



Soil and Water Conservation

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Why soil and water conservation?

Forest landowners who wish to practice stewardship on their lands need to assess the potential negative impact of their management activities on soil and water resources both on and off their property. Soil and water conservation is focused on the prevention of erosion and off-site movement of sediments, nutrients and pesticides, the maintenance of normal water levels in wetlands, and the reduction of flood flows into estuaries. The soil and water components of a forest determine its character and productivity. Influence by people over time has changed the soil and water balances that exist on our forestlands, making conservation an important and necessary management practice. For example, intensive management practices of site preparation, herbicide and fertilizer use, and fire control to increase wood production have altered forest conditions in some areas. If not performed properly these practices have the potential for significant topsoil and nutrient loss. This often results in reduced productivity and increased off-site water pollution. Additionally the cumulative effects of drainage projects in a region often result in reduced water storage capacity and increased downstream flooding, as well as reduced fish/wildlife habitat and species diversity.

Avoiding costly penalties for non-compliance with state and federal regulations provides an additional incentive to manage the soil and water resource. Familiarity with the policies of the U.S. Army Corps of Engineers and Environmental Protection Agency, and the Florida Department of Environmental Regulation and Water Management Districts, can save landowners considerable aggravation and money.

Options for soil and water conservation

Landowners should employ Best Management Practices (BMPs) to minimize soil erosion and water pollution, and Wetland Management Guidelines (WMGs) to protect the wetland resource. These BMPs and WMGs include recommendations for runoff diversion structures for forest roads and skid trails, streamside buffer zones, contour operations, and wetland forest harvesting and regeneration activities.

Regardless of the landowner's objectives, recommendations of a forest stewardship management plan must adhere to minimum standards that include the BMPs and WMGs for soil and water conservation. These standards also promote timber, wildlife, recreational and aesthetic values.

Landowners who have environmentally sensitive forestlands with high erosion potential should design their management plans primarily to protect and enhance the soil and water resources. This includes lands adjacent to estuaries, areas containing wetland-dependent endangered species habitat or buffer zones between agricultural lands and open waters. In such cases, management activities are focused on prevention of erosion and off-site movement of sediments, management of nutrients and herbicides, maintenance of long-term water levels in wet areas, and the reduction of flood flows into estuaries.

Even where management activities emphasize other resources, the forest stewardship management plan must include soil and water conservation as a necessary component. BMPs and WMGs help landowners to protect the soil and water resources. They apply where primary management activities could adversely affect soil and water conditions, or on sites where soil and water management plays an important role.