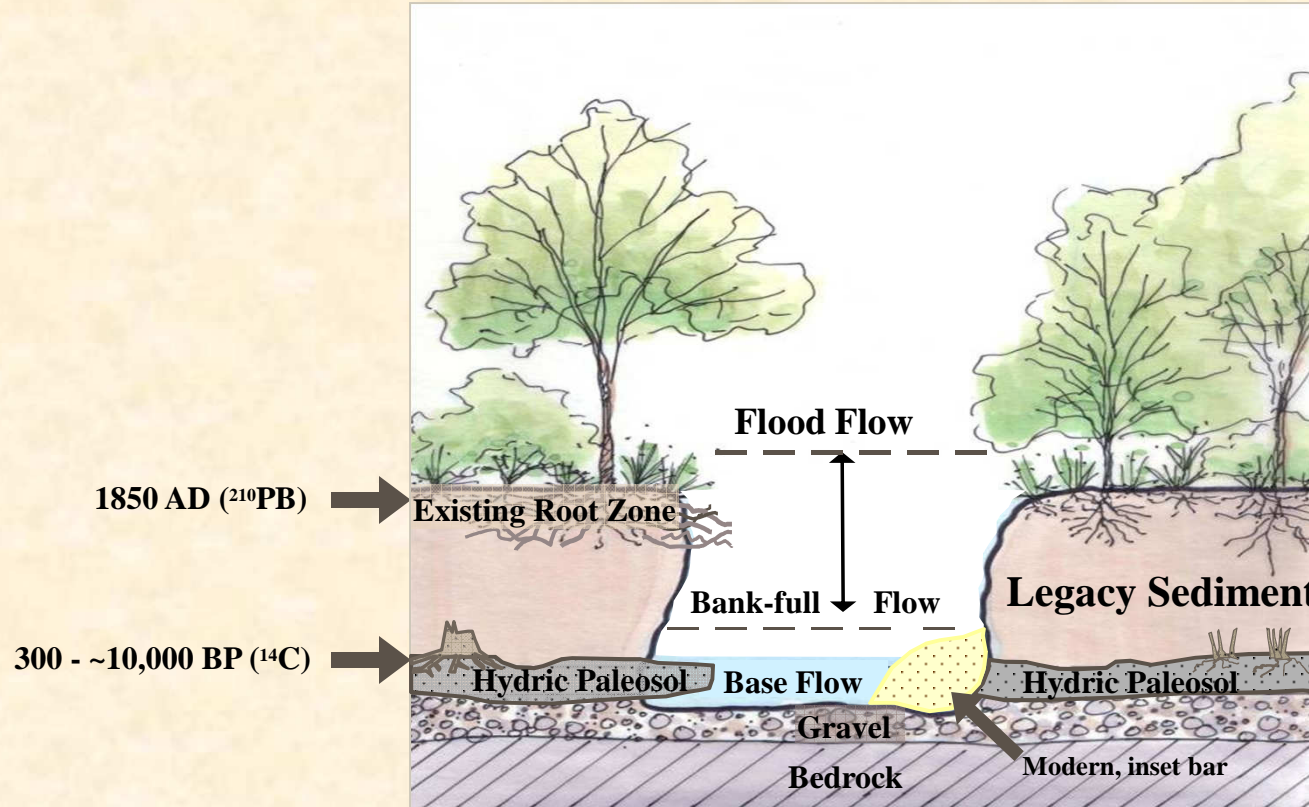


Typical Existing Conditions



- The depth of legacy sediment stored in valley bottoms predominantly was established by the height of dams in the Mid Atlantic Region (Walter and Merritts, 2008)
- Streambank erosion of legacy sediment represents a significant sediment and nutrient source in many watersheds (Walter, Merritts and Rahnis, 2007; Merritts, Walter, Rahnis, 2010)
- New and innovative Best Management Practices are proposed to target the Typical Existing Conditions of channels incised through legacy sediment

Typical Existing Conditions



Photo Courtesy Franklin & Marshall College

Typical Existing Conditions



Photo Courtesy Franklin & Marshall College

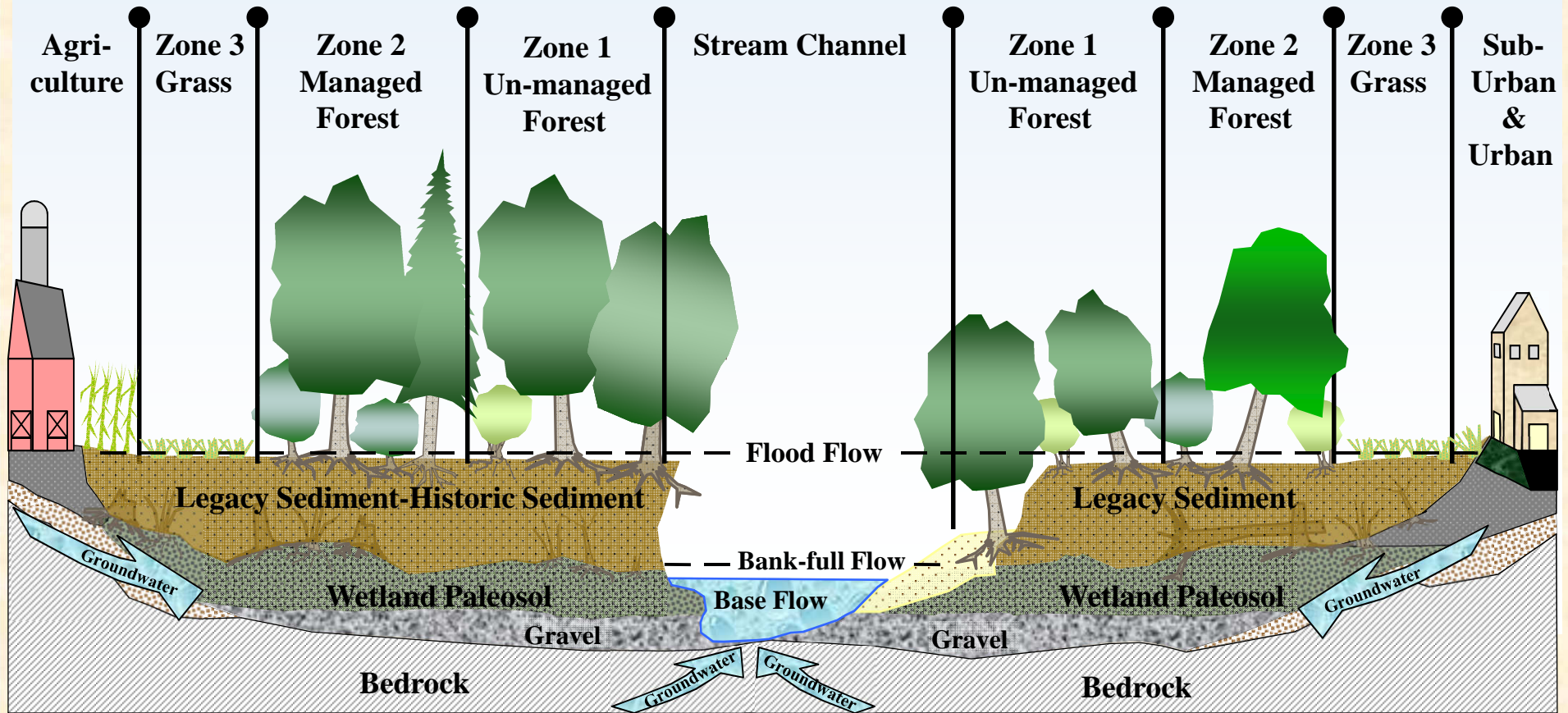
Typical Existing Conditions



Photo Courtesy Franklin & Marshall College

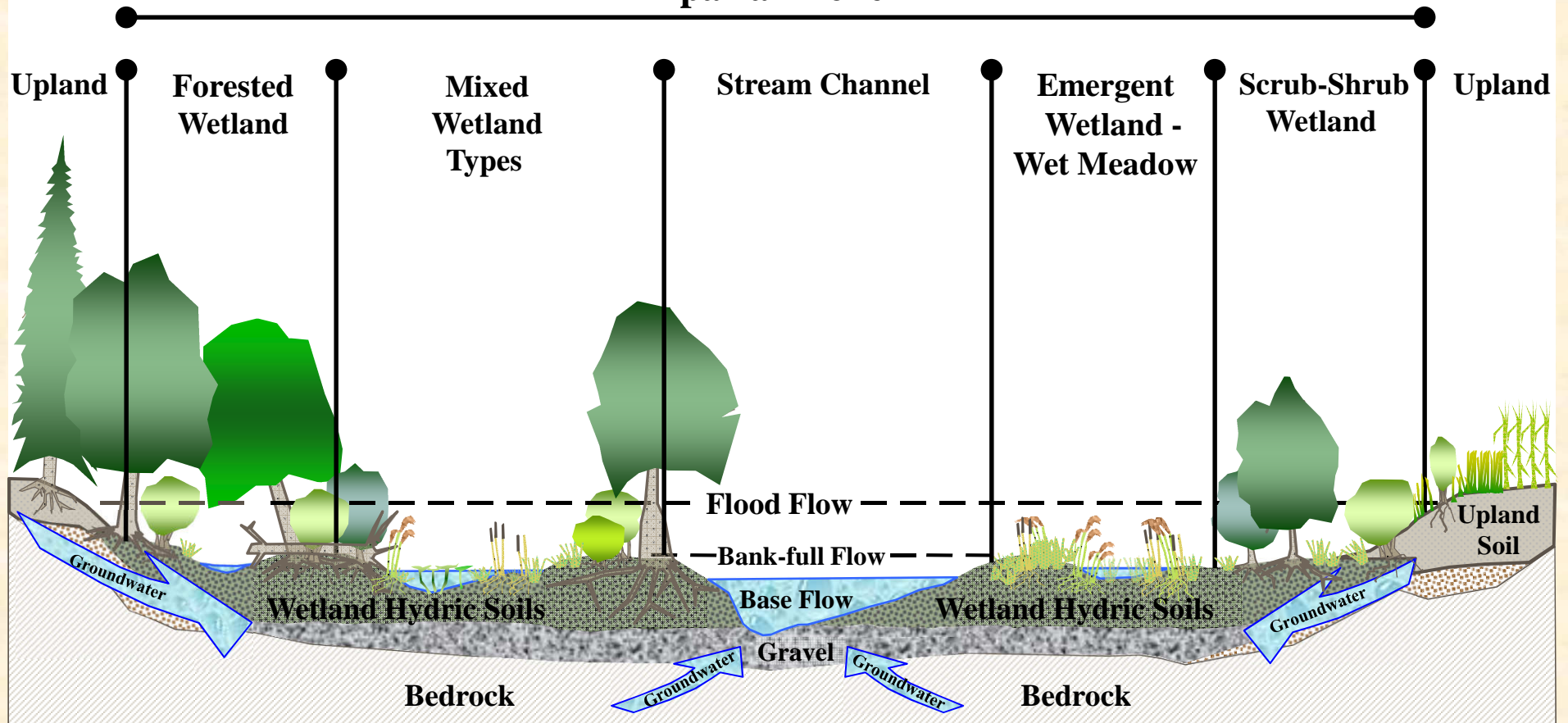
Riparian Forest Buffer Management in Typical Legacy Sediment Impacted Riparian Zones With Incised Channels

“Three Zone Buffer Concepts”



Natural Riparian Buffer Zones

Riparian Zone




Natural Floodplain, Stream and Riparian Wetland Restoration Best Management Practice

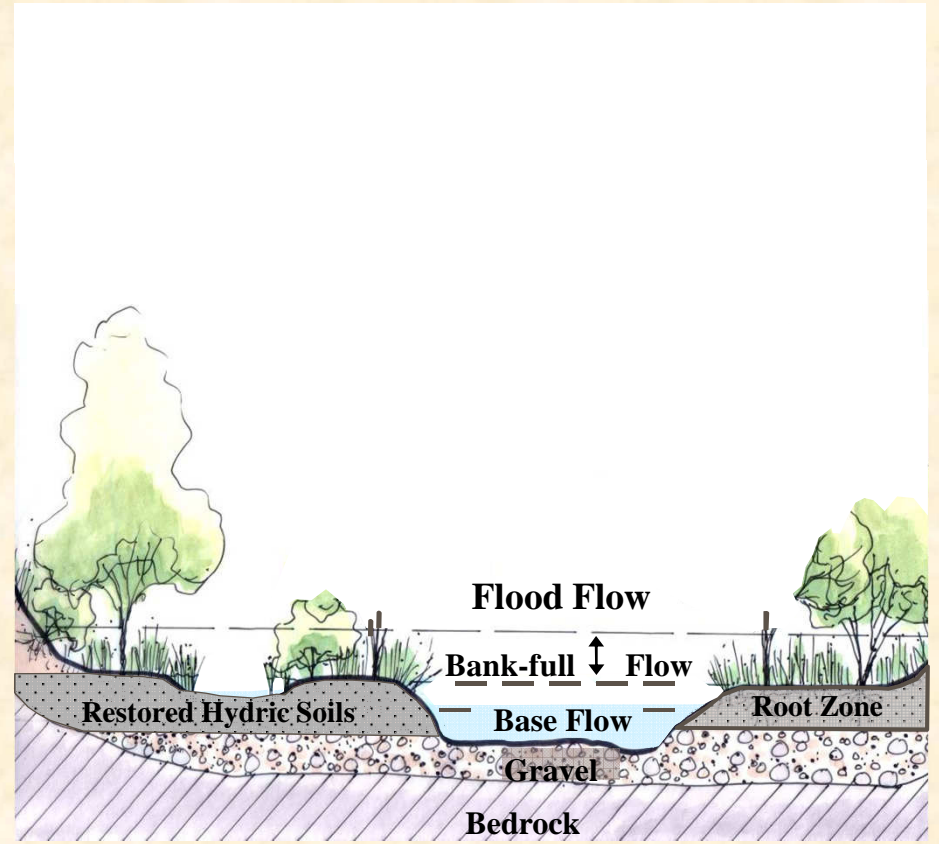
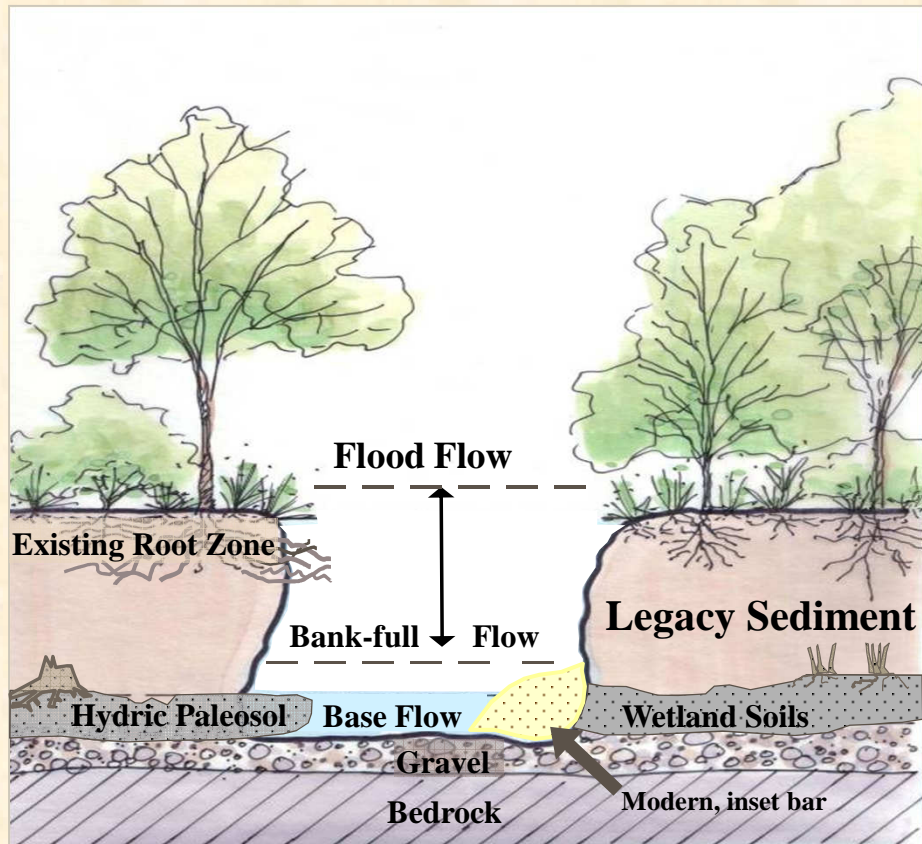
- The BMP is an ecological restoration and management strategy developed based upon USEPA's Principles for the Ecological Restoration of Aquatic Resources (2000).
- Restoration and management actions are proposed to re-establish natural stream, wetland, floodplain and riparian ecological condition, function and services.
- Implementing the practice will target legacy sediment and address impairments from legacy sediment erosion and storage.
- Monitoring is necessary to quantify and document the BMP benefits.
- **www.state.pa.us** - PA Keyword : Chesapeake Bay-Legacy Sediment Workgroup



Natural Floodplain, Stream and Riparian Wetland Restoration Best Management Practice

Conceptual Design - Valley Morphology Restoration

Typical Existing Conditions  Proposed Restoration

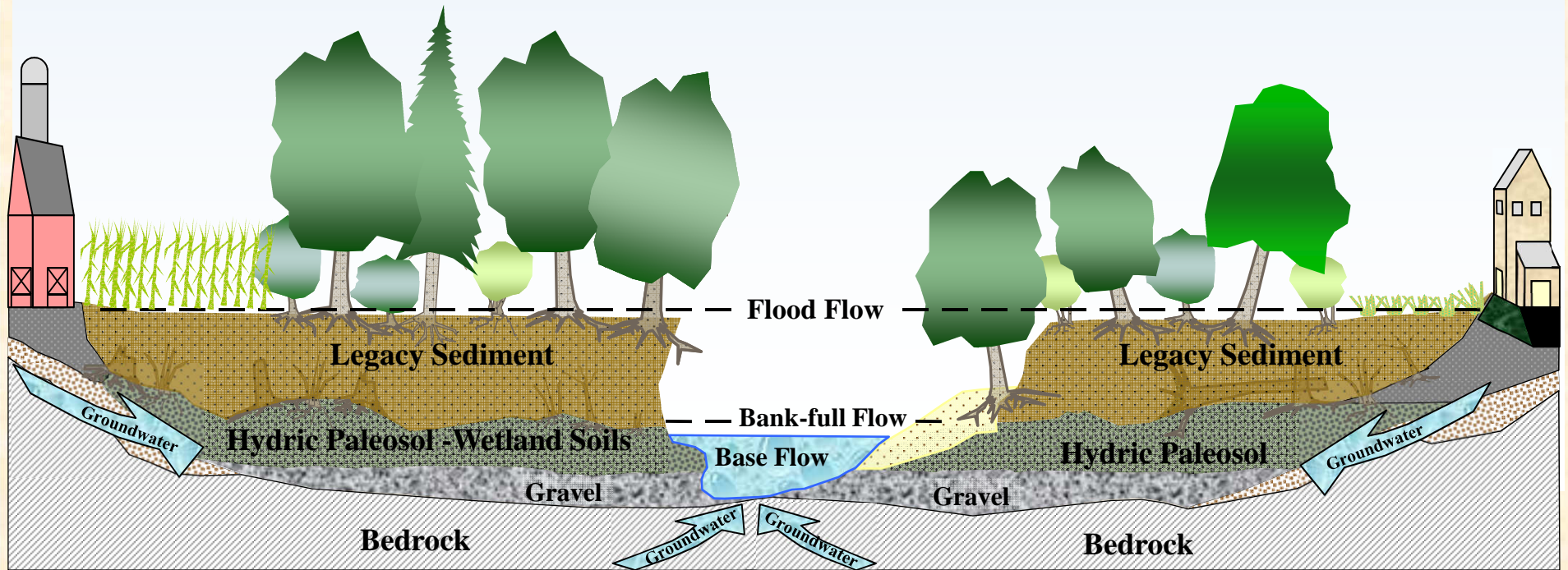


 Natural Potential



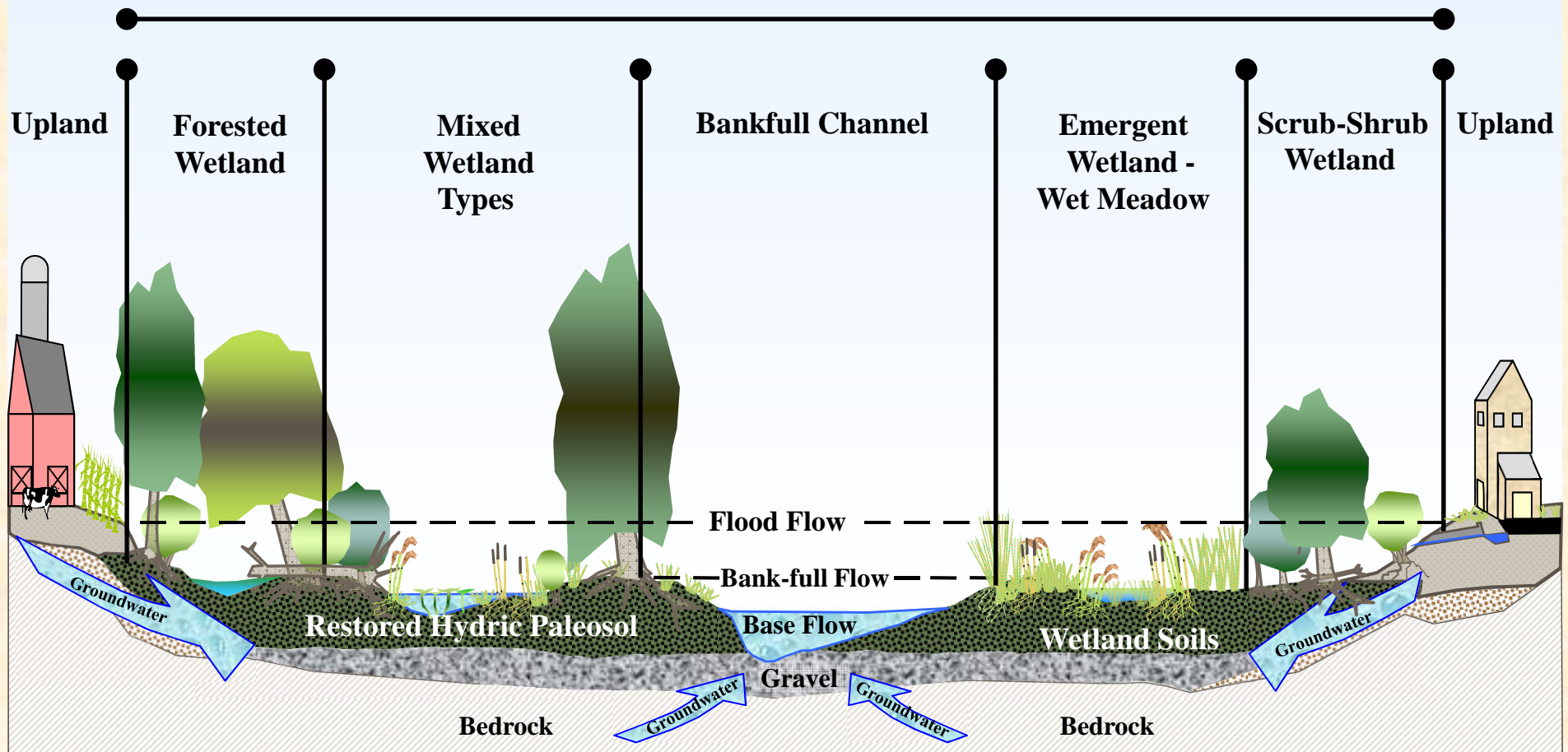
Typical Legacy Sediment Impacted Valleys With Incised Channels and Forested Riparian Buffer Zones

Riparian Zone



Natural Floodplain, Stream and Riparian Wetland Restoration Best Management Practice Goal

Restored Natural Valley Morphology



Restoration Potential

