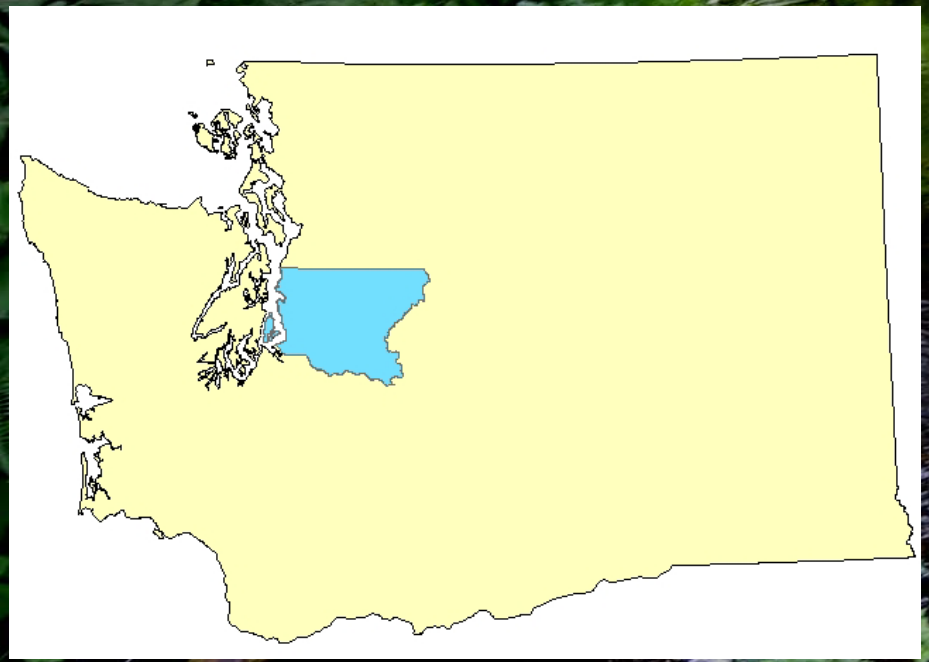
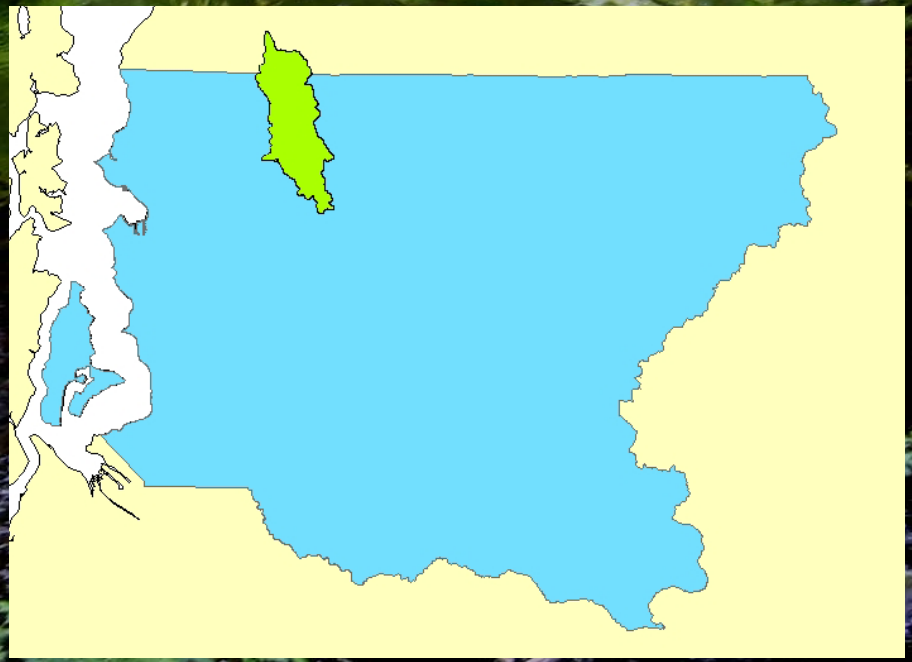
Bear Creek Mussel Studies
2003
Washington Trout

Outline
-Mussel Bed Resurveys
-Juvenile Recruitment
-Predation Reconnaissance
-Caged Mussels

Location





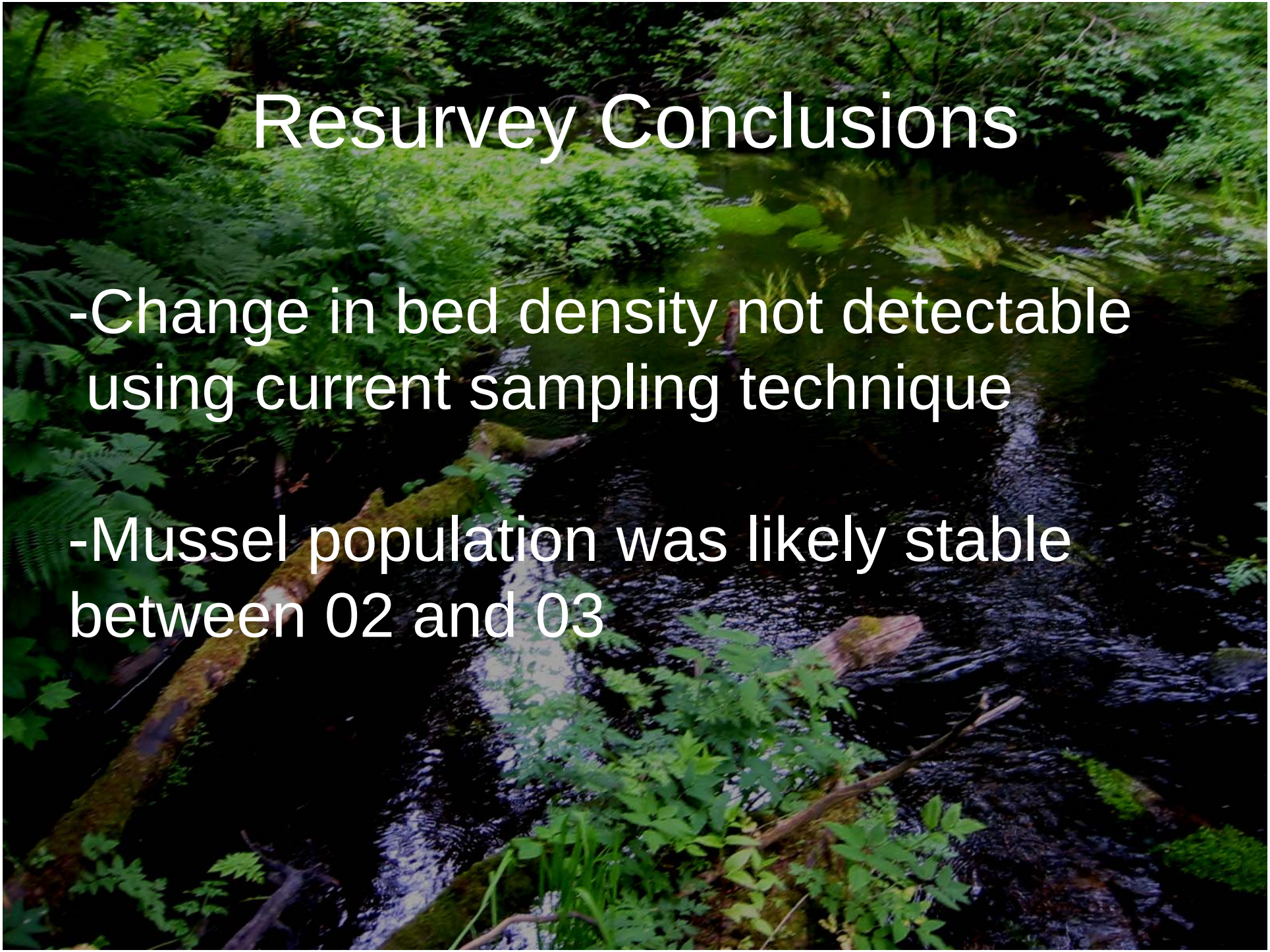
King County

Bear Creek Watershed

Mussel Bed Resurveys

Resurveys Results

Unit #	Estimated Bed Density Live per m2 -2002	Estimated Bed Density Live per m2 -2003	Change in Estimated Bed Density
2	34.71	74.58	39.86
3	51.43	10.31	-41.12
4	30.06	3.37	-26.33
9	0.02	0.01	-0.01
10	0.01	0.15	0.14



Resurvey Conclusions

-Change in bed density not detectable using current sampling technique

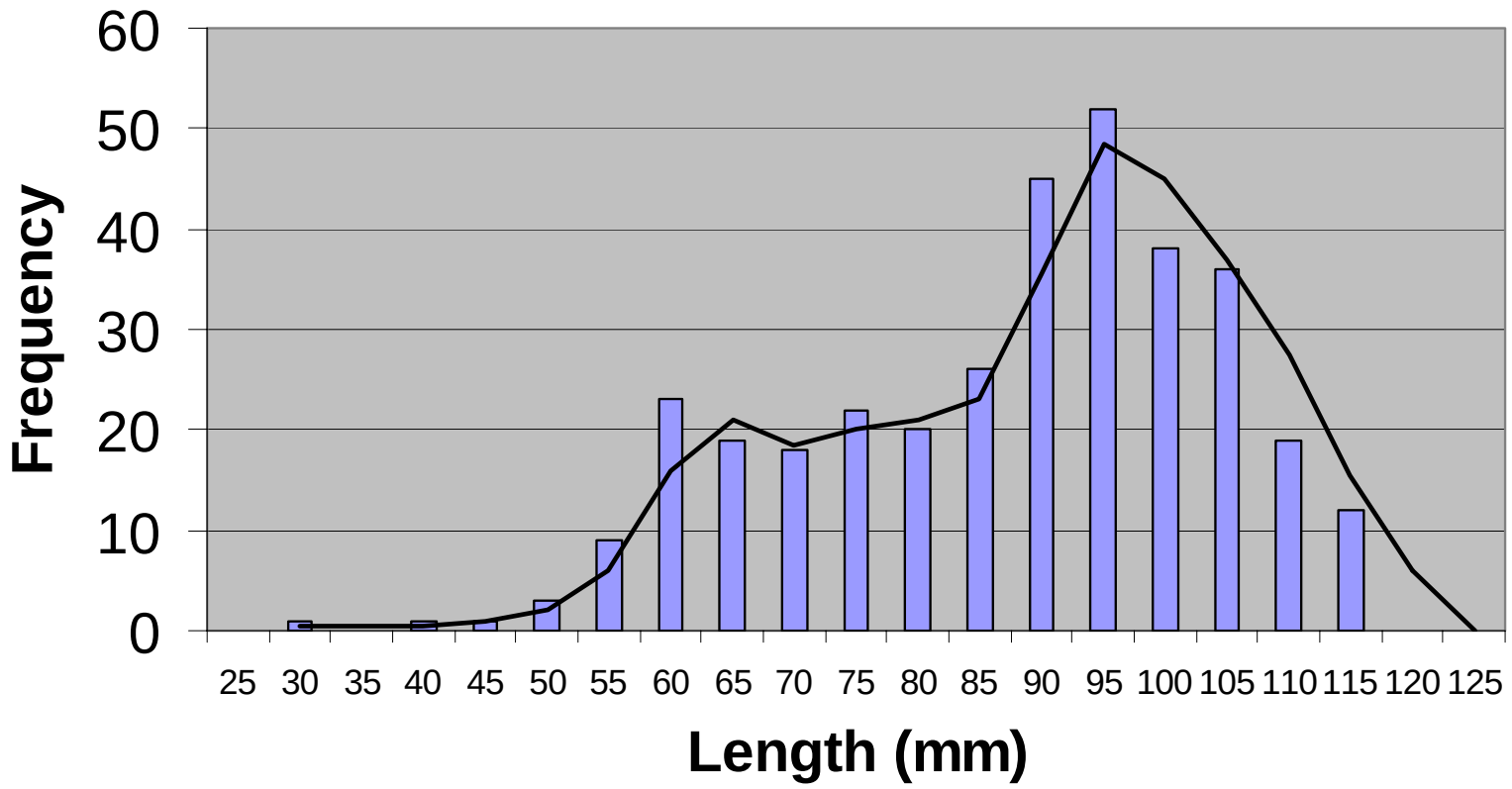
-Mussel population was likely stable between 02 and 03

Juvenile Recruitment

-¼ inch and1 mm mesh sieves used

-40 gallons of substrate sampled

Recruitment Study Results



Predation Reconnaissance

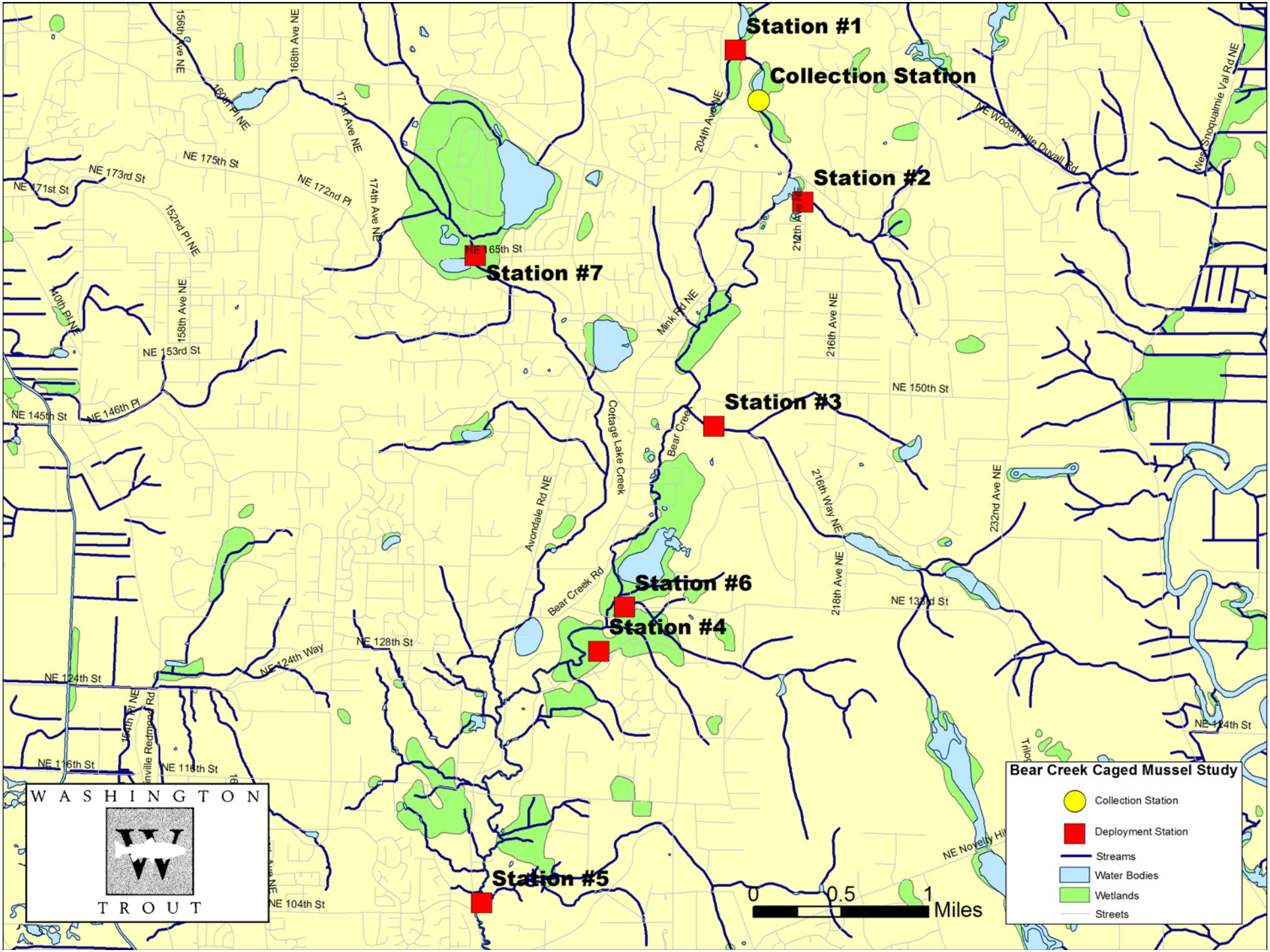
Caged Mussels

Caged Mussels

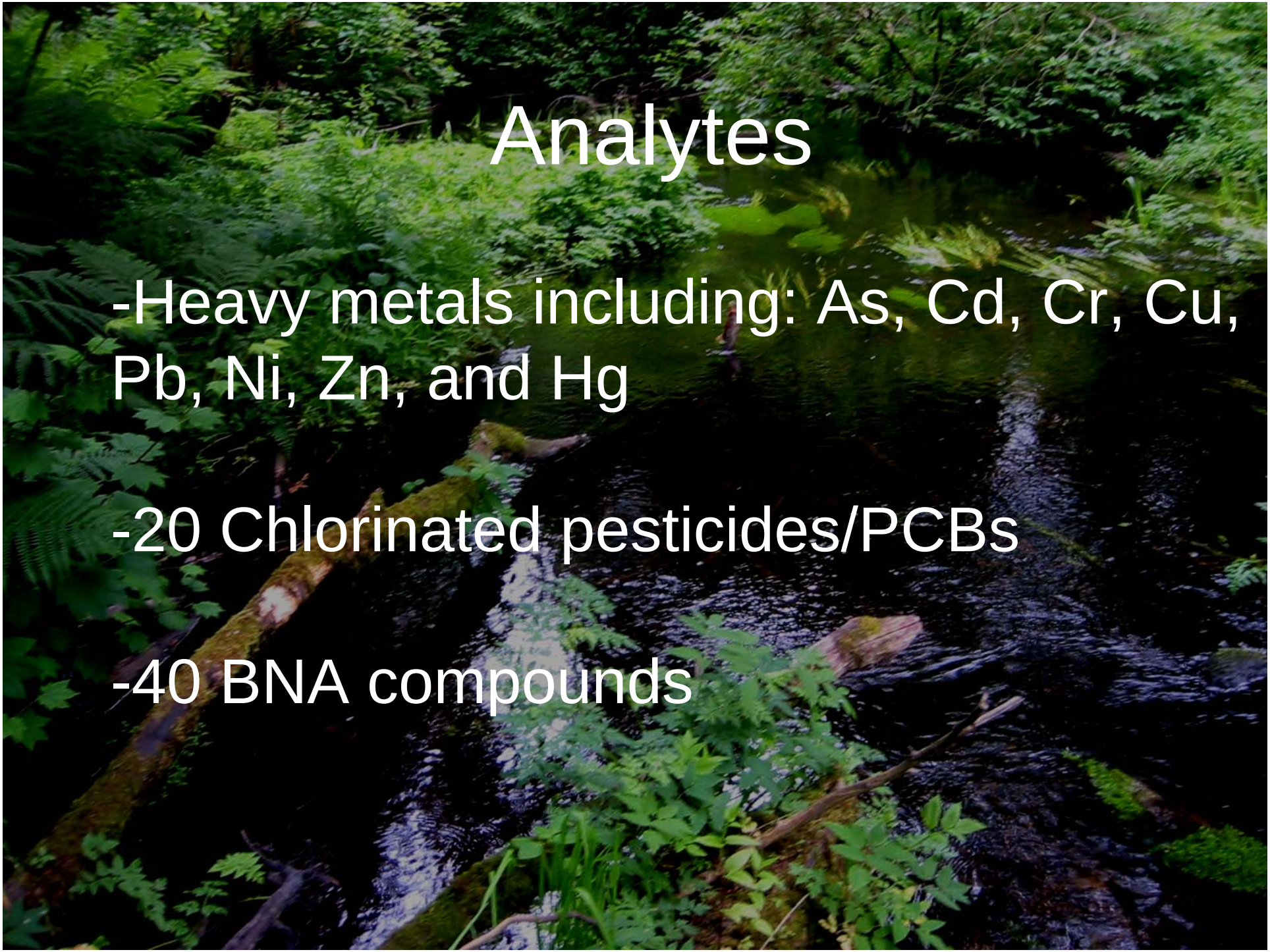
-Four mussels per cage

-Seven sites

- Thirty-nine mussels sacrificed



Station #1
Collection Station
Station #2
Station #3
Station #4
Station #5
Station #6
Station #7
NE 165th St
NE 150th St
NE 153rd St
NE 145th St
NE 146th Pl
NE 175th St
NE 173rd St
NE 171st St
NE 172nd Pl
NE 128th St
NE 124th Way
NE 124th St
NE 116th St
NE 104th St
NE 133rd St
NE Woodinville Duvall Rd
West Snoqualmie Val Rd NE
Mink Rd NE
Cottage Lake Creek
Bear Creek
Bear Creek Rd
Avondale Rd NE
216th Ave NE
216th Way NE
218th Ave NE
232nd Ave NE
204th Ave NE
212th Ave NE
156th Ave NE
168th Ave NE
160th Pl NE
171st Ave NE
174th Ave NE
152nd Pl NE
158th Ave NE
140th Pl NE
154th Pl NE
Redmond Rd
NE Novelty Hi
0
0.5
1
Miles
WASHINGTON
TROUT
Bear Creek Caged Mussel Study
Collection Station
Deployment Station
Streams
Water Bodies
Wetlands
Streets



Analytes

-Heavy metals including: As, Cd, Cr, Cu, Pb, Ni, Zn, and Hg

-20 Chlorinated pesticides/PCBs

-40 BNA compounds

Acknowledgements

-Water Tenders
-King County Environmental Lab
-Applied Biomonitoring

Questions?