New Sediment Management Standards Guidance: Sediment Cleanup Users Manual II (SCUM II)

A Comprehensive Seminar on the 25th Anniversary of the Model Toxics Control Act (MTCA): Evolving Issues In Implementation, Litigation and Legislation

September 24, 2015

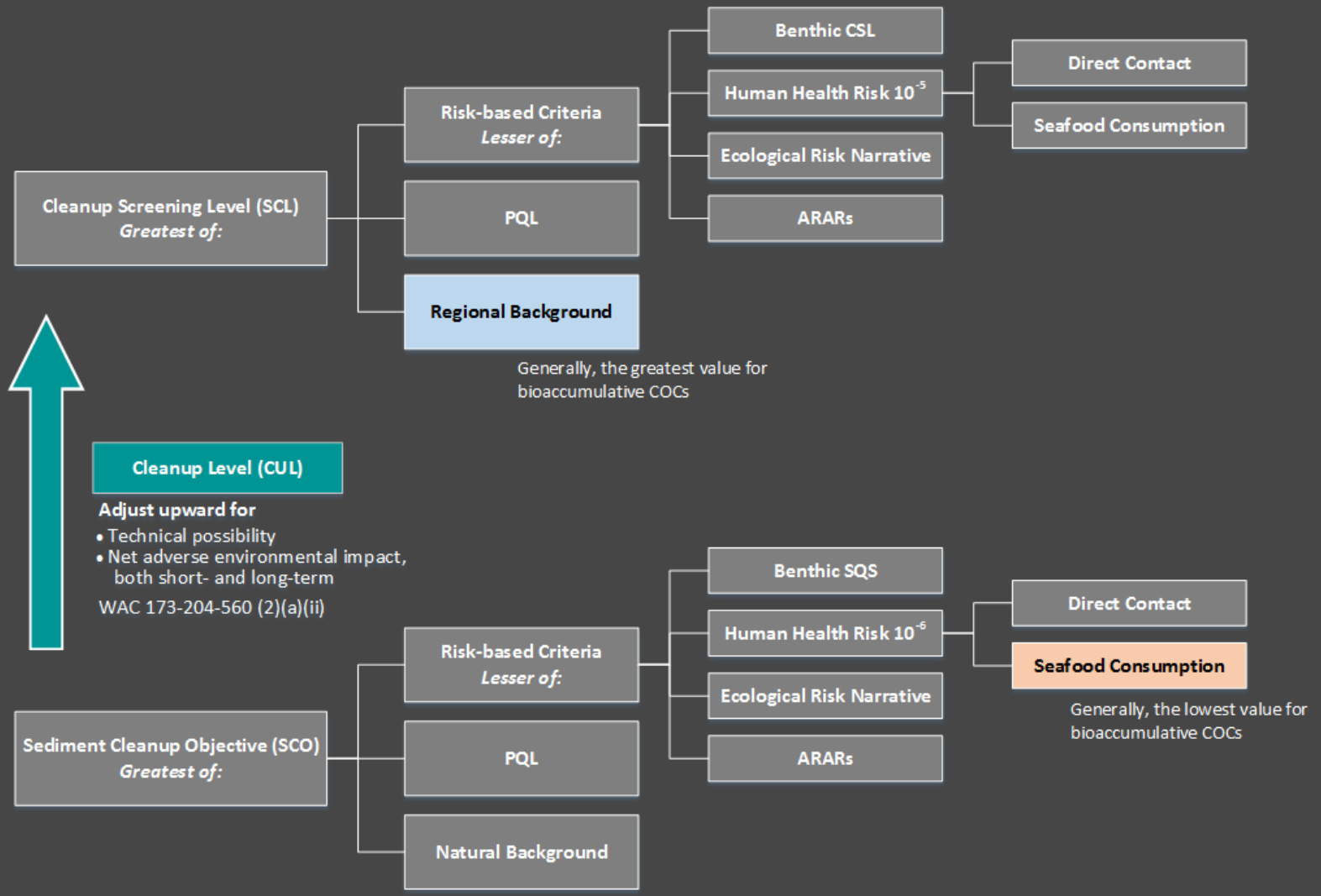
Hotel 1000 Seattle

Dr. Allison Geiselbrecht

SMS Updates Overview

- New SMS promulgated Sept 2013
- Applicable at all sediment sites in WA (pre-CAP)
- Goals of new SMS:
  - Incentivize cleanups of sediment source areas within bay-wide contamination
  - Address human health risks
  - Promulgate freshwater criteria
  - Define framework for watershed-wide cleanup and source control
- Early in implementation
- Final Sediment Cleanup Users Manual II (SCUM II) available

Sediment Cleanup Levels



Long-Term Goal – Achieve CSO

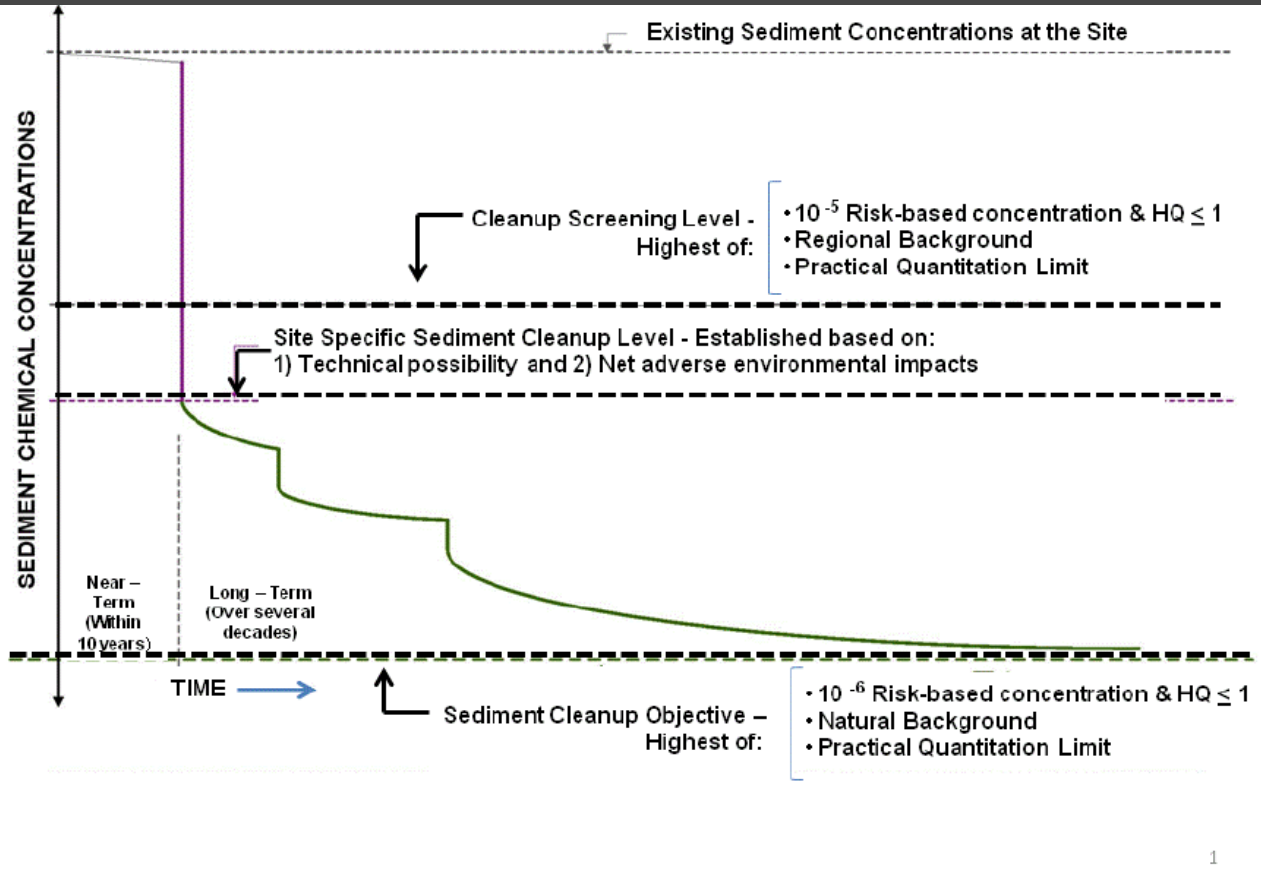
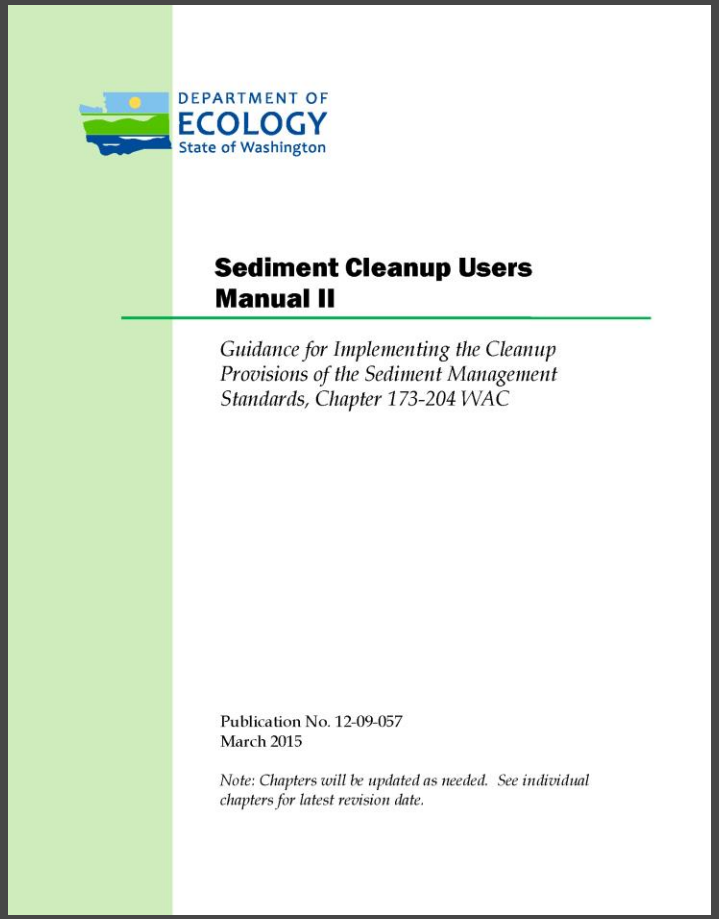


Figure 2-2. SMS framework for establishing the Sediment Cleanup Objective (SCO) and the Cleanup Screening Level (CSL), used to identify sediment cleanup sites, evaluate sediment cleanup sites, and establish sediment cleanup standards.

Sediment Cleanup Users Manual II

- Final version available March 2015
- Contains implementation details for SMS



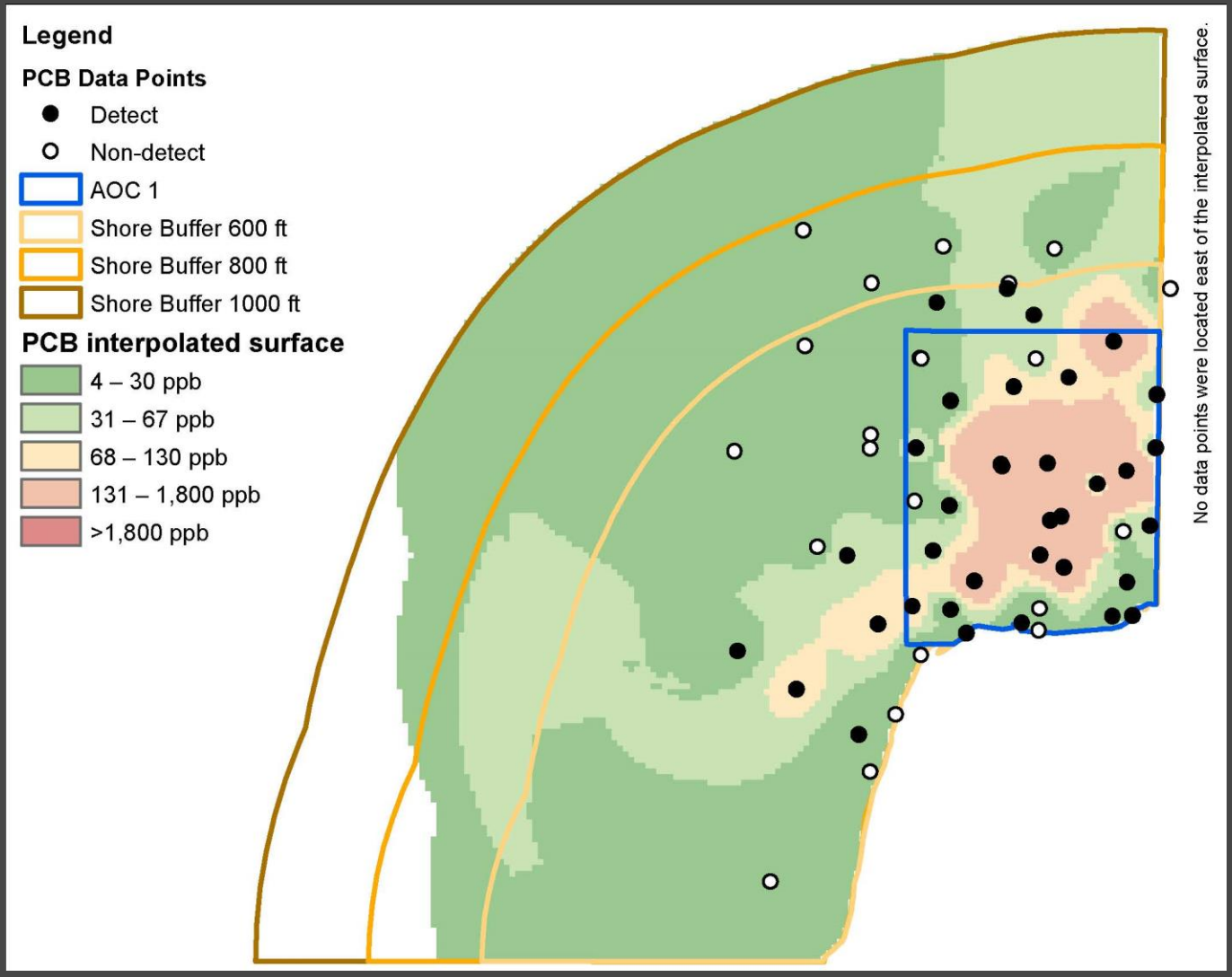
New-ish Concepts

- Numerical compliance – SWACs, point-by-point
- Regional background
- Sediment cleanup units (SCUs)
- Sediment recovery zones (SRZs)
- Emphasis on source control and recontamination

Numerical Compliance Concepts

- Sediment cleanup level – established at the SCO, the CSL, or at a level in between. Can be adjusted upward from SCO without exceeding CSL (WAC 173-204-560(2)(a)(iii)), based on technical possibility and net adverse environmental impacts
- Three parts to cleanup standard – cleanup level (number), depth in sediments, area of compliance
- WAC 173-204-560(7)(a) and (c)
  - Ability to use tissue analyses for compliance
  - Ability to use averaging approach for bioaccumulative chemicals
- Surface weighted average concentrations (SWACs) allowed for bioaccumulative chemicals

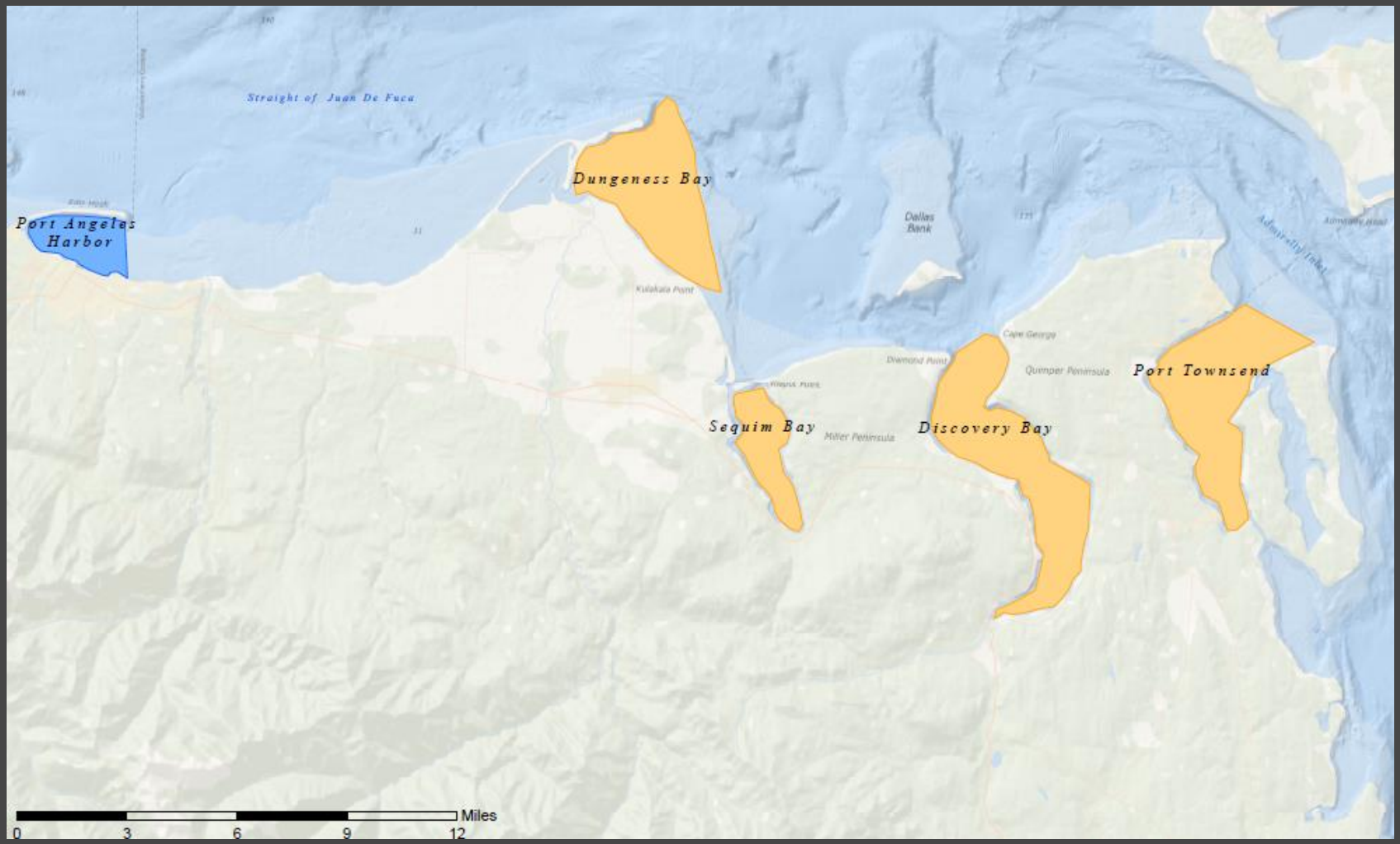
Example: SWACs versus Point-by-Point



Regional Background

- WAC 173-204-505(16): "'Regional background' means the concentration of a contaminant within a department-defined geographic area that is primarily attributable to diffuse sources, such as atmospheric deposition or storm water, not attributable to a specific source or release."
- Implementation uneven and expensive
  - North Olympic Peninsula (Port Angeles)
  - Port Gardner (Everett)
  - Bellingham Bay
  - Lower Duwamish/Elliott Bay (?)

Example: North Olympic Peninsula



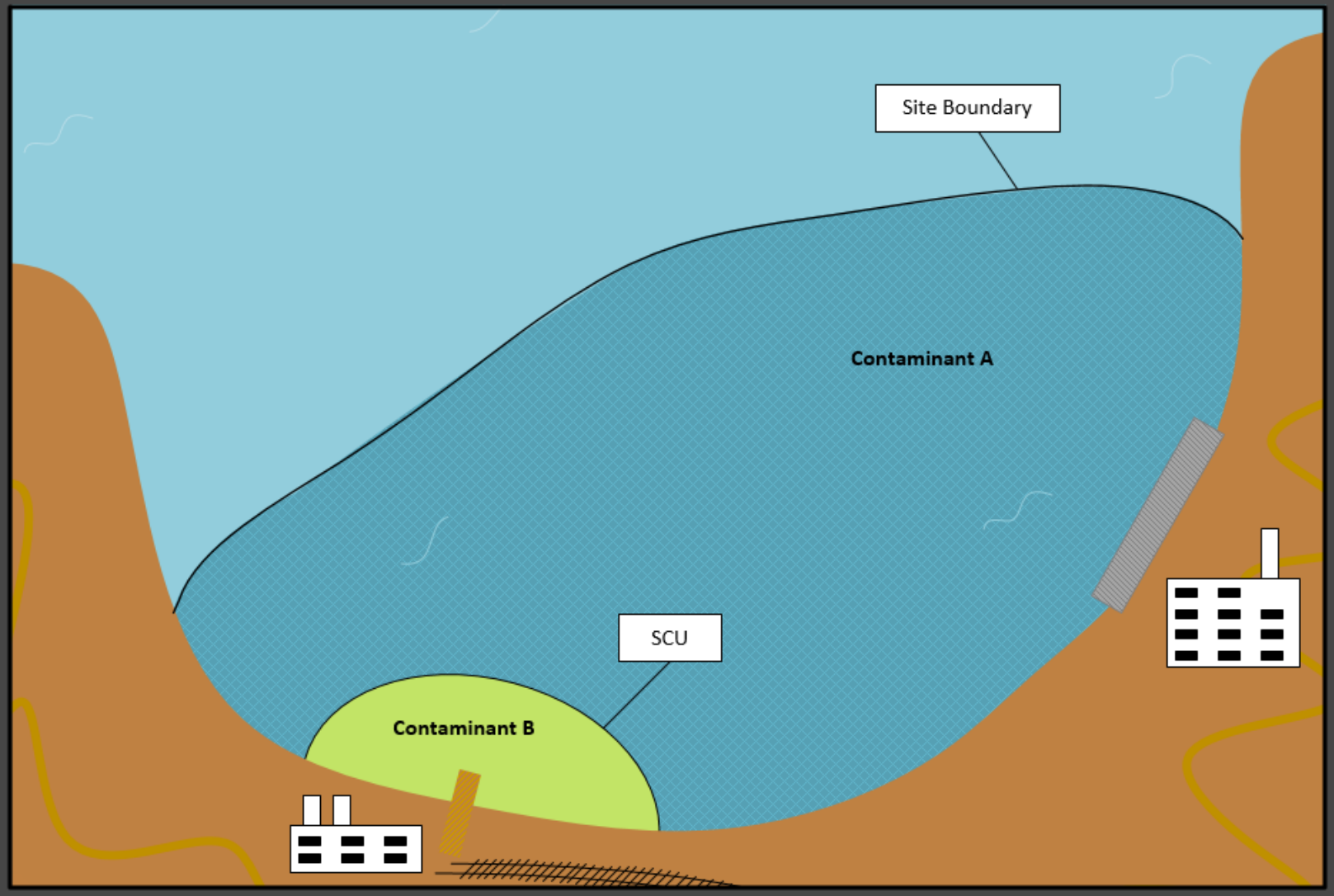
SCUM II Regional Background Options

- Use Ecology-led study results for that area
  - As per Port Gardner, Bellingham Bay, etc.
  - Funding?
- Use Ecology-led study from a similar area
- Use new data
- Use existing pooled data from similar areas

Sediment Cleanup Units (SCUs)

- WAC 173-204-505(20): SCU "means a discrete subdivision of a sediment site designated by the department for the purpose of expediting cleanups."
- Flexibility on how defined
- If it can be proven that sources are controlled and recontamination is not under PLP's control, could settle responsibility
  - Source control and recontamination risk critical
  - Burden on PLP to prove source control

Example: SCU



Sediment Recovery Zones

- The selected sediment remedy must meet the CUL in 10 years from the completion of remedial construction (WAC 173-204-570(5)(a))
- If Ecology determines that the sediment remedy cannot meet the CUL in 10 years, it must establish the sediment recovery zone (SRZ), which is described in WAC 173-204-590.
- Subject to renewal every 10 years
- Flexibility about restoration time frame

Sediment Recovery Zones

- Chapter 14 in SCUM II
- SRZ must be specifically authorized by Ecology as part of CAP/CD
- Requires ongoing monitoring, potentially including tissue data if site is larger
- If still exceeding CULs, Ecology may:
  - "…accept PLPs sources are controlled when the PLP can reasonably demonstrate that their sources…will not result in contaminating sediment above the sediment cleanup level."
  - Add a PLP to the site, or create a new site, within the SRZ

What's not Clear about SRZs

- Full impact on NPDES permits, particularly municipal dischargers
  - NPDES monitoring requirements?
  - Permitting new dischargers? Existing permits?
- Land use and redevelopment?
- Intersection with upland cleanups?
- Options for "closure" with SRZ?
  - PLP-funded mechanism for long-term monitoring?

Source Control and Recontamination

- Numerical criteria have dropped, sometimes drastically – addressing bioaccumulative risk
- SRZs, SCUs rely on source control – but now relative to much lower numbers
- SCUM II – Chapter 13.2 – Source Control
  - Creosoted structures and pilings
  - Issue of whether sources are under the PLP's control – what discharges are under the authority or responsibility of the PLPs
  - How to "prove" sources are controlled

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