What did you see in all these photographs?
The Riparian Zone!

- Riparian zones or areas is the land that is adjacent to rivers and lakes.
- Riparian zones are areas where water-loving plants grow because the soil is saturated with water (groundwater from the lake or river).
- Riparian zones are areas of high BIODIVERSITY (lots of different species of plants and animals).
- Riparian zones are also places where humans like to build towns, farms and transportation routes (e.g. roads and railroads).
The Riparian Zone

**Figure 1** Illustration of the moisture gradient in a typical riparian ecosystem (from Stevens et al. 1995:2).
Plants play a huge role in the riparian zone and are key for maintaining the link between land and water.
Why are they Important?

For Wildlife:

- Provide habitat for many plant and animal species. 80% of wildlife depend on riparian zones for at least some part of their life cycle or habitat.
- Plants provide homes and food for wildlife, and birds and mammals in turn disperse seeds.
- Invertebrates help break down plant and animal matter into nutrients for other organisms and soil.
- Transportation corridors for wildlife.
- Complex predator-prey relationships occur in the riparian zone and help maintain a healthy balance.
Why are they Important?

For Fish:

- Trees and plants that grow in the riparian zone keep the water cool and clean for fish
  - Shade
  - Filter overland flow
  - Stabilize the soil with roots (reduce erosion)

- Leaves, twigs and needles provide nutrients to aquatic invertebrates, which nourish fish.

- Trees fall into the water reduce the energy of the water, protect stream banks, and create pools and cover for fish.

- Salmon need healthy streams to spawn. They bring back nutrients from the ocean that add to riparian zone health.
Why are they Important?

For Humans:

- Riparian zones reduce energy during floods.
- Provide productive areas for agriculture.
- Provide low-lying areas that are easier to develop for roads and communities.
- Trap sediments and contaminants
- Provide scenic places to walk, camp, and simply enjoy.
What does a healthy riparian zone look like?
Two Creeks
What are the differences?

Healthy

Unhealthy
Let’s go back and see those riparian zones again.

Why are they healthy or unhealthy?
Healthy or Unhealthy?
Healthy or Unhealthy?
Healthy or Unhealthy?
Healthy or Unhealthy?