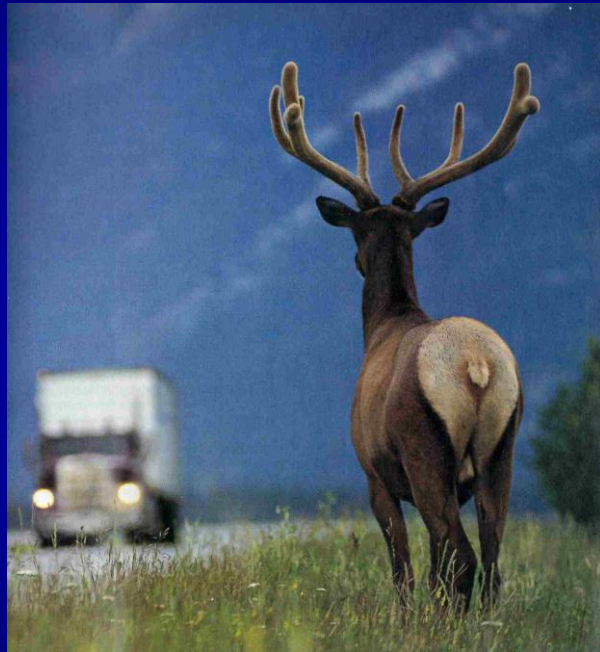
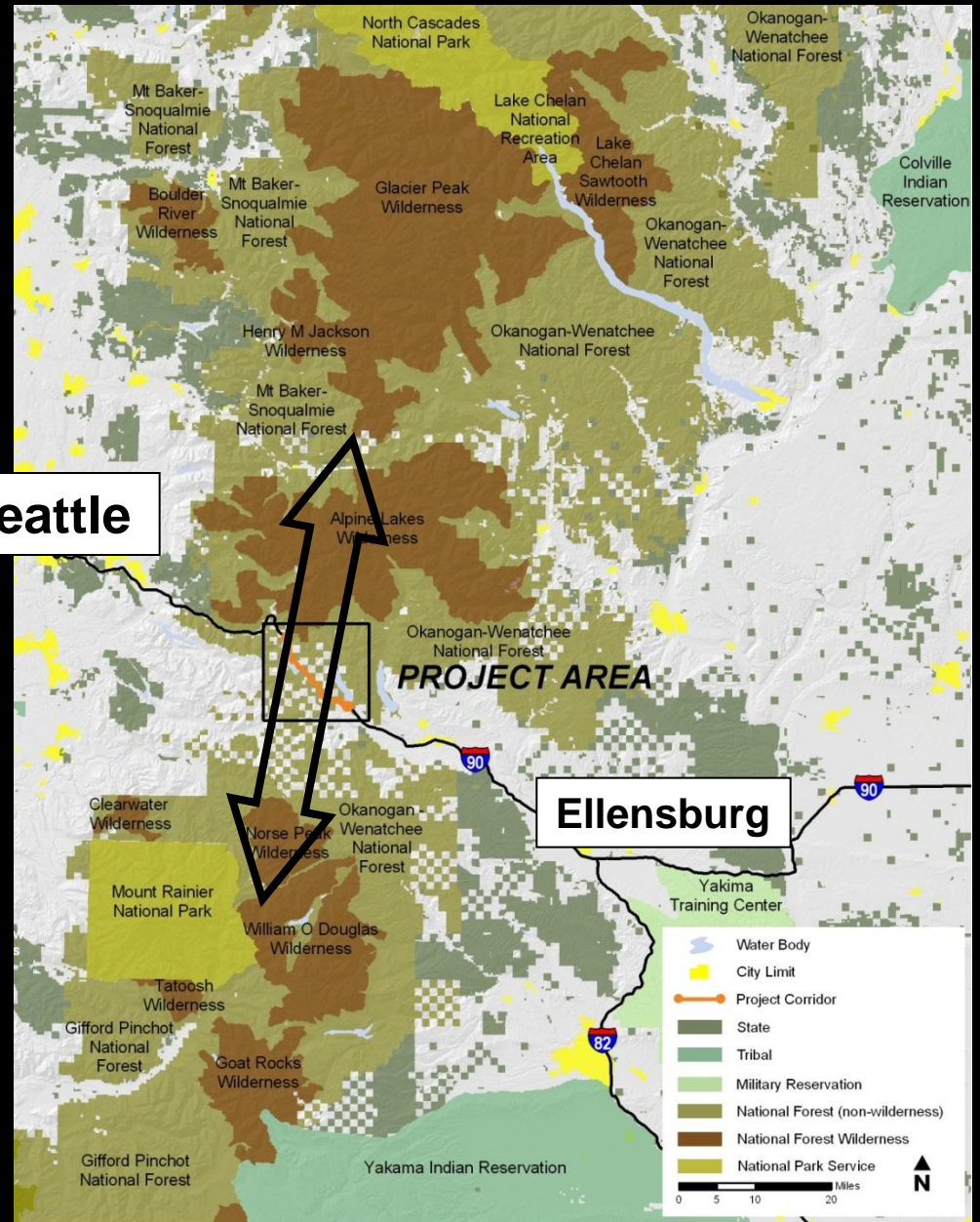


Ecological Connectivity Across Interstate-90



Public Ownership & Landscape Connectivity



Recent Land Acquisitions

THE CASCADES
CONSERVATION
PARTNERSHIP

PROTECTING OUR WILDERNESSES • BUILDING WILDLIFE CORRIDORS • SAVING OUR TRAILS



Land Acquisitions

I-90 Corridor

■ FY '05 Funded - LWCF
(I-90 Option Lands)

■ Acquired with Federal Funds

■ Donated by TCCP

■ Future Target Areas

■ Wilderness

■ National Forest

■ Other Public Lands

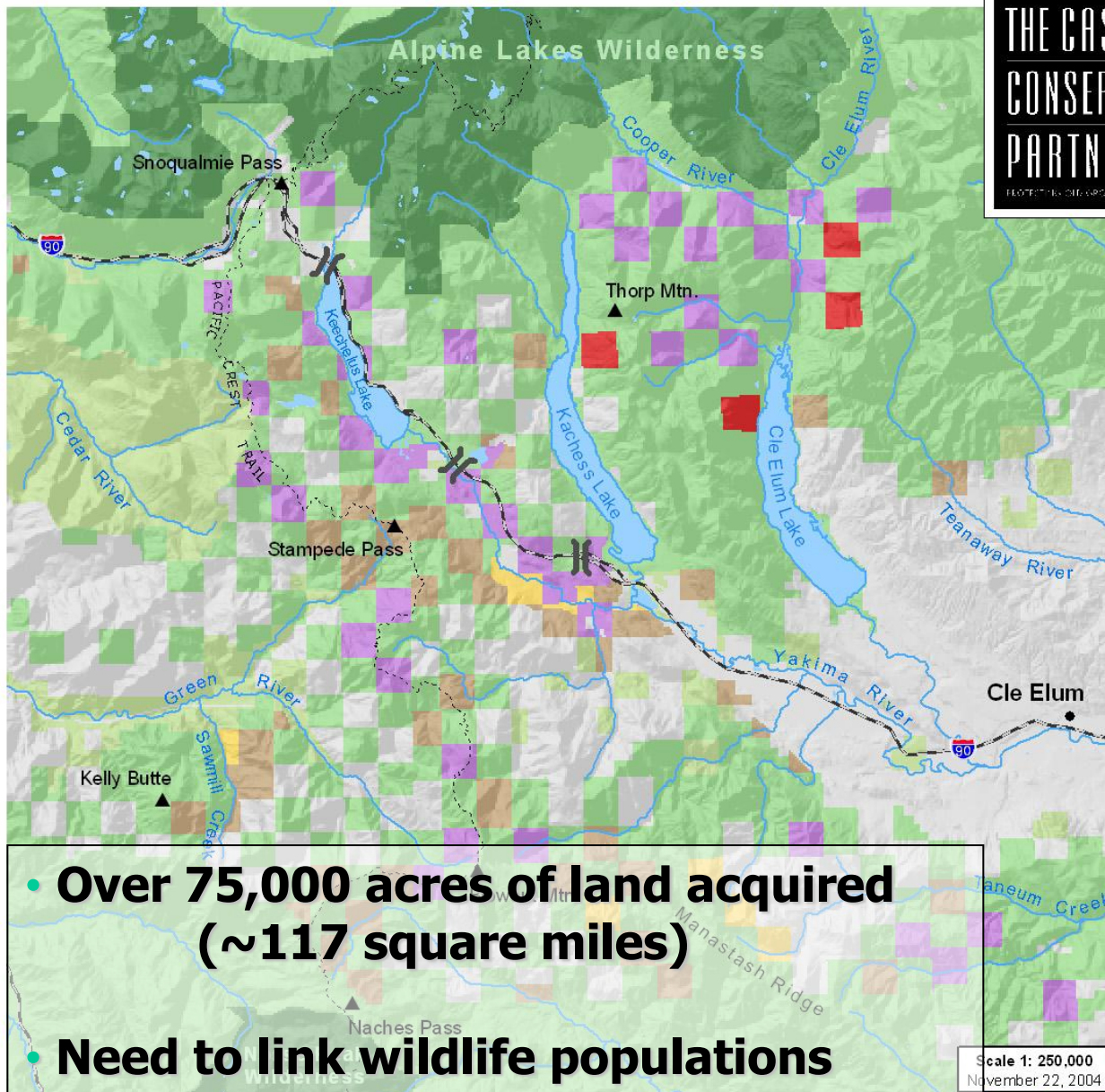
■ Other Private Lands

Proposed Wildlife Bridges

Pacific Crest Trail

Interstate Highway

Rivers and Lakes



• **Over 75,000 acres of land acquired (~117 square miles)**

• **Need to link wildlife populations**

Scale 1: 250,000
November 22, 2004



www.commutespace.org

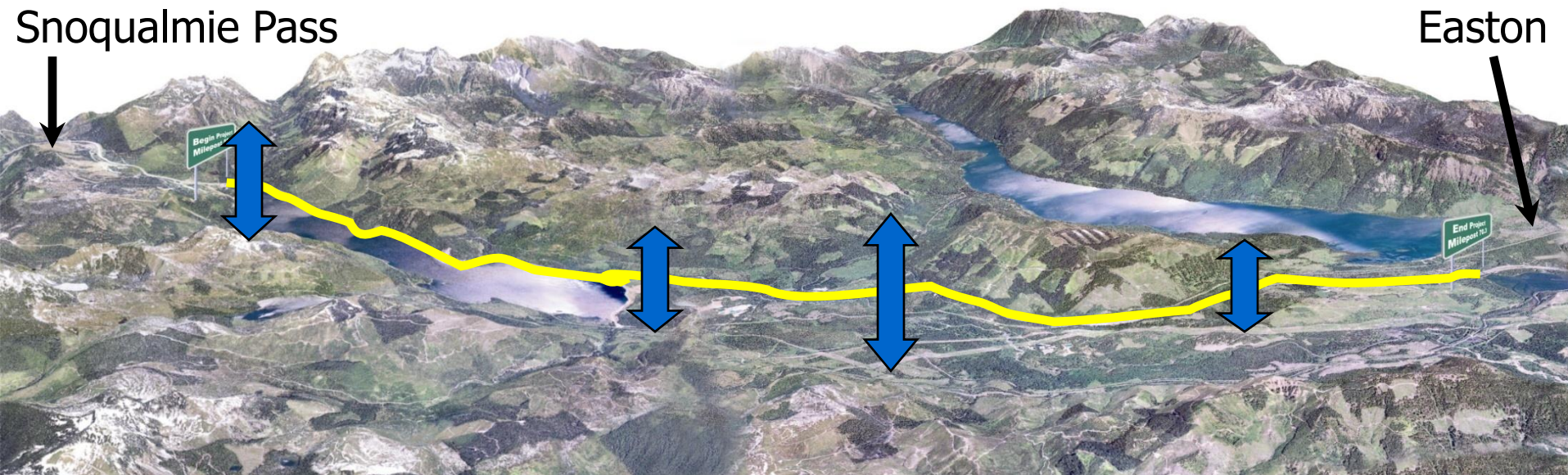


Contact the Partnership at:
3414 1/2 Fremont Ave N.
Seattle, WA 98103
Phone: 206-675-9747
www.cascadespartners.org

CS-925

The I-90 expansion project

I-90 Snoqualmie Pass East Project



- 15 mile expansion from 4 to 6 lanes for safety and economics
- Provide Ecological connectivity across the highway

I-90 and Ecological Connectivity

Roads as Ecological Barriers



Snoqualmie Pass 1920



Interstate 90 Today

Ecological Connectivity Objectives

- **Connect Habitats & Populations**

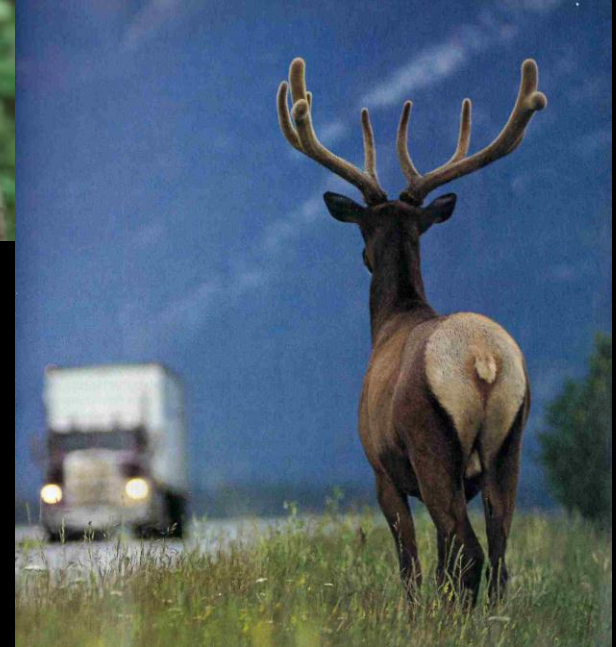


- **Connect Hydrological Features**



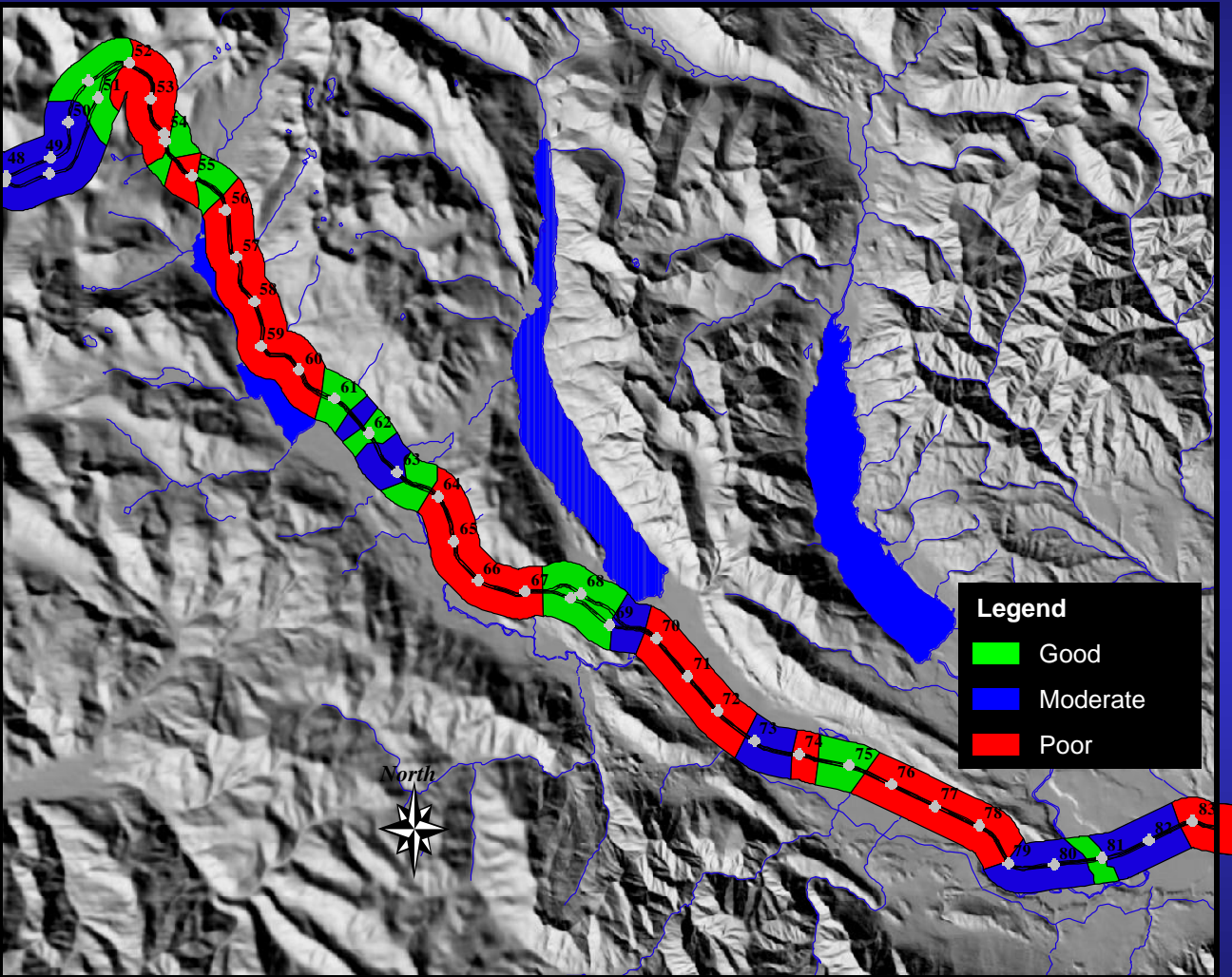
- **Maintain physical processes** (nutrient transfer, floodplain function)

High Mobility Species



I-90 Relative Landscape Permeability

For High Mobility Species (Singleton & Lehmkuhl 2000)

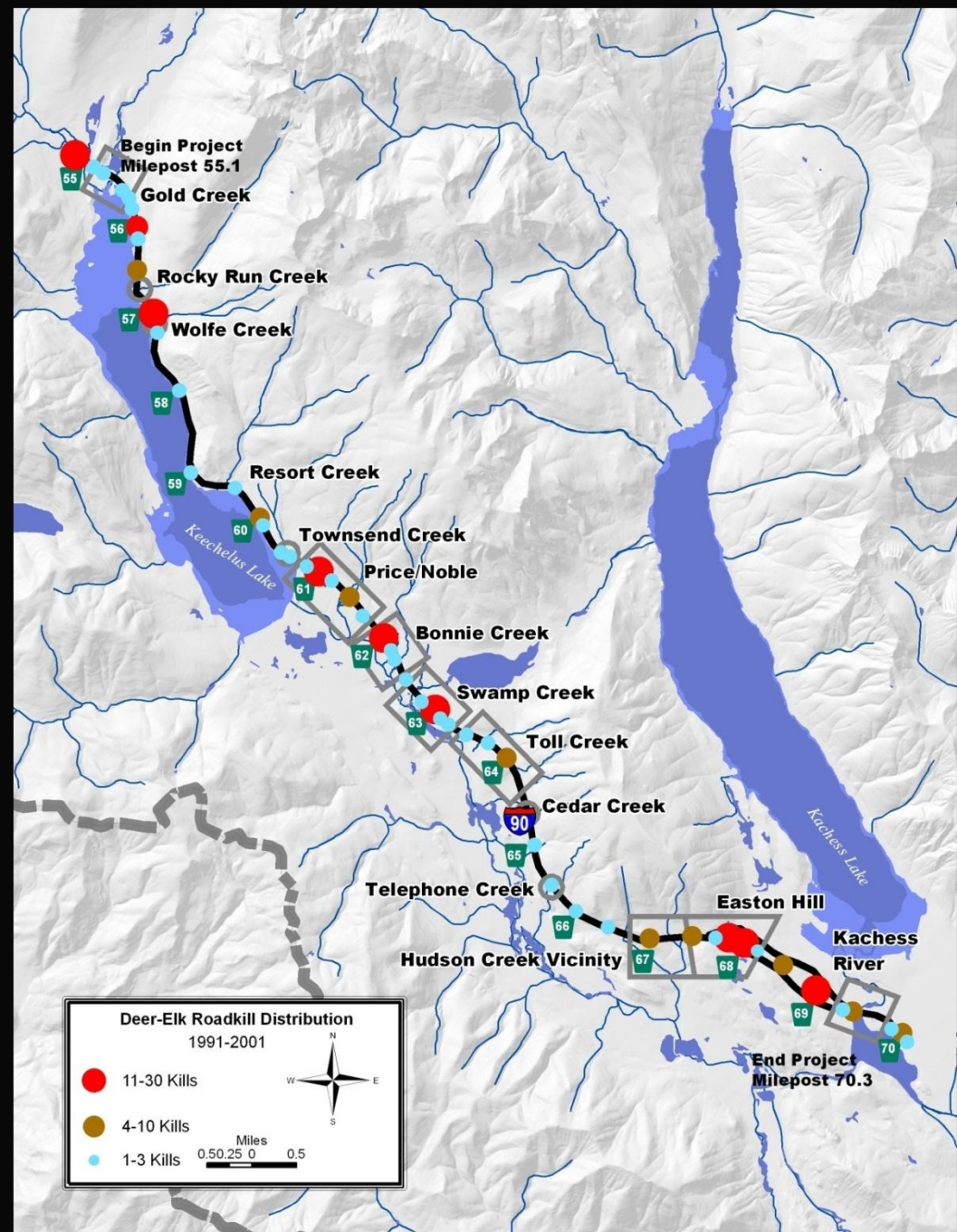


Animal movement + Habitat condition & connectivity

Elk & Deer Roadkill

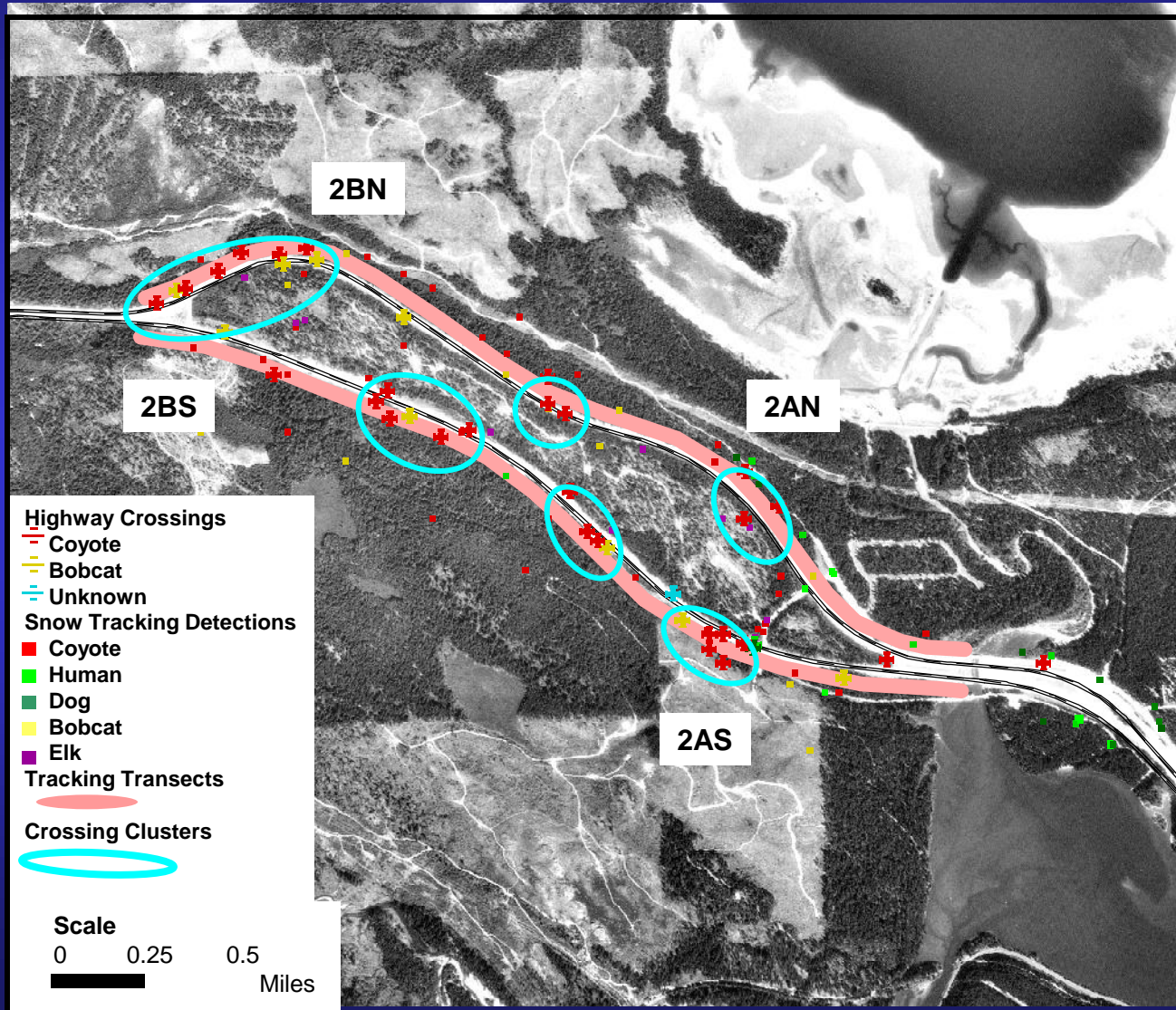
1991-2001

Total known ungulates = ~240

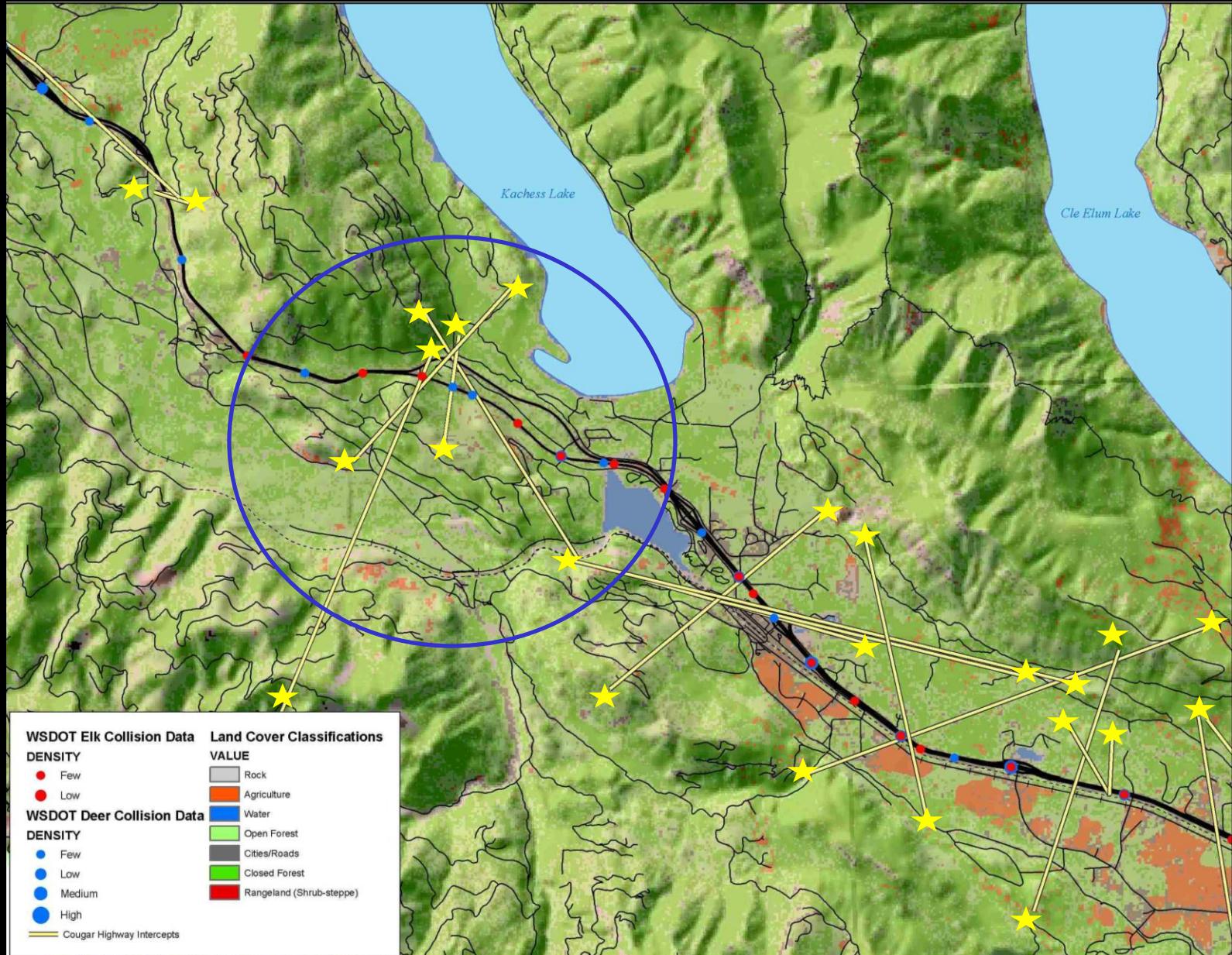


Easton Hill – Snow Tracking Results

Tracked from 1999 - 2000

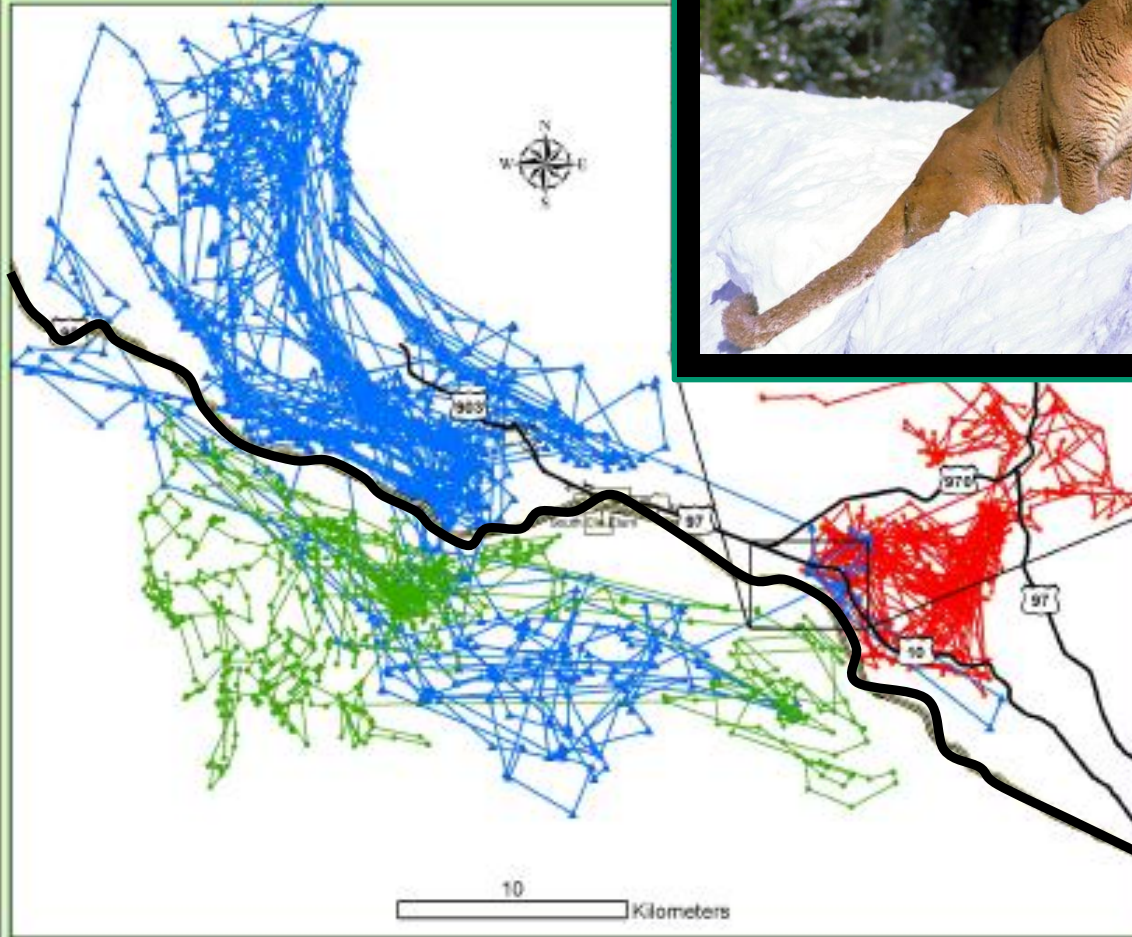


Cougar crossings of I-90 — Easton Hill, WDFW



Male/Female Cougar Movement

Project C.A.T.



Cougar Identification

- ▲ Male 154154
- 154154 Travel Route
- Female 156156
- 156156 Travel Route
- Female 152153
- 152153 Travel Route

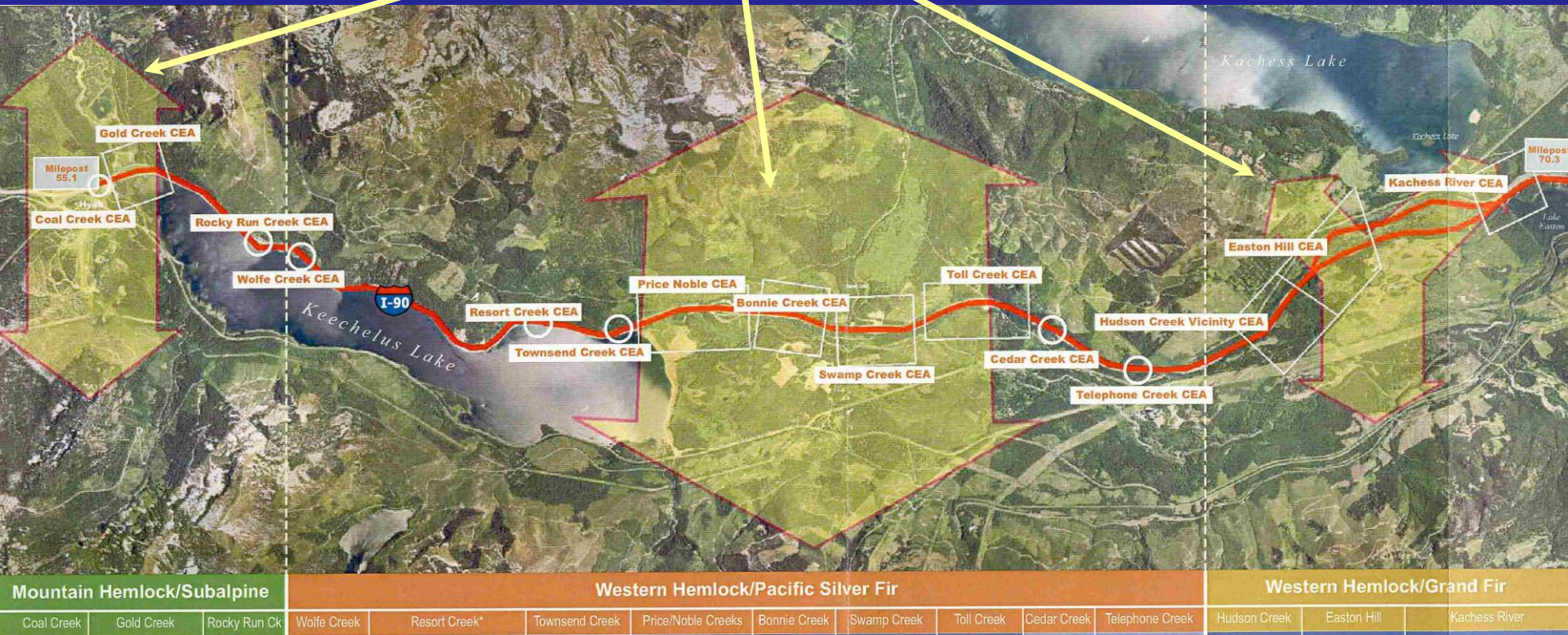
Road killed black bear
Hyak M.P. 54,
Spring 2012



Low Mobility Species



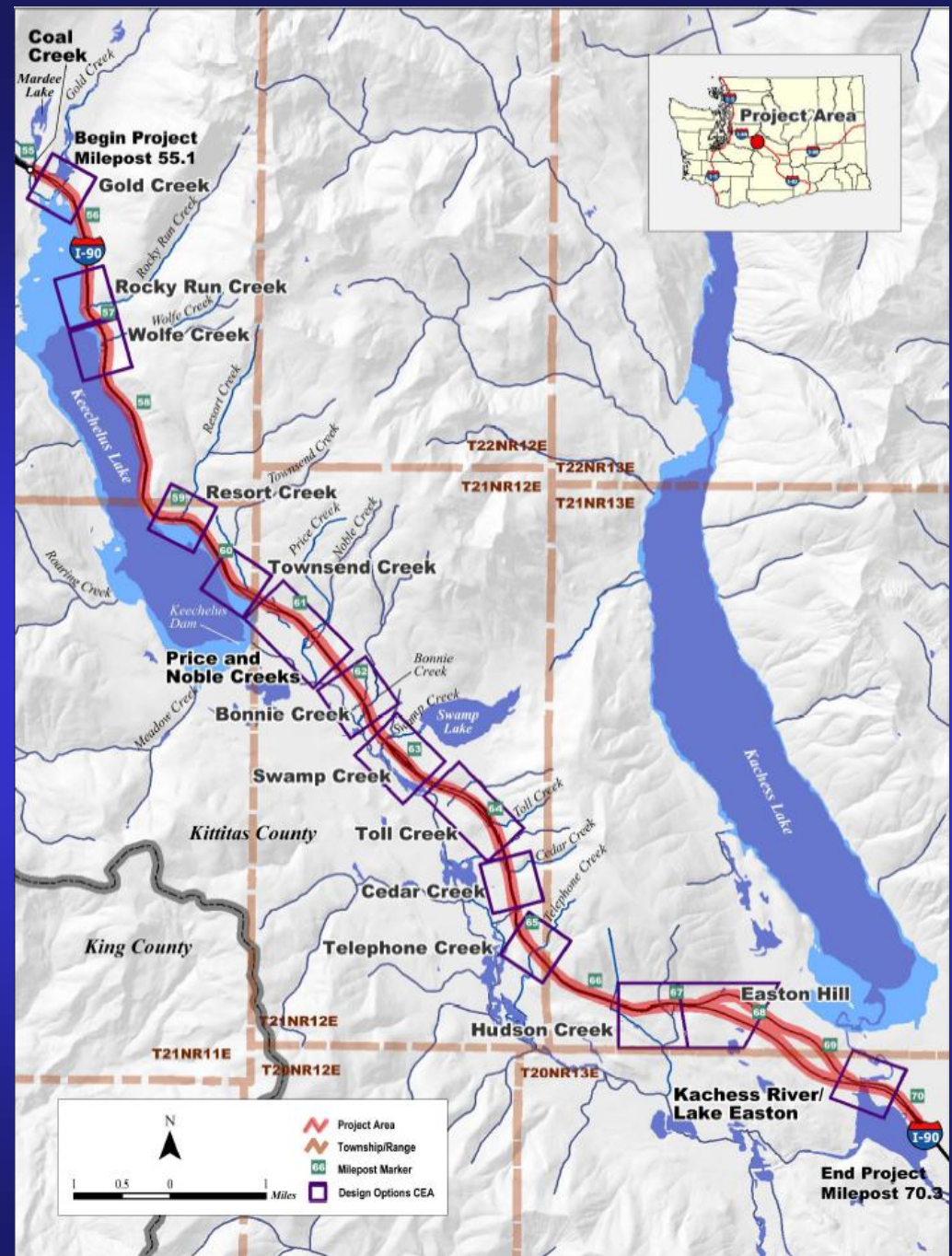
Movement Corridors



15 Miles

Connectivity Emphasis Areas

- 14 CEA's
- Initial focus at stream crossings
- Unique needs at each CEA



Gold Creek Valley



Gold Creek CEA – Before



Gold Creek CEA – After







Proposed Wildlife Crossings near Keechelus Dam



**Wildlife
under-crossings
(bridges)**

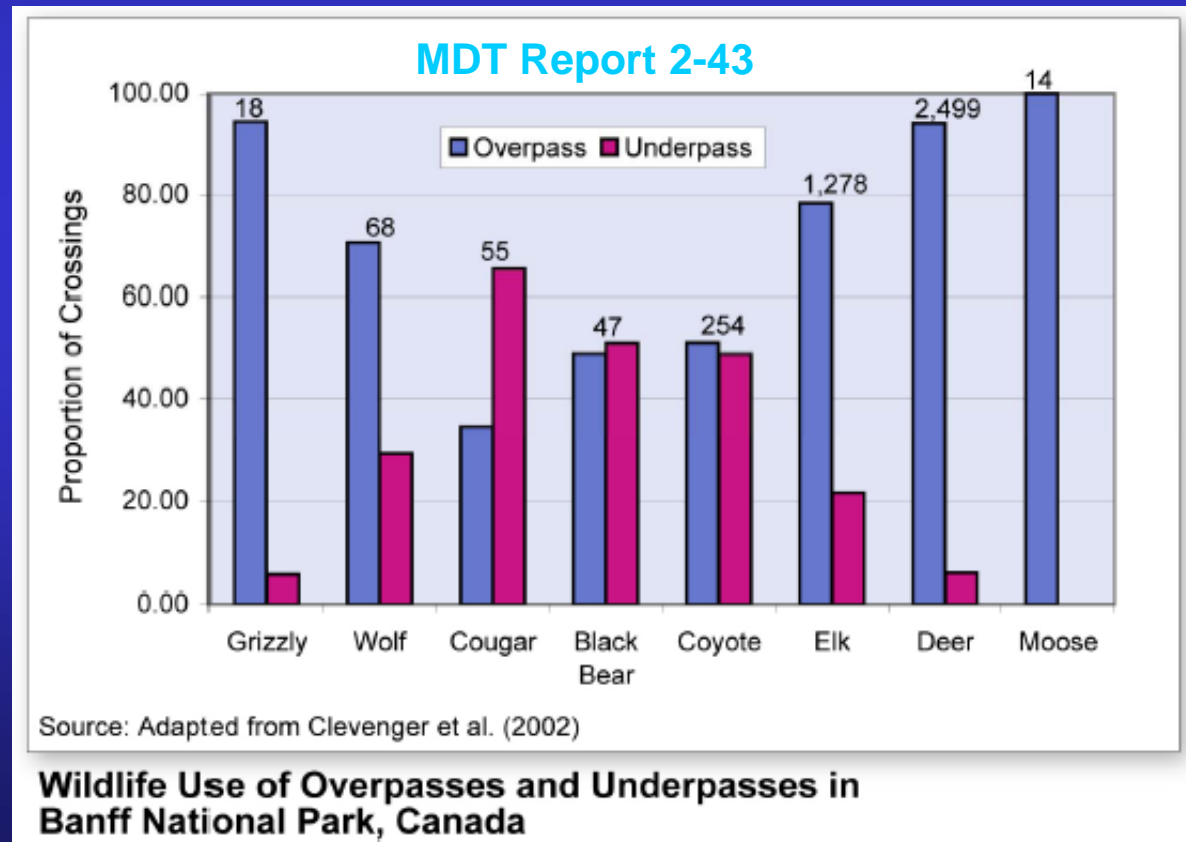
**Wildlife
Overpass**

Do Wildlife Crossings work? Yes!

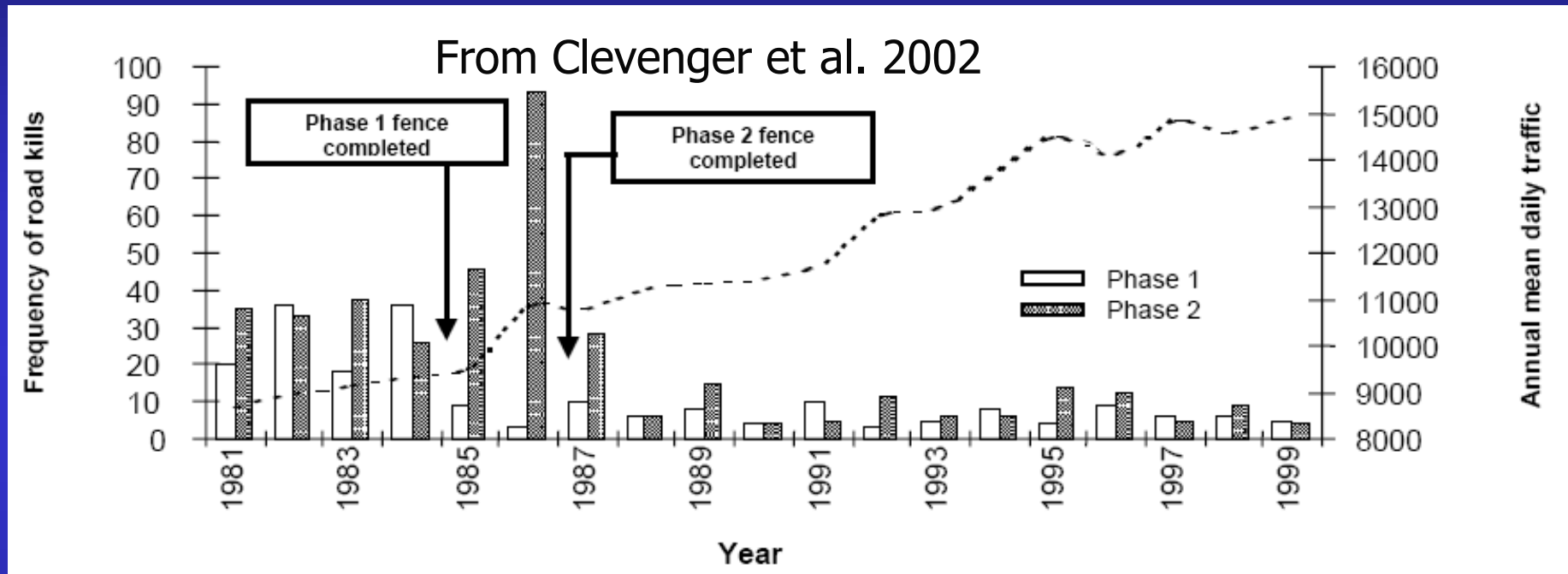


Do Wildlife Crossings work? Yes!

In ~5 years monitoring 22 structures:
37,379 large mammal wildlife passes !



Effectiveness of fencing when used with crossing structures



- **80% reduction in all Roadkill at Banff after fencing**
- **90% reduction of ungulate Roadkill after fencing**

The Role of Partners



Questions?

