

Port of Tacoma Sustainable Habitat Stewardship Program

Presented to the U.S. – Taiwan Sustainability Symposium
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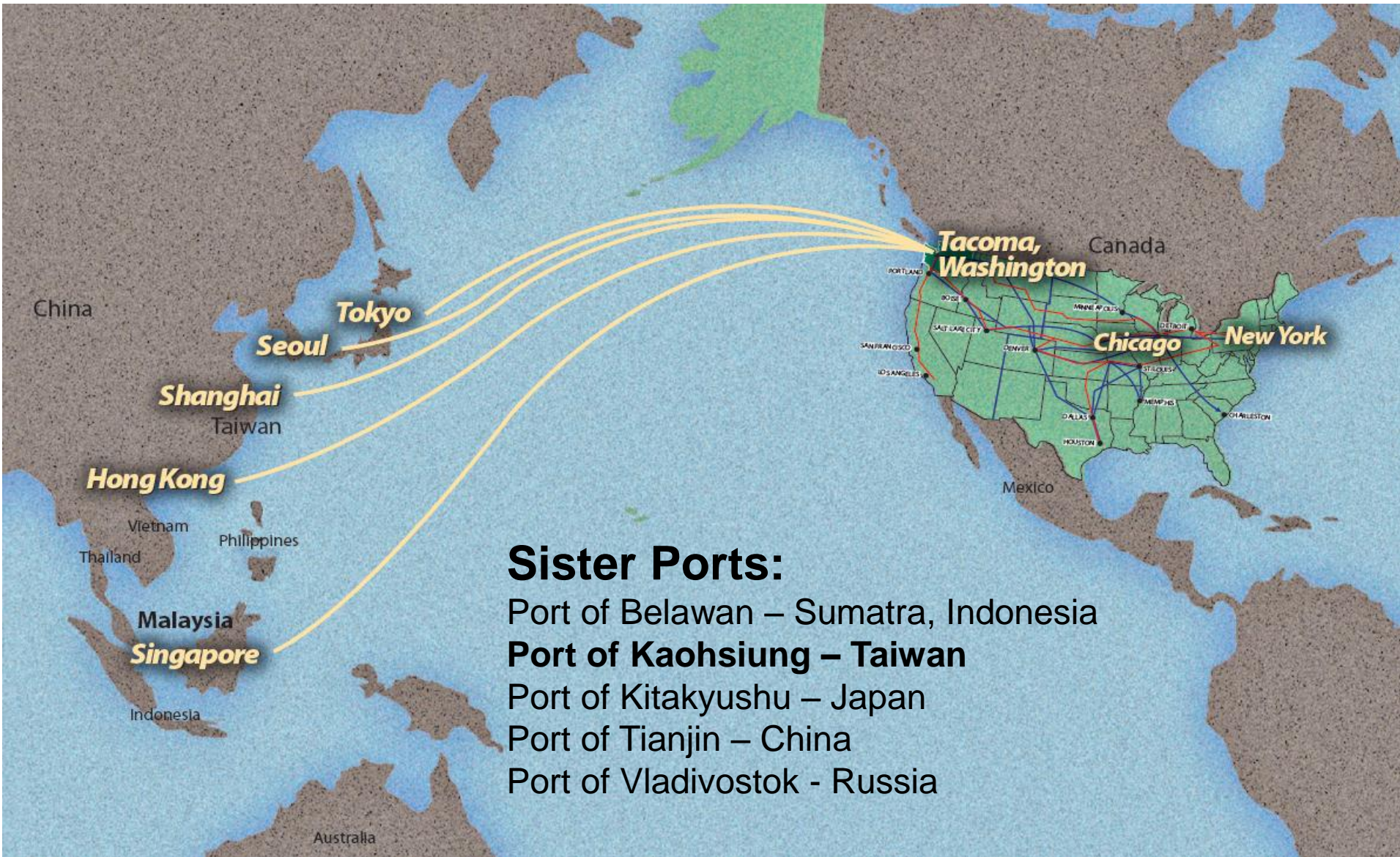
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People. Partnership. Performance



Sister Ports:

Port of Belawan – Sumatra, Indonesia

Port of Kaohsiung – Taiwan

Port of Kitakyushu – Japan

Port of Tianjin – China

Port of Vladivostok - Russia

2011 Cargo Activity



**Breakbulk = 154,378 Short Tons
(+68.2%)**



Rail Lifts = 338,958 (+0.3%)

**Total Tonnage =
17,270,252 ST (+4.5%)**



**Containers = 1,488,799 TEUs
(+2.3%)**



Autos = 162,434 Units (+34.2%)



**Logs = 103,781,800 Board Feet
(+48.4%)**



**Grain = 5,930,022 Short Tons
(-3.6%)**

Carrier Services



Yang Ming Line



Evergreen Line



Wallenius Wilhelmsen Line

Scheduled Carrier Services

International Container Carriers

- ❖ Evergreen Line
- ❖ Yang Ming Line
- ❖ Hanjin Shipping Co
- ❖ Hamburg Sued
- ❖ Hapag-Lloyd
- ❖ Hyundai Merchant Marine
- ❖ "K" Line

- ❖ Mitsui OSK Line
- ❖ NYK Line
- ❖ OOCL
- ❖ US Lines*
- ❖ COSCO
- ❖ ZIM

* From August, 2012

Domestic Carriers

- ❖ Horizon Lines
- ❖ Totem Ocean Trailer Express

Breakbulk Carriers

- ❖ World Logistics
- ❖ Wallenius Wilhelmsen Line

Sustainable Habitat Stewardship



Three-Pronged Approach to Sustainable Stewardship:

- Economic
- Social
- Environmental

Objectives:

- ✓ Understand core mission:
 - Preserve working waterfront, plan for growth, economic engine, waterfront land as a resource, grow domestic/international trade.
- ✓ Public outreach, engagement, and input:
 - Civic / Government / Business community / Labor / Tenants / Maritime Business / Non Government Organizations / **Neighbors**.
- ✓ Create habitat strategy:
 - Location (buffers, other habitat, flood storage), partnerships, large-scale/expandable, focus on endangered species (Salmon), cost-effective, high return on investment and ecological functions and plan for public access.



Strategic Planning - Public Outreach



Initial Public Engagement

Strategy: Reach out broadly to other stakeholders and the public

➤ Web pages with project information and “follow along” content

➤ Online surveys

➤ Oversized postcards for handouts and mailings

➤ Open House Discussions

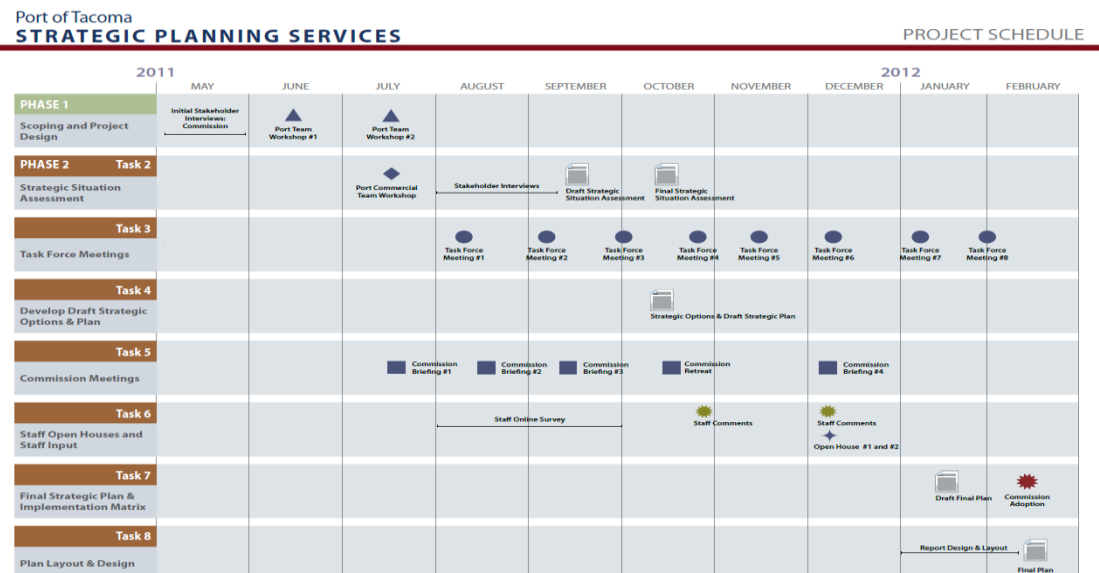
➤ Public Meetings

Three-Pronged Approach to Engagement:

- Stakeholders
- Public
- Staff

Stakeholder Outreach:

- Civic / government / business community
- Labor
- Tenant / maritime business



Strategic Planning 2012-2022



Delivery prosperity by connecting customers, cargo and community with the world, Goals 1-6:

- Goal 1 – Enhance the Port's Competitive Position.
- Goal 2 – Provide Reliable & Efficient Regional & Local Infrastructure Connections.
- Goal 3 – Improve the Port's Financial Performance.
- Goal 4 – Increase Organizational Capabilities.
- **Goal 5 – Advance Environmental Stewardship.**
- Goal 6 – Strengthen The Port's Community Connections.

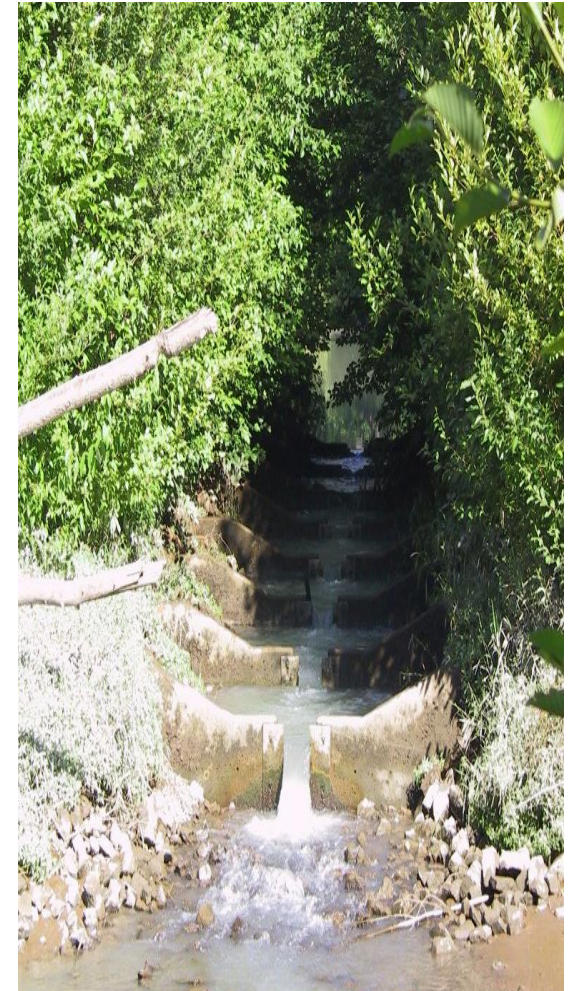
✓ **Coordinated Outreach =
Informed and Supportive Public**



Goal 5: Advance Environmental Stewardship



- A. Identify and Address Environmental Issues in Advance of Planned Development
 - 1. Implement Clean-up actions on priority contaminated properties to support the Port's business opportunities
 - 2. **Implement a sustainable habitat mitigation strategy**
- B. Partner to Find Innovative Solutions to our Customers' Environmental Challenges
 - 1. Identify and develop maritime industrial stormwater treatment best management practices
 - 2. Develop a maritime industrial-focused Environmental Stewardship Sustainability Program
- C. Continuously Improve Operational Efficiency and Emission Reductions
 - 1. Continue to implement the Northwest Ports Clean Air Strategy
 - 2. Transit to the latest generation of efficient systems to save energy costs
 - 3. Promote cost effective, renewable energy use



Sustainable - Habitat Mitigation Strategy



- ❑ Preserve and enhance Tacoma's maritime industrial working waterfront.
 - Provide natural buffers between the Port and our neighbors.
- ❑ Be cost-effective by:
 - Understanding needs and solutions in advance and consolidate mitigation opportunities.
 - Considering opportunities to streamline permitting and project development.
 - Look for opportunities to:
 - maximize ecological and financial return on investment;
 - partner with other organizations through the community to leverage combined resources and reduce costs;
 - increase mitigation effectiveness and have single efforts serve multiple needs;
 - leverage natural buffers;
 - leverage public access needs.
- ❑ Maximize habitat value through a coordinated/planned approach.
- ❑ Provide a basis for decision-makers to determine when offsite, just in time and/or advance mitigation is preferred.

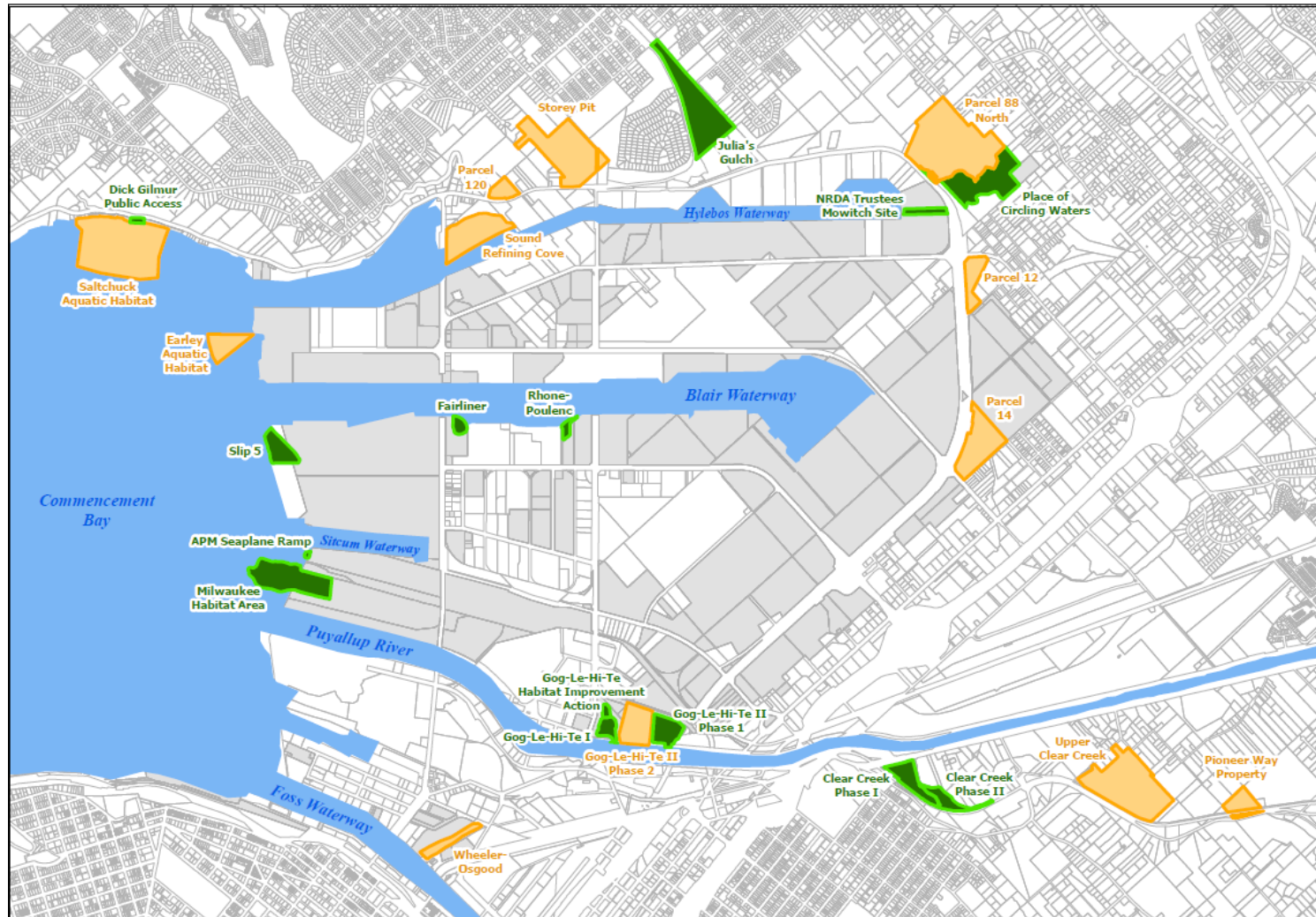
Sustainable - Habitat Mitigation Objectives



- ✓ Develop large-scale, highly ecologically functioning mitigation sites.
- ✓ Provide natural buffers between Port operations and our neighbors.
- ✓ Provide habitat for Endangered Species Act (ESA) salmon species, Essential Fish Habitat (EFH) for species of concern, migratory and shoreline bird species, public access and flood control.
- ✓ Build cost effective, sustainable and expandable habitat sites that meet multiple regulatory obligations, seek partnerships.
- ✓ Develop sound mitigation techniques based on ecological processes and best available science that promotes long-term habitat success.
- ✓ Strategically locate habitat restoration projects in areas that won't jeopardize the working waterfront expansion opportunities.



Existing Habitat Sites:



Port of Tacoma Mitigation Sites



Mitigation Sites
■ Existing Site
■ Potential Site
 Tax Parcels
 Port Owned Parcels
■ Water

Map Date: 5/1/2012
 Author: Jen Radcliff

Data Credits:
 Parcel data is from Pierce County.
 All other data from Port of Tacoma.

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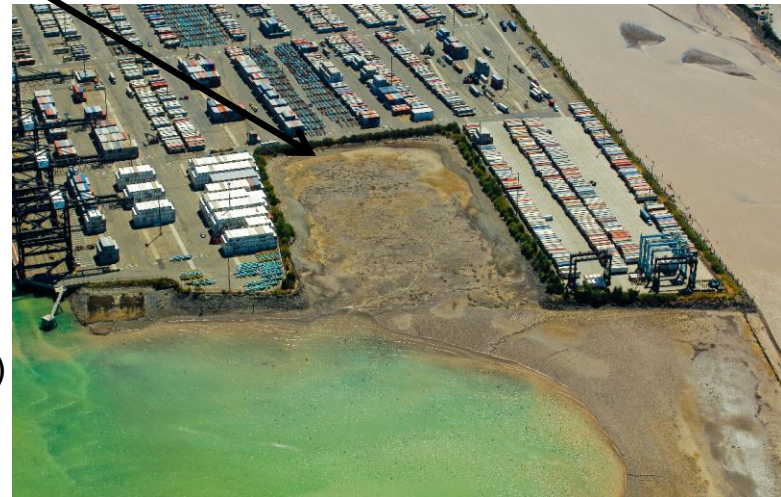
Existing Habitat Site: Milwaukee Waterway



- ✓ Built in 1995
- ✓ 21 acres of intertidal estuarine habitat
- ✓ Mitigation for Sitcum/Blair/Milwaukee Waterway remediation
 - Endangered Salmon habitat
 - Surf smelt spawning habitat
 - Shorebirds and waterfowl habitat
 - Wind/wave attenuation

Milwaukee Waterway Before

- ✓ Confined Disposal Facility
 - Sitcum/Blair/Milwaukee Waterway Sediments Clean Up
 - Metals
 - Polycyclic aromatic hydrocarbon (PAHs)
 - Polychlorinated biphenyl (PCBs)
 - Created 30 acres of marine terminal space
 - Enhance existing operations



Milwaukee Waterway After

Existing Habitat Site: Place of Circling Waters



Place of Circling Waters
Before (2010)



Place of Circling
Waters After (2011)



- ✓ \$13.2 Million total project cost
 - ❖ \$100,000 public access costs
- ✓ 30 acres of intertidal riverine and forested wetland habitat
 - ❖ Salmon habitat
- ✓ 2.7 acres of advanced mitigation
- ✓ Public access
 - ✓ Wildlife viewing
- ✓ Neighborhood buffer
- ✓ Adjacent to other habitat sites
- ✓ Flood storage
- ✓ Native American participation

Preservation and Public Access

Julia's Gulch



Dick Gilmur Public Access
and Kayak Launch



Orting Habitat Preservation



Open Space

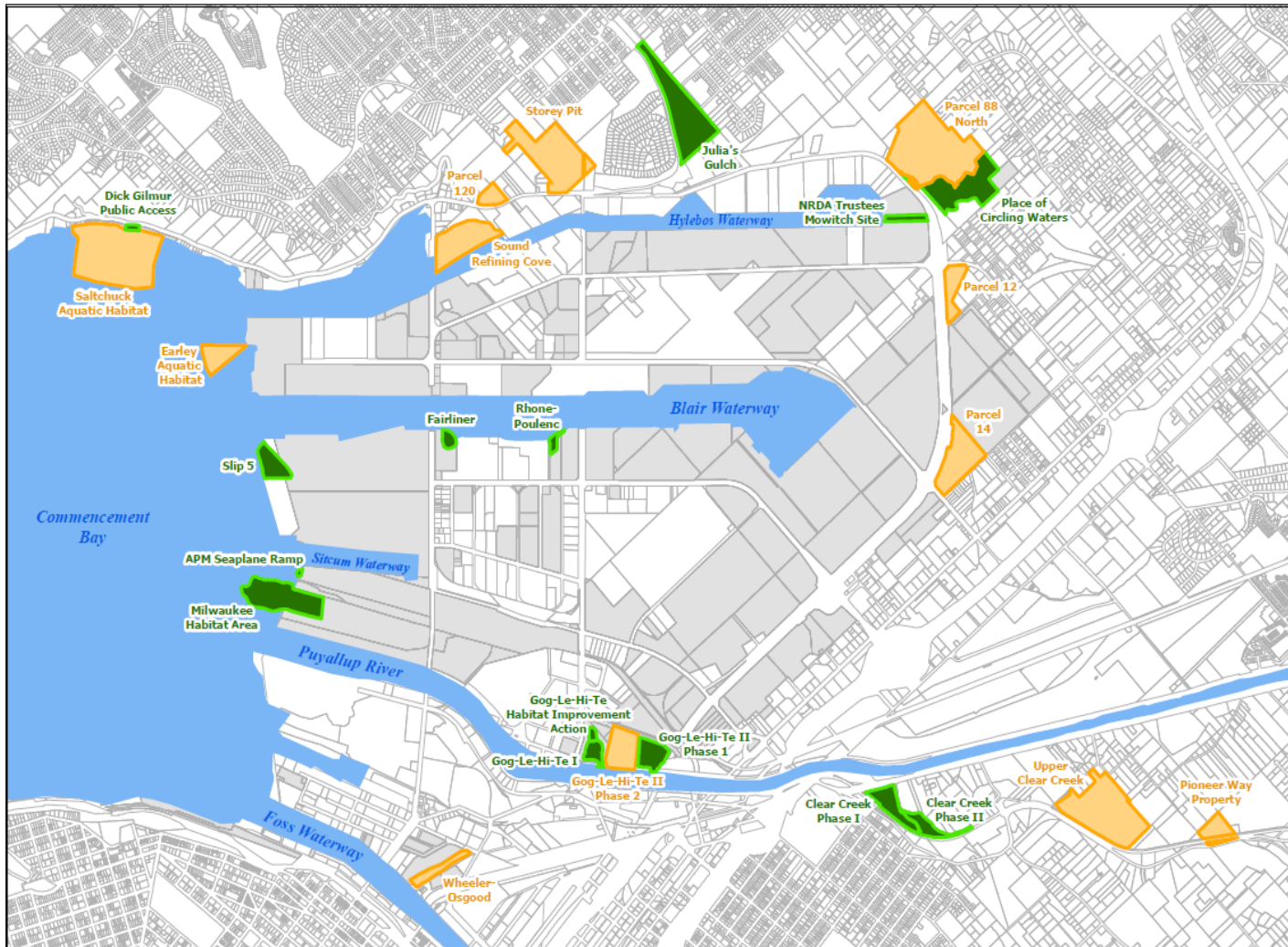


Public Access

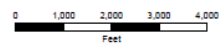
Strategy:

- ✓ Location
 - ❖ Preserve working waterfront
- ✓ Neighborhood buffer
- ✓ Community needs
- ✓ Public access types:
 - ❖ Active/Passive
 - ❖ Wildlife Viewing
 - ❖ Boating
 - ❖ Fishing

Future Habitat Site:



Port of Tacoma Mitigation Sites



Mitigation Sites
■ Existing Site
■ Potential Site
■ Tax Parcels
■ Port Owned Parcels
■ Water

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Strategy:

- ✓ **Location**
 - ❖ Preserve working waterfront
- ✓ **Salmon habitat**
- ✓ **Neighborhood buffer**
- ✓ **Public access**
 - ❖ Active/Passive
 - ❖ Wildlife Viewing
 - ❖ Boating
 - ❖ Fishing
- ✓ **Flood storage**
- ✓ **Cost effective**
 - ❖ Return on investment

Draft Future Habitat Concepts

Marine View Drive Neighborhood Update



- 1 Macro-algal or eel grass bed
- 2 Intertidal berm
- 3 Intertidal spit, forms embayment
- 4 Woody debris, both existing and proposed
- 5 Low bluff habitat area
- 6 Existing vegetation areas remain and are enhanced by new native vegetation
- 7 Coarse substrate added, forage fish spawning
- 8 Existing informal parking area to remain
- 9 New shoreline access
- 10 Gilmur Kayak Launch
- 11 Gilmur Kayak Launch parking area
- 12 Public picnic area
- 13 Interpretive element
- 14 Approximate location of property not owned by the Port of Tacoma

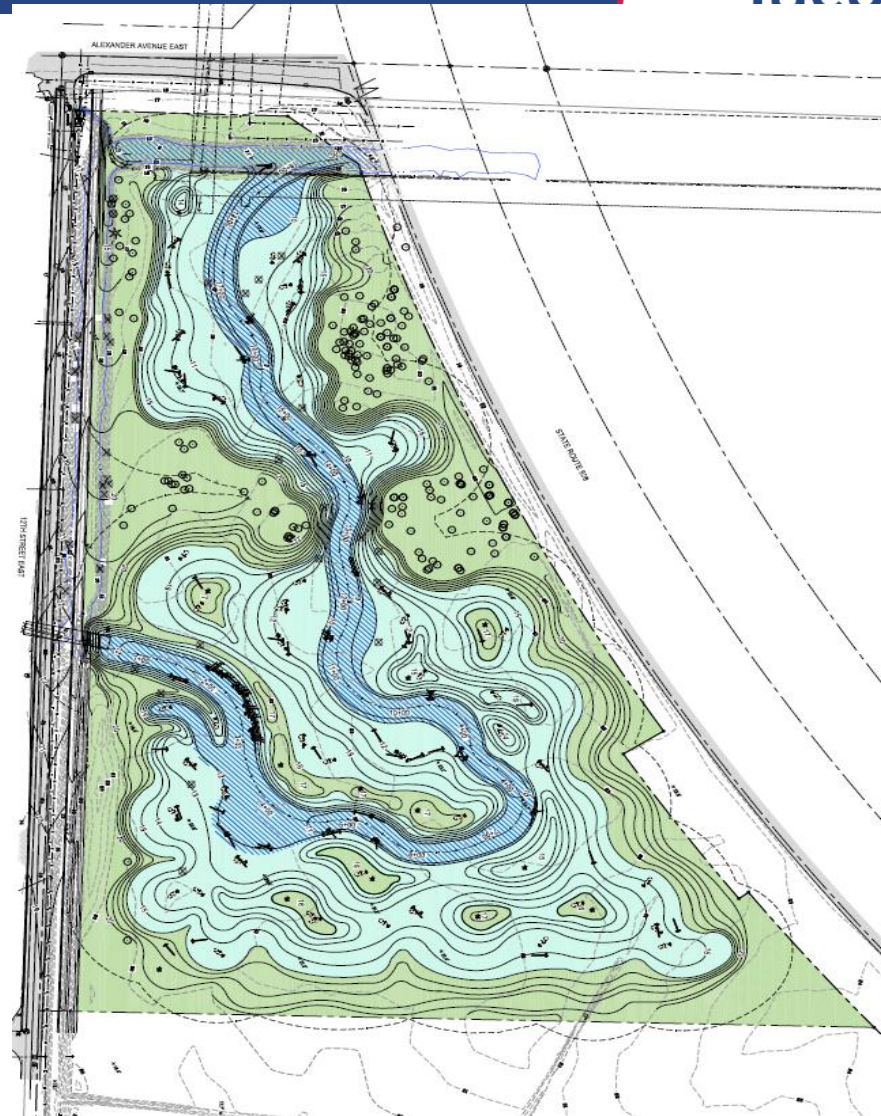
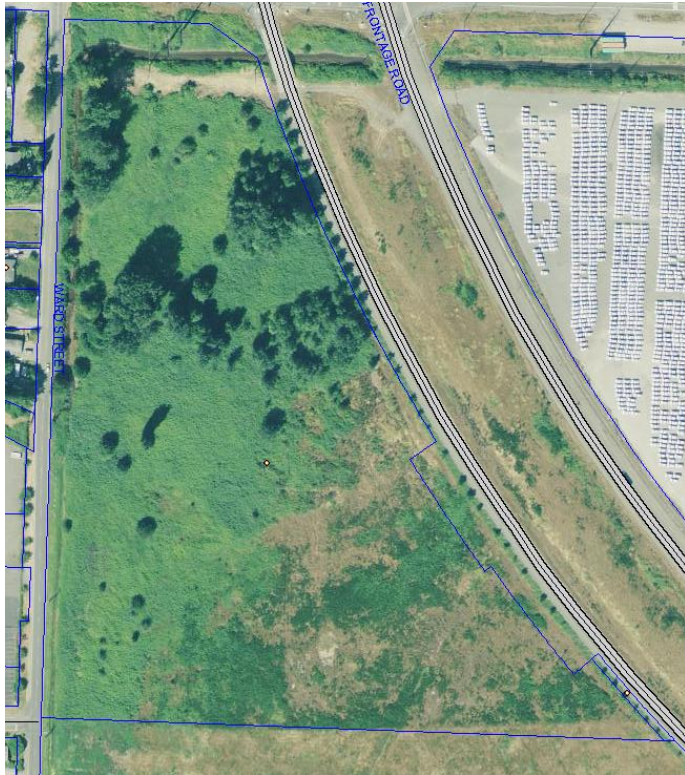
Draft Future Habitat Concepts

Marine View Drive Neighborhood Update

- ✓ High/low bank beach environment
- ✓ Feeder bluff - sedimentation
- ✓ Large woody debris
- ✓ Public access/use
- ✓ Fish forage habitat
- ✓ Location



Future Habitat Site: Wapato Creek (Parcel 14)



- ✓ Stream enhancement
- ✓ Culvert Upgrade – tidal influence
- ✓ Forested wetland
- ✓ Public Access
- ✓ Fish Forage
- ✓ Location
- ✓ Flood Storage

Sustainable Habitat Stewardship



Three-Pronged Approach to Sustainable Stewardship:

➤Economic – Social - Environmental

Objectives:

- ✓ Understand core mission
- ✓ Public outreach, engagement, and input
- ✓ Take action



Public Participation

Thank you

Public Access



Core Mission