

Importance of Riparian Areas in Maintaining Healthy Watersheds

- Agreeing on a definition
- An interdependent relationship
- Why we should care
- Our challenges and opportunities

Defining Riparian

- Meriam Webster - adjective - "related to or living or located on the bank of a natural watercourse (as a river) or sometimes of a lake or a tidewater"
- Britannica - "Riparian systems occur along rivers and streams that periodically crest their channel confines, (ie., flooding)"
- Leopold, 1997 - "Riparian zone comprises those areas near the river channel that affect the channel and are affected by it."

Why We Should Care

- Definitions point to interdependence of riparian systems with riverine systems
- There is both biological as well as a physical interrelatedness in the systems
- The argument can be made that they should be viewed as a single ecosystem
- Vitally important to watershed function and health

Riparian Areas...

- provide critical physical contributions to the riverine system
 - Promote streambank stability
 - Provide shade and temperature control for habitat
 - Protect water quality and quantity

Rivers and streams...

- Support riparian areas by
 - Providing groundwater
 - Providing surface water through flooding

The riparian zone and river have an interdependent relationship.

Our Challenges

- Loss of 90% of riparian forests in western U.S.
- Causes of loss include channelization, physical modification, and removal
- Loss of riparian system results in loss of dependent aquatic and terrestrial species
- Are we regulating our riparian areas from an ecosystem perspective?
- Can we define causes of land use conflicts?

A Holistic Approach vs. Piecemeal Approach

- We are managing bits and pieces through regulation - statewide, regional and watershed emphasis is missing
- Current fisheries focus leads to an aquatic focus without equal compliment in riparian
- Riparian systems are tremendously hardy and recovery can be swift
- Let's look at a new approach

Interrelatedness

- Habitat Quantity
 - Floodplain Management
 - Water use
 - Buffers
 - Stream Function
 - Habitat Diversity
 - Invasive Species
 - Species Conservation
 - Edge Effect
 - Habitat Integrity
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- The diagram illustrates the interrelatedness of various riparian management and conservation factors. It features two columns of items. The left column includes: Habitat Quantity, Floodplain Management, Water use, Buffers, and Stream Function. The right column includes: Habitat Diversity, Invasive Species, Species Conservation, Edge Effect, and Habitat Integrity. A double-headed arrow connects 'Floodplain Management' and 'Habitat Diversity'. Another double-headed arrow connects 'Water use' and 'Habitat Integrity'.