

# Biodiversity Planning in King County: The LAB Project

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# Local Action for Biodiversity

- A project of the International Committee for Local Environmental Initiatives, began in 2006
- Sponsored by the International Union for the Conservation of Nature (IUCN), Countdown 2010, South African Biodiversity Initiative, Roma Natura;
- Contributions of urban(izing) areas to biodiversity
- 20 participants worldwide
- King County joined the initiative in 2007

# Current Participants

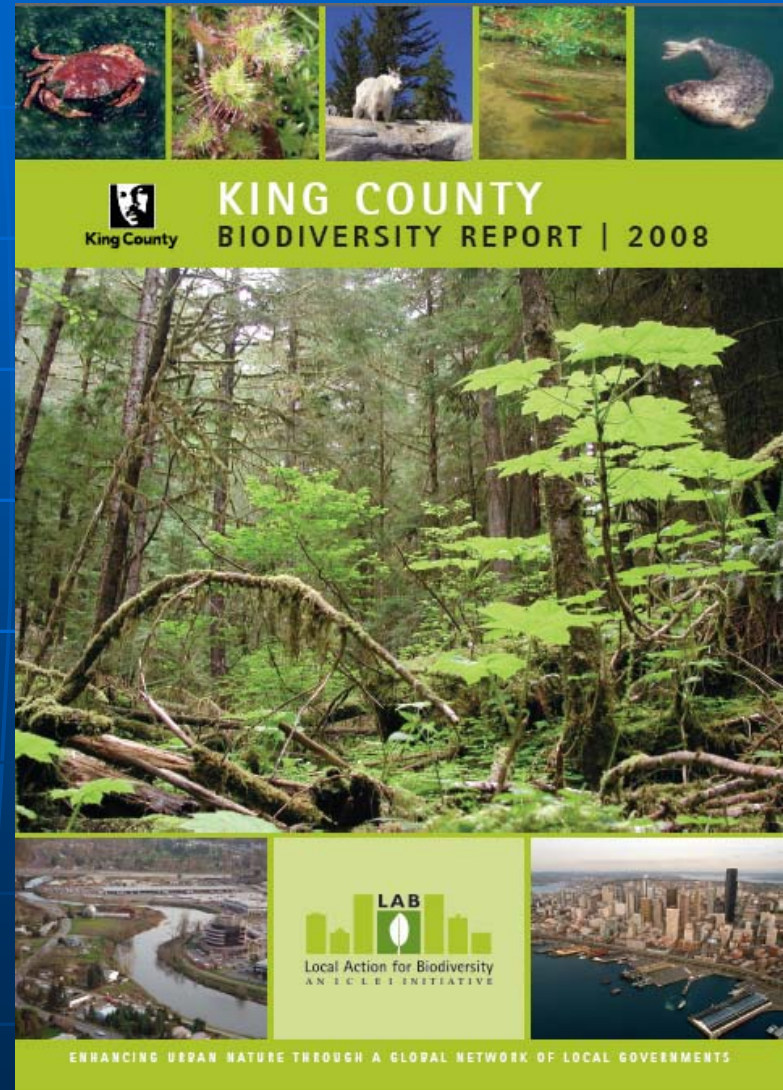
- Barcelona (Spain)
- Bonn (Germany)
- Cape Town (South Africa)
- Durban (South Africa)
- Edmonton (Canada)
- Ekurhuleni (South Africa)
- Ile de France (Paris, France)
- Johannesburg (South Africa)
- Joondalup (Australia)
- King County (USA)
- Leicester (U.K)
- Liverpool (Australia)
- Nagoya (Japan)
- Querétaro (Mexico)
- São Paulo (Brazil)
- Seoul (Korea)
- Tilburg (Netherlands)
- Waitakere (New Zealand)
- Walvis Bay (Namibia)
- Zagreb (Croatia)

# The LAB Project Timeline

- ✓ Completed biodiversity report in 2007;  
printed 2008;
- Next: Develop biodiversity  
framework and strategy in 2008
- Develop biodiversity plan in 2009
- Implement 5 new biodiversity projects or  
programs by 2010

# King County Biodiversity Report

- Completed fall 2007
- Printed April 2008
- Topics:
  - Status
  - Threats
  - Management
  - Governance
- Two maps produced
  - Landscape Diversity
  - Rare, Threatened, & Endangered Plants & Animals



# King County Biodiversity Report: Status

## ■ Biodiversity levels covered:

- ecoregion (landscape)
- ecosystems
- habitat
- species

## ■ Missing: biodiversity at the genetic level

Biodiversity is defined as the variety of living organisms considered at all levels, from genetic diversity through species, to higher taxonomic levels, and includes the variety of habitats, ecosystems, and landscapes in which the species are found.








# Biodiversity Status

LEVEL III	LEVEL IV
Puget Lowland	Eastern Puget Riverine Lowlands
	Eastern Puget Uplands
	Central Puget Lowland
North Cascades	North Cascades Lowland Forests
	North Cascades Highland Forests
	North Cascades Subalpine/Alpine
Cascades	Western Cascades Lowlands and Valleys
	Western Cascades Montane Highlands
	Cascade Subalpine/Alpine

Ecoregion/Landscape Level

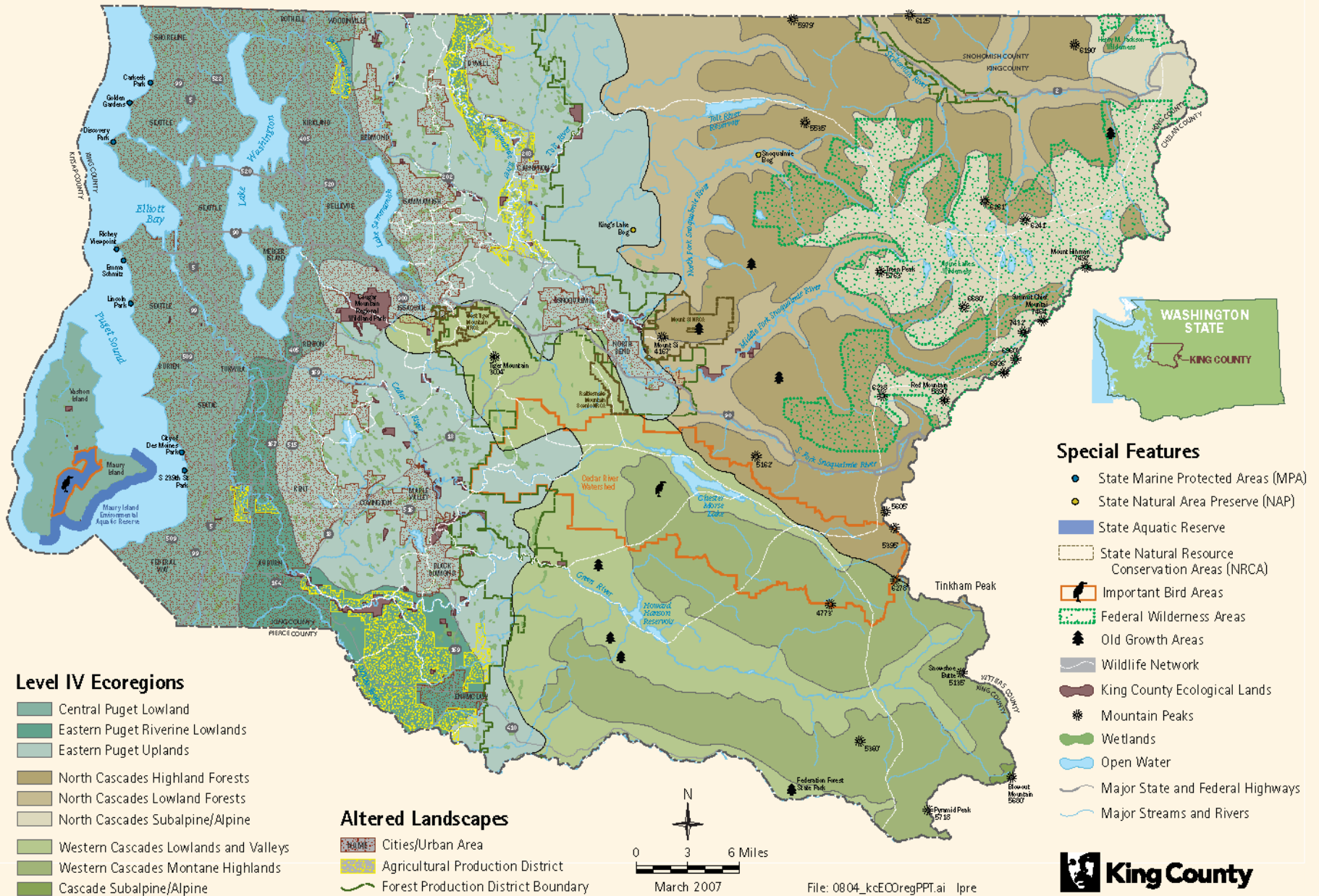
Wetland system	Number of wetlands	Hectares (Acres)
Palustrine	836	5,507 (12, 556)
Lacustrine	18	419 (956)
Palustrine/lacustrine	17	473 (1,078)
Estuarine	13	1,074 (2,449)
Marine	~30	~132 (~ 300)
Total	884	8,789 (20,039)

Ecosystem/Habitat Level

KING COUNTY ANIMAL AND PLANT SPECIES		
Species Group	No. of Species in King County	
 Birds	221 (5 are introduced)	
 Mammals	69 (8 are introduced)	
 Amphibians	12 (1 is introduced)	
 Reptiles	8 (2 are introduced)	
 Freshwater Fish	50 (20 are introduced)	
 Marine Fish in Intertidal/ Shallow Subtidal Habitat	Over 60	
 Vascular Plants	1249 (383 are introduced)	

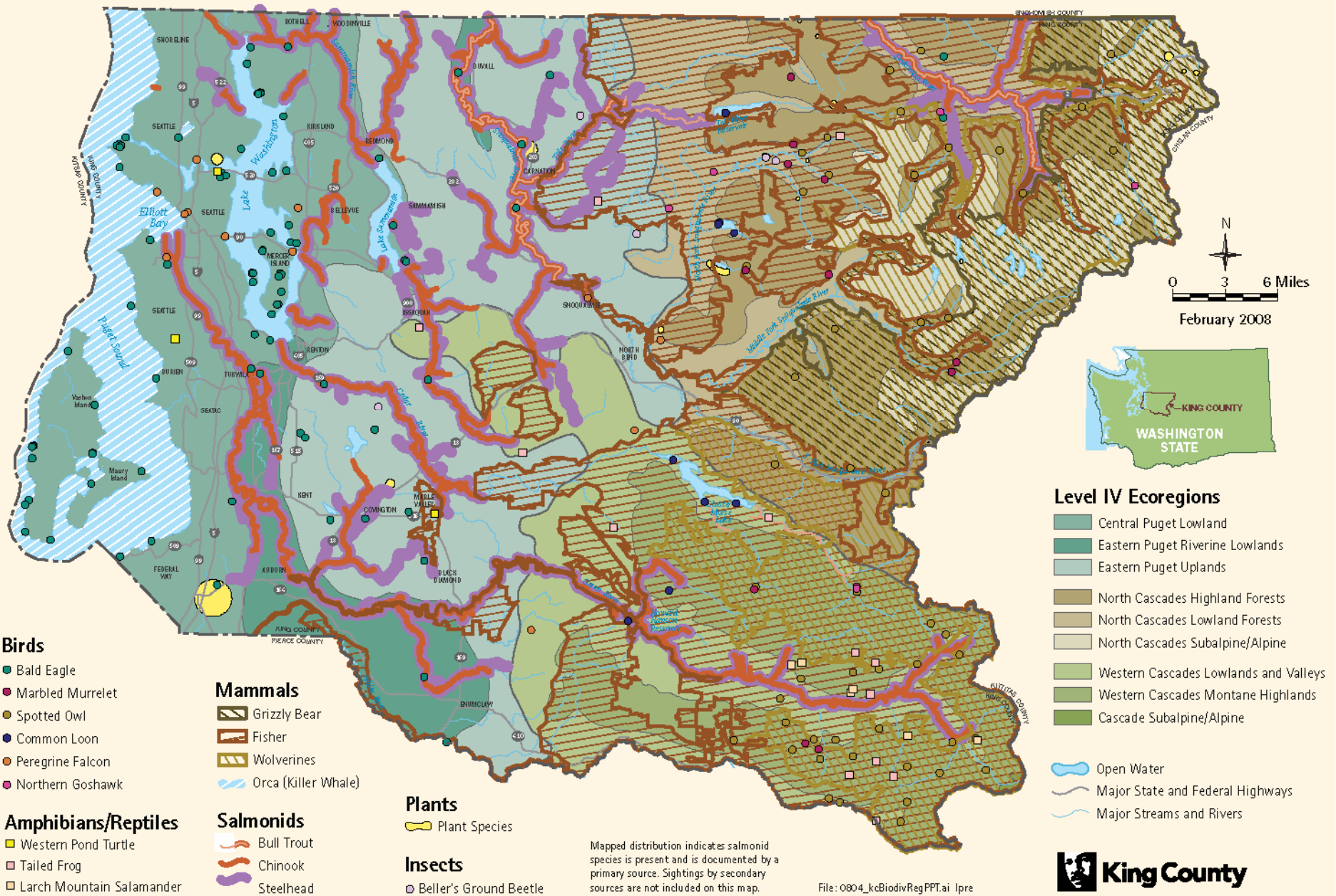
Species Level

# KING COUNTY LANDSCAPE DIVERSITY





# KING COUNTY RARE, THREATENED, AND ENDANGERED PLANT AND ANIMAL SPECIES



# Findings

- Puget Lowland ecoregion is most altered, N. Cascade Alpine the least;
- Amphibians probably have declined most dramatically;
- Anna's Hummingbird and Western Scrub Jay expanding range;
- Cougar Mtn. may be a local biodiversity "hotspot";
- Many information gaps remain.

# Information Gaps

- Species' distributions and status information is poor;
- No complete natural history survey;
- Little genetic and life history information available to assess diversity and viability for known species.



# Filling Information Gaps

- Eco-regional Assessment
- Public's observations to database
- Citizen science monitoring? Phenology...



# Looking Ahead – Biodiversity Framework & Strategy

## King County Biodiversity Goals:

- Functional landscapes and ecosystems
- Viable populations (native species and human sustainability)



# Looking Ahead – Biodiversity Framework & Strategy

Elements of an ecosystem-based approach to biodiversity conservation:

- Set boundaries using ecological and evolutionary processes
- Represent native ecosystem types and seral stages
- Address multiple levels of organization
- Address multiple temporal and spatial scales
- Manage for Resilience and Redundancy
- Renew the ethical commitment to conservation (Leopold)
- Engage citizens

Remember, only you can protect biodiversity.

