Wildlife Crossing Guidelines and Considerations

Achieving Landscape Permeability in an Urban Environment

Lisa DeBruyckere, Creative Resource Strategies, LLC
Lori Hennings, Senior Scientist, Metro
Purpose

• Provide tools to ensure roads in the Portland metropolitan area allow for the greatest movement of native fish and wildlife
Audience

- Transportation planners and engineers
- Developers
- Wildlife biologists and environmental planners
- Citizens
Background

- Literature Review of 400+ publications on landscape permeability, wildlife crossing structures, and urban planning
- Update of first edition
Content

- Chapter 1 – Introduction
- Chapter 2 – Road Ecology
- Chapter 3 – Wildlife Corridors
- Chapter 4 – Decision Guide
- Chapter 5 – Crossing Structures
- Chapter 6 – Funding a Vision
- Chapter 7 – Monitoring
- Chapter 8 – Reducing Wildlife-Vehicle Collisions
- Chapter 9 – Healthy Urban Wildlife
Introduction

• Landscape permeability
• How the metropolitan area is changing
• How the guidebook complements other key initiatives
Road Ecology

- The ecological effects of roads
- Wildlife-vehicle collisions
  - Road type
  - Traffic volume
  - Traffic speed
  - Safety/cost
  - Lighting
  - Noise
Corridors

- Wildlife movement corridors
- Loss and fragmentation of habitat
- Different species, different needs
  - How much habitat is enough?
- Datasets and policy
- Forest canopy cover and habitat
- The art and science of prioritizing wildlife corridors
- Examples
Decision Guide

- Bissonnette and Cramer (2007)
  - wildlifeandroads.org
  - Planning
  - Implementation
  - Adaptive management
- Examples
- Best management practices
- Damascus
Crossing Structures

- Characteristics
- Types
- Common myths
- Costs
- Lessons learned
Funding a Vision

- Federal programs
- State programs
- Regional programs
- Partnerships
- Cost-sharing opportunities
Monitoring

- Monitoring
- Maintenance
- Land Use Goals
- Datasets
- Technology
Reducing Wildlife Vehicle Collisions

- Public Outreach
- Road Signs
- Animal Detection Systems
- Planning and Design Approaches
- Fencing
- Cost
Healthy Urban Wildlife

- Invasive Species
- Protect riparian buffers
- Landscape with natives
- Incorporate habitat features into built environment
- Manage for suites of species
Next Steps

• Draft document is available for review

Lisa DeBruyckere, Creative Resource Strategies, LLC
(lisad@createstrat.com)

Lori Hennings, Senior Scientist, Metro
(lori.hennings@oregonmetro.gov)