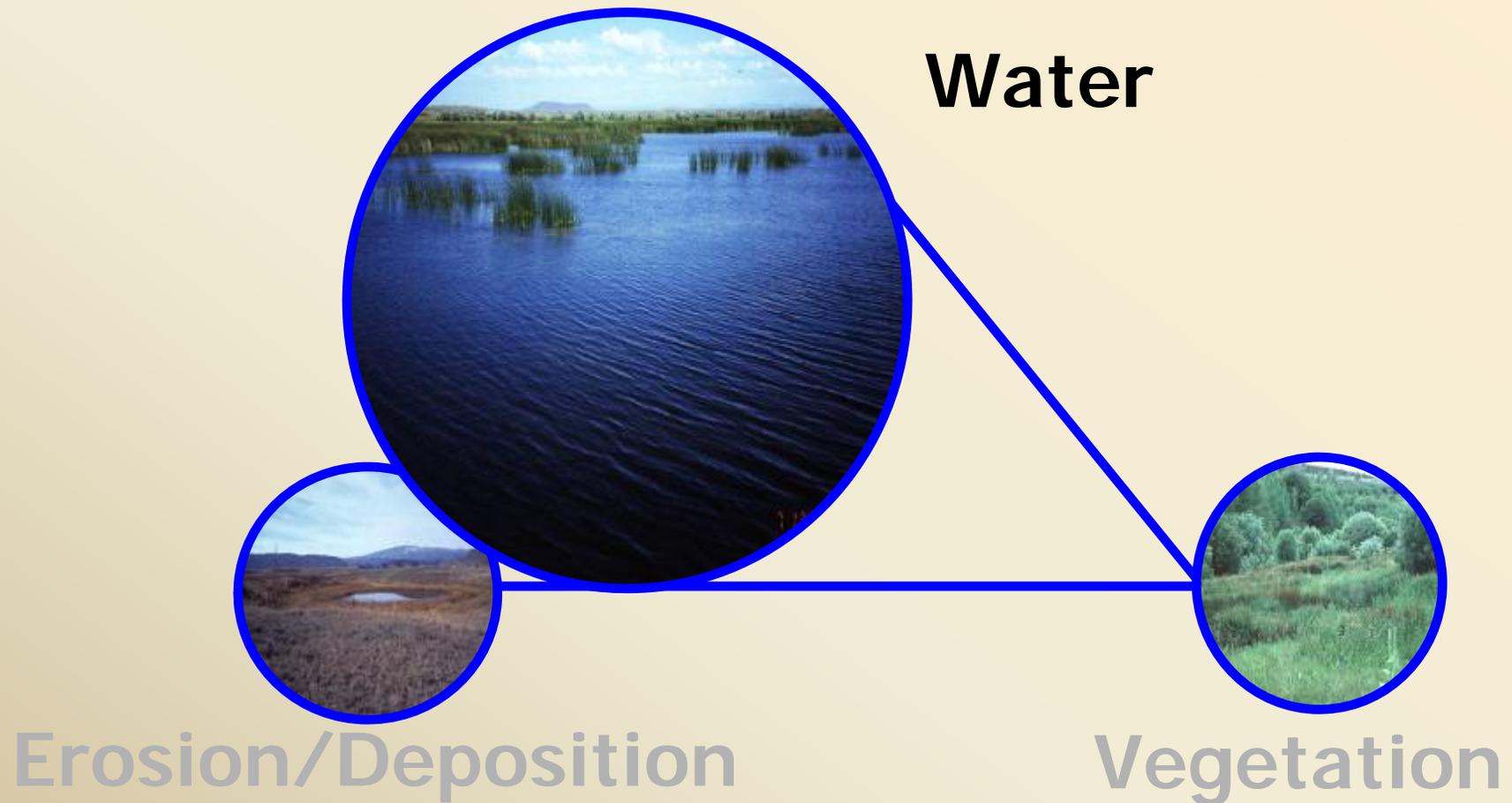


Natural Riparian Resources



- 1) Riparian-wetland area is saturated at or near the surface or inundated in “relatively frequent” events

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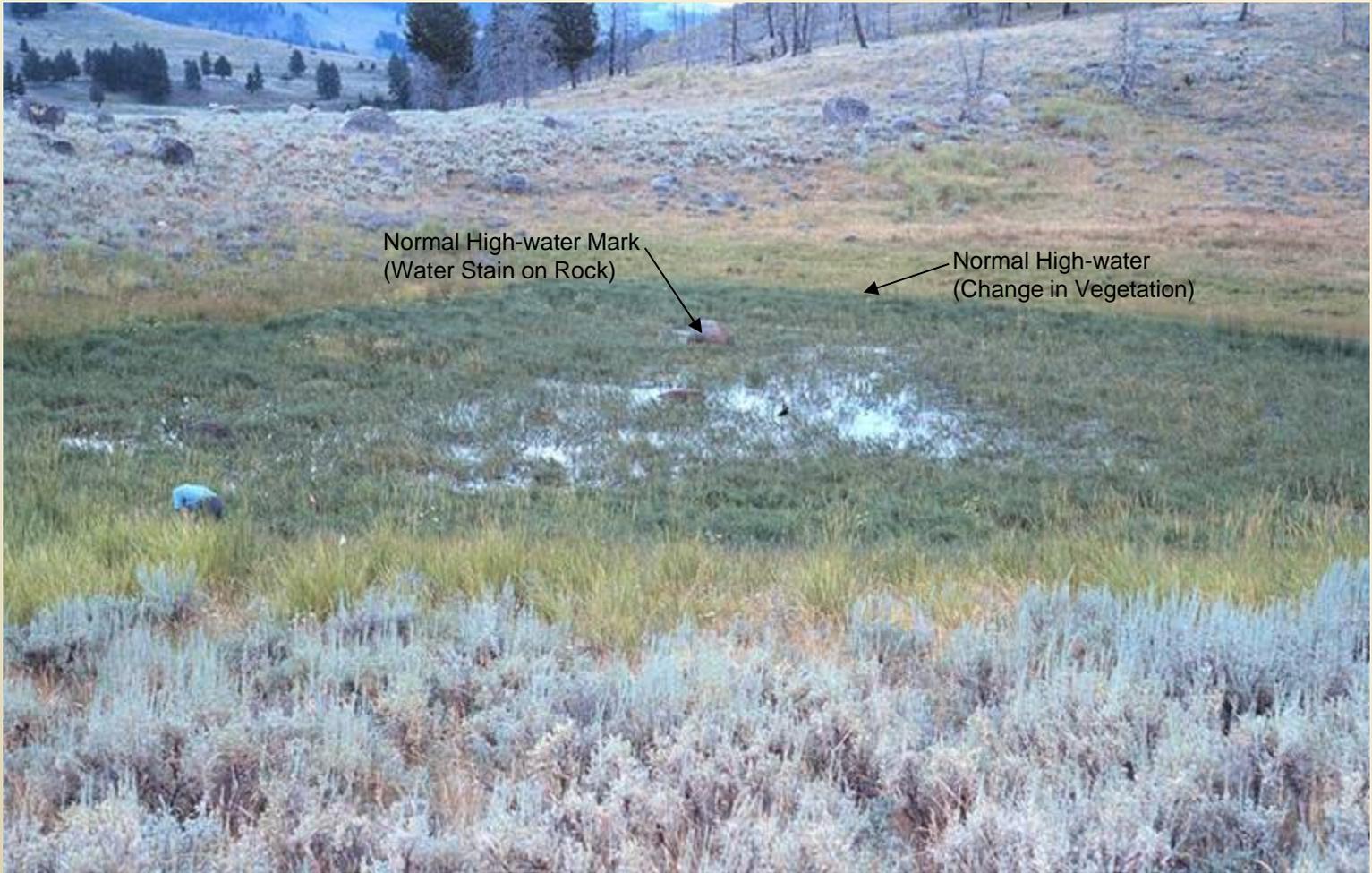
Purpose:

- Document that inundation or saturation is
 - Long enough in duration
 - Occurs frequently enough
- To maintain riparian-wetland characteristics

HYDROLOGIC INDICATORS

- Inundation
- Soil saturation
- Watermarks
- Drift lines
- Sediment deposits
- Drainage patterns
- Oxidized rhizospheres
- Water-stained leaves
- Vegetation

Corps of Engineers Wetlands Delineation Manual, Page 32
<https://www.nwo.usace.army.mil/html/od-r/87-manual.pdf>



Normal High-water Mark
(Water Stain on Rock)

Normal High-water
(Change in Vegetation)

2) Fluctuation of water levels is not excessive

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Purpose:

- Determine if water level changes are within limits that will sustain riparian-wetland vegetation

YELLOWSTONE HGM SITE #4



JUNE 10,1999



JULY 27,1999



SEPTEMBER 22,1999

Ochoco Reservoir



3) Riparian-wetland area is enlarging or has achieved potential extent

3. Riparian-wetland area is enlarging or has reached potential extent

Purpose

- If degradation has occurred, determine if riparian area is
 - Recovering
 - Recovered
- or is at potential extent

Sonoma Lake, Nevada



Kissler Spring, NV



4) Upland watershed is not contributing to riparian-wetland degradation

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- Purpose:

- Determine if there has been a change in water or sediment being delivered to the riparian-wetland area
- Is the change causing degradation?

Spring in Ephemeral Wash



5) Water quality is sufficient to support riparian-wetland plants

5. Water quality is sufficient to support riparian-wetland plants

- Purpose:
 - Determine if water quality is being maintained
 - Allowing the site to produce the kind of vegetation necessary to function properly

Montana Saline Seep



6) Natural surface or subsurface flow patterns are not altered by disturbance (i.e., hoof action, dams, dikes, trails, roads, rills, gullies, drilling activities)

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- Purpose:
 - Determine if surface or subsurface flow patterns are being maintained

Lacustrine Wetland - New Mexico



7) Structure accommodates safe passage of flows (e.g., no headcut affecting dam or spillway)

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- Purpose:
 - If a structure has been constructed to capture more runoff and create a more permanent or larger wetland, determine if the outlet structure provides safe passage of flows

Boulder Reservoir Spillway, WY





Prairie Pothole Wetland - Montana

