

# Medical Guidebook

## A Key to Symptoms and Treatments

This purpose of this guide is to describe the **signs** and **symptoms** of riparian ailments. If riparian health is failing, recognizing a condition, through observations or evaluations, is a **first step** to treatment. Treatment options help you begin to **fight riparian ailments**, but the emphasis should always be on prevention and avoidance of poor riparian health rather than treatment.

*The Riparian Doctor*

### Condition

### Symptom Of...

### Treatment Options

## SOILS

- ◆ Sediment deposits on riparian area
- ◆ Too much bare ground
- ◆ Poor vegetation cover
- ◆ Compacted soils
- ◆ Excessive soil erosion or movement

- ◆ Annual floods
- ◆ High levels of disturbance or use
- ◆ High traffic volume: animals, people, vehicles
- ◆ Landscaping or cultivation

- ◆ Natural event; do nothing
- ◆ Reduce use and traffic
- ◆ Rest the site; allow recovery
- ◆ Redistribute animal, human or vehicle use
- ◆ Change timing or season of use
- ◆ Reduce or remove hard surfaces

## PLANTS

- ◆ Many weeds and disturbance related plants
- ◆ Altered vegetation composition
- ◆ Low forage production

#### *Above symptoms plus:*

- ◆ Too many disturbances, too early in growing season, use too long, use too often

#### *Above treatments plus:*

- ◆ Spot treatment on invasive weeds
- ◆ Develop management plan for property

## TREES & SHRUBS

- ◆ Few young trees and shrubs
- ◆ Mushroom-shaped willows
- ◆ Dead trees and shrubs
- ◆ Trees and shrubs missing

#### *Above symptoms plus:*

- ◆ Trampling and chronic, heavy browsing
- ◆ High beaver population
- ◆ Dewatering, diversions, damming

#### *Above treatments plus:*

- ◆ Temporary fencing to allow regeneration
- ◆ Limit livestock use in spring and fall
- ◆ Manage beaver population
- ◆ Examine water management for area

## BANKS & SHORES

- ◆ Unstable shorelines
- ◆ Eroding streambanks
- ◆ Widening of channel
- ◆ Downcutting of channel

#### *Above symptoms plus:*

- ◆ Loss or removal of plants with deep, binding roots and emergent plants (e.g. cattails)
- ◆ Loss of large woody debris
- ◆ Excess energy in the system from watershed changes and channelization

#### *Above treatments plus:*

- ◆ Stabilization to allow natural recovery
- ◆ Reestablish natural meander and flow patterns
- ◆ Monitor for recovery

## FLOW & DEPTH

- ◆ Altered flow or water levels

#### *Above symptoms plus:*

- ◆ Drought (natural)
- ◆ Diversion, drainage, flow control, modified flood timing and magnitude

#### *Above treatments plus:*

- ◆ Trap more runoff with greater plant cover
- ◆ Block drainage ditches and stop draining wetlands
- ◆ Examine water management in watershed

## WATER QUALITY

- ◆ Poor water quality
- ◆ Increased suspended sediment
- ◆ More frequent and intense algae blooms

#### *Above symptoms plus:*

- ◆ Excess soil erosion, excess chemicals or nutrients in or near riparian area
- ◆ Lack of plant cover

#### *Above treatments plus:*

- ◆ Reduce nutrient inputs in or near waterbody
- ◆ Keep plant cover, including cattails and bulrushes for filtration and nutrient uptake
- ◆ Add buffer zones next to riparian area

## FISH & WILDLIFE

- ◆ Declines in fish and wildlife

#### *Above symptoms plus:*

- ◆ Habitat changes
- ◆ Cumulative impacts of all land uses in area

#### *Above treatments plus:*

- ◆ Restore habitat by restoring vegetation communities, through changes in use
- ◆ Protect key habitat areas

*If only it was that easy - to look up a riparian condition and find one solution.*