

Disposal Site Management and Monitoring

SMARM

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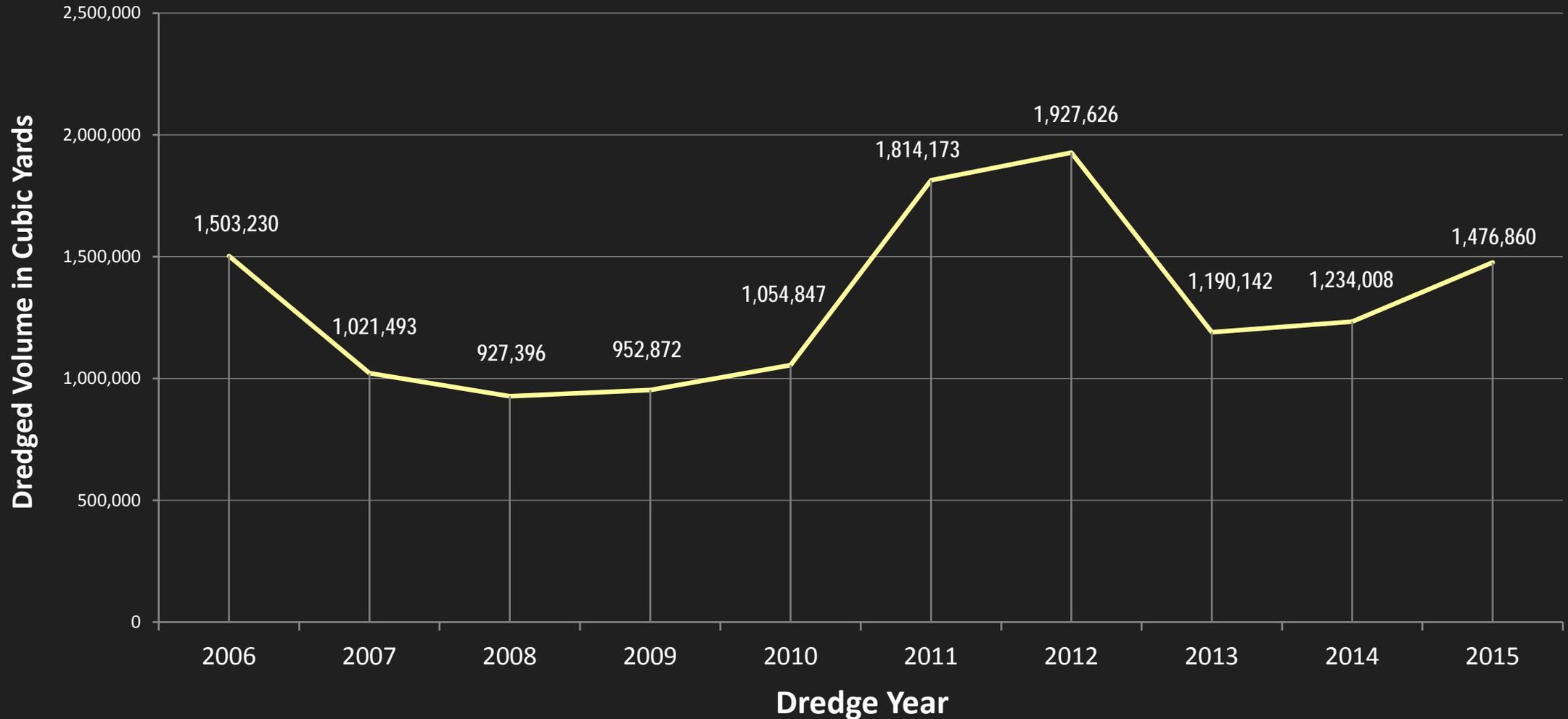


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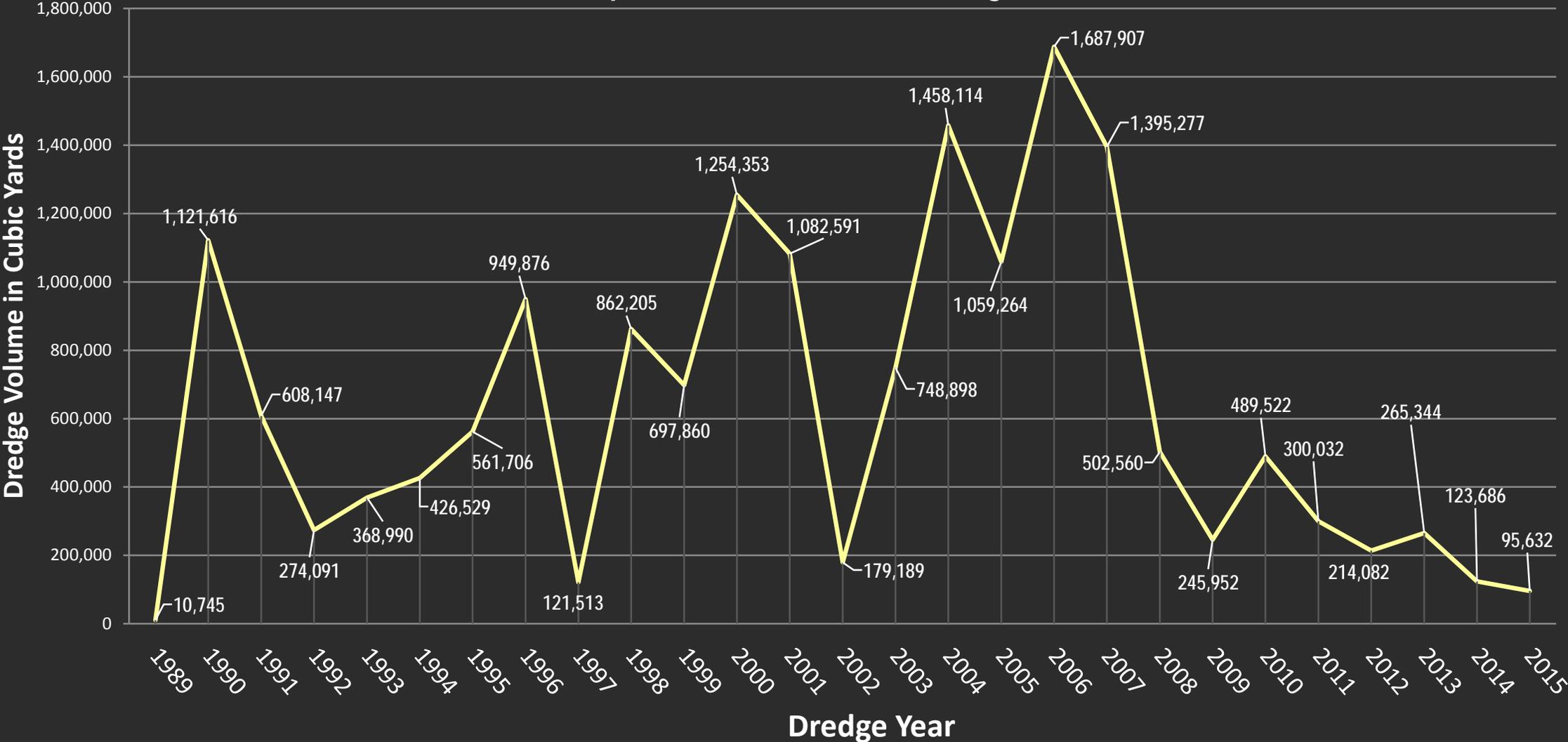
Combined Federal and State Volumes (DY 15)

Annual Disposal Volume Totals in Grays Harbor

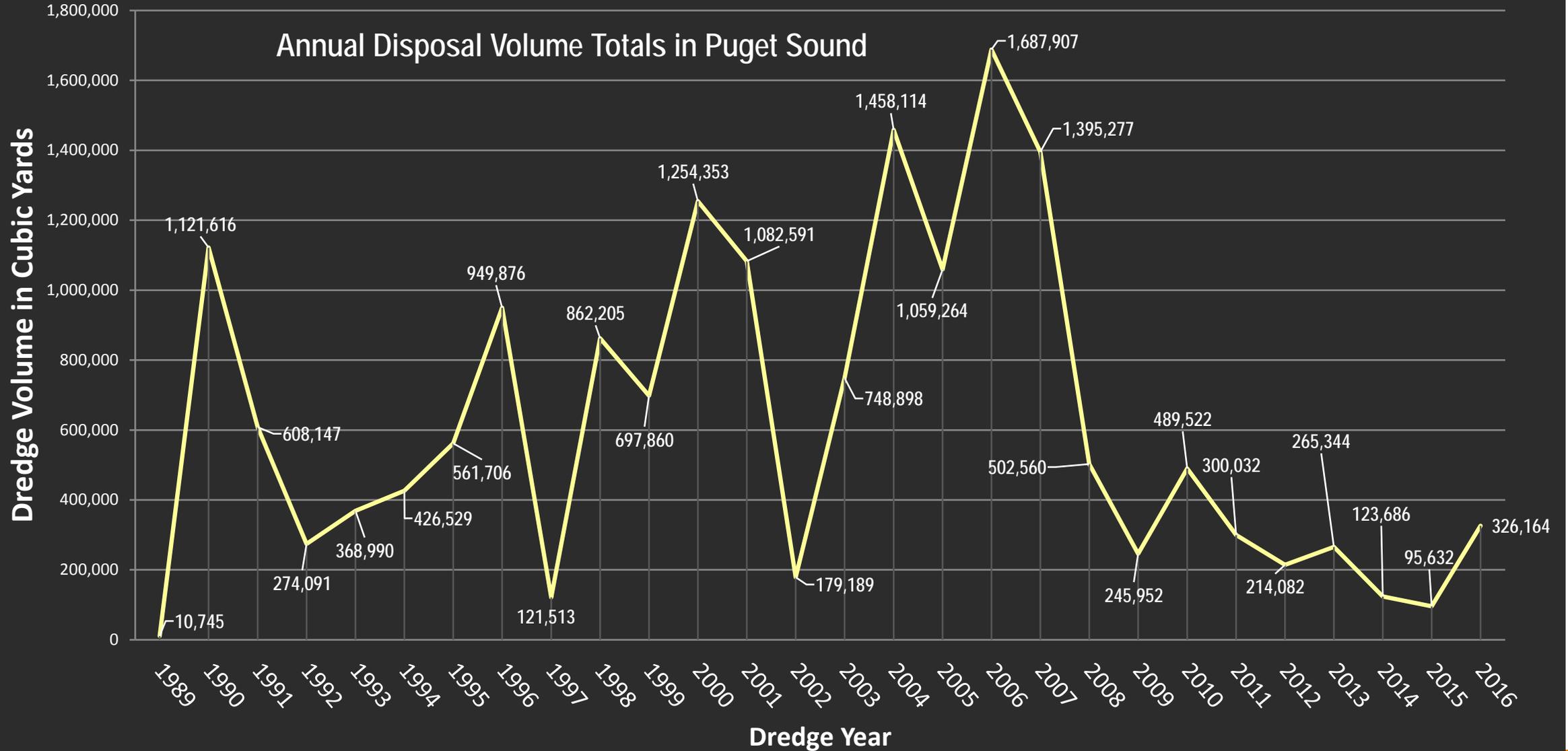


Combined Federal and State Volumes (DY15)

Annual Disposal Volume Totals in Puget Sound



Combined Federal and State Volumes (DY 16)



What does it take to keep these sites Available for use?

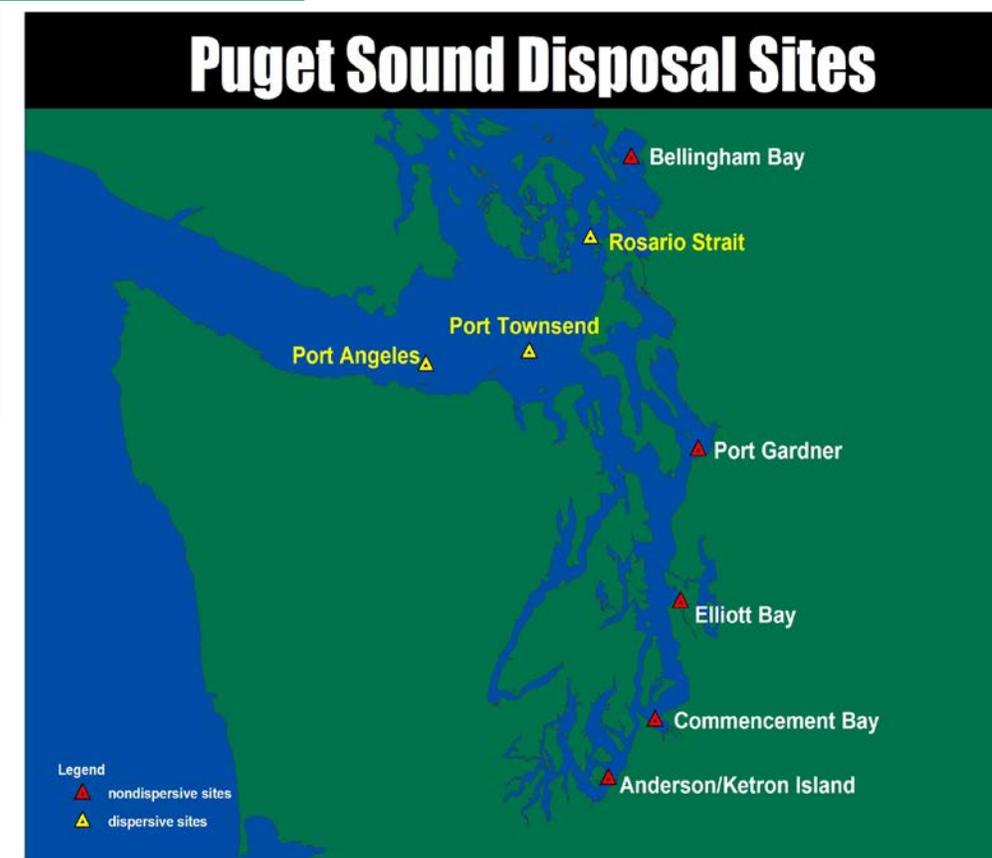
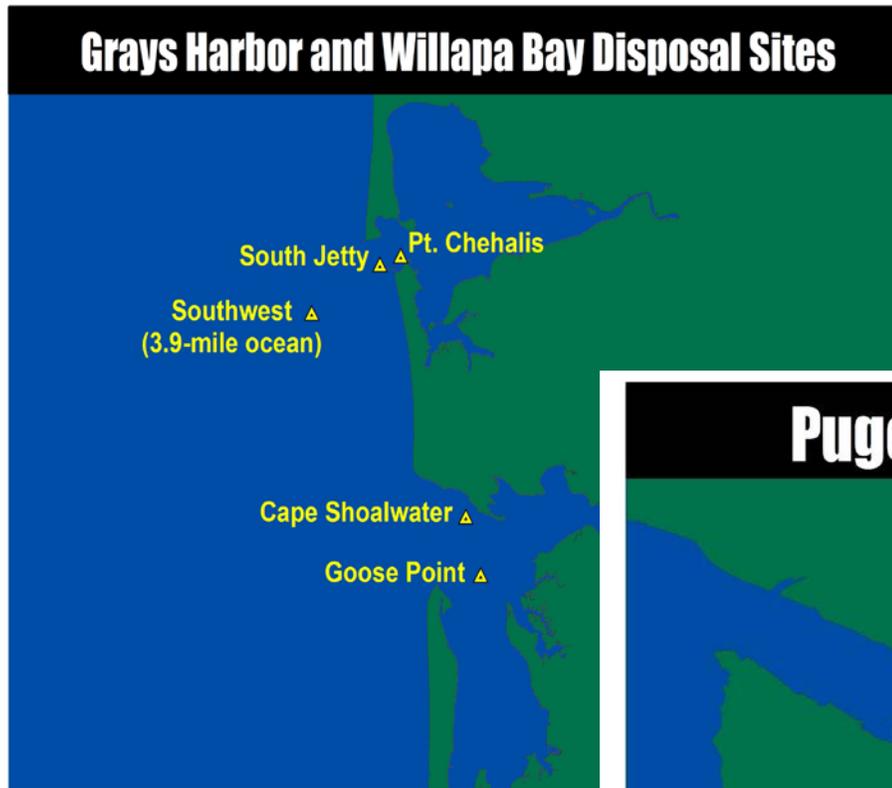
Department of Natural Resources' proprietary role:

- Maintain shoreline permits
- Manage disposal site use authorizations
- Manage dredge account
- Maintain DNR environmental monitoring contract
- Conduct chemical and biological monitoring of non-dispersive sites

All sites need shoreline permits

Some are combined by county

All Puget Sound sites are individual



Maintain Shoreline Permits

DNR maintains shoreline permits for all active sites

- Public outcry stopped permits and shut down disposals in mid-1980's

Shoreline permitting starts with the Shoreline Management Program

- Review, comment, take action as needed to maintain “allowed use” status of the disposal sites

Is lead agency for compliance with State Environmental Policy Act (SEPA) for each site

Maintain Shoreline Permits (continued)

Applies for new shoreline permits with enough lead time to maintain use of site

- Works with Jurisdiction for longest term possible (highly variable)

Manage all sites and ensure compliance with site use requirements of each individual shoreline permit

- Ensure proponent's regulatory permits for dredging and disposal are in place
- Consideration of beneficial use alternative for each project
- Other conditions in shoreline permit (highly variable)

Shoreline Permit Status

Disposal Site	Jurisdiction	Expiration Date	Term	Permit Fee
Anderson / Ketron	Pierce County	September 10, 2014	Application pending study results & SMP modification	Expect \$5,300
Port Gardner	City of Everett	December 15, 2019	5 year extension granted June 2009 2nd 5-year extension granted May 2015	\$2,000 (1999)
Commencement Bay	Pierce County	Sept 13, 2016	5 Years - 1 year Extension granted	\$2,205 (2009) \$1,200 fee for 2015 Extension. New app fee \$5,300 (2016)
Willapa	Pacific County	Jan 31, 2016-extended to Jan 31, 2017	5 year 1 year extension granted	\$780 (2010)
Port Townsend	Clallam County	Feb 2, 2016-extended to Feb 2017	5 year -1 year extension granted	\$1125 (2010)
Port Angeles	City of Port Angeles	May 24, 2016	5 year	\$750 (2010)
Grays Harbor	Grays Harbor County	Dec 7, 2016 (1 x 5 yr ext possible)	10 year (2 x 5 year ext)	\$200 (2001)
Elliott Bay	City of Seattle	May 2, 2021	10 year term	\$3,311 (2010)
Rosario Strait	Skagit County	Sept 26, 2021	10 year term	\$2,400 (2010)
Bellingham Bay	Whatcom County	expired		

Manage Disposal Site Use Authorizations

Site Use Authorization (SUA)

Is a short term agreement to use the disposal site

- Identifies disposal site, term, disposal volume
- Needs to be amended if terms change
- Ensures consideration of beneficial use
- Has damages clause for compliance violations

Site Use Authorizations (continued)

Disposal fee appropriate for the disposal site location

- Collects disposal fees

Keeps record of each disposal event

- Confirms on-site disposal, along with USGC VTS log
- Disposal volume usually determined by post dredge survey

Manage Dredged Material Disposal Site Account

Ensure disposal fees are placed in Dredged Material Disposal Site Account

- Used for environmental monitoring and management of disposal sites
- DNR may petition State Legislature to increase disposal fees if inadequate to cover site management costs

Maintain DNR Environmental Monitoring Contract

In effect at all times in case of emergency monitoring need

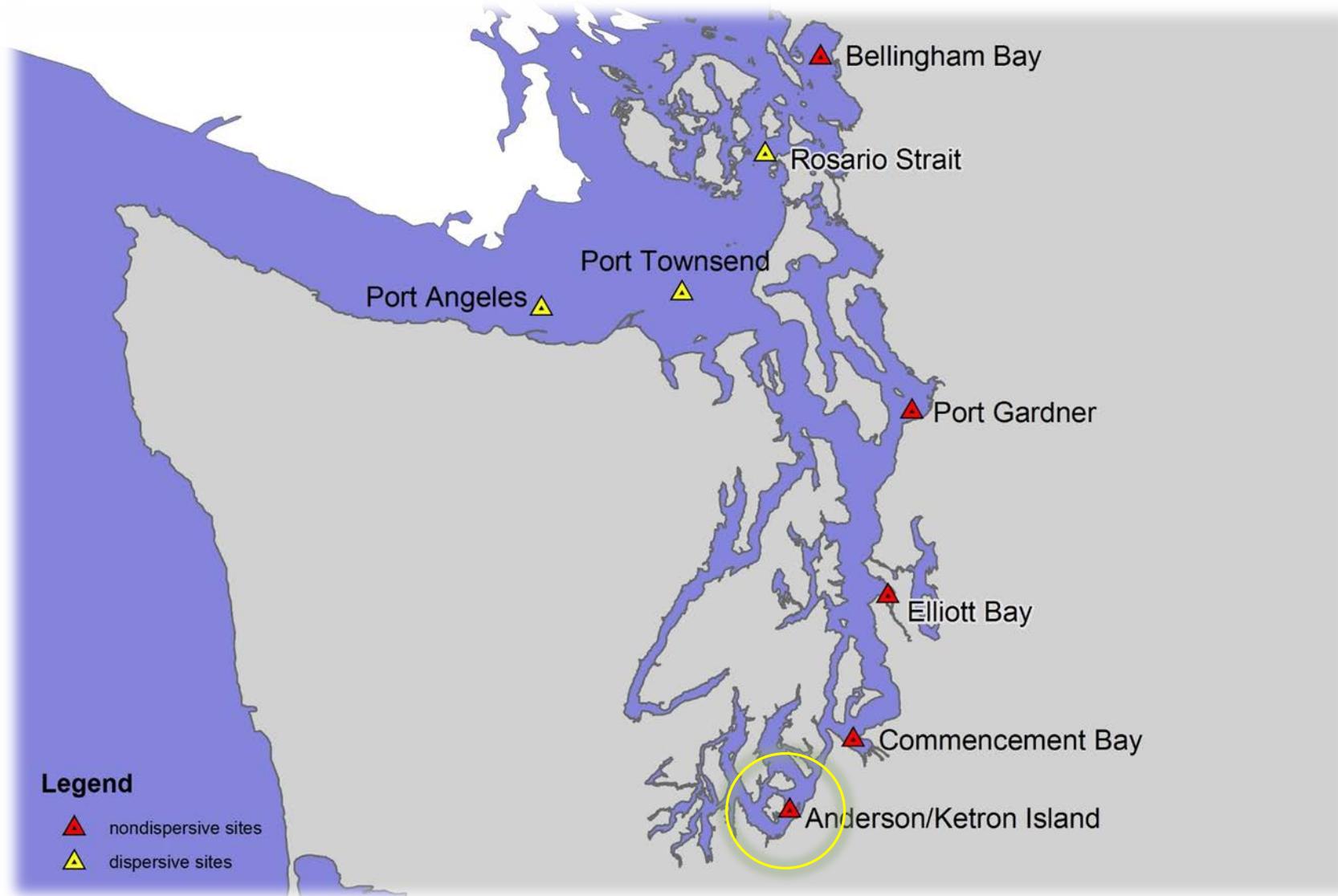
- Lengthy public bidding process (2015 NewFields Inc)

Routine site monitoring usually based on volume

- Shared responsibility with USACE
- DNR tasked with chemical and biological monitoring
- USACE has physical monitoring and special projects essential for the Program

More with Dave Fox presentation next

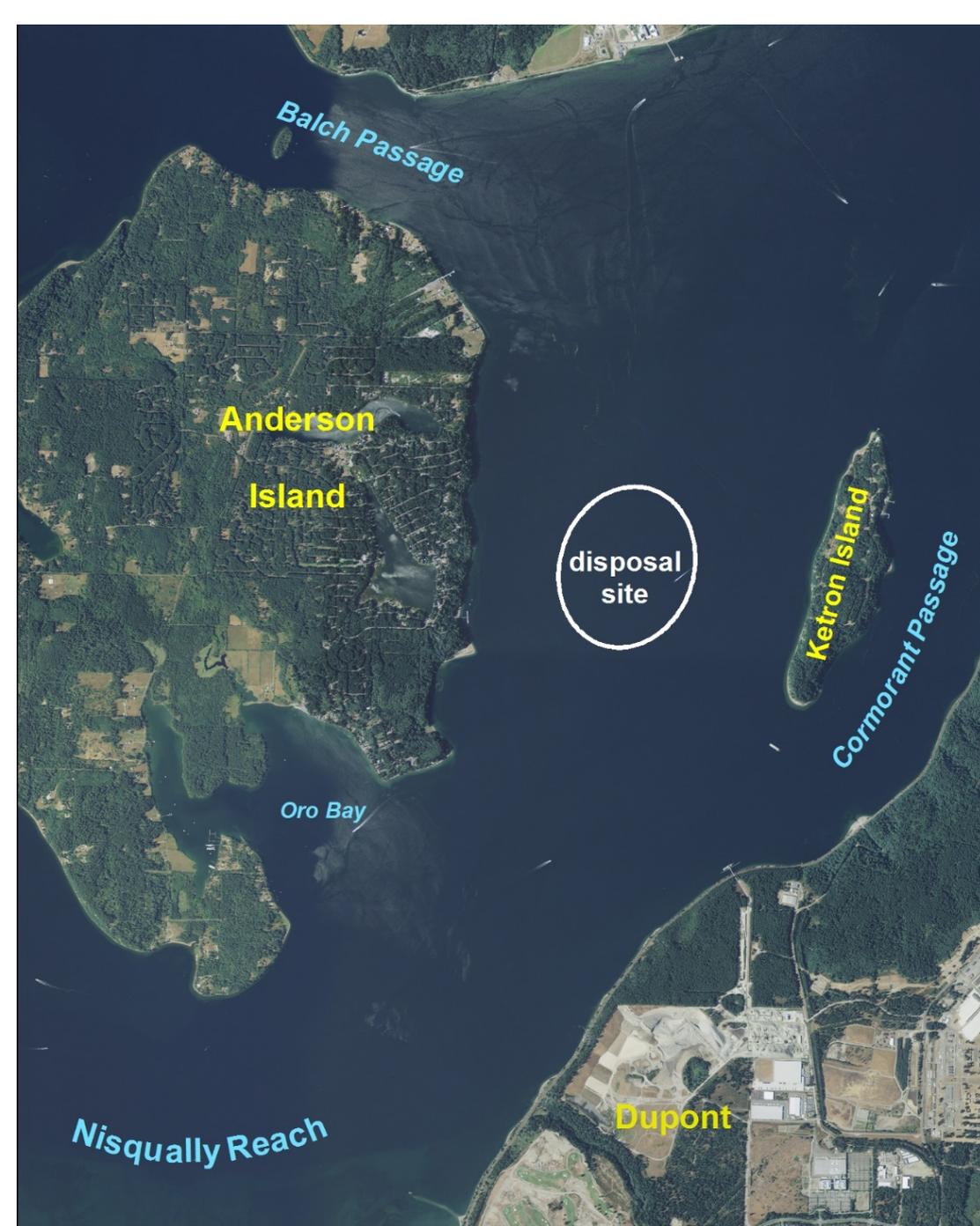
2014-2015 Anderson-Ketron Trawl Study



About the A/K Site

A Pierce County shoreline permit is required to maintain the use of the A/K site

Site is currently closed and not accepting dredged material due to expiration of permit



Why is the Site Closed?

Nisqually Reach Aquatic Reserve established in 2011

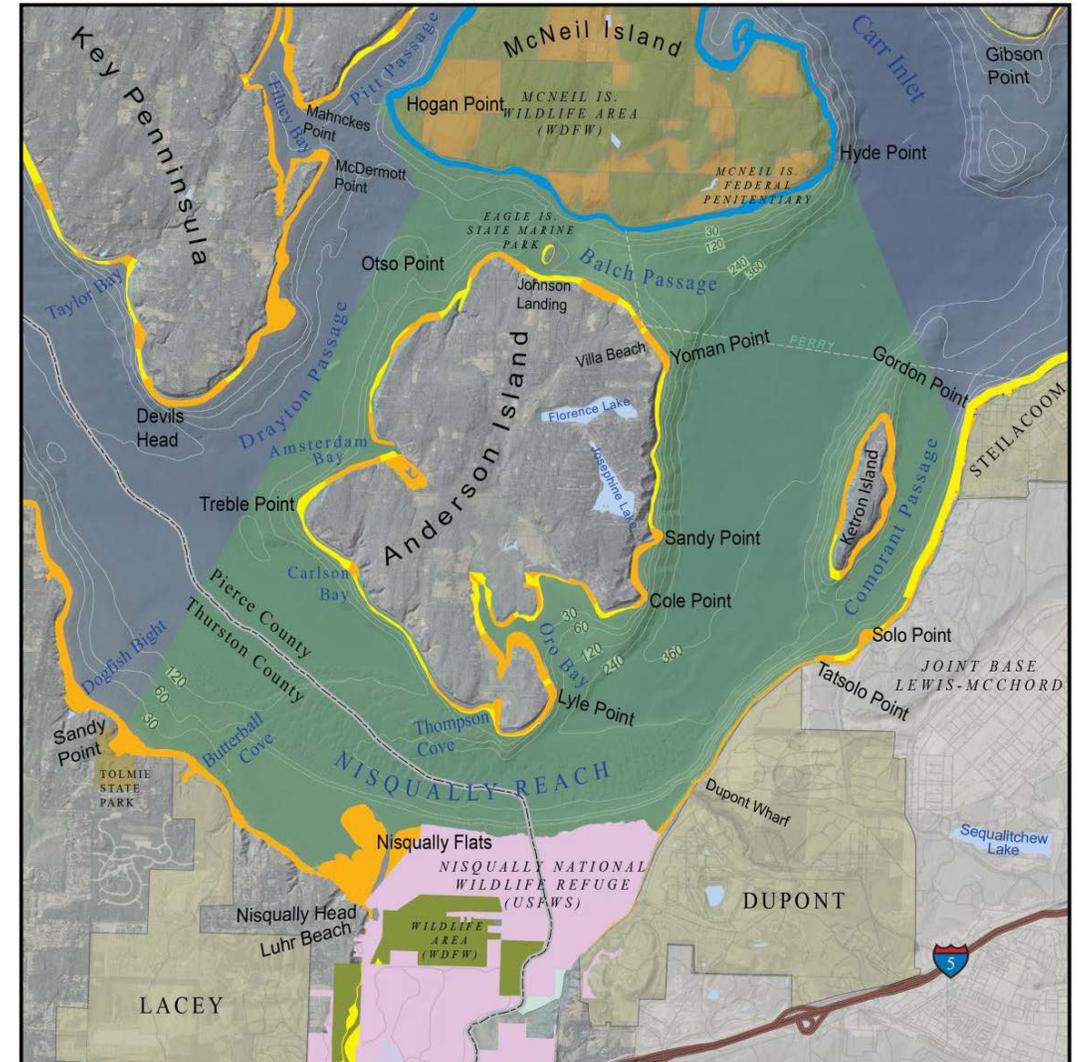
A/K disposal site is within boundaries of reserve

Local citizens expressed concerns about continued use of disposal site

Data needed to address these concerns and support shoreline permit application



NISQUALLY REACH AQUATIC RESERVE

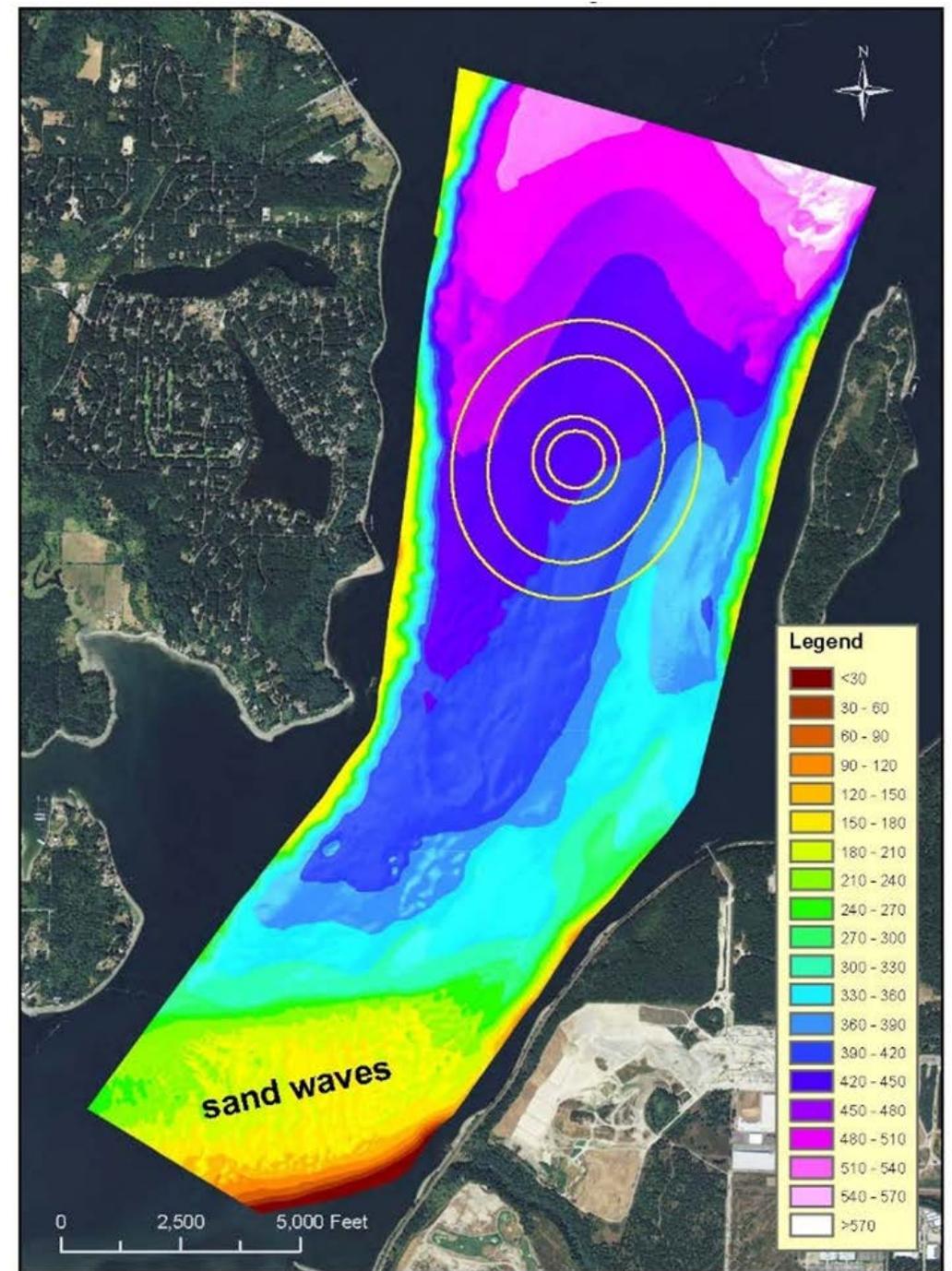


Data Collection and Modeling

Multibeam bathymetric survey of site and site vicinity

Fate and transport modeling

Trawl study to assess changes to benthic community since 1987



Trawl Study Objectives



Replicate 1987 beam-trawl study

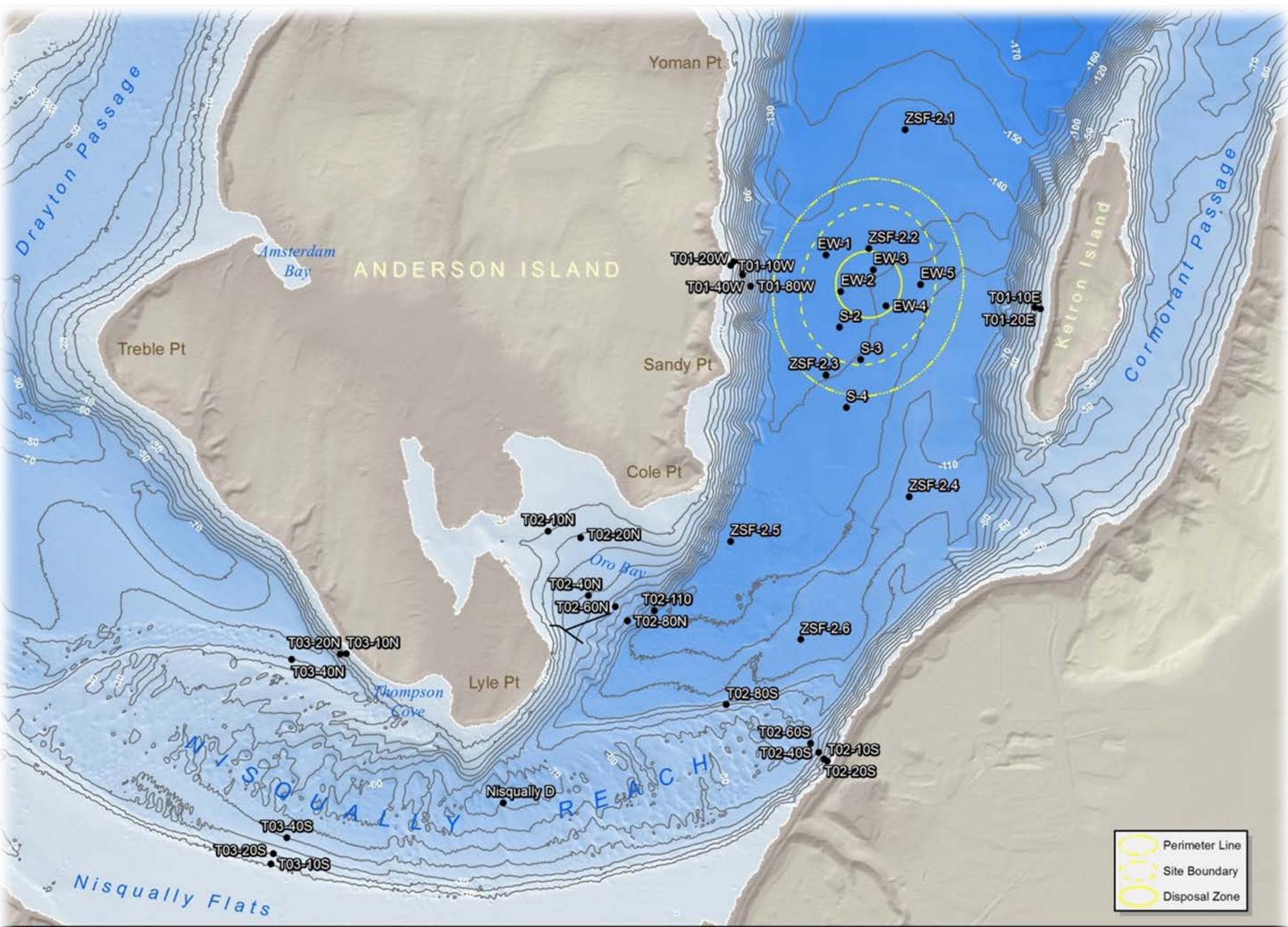
Compare results to 1987 results

Compare on-site stations to
off-site stations

Compare results to commercially-
viable thresholds

Trawl Stations

- 30 stations from 1987
- 8 additional on-site stations



Anderson Ketron Area Trawl Locations

0 500 1,000 2,000 Meters

Trawl Study Findings



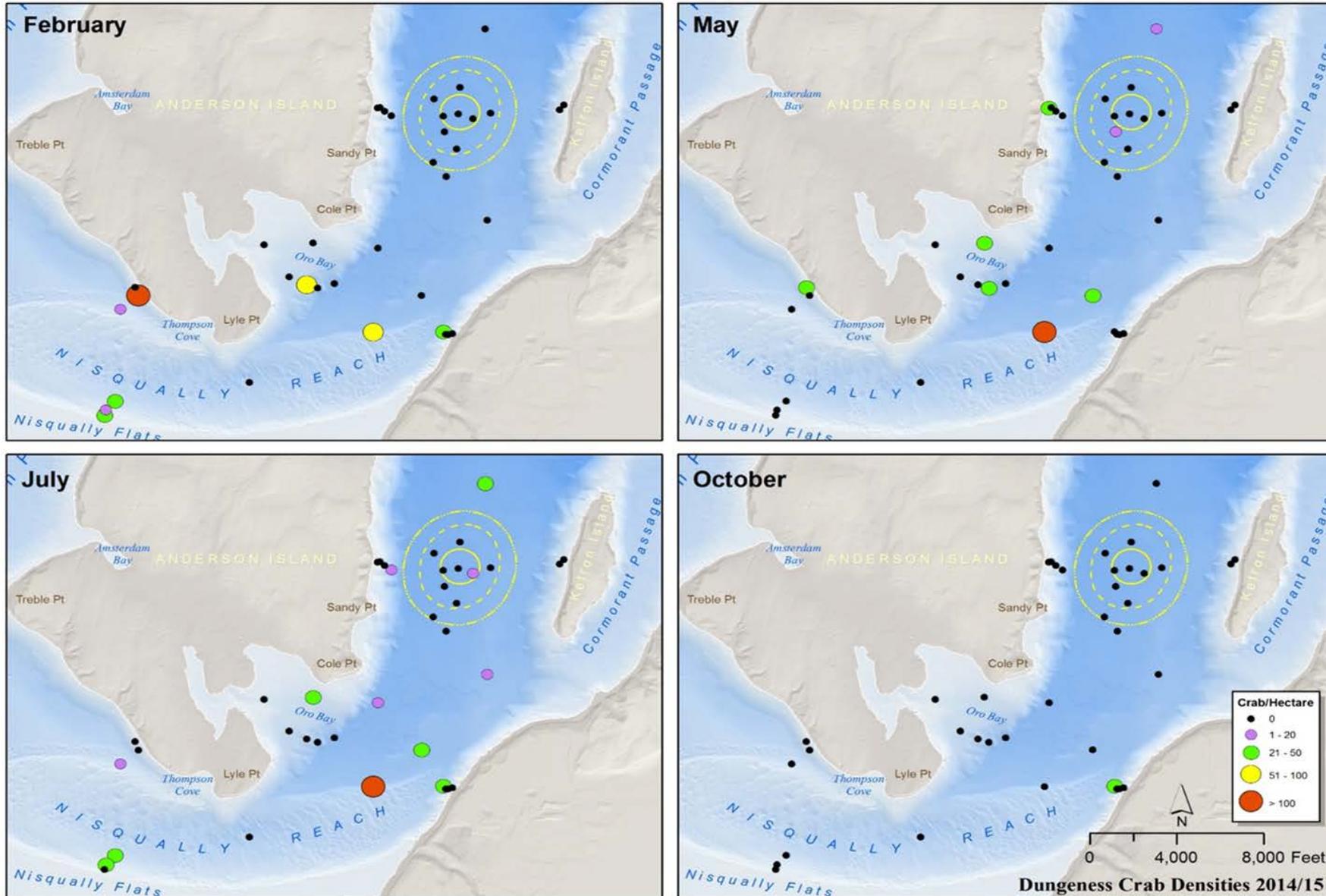
Dungeness Crab



Entire study area: 2x more
crab than in 1987

But scarce within disposal
site boundary in both
studies

Dungeness Crab Distribution – 2014/15



“Rock Crab” (*Cancer productus* and *C. gracilis*)

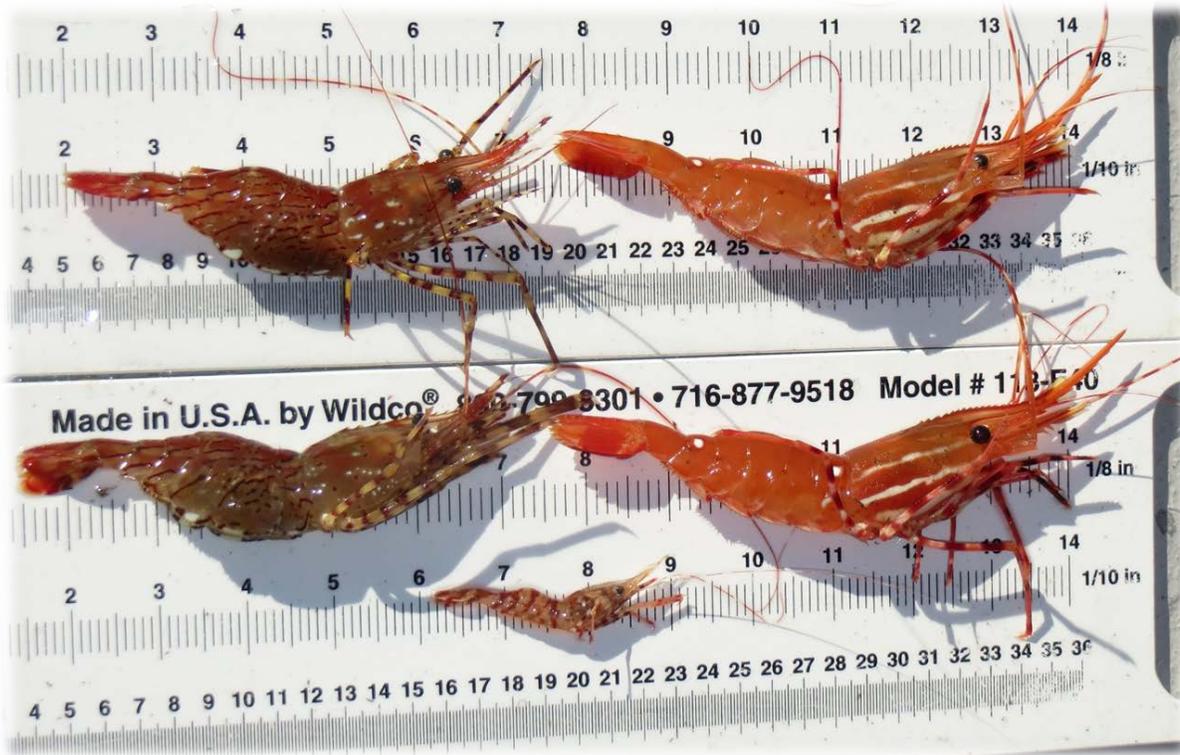
Much more abundant
in 2015 than 1987

Graceful crab (*C. gracilis*)
widespread and abundant

Red rock crab (*C. productus*) less
common than smaller graceful
crab; scarce on site



Pandalid Shrimp



Much more abundant
in 2015 than 1987

Spot shrimp scarce on site

Primarily pink shrimp on site

Pandalid Shrimp Distribution – May 2015



Conclusions

Dungeness Crab

- Scarce on site
- No commercial potential on site
- Site still suitable for disposal

“Rock Crab”

- Red rock crab scarce; graceful crab more abundant
- No commercial potential on site for either species
- Site still suitable for disposal

Pandalid Shrimp

- Few large Pandalids on site; pink shrimp more plentiful
- No commercial potential on site for any of the Pandalids
- Site still suitable for disposal

Sea Cucumber

- Scarce on site
- No commercial potential on site
- Site still suitable for disposal

ESA Consultation: Continued Use of Multiuser Dredged Material Disposal Sites in Puget Sound and Grays Harbor



Scope of ESA Consultation

- Includes the 5 non-dispersive and 3 dispersive sites in Puget Sound, and 2 dispersive sites in Grays Harbor
- 25-year provisional coverage (2015-2040)
- Transport and disposal of dredged material
- Dredged material evaluation procedures
- Disposal site monitoring
- 17 listed species or DPS/ESUs

Concurrence on Biological Evaluation

- USFWS:
 - Bull trout and critical habitat
 - Marbled murrelet
- NMFS
 - Salmonids
 - Green sturgeon
 - Eulachon
 - Southern resident killer whales
 - Humpback whales
 - leatherback sea turtles

NMFS Biological Opinion – Rockfish

Species	Effect Determination	Jeopardy Opinion	Critical Habitat
Bocaccio	Likely to adversely affect	Not likely to jeopardize	Not likely to destroy or adversely modify
Canary Rockfish	Likely to adversely affect	Not likely to jeopardize	Not likely to destroy or adversely modify
Yelloweye Rockfish	Likely to adversely affect	Not likely to jeopardize	Not likely to destroy or adversely modify

Terms and Conditions

- Biennial reporting
- At the end of 4 years: USACE assessment of the adequacy of the take statement for continued coverage
- By the end of year 5: decision by NMFS to either grant continued coverage or require reinitiation of consultation
- Provisional coverage until 2040

USACE Statutory Response to Essential Fish Habitat Recommendations for Rockfish

- Fund limited genetic identification of rockfish larvae
- Analyze PBDEs at non-dispersive sites and federal projects in urban areas
- Develop guidelines for PBDEs if warranted
- Continue to assess scientific research on bioaccumulatives
- Continue working with NMFS on technical basis of PAH proposal; consider adoption of PAH screening level
- Work dependent on the availability of funds and staffing

Questions?

