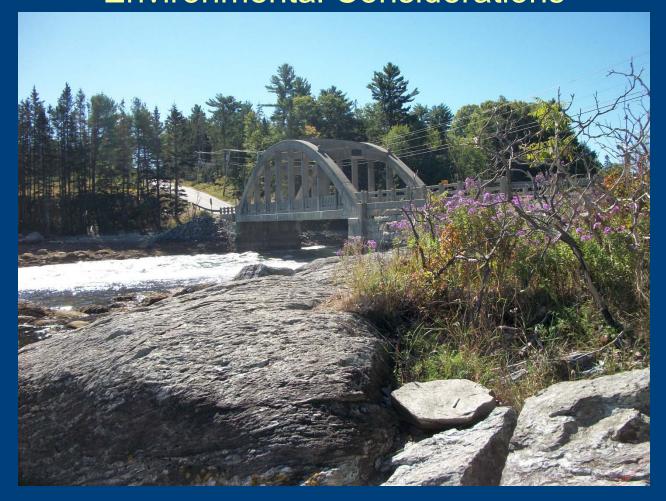
Blue Hill Falls Bridge Environmental Considerations





Natural Resources

-What are they?

-What activities could impact them?

-How can impacts be avoided and minimized?



-What laws protect them?



Coastal Wetlands

Highest Annual Tide





Rock, cobble, gravel



Coastal Wetlands

Intertidal Vegetation

Migratory Corridor





Fish Species

Alewives



Eels/Elvers



Smelt





Endangered Fish Species

Shortnose Sturgeon



Atlantic salmon



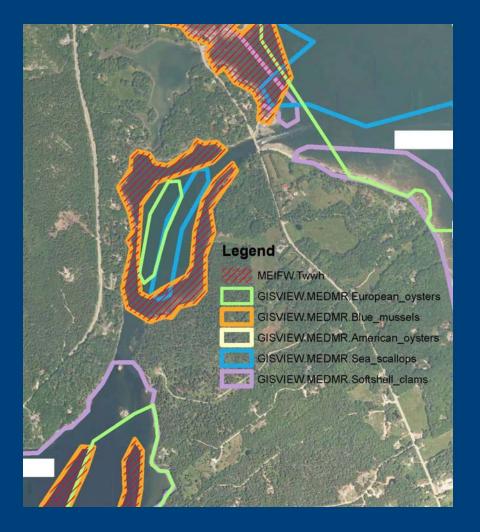
Atlantic sturgeon





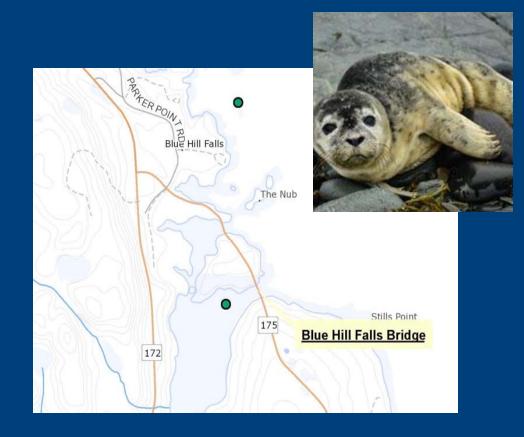
Shellfish & Waterfowl

- Scallops, soft shell clams, oysters
- Local information provided
 -wintering eider ducks
 -ducks, loons





Marine Mammals



- Mapped Haulouts
- Marine & Environmental Research Institute
- MaineDOT Observations



Northern Long-Eared Bat

- Federally Endangered
- Detected at bridge by acoustic survey



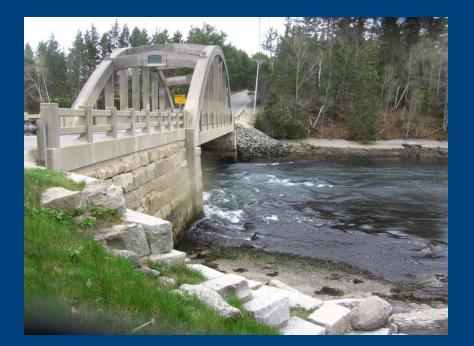






Potential Impacts...

- Habitat Conversion
- Temporary Impacts:
 - Noise
 - Turbidity
 - Migration Barriers
 - Behavior Modifications





... From Construction Activities

- Cofferdams
- Detour bridge
- Work trestle

- Bridge Demolition
- Pile driving
- Placing fill or riprap







Avoid, Minimize, Mitigate

- Footprint of permanent features
- Timing of tree removal and in-water construction activities
- Isolate the work area
- Duration

- Footprint of in-water temporary access and detours
- Limit soil disturbance, tree clearing and use BMPs
- Noise Attenuation & Monitoring



Regulatory Context

Applicable Law	Agency that Administers the Law
Endangered Species Act	National Marine Fisheries Service
Fish and Wildlife Conservation Act	U.S. Fish and Wildlife Service
Magnuson Stevens Act	National Marine Fisheries Service
(Essential Fish Habitat)	
Maine Natural Resources Protection Act	Maine Department of Environmental Protection
Section 404 of the Clean Water Act Section 10 of the Rivers and Harbors Act	U.S. Army Corps of Engineers
Marine Mammal Protection Act	National Marine Fisheries Service



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Questions?

