

# EN2014

## Innovation in Data Access and Publishing

Nearshore Exchange  
NWIFC / Windsor Solutions  
February 25, 2014



Northwest  
Indian  
Fisheries  
Commission



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# Topics

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- Nearshore Exchange Overview
- Business Problem
- Solution
- Challenge
- Outcome
- Questions and Answers



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# Nearshore Exchange Overview

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- The areas of marine water which are close to shore
- Focuses on the management and sharing of information
- Includes environmental characteristic information such as:
  - Presence and absence of species of aquatic fish, shellfish, and vegetation
  - Site Information
  - Environmental observations



# Business Problem

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- Nearshore health concerns/risks are prominent
- Many recorders/consumers of information
- Many organizations recording information
- Little active communication/sharing amongst organizations
- No standard structure for information
- No robust systems to manage or share information
- Disparate datasets



# Solution

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As innovation leaders in the Exchange Network, NWIFC and their partners established a solution which allows organizations to manage, track and share Nearshore information amongst partners on the Puget Sound.



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# Solution



# Solution

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## Distilled Data Structure:

- Collection Events Details
  - Species Summary/Counts or Individual Details
- Calculated Metrics
- Sites
- Protocols
- Equipment



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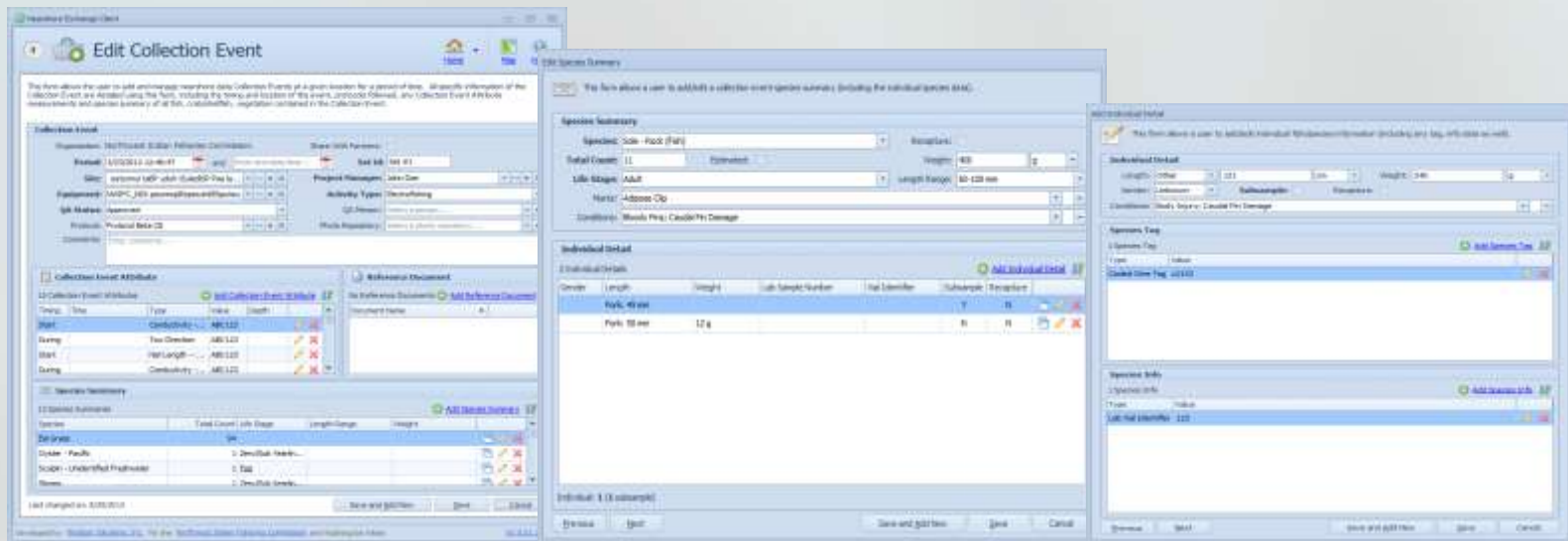


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# Solution

## Data Management Tool and Database



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# Solution

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Data Exchange Design/Definition and Related Artifacts



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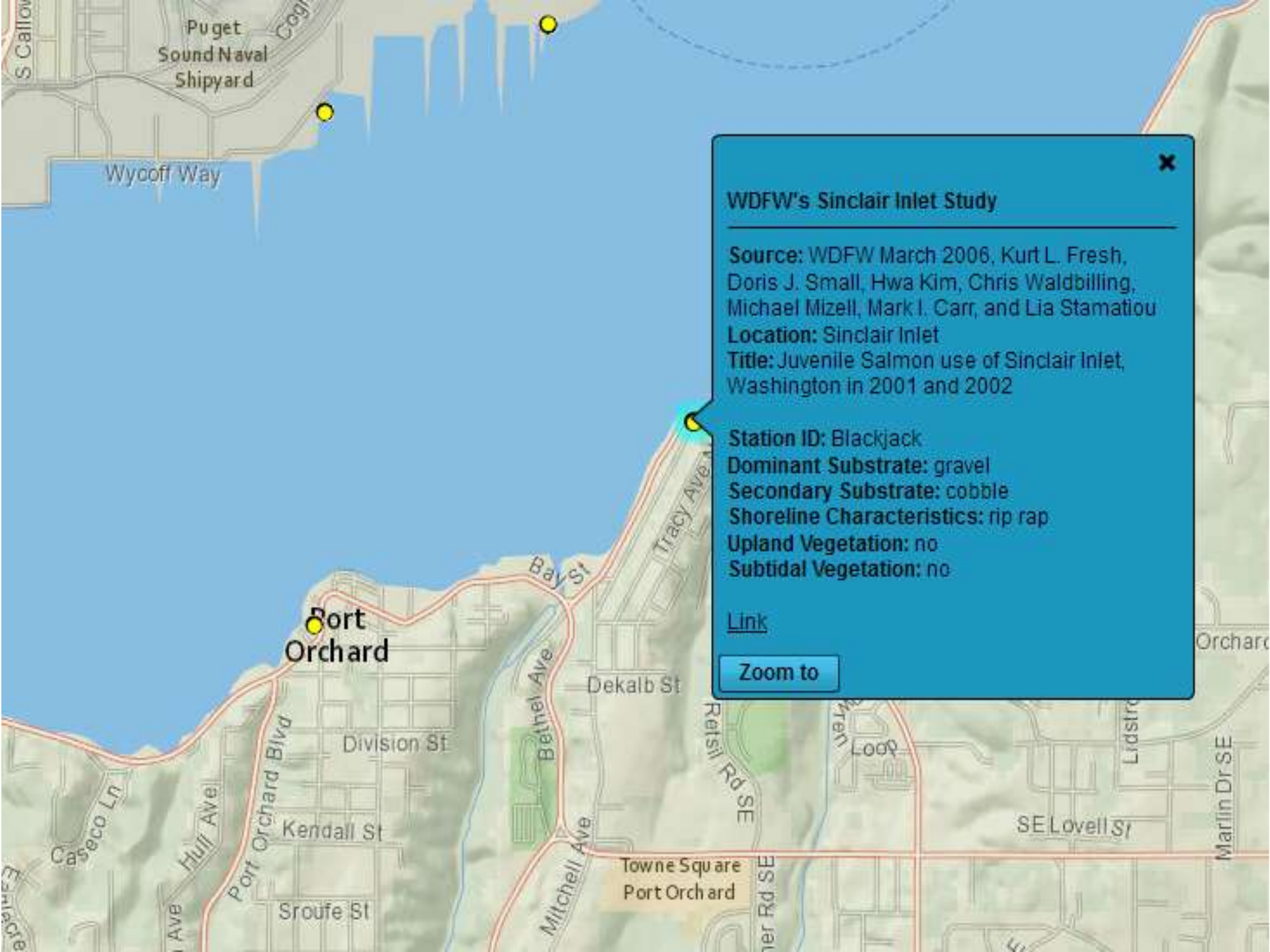


# Solution

## Data Exchange Components/Capabilities







### WDFW's Sinclair Inlet Study

**Source:** WDFW March 2006, Kurt L. Fresh, Doris J. Small, Hwa Kim, Chris Waldbilling, Michael Mizell, Mark I. Carr, and Lia Stamatiou

**Location:** Sinclair Inlet

**Title:** Juvenile Salmon use of Sinclair Inlet, Washington in 2001 and 2002

**Station ID:** Blackjack

**Dominant Substrate:** gravel

**Secondary Substrate:** cobble

**Shoreline Characteristics:** rip rap

**Upland Vegetation:** no

**Subtidal Vegetation:** no

[Link](#)

Zoom to

# Solution

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- **Build Once, Use Many:** Leveraged previous existing systems/exchanges/knowledge
- **Improvements:** Incremental improvements to feature sets in existing systems
- **Innovation:** Designed and established new exchange to help solve complex business problem, without being limited by legacy systems



# Challenges

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- Large group of stakeholders with varying perspectives and needs
- Stakeholders were unclear as to their true needs and lots of exploration was required to synergize needs
- Numerous different automated tools and techniques utilized by partners
- Minimal existing tools/framework for data structure



# Outcome

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- Micro data ecosystem with the ability to share information and collaborate
- Consistent data management capabilities
- Improved analysis/tracking of Nearshore
- Key indicator calculations eased
- \*\*\*Healthier Nearshore environments\*\*\*



# Questions and Answers

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