

**Section V-A-1  
General Effects Data**

The Conservation Practice Physical Effects (CPPE) matrix displays the physical effects that conservation practices have on the resource problems for the five natural resources. These general effects are based on experience and available technical information, and were put together by an interdisciplinary team.

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 problem, but also on all other resources problems contained in the column headings?”

**CPPE Matrix Description**

The purpose of these matrices is to help the planner develop a strong awareness of the effects that a conservation practice will have on all of the basic natural resources. Each practice is assumed to be installed according to the standards in Section IV. The effect values are defined as:

- WORSENING indicates the resource concern becomes greater.
- IMPROVEMENT denotes the resource concern diminishes.
- SLIGHT signifies a noticeable but limited increase or decrease in the resource concern commensurate with the potential influence at the site level.
- SUBSTANTIAL denotes that the practice clearly and markedly increases or decreases the resource concern.
- MODERATE describes a condition more than SLIGHT and less than SUBSTANTIAL.
- NEUTRAL indicates that the fully-functioning practice normally causes no change, a negligible change, or a “net” no effect on the resource concern.
- NOT APPLICABLE means the practice normally has no relation to the resource concern.

Table 1 illustrates the relationship used to establish national values in the SmarTech CPPE Matrix.

**Table 1**

Values in the CPPE National Template	Values in SmarTech CPPE
Substantial Improvement	+5
Mod to Substantial Improvement	+4
Moderate Improvement	+3
Slight to Substantial Improvement	+3
Slight to Mod Improvement	+2
Slight Improvement	+1
Not Applicable	0
Neutral	0
Slight Worsening	-1
Slight to Mod Worsening	-2
Moderate Worsening	-3
Slight to Substantial Worsening	-3
Mod to Substantial Worsening	-4
Substantial Worsening	-5

An increase or decrease in the problem indicates the direction the installed conservation practice had on the resource problem. Practices may have short-term or long-term effects.

Resource problems are listed at the top of each column and conservation practices are found on each row. A brief description of problems and practices is also included. The effect that the conservation practice has on the resource problem is found at the intersection of the column and row.

The assumption of the CPPE is that there is a current problem with the resource and the resource problem can be addressed by the installation of a conservation practice. The matrices address broad general effects that may be expected from the practice application.

The effects shown in the matrices in Section V-A-1 will need to be adjusted to reflect site specific conditions for a given practice.

The conservationist needs to recognize the effects of applying conservation practices in order to select combinations of practices that solve the identified or predictable problems without creating new problems. In addition, secondary benefits should be identified. The effects concept is applicable for formulation of CMS options for specific fields, conservation treatment units, or other planning areas. It can also be used to assist in development of FOTG guidance documents and to explain resource problems and potential solutions to the decision maker and to others. It is simply another tool to assist the planning process.

Field Office Technical Guide  
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## Conservation Practice Physical Effects (CPPE)

Additional complete sets of the CPPE may be ordered from the Ecological Sciences and Planning staff of the South National Technical Center, Fort Worth, Texas.