Boundary Conditions





Monitoring Network

Trout Creek Discharge Record



Spring 2003 Flooding



Model Calibration Incipient flooding at correct discharge Outlet water velocities Evapotranspiration + infiltration Outlet water temperatures



Fine Sediment Removal Mechanisms

Settling
 Removal from impaction on submerged vegetation



Fine Sediment Removal Mechanisms

- 1. Settling
- 2. Removal from impaction on submerged vegetation
- 3. Stranding from infiltration + evapo-transpiration



Fine Sediment Removal Mechanisms

- 1. Settling
- 2. Removal from impaction on submerged vegetation
- 3. Stranding from infiltration + evapo-transpiration
- 4. Flocculation



Boundary Conditions





Modeling Cases

> 1. Base case Vegetation changes 2. All grass floodplain 3. All willows floodplain > Topographic changes 4. Check dam downstream of confluence 5. Check dam upstream of confluence 6. Cross-floodplain berm downstream of confluence

Results









Review: Monitoring Data Needs

Help from the weather

- Measurements of fine sediment discarges into floodplain and sediment out (turbidity sensors)
- Future studies will take advantage of lidar data

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