

# WINBREAK/SHELTERBELT ESTABLISHMENT or RENOVATION

## PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service – Practice Codes 380 and 650



### WINDBREAK/SHELTERBELT ESTABLISHMENT or RENOVATION

Windbreaks or Shelterbelts are single to multiple rows of trees and possibly shrubs planted in a linear fashion. They are established upwind of the areas to be protected.

#### PRACTICE INFORMATION

Windbreaks and shelterbelts are primarily used to reduce soil erosion from wind, to protect crops, livestock areas, and farmsteads from wind and related temperature effects, to help control snow deposition and trapping, and to help improve air quality by reducing and intercepting drifting chemicals and odors produced from livestock farms.

Windbreak/Shelterbelt Establishment involves the planting of vegetation to serve the purposes noted above. The effectiveness of a windbreak or shelterbelt is dependent on the height of the mature plants. Therefore, it may take 20 years or more for the practice to become fully functional.

Windbreak/Shelterbelt Renovation involves widening, partial replanting, removing, and

replacing selected trees and shrubs to improve an existing windbreak or shelterbelt. A period of years may also be needed for proper renovation.

These practices can be applied in any area where there is sufficient linear length to establish the windbreak on the lee side of the area to be protected. It is important during planning to consider the dominant wind direction during weather events that cause damage.

#### COMMON ASSOCIATED PRACTICES

Windbreaks and shelterbelts are commonly used in a Conservation Management System with practices such as: Conservation Crop Rotation, Cover Crop, Residue Management, Tree/Shrub Planting, and Upland Wildlife Habitat Management.

Refer to the practice standard in the local Field Office Technical Guide and associated specifications and Job Sheets for further information.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

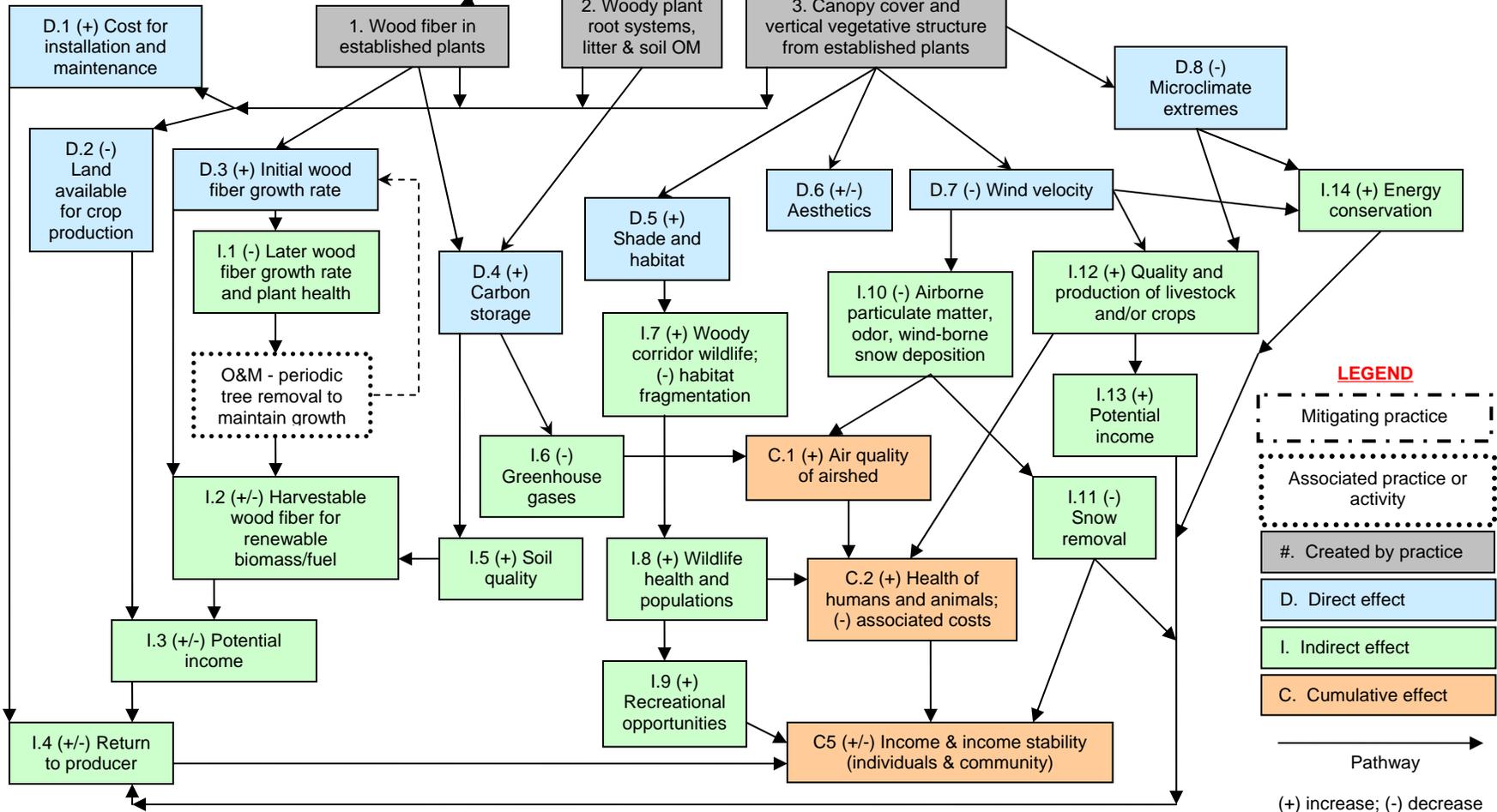
**Windbreak/Shelterbelt Establishment or Renovation**  
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**Windbreak/Shelterbelt Establishment (380), Windbreak/Shelter-belt Renovation (650)**

*Initial Setting: (1) Cropland, forage land, AFO, or urban area where odor, snow drift, animal and human stress related to wind or temperature, and energy consumption are concerns; (2) Existing decadent windbreaks/shelterbelts which have little or no functionality for intended purposes.*



Note: Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.



**LEGEND**

- Mitigating practice
- Associated practice or activity
- # Created by practice
- D. Direct effect
- I. Indirect effect
- C. Cumulative effect
- Pathway

(+) increase; (-) decrease

The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.