is, land treatment, construction, engineering, real property acquisition, project administration, relocation payments, operation and maintenance, and nonproject). Explain what each category consists of and highlight any significant cost items not shown separately on the tables.

(2) Cost estimates for major sub items not listed in the tables should be described and included in the narrative. For example, project administration costs include relocation assistance advisory services and other items. It should be clear that all significant cost items have been included in the estimates. Joint costs and specific costs for multiple-purpose structures should be described. If costs are allocated to purposes, this section should explain the method of cost allocation. It should also show any allocated costs that are not included in the tables.

(3) This section should identify the measures eligible for cost sharing and the cost-share rates.

F. Installation and Financing

(1) Framework for Carrying Out the Plan

Describe the planned sequence of installation, along with the responsibilities of the SLO, NRCS, and other cooperating agencies for installing and financing the project. Where cost-shared onfarm measures are involved, the responsibilities of the individual participants should also be explained. Any preconditions for installing the project should be discussed.

(2) Planned Sequence of Installation

Show the sequence in which the project measures will be installed. If certain parts of the work must be installed or completed before others, this should be explained. The plan should specify any mitigation measures that must be installed and their relationship to the construction schedule. Describe the real property that must be acquired and the land treatment that must be installed before installing structural or nonstructural measures. The plan must show that the SLO has sufficient funds and agrees to use its power of eminent domain to acquire the needed rights. Including a schedule for real property acquisition in the plan is a good practice. Generally, acquisition of all real property for the project in the first 2 or 3 years of the installation period is desirable. Watershed Program assistance for the first unit of construction may be provided before all necessary real property for the entire project is obtained.

(3) Responsibilities

Specific responsibilities of each SLO and the NRCS should be listed. The plan must show that the SLOs have the needed authorities and have agreed to exercise those authorities to implement the plan. Items that should be covered for each planned measure include acquisition of real property rights; water, mineral, and other resource rights; permits, licenses, and other entitlements; contracting; engineering; project administration; relocation advisory services; financing; and installation.

(4) Contracting

Indicate the method of contracting used for installing the planned measures and name the SLO responsible for dealing with NRCS during installation. The plan should state clearly, as appropriate, that the SLO intends to do the contracting, or NRCS is formally requested to do a specific part or all of the contracting.

If long-term contracts (LTC) for cost-shared land treatment are to be used, describe whether the plan involves an NRCS-participant LTC or an NRCS-SLO project agreement with an SLO-participant LTC. Also include the general requirements of NRCS long-term contract policy that will be used in project delivery, such as the following:

- That each LTC will be based on a plan or schedule of operations developed by the participant and approved by the soil and water conservation district and NRCS
- The expected range of duration of the LTC
- That no LTC will be signed until the initial participation requirement specified in the watershed agreement has been met
- That all required conservation treatment will be installed at least 2 years before the end of the contract

(5) Real Property and Relocations

Describe the real property needed and the number and kind of relocations that will result from the proposed action. Identify the SLO and their responsibilities, and indicate that they will follow standard NRCS procedures as outlined in Property Management Regulations in conformance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Public Law 91-646).

(6) Other Agencies

Describe the responsibilities of and types of assistance to be made available by each Federal agency in accomplishing the plan. Specifically indicate concurrence of any land managing agency with its part in carrying out the plan, except for the FS, which is a USDA agency with responsibilities in plan development and implementation. When the plan includes works of improvement to be installed on Federal and non-Federal land, the plan should show how Watershed Program funds will be used in combination with funds available from regular program sources. Appropriate explanatory statements should set forth the opportunities for Federal assistance from other programs, including cost-sharing programs of USDA and community development block grants from the Department of Housing and Urban Development.

(7) Cultural Resources

If protection, preservation, recovery, or any other mitigation of activities to reduce adverse effects to historic properties is anticipated, provide a summary of the proposed historic property treatment plans. These plans are usually in the form of a specific Memorandum of Agreement between the NRCS, State Historic Preservation Officer, and/or Tribal Historic Preservation Officer, and other appropriate signatory or concerned parties. The summary should include responsibilities for financing and carrying out such plans and the timing with respect to implementation. This section should state that if cultural resources are discovered during construction, construction will be halted and the procedures of the current State Level Agreement for cultural resources or the NRCS Title 190, National Cultural Resources Procedures Handbook, Part 601, will be followed.

(8) Financing

(i) The plan should show how the SLO and the Federal Government will finance installation, operation, and maintenance costs. It should be clearly indicated that the SLO have analyzed their financial needs in relation to the scheduled installation and the operation and maintenance requirements for the works of improvement, and that they have arranged for funds to be available when needed through donations, cash reserves, tax or assessment levies, or credit. The plan should include an estimate of the out-of-pocket costs to be borne by the SLO and should show that projected revenues are adequate.

(ii) If loans are contemplated, show that sources of credit have been contacted with favorable results. If a watershed loan from the Rural Utilities Service (RUS) is contemplated, indicate that negotiations are underway with the regional director of the RUS, including the filing of a preapplication.

(iii) Describe the extent to which donations, such as land, easements, labor, material, equipment, services, or money, will be used to finance the costs other than those payable with Watershed Program funds. Where applicable, indicate that the SLO may receive credit for such contributions toward their required cost sharing under conditions to be agreed upon in advance of their performance (see 390-NWPM, Part 506, Subpart B, Sections 504.11 and 504.12).

(iv) Costs not eligible for Watershed Program financial or credit assistance should be identified. The means of financing such costs should be described.

(v) When an advance of Watershed Program funds for future M&I water supply is involved, this section of the plan should show:

- The estimated amount of the advance, the type of cost for which it will be used, and that the cost will not exceed 30 percent of the total estimated installation cost of the structure involved.

- That the SLO will enter into an agreement, approved by the RUS for repayment of the advance before the execution of the NRCS fund obligating agreement.
- That the SLO intends to use the water from the storage capacity provided for future municipal use within the evaluation period of the structure.
- That the regional director of the RUS has tentatively concurred in the proposed advance.

(9) Conditions for Providing Assistance

The plan should describe the conditions under which Watershed Program assistance will be made available to the SLO and show that financial and other assistance to be furnished by NRCS for carrying out the project is contingent on the appropriation of funds for this purpose. Items to consider include requirements for land treatment, real property acquisition, and permits.

G. Operation, Maintenance, and Replacement

(1) Operation, maintenance, and replacement responsibilities should be described in the same detail as those for installation. All project features should be described. The SLO will be responsible for operating, maintaining, and replacing (when needed) each planned measure. This responsibility includes the financing of these actions.

(2) Where cost-shared land treatment is involved, the evaluated life span of the practices and any replacement costs that have been included should be indicated. Guidance on practice life spans may be found in Title 180, National Operations and Maintenance Manual (NOMM), Part 500.

(3) The plan should identify the responsibilities for operating and maintaining the measures to ensure their effectiveness throughout the evaluation period. They include the use of water in regulated storage capacity; operation of any control works such as tide gates; the legal steps required to establish operating authority; and other significant O&M items.

(4) If the plan includes components that have an expected life span that is less than the evaluation period, discuss the need and arrangements for their replacement. The kinds of inspections to be made and their frequency should be described. If National Forestland is included in the project area, specify that the inspection team will include an FS member.

(5) Sufficient detail should be included to ensure that the requirements and costs for adequate operation and maintenance are fully understood and that arrangements have been made or can be made to satisfy these requirements. This matter is particularly significant for recreational developments because the operation and maintenance of even a modest recreation development may be a significant part of the total operation and maintenance responsibility for the entire project. Because recreation facilities generally require periodic replacement during the project evaluation period, the plan should show the extent to which replacement costs have been included. Custodial, policing, sanitation, safety, and other operational services and the manner of financing operation and maintenance costs should be described fully. If admission or use charges are contemplated, the plan should indicate the basis that will be used for establishing fees.

(6) Specific reference should be made to the provisions and responsibilities for operation and maintenance of fish and wildlife features or measures, fish and wildlife mitigation features, needed sanitary facilities, provisions for public access at any of the project measures, and any unusual operational needs and major maintenance work that may be anticipated. Include provisions for monitoring if appropriate. Provisions should be included to ensure that installation and operation and maintenance of the planned features meet the requirements of appropriate State and local public health agencies. This point is especially important if recreation or municipal water supply, or both, are involved. Identify the agencies involved.

(7) Include a statement that a specific operation and maintenance agreement will be entered into before a project agreement is signed (this includes project agreements for installing land treatment with SLO-participant long-term contracts). In addition to specific sponsor responsibilities for the project measures, the O&M agreement must include specific provisions for retention, use, and disposal of property acquired or improved with Public Law 83-566 assistance. The plan should also state that the O&M agreement will be based on 180-NOMM, Part 500, and that an operation and maintenance plan will be prepared for each measure. Indicate, where appropriate, that an Emergency Action Plan will be developed.

H. Economic and Structural Tables

(1) The economic and structural tables are in the 390-NWPM, Part 506, Subpart B, Sections 506.10 to 506.21. The tables are designed to meet as many conditions in a watershed as can be readily anticipated to exist. Show those items or measures applicable to the specific watershed plan. Tables 1 through 6 should use the format shown to facilitate review and summary purposes. Items not applicable to a particular plan may be omitted.

(2) Prime-numbered tables generally are necessary in all plans. Use A and B tables only if applicable. Watershed protection plans should include Tables 1 and 4 as a minimum. Date all tables with the month and year; the date must be reasonably current. Dollar figures in the tables should be rounded to a practical level of significance.

601.41 References

If supporting data are incorporated by reference, include information on how the reader can arrange to review it.

601.42 List of Preparers

A. In some cases it may be appropriate to list the agency or firm that provided the input rather than the individuals.

B. Include a brief description of the NRCS State staff and NWMC review process that was used. A sample description follows: “The draft watershed plan and environmental impact statement was reviewed and concurred with by State staff specialists having responsibility for engineering, soils, agronomy, range conservation, biology, cultural resources, forestry, and

geology. This review was followed by review of the document by the NWMC. A similar review was also provided by U.S. Forest Service personnel."

C. An example "List of Preparers" is included in 390-NWPH, Part 606, Subpart B, Section 606.22 of this handbook.

601.43 Distribution List

There is no further guidance in the handbook corresponding to this section in the manual.

601.44 Index

There is no further guidance in the handbook corresponding to this section in the manual.

601.45 Appendices

Appendix A – Comments and Responses

Letters are not required to be included when an EA is prepared unless they include significant comments.

Appendix B – Project Map

(1) The project map should include, where appropriate, the boundaries of urban areas and public lands, such as State or National forests, grazing districts, or military reservations. Additional information, such as important farmlands and stream reaches, may also be included. Do not include specific information on the location of historic properties or other archaeological sites. Care should be taken so that the project map does not become cluttered and unclear. Additional maps may be used to show these or other features.

(2) The project map should be large enough to show benefited areas and project features. Color maps are standard for all project maps. The map should be prepared so that it can be extended for easy reference while the plan is being reviewed.

Appendix C – Support maps (as appropriate)

(1) Recreational Development Map

If one or more recreational developments are planned as a project purpose, include a map or sketch will be included to show the general layout of each development. The map should include pertinent features such as:

- The boundaries of the development
- Purchase area boundaries
- The dam and auxiliary spillway
- The surface area of the recreational pool
- The high water line of the reservoir

- The location and kind of principal use areas (picnicking, camping, bathing, parking, boat ramps) and the access roads

(2) Urban Floodplain Map

Where existing or likely future urban or built-up areas are affected by the project measures, include maps to show those areas that will be flooded by a 100-year event and 500-year event, with and without the preferred plan. Other flood lines may be included as appropriate. Items excluded by FOIA, such as the location, contents, or importance of a particular cultural resource should not be included. A recent aerial photograph is preferred as the base. The map should be referred to in the discussion of effects.

(3) Breach Inundation Map

This map is required for all NRCS inventory dams and levees (see Title 210, National Engineering Manual (NEM), Part 520, Subpart C, Sections 520.27 to 520.28) and dikes. For hazard class "high" dams and class "I" dikes, detailed maps will be similar to the urban floodplain maps. If other dams and dikes are involved, they should be clearly described by the use of maps, by narrative description, or both. Information shown on the map will be the same as specified in the Emergency Action Plan outlined in 180-NOMM, Part 500.

Appendix D – Investigations and Analyses Report

(1) Information of a routine nature, such as how surveys are made or the kind of maps used, is not necessary unless something unusual about the study requires their inclusion to support the decisions made. Likewise, methods, procedures, or criteria should be identified, but need not be discussed if they are covered in national correspondence, handbooks, manuals, technical releases, or other such documents. A discussion of the intensity of study is desirable when it reflects the reliability of results or the extent that studies have been completed and will not have to be expanded upon during the operation stage. A summary of the incremental analysis for each evaluation unit in the NED and preferred plans should be included.

(2) The cultural resource section should only contain information available for public review. For further guidance see National Bulletin 130-9-3, Acknowledgment of Section 1619 Compliance for Conservation Cooperators, and National Bulletin 120-9-16, ADS – Release of Freedom of Information Requests under Section 1619.

(3) The report should also discuss any significant physical, economic, or environmental interactions between the preferred plan and any existing or planned Federal or non-Federal projects. If such interactions are a significant factor in choosing among alternatives, this discussion should go in the "Alternatives" section rather than here. In that case, the interactions of each alternative, not just the preferred plan, should be described. Show the annualized NED benefits, costs, and net benefits over the entire period of analysis and the benefit-cost ratio for each alternative.

(4) Consideration should be given to displaying information concerning watershed protection in a Conservation Effects for Decision Makers format (see example in the FOTG). At times, State agencies, consultants employed by the SLO, or agencies from departments other than the Department of Agriculture conduct certain investigations, submit reports, and make recommendations. If this is done, the agency or consultant

should be identified with the study. This is generally associated with the investigations for recreation, water quality, fish and wildlife, municipal and industrial water supply, or any other category.

Appendix E – Other Supporting Information

Use this section rather than the body of the document if tabular or other supporting data are needed to make a point. In the final version of a plan-EA, a copy of the FONSI could be included here.

Part 602 – Reviews and Approvals

Subpart A – Approval for NED Exceptions

602.0 Exceptions to the NED Plan Requirement

A. **"**Exceptions may be made when there are overriding reasons for recommending another plan, based on other Federal, State, local and international concerns," as stated in the 6th Principle of the P&G.

B. There are no specific criteria for deciding whether an exception should be granted. The process involves comparing the net NED benefits foregone in the NED plan with the non-NED net beneficial effects of the preferred plan. The non-NED effects should be described in the other P&G accounts, such as the environmental quality and other social effects accounts. The rationale for granting the exception should be explained in the plan (see 390-NWPH, Part 601, Subpart D, Section 601.40 of this handbook).

C. Exceptions have been granted to provide program benefits to disadvantaged communities, to increase flood protection beyond the level that maximizes the net NED benefits, and to enhance fish and wildlife habitat. In order to provide flood prevention program benefits to disadvantaged communities and areas, exception requests may be considered based on the following conditions:

- Housing values in the benefited area are less than 75 percent of State average values.
- The average per capita income for the last three years in the benefited area is less than 75 percent of the national average, or current unemployment in the project area is twice the national average over the past 3 years.
- The project benefit-cost ratio is greater than the ratio of the national 3-year average per capita income to the per capita income in the benefited area.

D. Example Exception Scenario

The following is an example of a situation where an exception request might be warranted. The table below shows a plan with four alternatives identified, including the no-action alternative and three action alternatives. Alternative A has the highest net NED benefits and the highest benefit-cost ratio. However, Alternative B exceeds the minimum performance and safety standards. A decisionmaker who selects Alternative B is concluding that the net non-NED benefits associated with selecting Alternative B, rather than Alternative A, are worth more than the $1,000 reduction in NED annual Net Benefits annual costs over the project life. In this case, the decision maker felt it made sense to better address public safety by exceeding the minimum safety and performance standards.

Average Annual Dollars (4-5/8% Discount Rate, 50-Year Period of Analysis)

	No Action	Alternative A (NED Plan)	Alternative B (Preferred Alternative)	Alternative C
NED Benefits	--	$4,000	$12,000	$12,000

NED Costs	--	$1,000	$10,000	$16,000
NED Net Benefits	--	$3,000	$2,000	$-4,000
Benefit/Cost Ratio	--	4:1	1.2:1	0.75:1
Safety and Performance Standards	--	Met	Exceeded	Met
Protects Against the 500-Year Event	--	No	Yes	No
Protects Against Multiple Auxiliary Spillway Flow Events	--	No	Yes	No

E. List all net non-NED benefits associated with selecting the preferred alternative. Do not duplicate items that have already been included in the NED account. The discussion must be restricted to the environmental quality, other social effects, and regional economic development accounts. This constitutes an explanation as to why the net benefits in the other accounts justify the loss in net benefits in the NED account.

602.1 Timing and Documentation

The Chief's approval of an exception to the NED plan requirement should be obtained prior to the completion of the technical and policy review described in 390-NWPH, Part 602, Subpart B of this handbook.

602.2 Watershed Rehabilitation Projects

For Watershed Rehabilitation Program plans where human life is at risk in the event of a catastrophic failure of an existing dam, and the dam does not meet current safety and performance standards, the NED plan is defined as the federally assisted alternative with the greatest net benefits. If the policy identified NED plan is not selected, a project specific exception is required. (See Title 390, National Watershed Program Manual (NWPM), Part 502, Subpart A, Section 502.2, for this policy.)

602.3 NED and Projects Requiring Congressional Approval

For plans requiring Congressional committee approval, the exception will be subject to subsequent review by the Secretary, the Office of Management and Budget, and the Congressional committee responsible for approving the plan.

Part 602 – Reviews and Approvals

Subpart B – Technical and Policy Reviews

602.10 Plan Review

For an overview of the step-by-step review and approval process, procedure, and sequence that should be followed see 390-NWPH, Part 606, Subpart C, Section 606.30, "Review and Approval Process for Watershed Project Plans", in this handbook.

602.11 NRCS Reviews

A. State Staff Review

(1) States should develop procedures for internal technical review of plan-EA's and EIS's by appropriate personnel to ensure that the problems, the alternatives considered, the preferred alternative, and the effects are adequately described and that the plans have been developed in accordance with NRCS policy in the NWPM, the "Principles" portion of P&G; and guidance provided in this handbook, the NPPH and the P&G Guidelines. If the FS is involved in the plan, provisions should be made for its review and concurrence.

(2) States should download and use the Watershed Plan Review Checklist (PlanReviewChecklist.xls) from the National Water Management Center (NWMC) at http://wmc.ar.nrcs.usda.gov/technical/watershed.html) to assist in ensuring that plans are complete before they are distributed for peer or interagency review.

B. National Water Management Center Review

As a quality assurance measure, States will arrange for review and comment by the National Water Management Center, as provided for in Title 390, National Watershed Program Manual (NWPM), Part 502, Subpart B, Section 502.11.

Part 602 – Reviews and Approvals

Subpart C – Public and Interagency Review

602.20 Inviting Comments

A. Appropriate local, State and Federal agencies that should be considered for inclusion in interagency reviews are:

- Governor or designated State agency
- State single point of contact for Federal assistance
- Environmental Protection Agency (EPA)—regional office
- Fish and Wildlife Service—regional office
- National Marine Fisheries Service (NMFS)
- National Oceanographic and Atmospheric Administration (NOAA)
- Army Corps of Engineers (COE)—district engineers' office (except watershed protection plans)
- Farm Service Agency (FSA)—State office
- Forest Service—regional (or area) office
- State Historic Preservation Officer
- Tribal Historic Preservation Officer or federally recognized Tribal Governments
- Other agencies, groups, and individuals as determined by the STC

B. If the plan includes an EIS, the STC is required by NEPA to send copies of the draft Plan-EIS to the EPA and other agencies and groups as required in Title 390, National Watershed Program Manual (NWPM), Part 502, Subpart C, Section 502.20. The draft EIS must be transmitted to other agencies and made available to the public prior to or concurrently with its filing with EPA in accordance with 40 CFR Section 1506.9. EPA will publish the notice of availability in the Federal Register. Agencies and groups receiving the drafts should be listed in the Consultation and Public Participation section of the Plan-EIS. Sample letters for requesting comments are in Title 390, National Watershed Program Handbook (NWPH), Part 606, Subpart C, Sections 606.31, 606.32, 606.33 and 606.34 of this handbook.

C. If the plan includes an EIS, the request for comments of the U.S. Department of the Interior (USDI) should be sent to the following address:

Director, Office of Environmental Policy and Compliance
U.S. Department of the Interior
Mail Stop 2342, Main Interior
1849 C Street, NW
Washington, DC 20240-0001

D. USDI has asked for the following number of copies of each draft EIS:

- Twelve (12) copies for projects in the eastern United States, including Minnesota, Iowa, Missouri, Arkansas, and Louisiana.

- Twelve (12) copies for projects in Hawaii, American Samoa, Guam, Puerto Rico, Virgin Islands, and the Trust Territories.
- Eighteen (18) copies for projects in the western United States.
- Sixteen (16) copies for projects in Alaska.

E. Public participation is a key component of project planning activities long before a draft project plan is developed (see 390-NWPM, Part 501, Subpart C, Section 501.24). It is Federal policy to also provide for public comment on draft project plans before a final project plan is submitted for authorization.

F. At least one public informational meeting for watershed residents and other watershed stakeholders should be conducted for each draft project plan. Public notice of the informational meeting should be mailed directly to owners and occupants of adjacent and affected properties at least 15 days before the meeting. It should specify that those individuals and groups will be given the opportunity to prepare and submit written and oral comments concerning the project (see Title 400, General Manual (GM), Part 400).

G. Notice should also be published in appropriate statewide or local newspapers, or both, on at least 3 different days beginning at least 15 days before the meeting. Announcements should briefly describe the proposed project and include the date, time, and location of the meeting and where copies of the plan may be obtained. They should also invite comments on the plan and specify any deadlines. Other publicity methods may also be used (for example, newspaper and magazine articles and inserts, radio and television stories,, websites, newsletters, presentations to local organizations, and displays in public locations, such as malls and fairs). Copies of the plan should be made available at the meetings and other public events to satisfy a reasonable number of requests (40 CFR Section 1506.6).

H. A summary reflecting the substance of the public meeting and an attendance list should be kept with the reviewable record. All written statements received should also be made a part of the record of the meeting.

I. Before the meeting is adjourned, it should be determined if additional meetings are warranted. Written comments should be accepted for at least 14 days after the public meeting is held.

J. NEPA requires that at least 45 days be allowed for review (see 390-NWPM, Part 502, Subpart C, Section 502.21). For a plan-EA, this begins when the STC distributes the draft. A sample “Transmittal Letter for Interagency Review of a Draft Supplemental Plan-EA” may be found in 390-NWPH, Part 606, Subpart C, Section 606.34 in this handbook. For a Plan-EIS, it begins on the date that EPA publishes the Notice of Availability of the draft in the Federal Register. A 15-day extension must be considered whenever such a request is submitted in writing, in accordance with 7 CFR Section 650.13.

K. It is important that all concerned people receive a notice. Information copies (so indicated) should be sent to the SLO, director of Conservation and Planning Technical Assistance Division (CPTAD), State director of USDA-Rural Development, State director of Farm Service Agency, Fish and Wildlife Service regional office, and other participating agencies. If national forestlands are involved, two copies should be sent to the area (or regional) office of the FS and one copy to the forest supervisor of the concerned national forest.

602.21 NEPA Requirements

Categorical exclusions apply only to compliance with the National Environmental Policy Act. Compliance requirements associated with all other laws, regulations, Executive orders, and NRCS planning policy remain.

602.22 Consideration of Review Comments

A. The STC should discuss significant comments on the draft with the SLO and consider resolution of the issues raised. If comments are not received from the Departments of the Interior or Army, EPA, or the Governor by the end of the review period (or extension period if granted), the STC should attempt to obtain these comments. Efforts to obtain these comments should be documented. If the comments are still not forthcoming, the STC may proceed without delay.

B. The STC and the SLO should jointly consider having a public meeting to discuss comments received on the draft plan. The final plan will be prepared after appropriate consideration is given to all comments.

C. All substantive comments will be addressed. For a Plan-EIS, comments and responses are to be included in the final EIS and copies sent to the individuals and organizations who commented. For a plan-EA, letters from the STC to those who commented may be used instead of itemized comments and responses in the final plan-EA. In that case, the final plan-EA should include a summary of the comments and responses.

602.23 Making the Decision

A. In the Case of a Watershed Project Plan-EA

An example of a "FONSI" may be found in this handbook at 390-NWPH, Part 606, Subpart C, Section 606.35 and an example Federal Register "Notice of Availability of a FONSI" is in 390-NWPH, Part 606, Subpart C, Section 606.36. The STC is to transmit three manually signed hard copies (signed in blue ink) and a diskette with an electronic copy (CD-RW in Microsoft Word format) to the Federal Register liaison in the Management Services Division. A sample "Transmittal Letter to Federal Register for Notice of Availability of a FONSI" may be found in 390-NWPH, Part 606, Subpart C, Section 606.37 of this handbook. The Management Services Division will submit the notice to the Federal Register.

B. In the Case of a Watershed Project Plan-EIS

(1) The STC will transmit six copies of the final Plan-EIS to U.S. Department of Interior (USDI) for projects located in the Eastern United States including Minnesota, Iowa, Missouri, Arkansas, and Louisiana; six copies for projects in Hawaii, American Samoa, Guam, Puerto Rico, Virgin Islands, and the Trust Territories; and nine copies for projects in the Western United States and Alaska.

(2) Sample "Transmittal Letters for Final Plan-EIS" are in this handbook in 390-NWPH, Part 606, Subpart C, Sections 606.38 and 606.39. The EIS must not be filed with EPA

before it is distributed to commenting agencies in accordance with 40 CFR Section 1506.9.

(3) After the 30-day administrative action period initiated by EPA's publication of the Notice of Availability of the final Plan-EIS in the Federal Register, a ROD (see 390-NWPH, Part 606, Subpart C, Section 606.40) is prepared and signed by the STC and Notice of its Availability sent to the Federal Register (see 390-NWPH, Part 606, Subpart C, Section 606.41). Copies of the notice and the ROD should be sent to the director of CPTAD. The Notice of Availability must clearly indicate what the decision is, such as, "Notification that a Record of Decision to proceed with the installation of the David Creek Watershed Project is available." The STC should send a copy of the ROD to all individuals and organizations that provided comments on the draft Plan-EIS.

Part 602 – Reviews and Approvals

Subpart D – Fund Authorization

602.30 Approval Authorities for Watershed Project Plans

An overview of the step-by-step review and approval process, procedure, and sequence that should be followed is available in Title 390, National Watershed Program Handbook (NWPH), Part 606, Subpart C, Sections 606.30, "Review and Approval Process for Watershed Project Plans," of this handbook.

602.31 Plans That Can be Approved Administratively

After the Chief has authorized funding for the project, the National Headquarters program manager will enter the project in the Program Operations Information Tracking System (POINTS) database and assign the 2000-series project number.

602.32 Plans That Require Congressional Approval

A. State NRCS Responsibilities

The STC should send to the Deputy Chief for Programs those materials specified in Title 390, National Watershed Program Manual (NWPM), Part 502, Subpart D, Section 502.32A. This must include supporting documentation for use by the Office of Management and Budget (OMB). OMB has requested that a fact sheet (see 390-NWPH, Part 606, Subpart B, Section 606.17) be submitted along with any Plan-EIS that it reviews. The information is of value to them in their review process. The following information provides guidance in preparing the fact sheet:

(1) Economic and Financial Data

These figures should be listed in dollars rounded off to an appropriate level of significance.

(2) Benefit-Cost Ratios

These should be entered at each discount rate listed.

- Authorized Rate—This discount rate is established when the Plan-EIS is approved. On a new Plan-EIS, the authorized rate will be the same as the current rate.
- Current Rate—The discount rate approved for Federal Water Resource Projects (in accordance with the Water Resources Development Act of 1974) at the time the fact sheet is prepared.

(3) Certification

Always check the “yes” block. Fact sheets will be prepared after a new Plan-EIS is signed by the SLO and NRCS and any exceptions needed have been obtained.

602.33 Notification of Public Law 83-566 Funding Authorization

Upon receipt of the STC’s request for funding, the Chief will authorize the project for funding as budget limitations allow. No charges are to be made to the project until the funding authorization letter has been received and funds are allocated. If the project is not already in the POINTS database, the National Headquarters program manager will enter it.

602.34 Approval of Public Law 78-534 Projects

Upon receipt of the State Conservationist’s request for funding, the Chief will authorize the project for funding as budget limitations allow. No charges may be made to the project until the funding authorization letter has been received and funds are allocated. If the project is not already in the POINTS database, the National Headquarters program manager will enter it.

Part 602 – Reviews and Approvals

Subpart E – Special Designated Areas

602.40 Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

602.41 Appalachia

There is no further guidance in the handbook to support the policy in this corresponding section in the manual.

602.42 Delaware River Basin

The Delaware River Basin Commission and NRCS, formerly the Soil Conservation Service, executed an administrative agreement on December 23, 1966. The agreement is included in this handbook as Title 390, National Watershed Program Handbook (NWPH), Part 606, Subpart C, Sections 606.42.

602.43 Susquehanna River Basin

There is no further guidance in the handbook to support the policy in this corresponding section in the manual.

602.44 Tennessee Valley Authority

Tennessee Valley Authority (TVA) and NRCS, formerly the Soil Conservation Service (SCS), entered into a Memorandum of Understanding (MOU) on November 6 1958. The MOU between TVA and SCS is included in this handbook as 390-NWPH, Part 606, Subpart C, Section 606.43.

Part 603 – Watershed Project Plan Modifications

Subpart A – Preparation of Revised and Supplemental Plans

603.0 Introduction

This section of the handbook contains examples for exchanges of correspondence, supplemental watershed agreements, and revised watershed agreements. Additional guidance is provided on engineering criteria and environmental concerns.

603.1 Revised Watershed Project Plan

A. A revised plan should have the same format and content as that of a new plan (see Title 390, National Watershed Program Manual (NWPM), Part 501 and Title 390, National Watershed Program Handbook (NWPH) Part 601).

B. Section 503.1 of the 390-NWPM describes methods of modifying watershed project plans. A revised watershed agreement is used to document the new responsibilities when a watershed plan has been completely revised. For an example see Revised Watershed Agreement, 390-NWPH, Part 606, Subpart D, Sections 606.52.

603.2 Supplemental Watershed Project Plan

A. A supplemental plan should begin with a section entitled "Changes Requiring Preparation of a Supplement" (390-NWPM, Part 503, Subpart A, Section 503.2). This should be followed by those sections from the original plan that are appropriate to document the changes proposed. The amount of detail given should be in keeping with the complexity of the proposed changes.

B. A change in major features may include: significantly changing the number, location, extent, or capacity of project measures; substituting one type of structural measure for another; or substituting nonstructural measures for structural measures.

C. If revised tables (390-NWPM, Part 506, Subpart B, Sections 506.10 through 506.21) are needed to document the changes, current cost estimates for works of improvement remaining to be installed should be used. As-built costs should be used for measures already installed and contract costs for those measures under construction. In most cases, remaining works should be evaluated as a separate increment. If an evaluation unit includes both completed and remaining work, then the as-built values should be indexed to current dollar values.

D. Any comparison of benefits and costs must have a consistent dollar value for benefits and costs to be valid. This adjustment may involve other changes that have developed since the approved plan was prepared.

E. Use current engineering criteria for:

- Any new structural measures
- Measures that, if installed according to original criteria, would endanger the new or modified measures
- Measures where the hazard classification has changed since originally planned (see Title 210, National Engineering Manual (NEM), Part 510, Subpart A, Section 510.04)

F. NEPA Considerations—Additional information regarding NEPA compliance can be found in National Environmental Compliance Handbook.

G. NHPA Considerations—Additional information regarding compliance with the National Historic Preservation Act (NHPA) is found in the NRCS National Cultural Resources Procedures Handbook.

H. A supplemental watershed agreement should be used to document an agreement to supplement an existing watershed plan when only a portion of the plan is modified. See example "Supplemental Watershed Agreement," 390-NWPH, Part 606, Subpart D, Sections 606.51.

603.3 Exchange of Correspondence

One method is by exchange of correspondence. An example of an "Exchange of Correspondence" is shown in 390-NWPH, Part 606, Subpart D, Section 606.50, of this handbook.

603.4 Project Agreement

There is no further guidance in the handbook corresponding to this section in the manual.

Part 603 – Watershed Project Plan Modifications

Subpart B – Review and Approval of Plan Modifications

603.10 Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

603.11 Review and Notification Procedures

There is no further guidance in the handbook corresponding to this section in the manual.

603.12 Approval and Authorization

A. Approval resolutions by committees of Congress are required for all major changes to approved Public Law 83-566 projects. This does not apply to rehabilitation project plans. Changes are considered major where any of the following conditions are met:

(1) For plans originally approved by Congress, cumulative change in scope is considered major if it causes either of the following:
- An increase of more than $5 million in the estimated Public Law 83-566 contribution to costs for items other than technical assistance, engineering services, and project administration (increases are to be computed as the sum of all increases whether made at one time or at different times)
- An increase in the total capacity of a structure that requires approval of the change by a congressional committee other than the one that approved the original plan

(2) For plans originally approved administratively, a change is considered major if it causes either of the following:
- The estimated Public Law 83-566 costs, other than technical assistance, engineering services, and project administration, to exceed $5 million
- The total capacity of any structure to exceed 2,500 acre-feet

B. The Chief must approve all modifications to plans that will require a Secretarial exception under the P&G.

C. Section 606.53 of this handbook is an example of a “Letter Submitting Supplemental Watershed Plan and Supplemental Watershed Agreement to CPTAD.”

603.13 Approval and Authorization of Public Law 78-534 Projects

There is no further guidance in the handbook corresponding to this section in the manual.

Part 604 – Project Installation

Subpart A – General Provisions

604.0 Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

604.1 Operations Management

A. Installation Schedule

Section 606.60 of this handbook contains an example of an "Installation and Contracts Schedule."

B. Budget Requests and Funds Management

(1) Reaffirming Feasibility

(i) Certification of annual watershed project funding requests in POINTS should not be completed without assurance that the project measure is feasible and conforms with environmental, social, economic, and programmatic guidelines, policies, and regulations.

(ii) The Council of Environmental Quality (CEQ) states that, "as a rule of thumb, EISs that are more than five years old should be carefully reexamined to determine if the criteria in NEPA Regulations, 40 CFR Section 1502.9 compel preparation of an EIS supplement." The criteria discussed in 40 CFR Section 1502.9 refer to substantial changes in the proposed action that are relevant to environmental concerns or significant new circumstances or information relevant to environmental concerns.

(iii) As necessary, costs and benefits may be reevaluated by performing a new benefit-cost analysis or updating benefits and costs by appropriate indexes. Suggested sources of indexes for the various cost categories include the following:

Consumer Price Index-Services—The services component of the project installation cost consists of the sum of land treatment (less critical area treatment) as shown in "Table 1 - Estimated Installed Cost" of the plan, and engineering, and project administration, as shown in "Table 2 - Estimated Cost Distribution." The Consumer Price Index-Services is usually the most appropriate to use for these items.

Engineering News Record Construction Cost Index or DOC Composite Index—The index for construction and critical area treatment may be based on the Engineering News Record Construction Cost Index or the U.S. Department of Commerce Composite Index.

Local information—The index for real property rights and relocation is to be determined by the STC based on an analysis of the cost of land and its acquisition appropriate to the local area.

Wholesale Price Index—If a large part of the damages occur to contents of urban buildings, the Wholesale Price Index-All Commodities or Consumer Price Index (CPI)-Durables may be used.

Economic Research Service Data—Indices of prices received by farmers for all crops and prices paid by farmers on all commodities are obtained from the Economic Research Service, and may be used to update crop and pasture flood damages and other agricultural flood damages.

604.2 Agreements Required

A. Real Property Acquisition Assurance

Form NRCS-ADS-78 may be necessary when sponsorship changes and new O&M agreements are established with the new sponsor.

B. Methods of Installation and Payment

(1) Contracting for planned watershed project measures is normally performed by the contracting local organization, but may be performed by NRCS when requested in writing by the SLO. All Federal contracts must be solicited, awarded, and administered in accordance with Federal Acquisition Regulations. The watershed plan should state the method to be used.

(2) Under special conditions, measures may be installed by force account, division of work, performance of work, average cost, or Federal contract procedures. Detailed information may be received from the State contracting specialist or appropriate administrative staff. A summary is provided below.

(a) **Formal Contract—**Formal contracts include construction contracts and vegetative contracts. Under formal contract, the SLO provides their share of the contract cost in cash. Contracting for the construction of structural measures and cost-shared land treatment measures is normally performed by the contracting local organization, but may be performed by NRCS when requested in writing by the SLO.

(b) **Equipment Rental Contracts—**Where a formal construction contract would be impractical because of the nature of the work and it would not be feasible to prepare detailed drawings and specifications or compute accurate quantities, the work may be performed under a competitively awarded equipment rental contract. Only work that can be done by equipment may be included.

(c) **Small Purchases—**Supplies, materials, and services may be purchased by informal written or oral solicitation of prices if the maximum amount of purchase is $25,000 or less.

(d) **Force Account—**Under this method the SLO provides their own forces including labor, equipment, and materials in lieu of cash. The SLO must keep accurate records of the cost of all the work performed.

(e) **Division of Work—**This method may be used only for cost sharing land treatment measures. Measures to be installed by this method must be described in the plan narrative and cost estimates included in the plan. The watershed agreement must specify the increments of installation work for which NRCS and the SLO are responsible without citing a percentage rate of cost sharing. The SLO is not required to keep records of expenditures. Detailed NRCS cost estimates must be maintained in support of the plan to show that Public Law 83-566 costs for land treatment do not exceed the rate authorized.

(f) **Performance of Work—**Under this method, the value of work to be provided by the SLO is determined by negotiation between the SLO and NRCS and is included in a project agreement for the work. NRCS-approved cost estimates made immediately before signing the agreement establish the maximum value of the work

(g) **Average Cos—**This method is limited to the installation of critical area treatment measures and cost-shared land treatment measures under Public Law 78-534 and Public Law 83-566 programs. The average cost method is a procedure where cost-share payments are based either on a percentage of the average cost when the conservation district cooperator installs the work using his or her own forces, or on a percentage of the actual cost, not to exceed the average cost (for any component of the work that the cooperator contracts). Average costs must be developed by NRCS for each component of a measure to be installed by this method.

(h) **Long-Term Contracts—**Long-term contracts are used to provide financial assistance to land users under Public Law 83-566, Section 3(6). The contract period will be from 3 to 10 years long, depending on the magnitude of the work. It will be at least 3 years, but may not exceed 10 years. All cost-shared land treatment is to be installed at least 2 years before expiration of the contract. The two methods of carrying out long-term contracting for installing land treatment measures receiving financial assistance under Public Law 83-566 are either—

- A project agreement between NRCS and the SLO with a long-term contract (LTC) between the SLO and land user
- An LTC between NRCS and the land user

604.3 Real Property Rights

A. Acquisition of real property is a major step in project implementation. It is one of the most important responsibilities of the SLO and requires firm scheduling, attention to details and followup.

B. Requirements

(1) Dams

The watershed plan, plan modification, and Watershed Agreement or Project Agreement should also prohibit the future construction of inhabitable dwellings below the secured land rights at the elevation upstream from the dam.

604.4 Easement Monitoring and Enforcement

There is no further guidance in the handbook corresponding to this section in the manual.

Part 604 – Project Installation

Subpart B – Financing Provisions

604.10 Introduction

The SLO are expected to pay their share of the installation costs in cash unless otherwise provided for in the watershed plan and project agreement. Cash contributions by the SLO include cash outlay from general tax revenues, sale of bonds, assessments, or other legally recognized means of raising money, and money contributed to the SLO by other public agencies and institutions, private organizations, and individuals.

604.11 In–Kind Contributions

In-kind contributions represent the value of noncash contributions made toward the SLO share of the costs. In-kind contributions may consist of real property, equipment and the value of goods and services. It includes work performed by the SLO by force account. In-kind contributions may be made toward the SLO share of public-water-based fish and wildlife and recreation projects when provided for by the watershed plan and project agreement.

604.12 Value of In-Kind Contributions

There is no further guidance in the handbook corresponding to this section in the manual.

604.13 Loans

Section 606.61 of this handbook contains the “Memorandum of Understanding between SCS (NRCS) and Farmers Home Administration (Rural Utilities Service)” that describes the working relationship between agencies for watershed loans.

604.14 Advance of Funds by NRCS

There is no further guidance in the handbook corresponding to this section in the manual.

Part 604 – Project Installation

Subpart C – Completion of Projects

604.20 Fully Installed Projects

There is no further guidance in the handbook corresponding to this section in the manual.

604.21 Completion of Partially Installed Projects

A. When it is determined by the SLO and the STC that no further progress can be made in installing remaining works of improvement, a supplemental watershed agreement and plan is prepared to delete the remaining measures. Once the SLO and STC have signed the supplemental agreement and plan deleting the remaining measures, the project is considered complete. One signed original and two conformed copies of the approved supplement are sent to the CPTAD along with a project completion report. An example "Letter Submitting a Supplemental Watershed Plan to CPTAD" may be found in this handbook in 390-NWPH, Part 606, Subpart D, Section 606.53. An example "Transmittal Letters to ASTC and CPTAD for Project Completion Report" may be found in this handbook in 390-NWPH, Part 606, Subpart E, Section 606.62 and 606.63. An example "Project Completion Letter to the SLO" may be found in 390-NWPH, Part 606, Subpart E, Section 606.64, of this handbook.

B. Where projects are partly completed and there is little likelihood that remaining work will be installed, the STC should meet with the SLO to review the project installation schedule set forth in the plan, reaffirm the SLO responsibilities, and develop a plan for completing project installation.

C. Reasons for deleting the measures should be given in the completion report along with a discussion of the benefits that will be foregone by not installing the remainder of the project measures. For projects providing urban flood protection, the SLO should, with NRCS assistance, prepare a floodplain map based on the partly completed project that shows areas with significant remaining flood problems and publicize the remaining hazard. This should be done before the supplemental watershed agreement is signed.

D. If progress is not made on the project within a reasonable period of time and the SLO does not agree to delete the measures that have not been installed, the STC must submit the matter to the Director, CPTAD, setting forth the facts and the reasons why the SLO disagrees with deleting the uninstalled measures. Each project will be handled on a case-by-case basis.

604.22 Deauthorized Projects

Section 606.65 of this handbook contains an example "Notice of Intent to Deauthorize Federal Funding." Section 606.66 of this handbook contains an example "Notice of Deauthorization of Funding."

Part 604 – Project Installation

Subpart D – Reports

604.30 Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

604.31 Annual Operation Budget Estimates

There is no further guidance in the handbook corresponding to this section in the manual.

604.32 Progress Summaries

There is no further guidance in the handbook corresponding to this section in the manual.

Part 605 – Post Installation Assistance

Subpart A – Overview

605.0 Introduction

A. Policy on O&M requirements of measures installed under the Public Law 83-566 is found in the following subparts of the Title 180, National Operation and Maintenance Manual (NOMM), Part 500:

- Subpart C contains policy on O&M agreements.
- Subpart D contains policy on O&M plans.
- Subpart E contains policy on inspections.

B. Policies on the development and use of long-term contracts are found in the Title 120, General Manual (GM), Part 404.

C. Before obtaining Federal financial assistance for installation or rehabilitation of project measures, the SLO must satisfactorily assure NRCS that installed practices will be operated and maintained properly. Arrangements for O&M must be documented. Satisfactory assurance consists of a signed O&M agreement between the SLO and NRCS or, in the case of land treatment, between the NRCS and the SLO or land user.

D. Many of the problems affecting installed structural measures are associated with the age of the structure, change in land use, and the lack of conformance to current engineering standards for safety and stability.

605.1 Determining Type of Post Installation Assistance

There is no further guidance in the handbook corresponding to this section in the manual.

605.2 Additional Work

There is no further guidance in the handbook corresponding to this section in the manual.

Part 605 – Post Installation Assistance

Subpart B – Operation and Maintenance

605.10 O&M Required Agreement

There is no further guidance in the handbook corresponding to this section in the manual.

605.11 Operation and Maintenance Defined

There is no further guidance in the handbook corresponding to this section in the manual.

605.12 Responsibilities

NRCS may provide technical assistance to the SLO in the O&M of installed measures. The following kinds of assistance are normally considered O&M technical assistance:

- • Coordination and training of the SLO on local responsibilities and development of financial methods of ensuring availability of funds
- • Assisting with annual inspections and reports
- • Preparing or reviewing plans, designs, and specifications for proposed changes: this may include such items as emergency action plans

605.13 Operation and Maintenance Time Periods

A. The SLO should be made aware of their O&M responsibilities, which begin at the time NRCS accepts the construction and seeding. However, NRCS is responsible for whatever measures are needed to insure that adequate vegetative cover is established during the 3-year establishment period following NRCS acceptance of construction and seeding. The SLO O&M responsibilities include prohibiting livestock grazing during the vegetation establishment period. SLO will be notified by the STC when a satisfactory vegetative cover has been established and the works of improvement are performing as designed. An example "Letter Releasing a Floodwater Retarding Structure to the SLO for O&M" may be found in 390-NWPH, Part 606, Subpart F, Section 606.70 of this handbook.

B. The O&M plan identifies the practice covered by the agreement, the SLO who will inspect and finance the O&M of each practice, and the duration of the agreement. It also establishes a schedule for O&M performing inspections. The SLO is responsible for making the necessary inspections and may request NRCS assistance. NRCS responsibility for assisting in inspections and followup is designated by the STC.

C. Where two or more States are concerned, responsibility will be determined jointly by the STCs. NRCS and the SLO should make joint inspections in the following circumstances:

- During or immediately after the initial filling of a reservoir
- Annually during the first 3 years after construction
- After major storms, major earthquakes, or other unusual conditions that might adversely affect the measure

D. The SLOs are responsible for continuing inspections after the third year. They are to prepare a report and send a copy to the NRCS STC. NRCS may assist for special situations as determined by the STC.

Part 605 – Post Installation Assistance

Subpart C – Remedial Assistance

605.20 Remedial Assistance Defined

There is no further guidance in the handbook corresponding to this section in the manual.

605.21 Procedure

Where appropriate, the program report should reference the engineering report to minimize the duplication of information.

Part 605 – Post Installation Assistance

Subpart D – Watershed Rehabilitation Program

605.30 Rehabilitation Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

605.31 Assessment Assistance

A. Assessment Report

Assessment funds are not allocated to initiate or conduct detailed technical studies that are normally done during the preparation of the rehabilitation plan. Examples of sources of information for assessments include the following:

- Communication and coordination with the project sponsor
- Onsite evaluation
- Operation and maintenance (O&M) inspections reports from annual O&M inspections, formal inspections, and inspection reports from the State dam safety agency
- Existing engineering designs and other technical references
- Information from existing Geographic Information System (GIS) data layers
- Surveys of valley cross sections for breach analysis
- Other information that can be acquired from the sponsoring local organizations (SLOs)

B. National funding priorities for assessments are determined annually. Funding considerations also include limits on the number of assessments to be funded in each state.

605.32 Application for Rehabilitation Assistance

A. Standard Form 424, "Application for Federal Assistance," will be used. This form is available at the website: http://www.grants.gov/techlib/424_20090131.doc.

B. The Catalogue of Federal Domestic Assistance (CFDA) number for the Watershed Protection and Flood Prevention Program assistance is 10.904. The CFDA can be accessed online at http://www.cfda.gov/.

605.33 Application Ranking

There is no further guidance in the handbook corresponding to this section in the manual.

605.34 Request for Funding

There is no further guidance in the handbook corresponding to this section in the manual.

605.35 Development of Rehabilitation Project Plans

A. Introduction

(1) Typically, dam rehabilitation projects are undertaken under of the following circumstances:

- Both NRCS and the State dam safety office agree that the dam is high hazard classification.
- The dam does not meet current safety and performance criteria.
- NRCS, the SLO, and the State dam safety office want to resolve a situation in which the dam poses a threat to human life.
- The State dam safety office is expected to require compliance with applicable State safety and performance criteria.

(2) Rehabilitation plans are developed as supplements to or revisions of the original watershed plan. New plans are prepared for rehabilitation of dams in closed watershed projects, Pilot Watershed Program projects, and Resource Conservation and Development (RC&D) projects.

B. In addition to regularly required items, the following items require special consideration and discussion in rehabilitation plans:

(1) Status of Operation and Maintenance

This section should describe the current condition of the dam O&M. Any O&M activities required by the sponsors prior to construction should be discussed in the plan. Public Law 83-566 Section 14(d)(1) states:

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

(2) Breach Analysis and Hazard Classification

The only breach analysis required is for the breach related to hazard classification. A breach analysis based on procedures outlined in Technical Release 60 is required to confirm the NRCS hazard classification. This evaluation needs to be compared with the State classification requirements to determine which criteria are the most restrictive. NRCS requires that rehabilitation projects meet the more restrictive of either NRCS or State criteria. The breach analysis to determine NRCS hazard classification on a potential rehabilitation site needs to be done very early in the planning process. The plan should describe the methodology and assumptions of the breach analysis (for example,

sunny day, water elevations, etc.). The plan should explain any change in hazard classification and the reasons why the structure fails to meet current safety and performance standards (both State and NRCS). The narrative should indicate the concurrence of the hazard classification by the State conservation engineer.

(3) Consequences of Dam Failure

This section in the plan should explain what would happen if there were to be a catastrophic failure of the dam. The consequences of dam failure are not intended for incorporation into the economic or other analyses. This section is intended to provide a sense of why it would be desirable to reduce the threat of a catastrophic dam failure. In the first paragraph, describe the existing condition of the current dam and the possible modes of failure (stability, hydrologic conditions, seismic conditions, sedimentation, material deterioration etc.). This section should state the risk of dam failure (which may be low, medium or high for any given failure mode). The second and any subsequent paragraphs should describe the expected consequences of a catastrophic dam failure under the full pool conditions described in paragraph 1. The consequences would describe the human lives and the property at risk in the breach inundation area. The section should describe the potential loss of human life; infrastructure damage (such as roads, bridges, and utilities); likely damage to stream systems, wetlands, and other environmental damages; and long-term erosion and sedimentation issues associated with the sediment pool of a catastrophically breached structure. Decisionmakers will be better able to understand the potential loss of human life if some indication can be provided as to the depth and velocity of the floodwaters. Sediment discussions should address both quantity and quality issues. Physical data is to be used where readily available but verbal descriptions of likely consequences based on site observations may be used where other sources of data are not available.

(4) Comparison Table of Structural Options

A comparison table of design options or alternatives has been used effectively in several rehabilitation plans. The table itself is not required but a comparison is required and a table is a good way to display the differences. The table is valuable for showing what was evaluated and the relative degree of changes in alternatives or design options. The comparison table can be placed near the beginning or end of the section on “Effects of Alternatives” section or in the section entitled "Recommended Plan." The table should include a comparison of recommended plan elevations and dimensions compared to the current as-built or existing elevations. The table is usually titled “Comparison of Structural Options (or Alternatives).” It addresses key structural design features such as principal spillway elevation, sediment storage volume in acre-feet, principal spillway conduit diameter, principal spillway discharge in cubic feet per second (cfs), detention storage volume in acre-feet, emergency spillway elevation, and top of dam elevation. It is usually most effective to have a listing for the dam as it presently exists with consideration of structural rehabilitation options, such as an earthen spillway or a structural spillway that meets the high hazard criteria. The table can be tailored to meet the design options actually considered in the formulation of a specific plan. This table is not to be identified as Table 3. “Tables 1-6” are only to be used for the selected alternative.

C. Alternatives

(1) Future-Without-Project / No-Action Alternative

(a) For dams that pose a potential safety hazard from failure, the Future-Without-Project (FWOP) plan or no-action alternative is based on the course of action that the sponsors are most likely to take in the event that no federally financed rehabilitation work were to be undertaken. They should be made aware of the option of a deliberate breach. A deliberate breach would be likely to reduce safety risks as compared to a sudden, catastrophic dam failure.

(b) For low hazard classification dams, the FWOP alternative will also be that course of action the sponsors are most likely to take in the event that no federally financed rehabilitation work were to be undertaken. Because these dams are low hazard classification, it is possible that the sponsors may elect not to rehabilitate them and that operation and maintenance would continue until failure. In such cases, the FWOP would be based on a probabilistic assessment as to the most likely mode of failure as determined by an analysis of the dam.

(c) This alternative must be studied in detail. In dam rehabilitation projects, development of the FWOP is complicated by the fact that a dam already exists. The SLO has to figure out what to do with it. All the options available to the SLO need to be considered and documented in the development of the FWOP. The SLO would be expected to choose their most cost-effective option unless a compelling rationale is presented for doing otherwise.

(d) Under the above circumstances, the choice of the FWOP should reflect a logical course of action by the SLO should they be given a short-term legal mandate to meet State dam safety and performance criteria. As long as the O&M agreement is not violated, future involvement of NRCS with the dam would not be affected.

(e) In the FWOP, the SLO would typically have the following options:

(i) Meet State Criteria for a High Hazard Dam—The SLO could hire a consultant to bring the dam up to minimum State standards. State standards may only identify freeboard requirements and may not include detention storage requirements or extend the useful life of the dam. If the SLO can satisfy the State regulatory agency, the legal mandate is satisfied. It still may not meet current NRCS standards and the useful life may not be extended but the safety issues will be improved. No NRCS rehabilitation funding would be available. As long as the O&M agreement is not violated, future involvement of NRCS with the dam would not be affected.

(ii) Meet State Criteria for a Low or Significant Hazard Dam—The SLO could respond to the expected order from the State dam safety agency by reconfiguring the dam to a lower hazard classification. This might involve relocating breach inundation area structures outside the breach inundation area so that a lower hazard classification could be achieved; “floodproofing”; constructing dikes or levees downstream to protect property in the breach inundation area; restricting future development in the breach inundation area; downsizing the dam; or some combination of such measures. SLO relocation may be less costly than relocation under Federal rules.

(iii) Constructed Breach—Either the SLO or the State dam safety office could reconfigure the dam so that it would no longer be classified as a dam. The dam could also be reconfigured as a grade stabilization structure. Since the

same rules for dam removal would presumably apply, this document does not distinguish any appreciable difference between the State regulatory agency breaching the dam and the SLO breaching the dam with a constructed breach. This breach would be a minimum size hole in the dam from top of dam down to valley floor, which would eliminate the structure's ability to store water. Costs associated with measures to comply with permitting requirements should be included. Downstream flooding conditions would be similar to those that existed prior to the construction of the dam. This course of action would minimize the SLO dam safety liability but would not eliminate all liability. The quantity, quality, and ultimate destination of stored sediment would need to be addressed. This last course of action is not to be confused with "decommissioning," which not only removes the storage function of the dam but also reconnects, restores, and stabilizes the stream and floodplain functions. Decommissioning may require the removal of a large part of or the entire footprint of the dam.

(2) Decommissioning Alternative

A decommissioning alternative that meets the stated purpose and need should normally be developed. In order to meet the purpose and need, this alternative often involves a combination of breaching, floodproofing, and relocation. If the alternative is unreasonable, it can be eliminated from detailed study and included in the "Alternatives Considered but Eliminated from Detailed Study" section.

(a) Decommissioning is not intended to be a form of breach even though the partial removal of the dam would resemble and function similarly to a breach.

(b) Decommissioning is a conscious decision by the sponsors and NRCS to take the dam out of service because the dam is no longer serving the purpose for which it was built, it is structurally unsound and cannot reasonably be fixed, or there are overriding social or environmental issues that can best be served by the removal of the dam.

(c) Decommissioning may involve removal of a portion of the embankment or even the entire footprint of the dam. Urban environments or local aesthetics occasionally dictate that the entire footprint of the dam be removed.

(d) Decommissioning must also reconnect, restore and stabilize the stream and floodplain functions (100-year, 24-hour) by either structural (drop structures) or geomorphic means. The minimum amount of embankment to be removed is governed by the floodplain width needed to provide stable overbank velocities under typical 100-year, 24-hour stresses and velocities. This generally means overbank velocities in the range of 4 to 8 feet per second (fps) depending on soils and vegetative cover (refer to SCS-TP-61).

(e) The principal spillway system must be removed and properly disposed of. All slopes, disturbed areas and remaining sediment must be stabilized and vegetated.

(f) Unlike a sponsor's "constructed breach" to remove the storage function (no NRCS involvement), decommissioning must be done in accordance with established NRCS policy and standards. In addition to NRCS standards, decommissioning must also meet all applicable State and Federal regulations.

(g) Because the action is cost shared, there will have to be a new O&M agreement requiring sponsor's operation and maintenance of the structural or geomorphic components for a given period of time.

(h) As with all rehabilitation actions, decommissioning must also consider if the structure is an historic property or if other historic properties would be affected by this action. Additional consultation and/or mitigation may be required.

(3) Rehabilitation of the existing dam

An alternative to rehabilitate the existing dam is required. The most cost-effective option should be presented in the plan.

(4) National Economic Development alternative

In those cases where the catastrophic failure of an existing dam would put human life at risk, other accounts in the P&G planning process have an overridingly large contribution to the decision process relative to the NED account. While needed to provide local decisionmakers with an option for action without waiting for Federal assistance, the FWOP plan is not a viable Federal option in the case of an existing structure with human life risks. NRCS policy identifies the NED plan as the federally assisted alternative with the greatest net economic benefits. A project-specific exception would be required if the policy-identified NED plan is not selected. See Title 390, National Watershed Program Manual (NWPM), Part 502, Subpart A, Section 502.2, and section 602.2 of this handbook for guidance on preparing exceptions to the NED plan.

D. Sediment Storage

Sediment issues need to be considered early in the planning process. Component design for dam rehabilitation needs to start at the bottom (sediment storage) and work up through the structural components to the required top of dam elevation. On high-hazard dams, there is a tendency to immediately begin with the hydrologic loading requirements with sediment issues sometimes being treated as an afterthought. Some key issues related to sediment storage are as follows:

(1) Sediment provision must be included for the entire evaluation period. Normally the sediment pool is designed to hold the entire accumulation expected over the evaluated life. Rehabilitation requires a minimum evaluation period of 50 years. This normally means that the minimum sediment storage interval will also be 50 years. Occasionally projects will provide for sediment by various combinations of storage, pass-through, and removal. The SLO must understand that any provision for sediment not accomplished during the installation period will be entirely at their expense. The cost of future sediment removal and the SLO ability to pay that future cost must be considered in formulating alternatives. Specific provisions for sediment removal for storage intervals of less than 50 years should be included in the "Watershed Agreement" and O&M agreement.

(2) Any evaluated design life between 50 and 100 years is permissible under rehabilitation. Within these limits, and because of its cost, sediment storage is frequently the determining factor in establishing the evaluation period. The decision process should begin by considering a 100-year design life as being the most desirable interval for both

the sponsors and NRCS. If 100-year sediment storage is not reasonably obtainable, a rationale will be based on a range of potential sediment storage values including consideration of costs, project objectives, site constraints, and other identified concerns. The design process should consider a range of potential sediment storage values based on costs, project objectives, site constraints, and other identified concerns. The required sediment storage volume is normally the most important factor in determining design life but other factors, such as State law, expected conduit life or the life of other structural components, and SLO ability to pay, may be more important some situations. Problems in plan preparation may arise when two or more structures in a plan have different design lives.

(3) The amount of sediment that has accumulated in the reservoir needs to be assessed. Estimates may need to be adjusted to reflect the volume of borrow material that was excavated to build the reservoir.

(4) Estimate sediment yield for the life of the new project based on current and projected land use.

(5) Assess the composition of the sediment in the current sediment pool in order to decide whether or not to remove the current sediment accumulation. It is not necessary to test sediment quality in every rehabilitated site. The first site in any unique area should be tested. Reference sediment quality sites need to be established for any widely different areas within a State. Sediment sampling takes time and resources, and may constitute a sizable cost component, so begin the assessment early.

(6) Because sediment removal is so expensive, plans need to consider other ways to provide needed sediment storage, such as raising or replacing risers (with or without replacement of principal spillway conduits).

E. Computation of Cost of Rehabilitation Projects

It is primarily up to the State watershed rehabilitation program manager to ensure the 65 to 35 percent cost-share provisions are being met. There are several components included in the total cost that NRCS Management Services Division (MSD) or Financial Management would not have access to, but would qualify as sponsor in-kind credit. These items include land rights cost, minor implementation costs beyond construction, contract administration expenses, attorney fees, financial costs, etc. MSD would generally only have the construction contract information, and that would only be for Federal contracts. The sponsor must provide supporting documentation for in-kind credit. An example “Cost Computation for Rehabilitation Project Spreadsheet” is provided in section 606.71 of this handbook.

F. Non-Federal Contributions

In-kind services eligible for credit as non-Federal contributions include but are not limited to the following:

- Technical services
- Project administration
- Use of equipment
- Contributions of building materials
- Attorney fees

- Financial management
- Land rights

605.36 Project Implementation

There is no further guidance in the handbook corresponding to this section in the manual.

605.37 Operation and Maintenance

There is no further guidance in the handbook corresponding to this section in the manual.

605.38 Data Management

There is no further guidance in the handbook corresponding to this section in the manual.

Part 605 – Post Installation Assistance

Subpart E – Completion of Federal Interest

605.40 Introduction

There is no further guidance in the handbook corresponding to this section in the manual.

605.41 Procedure

There is no further guidance in the handbook corresponding to this section in the manual.

605.42 Technical Assistance

There is no further guidance in the handbook corresponding to this section in the manual.

605.43 Closed Projects

There is no further guidance in the handbook corresponding to this section in the manual.

Part 606 – Exhibits

Subpart A – Program Cost Sharing

606.0 Allocation of Cost in Single and Multipurpose Projects

A. An example of a SCRB cost allocation follows. The procedure uses several cost estimates. The alternative cost for a purpose is the cost of a single-purpose measure that achieves the same benefits. The separable cost for a purpose is the difference between the cost of the multipurpose measure and the cost of a measure with that purpose omitted. The joint cost is the cost of the multipurpose measure minus the sum of the separable costs for all purposes.

B. In order to perform a cost allocation for a multipurpose structure that includes flood prevention, recreation, and Agricultural Water Management (AWM), it is necessary to design and compute seven cost estimates with varying purposes.

(1) Flood prevention (single purpose)
(2) Recreation (single purpose)
(3) AWM (supply) (single purpose)
(4) Flood prevention and recreation (agricultural water supply excluded)
(5) Flood prevention and agricultural water supply (recreation excluded)
(6) Recreation and agricultural water supply (flood prevention excluded)
(7) Multiple-purpose (includes flood prevention, recreation, and agricultural water supply)

C. Estimates of the NED benefits for each purpose are also needed.

D. After these costs and benefits have been calculated, the procedure is as follows:

(1) For each purpose, compare the benefits and alternative costs and choose the lesser of the two.
(2) For each purpose, subtract the separable cost from the lesser of the two. The difference is called the remaining benefits.
(3) Allocate the joint costs to purposes in proportion to the remaining benefits.
(4) The cost allocated to each purpose is the sum of the separable cost and the allocated joint cost.

E. Section 607.0 of this handbook contains an example of the seven cost estimates described in B above. Section 607.1 contains an example of the SCRB cost allocation method. Section 607.2 contains an example showing how the cost allocation and cost sharing between NRCS and the sponsor is displayed. Note that project administration costs are not included in the computation until after the allocation percentages have been determined.

F. If the structure includes a purpose that does not address the NED objective, it may be appropriate to use the alternative cost in step one (P&G Section 1.9.2(d)).

606.1 Separable Cost-Remaining Benefit (SCRB)—Cost by Purpose

Project: Some Creek Watershed						Date: 6-Aug-03	
						Name: H. Deckerd	
Item	FP	AWM	Recreation	FP Omitted	AWM Omitted	Recreation Omitted	Multi-purpose
	----------Dollars unless otherwise noted----------						
Multiple-Purpose Dam LO-1							
Construction	1,477,300	3,065,800	1,460,500	3,198,300	1,896,800	3,028,700	3,058,500
Engineering Services	325,000	674,600	321,300	703,600	417,300	666,300	672,900
Real Property Rights	402,800	871,700	647,600	1,175,300	601,200	1,098,000	1,175,300
Subtotal, Installation	2,205,100	4,612,100	2,429,400	5,077,200	2,915,300	4,793,000	4,906,700
Capitalized O&M	92,400	192,500	90,800	200,400	119,000	189,400	191,000
Subtotal, Dam	2,297,500	4,804,600	2,520,200	5,277,600	3,034,300	4,982,400	5,097,700
Project Administration	118,200	245,300	116,800	255,900	151,700	242,300	244,700
Total Cost, Dam	2,415,700	5,049,900	2,637,000	5,533,500	3,186,000	5,224,700	5,342,400

606.2 Separable Cost-Remaining Benefit Method—Cost Allocation

Project: Some Creek Watershed					
Step / Item		FP	AWM	Recreation	TOTAL
1.	Benefits (Capitalized)	2,300,000	4,805,000	3,000,000	10,105,000
2.	Alternate Costs	2,297,500	4,804,600	2,520,200	9,622,300
	a. Installation Cost	2,205,100	4,612,100	2,429,400	9,246,600
	b. Capitalized O&M	92,400	192,500	90,800	375,700
3.	Lesser of 1or 2	2,297,500	4,804,600	2,520,200	9,622,300
4.	Separable Cost	-179,900	2,063,400	115,300	1,998,800
	a. Installation Cost	-170,500	1,991,400	113,700	1,934,600
	b. Capitalized O&M	-9,400	72,000	1,600	64,200
5.	Remaining Benefits	2,477,400	2,741,200	2,404,900	7,623,500
5.a	Percentage of remaining benefits	32.5%	36.0%	31.5%	100.0%
6.	Allocated Joint Costs	1,007,046	1,114,279	977,575	3,098,900
	a. Installation Costs	965,840	1,068,685	937,575	2,972,100
	b. Capitalized O&M	41,206	45,594	40,000	126,800
7.	Total Allocated Costs	827,146	3,177,679	1,092,875	5,097,700
	a. Installation Costs	795,340	3,060,085	1,051,275	4,906,700
	Percent	16.2%	62.4%	21.4%	100.0%
	b. Capitalized O&M	31,806	117,594	41,600	191,000
8.	Summary of Allocated Installation Costs				
	a. Construction	495,760	1,907,447	655,293	3,058,500
	b. Engineering Services	109,072	419,657	144,171	672,900
	c. Real Property Rights	190,507	732,981	251,812	1,175,300

	d. Project Administration	39,664	152,608	52,428	244,700
9.	Total, Installation Costs	835,004	3,212,693	1,103,703	5,151,400
	Capitalized O&M	30,960	119,118	40,922	191,000

606.3 Cost Allocation and Cost Sharing—Summary

					Structural Measures					Date:	6-Aug-03	
					Some Creek Watershed					Name:	H. Deckerd	
		Cost Allocation				Cost - Sharing				Cost-Sharing		
		Purpose				P.L. - 566				Other		
	Flood Prevention	Ag Water Mgmt	Recreation	Total	Flood Prevention	Ag Water Mgmt	Recreation	Total	Flood Prevention	Ag Water Mgmt	Recreation	Total
Multipurpose						(dollars)						
Dam LO-1, class c												
Construction	495,800	1,907,400	655,300	3,058,500	495,800	953,700	327,700	1,777,200	0	953,700	327,600	1,281,300
Eng Serv	109,100	419,700	144,200	673,000	109,100	419,700	144,200	673,000	0	0	0	0
Real Property Rights	190,500	733,000	251,800	1,175,300	0	0	125,900	125,900	190,500	733,000	125,900	1,049,400
Proj. Adm.	39,700	152,600	52,400	244,700	35,700	137,300	47,200	220,200	4,000	15,300	5,200	24,500
Subtotal	835,100	3,212,700	1,103,700	5,151,500	640,600	1,510,700	645,000	2,796,300	194,500	1,702,000	458,700	2,355,200
Intake Struc	0	300,000	0	300,000	0	150,000	0	150,000	0	150,000	0	150,000
Raw Water Line	0	250,000	0	250,000	0	125,000	0	125,000	0	125,000	0	125,000
Rec. Facilities	0	0	363,000	363,000	0	0	181,500	181,500	0	0	181,500	181,500
Total Cost	835,100	3,762,700	1,466,700	6,064,500	640,600	1,785,700	826,500	3,252,800	194,500	1,977,000	640,200	2,811,700

Part 606 – Exhibits

Subpart B – Development of Watershed Project Plans

606.10 Memorandum of Understanding Between NRCS (SCS) and FS

Memorandum of Understanding
Between
The Soil Conservation Service and the Forest Service
Pertaining to:
The Watershed Protection and Flood Prevention Program
The Emergency Watershed Protection Program

Purpose

The purpose of this agreement is to describe policies and procedures between the Soil Conservation Service (SCS) and the Forest Service (FS) to assure continued effectiveness of the watershed programs. This agreement builds on the general principles of cooperation, coordination, and communication which exist between the two agencies.

Authorities

The Secretary of Agriculture is authorized by Public Law 566, 83rd Congress, 68 Stat. 666 (Public Law 83-566), as amended, and the 1944 Omnibus Flood Control Acts (Sec. 13, 58 Stat. 905), to cooperate with State and local governments and with other Federal agencies, to make investigations and surveys of watersheds as a basis for the development of coordinated programs and to carry out works of improvement for soil and water conservation and other purposes.

The Watershed Plans which lead to Federally funded structures are guided by the principles in the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" established by the Water Resources Council as authorized by the Water Resources Planning Act of 1965 (Public Law 89-80), approved by the President on February 3, 1983, and published on March 10, 1983.

Activities for emergency assistance in the Emergency Watershed Protection (EWP) program are authorized by Section 216, Public Law 81-516 and Section 403 of Title IV of the Agricultural Credit Act of 1978 Public Law 95-334.

Delegations of Authority

The Secretary of Agriculture has delegated authority to the Assistant Secretary of Natural Resources and Environment and hence to the Chief of the Soil Conservation Service. The Forest Service is responsible for the forest and Federal range aspects of these programs as outlined in this agreement.

Major Responsibilities of Participating Agencies

Soil Conservation Service agrees:

At the National Level

To provide general administration and guidance for all U.S. Department of Agriculture activities related to the watershed programs.

To transfer funds for Forest Service participation.

To represent the U.S. Department of Agriculture on interagency committees relating to the watershed programs.

To involve the Forest Service in program planning and development.

To approve the release of funds for the forestry related EWP projects.

At the State Conservationists Level

To notify the Forest Service of proposals for new plans as they are received.

To inform and involve the Forest Service in the selection and scheduling of projects.

To consider the Forest Service as a member of the planning team when addressing planning issues.

To request funding for Forest Service participation in the small watershed and flood prevention planning and operation programs during the annual budget planning process.

To compile, edit, and prepare watershed reports.

To incorporate Forest Service needs into EWP requests.

Forest Service agrees:

To be responsible for the forestry aspects of the watershed program on all Federal and non-Federal woodlands, forest lands, and rangelands which are administered in conjunction with National Forest System lands.

To participate with State planning teams in the scoping process to determine watershed problems and to assist in the development of information which meets sponsors needs.

To identify and propose forestry solutions to watershed problems on both forested and non-forested lands.

To coordinate and encourage the involvement of State forestry organizations and the National Forest System in the watershed projects.

To review project proposals for impacts on other Forest Service activities.

To conduct assessments and implement approved EWP measures on public and private lands as mutually agreed to with the State Conservationist.
To submit financial information on obligations by small watershed project within each State for small watershed planning and operations, and for each flood prevention project.

Duration

This Memorandum of Understanding shall become effective as of the date of approval and shall continue in effect until modified or terminated by mutual agreement of the parties hereto. The Memorandum of Understanding on this subject entered into in 1977 is hereby cancelled.

/s/ Allan J. West (for)

F. Dale Robertson
Chief, Forest Service June 30, 1992

/s/ Galen S. Bridge (for)

William Richards
Chief, Soil Conservation Service July 10, 1992

606.11 Feasibility Report—Outline

1) Request for assistance

2) Purpose and Need for action

3) Applicable agency authority

4) Resource information

    a) Existing data

    b) Gathered data

5) Preliminary results of the Environmental Evaluation

    a) Identified resource concerns

    b) Potential alternatives

    c) Estimated costs

    d) Potential effects

    e) Required consultations and permits

    f) NEPA documentation required

6) Scope of planning effort

7) Cooperating agencies identified

8) Facilitating factors

9) Obstructing factors

10) Timing and availability of resources

11) Viability evaluation of sponsors

12) Determination of feasibility

    a) Technical

    b) Financial

    c) Logistical

13) Conclusion and Recommendations

606.12 Cooperating Agencies Invitation Letter

Address

RE: Formal Request to be a Cooperating Agency on the Any Creek Plan- Environmental Assessment [or EIS]

In accordance with the Council on Environmental Quality regulations implementing the National Environmental Policy Act (NEPA) at 40 CFR Part 1501.6, NRCS is formally requesting that your agency become a cooperating agency in the planning and development of the Any Creek Environmental Assessment (EA). This request is being made because your agency has been identified as having special expertise or jurisdiction by law related to this project. The EA is being prepared to fulfill NRCS' NEPA compliance responsibilities pertaining to our potential federal financial assistance through the Watershed Protection and Flood Prevention Program (Public Law 83-566) for this project. As your agency may also have NEPA compliance responsibilities concerning this project or other future projects that may be evaluated in this EA, preparation of this EA should also assist in fulfilling environmental review requirements for your agency or other federal agencies and meet NEPA's intent of reducing duplication and delay between agencies.

If your agency is unable to participate as a Cooperating Agency, then please return a written explanation why your agency can not participate. Please note that a response declining to be a Cooperating Agency is required to also be submitted to the Council on Environmental Quality per 40 CFR Part 1501.6(c). Upon acceptance of this invitation, roles can be defined in an informal agreement or formal MOU can be established.

Thank you for your timely response and cooperation with this project. If you have any questions or comments, please contact [name] of my staff at [email address] or via phone at [000-000-0000].

[Signature]

[Name], State Conservationist

Enclosures

606.13 Plan of Work—Example

Plan of Work table in separate PDF file.

606.14 Notice of Intent to Prepare an EIS—Example

BILLING CODE: 3210-16

DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

[Name] Watershed, [County or Parish], [State]

AGENCY: Natural Resources Conservation Service

ACTION: Notice of Intent to Prepare an Environmental Impact Statement

SUMMARY: Pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969; the Council on Environmental Quality Guidelines (40 CFR Part 1500); and the Natural Resources Conservation Service Guidelines (7 CFR Part 650); the Natural Resources Conservation Service, U.S. Department of Agriculture, give notice that an environmental impact statement is being prepared for [Name] Watershed, [County or Counties], State.

FOR FURTHER INFORMATION CONTACT: [Name], State Conservationist, Natural Resources Conservation Service, [Street Address], [City], [State], [Zip Code], telephone: [Area Code and Number].

SUPPLEMENTARY INFORMATION: The environmental assessment of this federally assisted action indicates that the project may cause significant local, regional, or national impacts on the environment. As a result of these findings, [Name], State Conservationist, has determined that the preparation and review of an environmental impact statement is needed for this project.

The project concerns [List project purposes, for example; a plan for watershed protection, flood prevention]. Alternatives under consideration to reach these objectives include [List alternatives, for example, systems for conservation land treatment, channel improvement, earth dams].

A draft environmental impact statement will be prepared and circulated for review by agencies and the public. The Natural Resources Conservation Service invites participation and consultation of agencies and individuals that have special expertise, legal jurisdiction, or interest in the preparation of the draft environmental impact statement. Meetings will be held at (List time and location of meeting, for example, 2:00 p.m., Wednesday, October 10, 2005, in the courtroom of the [Name] County Courthouse, [City and State]], to determine the scope of the evaluation of the proposed action. Comments received, including the names and addresses of those who comment, will be considered part of the public record on this proposal. Further information on the proposed action or the scoping meeting may be obtained for [Name], State Conservationist, at the above address or telephone [Area Code and Number].

[Signature]

[Type name and title of signee]

Date:

(This activity is listed in the Catalog of Federal Domestic Assistance under No. 10.904 – Watershed Protection and Flood Prevention – and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials.)

Note: Detailed information on preparing Federal Register notices can be found in the Federal Register Document Drafting Handbook. This can be located by searching for "Document Drafting Handbook" on the USASearch.gov website.

606.15 Front Cover Page for Watershed Plan-EA—Example

United States Department of Agriculture
NRCS Natural Resources Conservation Service

FINAL
SUPPLEMENTAL WATERSHED PLAN
NO. IV & ENVIRONMENTAL ASSESSMENT
FOR REHABILITATION OF FLOODWATER RETARDING STRUCTURE NO. 1 OF THE ANY CREEK WATERSHED

PREPARED BY

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

IN COOPERATION WITH

Your Soil and Water Conservation District
Any Creek Watershed Authority
Your County, Your City

OCTOBER 2008

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606.16 Fly Sheet containing an Abstract - Example

Final
Supplemental Watershed Plan No. IV & Environmental Assessment
For
Rehabilitation of Floodwater Retarding Structure No. 1
of the
Any Creek Watershed
Your County, Your State

Prepared By:
U.S. Department of Agriculture, Natural Resources Conservation Service
In Cooperation With:
Your Soil and Water Conservation District, Your County, Any Creek Watershed Authority

AUTHORITY

The original watershed work plan was prepared, and works of improvement have been installed, under the authority of the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566) as amended. The rehabilitation of floodwater retarding structure No. 1 is authorized under Public Law 83-566 (as amended), and as further amended by Section 313 of Public Law 106-472.

ABSTRACT

Historical floods in the past 44 years since Floodwater Retarding Structure (FRS) No. 1 was constructed have caused the auxiliary spillway to function on at least two occasions. Urban development has occurred adjacent to the detention pool, auxiliary spillway and embankment areas. A significant increase in local traffic has occurred downstream of FRS No. 1 due to urbanization in the vicinity and the construction of a new nearby high school. These factors have caused concerns regarding the hydraulic capacity of the dam and human health and safety. As a result, the dam has been reclassified as a high hazard class (c) dam that fails to comply with current dam safety and performance criteria. Local project sponsors have chosen to rehabilitate the dam to address the identified safety deficiencies. The purposes of the proposed rehabilitation of floodwater retarding structure No. 1 are to maintain present level of flood control benefits and comply with current performance and safety standards. Rehabilitation of the site will require the following modifications to the structure: raise the top of the dam 3.5 feet with earth fill, install a new 24 inch hooded inlet type principal spillway, connect the existing principal spillway and new principal spillway outlets to discharge into a newly installed impact basin, install a toe drain system, lower the auxiliary spillway crest 0.4 feet and install a splitter dike. Project installation cost is estimated to be $2,000,000, of which $1,300,000 will be paid from the Small Watershed Rehabilitation funds and $700,000 from local funds.

COMMENTS AND INQUIRIES

Comments and inquires must be received by April 25, 2008. Submit comments and inquires to: John Q. Doe, Assistant State Conservationist, Water Resources, USDA/NRCS, 505 Your Street, Your City, Your State Your Zip (123-456-7890).

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606.17 Summary (Office of Management and Budget Fact Sheet)

• **Summary Watershed Plan- Environmental Impact Statement Document**
• **for**
• **Name of Watershed**
• **County and State**
• **Congressional District**
• Authorization: Public Law 83-566 Stat. 666 as amended (16 U.SC. Section 1001 et. Seq.) 1954
• Sponsors:
•
• Proposed Action:
•
• Purpose and Need for Action (no more than 10 lines):
• Describe purposes for which the project is planned (should include one or more purposes listed in Title 390, National Watershed Program Manual (NWPM), Part 500, Subpart A, Section 500.3). Indicate which of the identified needs the project will address.
•
• Describe the need for action in terms of what problems need to be solved and what opportunities need to be realized such as, erosion and sedimentation (downstream damage, loss of productivity), flood damage (agricultural, urban), water quality impairment (in terms of beneficial uses), and others.
•
• Description of the preferred alternative/ plan (no more than 5 lines):
• Describe the number and kinds of project measures. For land treatment include an estimate of the number of long-term contracts, acres to be treated, number of waste management systems, and other such information.
•
• Resource Information:
• _ Latitude and Longitude
• _ 8-Digit Hydrologic Unit Number
• Climate and topography
• Watershed size of (acres)
• Land uses (acres)
• Land ownership—Private (%), State-Local (%) Federal (%)
• Population and demographics
• Include all relevant resource concerns that have been identified through scoping
•
• Alternative plans considered:
• Briefly describe the components of each alternative
• Include mitigation measures
•
• Project costs: PL 83-566 funds Other funds Total

•	$ %	$ %	$ %
• Construction			
• Engineering			
• Technical assistance			
• Relocation			
• Real property rights			
• Project Administration			
• Annual O&M (non-Fed)			
• Other			
• TOTAL COSTS			
•			
• Project benefits:			
• Describe monetary benefits in terms of categories shown in 390-NWPM, Part 506, Subpart B, Section 506.19, "Economic Table 5—Estimated Average Annual Flood Damage Reduction Benefits"; 390-NWPM, Part 506, Subpart B, Section 506.20, "Economic Table 5a—Estimated Average Annual Watershed Protection Damage Reduction Benefits"; and 390-NWPM, Part 506, Subpart B, Section 506.21, "Economic Table 6—Comparison of NED Benefits and Costs" (Onsite – Offsite).			
• Number of direct beneficiaries (Onsite – Offsite)			
• Describe other beneficial effects in physical terms.			
• Benefit to Cost Ratio (authorized rate)			
• Benefit to Cost Ratio (current rate)			
• Net beneficial effects (NED)			
• Funding schedule (budget year + 5) • Federal funds • Non-Federal funds			
• Period of analysis			
•			
• Project life			
•			
• Environmental effects, impacts (provide context and intensity)			
•			
• Major conclusions (if not already covered elsewhere in the Summary):			
•			
• Areas of controversy Controversial Issues:			
•			
• Issues to be resolved:			
• Evidence of Unusual Congressional or Local Interest			
• Is this report in compliance with executive orders, public laws, and other statues governing the formulation of water resource projects? Yes___No___			

606.18 Resource Concerns for Scoping

All natural, physical, social and economic aspects that will be affected by the project should be considered.

• **REQUIRED CONCERNS**	• **USEFUL IN PLANNING**
• Air quality; identify environmental air quality standards potentially related to the project	• Current productivity
• Coastal zone management areas	• Damage costs
• Coral reefs	• Enterprise input costs
• Cultural/historic properties	• Identify environmental reviews and consultation requirements of the project
• Ecological Critical Areas	• Geology
• Environmental Justice	• Identify environmental assessments or impact statements that are being prepared or will be prepared that are related to the current project but not part of the scope of the current project assessment or EIS.
• Fish and wildlife resources	• Identify environmental reviews and consultation requirements of the project
• Fish community (including essential habitats)	• Identify non-NEPA laws related to the project
• Identify approved regional water resource plans affecting the project area	• Income per capita
• Invasive species	• Land cost
• National Parks, Monuments, and Historical Sites.	• Recreational opportunities that exist in the area, especially water based if constructing a multi-purpose reservoir.
• Natural areas	• Land use/crop inventory
• Parklands	• O&M costs
• Prime farmland (Farm land Protection Act)	• Plant community
• Riparian areas	• Population demographics
• Scenic areas	•
• Significant scientific features	• Public health and safety
• T&E species	• Soils inventory
• Water bodies (Including waters of the U.S.)	• Transportation
• Wetlands	• Water quality
• Wild & scenic rivers	• Water quantities
• Wildlife community (including migratory birds)	• Installation Costs
•	• Cost to SLO, in Cash
•	• Cost to SLO, in Kind

606.19 Summary of Scoping—Example

ITEM/ CONCERN	Relevant to the proposed action?		RATIONALE
	YES	**NO**	
SOILS			
Upland Erosion	X		22,570 acres in watershed eroding in excess of "T"
Stream bank Erosion	X		Scour and mass wasting of stream banks contributing to flooding and water quality impairment
Sedimentation	X		Aggradations of eroded sediment contributing to flood severity and frequency
Prime and Unique Farmland	X		Increased flooding and stream bank erosion threat to 800 acres prime farmland
WATER			
Surface Water Quality	X		3 miles of stream impaired for temperature due to increasing turbidity
Surface Water Quantity	X		Limited surface water for recreation
Ground Water Quantity	X		Sparta Aquifer draft exceeding recharge
Clean Water Act	X		Alternatives may require USACE 404 permit
Regional Water Mgt. Plans and Coastal Zone Management Areas		X	None present in area of project (NRCS FOTG Section II, 4/4/09)
Floodplain Management	X		23 structures within 100 yr floodplain
Wetlands	X		Potential for loss of 19 acres Palustrine wetland with some alternatives
Wild and Scenic Rivers		X	None Present in area of project (NRCS FOTG Section II, 4/4/09)
AIR			
Air Quality	X		Possible temporary increase in PM-10 or other

			potential emissions with some alternatives
Clean Air Act	X		Permits may be required if it involves emission of a regulated pollutant
PLANTS			
Endangered and Threatened Species		X	None Present in area of project (NRCS FOTG Section II, 4/4/09)
Essential Fish Habitat		X	No designated areas in area of project (NRCS FOTG Section II, 4/4/09)
Invasive Species	X		Potential for introduction/ expansion of Reed Canary grass
Natural Areas		X	No designated areas in area of project (NRCS FOTG Section II, 4/4/09)
Riparian Areas	X		36 acres of riparian areas potentially affected
ANIMALS			
Fish and Wildlife Habitat	X		Potential for Fish and Wildlife habitat improvement
Coral Reefs		X	None Present (NRCS FOTG Section II, 4/4/09)
Endangered and Threatened Species	X		Potential to “may effect” 42 acres of Wilsons Warbler
Invasive Species		X	No invasive species in area of project, or potential for introduction (NRCS FOTG Section II, 4/4/09)
Migratory Birds/Bald and golden Eagles		X	Purpose of action is not to take migratory birds or eagles. Actions to be implemented outside of nesting season
HUMANS			
Flood Damages	X		Annual flood damages = $644,000
Cost, Sponsor	X		Proposals must be within the economic capacity of the sponsors (County)
Cost, NED	X		Required criteria by P&G
Historic Properties	X		2 documented NRHP sites in area of project

Environmental Justice		X	Project intended to benefit subject populations
Local and Regional Economy	X		Frequent flooding impeding economic growth
Potable Water Supply	X		Lack of dependable potable water supply to meet current demands limiting future industrial and economic development
Public Health and Safety	X		Potential for loss of life associated with flooding
Recreation	X		Limited opportunity for public recreation and tourism. Estimated deficit of 750,000 visitor days
Scenic Beauty and Parklands	X		Potential to affect scenic vista important to local tourist industry. No parklands located in area of project (NRCS FOTG Section II, 4/4/09)

Note: The number of concerns listed is not limited. All concerns identified in the scoping process, the environmental evaluation, and those required by statute or policy are included. The items should be grouped in a way that provides a logical framework for problem definition and the analysis and comparison of alternatives later in the report. The rationale should explain the basis for relevance.

606.20 Incremental Analysis—Example

A. First and Last Increment Approaches

(1) First Increment Approach

Plan elements are added to a plan until the added costs exceed the added benefits. An accurate analysis results only if the elements are added in decreasing order of efficiency. This is illustrated by the floodwater retarding structure (FRS) data shown in the table below. In the table it has been determined that FRS numbers one and two are the most cost effective means of providing the initial level of flood prevention for an annual cost of $12,800 and will provide annual net benefits of $6,200.

To establish the point where net benefits are at the maximum, further increments are added to the basic system of two structures and their incremental costs and benefits determined. Adding FRS number three increases the net benefits by $200. FRS number four increases net benefits by $100. By adding FRS number five, costs are increased by $6,700, but benefits only increase by $5,000. Thus, the last addition has gone beyond the point of maximized net benefits. The four structure system maximizes net benefits and would be the upper limit that could be included on the basis of NED benefits alone.

(2) Last Increment Approach

With the last increment approach, plan elements are deleted from a plan until the reduction in benefits exceed the reduction in costs. An accurate analysis results only if the elements are deleted in increasing order of efficiency.

With a small number of sites being considered for the final plan, last site incremental analysis can be used. Given a list of potential sites, establish the relative benefit contribution of each site incrementally as a last increment with all the other sites. Then the best sites can be grouped into a core group, and the next best site can be incrementally added until the NED plan is identified.

For more information on incremental analysis, see Title 200, National Resources Economics Handbook (NREH), Part 611, Water Resources Handbook for Economics.

Incremental Analysis—Example

Structure	Total Cost	Incremental Cost	Total Benefits	Incremental Benefits	Net Benefits
1 & 2	$12,800		$19,000		$6,200
1, 2 ,& 3	$14,300	$1,500	$20,700	$1,700	$6,400
1, 2, 3, & 4	$20,300	$6,000	$26,700	$6,100	$6,500
1, 2, 3, 4, & 5	$27,000	$6,700	$31,800	$5,000	$4,800

606.21 Summary and Comparison of Alternative Plans

	Item or Concern	Alternative 1 (Future Without Project)	Alternative 2 (NED) (Recommended)*	Alternative 3	Alternative 4	Alternative 5
	Measures to address: - Flooding - Recreation - Rural water supply (RWS)	- Continued periodic flood damage recovery actions including: - sediment and debris removal - stream channel stabilization. - structure repair - Residence will continue to travel outside the county for recreation. - Drill 68 new water wells.	- Relocation of 23 structures. - Acquisition and restoration of 268 acres of floodplain easements. - Development of 3.0 miles of stream. - Construction of 16 miles of water supply pipeline.	Relocation of 9 structures. Flood proofing of 14 structures Development of 1.8 miles of stream. Construction of 16 miles of water supply pipeline.	Construct 1 multipurpose flood, recreation & RWS structure Conservation plans on ≥27,840 watershed acres.	Construct 1 multipurpose flood, recreation, & RWS structure Conservation plans on ≥27,840 watershed acres. Construct 4 grade stabilization structures Apply land treatment on 1,900 acres.
Installation Cost	NRCS Contribution - SLO Contribution - Total	$0 $0 $0	$2,702,000 $1,547,392 $42,493,92	$760,000 $1,187,392 $1,947,392	$7,320,000 $4,110,000 $11,430,000	$8,060,000 $4,330,000 $12,390,000
NED Account	Avg. Annual Cost Installation O, M, & R Total	$0 $0 $0	$198,695 $150,000 $348,695	$91,057 $7,000 $98,057	$534,450 $360,000 $894,450	$579,338 $370,000 $949,338
	Annual Benefits	-----	$700,000	$5,400	$1,207,000	$1,213,000
	Annual Costs	-----	$351,305	$98,057	$894,450	$949,338
	Annual Net Benefits	-----	$351,305	-$(92,657)	$312,550	$263,662

	Annual Remaining Flood Damage	$644,000$	$216,000	$447,000	$354,000	$354,000
Environmental Quality (EQ) Account	Soil Erosion - Upland	Surface and rill erosion > "T" on 22,570 ac.	Surface and rill erosion > "T" on 22,570 ac.	Surface and rill erosion > "T" on 22,570 ac.	Reduced surface and rill erosion ≤ "T" on 29,031 acres	Reduced surface and rill erosion ≤ "T" on 31,466 acres
	- Stream bank	Stream bank scour and mast wasting (15,000 tons/yr.)	Stabilized stream bank reduced erosion rate to (4,200 tons/yr)	Stabilized stream bank reduced erosion rate (9,500 tons/yr)	Stabilized erosion on 0.5 miles of stream bank (3,600 tons/yr)	Stabilized erosion on 1.8 miles of stream bank (2,200 tons/yr)
	Sedimentation	Sediment aggradation in stream channel (12,000 cy/yr.)	Sediment aggradation in stream channel (0 cy/yr.)	Sediment aggradation in stream channel (0 cy/yr.)	Sediment aggradation in stream channel (0 cy/yr.)	Sediment aggradation in stream channel (0 cy/yr.)
	Prime Farmland	Loss of 12 ac/yr from stream bank erosion	Loss of 0 ac/yr from stream bank erosion	Loss of 0 ac/yr from stream bank erosion	Loss of 42 acres in footprint of structure/ gain of 66 acres downstream (net +22 acres)	Loss of 42 acres in footprint of structure/ gain of 66 acres downstream (net +22 acres)
	Water Potable water supply forecast	25 years	100+ years	100+ years	100+ years	100+ years
	Surface- Quality	3 miles of stream 303d listed for temp.	0 miles of stream 303d listed for temp	1.2 miles of stream 303d listed for temp	0 miles of stream 303d listed for temp	0 miles of stream 303d listed for temp
	Surface- Quantity	No Change	+200 ac/ft	+25 ac/ft	+296 ac/ft	+296 ac/ft
	Ground water- Quantity	-1.2 million ac/ft/yr	+2,800 ac/ft/yr	No effect	+1,300 ac/ft/yr	+1,700 ac/ft/yr
			Improve 5.2 miles of			

	Waters of US	Dredge 4.4 miles/yr	stream	Improve 2.8 miles of stream	Convert .6 miles of perennial stream to Dam, spillway, and lake	Convert .6 miles of perennial stream to Dam, spillway, and lake
	Floodplain Mgt.	No Change	Restore function to 268 No structures impacting floodplain	Restore function to 48 acres (14 flood proofed structures within 100 yr floodplain)	Reduce extent of 100 yr floodplain (10 structures remain in floodplain)	Reduce extent of 100 yr floodplain (10 structures remain in floodplain)
	Wetlands	Degrade 22 ac/yr of Palustrine wetland, by debris removal activities	Restore 94 acres Palustrine wetland	Restore 47 acres Palustrine wetland	Convert 19 acres of Palustrine wetland to Dam, spillway, and lake/ create 9.2 acres Lacustrine wetland	Convert 19 acres of Palustrine wetland to Dam, spillway, and lake/ create 9.2 acres Lacustrine wetland
	AIR	N/A	N/A	N/A	Increase in PM-10 emissions during construction period	Increase in PM-10 emissions during construction period
	Plants Invasive Species	Increase of 3 ac/yr encroachment of Reed Canary grass	Decrease of 42 acres in areal extent of Reed Canary grass	Decrease of 33 acres in areal extent of Reed Canary grass	Decrease of 61 acres in areal extent of Reed Canary grass	Decrease of 84 acres in areal extent of Reed Canary grass
	Riparian Areas	Degrade 27 ac/yr by debris removal activities	Restore 268 acres	10 ac/yr degraded via debris removal activities	Convert 36 acres riparian area to Dam, spillway, and lake	Convert 36 acres riparian area to Dam, spillway, and lake and 7 acres lost from grade stabilization structure construction

	Animals Fish Habitat Wildlife Habitat E&T Species	 No change WHEG score = 0.3 Potential to annually adversely affect 27 acres of Wilson's warbler habitat	 3.0 miles stream fishery improved WHEG score = 0.9 No effect- actions implemented outside of April 1 to July 15 nesting season	 1.8 miles stream fishery improved WHEG score = 0.7 No effect- actions implemented outside of April 1 to July 15 nesting season	 .6 miles stream fishery destroyed 35 acres warm water fishery created WHEG score = 05 No effect- actions implemented outside of April 1 to July 15 nesting season	 .6 miles stream fishery destroyed 35 acres warm water fishery created WHEG score = 0.6 No effect- actions implemented outside of April 1 to July 15 nesting season
	Flood Damages	Flood damage occurs on 2,540 acres impacting 23 structures at a cost of $644,000/ yr.	Reduce flood damages by 66% on 2,540 ac and structural damages to zero	Reduce flood damages by 30% on 2,540 ac. and structural damages to zero	Reduce flood damages by 45% on 2,540 ac. and structural damages to zero	Reduce flood damages by 45% on 2,540 ac. and structural damages to zero
	Historic, Cultural, and Scientific Resources	2 NRHP sites jeopardized	2 NRHP sites protected	2 NRHP sites protected	2 NRHP sites protected	2 NRHP sites protected
	Potable Water Supply	Approximately 1,200 homes without adequate potable water supply	Adequate water supply to 1200 existing homes and sufficient for projected future domestic and industrial needs	Adequate water supply to 1200 existing homes and sufficient for projected future domestic and industrial needs	Adequate water supply to 1200 existing homes	Adequate water supply to 1200 existing homes
	Public Health and Safety	Risk to loss of life, property, and infrastructure damage w/ 25 yr storm.	Risk to loss of life, property, and infrastructure damage protected ≥100 yr storm.	Risk to loss of life, property, and infrastructure damage protected ≥100 yr storm.	Risk to loss of life, property, and infrastructure damage protected ≥100 yr storm.	Risk to loss of life, property, and infrastructure damage protected ≥100 yr storm.
	Recreation	There is an unmet need of 750,000 annual water based recreational days in the watershed	332,400 opportunities for water based recreation are provided annually	287,500 opportunities for water based recreation are provided annually	398,800 opportunities for water based recreation are provided annually	398,800 opportunities for water based recreation are provided annually

Other Social Effects (OSE) Account	Visual Resource	Visual richness impaired due to sediment and debris in stream, as well as destruction from food events	Visual richness enhanced by restoration of floodplain and stream, No impact to scenic vista	Visual richness enhanced by restoration of stream, No impact to scenic vista	Visual richness enhanced by permanent water bodies as unique features in this landscape and slight impairment to scenic 1,353 ac. vista	Visual richness enhanced by permanent water bodies as unique features in this landscape and slight impairment to scenic 1,353 ac. vista
	Tribal, religious, sacred, or cultural site	Tribal cultural use of fishery continues to be impacted by sediments in stream	Tribal cultural use of fishery enhanced by 3.0 miles of stream fishery improvement	Tribal cultural use of fishery enhanced by 1.8 miles of stream fishery improvement	Tribal cultural use of fishery adversely affected by .6 miles of stream fishery destroyed	Tribal cultural use of fishery adversely affected by .6 miles of stream fishery destroyed
Regional Economic Develop-ment (RED) Account	Local jobs during construction		36	13	114	124
	Annual jobs from recreation		36	36	36	36
	Beneficial effect Annualized					
	Region	---	$499,013	($66,421)	$3,529,660	$3,481,794
	Rest of Nation	---	0	0	0	0
	Adverse effect Annualized					
	Region	---	$108,852	($17,314)	$167,822	$167,536
	Rest of Nation	---	($327,328)	($107,358)	$1,980,388	$1,891,921

Notes: In this example
Interest rates – All alternatives evaluated at 5 5/8 percent discount rate
Period of analysis – All plans evaluated over 100 years
Price levels – Current 2005 price levels except current normalized (Oct. 2005, WRC) used for crop and pasture

606.22 List of Preparers—Example

Name	Present title	Education		Experience	Other
	(time in job-yrs)	degree	cont. education	titles & time in job-yrs	(licenses, etc.)
NRCS Water Resources Planning Staff					
John Black	Staff leader – 9	BS, Ag Eng	Wildlife mgmt Water res. eng Computer sci	Hydrologist – 9 Design eng – 2 Project eng – 2	PE registration
Larry Jones	Ag economist – 9	BS, MS Ag Econ	Computer sci	Dist Cons – 10 Soil Cons – 5	
Ted Smith	Archeologist – 15	BS, MS Anthro	Soil Science	Archeologist - 15	
NRCS State Office Staff					
Mary Green	State biologist – 5	BS, MS, Biol	Wildlife mgmt	Area staff biol – 5 Soil Cons – 5	
FWS Area Office					
Bill Gray	Fisheries biol – 5	BS, Biol	Fisheries mgmt	Dist biol. – 5 MO DNR – 6	
State University Chemistry Dept.					
Bob Brown	Head of dept – 4	BS, Chem MS, Chem PhD, Org Ch	Water quality	Asst Prof – 8 Associate – 7	List of papers xxxx xx xxxx xxxx xx xxxx
The draft watershed plan and environmental impact statement was reviewed and concurred in by State staff specialists having responsibility for engineering, soils, agronomy, range conservation, biology, cultural resources, forestry, and geology. This review was followed by review of the document by the NWMC.					

Part 606 – Exhibits

Subpart C – Reviews and Approvals

606.30 Review and Approval Process for Watershed Project Plans

• ACTIVITY	• REFERENCE
• **I. NRCS Review of Plan**	• 390-NWPM, Part 502, Subpart B, Section 502.10
• State Staff Technical Review	• 390-NWPM, Part 502, Subpart B, Section 502.11A
• NWMC Technical Review	• 390-NWPM, Part 502, Subpart B, Section 502.11B
• Programmatic Review	• 390-NWPM, Part 502, Subpart B, Section 502.11C
• **II. Public and Interagency Review Process**	• Part 502, Subpart C
• **A. For Plan-EA**	•
• Publish in State and local news media the Notice of Availability of Draft Plan for public comment	• 390-NWPM, Part 502, Subpart C, Section 502.21
• Public Meeting notice via newspaper, direct mail and other media	• 390-NWPM, Part 502, Subpart C, Section 502.21
• Consideration of review comments	• 390-NWPM, Part 502, Subpart C, Section 502.22
• STC verifies that EIS is not required	• 390-NWPM, Part 502, Subpart C, Section 502.23A
• Prepare and sign Finding of No Significant Impact (FONSI)	• 390-NWPM, Part 502, Subpart C, Section 502.23A • 390-NWPH, Part 606, Subpart C, Section 606.35
• Publish Notice of Availability of FONSI in local newspaper or Federal Register	• 390-NWPM, Part 502, Subpart C, Section 502.23A • 390-NWPH, Part 606, Subpart C, Section 606.36
• Develop final Plan-EA	• 390-NWPM, Part 502, Subpart C, Section 502.23A.
• Sign final Plan-EA after FONSI	• 390-NWPM, Part 502, Subpart C, Section 502.23A
• **B. For Plan-EIS**	•
• Transmit draft Plan-EIS to EPA and other agencies •	• 390-NWPM, Part 502, Subpart C, Section 502.21, • 390-NWPH, Part 606, Subpart C, Section 606.31
• EPA publishes notice of availability of Plan-EIS in Federal Register. 45 day comment period.	• 390-NWPM, Part 502, Subpart C, Section 502.21D
• STC's resolution of public and agency comments	• 390-NWPM, Part 502, Subpart C, Section 502.22

• Transmit final Plan-EIS to EPA, EPA publishes notice of availability in Federal Register	• 390-NWPM, Section 502.23B, • 390-NWPH, Part 606, Subpart C, Section 606.39
• STC prepares and signs a Record of Decision (ROD), 30 days after EPA's notice of availability of the final Plan-EIS appears in the Federal Register. Copies of signed ROD sent to draft commenters.	• 390-NWPM, Part 502, Subpart C, Section 502.23B, • 390-NWPH, Part 606, Subpart C, Section 606.40
• STC publishes Notice of Availability of ROD in the Federal Register	• 390-NWPM, Part 502, Subpart C, Section 503.23B, • 390-NWPH, Part 606, Subpart C, Section 606.41
• Plan watershed agreement is then signed by sponsors and STC	• 390-NWPM, Part 502, Subpart C, Section 503.23B
• **III. Plan Approval**	•
• **A.** For Administratively Approved Plan	•
• STC notifies Chief and requests fund authorization.	• 390-NWPM, Part 502, Subpart D, Section 502.31A
• Chief authorizes funding.	• 390-NWPM, Part 502, Subpart D, Section 502.33A
• **B.** For Congressionally Approved Plan	•
• STC provides Congressional Approval package to CPTAD. Chief forwards to Congressional Committees and OMB.	• 390-NWPM, Part 502, Subpart D, Section 502.32A
• Chief notifies STC and others of Congressional approval.	• 390-NWPM, Part 502, Subpart D, Section 502.32B
• STC requests funding; Chief authorizes funding.	• 390-NWPM, Part 502, Subpart D, Section 502.33
• STC notifies SLO. Chief and STC notify others.	• 390-NWPM, Part 502, Subpart D, Section 502.33–502.34
• National headquarters program staff enters project data into POINTS	• 390-NWPM, Part 504, Subpart A, Section 504.1
• STC requests annual funding in POINTS	• 390-NWPM, Part 504, Subpart A, Sections 504.1 and 504.31

606.31 Transmittal Letter to EPA for Draft Plan-EIS—Example

January 15, 2005

U.S. Environmental Protection Agency
Office of Federal Activities
EIS Filing Section
[Address – see below]

Enclosed are five copies of the draft Watershed Plan–Environmental Impact Statement (Plan-EIS) for the Any Creek Watershed, Any State, prepared under authority of the Watershed Protection and Flood Prevention Act (Public Law 83-566) and in accordance with section 102.(2)(c) of the National Environmental Policy Act of 1969 (Public Law 91-190).

Copies have also been sent for review and comment to other departments of the Federal government, Governor of Any State, and other interested parties.

Comments have been requested on or before April 15, 2005, and should be sent to this office.

Sincerely,

/s/

[NAME]

State Conservationist

Enclosures

Addresses:

For delivery by U.S. Postal Service, including express mail:
Ariel Rios Building (South Oval Lobby), Mail Code 2252-A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For delivery by commercial express services, courier, or in person:
Ariel Rios Building (South Oval Lobby), Room 7220
1200 Pennsylvania Avenue, NW
Washington, DC 20004

606.32 Transmittal Letter to Governor—Example

Honorable January 21, 2005

Governor of Any State

Any Town, Any State 00000

Dear Governor:

In accordance with section 2 of Executive Order 10913, and our responsibility as assigned by the Secretary of Agriculture, we are transmitting for your review and comment the draft Watershed Plan–Environmental Impact Statement (plan-EIS) for the Any Creek Watershed, Any State. This Plan-EIS was prepared by the Valley Soil and Water Conservation District and the Dale Soil and Water Conservation District, with assistance by the Natural Resources Conservation Service under authority of the Watershed Protection and Flood Prevention Act, (Public Law 83-566) and in accordance with section 102(2)(c) of the National Environmental Policy Act of 1969 (Public Law 91-190). The application for assistance in the preparation of the Plan-EIS was approved by the State Soil Conservation Committee on June 29, 2004.

It is requested that comments be received by this office on or before April 15, 2005.

Sincerely,

/s/

[NAME]

State Conservationist

Enclosures

Note: Make appropriate changes if the Governor has designated a State agency to act on watershed matters.

606.33 Transmittal Letter for Interagency Review—Example

[Address] [Date]

[Omit salutation]

Enclosed is a copy of the draft Watershed Plan–Environmental Impact Statement (Plan-EIS) for the Any Creek Watershed, Any State, prepared under authority of the Watershed Protection and Flood Prevention Act (Public Law 83-566) and in accordance with section 102(2)(c) of the National Environmental Policy Act of 1969 (Public Law 91-190). The Plan-EIS will require final approval by the appropriate committees of the Senate and House of Representatives before Federal assistance is authorized.1/

We are requesting that comments be received by this office on or before April 15, 2005, or such later date as may be needed to total 45 days after the Environmental Protection Agency (EPA) publishes its notice of availability in the Federal Register. If your comments are not received by the due date, we will assume you do not wish to comment.2/

/s/

[NAME]

State Conservationist

Enclosure

1/ For administratively approved plans, change this sentence to read, “The final Plan-EIS may be approved administratively.”

2/ The last sentence should be omitted on an EIS sent to the Departments of the Interior or Army, or to EPA.

606.34 Transmittal Letter for Interagency Review of Draft Supplemental Plan-EA—Example

[Address] [Date]

The USDA Natural Resources Conservation Service (NRCS), with assistance from local watershed sponsors, has completed a Draft Watershed Plan Supplement and Environmental Assessment (EA) for the proposed rehabilitation of Floodwater Retarding Structure (FRS) No. 1 of the Any Creek Watershed, Any Creek , Any State. Any Creek watershed is located within the Any River Basin. Sponsoring Local Organizations for the Project are:

Any Creek Conservation District
Your Soil and Water Conservation District

The project is a federally-assisted action authorized by section 14 of the Watershed Protection and Flood Prevention Act, 16 U.S.C Section 1012, as amended by section 313 of Public Law 106-472. This section authorizes NRCS to provide technical and financial assistance to local sponsors for rehabilitation of aging dams constructed under the Watershed Protection and Flood Prevention Act (Public Law 83-566), the Flood control Act of 1944 (Public Law 78-534), the Pilot Watershed Program, and the Resource Conservation and Development (RC&D) Program. The Draft Plan Supplement and Environmental Assessment is enclosed for your review and comment.

The purpose of this project is to maintain the present level of flood control benefits and comply with current performance and safety standards. There is a need to protect downstream life, properties and infrastructures as well as reduce the risk of potential loss of life.

We are requesting that you review this project in accordance with section 102(2)(C) of the National Environmental Protection Policy Act of 1969 (Public Law 91-190). We request that comments be received by this office on or before April 25, 2008. If your comments are not received by the due date, we will assume you do not wish to comment.

For further information contact Jane Doe, Assistant State Conservationist (Water Resources) at 123-456-7890.

Sincerely,

JOHN Q. DOE
State Conservationist

Enclosure

CC: as appropriate

606.35 Finding Of No Significant Impact (FONSI)—Example

Finding Of No Significant Impact

for

David Creek Watershed Project

Clarke County, Anystate

Introduction

The David Creek Watershed is a federally assisted action authorized for planning under Public Law 83–566, the Watershed Protection and Flood Prevention Act. This act authorizes the Natural Resources Conservation Service to provide technical and financial assistance to local project sponsors. Local sponsors of the David Creek Project are the Clarke County Soil and Water Conservation District and the Clarke County Department of Environmental Protection.

An environmental assessment was undertaken in conjunction with the development of the watershed plan. This assessment was conducted in consultation with local, State, Tribal Governments, and Federal agencies as well as with interested organizations and individuals. Data developed during the assessment are available for public review at the following location:

U.S. Department of Agriculture

Natural Resources Conservation Service

100 West 14th Street

Yourtown, Anystate 12345

Recommended Action

Proposed is the development of about 41 conservation plans that will provide for land treatment measures to be applied on farms for reduction of sheet, rill, and stream bank erosion; storage and management of animal waste; and improved hydrologic condition in the watershed. The proposed plan will stabilize 2,650 acres of excessively eroding cropland and grassland and 2,500 feet of stream bank. Animal waste management facilities and application practices will be installed on about 30 farms in the watershed.

Effect of Recommended Action

The recommended action will protect the watershed hydrology by improving the soil cover condition and reducing overland flow velocities. Stream flow will be stabilized to the extent that peak flood flow rates will be slightly reduced and flow will be attenuated.

The proposed action will have little or no effect on wetlands. With land treatment applied on 2,650 acres, rainfall infiltration on cropland will be increased from 15 to 35 percent. This

will provide for a 1 or 2 percent overall increase in ground water recharge in the watershed, which will ensure maintenance of ground water at levels needed for sustaining the wetlands.

The proposed project will encourage and promote the agricultural enterprises in the watershed through improved efficiency. This action will tend to offset pressures to convert important farmland to other uses, such as residential development.

A cultural resources inventory of the Area of Potential Effects (APE) was undertaken. The survey report recommends that no adverse affects will occur to historic properties in the watershed should the plan be implemented. The NRCS has consulted with the State Historic Preservation Officer and the Your-tribe Confederated Tribe of Indians and has reached concurrence that no historic property will be adversely affected. If cultural resources are inadvertently discovered during implementation, NRCS will follow procedures as detailed in the State Level Agreement between the Department of Archeology and Historic Preservation and Any-state NRCS.

No threatened or endangered species in the watershed will be affected by the project.

One of the primary objectives of the project is to improve water quality. About 80 percent of the cropland and animal waste pollutants will be controlled. Sediment influx to the Coalville Reservoir will be reduced by an estimated 3,900 tons annually. Nutrients attached to sediment will be retained on the land rather than delivered to receiving water. Land treatment practices will reduce loss of water and nutrients to the stream system, thereby reducing stream enrichment and conserving the nutrients for plant production.

Fish and wildlife habitats may be temporarily disturbed in some part of the 2,650 acres of cropland and grassland during installation of land treatment practices, but they will be restored to at least their previous value within one growing season. The Coalville Reservoir and the David Creek stream system will be more suitable for species sensitive to sediment concentrations. More suitable cover will be provided for open land wildlife by land treatment measures, such as diversions, grassed waterways, and critical area plantings. The value of woodland habitat will not decline.

The 2,500 feet of stream bank protection proposed will temporarily roil adjacent stream water during installation. About 40 percent of the stream bank (1,000 feet) to be protected is well shaded. This shading will be lost for at least three years after installation. Adjacent water temperature is expected to rise no more than 1°C during this period of exposure.

No wilderness areas are in the watershed. Scenic values will be complemented with the diversity added to the dairy farm landscape by conservation land treatment measures. During installation of the proposed measures, scenic values will be temporarily decreased at specific locations in the watershed.

Alternatives

No significant adverse environmental impacts will result from installations except for minor inconveniences to local residents during construction.

The planned action is the most practical means of protecting the watershed, stabilizing the eroding lands, and controlling animal waste. Because no significant adverse environmental

impacts will result from installation of the measures, the only other alternative considered was the future-without-project alternative.

Consultation—Public Participation

Formal agency consultation began with the initiation of the notification of the State Single Point of Contact for Federal Assistance in February 2005. The Governor and the division of planning were also notified of the application for Federal assistance. Agencies were again notified when planning was authorized in September 1981.

Scoping meetings were held in December 2003, June 2004, and August 2004, and interdisciplinary efforts were used in all cases. Four Federal agencies (RD, FS, F&WS, and EPA), three State agencies (Department of Fish and Game, Department of Archeology and Historic Preservation, and Economic Development Commission), four county agencies, and several local groups were involved in part or all of the scoping and planning processes.

Specific consultation was conducted with the State Historic Preservation Officer and the Your-tribe Confederated Tribe of Indians concerning cultural resources and historic properties in the watershed. Comments from the State Historic Preservation Officer and the Your-tribe Confederated Tribe of Indians were used in the development of this plan.

The environmental assessment was transmitted to all participating and interested agencies, groups, and individuals for review and comment in October 2004. Public meetings were held throughout the planning process to keep all interested parties informed of the study progress and to obtain public input to the plan and environmental evaluation.

Agency consultation and public participation to date have shown no unresolved conflicts with the implementation of the selected plan.

Conclusion

Based on the environmental assessment summarized above, I find that the proposed action is not a major Federal action significantly affecting the quality of the human environment, and I have determined that an environmental impact statement for the David Creek Watershed Plan is not required.

_____(signature) _____(Date)

(type in name) State Conservationist

606.36 Notice of Availability of a FONSI—Example

Billing Code: 3410-16

Department of Agriculture

Natural Resources Conservation Service

_____ Watershed, _____

(Name) (County) (State)

Agency: Natural Resources Conservation Service

Action: Notice of a Finding of No Significant Impact

Summary: Pursuant to section 102(2)(c) of the National Environmental Policy Act of 1969; the Council on Environmental Quality Regulations (40 CFR Part 1500); and the Natural Resources Conservation Service Regulations (7 CFR Part 650); the Natural Resources Conservation Service, U.S. Department of Agriculture, gives notice than an environmental impact statement is not being prepared for the _____ Watershed, [County or Counties], [State].

For further information contact: [Name], State Conservationist, Natural Resources Conservation Service, [Street Address], [City], [State], [Zip Code], telephone [Area Code and Number].

Supplementary information: The environmental assessment of this federally assisted action indicates that the project will not cause significant local, regional, or national impacts on the environment. As a result of these findings, [Name], State Conservationist, has determined that the preparation and review of an environmental impact statement are not needed for this project.

The project purposes are [list measure purposes, for example, a plan for flood control and watershed protection]. The planned works of improvement include [list planned improvements, for example, three floodwater retarding dams and accelerated technical assistance for land treatment].

The Notice of Finding of No Significant Impact (FONSI) has been forwarded to the Environmental Protection Agency and to various Federal, State, and local agencies and interested parties. A limited number of copies of the FONSI are available to fill single copy requests at the above address. Basic data developed during the environmental assessment are on file and may be reviewed by contacting [Name].

No administrative action on implementation of the proposal will be taken until 30 days after the date of this publication in the Federal Register.

[Signature]

[Type name and title of person signing]

[Date]

(This activity is listed in the Catalog of Federal Domestic Assistance under No. 10.904, Watershed Protection and Flood Prevention, and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials.)

606.37 Transmittal Letter to Federal Register for Notice of Availability of a FONSI—Example

Subject: PDM – Notice of Availability of FONSI for Any Creek Watershed FRS No. 1 Rehabilitation

Date: April 28, 2008

To: Ms. Jane Doe, Management Analyst (Federal Register)
USDA-NRCS, Information Technology Division
5601 Sunnyside Ave., Bldg. 2-2122B, Stop Code 5430
Beltsville, Maryland 20705-5000

File Code: 390-15

Enclosed is the Notice of Availability (NOA) of FONSI for Any Creek Watershed FRS No. 1 Rehabilitation for publication in the Federal Register. According to policy, we have included the original and two copies of the NOA all signed in blue ink, and an electronic file (CD-RW) in Microsoft Word format.

Thank you for your assistance with this project.

/s/

[NAME]

State Conservationist

Enclosures

606.38 Transmittal Letter for Final Plan-EIS—Example

[Address] [Date]

[Omit salutation]

Enclosed is a copy of the final Watershed Plan–Environmental Impact Statement (plan-EIS) for the Any Creek Watershed, Any State, prepared under authority of the Watershed Protection and Flood Prevention Act (Public Law 83-566) and in accordance with section

102(2)(c) of the National Environmental Policy Act of 1969 (Public Law 91-190).

This Plan-EIS reflects comments received on the draft sent out for comments on January 15, 2005. This Plan-EIS will require final approval by the appropriate committees of the Senate and House of Representatives before Federal assistance is authorized.1/

/s/

[NAME]

State Conservationist

Enclosure

1/ For administratively approved plans, change this sentence to read, “The final Plan-EIS may be approved administratively.”

606.39 Transmittal Letter to EPA for Final Plan-EIS—Example

August 15, 2004

U.S. Environmental Protection Agency
Office of Federal Activities
EIS Filing Section
(Address – see below)

Enclosed are five copies of the final Watershed Plan–Environmental Impact Statement (Plan-EIS) for the Any Creek Watershed, Any State. This Plan-EIS reflects comments received on the draft sent out for comments on January 15, 2004.

Sincerely,

/s/
[NAME]
State Conservationist

Enclosures

cc: Director, CPTAD, NRCS, Washington, DC

Addresses:

For delivery by U.S. Postal Service, including express mail:
Ariel Rios Building (South Oval Lobby), Mail Code 2252-A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For delivery by commercial express services, courier, or in person:
Ariel Rios Building (South Oval Lobby), Room 7220
1200 Pennsylvania Avenue, NW
Washington, DC 20004

606.40 Record of Decision—Example

Record of Decision

Lake Creek Watershed

Oak and Day Counties, Anystate

1. Purpose.—As State Conservationist for the Natural Resources Conservation Service, I am the Responsible Federal Official (RFO) for all Natural Resources Conservation Service projects in Anystate.

The preferred plan for the Lake Creek Watershed involves works of improvement to be installed under authorities administered by the Natural Resources Conservation Service. This project includes the installation of six single-purpose flood prevention structures, one multiple-purpose flood prevention recreation structure, recreation facilities, and accelerated land treatment.

The Lake Creek Watershed plan was prepared under the authority of the Watershed Protection and Flood Prevention Act (Public Law 566, 83rd Congress, 68 Stat. 666, as amended) by the Oak and Day Soil and Water Conservation Districts and the City of Blackwell. The scoping meeting, held during November 2003, established the Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture (USDA), as lead agency, and the Forest Service, USDA, and the Fish and Wildlife Service, U.S. Department of the Interior, as cooperating agencies.

2. Measures Taken to Comply with National Environmental Policies.—The Lake Creek Watershed project has been planned in accordance with existing Federal legislation concerned with the preservation of environmental values. The following actions were taken to ensure that the Lake Creek Watershed plan is consistent with national goals and policies.

A preliminary environmental evaluation was completed by an interdisciplinary team under the direction of NRCS in 2003 before the scoping meeting. It concluded that significant impacts on the human environment may occur because of the complexity and public interest of the proposed action. As RFO, I directed that a draft environmental impact statement (EIS) be prepared.

The interdisciplinary environmental evaluation of the Lake Creek Watershed project was conducted by the sponsoring local organizations, cooperating agencies, and the Natural Resources Conservation Service. Information was obtained from many groups and agencies. An inventory and evaluation of environmental and socioeconomic conditions were prepared by Mobley–Andrews Consultants under a contract with NRCS. Reviews were held with the Your-tribe Confederated Tribe of Indians, Environmental Protection Agency, Fish and Wildlife Service, Anystate Department of Natural Resources, State Historic Preservation Officer, and the State Archeologist. Inputs from these reviews were included in the EIS.

Public meetings were held on April 5, 2004, and December 16, 2004, to solicit public participation in the environmental evaluation, to assure that all interested parties had sufficient information to understand how their concerns are affected by water resource

problems, to afford local interests the opportunity to express their views regarding the plans that can best solve these problems, and to provide all interests an opportunity to participate in the plan selection. More than 603 parties were notified by mail of the joint public meetings. A transcript of the minutes was developed and is on file.

a. The Lake Creek Watershed project will employ reasonable and practicable means that are consistent with the National Environmental Policy Act while permitting the application of other national policies and interests. These means include, but are not limited to, a project planned and designed to minimize adverse effects on the natural environment while accomplishing an authorized project purpose. Project features designed to preserve existing environmental values for future generations include: (1) placement into public ownership a natural area containing forest, native prairie, and geological features; (2) establishment of a wildlife habitat area adjacent to floodwater retarding structures; (3) establishment of a program to monitor water quality in reservoir No. 1 during the summer season; (4) installation of pool drains in all reservoirs, which provides opportunities for withdrawal of water during low stream flows; (5) fish and wildlife management plans for the reservoirs and natural area cooperatively developed by the SLO and the Anystate Department of Natural Resources; (6) acceleration in the application of land treatment practices to prevent erosion and sediment damage to streams and ecosystems; (7) establishment of grasses and legumes on dams and offsite borrow areas to protect them from erosion and provide food for wildlife; and (8) placement of trees and shrubs in the proposed recreational facilities area.

b. The Lake Creek Watershed project was planned using a systematic interdisciplinary approach involving integrated uses of the natural and social sciences and environmental design arts. All conclusions concerning the environmental impact of the project and overall merit of existing plans were based on a review of data and information that would be reasonably expected to reveal significant environmental consequences of the proposed project. These data included studies prepared specifically for the project and comments and views of all interested Federal, State, Tribal Governments and local agencies and individuals. The results of this review constitute the basis for the conclusions and recommendations. The project will not affect any cultural resources eligible for inclusion in the National Register of Historic Places, nor will the project affect any species of fish, wildlife, or plant or their habitats that have been designated as endangered or threatened.

c. In studying and evaluating the environmental impact of the Lake Creek Watershed project, every effort was made to express all significant environmental values quantitatively and to identify and give appropriate weight and consideration of nonquantifiable environmental values.

d. Wherever legitimate conflicts of scientific theory and conclusions existed and conclusions led to different views, persons qualified in the appropriate environmental disciplines were consulted. Theories and conclusions appearing to be most reasonable, scientifically acceptable, or both, were adopted.

e. Every possible effort has been made to identify those adverse environmental effects that cannot be avoided if the project is constructed.

f. The long-term and short-term resource uses, long-term productivity, and the irreversible and irretrievable commitment of resources are described in the final environmental impact statement.

g. All reasonable and viable alternatives to project features and to the project itself were studied and analyzed with reference to national policies and goals, especially those expressed in the National Environmental Policy Act and the Federal water resource development legislation under which the project was planned. Each possible course of action was evaluated as to its possible economic, technical, social, and overall environmental consequences to determine the tradeoffs necessary to accommodate all national policies and interests. Some alternatives may tend to protect more of the present and tangible environmental amenities than the proposed project will preserve. However, no alternative or combination of alternatives will afford greater protection of the environmental values while accomplishing the other project goals and objectives.

h. I conclude, therefore, that the proposed project will be the most effective means of meeting national goals and is consistent in serving the public interest by including provisions to protect and enhance the environment. I also conclude that the plan is the environmentally preferable plan.

Testimony and recommendations were received relative to the following subjects:

a. Public ownership and management of natural areas surrounding Structure 1 should be accomplished to offset the losses of wildlife habitat caused by the structure and adjacent activities.

b. The adequacy of water quality of Site 1 for recreational use should be determined.

c. Impacts to Lake Otto should be evaluated.

d. A thorough consideration of nonstructural alternatives should be undertaken.

e. Thermal impacts of the reservoirs should be evaluated.

A draft environmental impact statement was prepared in October 2004 and made available for public review. The recommendations and comments obtained from public meetings held during project planning and assessment were considered in the preparation of the statement. Projects of other agencies were included only when they related to the Public Law 83-566 project, and they were not evaluated with regard to their individual merit.

More than 250 copies of the draft environmental impact statement were distributed to tribal governments, agencies, conservation groups, organizations, and individuals for comment. Copies were also placed in several libraries in the watershed. The draft environmental impact statement was filed with the Environmental Protection Agency on December 27, 2004.

Existing data and information pertaining to the project's probable environmental consequences were obtained with assistance from other scientists and engineers. Documentary information as well as the views of interested Federal, State, and local agencies and concerned individuals and organizations having special knowledge of, competence over, or interest in the project's environmental impact were sought. This process continued until it was felt that all the information necessary for a comprehensive, reliable assessment had been gathered.

A complete picture of the project's current and probable future environmental setting was assembled to determine the proposed project's impact and identify unavoidable adverse

environmental impacts that might be produced. During these phases of evaluation, it became apparent that there are legitimate conflicts of scientific theory and conclusions leading to differing views of the project's environmental impact. In such cases, after consulting with persons qualified in the appropriate disciplines, those theories and conclusions appearing to be the most reasonable, and having scientific acceptance were adopted.

The consequences of a full range of reasonable and viable alternatives to specific project features were considered, studied, and analyzed. In reviewing these alternatives, all courses of action that could reasonably accomplish the project purposes were considered. Attempts were made to identify the economic, social, and environmental values affected by each alternative. Both structural and nonstructural alternatives were considered.

The alternatives considered reasonable alternatives to accomplish the project's objectives were (1) a floodway and land treatment, (2) the NED plan–structural measures only (the selected plan minus the environmental quality elements), (3) the EQ plan—two structures, floodplain acquisition for habitat preservation, upland habitat improvement, and land treatment measures, and (4) the selected plan. Ten other alternatives were suggested and evaluated that would accomplish part of the objectives of the planned project. The full range of effects was set forth in the alternatives section of the EIS. Individual floodplain management strategies, actions, and programs that would meet some of the project's goals were considered.

3. Conclusions.—The following conclusions were reached after carefully reviewing the proposed Lake Creek Watershed project in light of all national goals and policies, particularly those expressed in the National Environmental Policy Act, and after evaluating the overall merit of possible alternatives to the project:

4. Recommendations.—Having concluded that the proposed Lake Creek Watershed project uses all practicable means, consistent with other essential considerations of the national policy, to meet the goals established in the National Environmental Policy Act, that the project will thus serve the overall public interest, that the final environmental impact statement has been prepared, reviewed, and accepted in accordance with the provisions of the National Environmental Policy Act as implemented by Departmental regulations for the preparation of environmental impact statements, and that the project meets the needs of the project SLO, I propose to implement the Lake Creek Watershed project.

By:

State Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture

Date:

606.41 Notice of Availability of Record of Decision—Example

Billing Code: 3410-16

U.S. Department of Agriculture

Natural Resources Conservation Service

_____ Watershed, _____

(Name) (County) (State)

Agency: Natural Resources Conservation Service

Action: Notice of Availability of Record of Decision

Summary: [State Conservationist's name], responsible Federal official for projects administered under the provisions of Public Law 83-566, 16 U.S.C. Sections 1001 to 1008, in the State of [Name], is hereby providing notification that a record of decision to proceed [or not to proceed] with the installation of the [Name] Watershed project is available. Single copies of this record of decision may be obtained from [State Conservationist's name] at the address shown below.

For further information contact: [Name], State Conservationist, Natural Resources Conservation Service, [Street Address], [City], [State], [Zip Code], telephone [Area Code and Number].

[Signature]

[Type name and title of person signing]

[Date]

This activity is listed in the Catalog of Federal Domestic Assistance under No. 10.904, Watershed Protection and Flood Prevention, and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials.)

606.42 Administrative Agreement with Delaware River Basin

Commission

DELAWARE RIVER BASIN COMMISSION

ADMINISTRATIVE AGREEMENT

Pursuant to Section 1.5 and Article 11 of the Delaware River Basin Compact and to Rule 2-3.3 of the Rules of Practice and Procedure of the Delaware River Basin Commission (Administrative Manual - Part 11), this Administrative Agreement is hereby entered into by and between the Delaware River Basin Commission and the Soil Conservation Service, U.S. Department of Agriculture, hereinafter referred to as SCS.

1. Definitions. For the purposes of this Agreement, unless otherwise required by the context:

(a) “SCS” shall mean the Soil Conservation Service.

(b) “DRBC” shall mean the Delaware River Basin Commission.

(c) “Compact” shall mean the Delaware River Basin Compact.

(d) “Facility” shall mean a facility as defined by the Compact, and within the planning jurisdiction of the SCS.

2. Planning Consultation. No less frequently than once a year the SCS and DRBC shall hold one or more joint staff conferences for review of future plans and consideration of new projects in which either agency may have an interest.

3. Initiation of Project. As to any watershed project, the SCS receives an application for assistance from the project sponsors and after due authorization for planning proceeds with helping the sponsors develop a plan. The DRBC will be consulted by the SCS during the preliminary investigation of the planning stage to determine any features of the project in which the DRBC may have an interest.

4. Planning in Consultation. Prior to the issuing of a Work Plan Draft, the SCS will consult with the DRBC in regard to those features of the plan in which the DRBC has expressed interest and the DRBC may assist the SCS in planning those features of the project.

5. Informal Field Review. Upon the completion of the Work Plan Draft by the SCS, the DRBC will be furnished with copies of the draft for review. The DRBC will participate in the informal Field Review.

6. Work Plan Submission. The SCS will prepare a Work Plan based on the Work Plan Draft and incorporating any changes resulting from the Informal Field Review. On behalf of the project sponsors, the Work Plan will be submitted by the SCS to the DRBC for inclusion by the DRBC in its Comprehensive Plan in accordance with the Rules of Practice and Procedure. Either concurrently or subsequently the Work Plan will be reviewed in whole or in part for inclusion in the Water Resources Program or for approval under Section 3.8 as the sponsors

may elect. No further approval of individual structures constructed substantially in accordance with the Work Plan will be required.

7. Work Plan Amendments. Amendments to the Work Plan resulting from significant changes in final design or for other reasons will be handled in accordance with paragraphs 4-6 above.

8. Effective Date. This Agreement shall take effect upon its execution by both parties.

IN WITNESS WHEREOF, the DRBC through its duly authorized Executive Director, and the SCS, through its Administrator, as authorized by the Compact and the laws of the signatory party, have executed this Agreement by affixing their respective signatures thereto this twenty-third day of December 1966.

SOIL CONSERVATION SERVICE
U.S. Department of Agriculture
ATTEST:
/s/ Frances C. Harris
By /s/ Gladwin Young
Acting Administrator

DELAWARE RIVER BASIN COMMISSION
ATTEST:
/s/ W. Bienton Whitall
By /s/ James F. Wright
Executive Director

606.43 Memorandum of Understanding Between TVA and SCS

MEMORANDUM OF UNDERSTANDING
Between the
TENNESSEE VALLEY AUTHORITY
and the
UNITED STATES DEPARTMENT OF AGRICULTURE

RELATIVE TO: Coordinating activities of the Tennessee Valley Authority under the Tennessee Valley Authority Act of 1933, as amended (48 Stat. 58, 49 Stat. 1079), with those of the Soil Conservation Service under the Watershed Protection and Flood Prevention Act, as amended (68 Stat. 666, 70 Stat. 1088).
Termination of a

WITNESSETH

WHEREAS, the SCS is assigned responsibility for the administration of the Watershed Protection and Flood Prevention Act, as amended (68 Stat. 666, 70 Stat. 1088); and

WHEREAS, under the Tennessee Valley Authority Act of 1933, as amended (48 Stat. 58, 49 Stat. 1079), the TVA is concerned with and has statutory responsibilities relating to navigation and the control of flood waters in the Tennessee River and its tributaries; and

WHEREAS, it is the desire of the SCS and TVA to coordinate their mutual interests and activities in carrying out their assigned responsibilities in the Tennessee River Basin,

NOW THEREFORE, the SCS and the TVA agree on procedures to accomplish their desires as follows:

A. Preapplication Phase:
1. SCS and TVA will inform each other of local interest in watershed programs within the Tennessee River Basin as such interest comes to their attention.
2. At the time local interest in a specific watershed is first recognized, TVA also will advise SCS regarding any of TVA's active projects or plans which might significantly influence the feasibility of a small watershed project under the Watershed Protection and Flood Prevention Act.

B. Application Phase:
1. Upon receiving an application for planning assistance, SCS will forward a copy to TVA for review and comment.
2. In response, TVA will indicate the nature of its interest in the Watershed, including reference to any identifiable TVA requirements for approval of structures under Section 26a of the Tennessee Valley Authority Act of 1933, as amended, in the affected area. This statement of interest will become a part of the application file for the watershed in question.
3. SCS will inform TVA of plans for a field examination or similar preliminary survey, will invite TVA to participate, and will furnish TVA a copy of the preliminary field report.
4. SCS will inform TVA of the action taken on the application by the Service.
5. SCS will inform TVA when planning assistance is authorized.

6. SCS will inform TVA of interest and needs expressed by local sponsoring organizations and will arrange to inform local sponsoring organizations of the nature of the interest of TVA in the watershed.

C. Work Plan Development Phase:
1. On apprising TVA of an approval and authorization for assistance in Watershed Work Plan development, SCS will send TVA a list of the types of data needed from TVA for planning.
2. TVA will furnish SCS such data and planning materials as are available and applicable under the generalized list supplied by SCS.
3. SCS will furnish TVA a copy of the Plan of Operations (work outline) for developing the Watershed Work Plan.
4. a. SCS will consult with TVA on the development of Watershed Work Plans, specifically with respect to proposed structural works of improvement, that TVA decides or has previously indicated would significantly affect TVA's interests. As appropriate, SCS will also discuss with TVA the interpretation and application of data submitted by TVA.
b. SCS will furnish TVA (a) a map showing the tentative location of contemplated structural works and (b) preliminary structure estimates of items usually listed in the standard "Structure Data Table" of Watershed Work Plans after preliminary agreement has been reached with the responsible local sponsoring organization.
c. TVA will examine this preliminary information, request of SCS any additional information, if needed, and advise SCS of any significant conflict between the proposed works and TVA's responsibilities for navigation, flood control, public lands, or other properties.
d. After any necessary consultation with SCS, TVA will advise SCS as to any structures requiring approval under Section 26a of the Tennessee Valley Authority Act of 1933, as amended. SCS will formulate and develop with the local sponsoring organization further plans and recommendations with respect to such structures on a basis which will enable them to meet the requirements of the TVA Act.
5. SCS will inform TVA of the time and place of the informal review of the Work Plan draft with other agencies. In advance of this meeting, SCS will transmit to TVA copies of the Work Plan draft for information and office review. Following the informal review of the Work Plan draft, TVA will advise SCS of its views.
6. SCS will furnish TVA copies of the final Watershed Work Plan for review and comment. TVA will reply, identifying the structures, if any, requiring further review or approval under Section 26a of the Tennessee Valley Authority Act of 1933, as amended.

D. Installation Phase:
1. SCS will direct attention of the Sponsors of each watershed project to the requirements of Section 26a of the Tennessee Valley Authority Act of 1933, as amended. When the watershed goes into installation phase and when SCS has been advised that review and approval of the design of structures is required, the Sponsors will be informed by SCS of the requirement for Section 26a approval prior to construction.

E. General:
1. This agreement will be effective as of the date appearing in the first paragraph hereof. The agreement may be amended by mutual agreement. Either party may terminate the agreement upon 90 days' notice given in writing to the other party.
2. This agreement does not constitute a financial obligation to serve as a basis for expenditures.

IN WITNESS WHEREOF, the parties have executed this agreement on the day, month and year first above written

TENNESSEE VALLEY AUTHORITY

By /s/ A.J. Wagner
Title General Manager

APPROVED BY TVA
BOARD OF DIRECTORS

Nov. 6, 1958

/s/
Leona L. Malkemus
Assistant Secretary

UNITED STATED DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

By /s/ Gladwin Young
Title Acting Administrator

Part 606 – Exhibits

Subpart D – Watershed Project Plan Modifications

606.50 Exchange of Correspondence—Example

Supplemental Watershed Agreement No.

for _____Watershed, (State)

by

Exchange of Correspondence

Since the original watershed agreement was signed on _____, it has become necessary to modify that agreement to carry out the installation of the plan. As a result of the environmental evaluation, some mitigation is found to be needed.

Structure No. 6 will inundate 25 acres of type 7 wetland and convert it to a type 5 wetland, resulting in a net loss of 200 habitat units. Through the construction of a small dike across a 15-acre draw, 1.2 miles upstream from structure No. 6, a type 3 wetland can be created.

This dike will result in an increase of 190 habitat units, thus limiting the adverse effects to a loss of 10 units, which is not considered significant. There was no way that habitat-in-kind could be developed, and an agreement was reached with fish and wildlife agencies that this tradeoff would be acceptable. Construction costs are estimated to be $9,200 and all are paid NRCS since Site 6 is a single-purpose flood control structure. The sponsors will obtain the land rights needed in connection with the mitigation measure.

Paragraph 3 of the watershed agreement is changed to read:

Works of Improvements	Sponsors (or name of sponsor) (%)	NRCS (%)	Estimated construction costs ($)
Multiple-purpose structure 3	50	50	723,000
Floodwater retarding structures 1, 2, 6, 10, 12, & 15	0	100	3,256,700
Mitigation measure	0	100	9,200

All other terms, conditions and stipulations of the watershed agreement not modified herein remain the same and are agreed to:

_____Green County SWCD _____

Chairman Sponsor _____Date
_____Green County Commissioners _____
Chairman Sponsor _____Date
_____Whitlow Drainage District _____
Executive Director Sponsor _____Date
_____Natural Resources Conservation Service_____
State Conservationist USDA _____Date

606.51 Supplemental Watershed Agreement—Example

- **Supplemental Watershed Agreement No.**
- **between the**
- **_____**
- **Local organization**
- **_____**
- **Local organization**
- **_____**
- **Local organization**
- **(Referred to herein as sponsors)**
- **State of _____**
- **and the**
- **Natural Resources Conservation Service**
- **United States Department of Agriculture**
- **(Referred to herein as NRCS)**

Whereas, the watershed plan for _____ Watershed, State of _____, executed by the sponsors named therein and NRCS, became effective on the day_____ of _____, 20____ ; and

Note: The effective date of a watershed plan is the date that Federal assistance for installing the project measure was authorized.

If another supplemental agreement has already been executed, this should be recognized by another "Whereas" statement similar to the following. Thereafter reference to the agreement should include the phrase, "as supplemented."

Whereas, a supplemental agreements for said watershed, executed by the sponsors named therein and NRCS became effective on the _____ day of _____, 20___ ; and

Whereas, in order to carry out the watershed plan for said watershed, it has become necessary to modify said watershed agreement; and

Whereas, the responsibility for administration of the Watershed Protection and Flood Prevention Act, as amended, has been assigned by the Secretary of Agriculture to the NRCS; and

Note: Add "Whereas" clauses only if appropriate.

Whereas, a Supplemental Watershed Plan which modifies the watershed plan dated (date plan was authorized for operations) for said watershed has been developed through the cooperative efforts of the Sponsors and the NRCS;

Now, therefore, the Secretary of Agriculture through the NRCS and the Sponsors hereby agree upon the following modifications of the terms, conditions, and stipulations of said watershed agreement;

Note: Specify changes being made in the watershed agreement as follows:

(1) The _____Watershed Conservancy District hereby agree to become one of the local organizations sponsoring said watershed project.

(2) The name of the _____Department is hereby changed to _____State Environmental Protection Agency.

(3) Multiple-purpose structure No. 12 is hereby deleted from the planned works of improvement.

(4) Municipal Water Supply is hereby deleted as a project purpose.

Note: The necessary paragraphs in the original agreement should be changed. Cost-sharing paragraphs should not be included unless a change in cost-sharing percentages is made.

(5) Paragraph number is modified to read as follows:

The percentages of construction costs to be paid by the Sponsors and by NRCS are as follows:

Works of Improvements	Sponsors (or name of sponsor) (%)	NRCS (%)	Estimated construction costs ($)
Floodwater retarding structures, channel work, and floodways	None	100	Total

Note: The statement "paragraph numbered is modified to read as follows:" completely cancels the paragraph in the original agreement. Therefore, the entire paragraph must be reproduced in its new form.

(6) Paragraph numbered _____ is hereby added as follows:

(7) Paragraphs numbered _____, _____ , _____and are hereby deleted from the agreement.

Note: After all changes, deletions, and additions are complete, the following statement should be included as an unnumbered item before the signature page:

The Sponsors and NRCS further agree to all other terms, conditions, and stipulations of said watershed agreement not modified herein.

Note: Provisions for signatures should be provided as in standard agreement format.

606.52 Revised Watershed Agreement—Example

Revised Watershed Agreement No.
between the

_____
Local organization

_____
Local organization

_____
Local organization
(Referred to herein as sponsors)
State of _____
and the
Natural Resources Conservation Service
United States Department of Agriculture
(Referred to herein as NRCS)

Whereas, the watershed plan for _____Watershed, State of _____, executed by the sponsors named therein and NRCS, became effective on the day_____ of _____, 20____ ; and

Note: If a supplemental agreement has been executed, this should be recognized by another “Whereas” statement similar to the foregoing. Thereafter, reference to the agreement should include the phrase, “as supplemented.”

Whereas, the responsibility for administration of the Watershed Protection and Flood Prevention Act, as amended, has been assigned by the Secretary of Agriculture to the NRCS; and

Note: For Public Law 78-534 projects change the act in the above clause to section 13 of the Flood Control Act of 1944.

Whereas, in order to carry out the watershed plan for said watershed, it has become necessary to revise and supersede said watershed agreement; and

Whereas, a revised Plan-EIS that modifies the watershed plan dated for said watershed has been developed though the cooperative efforts of the Sponsors and the NRCS;

Now, therefore, the Secretary of Agriculture, through the NRCS, and the Sponsors hereby agree on the revised watershed Plan-EIS.

Note: Use standard paragraphs found in Title 390, National Watershed Program Manual (NWPM), Part 506, Subpart C, Section 506.30, “Watershed Agreement."

606.53 Letter Submitting Supplemental Watershed Plan to CPTAD—Example

SUBJECT: PDM – PL-534, Supplemental Watershed Plan and Agreement No. II
Any Creek Watershed,
Your County, Your State

DATE: February 7, 2007

TO: Name, Director
Conservation Planning and Technical Assistance Division
USDA – NRCS, Washington, DC

FILE CODE: 390-11

Enclosed are one manually signed copy and two conformed copies of Supplemental Watershed Plan and Agreement No. II for the Any Creek Watershed project, Your County, Your State. The effective date of Supplemental Watershed Plan and Agreement No. II is February 2, 2007. Supplemental Watershed Plan and Agreement No. II deleted the only remaining planned works of improvement, (Floodwater Retarding Structure No. 2A).

Sponsoring local organizations, NRCS field offices, and other interested parties have been advised of the approval of the supplemental plan and have been furnished with such copies of the material as are necessary for their participation in the modified project.

For further information contact Jane Doe, ASTC (Water Resources) 123-456-7890.

/s/

[NAME]

State Conservationist

Attachments

cc: [as appropriate]

Part 606 – Exhibits

Subpart E – Project Installation

606.60 Installation and Contracts Schedule

									INSTALLATION A		
A											
R					404	Land					
E		Priority	Landrights		Permit	Treatmt	T&E	Geological Invest/		Archeol	
A	**PROJECT**	#	Certification		Received	Certif	Species	Field Design		Cleare	
			Sched	Actual	Sched	Actual	Actual	Sched	Actual	Sched	A
1	Big Crk-Hurr Crk 5 FWRS	301		02-02		11-01	02-02		05-01		1
2	East Locust 5 FWRS	302		10-02		09-02	03-03		05-00		1
1	W.F. Big Crk 5 FWRS	303	08-02				*Marked*		2002		1
1	Williams Creek (Rehab)	304		12-02			*Marked*		11-02		
1	E. F. Grand River F-4	305		10-02		10-02	03-03		12-02		2
	Subtotal FY 2003										
1	Willow-Cravens	401	12-03			NA	NA		11-89		1
1	Big-Crk-Hurr Crk 7 FWRS	402	10-02					12-01			1
2	Upper Locust 5 FWRS	403		10-02							1
1	E.F. Grand River 5 FWRS	404	10-02								
	Subtotal FY 2004										
1	Big Crk-Hurr. Crk 7 FWRS	501	01-03					12-02			1
2	E. Yellow Crk 5 FWRS	502	01-03								1
1	W.F. Big Crk 5 FWRS	503	01-03								1
2	Upper Locust 5 FWRS	504	01-03								1
	Subtotal FY 2005										
1	W.F. Big Crk 5 FWRS	601	01-04								1
2	Upper Locust 5 FWRS	602	01-04								1
1	Big Crk-Hurr. Crk 5 FWRS	603	01-04								1
2	E. Yellow Crk D-6	604	01-04								
	Subtotal FY 2006										
2	Upper Locust 5 FWRS	700	01-05								1
1	Town Branch	700	01-05					05-03			(
1	Big Crk-Hurr. Crk 5 FWRS	700	01-05								1
1	W.F.Big Creek 5 FWRS	700	01-05								1
	Subtotal FY 2007										
	TOTAL FY 2003-2007										

606.61 Memorandum of Understanding between SCS (NRCS) and FmHA (RUS)

MEMORANDUM OF UNDERSTANDING

Between the

SOIL CONSERVATION SERVICE (Natural Resources Conservation Service)

and the

FARMERS HOME ADMINISTRATION (Rural Utilities Service)

Relating to the Making of WS Loans and WS Advances

Under the

Watershed Protection and Flood Prevention Act

(1) **Purpose**: This memorandum is to coordinate general agency responsibilities and functions of the Farmers Home Administration (FmHA) and the Soil Conservation Service (SCS) in connection with loans and advances made to sponsoring local organizations under the provisions of the Watershed Protection and Flood Prevention Act (68 Stat. 666), as amended.

(2) **General agency responsibilities**: The general assignments to the SCS and the FmHA for the administration of the Watershed Protection and Flood Prevention Act are contained in the Secretary's Policy Statement dated October 19, 1962. Each agency will establish policy and procedures and take such other action as required to carry out its responsibility.

(i) The FmHA is responsible for making and servicing WS loans or advancements under Section 8 and obligations for repayment of WS advances made by the SCS under Section 4 of the Act.

(ii) The SCS is responsible for administration of all authority under the Act, except making and servicing WS loans made under Section 8, and for servicing obligations for repayment of WS advances made by the SCS under Section 4 of the Act.

(iii) The SCS and the FmHA will cooperate in developing and carrying out their respective policies, procedures, and requirements, as they relate to WS loans and WS advances made under the Act.

(3) Receipt and processing of applications for loans and advances:

(i) A works of improvement must be included in an approved watershed plan before a loan or advance for it is made under the Act. During the development of a Watershed

Plan, the State Conservationist of SCS will afford the State Director of FmHA an opportunity to gain an understanding of watershed problems and needs, and the proposed plans for works of improvement. When a sponsoring local organization indicates a desire for a WS loan or WS advance, the SCS State Conservationist will consult with the FmHA State Director on matters such as organizational arrangements, specific local or State requirements, and other problems related to the plan for financing, installing, operating and maintaining the planned works of improvement being considered.

(ii) The SCS State Conservationist will furnish the FmHA State Director a copy of each Watershed Plan. The Administrator of SCS will furnish the Administrator of FmHA copy of each approved WS Plan.

(iii) A Watershed Plan and the related executed watershed plan agreement will not obligate FmHA to make a WS loan or obligate the SCS to make a WS advance to sponsoring local organizations.

(4) Coordination of assistance for design, construction and maintenance. The following principals are to be used as a guide for the design, construction, operation and maintenance of works of improvement when a WS loan or WS advance is involved.

(i) The SCS will furnish or assume the cost of engineering services required to plan and install the portion of the works of improvement allocated to flood prevention, agricultural phases of the conservation, development, utilization, and disposal of water, fish and wildlife, and recreational development, and not more than 50 percent of the costs of engineering services for minimum basic facilities. Sponsoring local organizations are expected to furnish and assume the cost of other engineering services required. The SCS will give such engineering advice and guidance to the sponsoring local organization as required to insure that plans, specifications and cost estimates furnished by them meet the design and construction standards and criteria established for the project and that the works are properly coordinated with any other works to be installed under Watershed Plan. The SCS State Conservationist will consult with and keep the FmHA State Director informed during the development and construction plans and the construction of works of improvement. This will include an engineering review and a statement by the SCS of the adequacy and appropriateness of cost estimates, designs, plans, and specifications prepared by private engineers.

(ii) Engineering plans, including specifications, drawings and cost estimates for works of improvement involving WS loans or advances will be approved by the SCS State Conservationist and the FmHA State Director.

(iii) The SCS State Conservationist will consult with the FmHA State Director as to terms and conditions to be included in invitations to bids and contracts for construction or purchase of supplies and materials in connection with works of improvement to be installed with loans or advances. The SCS will provide technical assistance advice needed by the sponsoring local organizations for the preparation of these documents and in analyzing bids and selecting the lowest responsible bidder. The contracts shall be acceptable to the FmHA State Director and the SCS State Conservationist before execution by the sponsoring local organization receiving a loan or advance.

(iv) The sponsoring local organization will not be permitted to accept a bid which would require additional loan funds or make changes in plans or specifications in order to obtain

a bid within the estimated cost without the concurrence of the FmHA State Director. Should the sponsoring local organization desire to reject bids or to not call for bids and undertake construction of works of improvement by force account, the concurrence of the FmHA State Director shall be obtained.

(v) The SCS will provide technical assistance including periodic inspections during construction as necessary to protect the Government's interest and to assure that the works of improvement are being constructed in accordance with approved drawings and specifications. The SCS may approve minor changes during construction in the contract terms and conditions and the drawings and specifications which do not appreciably affect the design, cost or function of a structure without concurrence of the FmHA. Major changes or changes which affect the overall cost of the works of improvement will require the prior concurrence of the FmHA State Director.

(vi) The SCS and FmHA will make annual joint inspections, for a period of three years after completion thereof or more frequently if necessary, to see that works of improvement are being operated and maintained according to agreements. The sponsoring local organizations will be required to make annual inspections throughout the life of the structure and report their findings to the SCS and FmHA offices. When SCS or FmHA determine that there are serious deficiencies in operation and maintenance, the FmHA State Director will collaborate with the SCS State Conservationist in arranging with the local sponsoring organization for the correction of such deficiencies. The FmHA or SCS may make other inspections as necessary to service the loan or advance account of the borrowing sponsoring local organization.

(vii) Responsibility rests with the local sponsoring organization to acquire any land, easements, or rights-of-way that will be needed for works of improvement. If a lien is to be taken on works of improvement and the land, easements, or rights-of-way, the FmHA will, after consultation with the SCS, approve the easements, deeds, and permits before they are executed. The FmHA will provide instructions to the local sponsoring organization pertaining to acknowledgement, title searches and examinations, obtaining consent of holders of liens outstanding against the land, and recording easements and deeds. The SCS will check land description in all real property rights instruments to the extent necessary to determine that the areas required for construction, operation and maintenance of works of improvement are included, except that the SCS will make property line surveys.

(viii) When loan payments will depend upon a right to use a specific quantity of water, the local sponsoring organization will furnish to FmHA satisfactory evidence of such rights, and any required additional information concerning the water supply. This evidence will include such documents and materials as affidavits, permits, title certificates, court decrees, stream gage records, rainfall records, well logs, records of pumping tests and water analysis. The SCS will examine information that is furnished together with other available information and give FmHA a written opinion of the adequacy of supply, including quality, to meet the requirements of the plan.

(5) Disbursement of Funds. Proceeds of WS loans will be deposited in, and withdrawn from, bank accounts in the manner required by FmHA regulations. Checks on these bank accounts for payments to contractors and suppliers of materials will be based upon Form SCS 49a, "Contract Payment Estimate and Construction Progress Report." Form SCS 49a prepared by the local sponsoring organization for this purpose will be approved by the SCS. In giving his

approval to Form SCS 49a, the SCS representative shall be certain that the items covered are for the purposes and in the amounts authorized in the project agreement.

(i) Advances for future water supply shall be made as provided in the project agreement. The maximum amount of such advance shall be shown in the project agreement.

(ii) Advances for site preservation will be handled in accordance with procedures mutually agreeable to the SCS and the FmHA, which will be developed on a case by case basis.

(6) Starting Construction: The local sponsoring organization will not be authorized to start construction on works of improvement to be financed in whole or in part, with a WS loan or a WS advance until:

(i) The SCS has entered into a Project Agreement for Construction of Works of Improvement.

(ii) The State Conservationist has notified the State Director that the local organization has complied with all SCS requirements for receiving Public Law 566 construction assistance and the State Conservationist has furnished the State Director with a schedule indicating the approximate times that construction work will begin on works of improvement to be installed with such funds.

(iii) The State Director has notified the State Conservationist and the borrower that the loan or advance has been properly closed.

(iv) Any contract entered into by the local organization for materials, labor, or the construction of works of improvement to be financed with loan funds has been found acceptable by Rural Development.

(v) The State Director has notified the State Conservationist that any advance for the preservation of sites has been repaid.

(vi) All engineering drawings and specifications for works of improvement to be financed in part by WS loans or advances have been approved by the FmHA and the SCS

(7) FmHA Contracts with Local Organizations: Ordinarily, a WS loan or advance will be made to the local organization having primary interest in, and direct responsibility for, the operation and maintenance of works of improvement to be installed with loan or advance funds rather than to an organization that would have to contract with another organization for the operation and maintenance of works of improvement and the collection of revenues for repaying the loan or advance. When it is proposed to make a WS loan to an organization that would have to contract with another organization, the organization and the contractual arrangements will be mutually acceptable to the FmHA and the SCS. This determination will be made before the approval of the Project Agreement for Construction of the Works of Improvement.

(8) Information Activities: The SCS will be responsible for the preparation, release, or other handling of the overall informational and educational material regarding the watershed protection program, including bulletins, press releases and other public announcements. SCS will obtain the recommendations of the FmHA prior to releasing pamphlets and similar

informational material which makes reference to loans. The FmHA may prepare and release informational material on the handling of loan applications. Such material will be reviewed with the SCS if it alludes to overall costs or benefits or to technical aspects for which SCS has responsibility. When desirable or necessary in particular watershed areas for SCS to arrange for community meetings to discuss and explain the program to interested local people, the FmHA will be invited to participate in such meetings if a loan or advance may be needed by a local organization to carry out planned works of improvement.

/s/ Victor H. Barry, Jr.	/s/Gordon Cavanaugh
Acting Administrator Soil Conservation Service May 26, 1978	Administrator Farmers Home Administration May 31, 1978

606.62 Transmittal Letter to ASTC for Project Completion Report—Example

SUBJECT: PDM – PL-534, Completion Report, **DATE**: February 7, 2007

Any Creek Watershed,

Your County, Your State

TO: [Name] **FILE CODE**: 390-11

ASTC [Field Operations]

NRCS, Any City, Your State

The installation of the Any Creek Watershed Project has been completed as planned and supplemented.

Enclosed is a copy of a letter to the sponsors officially declaring the installation of the project as completed. Signatures of all sponsoring organizations will document their agreement and concurrence in its completion. After the sponsors have signed the letter, photocopies should be made and provided to them for their files. Please return the original to Jane Doe, ASTC (Water Resources).

/s/

[NAME]

State Conservationist

Attachment

cc: [as appropriate]

606.63 Transmittal Letter to CPTAD for Project Completion Report—Example

SUBJECT: PDM – PL-534, Completion Report **DATE**: February 7, 2007

Any Creek Watershed,

Your County, Your State

TO: Name, Director **FILE CODE**: 390-11

Conservation Planning and Technical Assistance Division

USDA – NRCS, Washington, DC

Installation of measures in the Any Creek Watershed has been completed as planned and supplemented. No additional funds are to be allocated for this watershed.

This project was approved for operation on April 19, 1951. Twelve (12) floodwater retarding structures, five grade stabilization structures and the land treatment practices have been installed. The remaining planned measure has been deleted from the plan by supplement at the request of the sponsors.

The total installation cost of the project was $10,207,200 of which $2,809,100 were local funds and $7,398,100 were Federal funds.

Effective February 2, 2007, all structural and nonstructural measures involving Public Law 78-534 assistance are installed in keeping with the Any Creek Watershed Plan, as amended or supplemented. All land treatment provided for in the plan has been accomplished. The project sponsors have been notified that the project is completed.

/s/

[NAME]

State Conservationist

cc: [as appropriate]

606.64 Project Completion Letter to the SLO—Example

February 7, 2007

Mr. [Name], Chairman
Your SWCD
8020 FM 741
Your City, Your State 77777

Effective as of the date of this letter, all structural and nonstructural measures involving Public Law 78-534 assistance have been installed in accordance with the Any Creek Watershed Plan, as amended and supplemented.

Please accept my congratulations on the work accomplished by this project.

We commend all of you for your efforts in attempting to solve erosion, sedimentation, and flooding problems in the watershed. Twelve floodwater retarding structures, five grade stabilization structures and accompanying land treatment measures have been installed. The completed measures are functioning as planned to reduce flood damages, sedimentation, and erosion on agricultural and other lands.

Please be reminded of your responsibility for operation and maintenance of completed works of improvement. This responsibility will continue during the program life of the structures.

Your signature on this letter will document your agreement and concurrence in the completion of this project.

Sincerely,

/s/

[NAME]

State Conservationist

Your SWCD

By: _____ Title: _____

This action was authorized at an official meeting of the sponsor named immediately above on _____.

Attest: _____ Title: _____

606.65 Notice of Intent to Deauthorize Federal Funding—Example

BILLING CODE: 3410-16
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

[Name] Watershed, [State]

Agency: Natural Resources Conservation Service

Action: Notice of Intent to Deauthorize Federal Funding

Summary: Pursuant to the Watershed Protection and Flood Prevention Act Public Law 83-566 and the Natural Resources Conservation Service Guidelines (7 CFR 622), the Natural Resources Conservation Service gives notice of the intent to deauthorize Federal funding for the [Name] watershed project [County or Counties], [State].

For further information contact: [Name], State Conservationist, Natural Resources Conservation Service, [Street Address], [City], [State] [Zip Code], telephone: [Area Code and Number].

[Name] Watershed, [State]

Notice of Intent to Deauthorize Federal Funding

Supplementary information: A determination has been made by [State Conservationist's name] that the proposed works of improvement for the [Watershed] project will not be installed. The sponsoring local organizations have concurred in this determination and agree that Federal funding should be deauthorized for the project. Information regarding this determination may be obtained from [Name], State Conservationist, at the above address and telephone number.

No administrative action on implementation of the proposed deauthorization will be taken until 60 days after the date of this publication in the Federal Register.

[Signature]
[Type name and title of person signing]
[Date]

(Catalog of Federal Domestic Assistance Program No. 10.904, Watershed Protection and Flood Prevention. Executive Order 12372 regarding State and local clearinghouse review of Federal and federally assisted programs and projects is applicable)

606.66 Notice of Deauthorization of Funding—Example

BILLING CODE: 3410-16

DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

[Name] Watershed, [State]

Agency: Natural Resources Conservation Service

Action: Notice of Deauthorization of Federal Funding

Summary: Pursuant to the Watershed Protection and Flood Prevention Act (Public Law 83-566) and the Natural Resources Conservation Service Guidelines (7 CFR Part 622), the Natural Resources Conservation Service gives notice of the deauthorization of Federal funding for the [Name] watershed project, [County or Counties], [State], effective on [Date as indicated in letter from Chief].

For further information contact [Name], State Conservationist, Natural Resources Conservation Service, [Street Address], [City], [State] [Zip Code], telephone: [Area Code and Number].

[Signature]

[Type name and title of person signing]

[Date]

(Catalog of Federal Domestic Assistance Program No. 10.904, Watershed Protection and Flood Prevention. Executive Order 12372 regarding State and local clearinghouse review of Federal and federally assisted programs and projects is applicable.)

Part 606 – Exhibits

Subpart F – Post Installation Assistance

606.70 Letter Releasing a Floodwater Retarding Structure to the SLO for O&M—Example

October 3, 2008

The Honorable [Name]

Any County Commissioners Court Judge

P.O. Box 768

Any City, Any State 77777

Dear Judge [Name]:

[Name], Assistant State Conservationist for Field Operations in Any City, has informed me that Floodwater Retarding Structure No. 1 of the Any Creek Watershed Project, of the Any River Basin, Any County, in performing as designed and a satisfactory vegetative cover has been established. I appreciate and commend your efforts to complete this dam to enhance public safety and protect lives and property downstream.

As of October 3, 2008, the Natural Resources Conservation Service (NRCS) considers this project to be completed and ready to release to the sponsors for operation and maintenance. As sponsors of the project, you are responsible for the operation and maintenance of the works of improvements in accordance with the provisions of the Operation and Maintenance (O&M) Agreement.

As of October 1, 2008, Federal funds will not be expended except for available technical assistance that will be provided by the NRCS according to the provisions of the O&M Agreement. Let me assure you that the NRCS has been and will continue to be available to provide technical assistance on O&M of this dam as long as resources are available. (Name), District Conservationist in Any City, will be contacting you soon to arrange an onsite visit to review the O&M Agreement and your maintenance responsibilities.

On behalf of the NRCS, I extend my congratulations in completing this project, and my appreciation for your efforts and leadership for watershed activities in (Name) County.

Sincerely,

/s/

[NAME]

State Conservationist

cc: [as appropriate]

606.71 Cost Computation for Rehabilitation Project Spreadsheet—Example

NRCS Watershed Rehabilitation: Project Cost Documentation **Completed**

Watershed:	**Calvary Creek**	Agreement Number:	69-7335-3-71
Site Number:	**6**	Date MOU Signed:	
NID Number:	OK		
Contractor:	Been Brothers Construction Company		

Construction Costs		$ 402,340.50
Claim Number	Reimbursement Number	Cost
7100	3	$ 80,114.40
7296	3	$ 106,056.00
8769	4	$ 216,170.10

Landrights / Relocation Costs		$ 15,971.87
Claim Number	Reimbursement Number	Cost
5838	5	$ 750.00
5910	5	$ 15,000.00
15143	5?	$ 80.04
15206	5?	$ 141.83

Program Admin Costs		$ 4,335.00
Claim Number	Reimbursement Number	Cost
multiple	5	$ 4,335.00

Local Technical Assistance Costs		$ 2,036.93
Claim Number	Reimbursement Number	Cost
multiple	5	2036.93

Cost Allocation Summary

NRCS Share:	$ 276,044.80	Sponsor Share:	$ 148,639.51
NRCS Percent:	65%	Sponsor Percent:	35%
	Total Project Cost: $ -	Total Project Cost:	$ 424,684.30
	(Estimated)	(Billed to Date)	

Total Project	$ 424,684.30	
Total Construction	$ 402,340.50	95%
NRCS Total	$ 276,044.80	65%
OCC Total	$ 148,639.51	35%

MOU Items

Land Rights (est value of Land)

Cost of Appraisals (NTE)

Program Administration

- Document Work Over & Above Normal Admin
- Identify Who and What Amounts

Relocation

- How will it be handled and what can be claimed

Part 606 – Exhibits

Subpart G – Glossary and Acronyms

606.80 Glossary

Administrative Record—The set of documents of all types (papers, studies, data, references, maps, correspondence, notes, computer runs, etc.) and in all formats (paper, hard drive, CD, magnetic tape, etc.) that supports the decisionmaking process. This is NRCS's collection of the evidence that decisionmakers understood the law applying to the decision, considered all the relevant factors, and made a reasoned decision.

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 pursuant to Title II of the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470, as amended).

Affected Environment—The physical, ecological, economic, and social characteristics of the area impacted by the project.

Alternative Cost—(Used in reference to multipurpose structures.) "Alternative cost for each purpose is the financial cost of achieving the same or equivalent benefits with a single-purpose plan." (P&G Section 1.9.2(c))

Associated Measures—Practices necessary to ensure realization of benefits.

Catastrophic Event—For the purpose of determining eligibility for the dam rehabilitation program, a catastrophic event has been defined in the this manual, Title 390, National Watershed Program Manual (NWPM), Part 506, Subpart D, Section 506.40, as a 100-year frequency rainfall event or the storm event that produces a flow in the emergency spillway of at least 2 feet or more in depth.

Closed Project—A project may be considered closed when all works have been installed, the O&M agreement has expired, and all long-term contracts have expired.

Completed Project—A project is completed when all measures, including mitigation and land treatment, involving Watershed Program assistance are installed in compliance with the watershed plan as amended or supplemented and all long-term contracts have expired.

Completion of Federal Interest—Federal interest is completed when a project measure has accrued all the benefits in which the Federal Government has an interest or when the Federal Government's financial interests have been purchased by the SLO or another entity.

Conformed Plan—A conformed copy of a Public Law 83-566 project plan is one where the symbol "/s/" followed by a typewritten name appears in each signature space in the watershed

agreement. This is in contrast to a manually signed plan. Photocopies of the signature pages may also be used wherever the manual calls for conformed copies.

Cost Categories:

(1) Associated costs—The costs for measures needed over and above the project measures 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 on which the benefits of a group distribution or collection system were based.

(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 any or all of the following:

(i) For rehabilitation projects, includes expenses for reconstruction or decommissioning of the dam, and the relocation or floodproofing of downstream property.

(ii) Reinforcing, underpinning, or reconstructing existing railroad and public road bridge piers and abutments necessitated by modification of the channel or the replacement of a closed conduit crossing of a public road or railroad that is an integral part of a closed conduit system. These costs are limited to those required to provide a facility comparable in quality and performance to the existing bridge or culvert.

(iii) Clearing of sites for project purposes including the cost of removing buildings, bridges, fences, or other improvements that the local organization desires to abandon.

(iv) Relocating structures from flood-prone land to flood-free land as a nonstructural flood damage reduction measure. This applies in cases where an SLO does not take title to the property.

(v) Floodproofing buildings as a nonstructural flood damage reduction measure.

(vi) Construction of pumping plants and pressure conduits, gates, or other structures to carry interior drainage through dikes or floodwalls.

(vii) Construction of diversion dikes and practices for conducting surface water to project outlets or pumping plants for interior discharge.

(viii) Construction of necessary structures to provide controlled inlets for drainage from adjacent fields and internal ditches into the project measure.

(ix) Flaggers and protective devices, such as barriers or lights, required to protect workers or the public during construction.

(x) Alteration, modification, or reconstruction of existing irrigation or drainage facilities made necessary by project works of improvement.

(xi) Providing needed maintenance access, including necessary culverts and fords.

(xii) Borrow material obtained from land purchased by the SLO for the specific purpose of obtaining borrow material. The cost may not exceed 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.

(xiii) Construction of catwalks, handrails, fences, gates, and other such 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.

(xiv) The disposal of waste spoil in accordance with sound engineering and environmental principles, giving consideration to customary practices in the area,

width and planned land use of floodplain, wildlife and environmental values of contiguous oxbows and vegetation, and threatened and endangered species. Agreement on the specifics of spoil disposal will be reached in the planning stage.

(xv) Premiums for construction liability insurance when the construction contractor is made the principal.

(xvi) Provision for fire prevention and suppression made necessary by project construction activities.

(xvii) Establishment of 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.

(xviii) Identification signs and plaques, if desired by the SLO, as long as there is reasonable assurance that these signs will not be vandalized.

(xix) Costs for cultural resource protection and other mitigation.

(3) Engineering cost—Expenses incurred in formulating the engineering design. These expenses include the direct cost of engineers and other technicians for surveys, investigations, designs, and preparation of plans and specifications for structural and nonstructural measures, including associated vegetative work, and preparation of operation and maintenance plans. Also included as engineering services are costs related to the review of engineering plans and specifications prepared by others and necessary quality assurance during construction to ensure that measures are installed in accordance with 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) Land treatment financial assistance cost—The cost of installing land treatment practices, excluding technical assistance, engineering, and project administration.

(5) Non-project installation costs—Costs that will be incurred at the time of project installation for features not required for project purposes. These costs are not eligible for assistance under Public Law 83-566. They are not included in cost tabulations or accounts, nor are they considered a part of the local organizations' contribution to the installation cost, but they should be incorporated into Tables 1 through 6 in the plan.

(6) 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 structural measures in sound operating condition during the evaluated life of the project. Included are the cost of repairs, replacements, or additions, and an appropriate charge for inspection, engineering, supervision, custodial service, and general overhead.

(7) Planning cost—All expenditures from Public Law 83-566 and other funds for surveys and investigations, environmental studies, evaluation of alternatives, and preparation of plans prior to the authorization of assistance for the installation of works of improvement.

(8) Program cost—All expenditures from appropriations made under authority of Public Law 83-566.

(9) Project administration—The Public Law 83-566 and other administrative costs associated with the installation of financially assisted measures, including such items as contract administration, government representatives, permit acquisition, relocation assistance advisory services, and administrative functions connected with relocation payments.

(10) Project installation cost—The Public Law 83-566 and other costs for installing the works of improvement to be incurred after the project is authorized for installation. Included are the costs of work required to comply with Federal and State laws or regulations.

(11) Real property—All expenditures made in acquiring needed water, mineral, and other subsurface rights, and required Federal, State, and local permits or clearances.

(12) Real property rights—The cost of real property rights includes all costs for the following items, including elements of work involving planning, design, acquisition, construction, mitigation for fish and wildlife habitat losses, and administrative services directly associated with real property.

(i) All expenditures made in acquiring needed real property rights and other interests in land in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. Section 4601 et seq., as implemented by 70 CFR Part 21).

(ii) Removal of buildings, improvements, or timber for salvage or relocation, or the construction of dikes or other protective works in lieu thereof. This does not include moving of buildings or other improvements from flood-prone to flood-free land as a nonstructural flood damage reduction measure.

(iii) Salvaging, moving, or reconstruction of fences not needed for the proper operation, maintenance, public safety, or inspection of the works of improvement.

(iv) Changes of existing telephone, power, gas, water, and sewer lines or other utilities made necessary by the works of improvement. This does not include changes to existing irrigation or drainage facilities.

(v) All new roads and changes of existing public roads or private roads, or railroad bridges, culverts, and other crossings, including approaches, except reinforcing, underpinning or reconstructing existing bridge piers and abutments of public roads and railroads necessitated by modification of the channel. This 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.

(vi) All modifications and changes of roads and railroads that are to remain serviceable after project installation.

(vii) Premiums for construction liability insurance when someone other than the construction contractor is made the principal.

(13) Relocation costs—The Public Law 83-566 and other costs associated with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646). Relocation payments include moving and related expenses for a displaced person, business, or farm operation as well as financial assistance for replacement housing for a displaced person who qualifies and whose dwelling is acquired because of the project. Costs over and above replacement in kind are treated as non-project costs.

(14) Technical assistance (watershed project plans)—Technical assistance costs are the costs for salaries and expenses other than financial assistance. For watershed project plans, technical assistance, engineering, and project administration are treated as three mutually exclusive cost categories. Technical assistance costs are defined as the Public Law 83-566 and other costs for personnel and contracted services for soil surveys and for planning and applying land treatment measures on non-Federal land.

(15) Technical assistance (rehabilitation plans)—In rehabilitation plans, technical assistance costs are all costs for technical services including engineering and contract

administration except those related to real property rights and permit acquisition. (See section 14(c) of Public Law 83-566.)

(16) Water rights—The actual cost or the value, based on appraisals, of water rights acquired by local interests for carrying out, operating, and maintaining the project.

Cultural Resources—Cultural resources refer to historic, aesthetic, and cultural aspects of the human environment. In NRCS, the term is sometimes used interchangeably to refer to any historic or archaeological properties that have been identified during planning or to refer to "historic properties" as defined by the ACHP regulations (see below). Cultural resources may also refer to: (1) resources that have little or no historic values but do have contemporary cultural value; (2) 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; (3) unevaluated resources that may be eligible for inclusion in the National Register or an equivalent; and (4) properties that may qualify for the protections afforded by the Archeological Resources Protection Act or the Native American Graves Protection and Repatriation Act (see Title 190, NCRPH, Section 601.60).

Dam—A dam is a barrier to confine or raise water for storage or diversion, to create a hydraulic head, to prevent gully erosion, or for retention of soil, rock or other debris. A dam is a physical improvement that impounds water, and may include a sediment pool, conservation pool, and flood pool.

Deauthorized Project—An authorized watershed project can be deauthorized where no LTC have been signed, no planned measures have been installed, or where no O&M agreements are in effect. Deauthorization of the project removes authority to expend Public Law 83-566 funds.

Decommission—Taking a practice out of service in an environmentally sound and safe manner, or converting it to another purpose.

Design Life—The intended period of time that the practice will function successfully with only routine maintenance; it is determined during the design phase.

Designated State Agency—The agency designated by the Governor of a State as having supervisory responsibility over programs provided for in Public Law 83-566, as described in section 3 of the Watershed Protection and Flood Prevention Act and in 7 CFR Section 622.21.

Emergency Action Plan—A plan of action to be taken 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.

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. (Title 180, National Planning Procedures Handbook (NPPH), Part 600)

Environmental Evaluation (EE)—An EE is a process of evaluating the environmental effects of a proposed action. Form CPA-52 provides summary documentation of the environmental evaluation (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" (180-NPPH, Part 600). For Form NRCS CPA-52, go to the following website: http://www.nrcs.usda.gov/Technical/envircomp/NRCS-CPA-52_4-22-09.pdf.

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. NEPA and various State environmental laws may require an EIS. (180-NPPH, Part 600)

Environmental Protection Agency (EPA) Review Ratings (Federal Register, Vol. 71, No. 67, and reprinted annually in April):

Environmental Impact of the Action

LO (Lack of Objections)—The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC (Environmental Concerns)—The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO (Environmental Objections)—The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative). EPA intends to work with the lead agency to reduce these impacts.

EU (Environmentally Unsatisfactory)—The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1 Adequate—EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 Insufficient Information—The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data analyses, or discussion should be included in the final EIS.

Category 3 Inadequate—EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce

the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA, section 309 review, or both, and should therefore be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Evaluation Period—The number of years used in the Watershed Project Plan for discounting and amortizing project costs and benefits. It is not to exceed 100 years. The number of years used for the planned evaluated life of the project plan is also used to determine the duration of operation and maintenance agreements for project measures.

Evaluation Units—Areas that may be grouped based on like physical characteristics, like treatment requirements, or both.

Finding of No Significant Impact (FONSI)—A document by a Federal agency briefly presenting the reasons why an action, not otherwise excluded, will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared (40 CFR Section 1508.12).

Future-without-project (FWOP)—The future-without-project is an estimation of the most probable future condition expected to occur in the absence of any of the study's alternative plans. The future-without-project condition includes any changes expected to directly, indirectly, or cumulatively result from all reasonably foreseeable actions without any of the study's alternative plans. For example, if it is most probable that within the next 20 years 60 percent of a woodland will be cleared for agricultural purposes without any of the plans being considered by the agency, the effects of such clearing would be included in the future-without-project conditions. Similarly, if existing legislation, such as the Clean Water Act, is expected to improve water quality in a river, such improvement would be included in the future-without-project plans conditions. The future-without-project condition is synonymous with "no action" as used in NEPA and the CEQ NEPA regulations (40 CFR 1502.14(d)). (P&G Section 3.2.1). FWOP is also referred to as future-without-project plan, future-without-project condition, future-without-project plan conditions, no action, no action alternative, no action conditions, without project, without plan, without project plan, and without plan(s) condition(s).

Interdisciplinary Team—A group of individuals with diverse education, training and knowledge interacting to accomplish a common goal.

Historic Property—Is defined by the National Historic Preservation Act and expanded in the 36 CFR 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." 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 an American Indian Tribe or Native Hawaiian organization and that meet the National Register criteria (see Title 190, NCRPH, Section 601.60).

Joint Cost—(Used in reference to multipurpose structures.) The total financial cost for a structure minus the sum of separable financial costs for all purposes.

Land Administering Agencies—Government agencies that are responsible for the management and administration of public lands.

Land Treatment—Conservation practices designed to control erosion and sedimentation or provide for the proper management of land, water, and natural resources. Land treatment can be listed in three categories:

- Required Land Treatment—This is the treatment that must be installed upstream of dams to comply with the USDA policy that requires 50 percent of the drainage area to be adequately protected. Required land treatment also includes any treatment needed upstream of channels or reservoirs.
- Accelerated Land Treatment—This is land treatment being installed to address public (offsite) water and land-related resource problems. Accelerated land treatment will be the only category shown in non-water-resources projects. Water resource projects may include treatment in all three categories.
- Associated Land Treatment—This is the land treatment needed to ensure realization of benefits used in the economic justification of structural measures for irrigation or drainage.

Locally Implemented—Implemented without NRCS Watershed Program financial assistance.

Long-Term Contract (LTC)—Agreements entered into with landowners, cooperators, and SLOs for the implementation of land treatment measures, ecosystem restorations, habitat restoration, and conservation treatment. Under the Watershed Programs long-term contracts are usually for 3 to 10 years, and may not exceed 10 years according to the Watershed Protection and Flood Prevention Act. General requirements of NRCS long-term contract policy used in watershed project delivery include all of the following:

- Each LTC will be based on a plan or schedule of operations developed by the participant and approved by the soil and water conservation district and NRCS
- The expected range of duration of the LTC
- No LTC will be signed until the initial participation requirement specified in the watershed agreement has been met
- All required conservation treatment will be installed at least two years before the end of the contract

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.

Minimum Basic Facilities—The adequate and appropriate facilities needed to achieve the intended use and to provide public health and safety and access to a project area that includes public recreation or fish and wildlife purposes.

Mitigation—Measures included to avoid, minimize, rectify, reduce or eliminate over time, or compensate for environmental impacts (see 40 CFR Section 1508.20).

National Economic Development (NED) Plan—The plan alternative that reasonably maximizes the net national economic benefits in dollars (P&G Section 1.6.3). Net economic benefits are benefits minus costs and are not the same as the benefit-cost ratio.

National Register of Historic Places (NRHP)—The Nation's official list of districts, sites, buildings, structures, and objects which meet the criteria and are worthy of preservation because of their importance in American history, prehistory, architecture, archeology, and culture. The NRHP is maintained by the Secretary of the Interior under the authority of section 101 of the National Historic Preservation Act of 1966.

NED Benefits—"…increases in the economic value of the national output of goods and services from a plan; the value of output resulting from external economies caused by a plan; and the value associated with the use of otherwise unemployed or under-employed labor resources" (P&G Section 1.7.2(a)(2)).

NED Costs—"…opportunity costs of resources used in implementing a plan. These adverse effects include: Implementation outlays, associated costs, and other direct costs" (P&G Section 1.7.2(a)(3)).

No-Action Alternative—See "Future Without Project (FWOP)." Also referred to as no action, no-action alternative plan, no-action conditions, and without-plans condition.

Non-Water-Resource Projects—Watershed projects that are not water resource projects, such as watershed protection, land treatment or ecosystem restoration projects, and locally implemented plans.

Nonstructural Flood Damage Reduction Measure—A flood control measure that reduces susceptibility to flood damage without significantly changing the depth or extent of flooding. Measures include moving structures, demolition and removal of structures, floodproofing or blockage of openings, floodplain acquisition, and measures such as flood warning systems.

Notice of Intent (NOI)—A notice of intent is a brief statement announcing a decision by the responsible Federal official to prepare an EIS for a major Federal action, and inviting public reaction to the decision (see 40 CFR Section 1508.22).

Operation—The administration, management, and performance of nonmaintenance activities necessary to keep a practice safe and functioning as planned (see Title 180, National Operations and Maintenance Manual (NOMM), Part 500, Subpart A, Section 500.02).

Operational (or Active) Project—A project that is in the process of being installed. Land treatment projects are considered operational until all long-term contracts have expired.

Peer Review—An interdisciplinary review to ensure that the plan meets NRCS technical and program requirements.

Period of Analysis—The time required for installation plus the evaluated life of the project is the period of analysis. The period of analysis is the evaluation period when OM&R occurs and the period of implementation when the installation occurs.

Preferred Alternative—The option and course of action that the SLO and NRCS agree best addresses the stated purpose and need.

Preferred plan—The "preferred alternative" (see above).

Preliminary Investigation (PI)—A brief study using existing data and field information.

Program Operations Information Tracking System (POINTS)—POINTS definitions for project plans status:

Watershed Surveys and Planning Program:

Active—A watershed planning project is active when funding for planning is authorized from the Chief.

New—Planning project is new before being authorized by the Chief for planning. These watershed plans may be in the application stage.

Complete—The watershed project plan is complete when approved by the STC ensuring technical and policy adherence, and reviewed by the WSP Program manager for programmatic compliance.

Terminated—A planning project will be terminated when, after it has been determined that there is no possibility of developing a feasible or acceptable project, either the SLO withdraws their application in writing or the STC terminates planning assistance.

Deauthorized—The planning authorization will be cancelled if the watershed plan is not in interagency review within the 5-year time period.

Watershed Operations:

Active— Funding is authorized and project is implemented as funding allows. The continued feasibility of a project is monitored and documented in the project files every 5 years in accordance with NEPA requirements in the Title 190, General Manual, Part 410. Factors to be considered in determining the continued feasibility are economic, environmental and social defensibility and the SLO commitment to continue the project. Modifications are prepared as necessary. Use of other program funds in lieu of Watershed Program funds to implement the plan is acceptable, provided the unfunded Federal commitment is reduced to account for other programs assistance.

Inactive—Activities to implement the project have temporarily ceased because of land use changes in the watershed, reduced local interest, sponsor's capability to proceed with installation, and similar circumstances. Other program funds could be used in lieu of Watershed Program funds to implement the plan, but the amounts are not accounted for to reduce the unfunded Federal commitment in the Watershed Project. Opportunities exist for resumed activity when the STC and SLO agree and notification is provided to the CPTAD director.

Installation Complete—When all planned measures of the original plan, supplements or revisions are installed, and all LTCs have expired. Includes projects in which all measures have not been installed, but were supplemented out of the project plan in order to complete the project.

Deauthorized—When no LTC have been signed, no measures have been installed, no O&M agreements are in effect, and there is no evidence that the project will be implemented.

Project Life Complete—When: all planned measures in the watershed project are implemented, and the evaluated life of the installed measures has ended.

Watershed Rehabilitation:

In Planning—When a watershed rehabilitation plan is being prepared, the plan is not yet authorized. Dam Status for this phase is "Active" when WF-07 funds have been requested for planning within 3 POINTS fund request years, and "Inactive" when funds have not been requested within 3 POINTS fund request years.

In Implementation—When the watershed rehabilitation plan is authorized for implementation by the Chief. Dam Status for this phase is "Active" when WF-07 funds have been requested for implementation within 3 POINTS fund request

years, and "Inactive" when funds have not been requested within 3 POINTS fund request years.

Plan Installed—When all planned measures in the rehabilitation project have been installed or completed.

Installed Without Federal Assistance—When a plan has been prepared and the sponsor selected a rehabilitation alternative other than the Watershed Rehabilitation Program.

Project Actions—A project action is a formally planned undertaking that sponsors carried out within a specified area for the benefit of the general public. Project sponsors are units of government having the legal authority and resources to install, operate, and/or maintain works of improvement.

Project Life—The period over which the project will perform the intended functions.

Proper Farm Plan—This term is used in section 4(5) of the Watershed Protection and Flood Prevention Act that refers to a conservation plan that provides for the essential treatment to protect the resource base and ensure the proper functioning of structural measures.

Reevaluation—Supplemental plan with cost-benefit analysis

Reformulation—Revised plan to reform the alternatives and cost-benefit analysis.

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 planned measures. 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. (See "Cost Categories: Real Property Rights" for costs associated with real property.)

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, Part 500, Subpart A, Section 500.2).

Remedial Assistance—Assistance needed to correct problems caused as a result of a mistake or misjudgment by NRCS during the installation of a measure or as a result of latent site conditions unknown to NRCS or the sponsor or land user at the time of installation. Changes in policy or technical standards, and engineering concepts developed subsequent to the installation of the original measure are not considered mistakes or misjudgments by NRCS (see 390-NWPM, Part 505, Subpart C, "Remedial Assistance", in this manual).

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 measures installed as part of the overall watershed plan. (See section 4(5) of the Public Law 83-566.)

Responsible Federal Official (RFO)—The NRCS Chief is the RFO for compliance with NEPA regarding proposed legislation, programs, legislative reports, regulations, and program EISs. The NRCS STC is the RFO for compliance with the provisions of NEPA in other NRCS-assisted actions. (See Title 190, General Manual (GM), Part 410, Subpart A, Section 410.4.)

Reviewable Record—The set of documents including fact sheets, informational articles, results of public participation activities, etc., that are readily available for public dissemination to inform agencies and the public about NRCS activities. It also includes records that clearly document the nature and extent of public participation. A separate reviewable record must be maintained for each watershed project, river basin study, RC&D area, etc. 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. These records may also include views expressed in letters, telegrams, etc.

Rural or Rural Communities—All territories of a State that are not within the outer boundary of any city or town that has a population of 50,000 or more according to the latest decennial census of the United States. (http://www.census.gov/geo/www/garm.html)

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.

Separable Cost—(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.

Sponsoring Local Organization (SLO)—Any State or political subdivision thereof, any soil or water conservation district, flood prevention or control district, or combinations thereof, or any other agency having authority under State law to carry out, maintain and operate the works of improvement, or any irrigation or reservoir company, water users' association, or similar organization having such authority and not being operated for profit that may be approved by the Secretary; or any Indian Tribe or Tribal organization, as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. Section 450b), having authority under Federal, State, or Indian Tribal law to carry out, maintain, and operate works of improvement. Project sponsors must have the legal authority and resources to carry out, operate, and maintain works of improvement. (Public Law 83-566, Section 2). SLO are also referred to as sponsors, local organizations, local sponsors, and local sponsoring organizations.

State Historic Preservation Officer (SHPO)—The official appointed or designated pursuant to section 10l(b)(1) of the NHPA who is responsible for administering the NHPA and State historic preservation program within the State or jurisdiction, or is a designated representative to act for the SHPO (Title 190, NCRPH, Section 601.60).

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 Section 106 compliance on tribal lands in accordance with section 101(d)(2) of the act. This official is approved to assume the responsibilities of the SHPO on tribal land by the Secretary of Interior under the NHPA (Title 190, NCRPH, Section 601.60).

Water Resource Project—Projects having one or more of the following purposes: flood prevention, water supply, water-based recreation, water quality management (as defined in Public Law 83-566 Section 4), or large scale irrigation or drainage projects. Water Resources

Projects are implemented by a "local organization" (as defined in Public Law 83-566 Section 2).

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 measure, such as an irrigation or drainage canal, floodway, or floodwater retarding structure, included in the plan.

Watershed Program—The Watershed Program consists of activities carried out under the authority of Watershed Protection and Flood Prevention Act (Public Law 83-566, as amended), and the Flood Control Act of 1944 (Public Law 78-534 as amended).

Watershed Project Plans—A document that contains project actions, which are formally planned undertakings carried out within a specified area by sponsors 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.

With-Plan Condition—"The with-plan condition is an estimation of the most probable future condition expected to occur as a result of implementation of a specific alternative plan formulated during a study. The with-plan condition includes changes likely to directly, indirectly, or cumulatively result both from the alternative plan and from all reasonably foreseeable actions that are not part of the plan." (P&G Section 3.2.1)

Works of Improvement—An undertaking for any of the following purposes:

- Flood prevention (including structural and land-treatment measures)
- The conservation, development, utilization, and disposal of water
- The conservation and proper utilization of land in watershed or subwatershed areas not exceeding 250,000 acres 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

606.81 Acronyms

ACHP—Advisory Council on Historic Preservation
CE—Categorical exclusion
CEQ—Council on Environmental Quality
CFR—Code of Federal Regulations
COE—Corps of Engineers
CPPE—Conservation Practice Physical Effects
CPTAD—Conservation and Planning Technical Assistance Division
CTA—Conservation and Technical Assistance
DEIS—Draft Environmental Impact Statement
DSEIS—Draft Supplemental Environmental Impact Statement
EA—Environmental Assessment
EAP—Emergency Action Plan
EE—Environmental Evaluation
EIS—Environmental Impact Statement
EPA—Environmental Protection Agency
EQ—Environmental quality
ESA—Endangered Species Act
FA—Financial assistance
FEIS—Final Environmental Impact Statement
FONSI—Finding of No Significant Impact
FOTG—Field Office Technical Guide
FR—Federal Register
FS—Forest Service
FSA—Farm Services Agency
FSEIS—Final Supplemental Environmental Impact Statement
FWOP—Future Without Project
GM—General Manual
HEP—Habitat evaluation procedures
LTC—Long Term Contract
M&I—Municipal and Industrial Water Supply
MOU—Memorandum of Understanding
NA—No Action
NBAPM—National Basin and Area Planning Manual
NCGCAM—National Contracts, Grants, and Cooperative Agreements Manual
NCRPH—National Cultural Resources Procedures Handbook
NED—National Economic Development
NECH—National Environmental Compliance Handbook
NEM—National Engineering Manual
NEPA—National Environmental Policy Act
NHCP—National Handbook of Conservation Practices
NHPA—National Historic Preservation Act
NHQ—National Headquarters (NRCS)
NOAA—National Oceanic and Atmospheric Administration
NOI—Notice of Intent
NOMM—National Operation and Maintenance Manual
NPPH—National Planning Procedures Handbook
NRCS—Natural Resources Conservation Service

NRD—Natural Resources District
NRHP—National Register of Historic Places
NWMC—National Water Management Center
NWPH—National Watershed Program Handbook
NWPM—National Watershed Program Manual
O&M—Operation and Maintenance
OMB—Office of Management and Budget
OM&R—Operation, maintenance and replacement
OSE—Other social effects
P&G—Economic and Environmental Principals and Guidelines for Water and Related Land Resources Implementation Studies
POINTS—Program Operations Information Tracking System
POW—Program of work
RC&D—Resource Conservation and Development
RED—Regional Economic Development
RFO—Responsible Federal Official
ROD—Record of Decision
RUS—Rural Utilities Service
RWA—Rapid Watershed Assessment
SHPO—State Historic Preservation Officer
SLO—Sponsoring Local Organizations
STC—State Conservationist
SWCD—Soil and Water Conservation District
TA—Technical assistance
THPO—Tribal Historic Preservation Officer
TVA—Tennessee Valley Authority
USACE—U.S. Army Corps of Engineers
U.S.C.—U.S. Code
USDA—U.S. Department of Agriculture
USDA-RD—U.S. Department of Agriculture, Rural Development
USFWS—U.S. Fish and Wildlife Service
WSP Program manager—Watershed Surveys and Planning Program manager

606.13 Plan of Work—Example

Project Name																									
	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	**OUTCOMES-PRODUCTS**	**RELATED PLAN SECTION**
INITIATE PLANNING		8															24								
A.	Written Request for Assistance (SF-424)		4																40						
B.	Discuss Purpose and Need for project with		8	4								4							8	4				Prioritized list of	Purpose and Need
	1. Determine need for Steering Committee		4																4	4					
	2. Define Study Area			4												4			4	8					
	3. Develop Project Map															4		8						Boundary map	Appendix B –
C.	Initial Site Visit		16	16	8	8					8	8							40	8					
D.	Establish Reviewable Record		1																						
	Subtotal—Initial Planning	**8**	**33**	**24**	**8**	**8**					**8**	**12**	**0**	**0**	**0**	**8**	**24**	**8**	**96**	**24**	**96**	**12**	**17**		
Step 1 - IDENTIFY PROBLEMS, OPPORTUNITIES & CONCERNS		4															48								
A.	Publicize planning start locally		2																4	8					
B.	Identify the need for the proposed action (quantify, extent, magnitude, timing, frequency etc.)		4																4	4				List of project needs	Purpose and Need
C.	Identify planning intensity		2																	2				Selected planning	Appendix C –
D.	Assemble interdisciplinary planning team		2																					List of individuals that	List of Preparers
E.	Conduct interdisciplinary planning team meeting		4	4	4	4	4	4	4	4	4	4	4	4	4	4		4		4				Make team member	
F.	Develop Project Plan of Work (POW)		8	8	8	8	8	8	8	8	8	8	8	8	8	8			4	8				Plan of Work	
G.	Develop Public Participation Plan		4																4	4				Public Participation Plan	Consultation and
H.	Gather and review existing data		8	16	8	8	8	8	8	8	8	8	8	8	8	8				8				List of references related	References &
	1. Conduct literature review			16	8	16	16	16	16	16	16	16	16	16	16										
	2. Determine additional data and studies needed																								
I.	Field review / reconnaissance of watershed		8	8	8	8	8	8	8	8	8	8	8	8	8	8				8				Identify resource	Scope of the
J.	Notice of Intent to prepare EIS to Federal Register		4									8												NOI	Consultation and
K.	Obtain local input																							Prioritized list of	Scope of the
	1. Discuss with sponsors		4	4	4	4	4	4	4	4	4	4													
	2. Discuss with local NRCS		4	8	4	4	4	4	4	4	4	4													
	3. Establish Steering Committee if necessary		2																						
	4. Solicit input from Federal / State agencies, Tribes, special groups		2									16													
	5. Publicize and conduct public meetings		24	16	16							16								8					
	Subtotal Step 1 - Identify problems, opportunities, & concerns	**4**	**82**	**80**	**60**	**52**	**52**	**52**	**52**	**52**	**52**	**92**	**44**	**44**	**44**	**28**	**48**	**4**	**16**	**54**	**92**	**12**	**17**		

606.13 Plan of Work—Example

	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
	Step 2 - DETERMINE OBJECTIVES	4															8								
A.	Document Sponsor Objectives		8																	4					
	1. Prioritize Objectives/Resource Issues																							List of resource desired future conditions	Affected Environment
	2. Determine Purposes Associated with Objectives (Desired Future Conditions)																							Prioritized list of resource purposes	Purpose and Need
B.	Write Purpose and Need Statement (40 CFR Section 1508.9b)																							Statement/Paragraph	Purpose and Need
C.	Write Scope of Plan-EA/EIS		8		4	4						4												List of resource issues or concerns	Scope of the EA/EIS & Affected Environment
	Subtotal Step 2 - Determine Objectives	**4**	**16**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**4**	**16**	**2**	**3**		
	Step 3 - INVENTORY RESOURCES	8										40					80								
A.	Conduct resource inventories and watershed assessment																			40					
	1. Identify Resource Attributes/Indicators					8																		List of resource attributes and indicators	Affected Environment
	2. Identify Evaluation Procedures/Methods		2	2	2	2	2	2	2	2	2	2	2	2	2									Selected set of procedures and methods	Appendix C
	3. Identify a forecasting approach (P&G Section 3.4.7)		2	2	2	2	2	2	2	2	2	2	2	2	2									Selected approach	Appendix C
	4. Determine context for each resource issue		2	2	2	2	2	2	2	2	2	2	2	2	2									Description of resource context	Affected Environment
	5. Collect air quality data											2												Location of non-attainment areas	Affected Environment
	6. Identify coastal zone management areas											2												Location of coastal zone management areas	Affected Environment
	7. Identify coral reefs											2												Location of coral reefs	Affected Environment

606.13 Plan of Work—Example

Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
8. Identify ecological critical area												4											Location and size of ecological critical area (acres)	Affected Environment
9. Identify essential fish habitat												8											Location of essential fish habitat	Appendix C
10. Identify fish species												8											Species list and habitat requirements	Affected Environment
11. Identify floodplains			8	8																			Location and size of floodplain (acres)	Affected Environment
12. Collect forest health data									8														Analysis data	Appendix C
13. Inventory highly erodible cropland						8																	Location and size of highly erodible cropland (acres)	Affected Environment
14. Identify invasive species						4						4											Species list	Affected Environment
15. Collect landuse and crop inventory data					8																		Land use and crop distribution information	Affected Environment
16. Identify migratory birds												2											Species list	Affected Environment
17. Identify natural areas											2												Location of natural areas	Affected Environment
18. Identify parklands											2												Location of parklands	Affected Environment
19. Inventory prime and unique farmland					8																		Location and size of prime and unique farmland (acres)	Affected Environment
20. Collect range health data								8															Analysis data	Appendix C
21. Identify riparian areas												8											Location and size of riparian areas (acres)	Affected Environment
22. Identify scenic areas											2												Location of scenic areas	Affected Environment
23. Identify significant scientific features													4										Location of significant scientific features	Affected Environment

606.13 Plan of Work—Example

	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
	24. Collect soil health data							8																Analysis data	Appendix C
	25. Soils inventory data							8																Distribution of soils by land use	Affected Environment
	26. Identify threatened and endangered species												8											List of those present and requirements	Affected Environment
	27. Identify upland wildlife species												8											List of species present and HEP data	Affected Environment
	28. Identify water bodies (streams, lakes, ponds, etc.)					8							8											Characterization of surface water bodies	Affected Environment
	29. Collect water quality data					40																		Documented surface and groundwater quality	Affected Environment
	30. Collect water quantity data			8	16																			Quantities available by use	Affected Environment
	31. Identify wild and scenic rivers												4											Measured extents and locations	Affected Environment
	32. Locate and identify wetlands												56											Type, size (acres), composition	Affected Environment
	33. Identify wetland wildlife species												8											List of species present and HEP data	Affected Environment
	34. Collect HGM Data												8											Analysis data	Appendix C
	35. Collect WHEG or other methodology Data												40											Analysis data	Appendix C
	36. Collect SIRMOD/SPAW Model Data					8																		Analysis data	Appendix C
	37. Collect NLEAP/CROPFLEX Data					16																		Analysis data	Appendix C
	38. Collect FUSED Data					8																		Analysis data	Appendix C
	39. Collect RUSLE2 Data						8																	Analysis data	Appendix C
	40. Collect WEQ Data						8																	Analysis data	Appendix C
	41. Collect WEPP Data						8																	Analysis data	Appendix C
B.	Economics and social effects																								
	1. Collect Population demographics										4														
	a. Indentify low income population, minorities, Native Americans, etc.																							People impacted	Affected Environment

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Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
b. Income																							Mean Income and State	Affected
c. Districts																							Jurisdictional boundaries	Affected
2. Identify effects to public health and safety		4	16	8						24													Health and Safety issues	Affected
a. Public water supply																							Present and future	Affected
b. Emergency vehicle and school bus transportation routes																							Travel distances and road conditions	Affected Environment
c. Access to medical facilities, shopping and markets																							Travel distances and road conditions	Affected Environment
d. Road and bridge infrastructure																							Bridge and road	Affected
3. Identify effects to homes, businesses & agricultural operations			16	16						16														
a. Determine effects of drawdown time of detention pool																							Flooding regime/frequency	Affected Environment
b. Current productivity																							Agricultural contribution to the economy	Affected Environment
c. Enterprise input costs																							Labor costs, fuel costs etc.	Affected Environment
d. Damage costs																							Losses of property or crop production	Affected Environment
e. Operation and maintenance costs																							Costs of various farming operations	Affected Environment
4. Identify visual concerns				4							4													
a. Map visual resources, landscape uses and visibility																							Location of Vistas impacted by the project	Affected Environment
b. Determine viewsheds and scenic or unique landscape elements																							Location of Points of Interest impacted by the project	Affected Environment
5. Collect economic data										80														
a. Land cost																							Land values by use	Affected
b. Rental rates																							Rates by land use	Affected Environment
6. Identify non-NEPA laws related to project area		4									4												List of Laws/ Ordinances	Affected Environment
7. Identify approved Regional Water Resource Plans in project area				4																			List of Plan Components that the project could impact	Affected Environment

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	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
C.	Archeological and Historic Resources																								
	1. Determine undertakings and APE													1										APE	Affected
	2. Consultation with SHPO, State Archaeologist, THPO, Federally recognized Tribes													30										APE	Affected Environment
	3. Design and conduct cultural resources surveys of project area													5										Cultural Resources Report Resources	Affected Environment
	4. Literature reviews													1										Cultural Resources Report	Affected En
	5. Field inventory (if necessary)													4										Cultural Resources Report	
	6. Cultural Resources found. Evaluate for NRHP													1										Cultural Resources Report	Affected Environment
	7. Testing, mitigation (if necessary)													10										Testing Report	Affected Environment
	8. Determination of eligibility and effect. Consultation													30										Determination and Effect	Affected Environment
	9. Develop treatment plan and MOA													20										Treatment Plan/MOA	Affected / Installation
	10. Execution of MOA													30										MOA/Data Recovery	
D.	Engineering																								
	1. Surveys															80		40		320					
	a. Topographic survey with elevation-storage-area curves			16																				Analysis data	Appendix C
	b. Sediment storage survey of reservoir (rehabilitation projects)			8																				Historic sedimentation rate	Affected Environment
	c. Locate needed cross sections			16																				Analysis data	Appendix C
	d. Houses, roads, bridges in breach zone/100-yr and 500-yr floodplain			8																				Analysis data	Affected Environment
	2. Evaluate condition of structure																								
	a. Structures				16																			Location and condition of structures	Affected Environment
	b. Dam (rehabilitation projects)				16																			Location and condition of dam	Affected Environment
	c. Principal spillway conduit, inlet and outlet (PS - rehabilitation projects)				8																			Condition of PS	Affected Environment
	d. Auxiliary spillway (AS - rehabilitation projects)				4																			Condition of AS	Affected Environment

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	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
	e. Appurtenances (rehabilitation projects)				4																			Condition of appurtenances	Affected Environment
E	Geology																							Geologic formations, site suitability, etc.	Affected Environment
	a. Review existing geologic information														16										
	b. Perform preliminary geologic investigation														80										
F.	Support maps																							Support maps	Appendix C –
	a. Digitize watershed boundary																	8							
	b. Digitize wetlands by type																	16							
	c. Digitize water bodies																	8							
	d. Digitize land use																	80							
	e. Digitize soils																	80							
G.	Document Problem		40	16	16	24					24	16	24	16	16									Narrative	Purpose and Need
	Subtotal Step 3 - Inventory Resources	**8**	**54**	**118**	**126**	**134**	**42**	**22**	**14**	**14**	**154**	**82**	**204**	**158**	**118**	**80**	**80**	**232**	**0**	**360**	**360**	**45**	**63**		
Step 4 - ANALYZE RESOURCE DATA		8	40														40								
A.	Analyze existing data																								
	1. Generate resource statistics																	8						Trends	Affected
	2. Develop support maps																	80						Support maps	Appendix C
	3. Evaluate air quality data											4												Negative trends or	Affected
	4. Classify fishery												32											Resource condition or	Affected
	5. Determine forest health									32														Resource condition or	Affected
	6. Determine range health								32															Resource condition or	Affected
	7. Determine riparian proper functioning condition (PFC)												32											Resource condition or health index	Affected Environment &
	8. Determine soil health							32																Resource condition or	Affected
	9. Evaluate water quality data					56																		Negative trends or	Affected
	10. Evaluate water quantity data				40																			Negative trends or	Affected
	11. Classify wetlands												40											Type, size (acres),	Affected
	12. Use HGM												24											Analysis Tools/Methods	Affected
	13. Use WHEG or other methodology												40											Analysis Tools/Methods	Affected
	14. Use SIRMOD/SPAW				16	32																		Analysis Tools/Methods	Affected
	15. Use NLEAP/CROPFLEX					40																		Analysis Tools/Methods	Affected
	16. Use FUSED					16																		Analysis Tools/Methods	Affected
	17. Use RUSLE2						32																	Analysis Tools/Methods	Affected

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	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
	18. Use WEQ						32																	Analysis Tools/Methods	Affected
	19. Use WEPP						32																	Analysis Tools/Methods	Affected
	20. Quantify Onsite/Offsite damages				16	16					32													Property damage or	Affected
	21. Develop resource existing conditions					40																		Resource condition or	Affected
B.	Geology																								
	1. Erosion studies—sheet & rill, ephemeral, gully, channel, etc.										8				8									Quantify soil erosion	Affected Environment &
	2. Sedimentation																							Quantify damages	Affected
	a. Determine sedimentation delivery ratios														4										
	b. Determine onsite/offsite sedimentation rates														12			4							
	3. Soil Mechanics Lab testing and analysis																		240					Analysis Tools/Methods	Affected
	4. Ground water safe yield analysis														40									Aquifer safe yield	Affected
C.	Hydrology and Hydraulics															12									
	1. Determine impact area			8												4								Analysis Tools/Methods	Affected
	2. Research and review existing hydrology/hydraulic models			24																				Analysis Tools/Methods	Affected Environment &
	3. Develop watershed schematic			4																				Analysis Tools/Methods	Affected
	4. Determine watershed conditions (CN, Tc, rainfall, etc.)			24												8		16						Analysis Tools/Methods	Affected Environment &
	5. Run preliminary hydraulics			60																				Analysis Tools/Methods	Affected
	6. Develop hydrologic model for watershed			40												4								Analysis Tools/Methods	Affected
	7. Run hydrologic models																							Analysis Tools/Methods	Affected
	a. Existing conditions			60												8									
	b. Future-without-project condition			40												16		16							
	8. Review Municipal & Industrial or Rural Water supply studies				74											8								Analysis Tools/Methods	Affected Environment & Appendix C
D.	Review Cultural Resource data													8										NRHP eligibility	Affected
E.	Economics and social effects (future-without-project condition)																								
	1. Urban or developed area damages																							Net returns, cost of	Affected
	a. Denote on aerial photo affected properties			4												4		4							
	b. Determine property values (structure and										16														
	c. Survey first floor elevations of properties			4																80					
	d. Determine "damage starts" elevation of			2																					

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	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	Critical Path Staff Hours	Critical Path Staff Days	Approximate Calendar Days for Critical Path Hours	OUTCOMES-PRODUCTS	RELATED PLAN SECTION
	e. Run URB1			2							8														
	f. Determine infrastructure damage (roads, bridges, utilities)										8														
	g. Determine costs of utility outage, re-routing traffic										4														
	2. Agricultural area damages										16													Net Returns, cost of	Affected
	3. Nonagricultural area damages (roads, bridges, oil wells, etc.)										8													Net returns, cost of damages	Affected Environment &
	4. Review social resource data										8													Report of condition and	Affected
	5. Review and interpret visual resource data																								
	Subtotal Step 4 - Analyze Resource Data	**8**	**40**	**272**	**146**	**144**	**96**	**32**	**32**	**32**	**140**	**84**	**168**	**8**	**64**	**64**	**40**	**128**	**240**	**80**	**272**	**34**	**48**		
Step 5 - FORMULATE ALTERNATIVES		8															24			24					
A.	Identify quality criteria					8																		List of criteria associated	Formulation
B.	Develop practice/measure list				8	8																		List of project practices	Alternatives
C.	Determine reasonable alternatives considering			16	20	16	16	16	16	16	16	16	16	8	16									Criteria associated with	Alternatives
D.	Determine practice/measure extents				16	32																		Table of practice extents	Alternatives
E.	Determine treatment increments				8						8													List of alternative	Alternatives
F.	Determine practice/measure adoption rates				8																			Participation rate	Alternatives
G.	Identify Permits, Licenses or other Entitlements				4	4						4		4										List of required	Permits and
H.	Define Mitigation strategies				4	4						4		4										List of mitigation	Alternatives &
I.	Determine project costs for each alternative				80											40		16						Alternative cost estimate	Alternatives
	Subtotal Step 5 - Formulate Alternatives	**8**	**36**	**16**	**148**	**72**	**16**	**16**	**16**	**16**	**24**	**24**	**16**	**16**	**16**	**40**	**24**	**16**	**0**	**24**	**148**	**19**	**27**		
Step 6 - EVALUTATE ALTERNATIVES		8															40								
A.	Environmental Evaluation																								
	1. Complete EE and document findings											72	112					8						Analysis Tools/Methods	
B.	Evaluate Resource Data		8																						
	1. Review HGM					8							8											Document predicted	Environmental
	2. Review WHEG or other methodology					8							48											Document predicted	Environmental
	3. Review SIRMOD/SPAW output				16	16																		Document predicted	Environmental
	4. Review NLEAP/CROPFLEX output				16	16																		Document predicted	Environmental
	5. Review FUSED output				8	8																		Document predicted	Environmental
	6. Review RUSLE2 output					8																		Document predicted	Environmental
	7. Review WEQ output					8																		Document predicted	Environmental
	8. Review WEPP output					8																		Document predicted	Environmental

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	9. Review Range Health determinations					8																		Document predicted	Environmental
	10. Review Forest Health determinations					8																		Document predicted	Environmental
	11. Review Fishery classifications					8																		Document predicted	Environmental
	12. Review Soil Health determinations					8																		Document predicted	Environmental
	13. Review Riparian PFC impacts					8																		Document predicted	Environmental
	14. Conduct trend analysis					32																		Document predicted	Environmental
	15. Extrapolate model results					24																		Document predicted	Environmental
	16. Review landscape and visual resource impacts																								
C.	Geology		4																						
	1. Foundation and slope stability																							Document predicted	Environmental
	a. Analyze foundation and slope stability				8										24										
	b. Seismic analysis														8										
	c. Seepage analysis														16										
	d. Recommendations for additional detail geologic investigation														16			4							
	2. Sedimentation																							Document predicted	Environmental
	a. Determine sediment damages														16			4							
	b. Determine future sediment storage requirements (50-100yr)														8			4							
	3. Groundwater analysis														16									Document predicted	Environmental
D.	Hydrology and Hydraulics		4																						
	1. Run hydrologic models																							Document predicted	Environmental
	a. Evaluate future with project condition (varies with alternatives)			40																					
	b. Determine effects structures have on watershed (release flows, discharges, downstream water surface elevations)			40												16		16							
	2. Run SITES model for each dam				24																			Document predicted	Environmental
	3. Breach inundation study (catastrophic failure)																							Document predicted	Environmental
	a. Breach Analysis				24																				
	b. Document effects of breach in report format				16											16		16							
	c. Determine NRCS hazard classification				4																				
	d. Determine dam risk of failure from overtopping (7 CFR Part 650)				4																				

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	4. Develop floodplain maps (breach, 100-yr & 500-yr with and without project)			16												16		24						Document predicted changes in indicators	Environmental Consequences
	5. Determine watershed safe yield for water supply			24																				Document predicted changes in indicators	Environmental Consequences
E.	Economics (all alternatives)		4																						
	1. Determine economic benefits for each alternative										40													NED Account Values Displayed in Alternative Comparison Table (see P&G Chapter 2)	Alternative Comparison Table & Economic Tables
	2. Trend analysis for alternatives										40													Discussion of Incremental Effects of Alternatives (P&G Forecasting 3.4.7&8)	Environmental Consequences
	3. Recreation Area			4							8													Alternative Comparison Table	Alternative Comparison Table & Environmental Consequences
	a. Determine number of visitor-days per year																	4							
	4. Calculate Average Annual damages										8													NED Account Values Displayed in Alternative Comparison Table (see P&G Chapter 2)	Alternative Comparison Table & Economic Tables
	a. Urban, Agricultural and Recreation areas																								
	5. Calculate benefit/cost ratio										2													NED Account Values Displayed in Alternative Comparison Table (see P&G Chapter 2)	Alternative Comparison Table & Economic Tables
	6. Determine NED Plan for Water Resource projects										2													NED Account Values Displayed in Alternative Comparison Table (see P&G Chapter 2)	Alternative Comparison Table & Economic Tables
F.	Identify direct and indirect effects (40 CFR Section 1502.16)					16																		List of effects	Environmental Consequences
G.	Determine Significance of Effects (context & intensity)		24																						
	1. Air quality											4												Document predicted changes in indicators	Environmental Consequences

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2. Archeological and historic properties											2		8										Topic discussion	Environmental Consequences
3. Coastal zone management areas											4												Document predicted changes in indicators	Environmental Consequences
4. Coral reefs											4												Document predicted changes in indicators	Environmental Consequences
5. Ecological critical areas												4											Document predicted changes in indicators	Environmental Consequences
6. Economic and social			4	4	4					16													Document predicted changes in indicators	Environmental Consequences
a. Current productivity																								
b. Damage costs																								
c. Enterprise input costs																								
d. Income																								
e. Land cost																								
f. O&M costs																								
g. Population demographics																								
h. Rental rates																								
7. Environmental Justice										4	4												Topic discussion	Environmental Consequences
8. Erosion and sedimentation			2	8			8							16	16								Document predicted changes in indicators	Environmental Consequences
9. Essential fish habitat											2	8											Document predicted changes in indicators	Environmental Consequences
10. Fish resources												8											Document predicted changes in indicators	Environmental Consequences
11. Floodplains			8	8																			Document predicted changes in indicators	Environmental Consequences
12. Floodwater damage			4							2													Document predicted changes in indicators	Environmental Consequences
13. Forest health									8														Document predicted changes in indicators	Environmental Consequences
14. Highly erodible cropland						8																	Document predicted changes in indicators	Environmental Consequences
15. Human health and safety			2	2	2					2													Document predicted changes in indicators	Environmental Consequences

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16. Invasive species						4						4											Document predicted changes in indicators	Environmental Consequences
17. Land use and management				4	4					2	4												Document predicted changes in indicators	Environmental Consequences
18. Migratory birds												2											Document predicted changes in indicators	Environmental Consequences
19. Natural areas											2												Document predicted changes in indicators	Environmental Consequences
20. Parklands											2												Document predicted changes in indicators	Environmental Consequences
21. Prime and unique farmland					8																		Document predicted changes in indicators	Environmental Consequences
22. Range health								8															Document predicted changes in indicators	Environmental Consequences
23. Riparian Corridor PFC impacts												8											Document predicted changes in indicators	Environmental Consequences
24. Scenic areas											2												Document predicted changes in indicators	Environmental Consequences
25. Significant scientific features													4										Document predicted changes in indicators	Environmental Consequences
26. Soil health							8																Document predicted changes in indicators	Environmental Consequences
27. Threatened and endangered species											4	8											Document predicted changes in indicators	Environmental Consequences
28. Transportation and infrastructure			2	4	2					2													Document predicted changes in indicators	Environmental Consequences
29. Visual resources				4	4					4	4		4	4									Document predicted changes in indicators	Environmental Consequences
30. Water bodies (streams, lakes, ponds, etc.)					8						4	8											Document predicted changes in indicators	Environmental Consequences
31. Water Quality				8	8						8												Document predicted changes in indicators	Environmental Consequences
32. Water Quantity			8	8																			Document predicted changes in indicators	Environmental Consequences
33. Wetlands											2	8											Document predicted changes in indicators	Environmental Consequences
34. Wild and scenic rivers												4											Document predicted changes in indicators	Environmental Consequences
35. Wildlife resources											2	8											Document predicted changes in indicators	Environmental Consequences

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	36. Other resource concerns				8	8	8				8	8		8										Document predicted changes in indicators	Environmental Consequences
H.	Develop mitigation or reformulate to avoid adverse environmental effects		4																						
	1. Environmental				8							16	8											Mitigation	Environmental Consequences & Mitigation
	2. Downstream erosion			24	8										8									Mitigation	Environmental Consequences & Mitigation
	3. Landscape and visual resources																								
I.	Determine potential for effect controversy		4		4							4												Controversy Analysis	Environmental Consequences
J.	Identify possible conflicts between Federal, State, Local and Tribal; Policies, Laws, and Objectives (40 CFR Section 1502.16)		4		4							4		4										List of Conflicts	Environmental Consequences
K.	Identify major environmental conflicts resolved (7 CFR Part 650)											4												Discussion of Resolved Conflicts	Environmental Consequences
L.	Identify unresolved environmental conflicts & NRCS proposed resolution (7 CFR Part 650)											4												Discussion of Unresolved Conflicts	Environmental Consequences
M.	Identify consistency with Regional Water Resource plans (7 CFR Part 650)		4		4	4					4	4												Statement of Consistency Status	Environmental Consequences
N.	Identify and determine if effects are cumulatively significant (7 CFR Part 650)		2			8						8	8											Result of Cumulative Effect Analysis	Environmental Consequences
O.	Identify adverse environmental effects that can't be avoided (40 CFR Section 1502.16, 7 CFR Part 650)		2			8						8	8											Discussion of unavoidable adverse	Environmental Consequences
P.	Determine the impacts on short-term land use (40 CFR Section 1502.16, 7 CFR Part 650)		2		2	4					4	2	2											Discussion of Impacts Analysis	Environmental Consequences
Q.	Determine impacts to long-term productivity (40 CFR Section 1502.16, 7 CFR Part 650)		2		2	4					4	2	2											Discussion of Impacts Analysis	Environmental Consequences
R.	Determine energy and natural or depletable resource requirements & conservation potential (40 CFR Section 1502.16)		2		2	2					2	8	2											Report of Energy and Depletable Resource Requirements	Environmental Consequences
S.	Determine urban quality impacts (40 CFR Section		2		2	2					4	2	2											Impacts Report	Environmental
T.	Determine reuse and conservation potential of Alternatives (40 CFR Section 1502.16)		2		2	4					4	4	2											Report discussing these Topics	Environmental Consequences
U.	Identify Risks and Uncertainty of effects (7 CFR		2		2	2					8	4	2											Result of Risk Analysis	Environmental

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V.	Determine if Actions create any precedents (7 CFR Part 650)		2		2	2					2	8	2											Statement of Precedents	Environmental Consequences
W.	Identify irreversible or irretrievable commitments of resources (40 CFR Section 1502.16, 7 CFR Part		2		2	4					4	4	2											Discussion of Resource Commitment Analysis	Environmental Consequences
	Subtotal Step 6 - Evaluate Alternatives	**8**	**80**	**178**	**226**	**288**	**20**	**16**	**8**	**8**	**176**	**224**	**278**	**28**	**132**	**64**	**40**	**80**	**0**	**0**	**288**	**36**	**51**		
Step 7 - Make Decisions		8															120								
A.	Compare Alternatives (NED, EQ, OSE and RED accounts)		2	2	6						6														Comparison of Alternatives Table
B.	Review Alternatives with Sponsors		8	8	8	8						8								8					Consultation and
C.	Identify preferred alternative		2			2					2													Preferred Alternative	Provisions of the
D.	Determine level of NEPA documentation required		2									2													
E.	Prepare draft document for review																							Draft Plan/EA or	
	1. Develop Plan cover		2			2										8									
	2. Write Summary/Fact Sheet (40 CFR Section 1502.12)		2	2	2	4	2	2	2	2	2	2	2	2	2										
	3. Write Purpose and Need section		4	4	4	16	4	4	4	4	4	4	4	4	4					16					
	4. Review and refine Scope of Plan-EA/EIS		2	1	1	4	1	1	1	1	1	1	1	1	1										
	5. Write Affected Environment section		2	8	8	16	8	8	8	8	8	8	8	8	8					16					
	6. Write Alternatives section		8																						
	a. Write Formulation Process section			4	4	8	4	4	4	4	4	4	4	4	4										
	b. Write Alternatives Considered but Eliminated			4	4	8	4	4	4	4	4	4	4	4	4										
	c. Write Description of Alternatives section			4	4	8	4	4	4	4	4	4	4	4	4										
	7. Develop Comparison of Alternatives Table			4	4	16	4	4	4	4	8	8	4	4	4										
	8. Write Environmental Consequences section		8	16	16	32	16	16	16	16	16	24	16	8	8										
	9. Write Consultation and Public Participation section (7 CFR Part 650)		2			8						8	4	4											
	10. Write Provisions of the Preferred Alternative		4																						
	a. Write Rationale for Alternative Preference					8					4	4													
	b. Write Measures to be Installed section			4	4	8						4													
	c. Write Mitigation section		2		4	8						8	24												
	d. Write Permits and Compliance section				4	4						4		2											
	e. Write Costs and Cost Sharing section				4	4					8														
	f. Write Installation and Finance section				4	4					8														

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	g. Write Operation, Maintenance and Replacement section			4	8	8					2	4													
	h. Develop Economic and Structural Tables			16	16	16					16														
	11. Write References section		2	2	2	8	2	2	2	2	2	2	2	2	2										
	12. Write List of Preparers section (40 CFR Section		2			4																			
	13. Write Distribution List section (40 CFR Section		2			4																			
	14. Write Index section (40 CFR Section 1502.10)		2	2	2	8	2	2	2	2	2	2	2	2	2										
	15. Appendices																								
	a. Finalize Appendix C: Support Maps		2	4	4	4	4	4				4	4		4	8		16		4					
	b. Write Investigation and Analysis Section		2	16	16	24	16	16	16	16	24	16	16	16	16										
	c. Compile Appendix D: Supporting Information		2	4	4	4	4	4	4	4	4	4	4	4	4	4		4		4					
	d. Update Project Map		2		2	2										8		16							
	16. Prepare Watershed Agreement		2		8	8					8	8													
	17. Prepare Landrights Work Maps		2		16											80		80							
	Subtotal - Make Decisions	8	70	109	159	258	75	75	71	71	133	137	107	69	67	108	120	116	0	48	**258**	**33**	**47**		
F.	**Reviews**	8															40								
	1. Conduct internal interdisciplinary State Office		40	40	40	40	40	40	40	40	40	40	40	40	40					40				Discipline Comments	
	a. Make Plan modifications					16																		Draft Plan/EA or	
	2. Technical review by NWMC																		240					Discipline Comments	
	a. Make Plan revisions		4	8	8	24	8	8	8	8	8	8	8	8	8									Draft Plan/EA or	
	3. Sponsor Draft Plan/EA review																			240				Sponsor Comments	
	4. Conduct Inter-Agency review																		360					Agency Comments	
	5. Conduct Public meetings		8	8	8	8	8	8	8	8	8	8													
	Subtotal - Reviews	8	52	56	56	88	56	56	56	56	56	56	48	48	48	0	40	0	600	280	**688**	**86**	**86**		
G.	**Prepare Final Plan/EA or EIS**	8															16								
	1. Resolve comments and incorporate changes		16																					Final Plan/EA or	
	a. Revise Plan/EA			8	8	16	8	8	8	8	8	16	8	8	8										
	b. Include Letters and Comments in Appendix A					8																			Appendix A –
	2. Hold additional public meeting if necessary																								
	Subtotal - Prepare Final Plan/EA or EIS	8	16	8	8	24	8	8	8	8	8	16	8	8	8	0	16	0	0	0	**24**	**3**	**5**		
H.	**Final Plan Approval**	16															16								
	1. Final Plan/EA																							Final Plan/EA	
	a. Prepare and sign FONSI		8																						

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b. Prepare and publish FONSI Notice of		4																240						
c. Sign Watershed Agreement/Plan																			160					
d. Make required copies of Plan/EA																								
e. Request funding authorization		4																480						
Subtotal - Plan/EA Approval	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	720	160	**736**	**92**	**92**		
2. Final Plan/EIS																16							Final Plan/EIS	
a. Make required copies of Plan/EIS																								
b. Provide copies of Final Plan/EIS to EPA &		8																						
c. EPA publishes Notice of Availability of the Final Plan/EIS																		240						
d. Prepare and sign Record of Decision		4																						
e. ROD Notice of Availability to Federal Register Liaison																								
f. Sign Watershed Agreement/Plan																			160					
g. Request funding authorization		4																480						
Subtotal - Plan/EIS Approval	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	720	160	**736**	**92**	**92**		
Subtotal Step 7 - Make Decisions	**40**	**154**	**173**	**223**	**370**	**139**	**139**	**135**	**135**	**197**	**209**	**163**	**125**	**123**	**108**	**192**	**116**	**1320**	**488**	**1706**	**214**	**230**		
Total Initiate Planning and Steps 1 through 7	**88**	**495**	**861**	**941**	**1072**	**365**	**277**	**257**	**257**	**751**	**731**	**873**	**379**	**497**	**392**	**456**	**584**	**1672**	**1034**	**2978**	**374**	**456**		
Step 8 - Implement Plan																								
1. Funding																								
2. Permits																								
3. Land rights																								
4. Surveys																								
5. Final Design																								
6. Develop Project Agreement - Landowner																								
7. Develop O&M Agreement																								
8. Technical Assistance																								
9. Construction																								
Total Step 8 – Implement Plan																								
Step 9 - Evaluate the Plan																								
1. Conduct Status Reviews																								
2. Monitor plan measures																								
3. Evaluate plan measures																								

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4. Follow-up with SLO Regarding O&M Inspections																								
Total Step 9 – Evaluate the Plan																								