

NATIONAL STEEL AND SHIPBUILDING COMPANY'S CLOSING STATEMENT

**In the Matter of Tentative Cleanup and
Abatement Order No. R9-2011-0001
(Shipyard Sediment Cleanup)**

Kelly E. Richardson

November 15, 2011

LATHAM & WATKINS^{LLP}

Governing Law – Resolution 92-49

- Incremental benefit must justify the incremental cost
- No other remedial footprint or monitoring were even analyzed under 92-49 in this proceeding

MacDonald Never Considered 92-49

Q. Did you apply Resolution 92-49 in any part of your report or as part of your methodology?

A. Without knowing specifically what's in Resolution No. 92-49, it would be impossible for me to tell you that.

Q. Do you recall ever reviewing 92 -- Resolution 92-49 in the course of your practice?

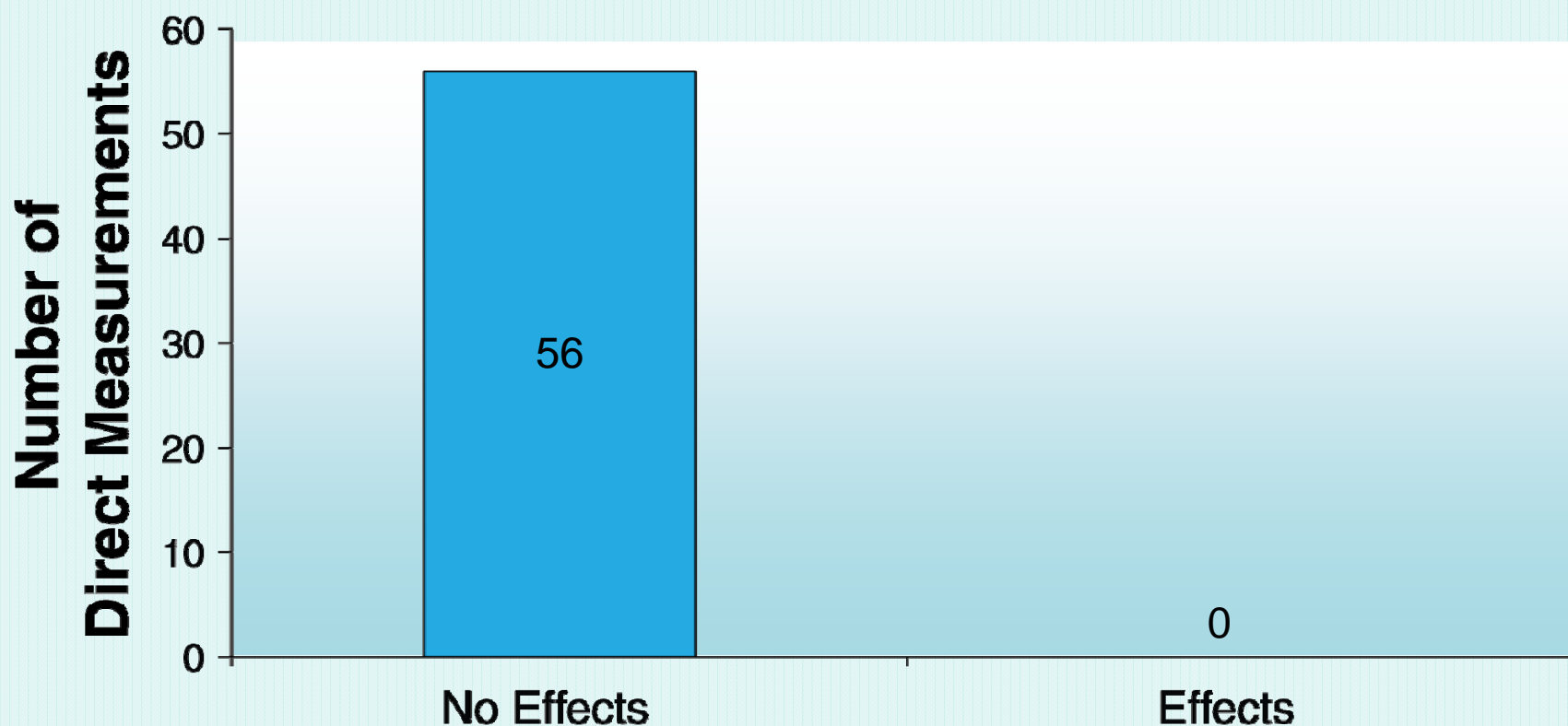
A. I don't have a specific recollection of that.

(Deposition of Donald MacDonald, 190:22-191:12)

Sediment Profile Imaging at NASSCO Shipyard



There are No Differences from Reference Conditions for Benthic Community Measurements at NASSCO ($14 \times 4 = 56$)



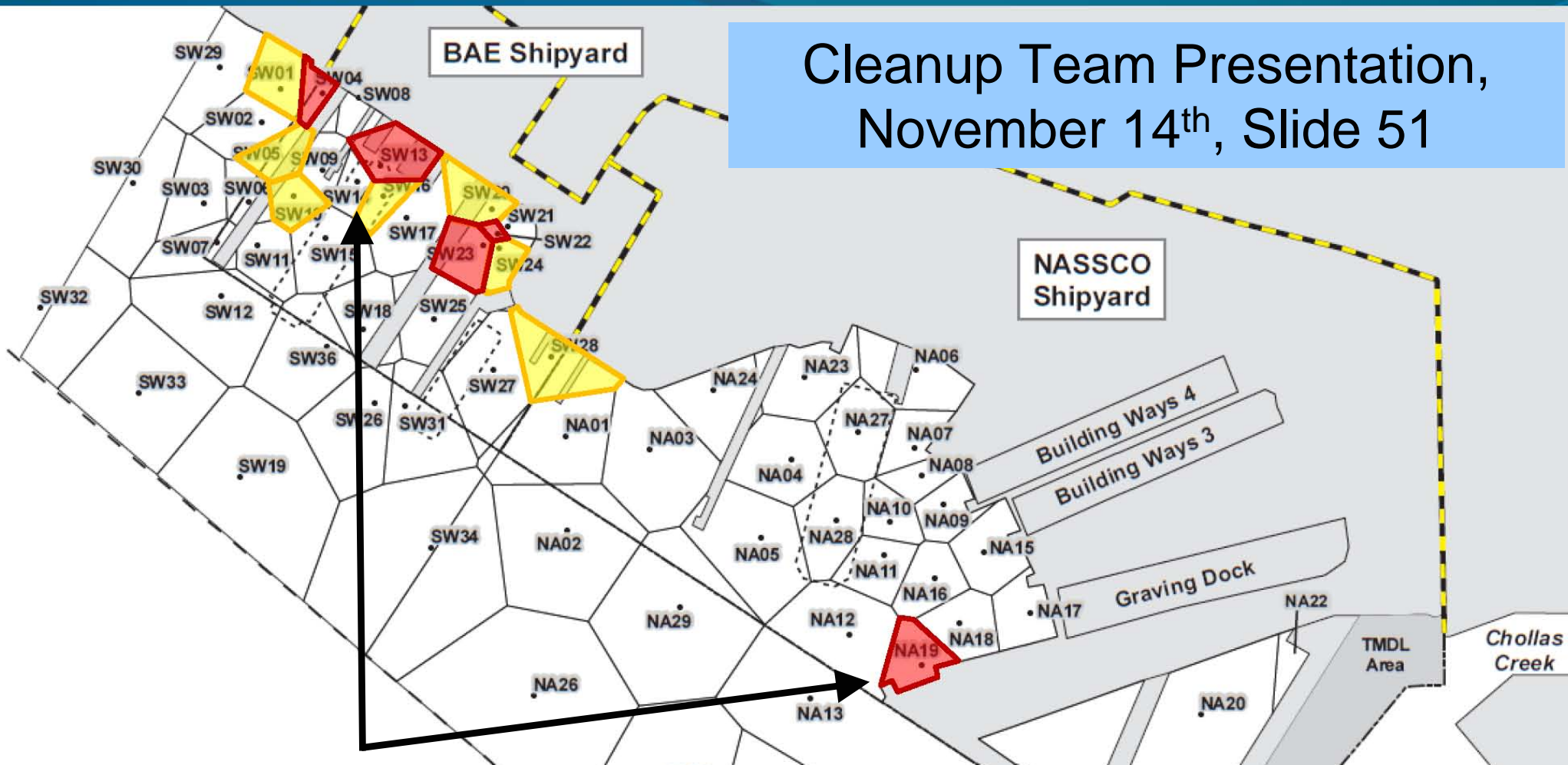
Benthic Tests Are Most Important

Q. Mr. Alo, in reading this last paragraph, "The biologically based lines of evidence are the most important since they are direct measures of what is being protected," as the authors of this study and in your own expertise as a sediment toxicologist, would you agree with the authors in that statement?

A. Yes, I would agree with them.

(Deposition of Tom Alo at 228:22-229:3)

Cleanup Team Presentation, November 14th, Slide 51

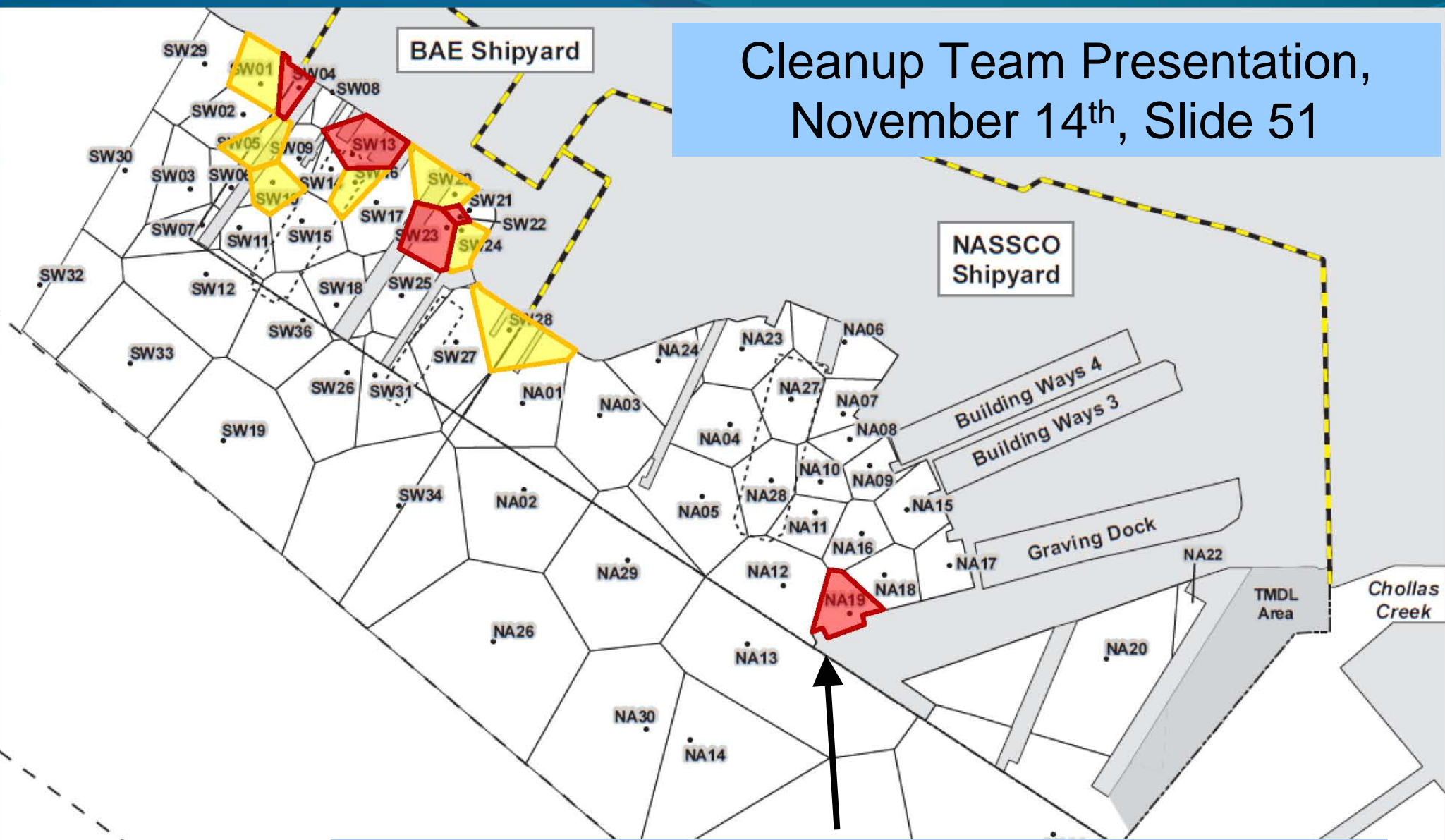


Red polygons indicate aquatic life impairment:

- Triad “likely” impacted conclusion, or
- Greater than 60% LAET, or
- Exceed SS-MEQ of 0.9.



Cleanup Team Presentation, November 14th, Slide 51



Only one NASSCO polygon exceeds aquatic life impairment criteria:

- NA19: Triad “likely” impacted conclusion



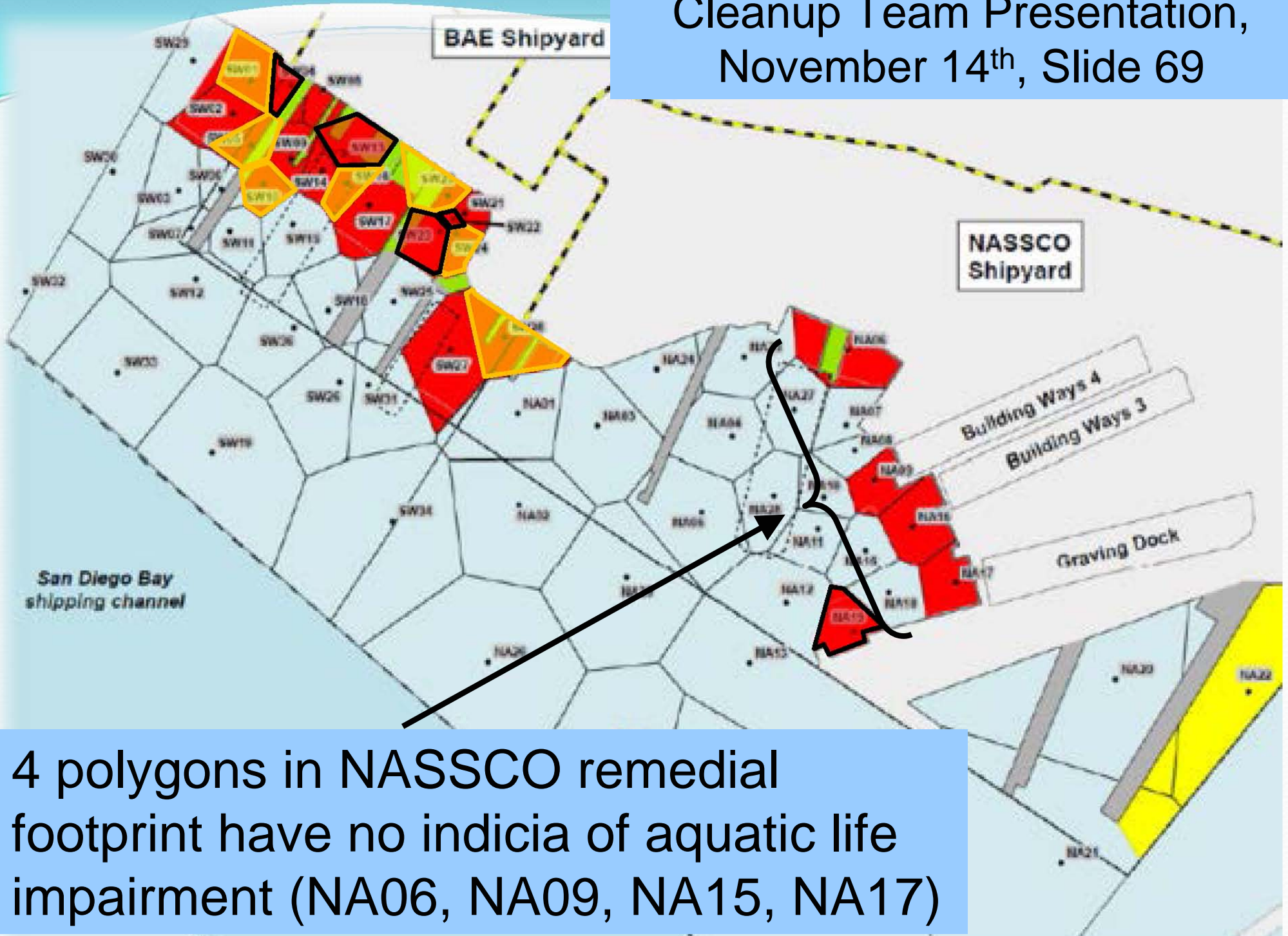
NASSCO Shipyard Security



Navy Security Restrictions Prevent Angler Access to the Site



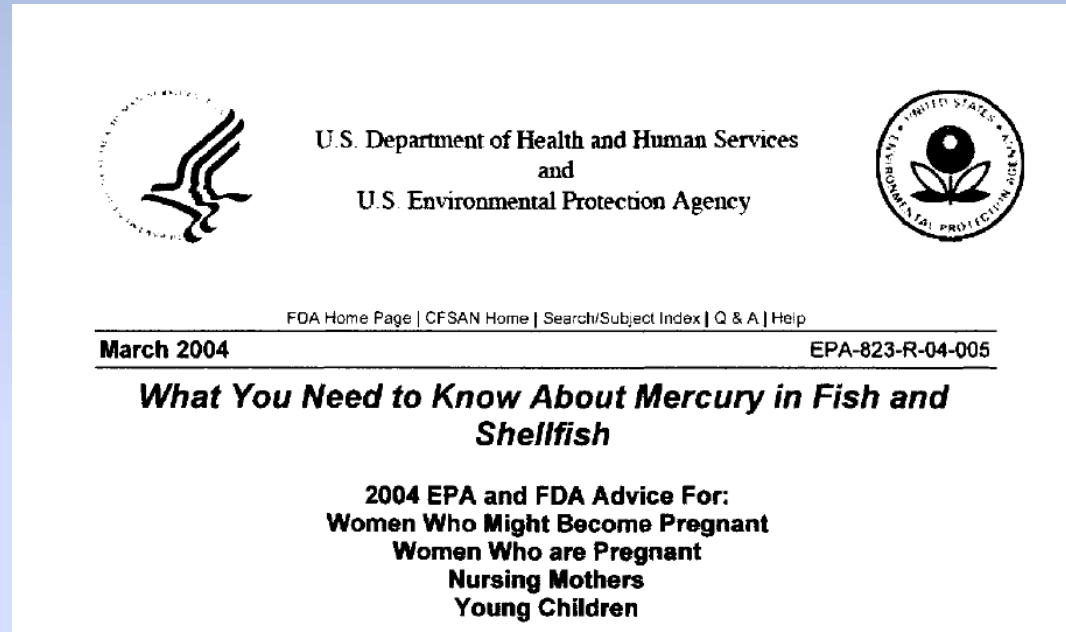
Cleanup Team Presentation,
November 14th, Slide 69



4 polygons in NASSCO remedial footprint have no indicia of aquatic life impairment (NA06, NA09, NA15, NA17)

Fish tissue mercury concentrations

- Average mercury concentrations in fish in NASSCO leasehold (0.12 ppm) consistent with tissue concentrations classified by EPA as “lower” levels of mercury
- Same as average concentration found in canned, light tuna



SPECIES	MERCURY CONCENTRATION (PPM)				NO. OF SAMPLES	SOURCE OF DATA
	MEAN	MEDIAN	MIN	MAX		
TUNA (Canned, Light)	0.12	0.08	ND	0.85	131	FDA SURVEY 1990-03

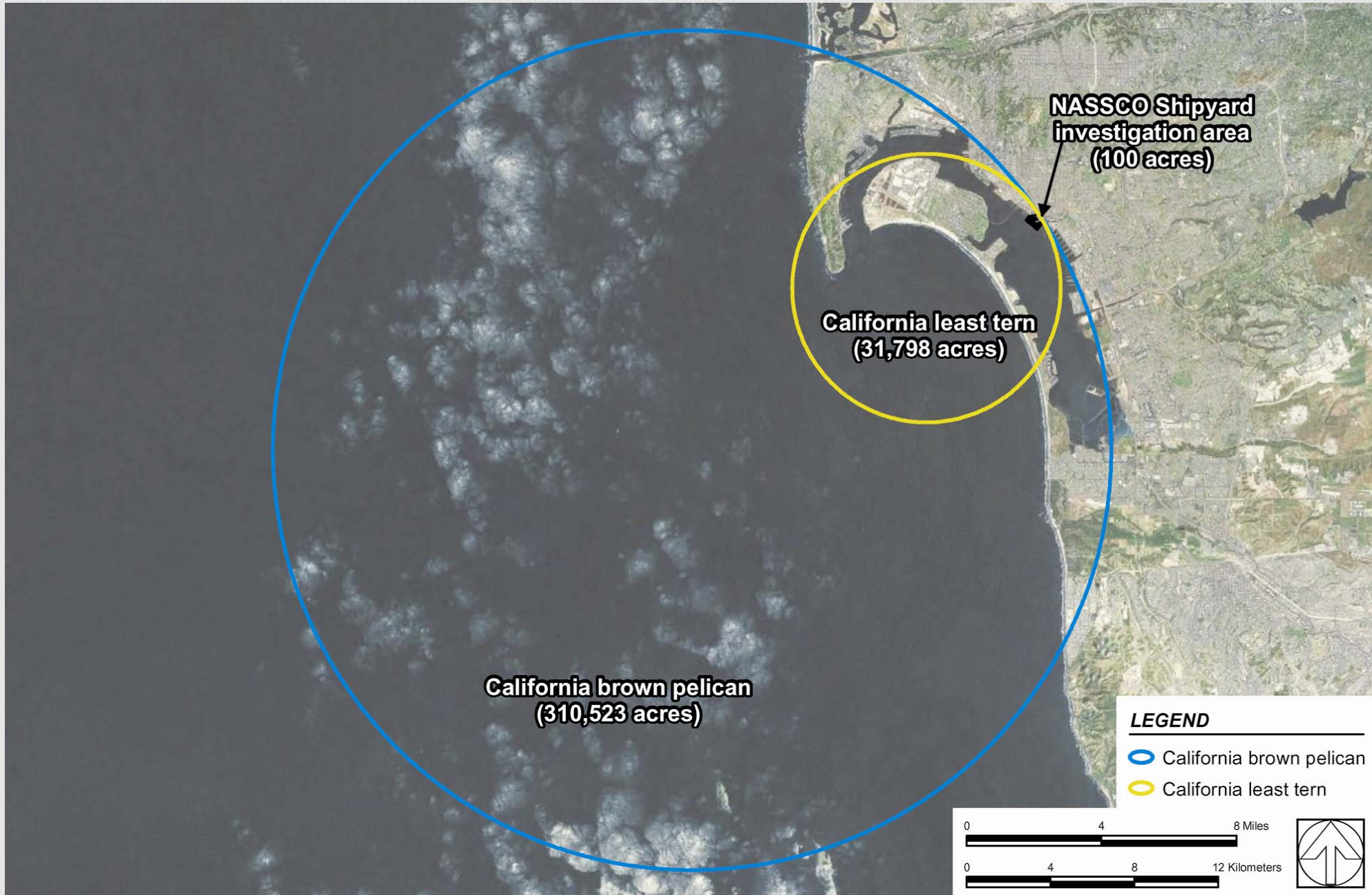
Fish tissue PCB concentrations

- NASSCO PCB concentrations were similar to or lower than those measured elsewhere in San Diego and California
 - County of San Diego Health Risk Study (1990) found no difference in PCB tissue concentrations by location
- PCB concentrations in fish collected from inside NASSCO leasehold are lower than FDA's action level of 2 ppm

Using more realistic assumptions, risk estimates are well below levels of regulatory concern

- All risks are below the 1 in 100,000 benchmark as defined by CAL EPA
- All PCB risks are below the OEHHA benchmark of 1 in 10,000 set specifically for fish consumption
- Not surprising, given the fact that the tissue contaminant levels are no greater than “background” reference locations

DTR Ignores Actual Area Use for Wildlife Species



Actual Risk to Wildlife is Negligible

Lowest Adverse Effect Level HQs for NASSCO and Reference (Unmodified from DTR)

Receptor	Location	Arsenic	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Zinc	B[a]P	PCBs	TBT
Brown Pelican												
	Inside NASSCO	0.008	0.04	0.01	0.02	0.3	0.002	0.2	0.03	0.02	0.2	0.0002
	Outside NASSCO	0.01	0.07	0.01	0.02	0.3	0.002	0.1	0.03	0.02	0.1	0.0003
	Reference	0.006	0.02	0.007	0.007	0.2	0.001	0.05	0.03	0.02	0.09	0.00007
Green Turtle												
	Inside NASSCO	0.0008	0.01	0.02	0.01	0.004	0.0003	0.003	0.008	0.003	0.0002	0.0000011
	Reference	0.0005	0.005	0.003	0.003	0.001	0.0002	0.003	0.004	0.001	0.0001	0.0000003
Least Tern												
	Inside NASSCO	0.02	0.05	0.02	0.03	0.07	0.002	0.06	0.1	0.03	0.1	0.00008
	Outside NASSCO	0.02	0.04	0.02	0.02	0.07	0.002	0.07	0.1	0.03	0.2	0.0001
	Reference	0.01	0.1	0.02	0.02	0.05	0.005	0.1	0.08	0.02	0.09	0.00008
Sea Lion												
	Inside NASSCO	0.009	0.0006	0.0003	0.0002	0.05	0.0009	0.03	0.003	0.0003	0.06	0.0001
	Outside NASSCO	0.01	0.001	0.0002	0.0002	0.05	0.0009	0.03	0.003	0.0002	0.03	0.0002
	Reference	0.008	0.0003	0.0002	0.00006	0.03	0.0007	0.01	0.003	0.000	0.02	0.00006
Surf Scoter												
	Inside NASSCO	0.04	0.1	0.08	0.06	0.05	0.008	0.2	0.03	0.08	0.03	0.0005
	Reference	0.02	0.09	0.03	0.03	0.03	0.004	0.2	0.03	0.03	0.03	0.0002
Western Grebe												
	Inside NASSCO	0.01	0.05	0.02	0.03	0.04	0.001	0.03	0.05	0.02	0.06	0.00004
	Outside NASSCO	0.008	0.03	0.01	0.02	0.03	0.001	0.03	0.06	0.02	0.07	0.00005
	Reference	0.006	0.06	0.01	0.01	0.02	0.002	0.06	0.04	0.01	0.04	0.00004

Actual Risk to Wildlife is Negligible

No-Effect HQs for NASSCO and Reference Using 5X Realistic Area Use Factors

Receptor	Location	Arsenic	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Zinc	B[a]P	PCBs	TBT
Brown Pelican												
	Inside NASSCO	0.0006	0.004	0.006	0.3	0.03	0.002	0.01	0.006	0.005	0.07	0.0002
	Outside NASSCO	0.0008	0.007	0.005	0.2	0.02	0.002	0.01	0.006	0.004	0.03	0.0004
	Reference	0.0005	0.002	0.003	0.08	0.02	0.001	0.004	0.005	0.004	0.02	0.0001
Green Turtle												
	Inside NASSCO	0.0002	0.003	0.02	0.3	0.0009	0.0007	0.0006	0.004	0.002	0.0002	0.000004
	Reference	0.0001	0.001	0.003	0.09	0.0003	0.0005	0.0006	0.002	0.0008	0.0001	0.000001
Least Tern												
	Inside NASSCO	0.0009	0.004	0.007	0.3	0.005	0.001	0.004	0.02	0.004	0.03	0.0001
	Outside NASSCO	0.001	0.003	0.006	0.2	0.005	0.001	0.005	0.02	0.004	0.04	0.0001
	Reference	0.0008	0.009	0.007	0.1	0.003	0.003	0.008	0.01	0.003	0.02	0.0001
Sea Lion												
	Inside NASSCO	0.003	0.0002	0.001	0.001	0.01	0.004	0.02	0.003	0.0001	0.004	0.0001
	Outside NASSCO	0.004	0.0004	0.001	0.0008	0.009	0.004	0.01	0.003	0.0001	0.002	0.0003
	Reference	0.002	0.0001	0.0007	0.0003	0.006	0.003	0.005	0.002	0.0001	0.002	0.0001
Surf Scoter												
	Inside NASSCO	0.003	0.01	0.04	0.8	0.004	0.006	0.02	0.007	0.02	0.007	0.0006
	Reference	0.002	0.009	0.01	0.4	0.003	0.003	0.02	0.005	0.006	0.009	0.0002
Western Grebe												
	Inside NASSCO	0.0006	0.005	0.007	0.3	0.004	0.001	0.002	0.009	0.003	0.02	0.0001
	Outside NASSCO	0.0006	0.003	0.005	0.2	0.003	0.001	0.003	0.01	0.003	0.02	0.0001
	Reference	0.0005	0.006	0.005	0.1	0.002	0.002	0.005	0.007	0.002	0.01	0.00005

Summary of Dr. Allen's Opinions

March 11, 2011 Expert Report

The Order fails to incorporate bioavailability. . .

- 1. *Metals* in sediments at NASSCO do not cause potential risks to aquatic life.**
- 2. *Polycyclic Aromatic Hydrocarbons (PAHs)* at NASSCO will not be toxic to aquatic organisms.**
- 3. *Bioaccumulation. Macoma* tissue testing not indicative of bioaccumulation risk.**
- 4. *Pore Water.* Inappropriate to compare *pore* water concentrations to criteria developed for *surface* water.**

Conclusion

This Board may:

- 1) Find that beneficial uses at NASSCO are not unreasonably impaired
 - Allow natural attenuation to continue; natural deposition of sediment over the surface
 - Order an extensive study and long-term monitoring to ensure continued improvement, OR
- 2) Order dredging of the one likely impaired station at NASSCO, NA19, at cost of \$4 million, OR
- 3) Adopt order as drafted, OR
- 4) Modify the order to increase dredging or monitoring **(ensuring litigation)**