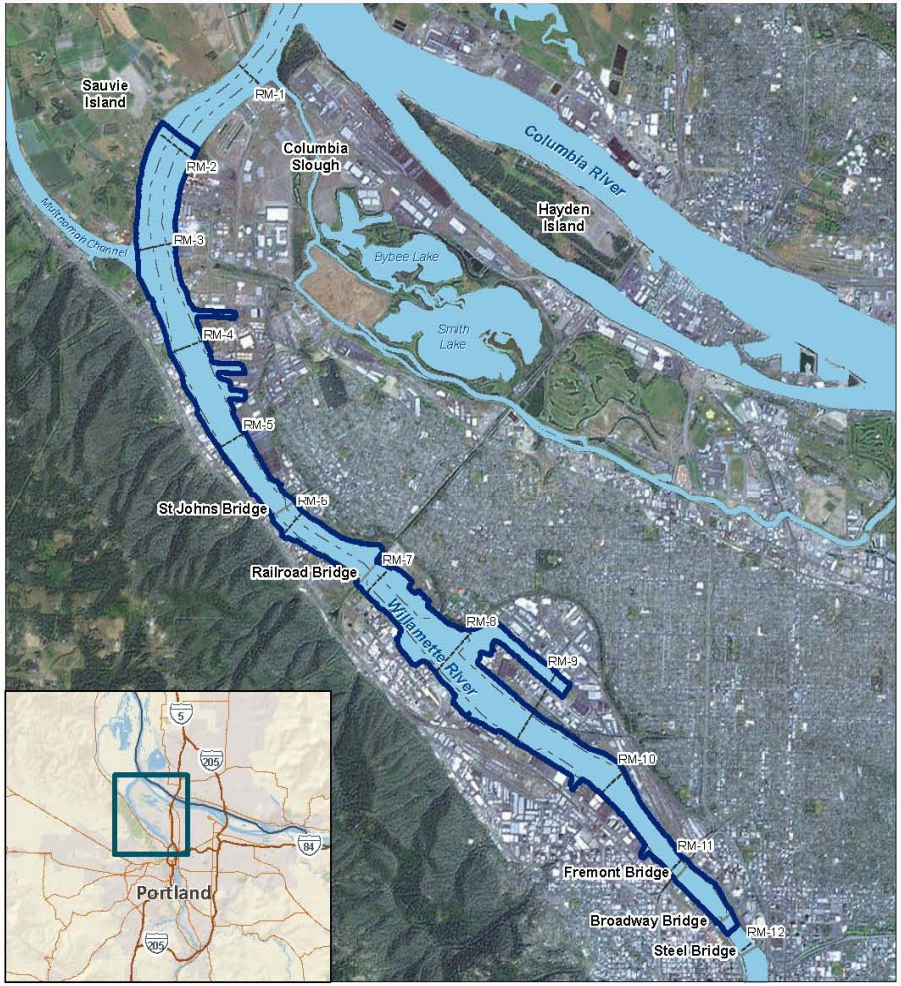
PORTLAND HARBOR

Initial evaluation of alternatives

Congressional Update
September 16, 2015

Sediment Site Remediation

- Challenges at this Site
  - Dynamic system
  - Controlling risk is complex
  - Large Area
  - Multiple Sources and Contaminants
- Standard practice includes combining dredging, capping and natural recovery to reach Preliminary Remediation Goals
- Generally very expensive



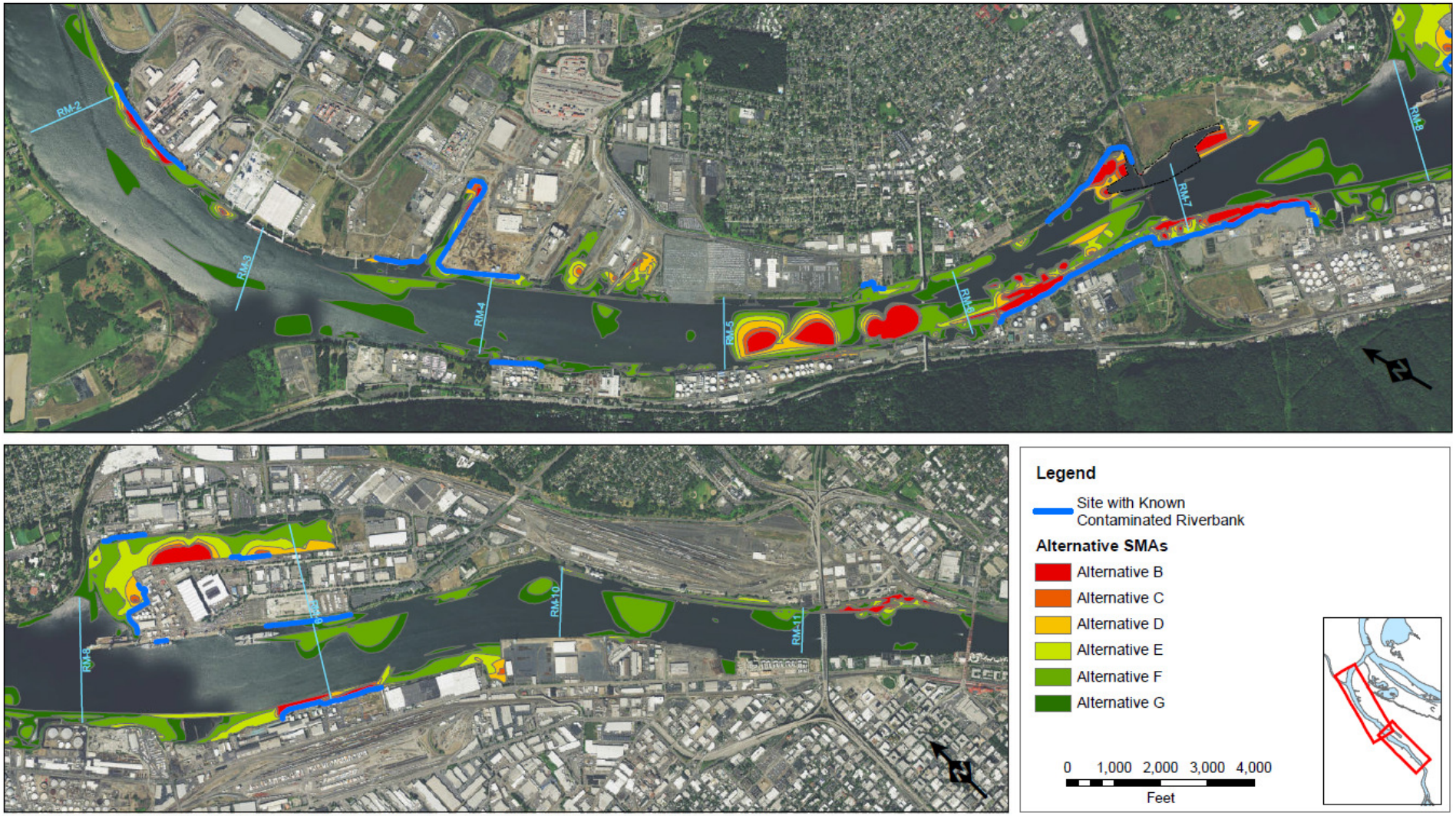
Factors That Impact Cost at Portland Harbor

- Dredge volumes
- Disposal and management of hazardous dredged waste
- Type of capping materials
- Mitigation
- Time for construction

Feasibility Study Alternatives at a Glance

Alt	Dredge Volume (Cu Yd)	Dredge Areas (Acres)	Dredge and Cap Areas (Acres)	Cap Areas (Acres)	EMNR (Acres)	MNR[3] (Acres)	Cost	Years to Complete Construction
B	614,000 to 819,000	70	11	9	103	2,250	$790 M	4
D	1,173,000 to 1,564,000	131	21	22	88	2,185	$1.1 B	5
E	2,061,000 to 2,749,000	203	33	34	59	2,121	$1.5 B	7
F	4,383,000 to 5,843,000	374	50	90	24	1,912	$2.1 B	12
G	6,865,000 to 9,154,000	544	73	163	15	1,655	$2.5 B	18

EMNR – Enhanced Monitored Natural Recovery
MNR – Monitored Natural Recovery



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SMAs – Sediment Management Areas

Seven National Contingency Plan criteria for alternative selection analysis

- Overall protection of human health and the environment (threshold)
- Compliance with Applicable or Relevant and Appropriate Requirements (threshold)
- Long-term effectiveness and permanence
- Reduction in toxicity, mobility &volume by treatment
- Short-term effectiveness
- Implementability
- Cost

Evaluating the Preferred Alternative

- EPA, in coordination with ODEQ and other Memorandum of Understanding Partners, is considering the following key factors:
  - Extent each alternative reduces toxicity, mobility or volume through treatment and addresses Principal Threat Waste (PTW)
  - How many caps are in each alternative that restrict future land uses
  - Extent each alternative relies on natural recovery
  - When each alternative achieves cleanup levels
  - Minimize exposure to ecological receptors until cleanup levels are met

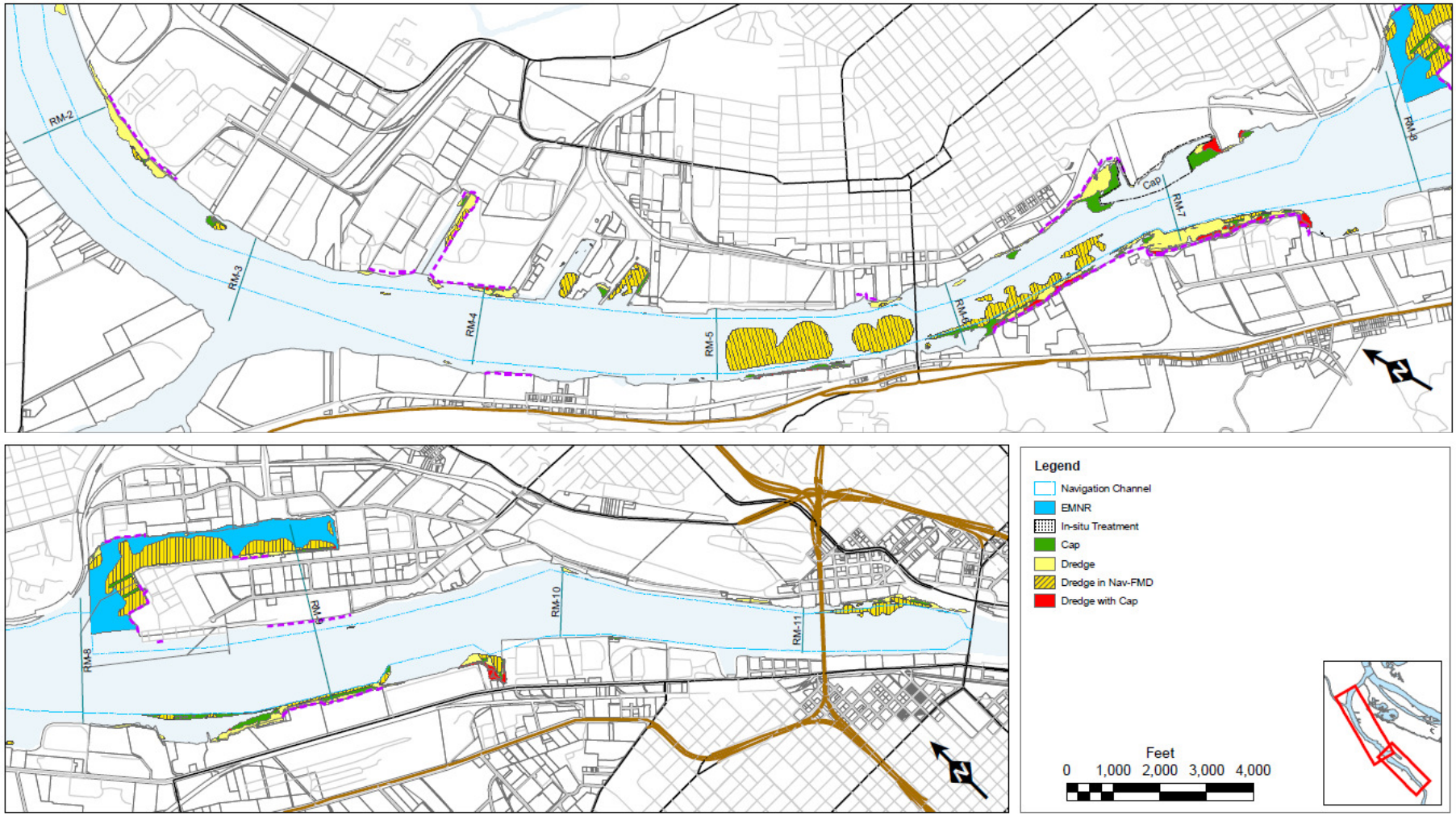

Figure 3.6-5a. Technology Assignments, Alternative E, Site-Wide

Drivers for Recommending Alternative E as EPA's Conceptual Remedy

- Least costly alternative that addresses most Principal Threat Waste
- Provides reasonable certainty about the ability for the river to naturally recovery and reduce risks
- Provides more certainty of protectiveness through active remediation with less reliance on institutional controls
- Provides protection for some wildlife by the end of construction

Key Issues – What We Are Hearing

- Cost
- Flexibility of technology assignments (LWG)
- Principal Threat Waste (LWG)
- Maximize unrestricted use of the river (State)
- More extensive cleanup (Tribes)
- River modeling complication (HQ)
- Confined Disposal Facility (CAG)

Process and Progress—Upcoming Key Dates

- **September 16, 2015** – Dennis, Jim and Dick Pedersen meeting with congressional delegation to discuss conceptual remedy
- **September 17, 2015** – Meeting with LWG executives, tribal representatives and community partners on conceptual remedy
- **September 18, 2015** – Provide conceptual remedy to stakeholder groups
- **November 18-19, 2015** – EPA National Remedy Review Board review with CSTAG
- **January and February 2016 –** Government to Government consultation with six Federally Recognized Tribes
- **SPRING 2016 –** Proposed Plan and Formal Public Commenting Period

Communication

- EPA website will post EPA's draft Feasibility Study and Conceptual Remedy
- Continued coordination with Congressionals, ODEQ, the Lower Willamette Group, the Tribes, Trustees and CAG/Community Partners
- Planned outreach to reporters
- Communication around Conceptual Remedy release
- Continue engagement and preparedness in advance to the Proposed Plan and public comment period