

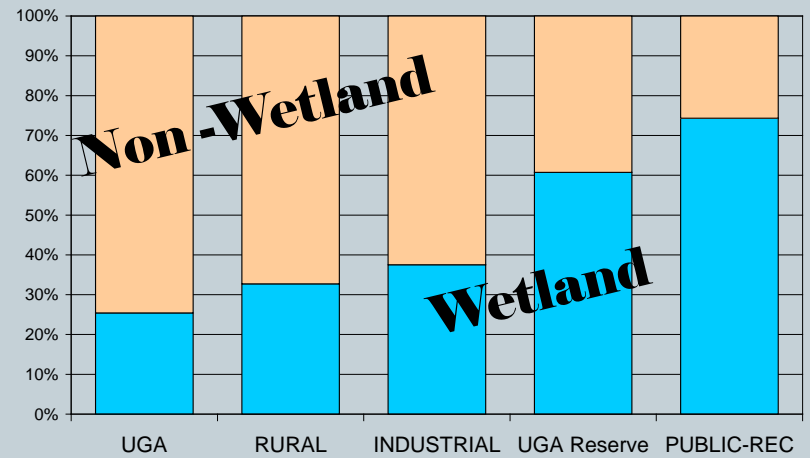
# Birch Bay Mitigation Alternative



**BIRCH BAY WATERSHED ACTION PLAN  
AD HOC SUBGROUP**

**AUGUST 10, 2011**

# Abundant Wetlands

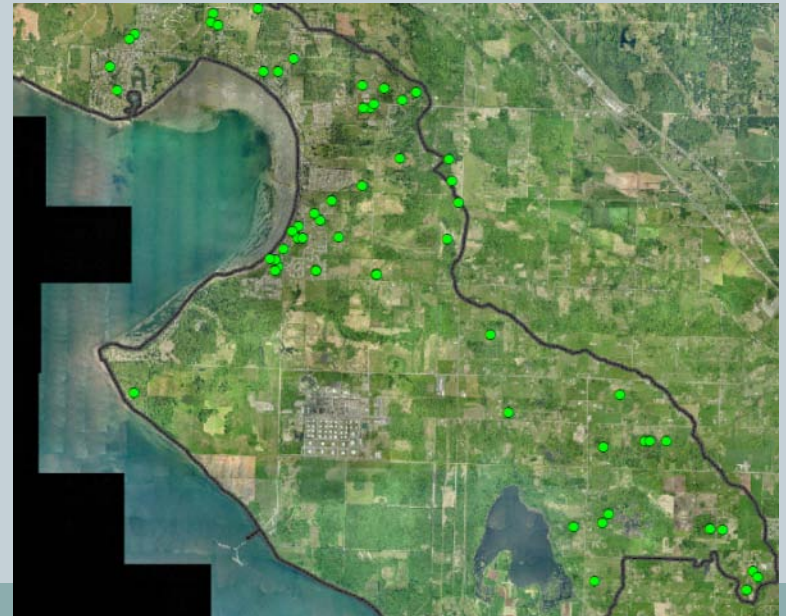


Birch Bay Wetland Area by Zone

# Birch Bay Mitigation



- 44 Mitigation Plans since 2005, where impacts occurred or planned. (excludes marine shoreline)
- Ave Buffer Impact: 27,183 square feet
- Ave Wetland Impact: 5,840 square feet
- Ave Mitigation cost: \$11,455\*  
\*Does not include permit review expenses

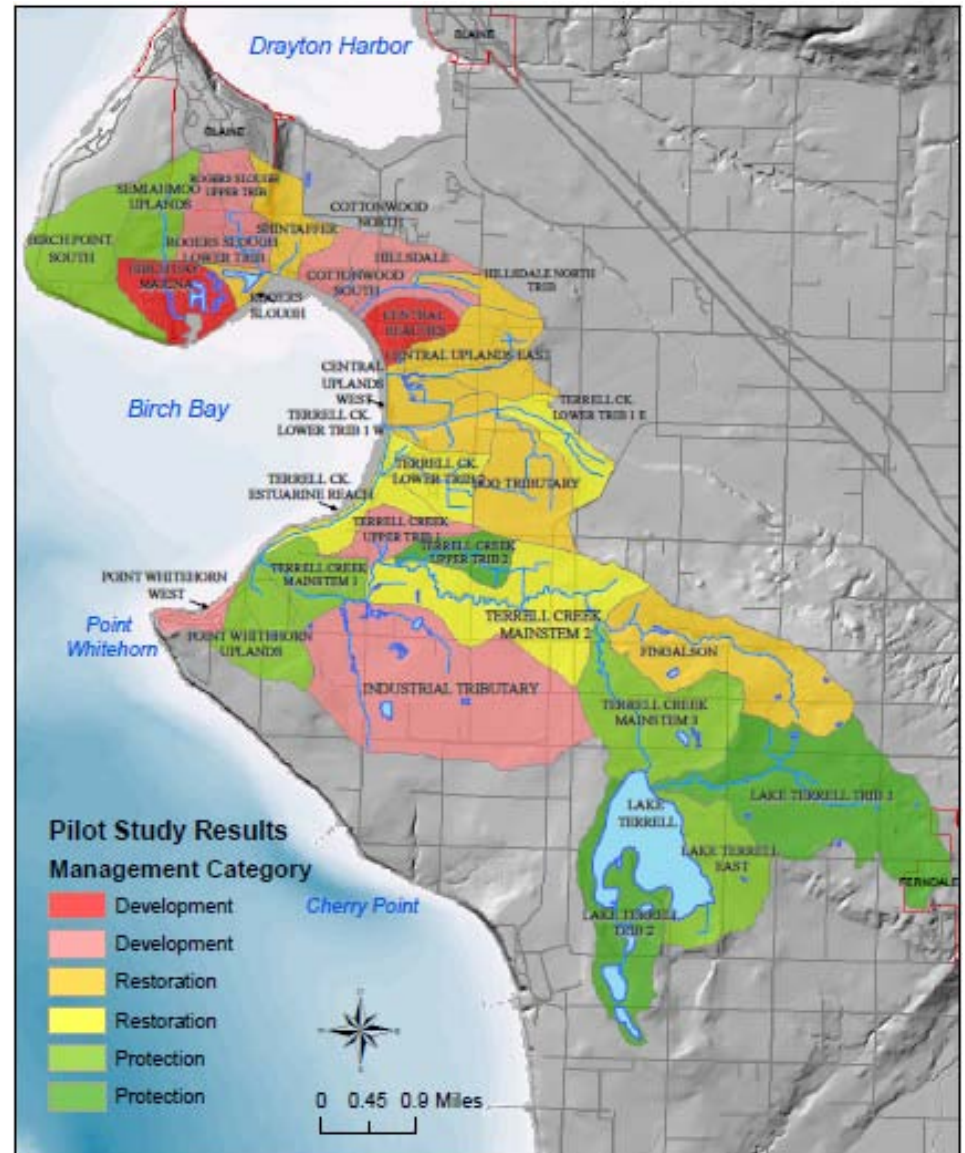


# Fee in Lieu of Mitigation



- Proponents can ‘buy’ into mitigation program
- Buffer Impacts are consolidated to fund substantive projects
- A simpler way to meet mitigation obligations
- Improves mitigation outcomes
- Voluntary participation

# Mitigation Where it Provides the Greatest ecological Benefit

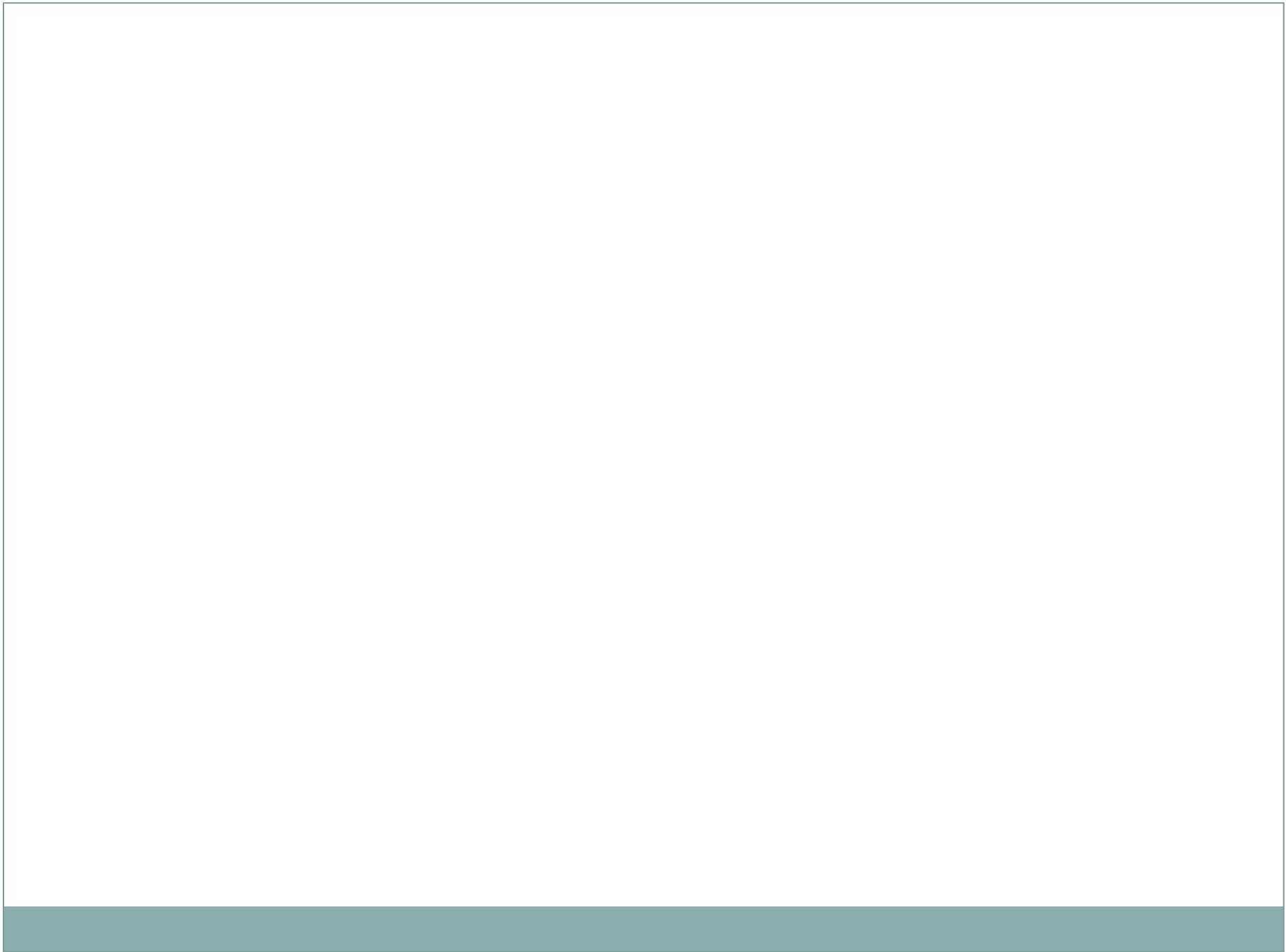


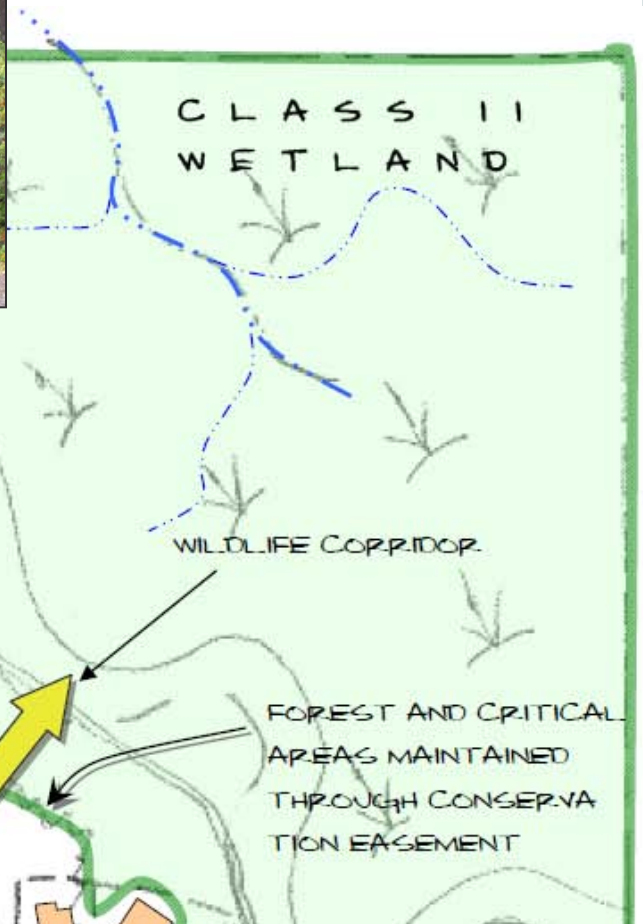
# Mt. Vernon Program



## 7. Managed Ecosystem Alternative Summary

Project #	Project Name	Type	Basin	Amount	Status
LU05-085	Montreaux	wetland	Trumpeter Creek	\$4,804	paid
LU08-026	NW Eye Surgeons	combined wetland/stream	Kulshan Creek	\$31,000	paid
LU07-052	Skagit Valley Herald	stream	Maddox Creek	\$23,286	paid
LU07-048	Skagit County Admin Building Addition	stream	North Fork Kulshan	\$9,770	paid
LU06-060	Smith-Burkland	wetland	Trumpeter Creek	\$12,000	not paid
LU07-024	Skagit Meadows	wetland	Trumpeter Creek	\$53,000	on hold
LU07-037	Hanson Plat	Corps of Engineers required mitigation	Trumpeter Creek	\$20,000	on hold
			Total	\$153,860	





CLASS IV WETLAND IMPACTS MITIGATED OFF SITE IN ACCORDANCE WITH CHARACTERIZATION STUDY

WILDLIFE CORRIDOR

FOREST AND CRITICAL AREAS MAINTAINED THROUGH CONSERVATION EASEMENT

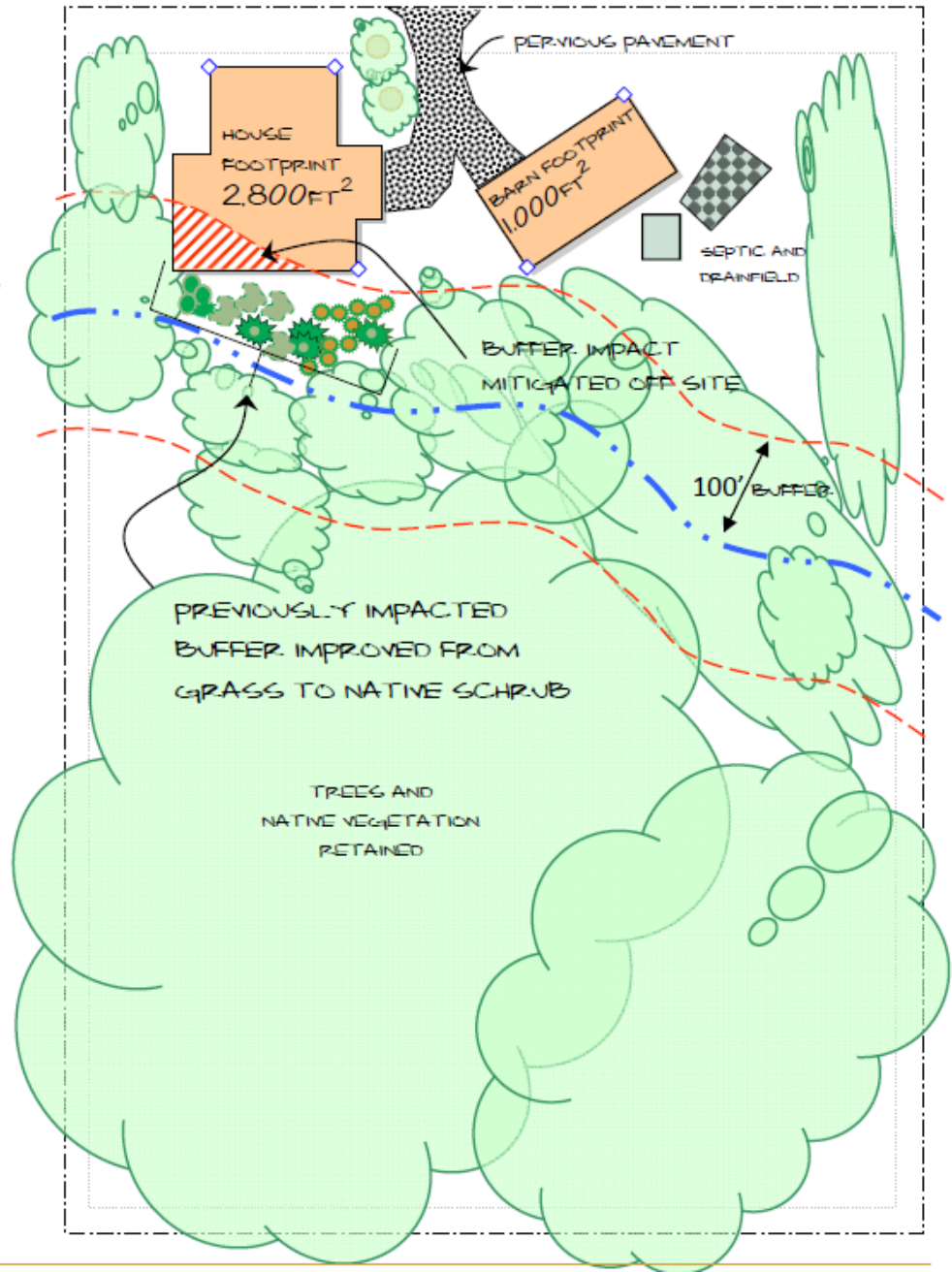
STORMWATER



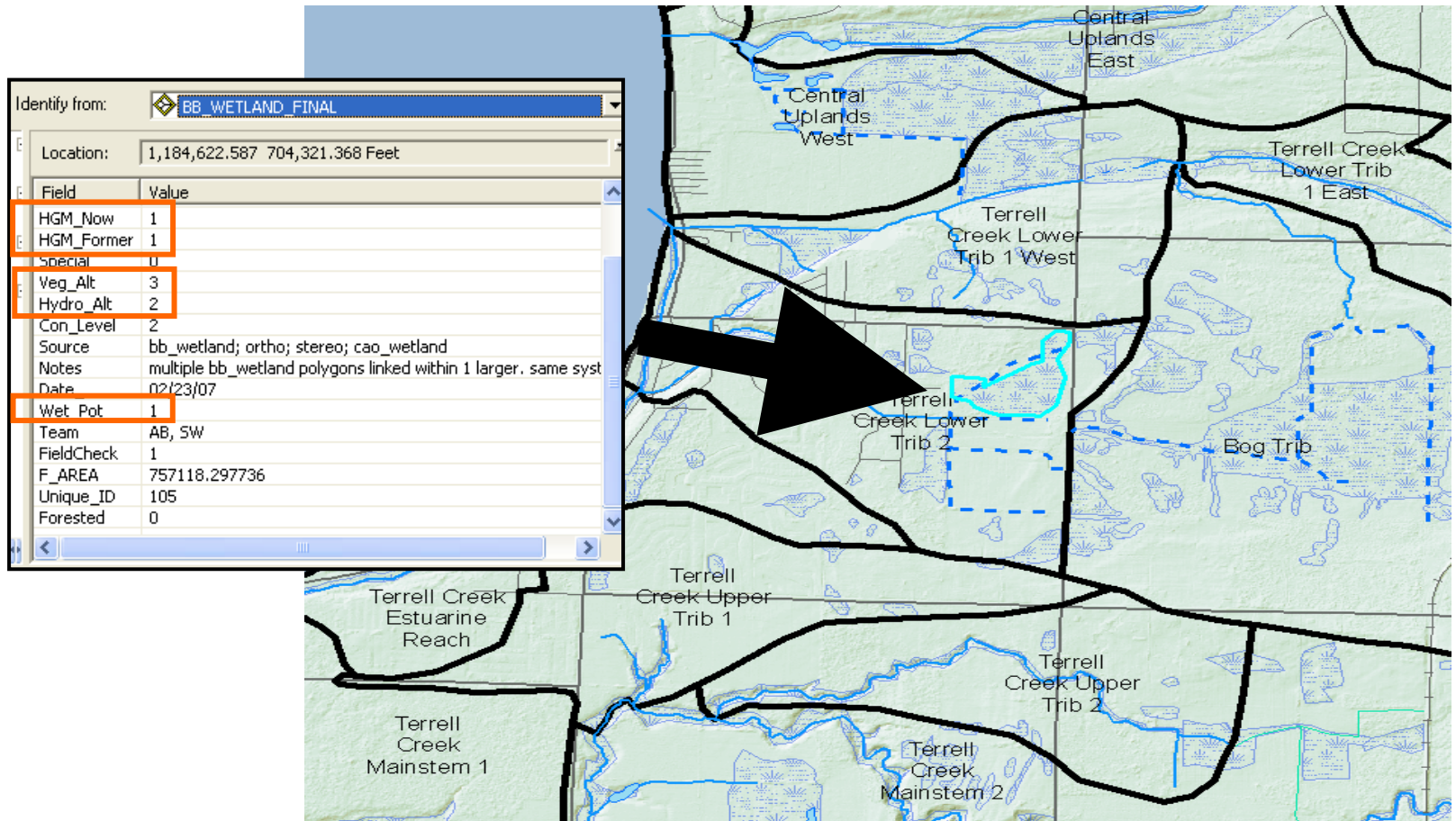
MINIMIZE ROAD WIDTH WITH CURB AND PAVEMENT FOR PARKING ON ONE SIDE

## SINGLE FAMILY RESIDENTIAL - RURAL

- ✓ Lower Impact Site Design
  - Restore Stream, Wetland, and Wildlife Buffers
  - Limit Clearing and Grading to Preserve Vegetation
- ✓ Minimize Impervious Surface Cover
  - Reduce driveway Width
  - Use pervious Pavement
- ✓ Manage Remaining Stormwater and Critical Area Impacts
  - Dispersed Stormwater runoff
  - Stream buffer impact mitigated through purchase of buffer credits equivalent to impact



# Wetland and Riparian Assessment



- Characteristics include wetland class
- Potential for wetland restoration
- Level of alteration for riparian and wetlands


Riparian cover mapped based on high resolution aerial photograph stereo pairs (2006 - 2001) and Light Detection and Ranging (LIDAR 2006) data, with selective ground truthing.

## Whatcom County



Birch Bay Watershed

## Map Symbols


 Watershed Boundaries

### Riparian Condition

Canopy or Schrup Vegetation

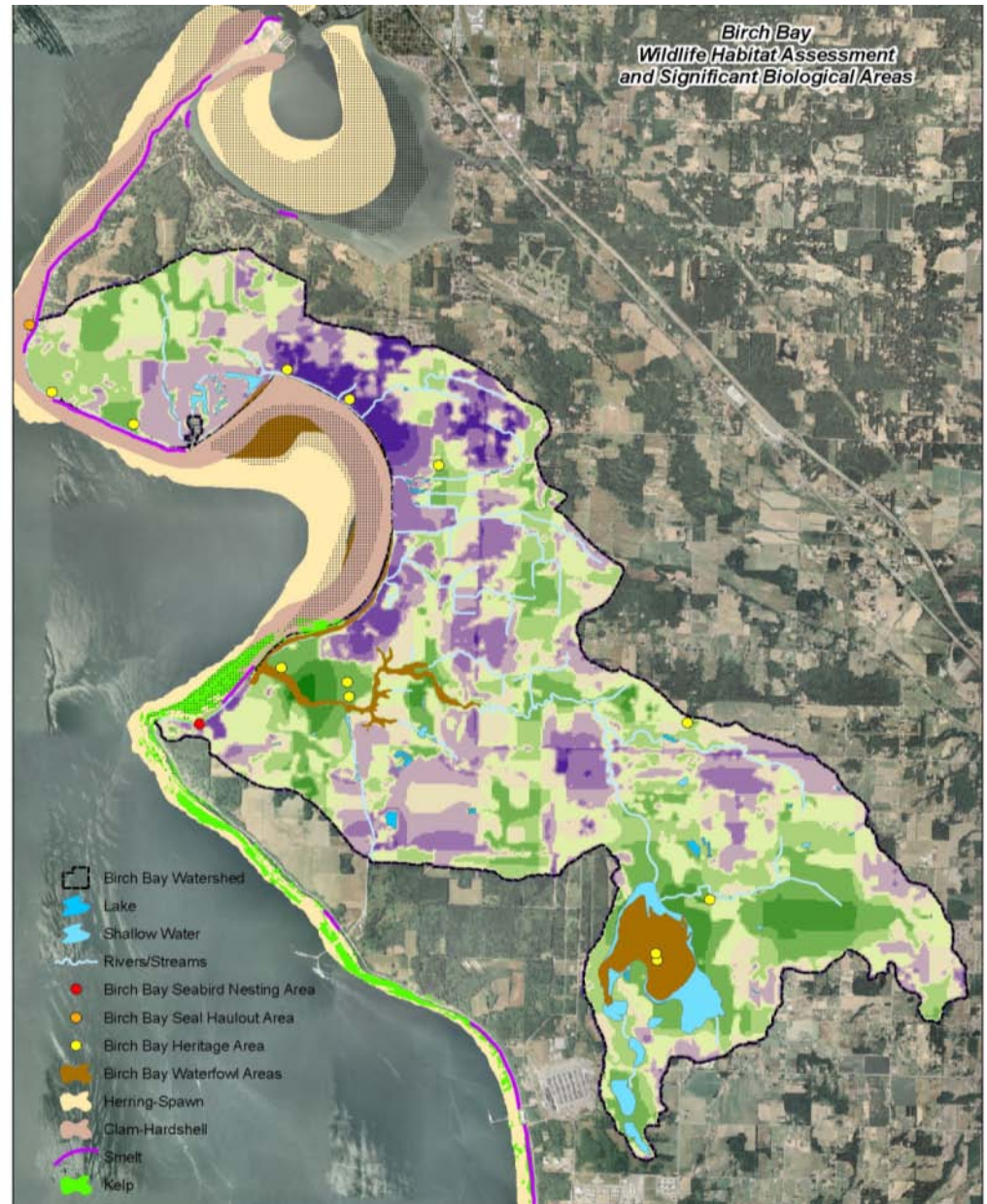
 >85%

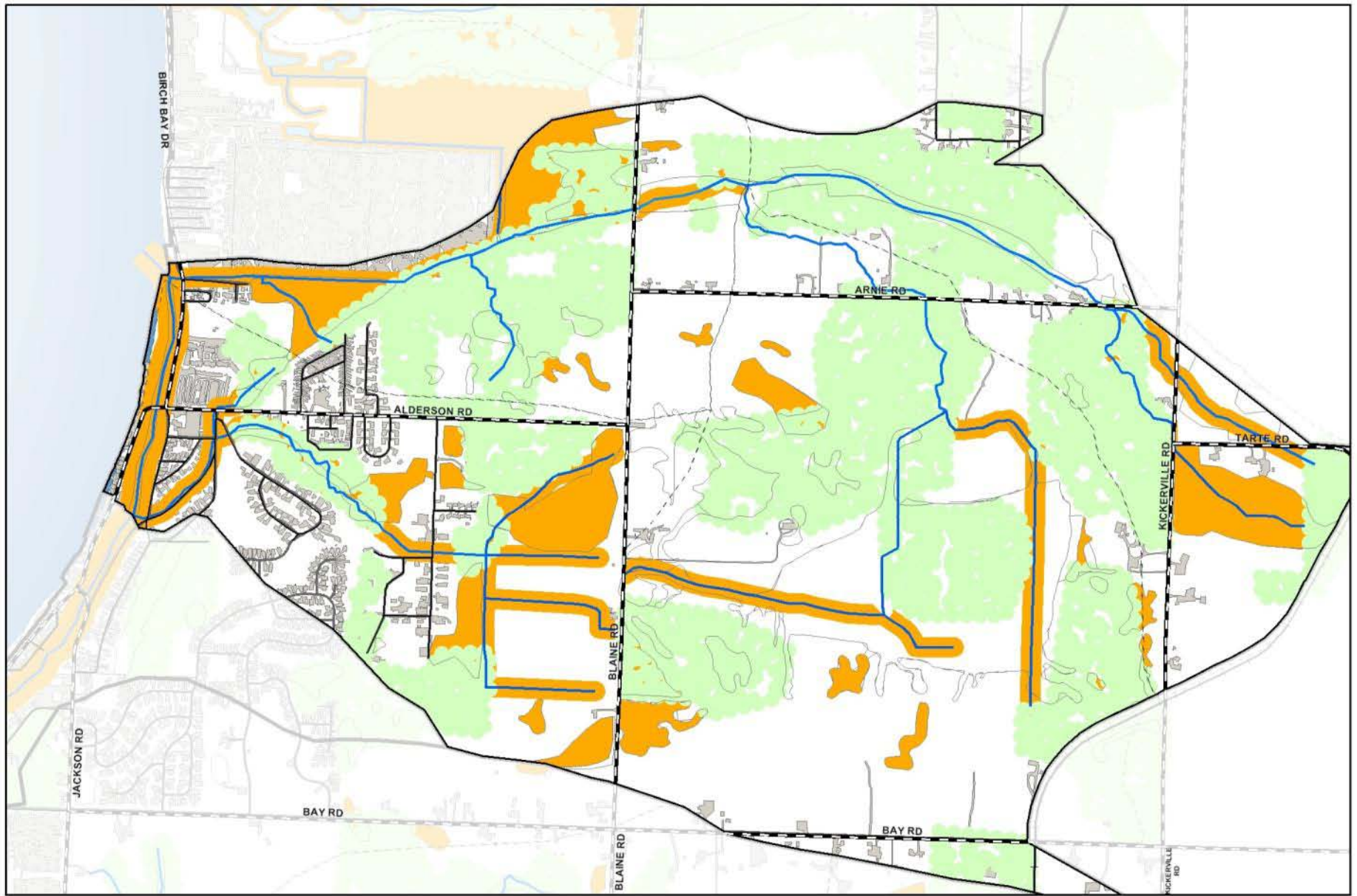
 44 - 85%

 5 - 44%

 <5%

# Birch Bay Broad Scale Habitat Assessment





Terrell - Central South Watershed Restoration Potential

- Mapped Wetlands
- Tree Cover (2008)
- Restoration Area
- Impervious Surfaces (2008)

