

Part 600 – National Planning Procedures Handbook

Subpart E – Support Guidance

600.40 Support Guidance for Conservation Effects

A. Purpose and Scope.—Planners must display and evaluate the effects of various conservation alternatives available to the client. The conservation effects process helps planners assist clients with their conservation decisions by—

- (1) Providing a framework in which to organize and present information that facilitates comparison of the positive (gains) and negative (losses) effects of a conservation alternative.
- (2) Permitting consideration of all ecological, economic, and social values pertinent to the evaluation.
- (3) Encouraging the employment of analytical tools at appropriate levels of sophistication to provide information.
- (4) Capitalizing on the knowledge and experience of planners and clients to foster interaction throughout the decisionmaking process.

B. Framework.—Effective conservation is in part dependent on the ability of the planner to integrate information from many disciplines, so the client can make a comprehensive evaluation. In essence, the conservation effects' role in conservation planning is to help systematically record and display effects information, so the client understands the implications of his or her decisions. Effects are defined as the measurable and describable results of treatments, practices, and systems.

C. The conservation effects process requires three categories of information, which include descriptions of—

- (1) The resource setting (e.g., predominant soils, rainfall, relationships to other planning areas).
- (2) The production and conservation systems expressed as the kinds, amounts, and timing of actions (e.g., crops, farming operations, conservation practices).
- (3) The effects of the production and conservation systems on ecological, economic, and social considerations (e.g., erosion rates, net income, habitat values).

D. The resource setting, kinds, amounts, and timing of actions and the effects of those actions are recorded in the case file.

E. Conservation Effects Concepts

- (1) Benchmark.—Planning efforts always identify the present condition of the planning area, which is known as the “benchmark condition.” The planner and client work together to develop a picture of existing enterprises, resource conditions, trends, resource concerns, opportunities, and objectives. The assistance provided is based upon SWAPAE+H resources. The description of benchmark conditions could include other inventories and evaluations as needed. It may include a description of current crops, farming practices, livestock type and condition, and available equipment. Consideration of sociological and economic characteristics is also needed. Planning objectives and the complexity of each situation determine the level of detail necessary for inventories and evaluations.
 - (i) For areawide conservation planning, points of reference other than the benchmark condition are sometimes used for discussion and comparison purposes. For instance, it is beneficial to forecast the resource conditions expected at some point in the future by just maintaining the current levels of resource management and treatment.

- (ii) The objectives of the client affect the kind and amount of information gathered and evaluated. However, the formulation of planning objectives requires that the objectives of society as well as those of the client be considered. The planning process must also identify opportunities. This creates a broader view that goes beyond the search for resource problems to recognize where resource enhancements may be achieved. For example, if a given area does not have a significant soil resource concern onsite, opportunities may still exist to make on-farm improvements that could increase efficiency and profitability, while at the same time reducing negative water or air quality effects offsite.
- (2) Alternatives.—Alternatives that meet both client and societal objectives need to be considered after the benchmark situation and expected future trends are noted.
 - (i) An alternative treats one or more resource concerns. It may be a single practice or a RMS. Proposed alternatives must be consistent with the FOTG, Sections II, III and IV. Apart from the FOTG, the experience and knowledge of the planner and decisionmaker are the main sources of information used for selection of the preferred alternative.
 - (ii) Certain steps or actions need to be taken to achieve a specific alternative. Examples include a change in cropping sequence; land use; time of seeding, tillage, or cultivation; structural improvements to the farm; or simply reducing the speed of a single tillage operation.
 - (iii) One of the most useful learning experiences for planners and clients is to visit land managers who have successful conservation treatments already applied. If successful on-farm experiences are documented and shared, such as case studies, the knowledge base of others, inside and outside the agency, could also be easily enhanced. Such experiences will be recorded first in physical and biological terms, rather than monetary ones, because monetary values are simply a translation of the former and can be expressed in current dollars at any time.
- (3) Effects.—The proposed alternatives are compared with the benchmark condition to estimate the outcome of the actions. The effect of conservation alternatives is the difference between the benchmark and the proposed alternative. Quantification of the effects depends upon the degree of detail used to describe or measure the benchmark and expected alternative conditions. The effect will be described in narrative form, in qualitative terms, at a minimum, and in quantitative terms to the extent possible. It will also be recorded in an easy-to-understand manner for consideration by the decisionmaker.

Differences in erosion rates, habitat values, water quality, acres farmed, bushels harvested, labor and fuel requirements, pesticides used, and other such information will all be documented to the extent that such information is needed by the client or is required by the agency. The timeframe when the effect occurs might also be identified, because certain actions, such as pasture improvements, can result in immediate costs, but the resulting yield increases may be delayed and then occur for an extended period of time.

- (4) Values.—Each individual's values affect the relative merits of an effect. Ten additional quail may be a positive effect to one person and a negative one to another. An individual's values may be in harmony with society's best interest, or they may be in direct conflict. Once values have been applied to the effects, the positive and negative points may be listed. This listing can start out in a general manner and can then be expanded to more and more detailed levels. The procedure may involve traveling back through the decisionmaking process or producing increasingly sophisticated levels of detail on the same effect. The process is continued until the client has enough detail to make an informed decision. In most cases, the planner will estimate the costs and describe necessary maintenance for each of the alternatives. Often, a

limited amount of detailed information is sufficient. Occasionally, however, a more complex analysis is needed. This is where the concepts presented in this handbook may help.

F. Case Studies.—Information regarding the effects of conservation can be collected from any source, but in the absence of extensive research results or local expert knowledge, a case study is a convenient and relevant way to collect this information. A case study enables the conservation planner to document conservation systems currently used in a specific farming or ranching community, along with the motivations that led to their adoption. Having ready data about the effect of conservation systems enhances the client's ability to implement effective conservation technologies.

G. A case study is also a way to record conservation effects information. Resulting case studies become part of the FOTG, Section V, Part B (Conservation Effects).

- (1) Types of Case Studies.—The three types of case studies are as follows:
 - (i) A comparison of the "before and after treatment" conditions on a single site
 - (ii) A comparison of two separate but comparable resources and land use situations (sites) on different farms or even on the same farm (e.g., one site with and one without treatment)
 - (iii) A simple recording of client experiences with treatment on a single site regardless of the earlier conditions
- (2) Procedure.—The FOTG, Section V, contains procedural references on guidance for the development and use of case studies as a source of conservation effects information. This is a useful reference for those interested in developing their own case study files.

H. The Conservation Effects Assessment Project (CEAP) is a multiagency effort to quantify the environmental effects of conservation practices and programs and develop the science base for managing the agricultural landscape for environmental quality. Project findings will be used to guide USDA conservation policy and program development and help conservationists and clients make more informed conservation decisions.

600.41 Integrating NEPA into the Planning Process

A. NEPA requirements will be incorporated into all steps and activities of the planning process as applicable and will not be considered as a separate process or requirement. The level of NEPA documentation will depend on findings during the scoping process or the environmental evaluation. EEs, which may lead to an EA or EIS, will be conducted for all NRCS planning activities and will be used to help determine the level of NEPA documentation required. Planners will identify the level of NEPA documentation required for each planning activity as early in the planning process as possible, and incorporate activities into each planning step to ensure that information required for NEPA documentation is developed simultaneously with the plan document. (Note that some programs such as the Watershed Program (PL-566) have specific planning procedures and plan content and format requirements. See the National Watershed Program Manual and Handbook).

B. Specific guidance related to general NRCS environmental compliance for NEPA, as well as all special environmental concerns (SECs) listed on the Form NRCS-CPA-52, "Environmental Evaluation Worksheet," can be found in section 600.71 and in Title 190, National Environmental Compliance Handbook (NECH), Part 610, in eDirectives.

- (1) NRCS administers Federal assistance within the overall environmental policies outlined in 190-GM, Part 410, Subpart A, Section 410.3. It is important to note that NRCS policy is to consider environmental quality equal to economic, social, and other factors in decisionmaking. These policies were developed to comply with the requirements established by the CEQ, which requires Federal agencies to follow a systematic process when a Federal

action is proposed. CEQ regulations that implement NEPA also require that Federal agencies promulgate their own regulations that implement NEPA for their actions.

- (2) NRCS regulations and policy implementing NEPA identify categories of activities that normally are categorically excluded, normally require an EA, and normally require an EIS. (See NRCS implementing regulations for NEPA in 7 CFR Part 650 and NRCS environmental compliance policy in 190-GM, Part 410.)
- (3) Refer to the NRCS NEPA compliance flowchart in the National Environmental Compliance Handbook (190-NECH, Part 610, Subpart H, Section 610.100).

C. Applicability of the Environmental Evaluation in the Conservation Planning Process.—NRCS is required to conduct an EE for all planning and financial assistance, including, but not limited to the following:

- (1) Development of individual conservation plans (including component plans, such as nutrient management plans and CNMPs)
- (2) Areawide and watershed planning
- (3) Financial assistance in the form of grants (e.g., Conservation Innovation Grants (CIGs))
- (4) Conservation planning activities contracted to entities outside of NRCS (e.g., technical service providers (TSPs)).
- (5) All NRCS conservation programs, including financial assistance
- (6) Other State, Tribal, Territorial, or local programs that require NRCS approval (e.g., State cost-share program requiring NRCS approval of conservation practice completion)
- (7) The establishment of new structures associated with Snowpack Telemetry (SNOTEL) sites, plant material facilities, etc.
- (8) Propagation and release of plant materials
- (9) Emergency Watershed Program (EWP) damage survey reports (DSRs) (using the DSR form in the EWP Manual)
- (10) NRCS-assisted programs through outside agencies (e.g., FSA for CRP, BCAP, etc.)
- (11) Infrastructure projects on NRCS easements (e.g., pipelines crossing easements)

D. The EE is used to determine the need for an EA or an EIS. The results of the EE are documented on the NRCS-CPA-52, “Environmental Evaluation Worksheet.” Among other things, the NRCS-CPA-52 is used to document the appropriate use of a categorical exclusion and existing environmental analysis. The form, instructions and the worksheet can be found on the NRCS National Environmental Compliance Web site. A copy of the blank form is in section 600.71 Exception: An EE is not required when making Food Security Act highly erodible land (HEL) determinations or wetland determinations.

E. As a result of the EE process, the conclusions (“findings”) that may be reached include any of the following:

- (1) There is no Federal action, as defined by NEPA, subject to NRCS Federal regulations occurring that requires a NEPA document (see 190-NECH, Subpart D, Section 610.43, “The National Environmental Policy Act”).
- (2) The action is a Federal action that is categorically excluded with no extraordinary circumstances present so no further documentation is needed (see 190-NECH, Subpart D, Section 610.46, “The National Environmental Policy Act”).
- (3) There is an existing NRCS State, Tribal, Territorial, regional, or national programmatic NEPA document that has sufficiently analyzed the particular Federal action and there are no predicted significant adverse effects or extraordinary circumstances (see 190-NECH, Subpart F, Section 610.81, “NEPA Tools for Efficiency”).

- (4) Another Federal agency’s NEPA document (EA or EIS) has been formally adopted by NRCS that sufficiently analyzes the specific action (see 190-NECH, Subpart F, Section 610.83, “NEPA Tools for Efficiency”).
- (5) The proposed action is a Federal action that has not been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.

600.42 Working With Individuals and Groups

A. One of the key elements of an effective voluntary conservation program is the planner’s understanding of the factors that influence client behavior. This is true for both individuals and groups. Partnerships and alliances can play a role to identify behavioral characteristics but the individual makes the change.

B. Working With Individuals.—There are myriad factors within the human and physical environment that can shape individuals’ decisions relative to the adoption of conservation practices and systems. Personal values, as well as client needs and concerns, are shaped and reshaped by factors, such as community characteristics (agribusiness support), agency and organizational assistance (training), regulation, and changing climate conditions. In dialoguing with the client throughout the nine-step planning process, the planner must stay abreast of changing needs and conditions that influence the conservation decision process.

- (1) From a financial standpoint, the planner must be aware of the economic factors that affect or result from conservation decisions, such as interest rates, market uncertainty, commodity prices, land tenure, taxes, land rights, customary rental agreements, costs, and farm programs. In addition, many personal characteristics, such as experience, education, background, and the working relationship with NRCS, partners, or the conservation district affect behavior.
- (2) Throughout the planning process, and especially in the inventory phase, the planner seeks to broaden his or her understanding of the client’s willingness to adopt conservation plans. Listening and observing will reveal the barriers and incentives to a client’s adoption of conservation systems and practices. It is the planner’s responsibility to be aware of this information in order to help the client, as appropriate, address the barriers and seek incentives. The planner can discover why a client may be able or willing to adopt a conservation plan by considering questions, such as the following:
 - (i) Is there sufficient ecological, economic, and social information available for the client to make sound decisions, such as alternative systems, effects, impacts, and risks?
 - (ii) Is the system too complex for the client to install and operate?
 - (iii) Are adequate resources available, such as land and labor?
 - (iv) Is the planning and evaluation horizon of the client long enough to realize the benefits of the system?
 - (v) Is there a supporting network of agribusiness, agencies, or citizen groups to help the client install and manage the system?
 - (vi) Does the system require increased management skill to install, operate, and maintain, and if so, is training available to help bridge the gap?
 - (vii) Does NRCS information conflict with other agency or private sector information?
 - (viii) Is the system compatible with existing production goals and enterprises?
 - (ix) Are there any incentives or barriers to changing production methods?
 - (x) Are there USDA or other programs that influence the client?
 - (xi) Can the system be implemented on a small scale? On a large scale?
 - (xii) Are the effects visible?
 - (xiii) Have the risk and uncertainty in the analysis of the system been presented to the client?

C. Working with Groups.—Building alliances and partnerships is another important component of successful voluntary conservation programs. This approach is based on encouraging local land managers and stakeholders to take a greater responsibility for managing the Nation’s resources. This, in turn, can empower local people, reduce the Nation’s dependence on regulation, leverage both dollars and human resources, and reduce duplication of personnel and programs across Federal, State, Tribal, Territorial, and local agencies. The overarching objective is to create a forum in which individual and group interests can be expressed and reconciled, thereby changing the attitudes and behavior of clients and stakeholders.

- (1) Coordinated Resource Management (CRM) is a collaborative, non-adversarial decision-making process. It is an example of one process that can be used for resource planning, problem solving, and conflict resolution and which allows for direct participation of everyone concerned with natural resource management in a given planning area.
- (2) CRM is based on the concept that coordinating the use and management of resources results in improving resource management, minimizing conflict, and solving problems. It focuses on resource needs, and is not limited by individual, agency, or political boundaries.
- (3) A guiding principle of CRM is that those who live, work, and recreate on a given piece of land are the people most interested in and capable of developing plans for its use. They assume ownership of the resulting plan.
- (4) The CRM process is well suited to developing areawide conservation plans. For more information on this process, see the Coordinated Resource Management Guidelines published by the Society for Range Management.
- (5) Developing a desired future condition held by a broad range of land managers, stakeholders, and agencies is essential for this approach to succeed. An interdisciplinary planning approach, where specialists and groups having different technical expertise act as a team to jointly evaluate existing and future environmental quality, can be very effective in bringing people with different interests together. In addition, the local team must identify critical success indicator or planning criteria to measure progress. Success can be measured using indicators, such as attitude changes, acceptance of involvement in an integrated planning process, significant ecological improvements, leveraged funds and personnel, and inputs by other agencies.

D. Historically Underserved Customers.—In working with both individuals and groups, planners must be proactive in identifying historically underserved customers, such as minority, small producers with limited resources, beginning farmers and ranchers, and Tribes. They will ensure that program benefits offered to them are on an equal basis with traditional customers. Also, planners must be aware that barriers may exist that prohibit or discourage participation by these individuals and groups. Those barriers must be identified and addressed in order to ensure equity in program development and participation, and in the delivery of program benefits or services under both federally assisted and federally conducted programs.

- (1) Examples of Barriers
 - (i) Limited Resources
 - (ii) Educational Background or Training
 - (iii) Lack of Equipment, Labor, or Capital
 - (iv) Language
 - (v) Culture
 - (vi) Farm Size
 - (vii) Lack of Access to Information
 - (viii) Limited Cash Flow
 - (ix) Discrimination
 - (x) Alternatives not culturally relevant

- (2) Examples of Actions to Overcome Barriers
 - (i) Educational meetings
 - (ii) Door-to-door contact
 - (iii) Videos
 - (iv) Focus group meetings
 - (v) Printing publications in the local language
 - (vi) Working with community leaders and Tribal elders
 - (vii) Conducting local demonstration projects
 - (viii) Learning about the client's culture
 - (ix) Increased cost-share level
 - (x) Matching conservation alternatives with client's needs and capabilities
 - (xi) Allowing in-kind labor or equipment for the client's contribution
- (3) These barriers and actions are not all-inclusive. They are meant to stimulate thought and action for identifying and effectively working with underserved customers.

E. Risk Management.—Clients make conservation and production decisions in an environment dominated by risk and uncertainty. Risks arise from weather variability, price fluctuations in both inputs and outputs, changes in government programs, regulations, pest infestations, new technology, marketing strategies, financial conditions, and lack of information. The planner must be aware of these risks, how clients manage their risk, and how conservation effects information can help reduce risk.

- (1) The overriding problem in risk management is the lack of relevant, accurate information about probable outcomes. Clients react to the risk problem by using decision rules that mitigate risk (e.g., select the strategy with the best of the worst outcomes, the strategy that provides the least change, or the strategy that ensures survival because loans can be repaid). Clients also seek to reduce production risk by diversifying, selecting more stable enterprises, irrigating, and purchasing insurance (especially crop insurance).
- (2) Market risk can be reduced by spreading sales over time, hedging on the commodity futures market, contracting sales with processors, or participating in various programs. Financial risk can be mitigated by maintaining a cash reserve, using self-liquidating loans (loans that can be paid off with income from collateral; for example, loans for feeder livestock), and steadily increasing net worth.
- (3) Many conservation practices affect a client's risk level. For example, installing terraces may increase the producer's debt, reduce his or her income, and reduce options related to future equipment purchases. On the other hand, terraces can reduce the producer's risk by increasing water availability and preventing soil loss and the formation of gullies that lead to the loss of production and costly equipment repairs. Agronomic practices will have similar risk-increasing or risk-decreasing effects. In all cases, the conservation planner must work with the client to understand his or her risk tolerances and the effects of the conservation system on risk.
- (4) One of the key points to remember is that the risk of a conservation decision can be significantly reduced by providing the decisionmaker with clear, relevant information on what is needed to install and operate the conservation system, its costs, and the onsite and offsite ecological, economic, and social effects.

F. Stewardship.—The term “stewardship” has been used since the beginning of the conservation movement. Webster defines stewardship as “the individual's responsibility to his life and property with proper regard to the rights of others.” In this sense, stewardship implies that land managers view their actions in terms of how they affect their neighbors, their grandchildren, and all those that might be influenced by their production and conservation decisions.

Seen in this light, stewardship is about being responsible. It is about changing attitudes, forging local shared visions of the desired state for private and public natural resources, and facilitating the actions needed to realize the desired future condition. Institutionally, stewardship is about assisting land users to care for the resources.

G. Land Ethic.—The three broad motives for conservation are self-interest, legislation, and ethics. Although self-interest and legislative motivations for conservation are most often addressed by the client and the conservation planner, the land or environmental ethic can play a powerful role in conservation adoption. Understanding the land ethic requires an appreciation of the role of ethics in day-to-day life.

- (1) In a formal sense, ethics is the science of moral duty that deals with idealized human behavior as it relates to achieving the greatest good. In a practical sense, ethics is expressed as a set of moral rules associated with how an individual interacts with other people and society. Whereas instincts impel a person to compete within the community, ethics induce him or her to cooperate within the community.
- (2) In a natural resource setting, ethics can be applied to the relationship between humans and nature. In this context, the land ethic is associated with limitations on the range of actions that might be taken to maximize short-run profits or goals.
- (3) Developing an ethical relationship with the environment or land depends on individuals and society understanding the ecological interconnectedness of the world. As our understanding of natural and human processes improves, the land ethic will evolve from a focus on individual resources, such as soil and water, to a focus on the biotic and abiotic community as a whole.
- (4) In Aldo Leopold’s words, “...a system of conservation based solely on economic self-interest is hopelessly lopsided. It tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are (as far as we know) essential to its healthy functioning. It assumes, falsely, I think, that the economic parts of the biotic clock will function without the uneconomic parts. It tends to relegate to government many functions eventually too large, too complex, or too widely dispersed to be performed by government. An ethical obligation on the part of the private owner is the only visible remedy for these situations.” (Aldo Leopold, *A Sand County Almanac*, 1949)

600.43 Training Courses and Self-Development Opportunities

A. Conservation planning related training courses: Refer to the National Employee Development Center (NEDC) Web page for a NEDC course listing.

- (1) C: Classroom
- (2) S: Self-paced
- (3) W: Web-based
- (4) W(AC): Webinar

NRCS National Courses	Type	Contact
Introduction to NRCS (S,W)	NEDC	NEDS
Conservation Planning: Part I Modules 1-5(W)	NEDC	NEDS
Areawide Conservation Planning (C)	NEDC	NEDS
Economics of Conservation Planning (C)	NEDC	NEDS

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Introduction to Ecological Principles: A Basic Ecology Course (S)	NEDC	NEDS
Introduction to Conservation Planning on Cropland (W,S)	NEDC	NEDS
Introduction to Water Quality (S)	NEDC	NEDS
Nutrient and Pest Management Considerations in Conservation Planning (W)	NEDC	NEDS
Environmental Compliance for Conservation Assistance (W)	NEDC	NEDS
Working Effectively with American Indians (C)	NEDC	NEDS
Working Effectively with Alaska Natives (C)	NEDC	NEDS

NRCS Regional and State Courses	Type	Contact
Conservation Planning Part II Modules 6-8 (C)	State	State
Conservation Planning Part III	Local	Local

B. Regions and States are encouraged to supplement this listing of training courses and self-development opportunities to assist the planner with the planning process, team building, conflict resolution, working with clients and stakeholders, etc.

C. Training Resources

- (1) Aglearn
- (2) S&T Training Library