



# Washington Department of Ecology

## Linking Environmental & Human Health Data

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Enterprise Applications Manager

*Prepared for:*

***U.S. ENVIRONMENTAL PROTECTION AGENCY***

***Office of Environmental Information (OEI) National Meeting***

***December 2, 2004***

# Outline

- WA Ecology's historical and planned activities with the Exchange Network
- 10,000 foot view of Ecology's network node implementation which is a core component of the Exchange Network
- How we are using the "plumbing" of the Exchange Network to link environmental & human health data between WA DOH and Ecology

# Ecology's History With The Exchange Network

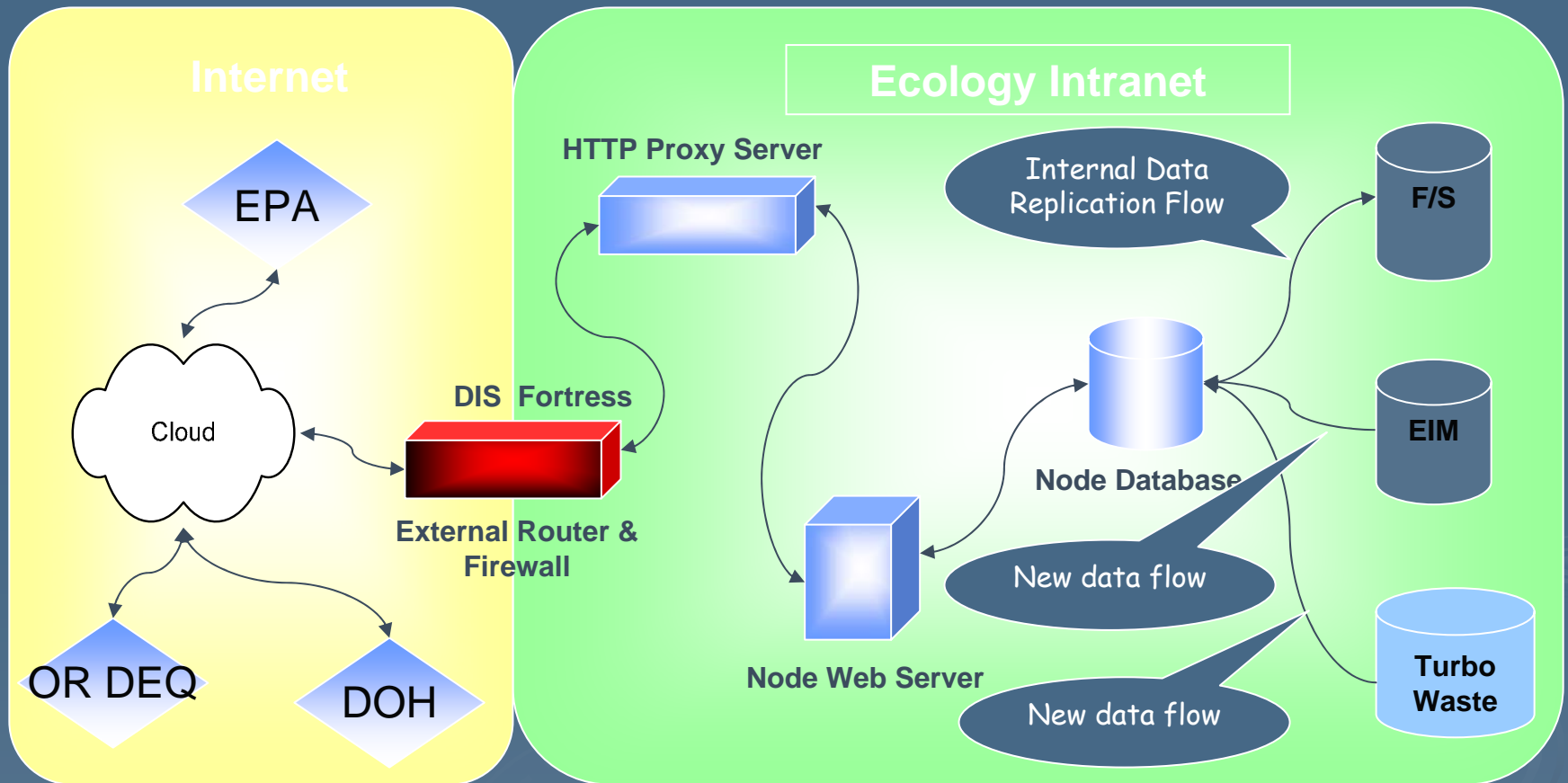
- Network Node Implemented - 2003
- Facility/Site - State to EPA Data Flow Implemented - 2003
- Pacific Northwest Water Quality Data Exchange (OR, WA, ID, AK) – State to State Data Flow Implemented - 2004
- Water Quality Permit System - State to EPA Data Flow to PCS via IDEF ) - 2004
- Hazardous Waste Shipment Data – State to State Data Flow (WA, OR) - 2004
- Fish Tissue Data – Agency to Agency Data Flow (DOH, ECY) - 2004

# Ecology - Exchange Network

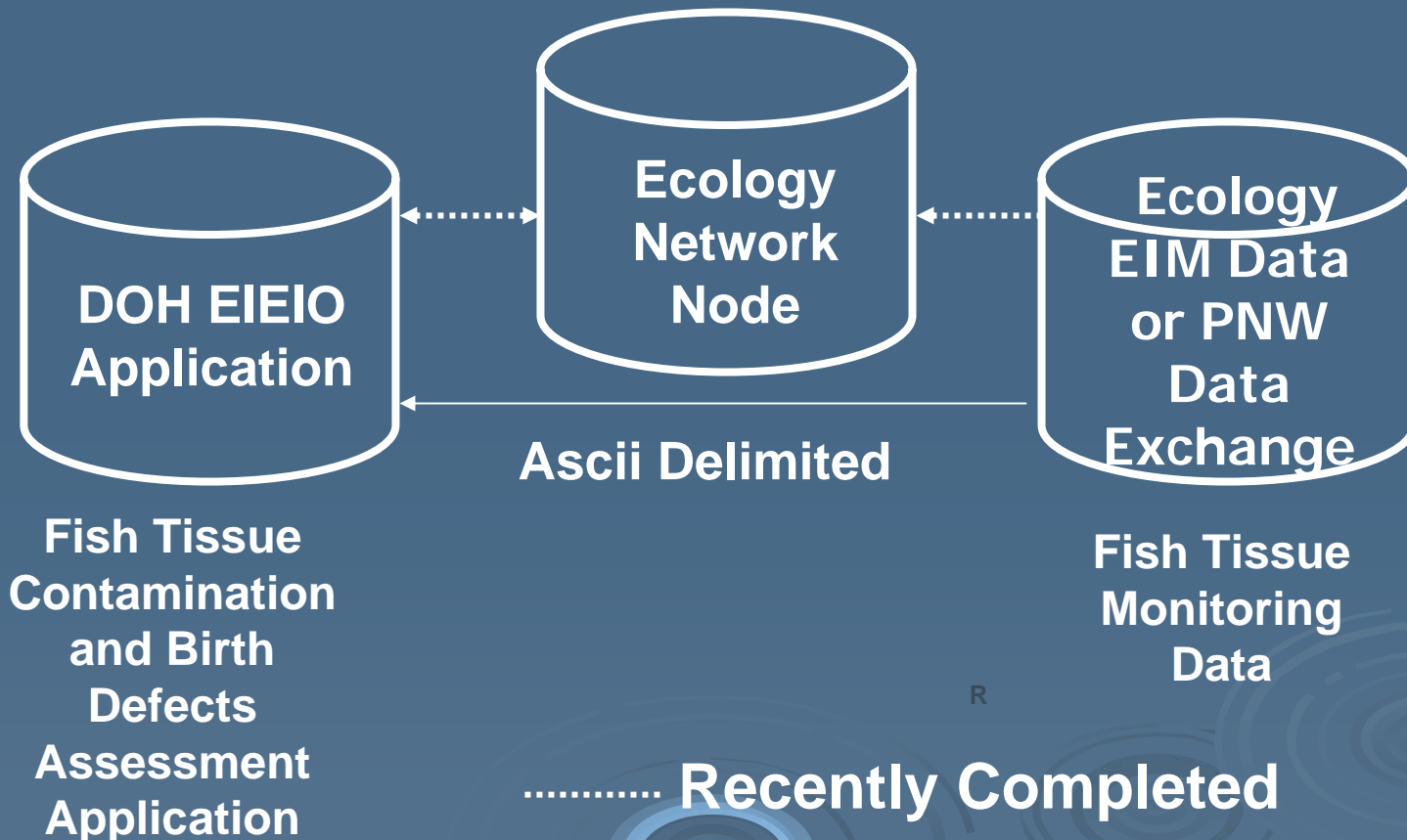
## Future Activities

- RCRA Waste Handler Data - State to EPA Data Flow
- Natural Heritage Biodiversity Data – State to State Data Flow - Challenge Grant (DE (lead state), IL, NatureServe, WA Ecology, WA DNR)
- AQS Data – State to EPA Data Flow

# Ecology Network Node Implementation



# WA DOH & WA Ecology Linking Environmental and Human Health Data



# **DOH EIEIO Application**

**Fish Tissue Contamination and  
Birth Defects Assessment  
Application**

# DOH EIEIO Application – Screen Shot 1

## Query Results – List of Studies

**EIEIO Fish Meal Limits Analysis Application** 06. Laurence Nugent - Dave White's, Just Cruzing (Reels) - 00:47

Projects Edit Admin Help Testing

Data Acquisition Preliminary Analysis Analysis Scenarios Final Analysis QueryTesting

New Query Complete Data Acquisition

**Query Results**

- Walla Walla River Chlorinated Pesticide and PCB TMDL
- Washington State Toxics Monitoring Program 2003
- Verification of 303(d) PCB Listing for Inner Budd Inlet
- Screening Survey of Mercury Levels in Fish Tissue
  - LONG LAKE
  - FAZON LAKE
    - Micropterus salmoides - 2098462
    - Micropterus salmoides - 2088466
    - Micropterus salmoides - 2088467
    - Micropterus salmoides - 2088469
    - Micropterus salmoides - 2088465
    - Micropterus salmoides - 2088470
    - Micropterus salmoides - 2098463
    - Micropterus salmoides - 2088471
    - Micropterus salmoides - 2098464
    - Micropterus salmoides - 2088468
    - 2088538
    - 2098537
  - BANKS LAKE
  - AMERICAN LAKE
  - BLACK LAKE
  - DUCK LAKE

**List of Studies from EIM Query**

Project Name	Start Date	End Date	Study Area Description
Walla Walla River Chlorinated Pesticide and PCB TMDL	5/13/2002	9/3/2003	
Washington State Toxics Monitoring Program 2003	1/1/2003	10/23/2003	
Verification of 303(d) PCB Listing for Inner Budd Inlet	9/6/2002	4/1/2003	
Screening Survey of Mercury Levels in Fish Tissue	7/1/2002	11/26/2002	
Arsenic in fish, sediments, and waters from four lakes, 2002	4/1/2002	5/31/2003	
Spokane River PCB TMDL	2/1/2003	7/14/2004	
Walla Walla Bacteria and pH TMDL	5/1/2002	7/15/2004	
Washington State Toxics Monitoring Program 2002	1/1/2002	8/16/2004	
Inorganic Arsenic Levels in Puget Sound Fish and Shellfish	1/1/2002	12/1/2002	
Verification of 303(d) Listed Sites in NWRD, CRO and ERO	10/9/2003	12/3/2003	
B+L Wetland Landfill	3/1/2002	11/1/2002	

**Selected Studies**

- Verification of 303(d) Listed
  - SHILESHOLE BAY
  - WENATCHEE R @ LV
  - WENATCHEE R NEAF
  - WENATCHEE R NEAF
  - WENATCHEE R @ LE
  - ICICLE CREEK

**Studies to be Included in this Analysis Project**

Project Name	Start Date	End Date	Study Area Description
Walla Walla River Chlorinated Pesticide and PCB TMDL	5/13/2002	9/3/2003	

Work Space Analysis Project Details



# DOH EIEIO Application – Screen Shot 2

## Query Results

### Date Range, Location, Taxon, Analyte

EIEIO Fish Meal Limits Analysis Application

Projects Edit Admin Help Testing

Data Acquisition Preliminary Analysis Analysis Scenarios Final Analysis QueryTesting

New Query Complete Data Acquisition

Query Results

- KAH TAI LAGOON
- Walla Walla River Chlorinated Pesticide and PCB TMDL
  - UPPER WALLA WALLA FISH
  - LOWER WALLA WALLA FISH
- Washington State Toxics Monitoring Program 2003
- WA State Toxics Monitoring Program-Exploratory Moni
- Stillaguamish River Watershed Fecal Coliform, Dissolve
- Verification of 303(d) PCB Listing for Inner Budd Inlet
- Screening Survey of Mercury Levels in Fish Tissue
- Arsenic in fish, sediments, and waters from four lakes, 2
- Okanogan River DDT/PCB TMDL Assessment
- Spokane River PCB TMDL
- Metals and PCBs in Long Lake Fish
- Dyes Inlet/Port Washington Narrows Shellfish Samplin
- Walla Walla Bacteria and pH TMDL
- Washington State Toxics Monitoring Program 2002
- Mercury Concentrations in Edible Muscle of Lake Wha
- Inorganic Arsenic Levels in Puget Sound Fish and She
- Verification of 303(d) Listed Sites in NWRD, CRO and
- Chambers Creek Mussels 2001 PCB Data
- WA State Toxics Monitoring Program - pre-QAPP Tren
- B+L Wetland Landfill

**Stations in Walla Walla River Chlorinated Pesticide and PCB TMDL**

Station ID	Station Name	Station Location Description
9590911	UPPER WALLA WALLA FISH	AREA OF FISH COLLECTION FROM THE MOUTH OF DRY CREEK (RM 2)
5521911	LOWER WALLA WALLA FISH	AREA OF FISH COLLECTION FROM PIERCE'S RV PARK (RM 9.5) UPSTR

**EIEIO Query Criteria**

Date Range: Tuesday, January 01, 2002 - Thursday, November 18, 2004

Project Name:

Location: Canal Lake

Taxon:
 

- Bridgelip Sucker
- Brown Bullhead
- Brown Trout
- Burbot
- Channel Catfish
- Chinook Salmon
- Chinook Salmon - fall

Analyte:
 

- beta-endosulfan
- Arsenic (inorganic)
- Cadmium
- Mercury (methylmercury)
- Selenium
- Tributyltin
- Aldrin

Query Cancel Help

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Verification of 303(d) Listed Sites in NWRD, CRO and ERO	10/9/2003	12/3/2003	

Work Space Analysis Project Details

# DOH EIEIO Application – Screen Shot 2

## Query Results – List of Results

**EIEIO Fish Meal Limits Analysis Application**

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**Results in Screening Survey of Mercury Levels in Fish Tissue --> FAZON LAKE --> Micropterus salmoides - 209**

Analyte Name	Analyte ID	Result Val	Unit of Measure	Result Qualifier
Mercury	7439-97-6	760	ug/Kg ww	The analyte was positively identified, th
Lipids		1.1	%	
Fish Age, Individual Fish		17	years	

**Selected Studies**

- Verification of 303(d) Listed
  - SHILESHOLE BAY
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  - WENATCHEE R NEAF
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  - ICICLE CREEK

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Project Name	Start Date	End Date	Study Area Description
Walla Walla River Chlorinated Pesticide and PCB TMDL	5/13/2002	9/3/2003	

Work Space Analysis Project Details

statusBar1

# Summary

- Several examples of linking data between states or state agencies using the “plumbing” of the Exchange Network
  - Linking waste shipment data between OR & WA
  - Linking environmental & human health data between DOH and Ecology
- We’d Like to Hear From You!

Thank-You!

