What is a Riparian Zone?

The area where land and water meet, a riparian zone is a plant-rich and diverse part of an ecosystem, it is also essential for the survival of fish. The functions and parts of a healthy riparian zone are listed here.

The Functions:

Food, Water and Shelter
The riparian zone is used by fish and a wide variety of wildlife for many of their needs. Trees and shrubs can provide shelter in bad weather, cover for birthing and foraging (feeding) and hiding areas from predators. The canopy that is formed by the overhanging trees and bushes also allows insects to hatch, providing food for fish and other animals.

Cools the Water
Warm water can be fatal to fish. The shade created by overhanging branches keeps the water cooler in the heat of summer. It also provides cover from predators for aquatic life (frogs, fish, and insects).

Filters Toxins
Roots of trees, shrubs and wetland plants take pollutants out of the water, filtering groundwater before it enters a stream or lake. Many wetland plants that are found in riparian zones absorb elements or chemicals that would be toxic to fish and other aquatic animals.

Raises Water Table
The roots of trees, shrubs and grasses bind together the soil and moisture in the adjacent land. This binding of the soil also helps to raise the water table, which makes the range and grass lands more productive for farmers, ranchers and other users.

Parts of a Riparian Zone

Trees and Shrubs
There are a variety of trees and shrubs that make up a healthy riparian zone. The mix of these trees and shrubs depends on how moist or dry the region is. Generally, the most common trees in this area are: willow, cottonwood, maple, pine, birch and alder. The most common shrubs include: meadows ear, hawthorn, red osier (dogwood) and wild roses.

Grasses
Grasses are the glue that hold most of the surface soils together. Their roots reach far down in to the ground, binding the soil and reducing the amount of soil that can erode into streams and rivers. This soil can smother fish eggs that lay in the gravel. Grasses also provide food and homes for small animals, bugs and wildlife.

Woody Material
Woody materials are often found in or hanging over streams. These materials add shelter from predators and provide a supply of nutrients to the stream from the rotting of the wood.

Rock/Overhangs
Rocks and overhangs also provide shade and protection from predators as well as regulate the rate of the water flow.