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Developing a nearshore geospatial framework for recovery assessment and planning

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Nearshore Geospatial Framework

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The Framework Proposal

• Nearshore Salmon Recovery Chapter (Lead Entities)
• Strategic approach to Chinook recovery
• Spatially represent hypotheses about the types and locations of habitats
• Multiple scales
• Nexus of marine, nearshore, and upland
Framework

• **What is a framework?**
  • Integrate spatial dataset
  • Spatial analytical units
  • Multiple nested units of analyses
  • Test hypotheses
    • *Patterns* of degradation
    • *Risk* of future development
    • Nearshore habitat (shoretypes) *relationships* with other attributes; offshore, onshore, or upland
Foundation

- **Concept similar to PSNERP**
  - Framework structured around **drift cells**

- **Updated and consistent drift cell mapping**
  - Estuary and Salmon Restoration Program (ESRP)
    - Learning Projects grant to Coastal Geologic Services, Inc.
    - *More info in next presentation*
  - Incompatible with PSNERP spatial structure

- **Coordination**
  - ESRP and CGS to design the Nearshore Geospatial Framework

- **Improvement from PSNERP**
  - Higher Resolution/Smaller analytical unit – i.e. Shoretypes
NGF – **HUC** – Hydrologic Unit (WA Ecology)

Map credit: Coastal Geologic Services, Inc.
NGF – Basins – updated drift cells

Map credit: Coastal Geologic Services, Inc.
NGF

Map credit: Coastal Geologic Services, Inc.
NGF – **Nearshore** – Shoretype Scale

Integrating adjacent onshore
Integrating adjacent aquatic

100 ft
200 ft
400 ft
200 m
10m depth

Map credit: Coastal Geologic Services, Inc.
NGF – Nearshore Units

Drift cells

Shoretype

Map credit: Coastal Geologic Services, Inc.
Biological Example – Shoretype and Drift cell Scale

Drift Cell Upland Drainage
Strategic Recovery Planning

- Assessment
- Metrics

- Proposed
- Past

- Identify need
- Prioritize

Purpose

NGF
Nearshore Geospatial Framework

Integrated Monitoring Data

Strategic Recovery Planning

Evaluating Recovery Actions

Advocating Actions
Still in Development

• Phase 1 - project initiated
  • What do folks need in terms of scale?
  • What data to integrate?
  • How do folks need data to integrate?

• Phase 2 - Refine
  • Seeking funded

• Support Beach Strategies hypotheses
  • Please participate in Beach Strategies project
  • More info in next talk
Credits

• **Funding**: Thank you Salmon Recovery Council
• **All things Geospatial**: Coastal Geologic Services Inc.
• **Host**: Companion to ESRP’s Beach Strategies
  • *Don’t go anywhere – they are talking next!*