

## Iowa Field Office Technical - Section II - Special Environmental Concerns

### 14. Riparian Areas

**Assessment Tool:** **Stream Visual Assessment Protocol (SVAP) 2** [from the National Biology Handbook \(NBH\) Subpart B, Part 614](#) (p.176).

**Authority:** **General Manual 190, Part 411**

Riparian areas are ecotones that occur along watercourses or water bodies. They are distinctly different from the surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by free or unbound water in the soil.

Riparian ecotones occupy the transitional area between the terrestrial and aquatic ecosystems. Typical examples would include perennial and intermittent streambanks, floodplains, and lake shores.

Indicators of Riparian Areas include:

- Vegetation - The kinds and amounts of vegetation will reflect the influence of free or unbound water from an associated watercourse or water body and contrasts with terrestrial vegetation.
- Soils - Soils in natural riparian areas consist of stratified sediments of varying textures that are subject to intermittent flooding or fluctuating water tables that may reach the surface. The duration of the soil wetness feature is dependent upon the seasonal meteorological characteristics of the adjacent water body.
- Water - Riparian areas are directly influenced by water from a watercourse or water body. Riparian areas occur along natural watercourses such as perennial or intermittent streams and rivers, or adjacent to natural lakes. They may also occur along man-made watercourses or water bodies such as ditches, canals, ponds, and reservoirs.

Planners may use [USGS topographic maps](#) and/or aerial photographs to identify riparian areas on a farm or ranch.

NRCS will assist the land manager to recognize the values of riparian areas including their contribution to flood control, stream bank stabilization, nutrient cycling, pollutant filtering, and sediment retention. Riparian areas may include fish and wildlife habitat, forage and forest product production, and recreational activities. Local and regional water cycles will affect the size and value of a riparian area.

Riparian areas are not a separate land use, but may exist within all land covers and uses, such as cropland, hayland, pastureland, rangeland, and forest land.

Riparian area management shall be integrated into plans and management alternatives developed for the conservation treatment unit (CTU). Management alternatives will be based on those resource problems and conservation treatments necessary to solve all the resource problems in the CTU and meet the land user's objectives. Because of a riparian area's unique position near watercourses or water bodies, the planner should always consider the water quality and quantity benefits being provided. The plans must maintain or improve those benefits. If the land user's objectives are in conflict with conservation of the riparian area resources, alternatives must be presented that identify ways to resolve conflicts.

The benefits of a good condition, naturally vegetated riparian area include:

- Improved water quality, due to vegetative and soil filtration, absorption and reduced soil erosion.
- Quality wildlife habitat for many species, from insects to big game animals.
- Quality livestock grazing from the lush, high value and diverse vegetation.
- Quality drinking water for wildlife, livestock and people.
- Improved aquatic habitats due to cooler, cleaner water and increased food sources.
- Reduced downstream flooding as water is slowed down and absorbed into soils and shallow aquifers.
- Increased beauty and physical attractiveness of streams, rivers, marshes and lakes.
- Aquifer recharge due to the slower passage of water and improved water movement into soils and water bearing strata.
- Improved recreational attributes for people.
- Provision of wildlife corridors that are critical to many species, especially in urban areas.
- Improved environmental conditions in towns and cities due to atmospheric cooling, air cleansing and sound absorption.