

What is a Floodplain?

When a river overflows and spills onto its banks, it leaves behind layers of rock and mud. These layers gradually build up and create a flood plain on the flat land next to the river.

WHY ARE FLOODPLAINS IMPORTANT?

Floodplains are important because they support **diverse and unique ecosystems**. A floodplain can contain 100 times as many plant and animal species as a river.



ALL THAT MUD!

When the river overflows, nutrients are deposited onto the banks, and the water helps to speed up the breakdown of organic material. This makes floodplain soils particularly rich in nutrients for plants and microscopic organisms and great for farming.

The Riparian Zone

A **riparian zone** is an area of vegetation that runs along the bank of a river.



Photo credit: <http://fishandgame.idaho.gov/>

Riparian zones also provide habitat for many animal species. The plants provide nesting sites for birds, and cover for small mammals. In addition, grazing animals, like deer, can find something to eat here all year long.

WHY ARE RIPARIAN ZONES IMPORTANT?

Healthy riparian zones are important to the Ohio River. When it rains, water runs down the hillsides and into the river. We call this rainwater **runoff**. Riparian zones clean this water before it gets to the river, keeping the river healthy and free of harmful chemicals.

Riparian zones help to prevent floods, by slowing the flow of water into the river when it rains. Riparian vegetation can also protect upland habitats when the river waters flow up onto land.

Floodplain Plants



Floodplains are challenging environments for plants. Trees and shrubs have to be able to withstand flooding of the river and can sometimes become buried in silt and sediment deposits. This can make getting enough oxygen difficult. Soils can also be really wet, or really dry, depending on the season and the weather.

HOW DO PLANTS ADAPT?

Some trees will grow their roots only in the upper layers of soil. This way, they can get enough oxygen from the air. Roots will often grow out horizontally, helping to stabilize the tree in the shifting sediment.

Other plants, such as the green ash tree, have small holes in their bark called **lenticels**. These holes allow the plant to take in oxygen from the air.

