

## INTRODUCTION

### SECTION V – CONSERVATION EFFECTS

The primary purpose of this section is to assess the effects of conservation practices in order to assist land users in making informed decisions. With a display of conservation effects, field office personnel are able to formulate suitable Conservation Management Systems (CMS) to protect the resource base and to address both the land user's and society's social, cultural resources and economic objectives.

An additional purpose of this section is to serve as a source of appropriate procedures and methods for collecting, analyzing and displaying conservation effects data as an environmental assessment tool.

Collecting conservation effects data is a long-term effort to be undertaken by all offices as part of the follow-up effort in the planning process.

#### **Section V is divided into three parts.**

**Section V-A – “Effects for CMS Formulation”**

**Section V-B – “Effects for Decisionmaking”**

**Section V-C – “Procedural References”**

#### **Section V-A**

Provides information on the effects of conservation practices on the five resources and considerations in the formulation of CMS. The important effects for each of the Resource Management Systems (RMS) developed in Section III are also displayed here in numerical form.

Section V-A generally houses effects information used in evaluating CMS and is dependent on the conservation planning disciplines (soils, agronomy, biology, forestry, engineering, etc.) for input.

#### **V-A-1 – GENERAL EFFECTS DATA – SOIL, WATER, AIR, PLANTS and ANIMALS**

This will house the Conservation Practice Physical Effects (CPPE) worksheet for each of the five resources listed above and should be inserted behind the corresponding title.

#### **V-A-2 – EFFECTS FOR GUIDANCE DOCUMENTS**

Here may be housed refinements of the CPPE including site specific data with quantified or narratively described effects. These are prepared by the field office based upon case studies and local conditions.

#### **Section V-B**

Provides a filing area for case studies or producer experiences as prepared by the field office. The case studies display the effects on all of the decisionmaker's concerns, not merely those that are related to resolving resource problems. They are developed from observation and documentation of experiences of the planner as well as those of the decisionmaker.

#### **V-B-1 – PRODUCER EXPERIENCES**

This will house case studies of resource situations where conservation is successfully applied. It is the comparison of situations before and after conservation that develop the body of knowledge in the community. Potential clients may base their decisions and actions on the successes and failures of their neighbors. Field office personnel will be able to accumulate case studies that represent most of the resource situations found in their service area.

## V-B-2 – OTHER EFFECTS INFORMATION

Other sources of experiential data include watershed documents, experiment station research reports, field trials, demonstration farms and government or university work gathered by the Field Office can be filed here.

## Section V-C

Provides storage area for software programs, models, spreadsheets or other techniques that allow the planner to complete complex procedures. Tips on using some of these procedures, or explanations of whom to go to for help, are stored in this section.

## V-C- - PROCEDURAL REFERENCES

This is the “how to do it” section. It will house instructions and technical notes such as those for developing case studies, identifying and documenting Conservation Management Systems (CMS), and for following the Conservation Effects for Decisionmaking (CED) procedures.

## Understanding The Conservation Practice Physical Effects (CPPE) Process

### Introducing CPPE

Planning the soil, water, air, plant and animal (SWAPA) resources and their interrelationships has increased the complexity of assisting decisionmakers. NRCS can no longer provide alternatives and assistance that address individual problems without considering the effects on all five resources. Our involvement with water quality has brought this reality to the surface, as the public’s concern for the environment has grown.

As a technical agency, NRCS must constantly strive to improve methods to evaluate the potential effects of conservation practices on the resources when providing technical assistance. It is necessary to determine the physical effects relevant to each resource during the planning process. Because a conservation practice has a positive effect on one resource concern does not

necessarily mean it will also have a positive effect on other resources.

## Effects Concept

The conservationist needs to recognize the effect of applying conservation practices in order to select combinations of practices that solve the identified or potential concerns without creating new problems. The effects concept is applicable for formulation of CMS alternatives for specific fields, Conservation Treatment Units (CTUs), or other planning areas. It can also be used to assist in explaining resource problems, and display treatment options. The entire effects process will not be needed when working with each decisionmaker. Documentation of effects on typical land uses in the field office work area will be prepared for local use, training, and planning guidance. Unique or complex situations would warrant documentation of the complete effects. This may include situations where the client needs an RMS to meet regulatory requirements or a new style land management or farming operation is established in the work area.

## What is CPPE?

The Conservation Practice Physical Effects (CPPE) show in a numerical way, the physical effects that conservation practices have on problems for the five resources. This document is to be filed in Section V-A-1 and becomes the foundation for developing site specific worksheets in Section III. The estimation of physical effects is based on professional experience and available technical information. Each resource may have multiple problems that are represented by one of the various columns in the CPPE worksheet. The effects of practices may be greater if they are associated with a land use change.

The key question that should be asked when reviewing the CPPE is, “If this practice is applied, what effect will it have not only on the identified or potential target resource concerns/ considerations but also on all the other resource concerns/considerations contained in the column headings?” The headings in each column of the CPPE briefly describe identified or potential resource concerns/considerations.

### **What Is The Purpose Of CPPE?**

The purpose of CPPE is to emphasize to NRCS personnel and our clients:

- A. The realization that resources are interrelated and the treatment of one resource also affects other resources;
- B. The importance of formulating the Conservation Management System (CMS) by providing a process that:
  1. Considers the effects of practices on individual concerns of each of the five resources;
  2. Facilitates combining practices into potential CMS alternatives, and
  3. Helps evaluate the potential options against quality criteria for achieving a RMS, as described in Section III.

### **Assumptions of CPPE Rating:**

1. Existing land use is maintained.
2. Effects of practices can be displayed on a relative basis of +5 to -5 values.
3. The effects on threatened or endangered species are only valid where the specie actually occurs.