#### An introduction:

# I-90 Snoqualmie Pass East Project

#### **Jason Smith**

WSDOT South Central Region Environmental Manager

# Yakima Basin Science Management Conference

June 17-18, 2009

**Paula Hammond** 

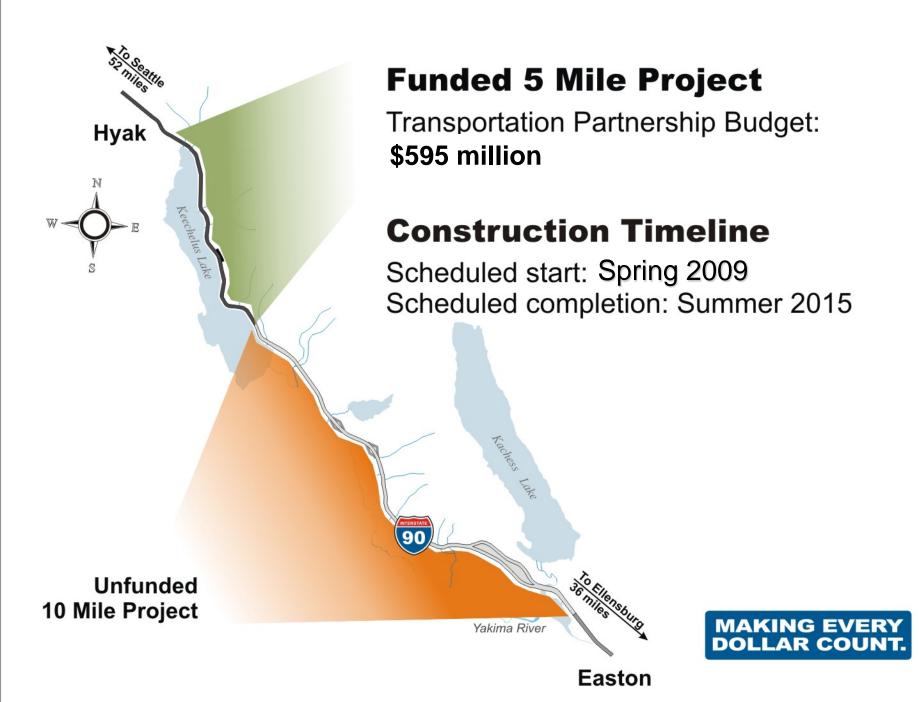
Secretary of Transportation

**Steve Reinmuth** 

Chief of Staff

















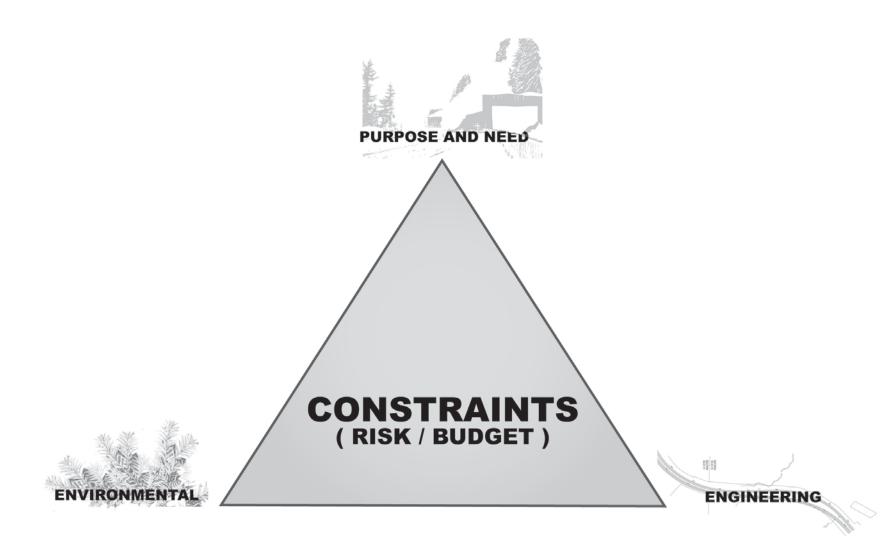
I-90 Snoqualmie Pass East

#### I-90 Snoqualmie Pass East

Final Environmental Impact Statement and Section 4(f) Evaluation



## NEPA: an exercise in balancing project objectives



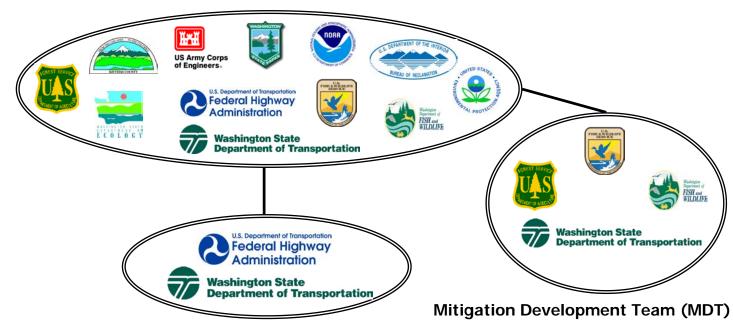
### NEPA EIS Inter-Disciplinary Team (IDT)

**Inter-Disciplinary Team (IDT)** 



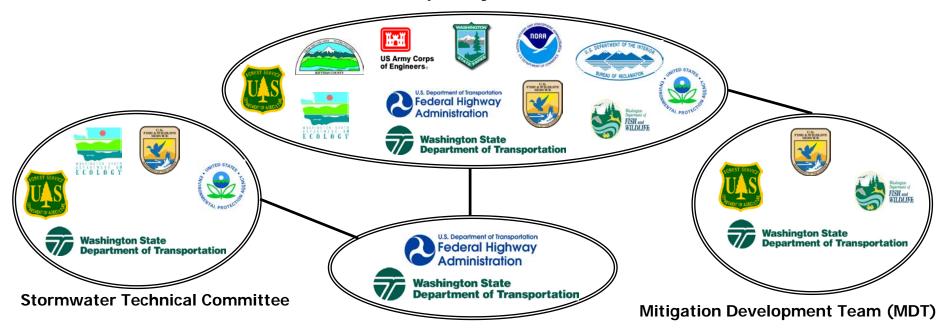
### Mitigation Development Team (MDT) Agencies

**Inter-Disciplinary Team (IDT)** 



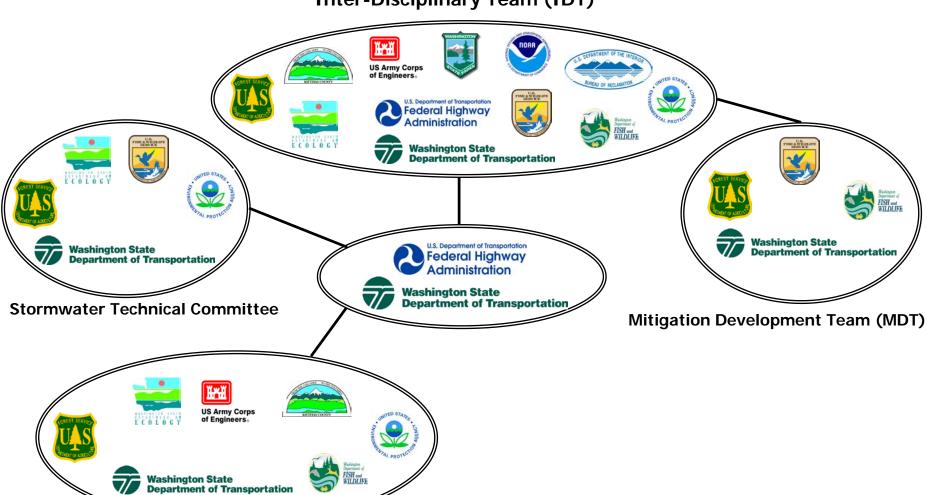
#### **Technical Committees**

**Inter-Disciplinary Team (IDT)** 



#### **Technical Committees**

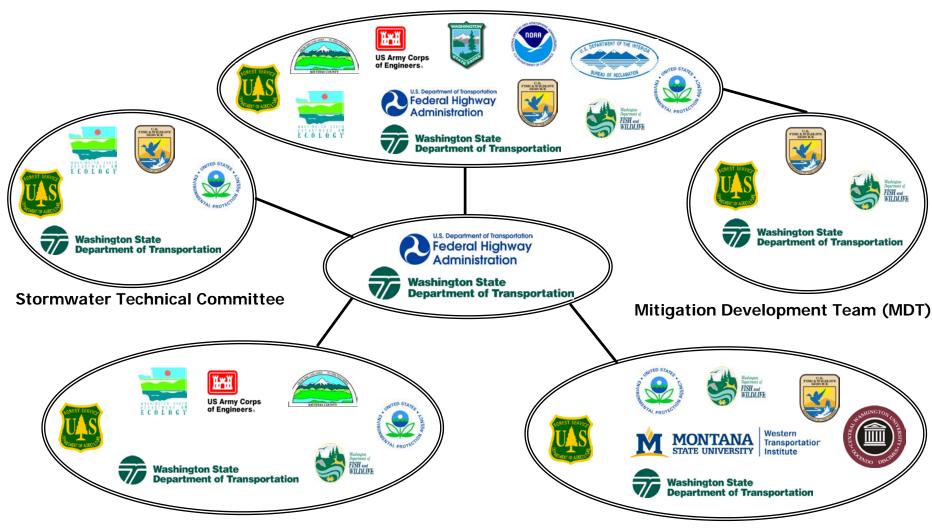
**Inter-Disciplinary Team (IDT)** 



**Wetland Mitigation Technical Committee** 

# Please help us!!!!!!!

Inter-Disciplinary Team (IDT)



**Wetland Mitigation Technical Committee** 

**Wildlife Monitoring Technical Committee** 

# Non Governmental Organizations













#### 1-90 Snoquelinia Pess Fast Lively to Baston Project



# **ECOLOGICAL CONNECTIVITY**

# What is the purpose of wildlife crossing structures?

The I-90 Project is designing structures to accommodate streams and wildlife passage at 14 specific locations. These locations are called Connectivity Emphasis Areas (CEAs). The crossing structures will increase safety to the traveling public by reducing collisions between wildlife and vehicles, and will connect habitat that is currently separated by the highway.

#### How will wildlife passage be improved?

#### WSDOT will:

- Replace the existing narrow bridges and fish-blocking culverts to accommodate fish and wildlife movements, with longer, wider bridges and culverts
- · Add wildlife exclusion fencing to keep wildlife off the highway
- Add wildlife overcrossings at strategic locations



A boboat struggles up a snowbank created by WSDOT plowing



A deer wanders next to the Hyak interchange at mile post 55

#### Will the I-90 Project affect water resources?

WSDOT has designed the I-90 Project to have substantial benefits to wetlands, stream channels, and riparian areas. WSDOT will restore habitat, connect wetlands, improve channel migration, enhance groundwater flow, and improve water quality.



WSD0T plans to build bigger bridges over the creek channel a Rocky Run Greek

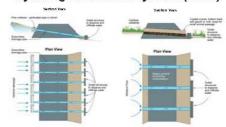


Bull trout reside in Keechelus Lake in the project area and are listed as threatened under the Endangered Species Act

#### What is a hydrologic connectivity zone?

- Hydrologic connectivity zones (HCZs) are locations where moving water through the highway is important for habitat functions on both sides of the highway.
- HCZs link wetlands, shallow aquifers or other hydrologic features, and are important to stream and upland habitats.

#### Hydrologic connectivity zone (HCZs)









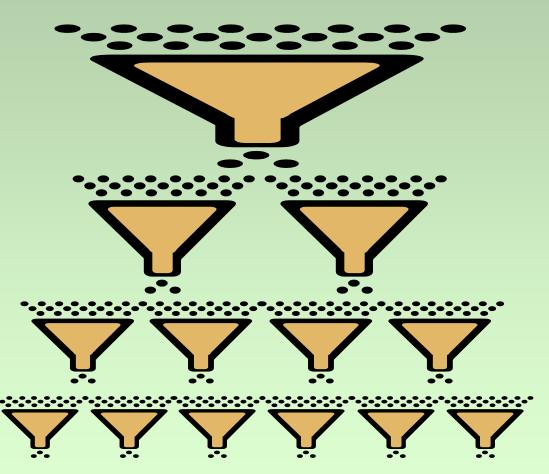
# **High Mobility Species**



# **Low Mobility Species**



# Landscape Scale Watershed-Based Design and Mitigation Strategy

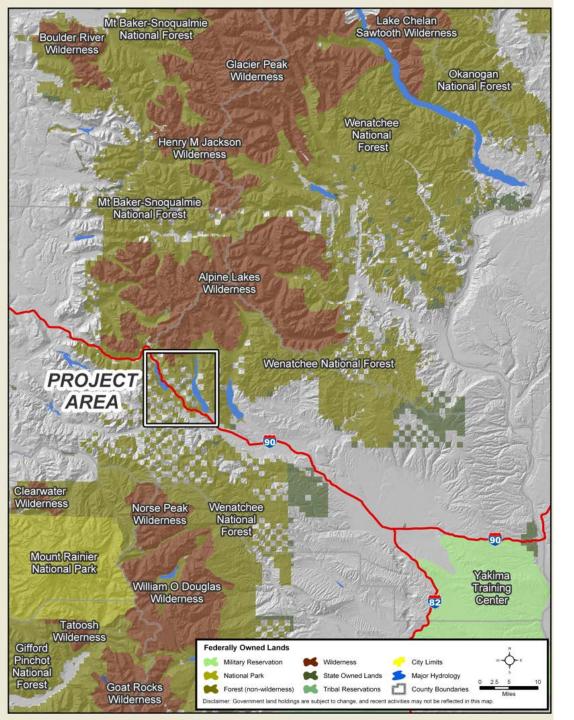


Landscape Scale Design Strategy

Watershed Based Design/Mitigation

Sub-basin Level Design/Mitigation

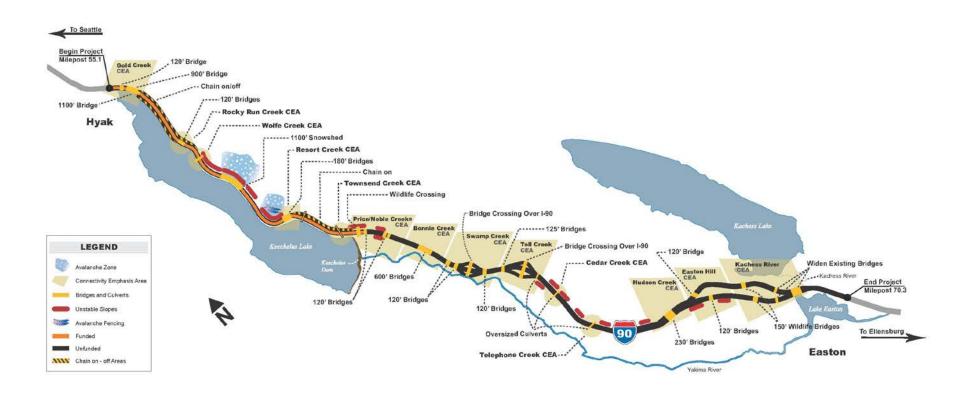
Site/Habitat Specific Design/Mitigation



## Landscape Scale

#### **Habitat Fragmentation**

Topography & Climate
Habitat Types
Land Ownership
Land Use
Local Road Density
Interstate 90



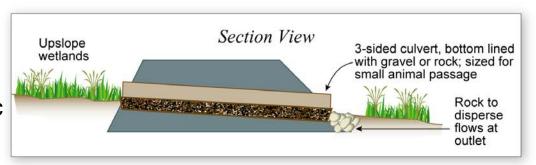


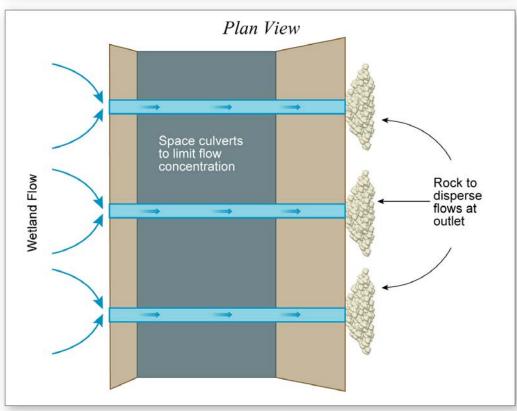


## **Hydrologic Connectivity Zones**

- Small Culverts-
  - Used for connecting hydrologic flows
  - Connectivity spaced every 600 feet for small animals







Hydrologic Connectivity Structures Linking Low-Gradient Wetlands Exhibit 2-2



