

Western Strait of Juan de Fuca Habitat Conservation Planning

February 2, 2011



General Plan Outline

- Chapter 1- Introduction
- Chapter 2- Background
- Chapter 3- Approach and methods used to prioritize habitat conservation
- Chapter 4- Prioritized habitats and parcels
- Chapter 5- Recommendations
- Chapter 6- Citations

Chapter 1- Introduction

- Section 1.1 Purpose of plan
 - To indentify and prioritize habitat and riparian reaches that are important to salmon and other fish species survival- specifically floodplain and riparian forests.
- Section 1.2 Plan organization

Chapter 2- Background

- Section 2.1 Watershed overview
- Section 2.2 Land use
 - Historical settlement
 - Modern Landownership and land use
 - Private residential, urban, and industrial land use
 - Tribal lands
 - Olympic National Park
- Section 2.3 Salmonid resources

Chapter 3- Approach and methods used to prioritize habitat conservation

- Section 3.1 Habitat Classification
- Section 3.2 Biological Indicators
- Section 3.3 Other Metrics?
 - Landowner Willingness
 - Relative position to other parcels
 - Threats to development
 - Parcel size

Section 3.1 Habitat Classification

Habitat Types

- Nearshore
- Estuaries
- Large river floodplains
- Other important streams
- Important off-channel habitats
- Uplands

Section 3.1.1 Habitat Classification Methods

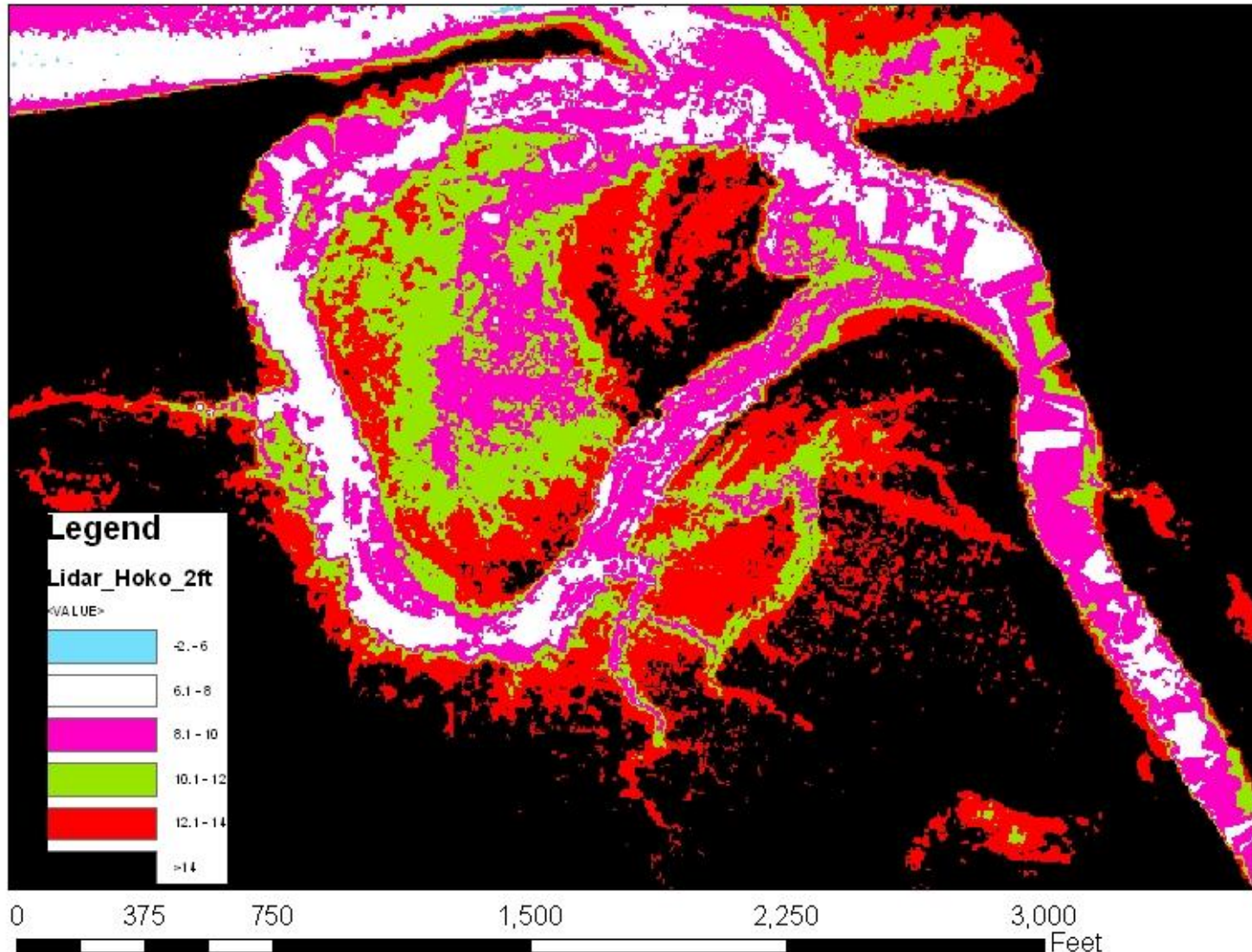
Defining Habitat Types

- Nearshore: marine environment, bounded by OHM and interface with estuarine habitat?
- Estuaries: interface between fresh and salt water environments, approximate upper extent of tidal influence?
- Large river floodplains: channel networks where bankfull edge of channels can be remotely defined. Floodplain extent could correspond to Critical Areas 100-year floodway or other GIS defined extent?
- Other important streams: medium sized streams such as Salt Creek, or stream segments that are biologically significant (e.g., Charley Creek).
- Important off-channel habitats: large or biologically important wetland and off-channel habitats (e.g., Lower Hoko Wetland Complex)?
- Uplands: areas not falling within one of the above categories or directly adjacent to defined habitats (e.g., does not include upland riparian habitat).

How do we define the spatial extent of different habitat types?



Lidar can help define the spatial extent of different habitat types.



Example approach for the Hoko River

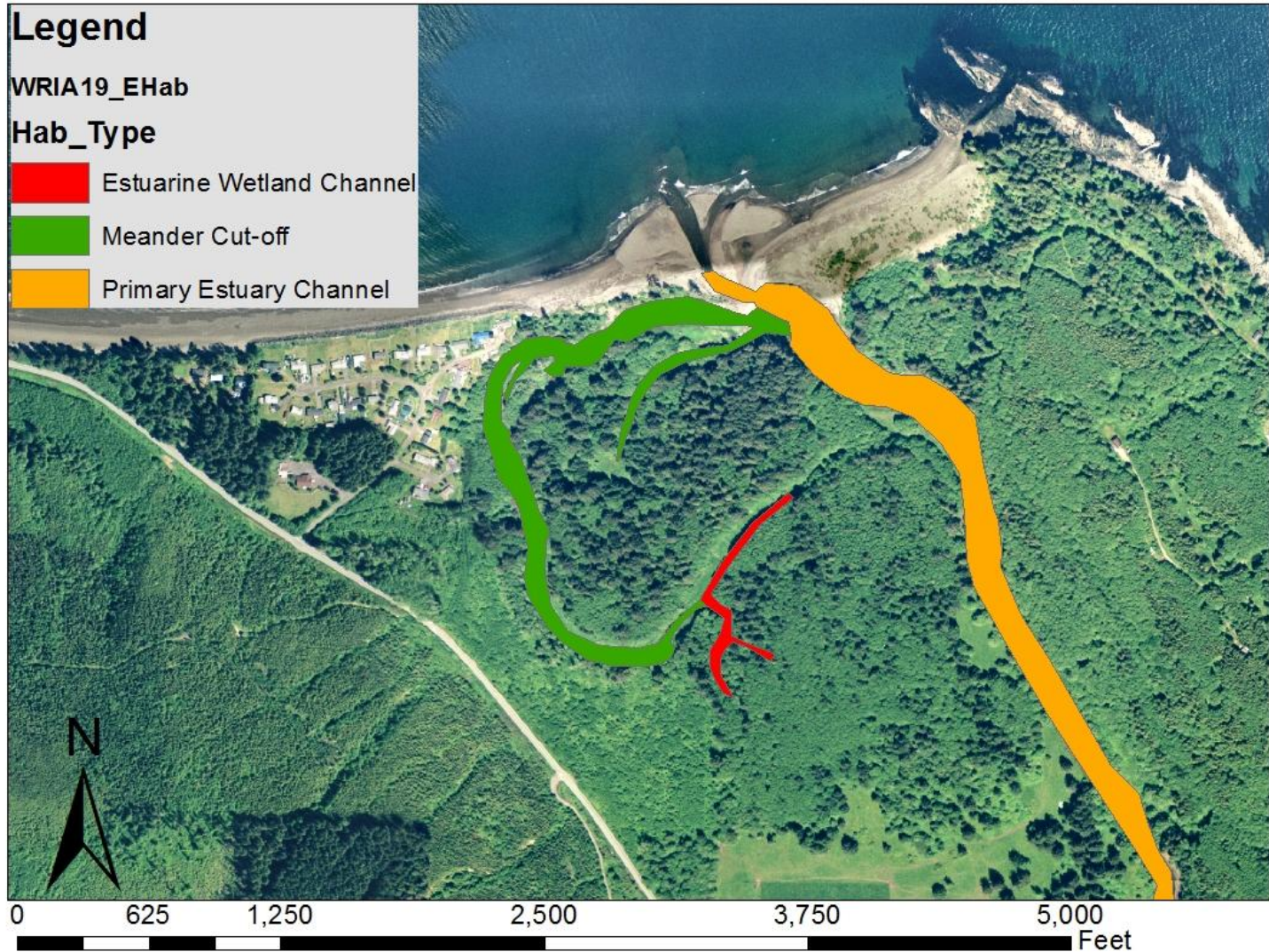


Attributing habitats

What attributes should be associated with each habitat type?

Sub-habitat types.

Example of the types of sub-habitats



Attributing habitats

How do we integrate habitat conditions?

What about riparian conditions?

What about biological indicators?

Habitat conditions and attributes

What data do we use, LWD, pool, etc...?

Committee based qualitative attributes? For example high, medium, and low quality habitat.

Example of riparian conditions for Clallam River Assessment.

Riparian Conditions

Un-Impaired/slightly Impaired

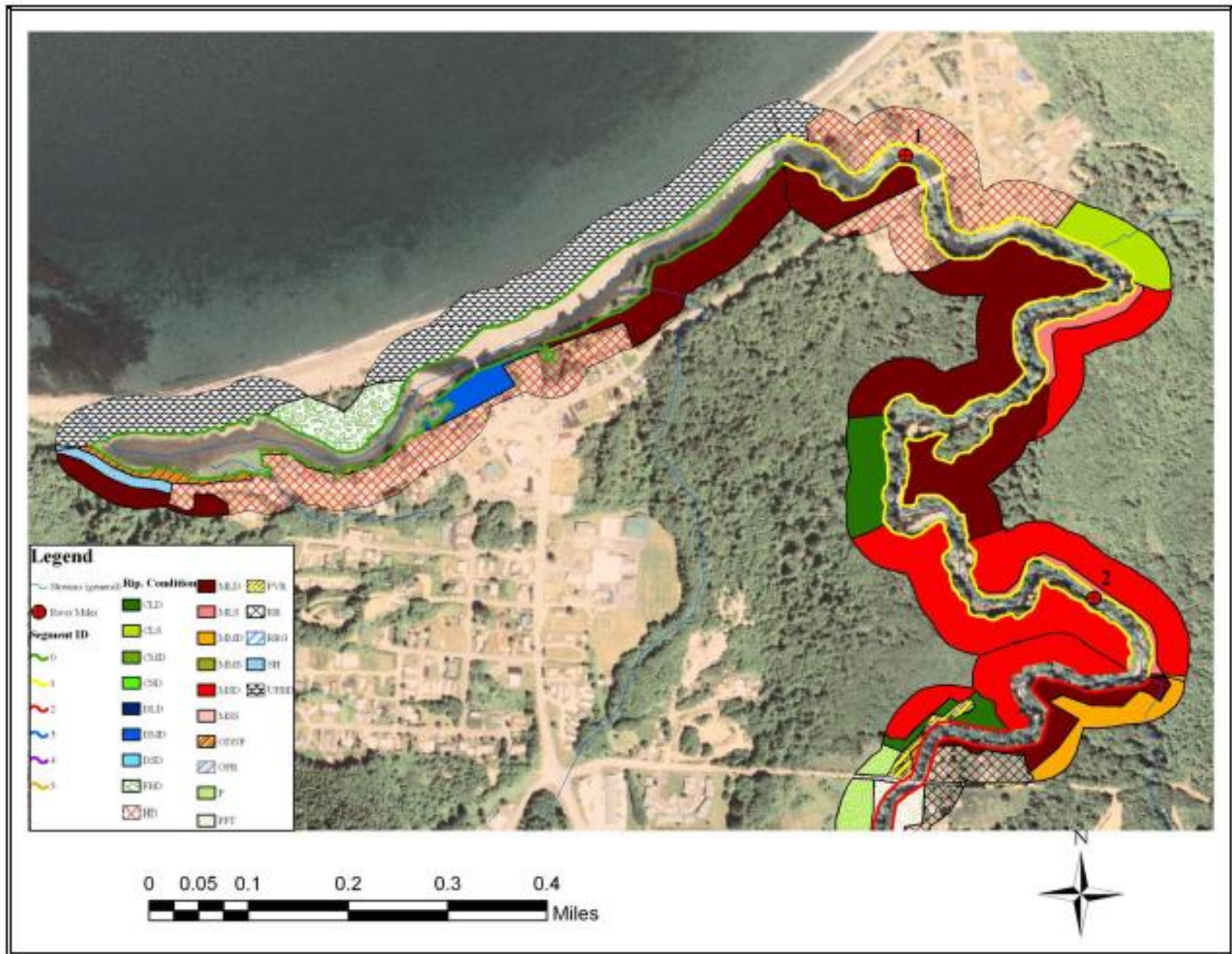
- CLD (conifer large dense), MLD (mixed large dense), and BFD (forested beach deposits)

Riparian conditions within the impaired riparian function category included: CLS

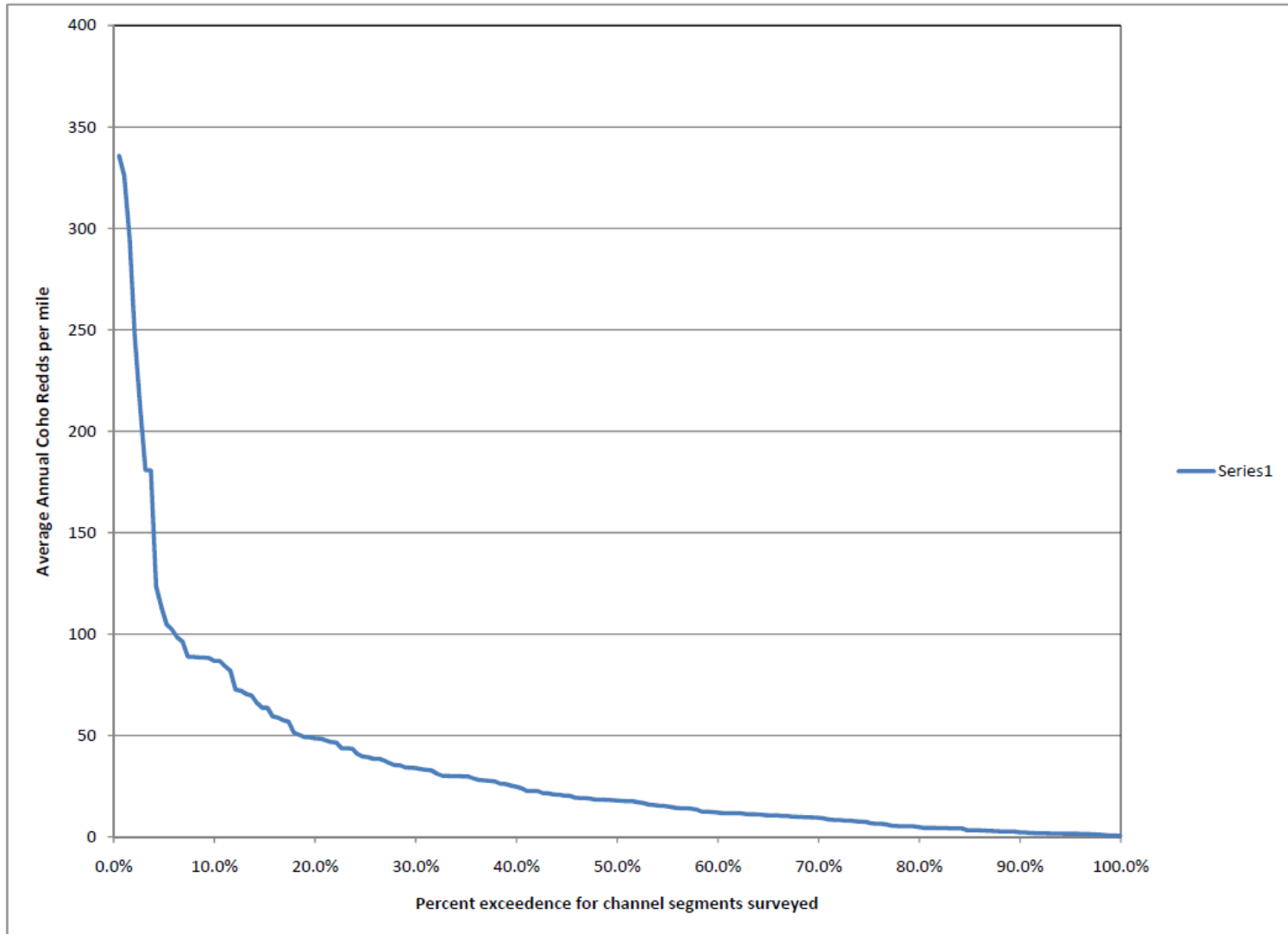
(conifer large sparse), CMD (conifer medium dense), DLD (deciduous large dense), DMD (deciduous medium dense), MLS (mixed large sparse), MMD (mixed medium sparse), and MMS (mixed medium sparse).

Riparian conditions within the nonfunctioning category included: CSD (conifer small dense), DSD (deciduous small dense), MSS (mixed small sparse), MSD (mixed small dense), UFBD (un-forested beach deposit), P (pasture), PPT (pasture with planted trees), ODNF (other disturbed un-forested areas), SH (state highway), PVR (private road), OPR (other public road), RRG (railroad grade), HD (high density housing), and RR (rural residential).

Example from Clallam River



Biological Indicators (e.g., coho salmon redds per mile surveyed)



Biological Indicators (e.g., coho salmon redds per mile surveyed)

