

Wind Power Development Concerns of CTUIR and ODFW

Potential Impacts to Fisheries Resources in Umatilla County



Overview of Presentation

- **Major fisheries concerns**
- **Scientific literature - roads vs. sedimentation**
- **Fishery values and locations**
- **“Wind power” and “fish value” area overlaps**

Major Fisheries Resource Concerns

Increased roads



Increased sediment



Reduced water and substrate quality



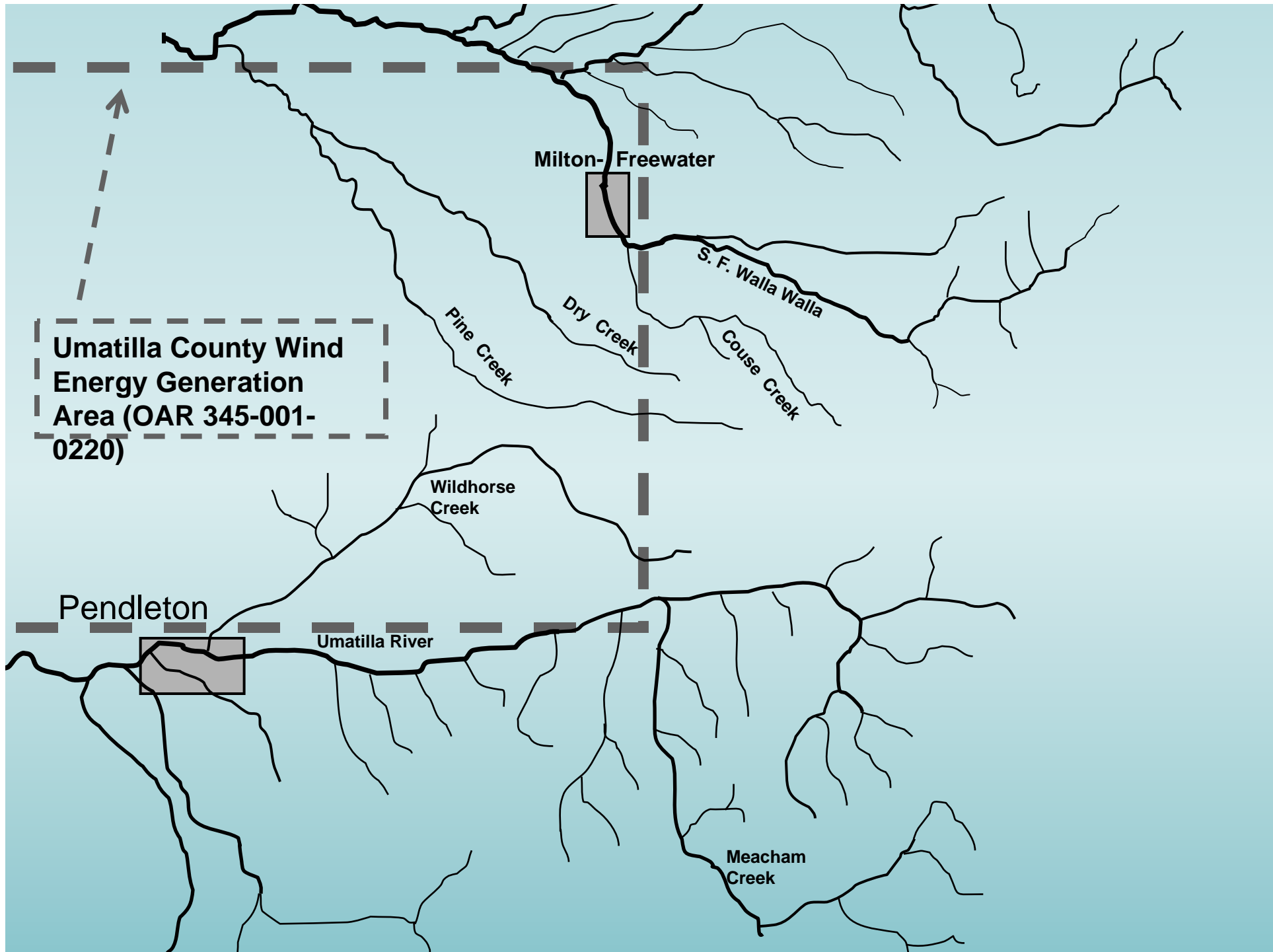
Fish survival and productivity impacts

Scientific Literature on road/sediment/fish impacts

- One of most prominent sources of sediment in watersheds is construction and use of roads.
- Sediment production & yield has been shown to increase with increases in road density.
- A direct correlation has been shown between the proportion of fine sediment in spawning gravels and road length.
- A direct correlation has been shown between the proportion of fine sediment in spawning gravels and salmonid survival during egg incubation.

Fish Value Area Parameters

- **Fish distribution (CHS, STS, BT, LP & MUS)**
- **Low stream temperature (< 72°F summer max)**
- **Low sedimentation in gravel (< 18% fines)**
- **Priority stream habitat protection/enhancement**
- **Fish/floodplain enhancement investments**



**Umatilla County Wind
Energy Generation
Area (OAR 345-001-
0220)**

Milton-Freewater

S. F. Walla Walla

Pine Creek

Dry Creek

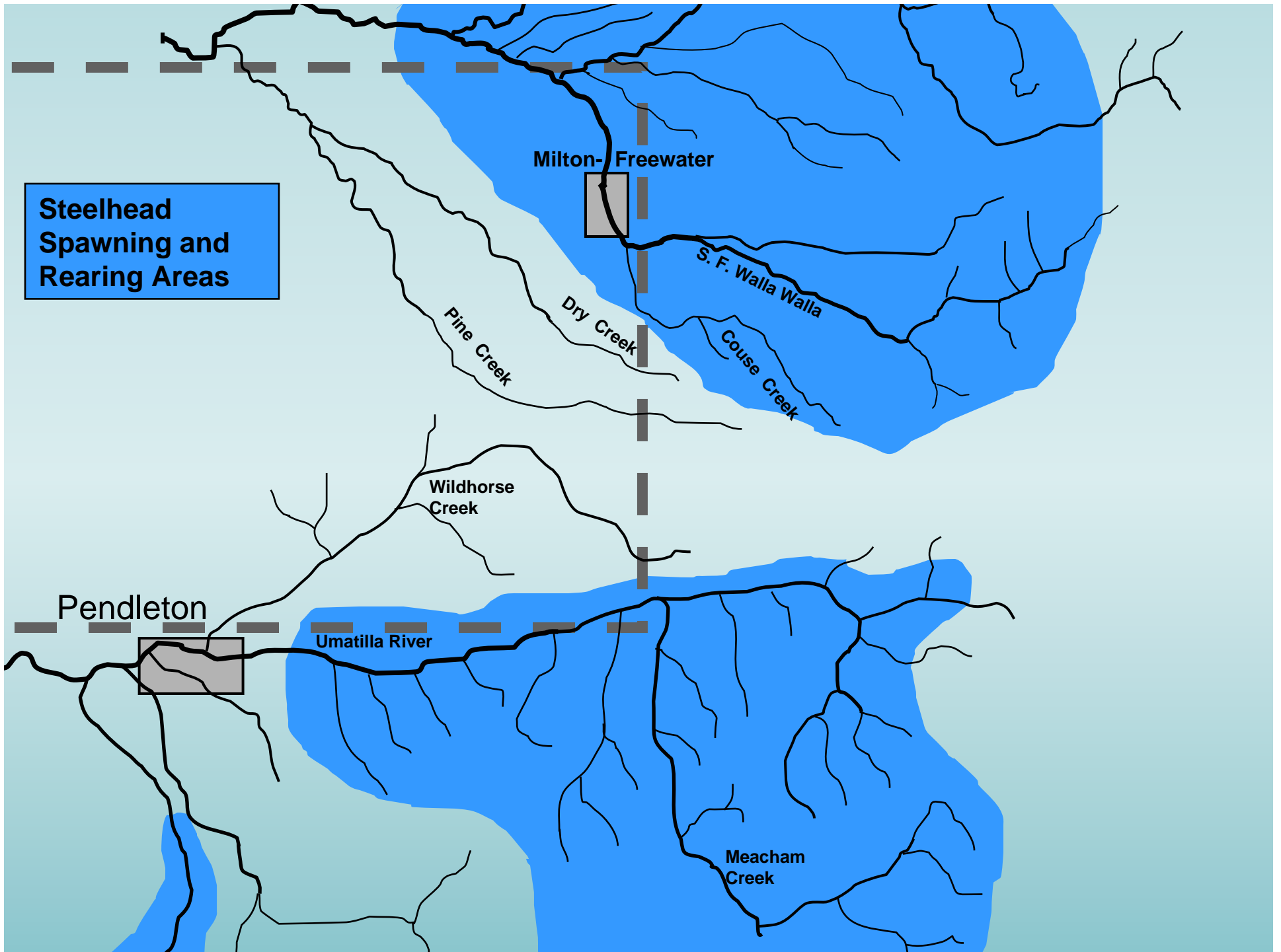
Couse Creek

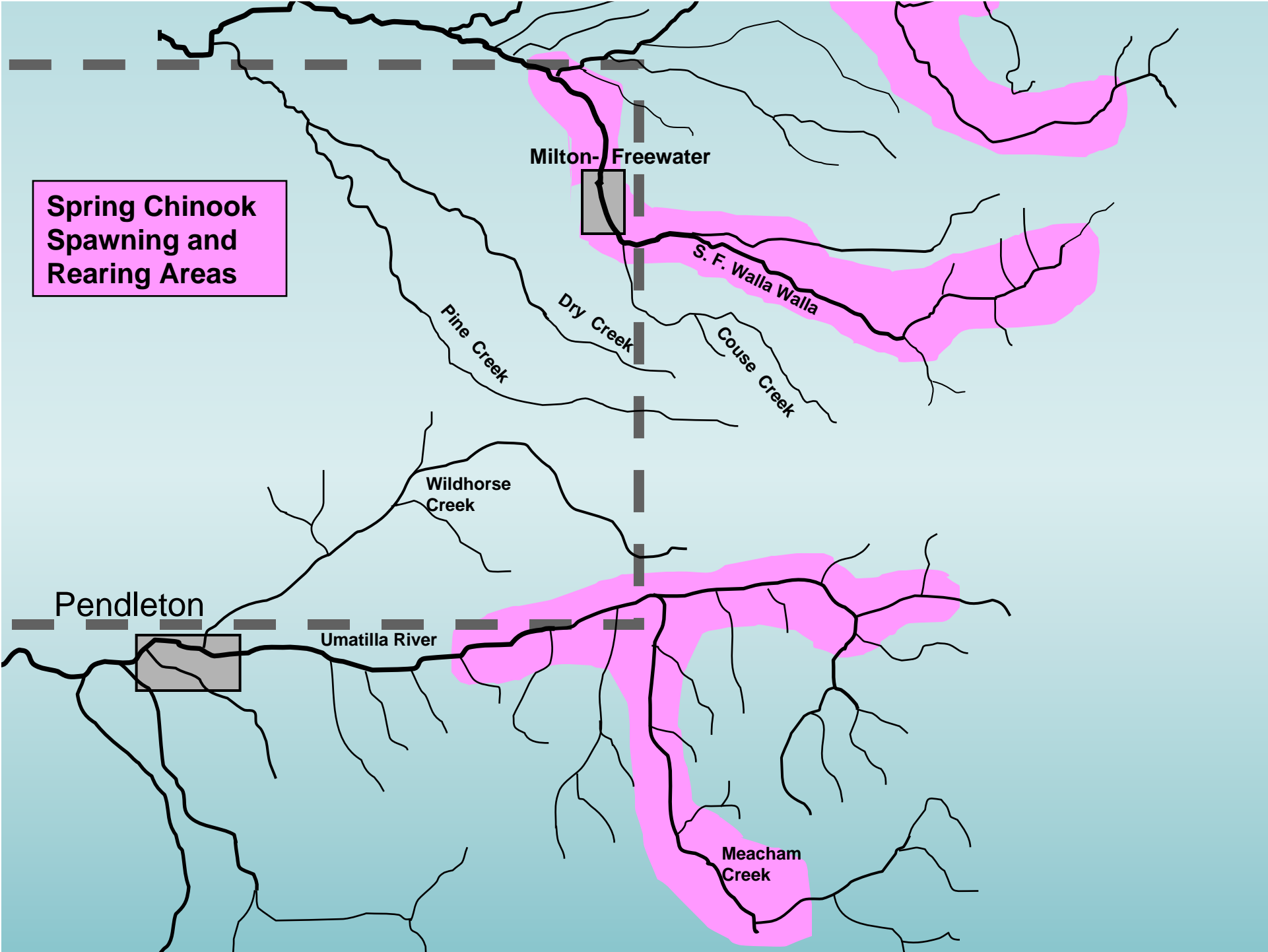
**Wildhorse
Creek**

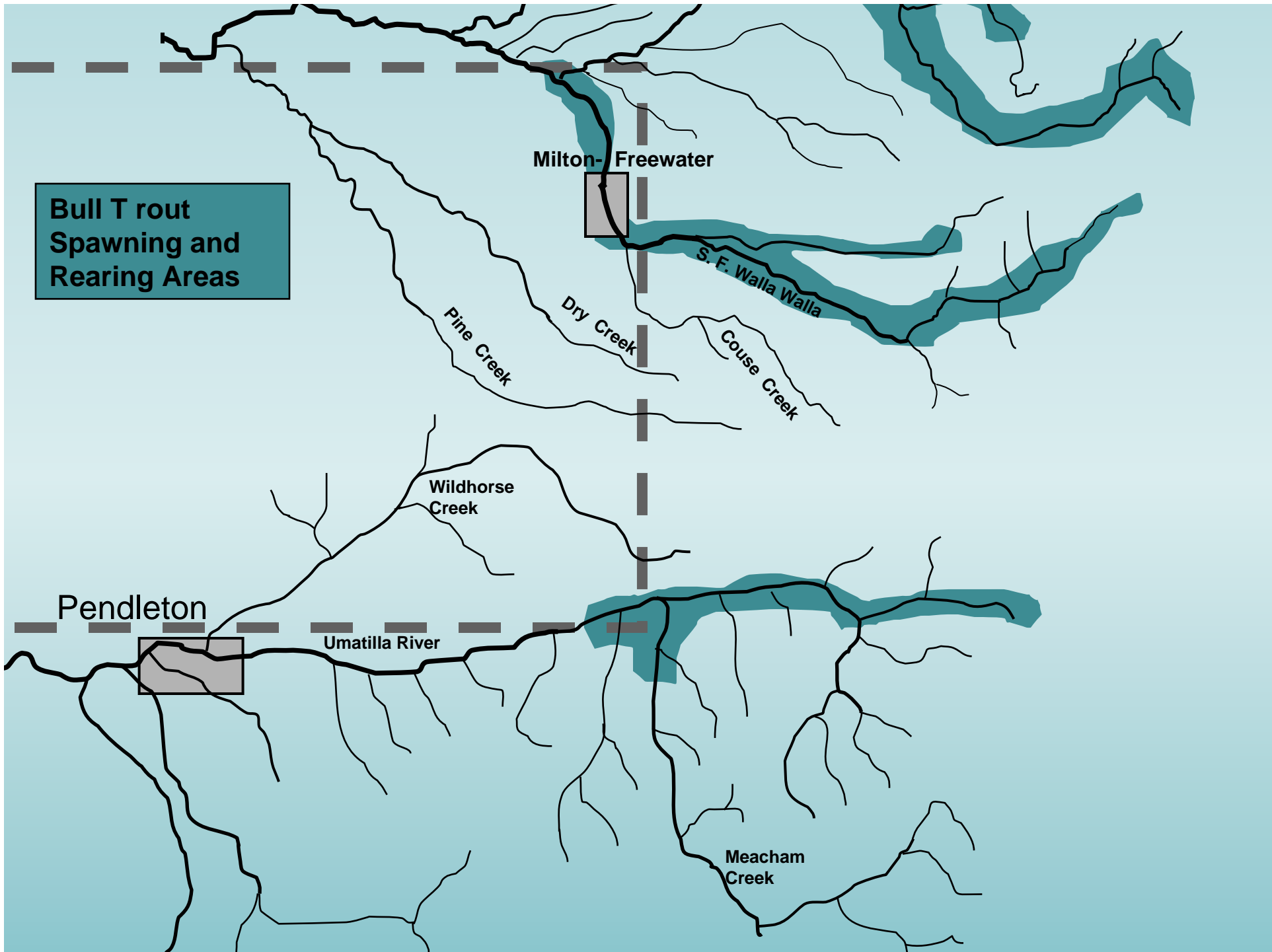
Pendleton

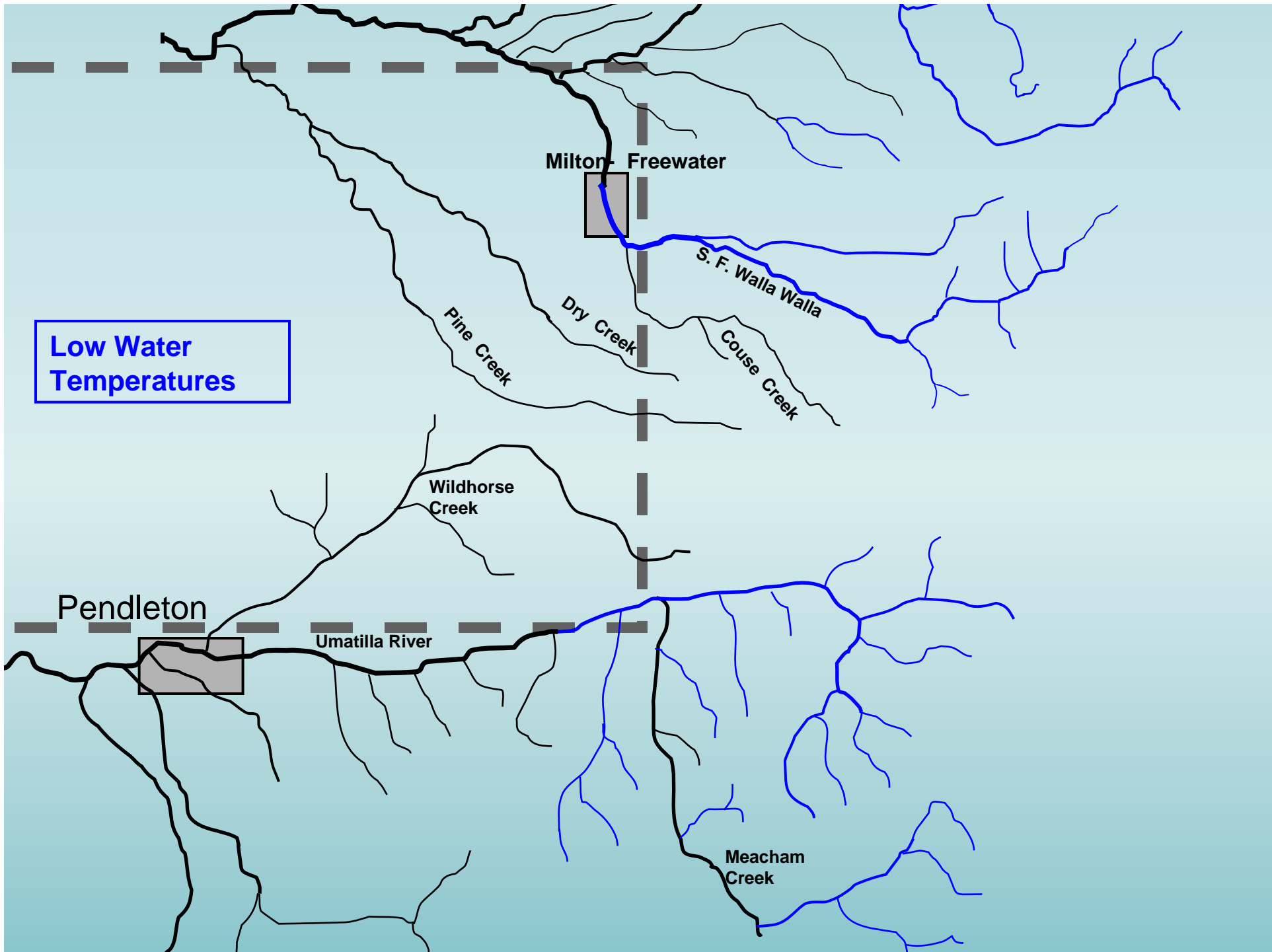
Umatilla River

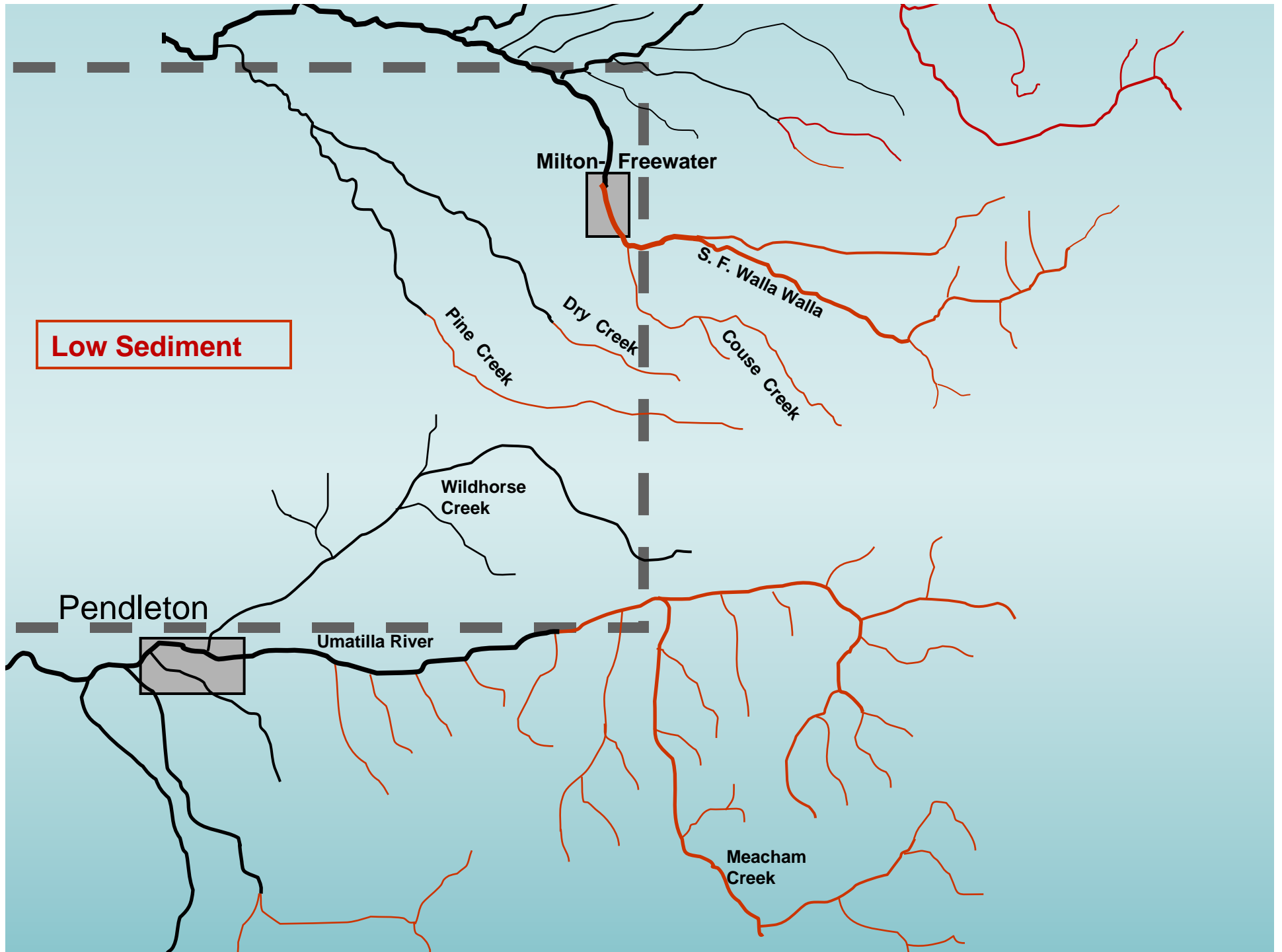
**Meacham
Creek**











Low Sediment

Milton-Freewater

Pine Creek

Dry Creek

S. F. Walla Walla

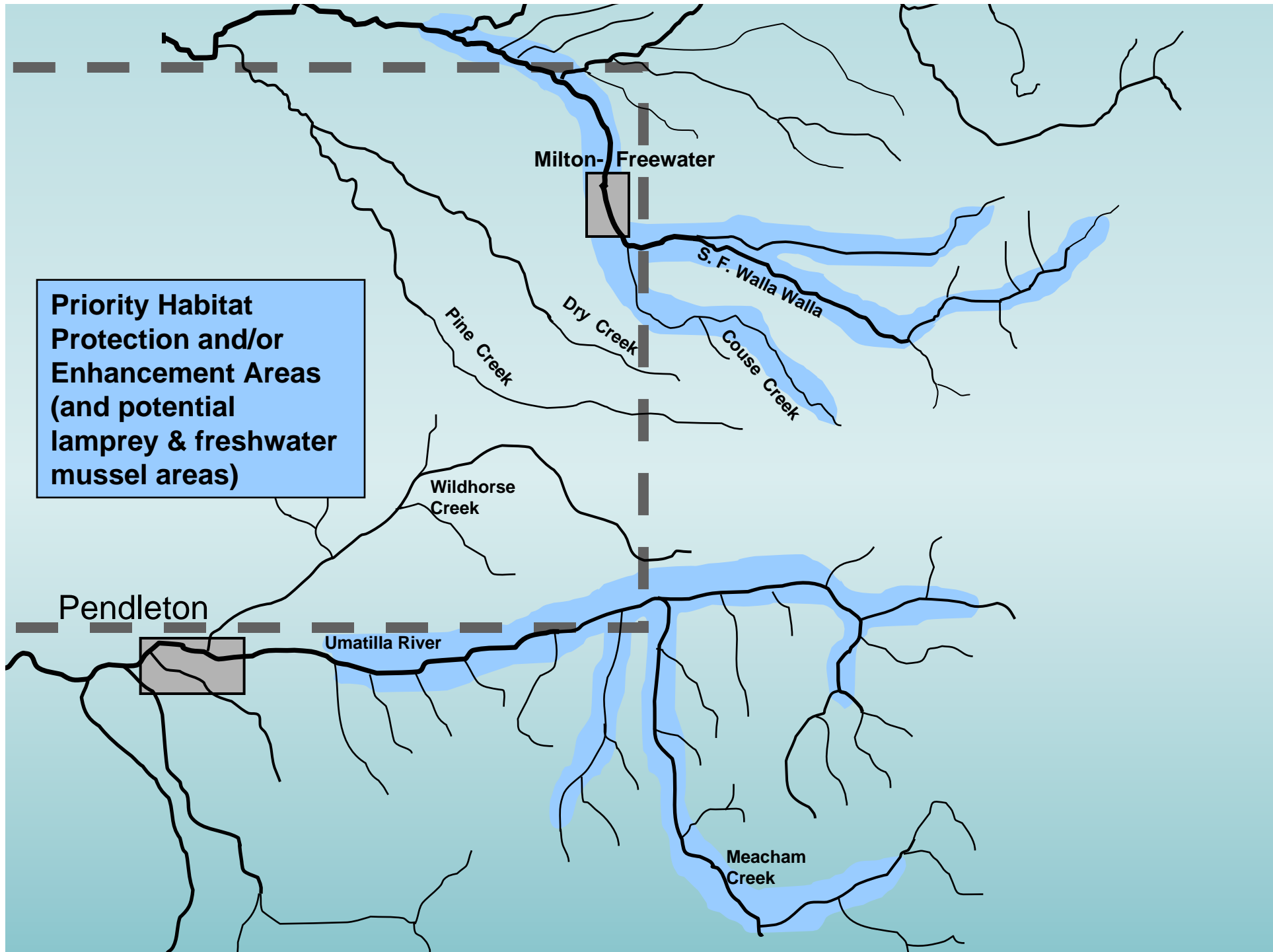
Couse Creek

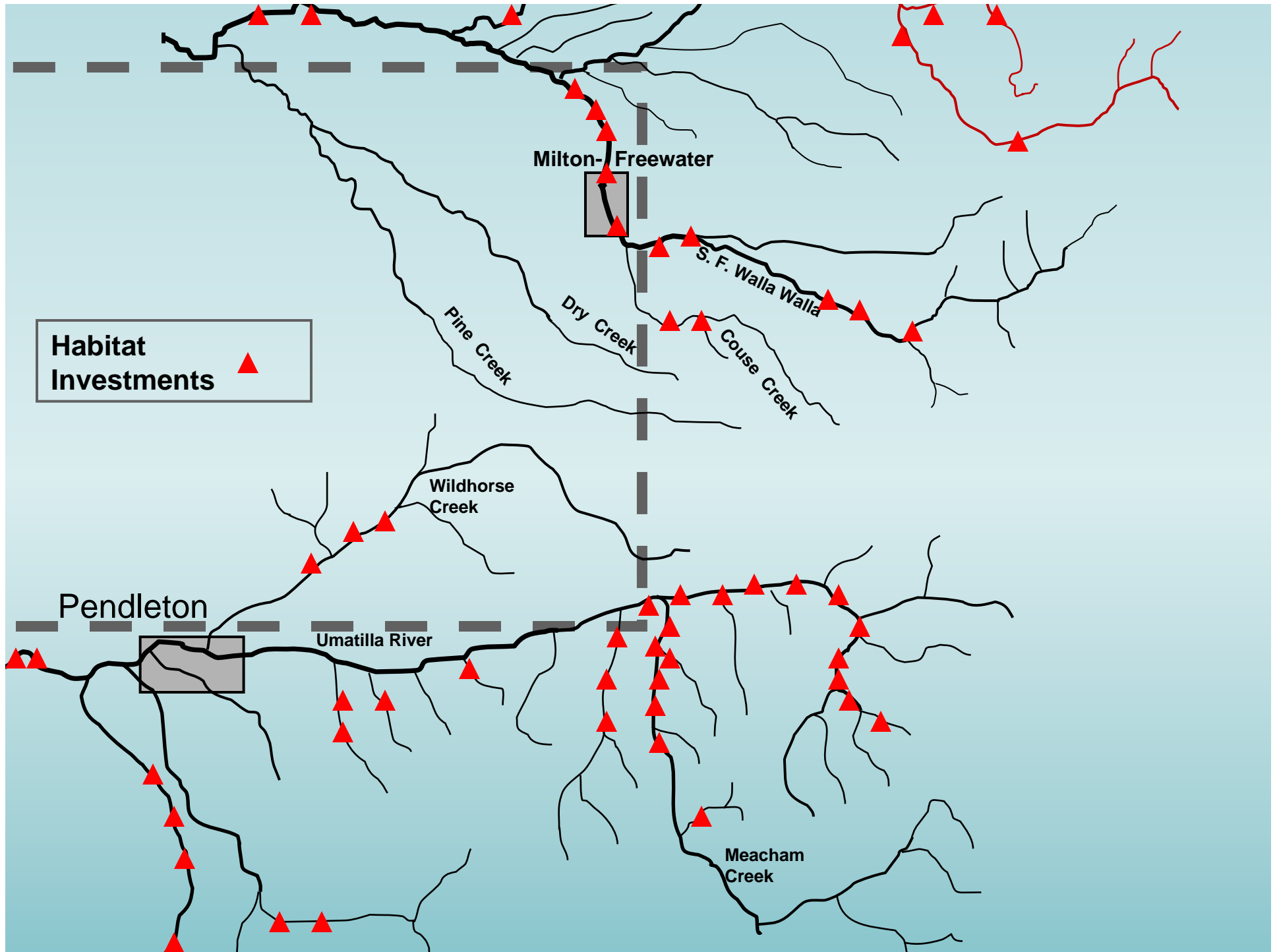
Wildhorse Creek

Pendleton

Umatilla River

Meacham Creek





Habitat Investments ▲

Milton-Freewater

S. F. Walla Walla

Pine Creek

Dry Creek

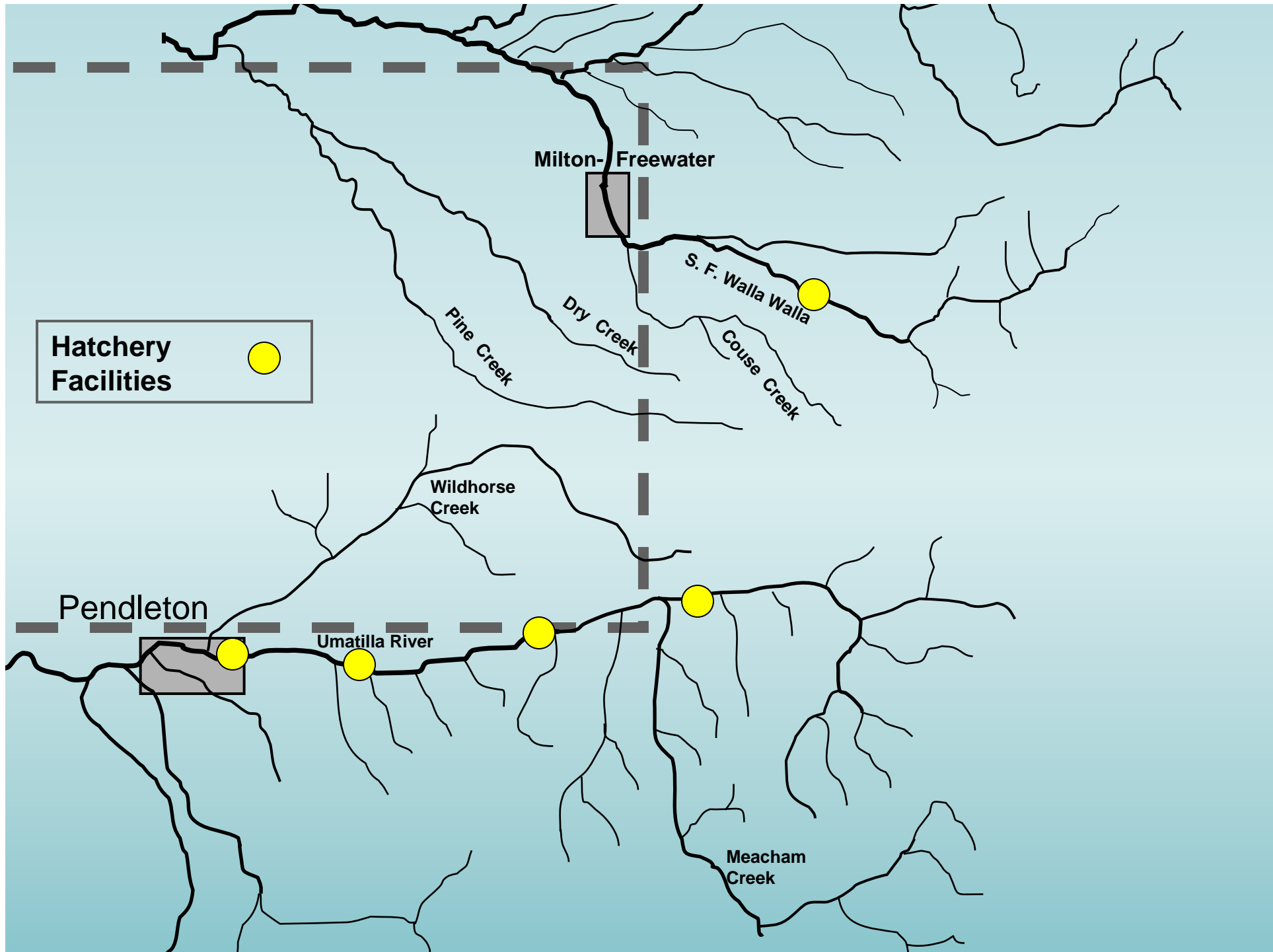
Couse Creek

Wildhorse Creek

Pendleton

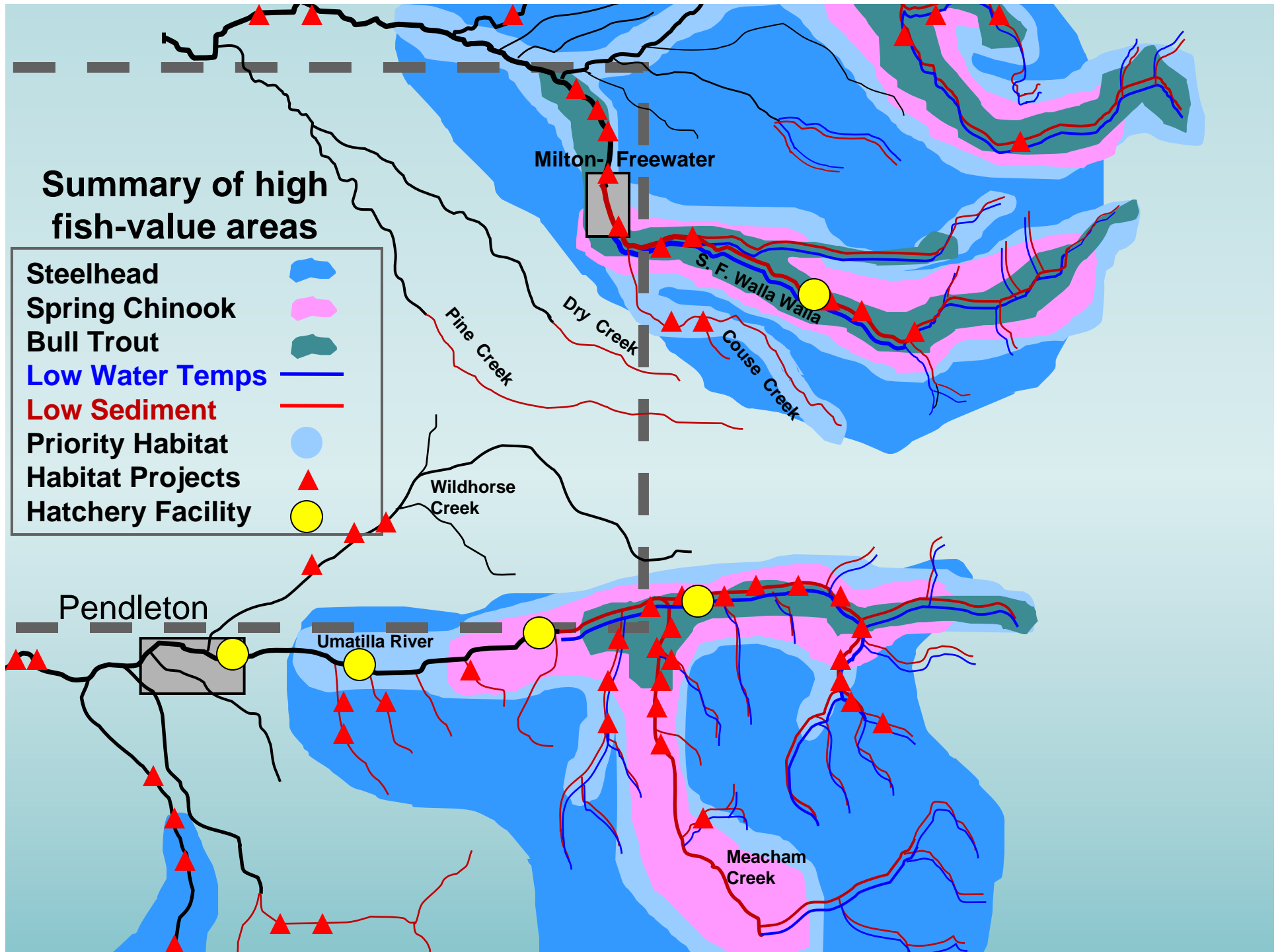
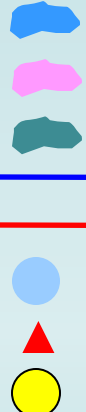
Umatilla River

Meacham Creek



Summary of high fish-value areas

- Steelhead
- Spring Chinook
- Bull Trout
- Low Water Temps
- Low Sediment
- Priority Habitat
- Habitat Projects
- Hatchery Facility



Conclusions/Recommendations

- **County wind generation boundary contains areas of low and high fisheries resource values/concerns in the Umatilla and Walla Walla Basins.**
- **Recommend these values be a criteria in determining if and where to develop wind energy.**
- **Slight reduction in wind generation boundary would add significant protection to high fish-value areas.**
- **Recommend “protection first” in high natural resource value areas rather than develop first and plan for mitigation later.**