



# **Palos Verdes Shelf Superfund Site Annual Strategic Planning Meeting**

***Thursday, November 7, 2013***

**NOAA Offices**

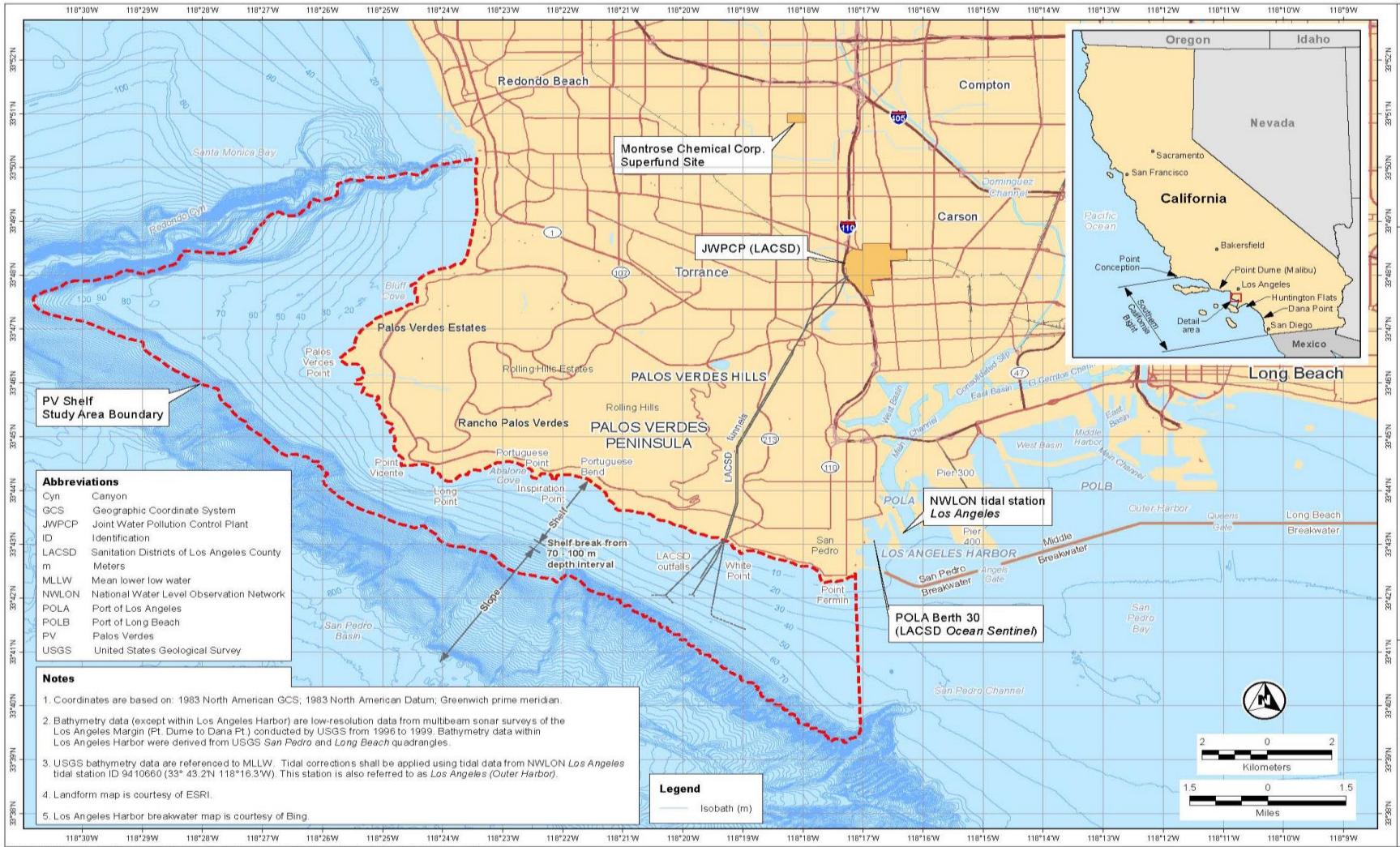
**Long Beach Federal Building**

**501 West Ocean Boulevard**

**Long Beach, California 90802**



# Location Map





## How Did We Get Here?

- 1994: NOAA completed Natural Resource Damage Assessment
- 1996: EPA initiated a non-time critical removal action
- 2000: EPA published a Engineering Evaluation/Cost Report
- 2001: EPA identified and implemented Institutional Controls
- 2007: EPA issued the Remedial Investigation Report
- 2009: EPA issued the Feasibility Study Report
- 2009: EPA signed the ***Interim*** Record of Decision

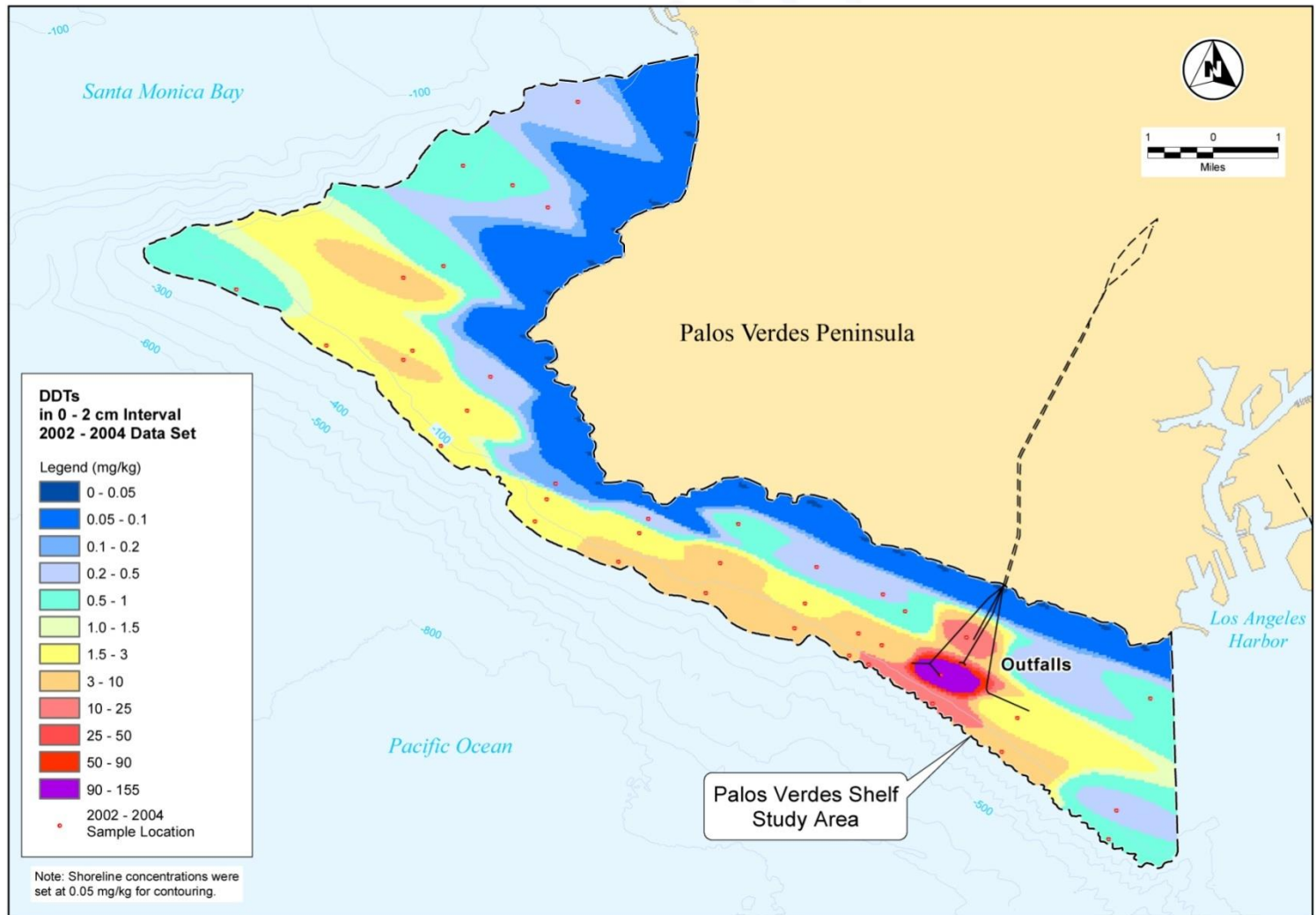


# 2009 Interim Record of Decision (IROD)

- IROD has three major cleanup components:
  - Institutional Controls
  - Monitored Natural Recovery (MNR)
  - Clean Sediment Cap

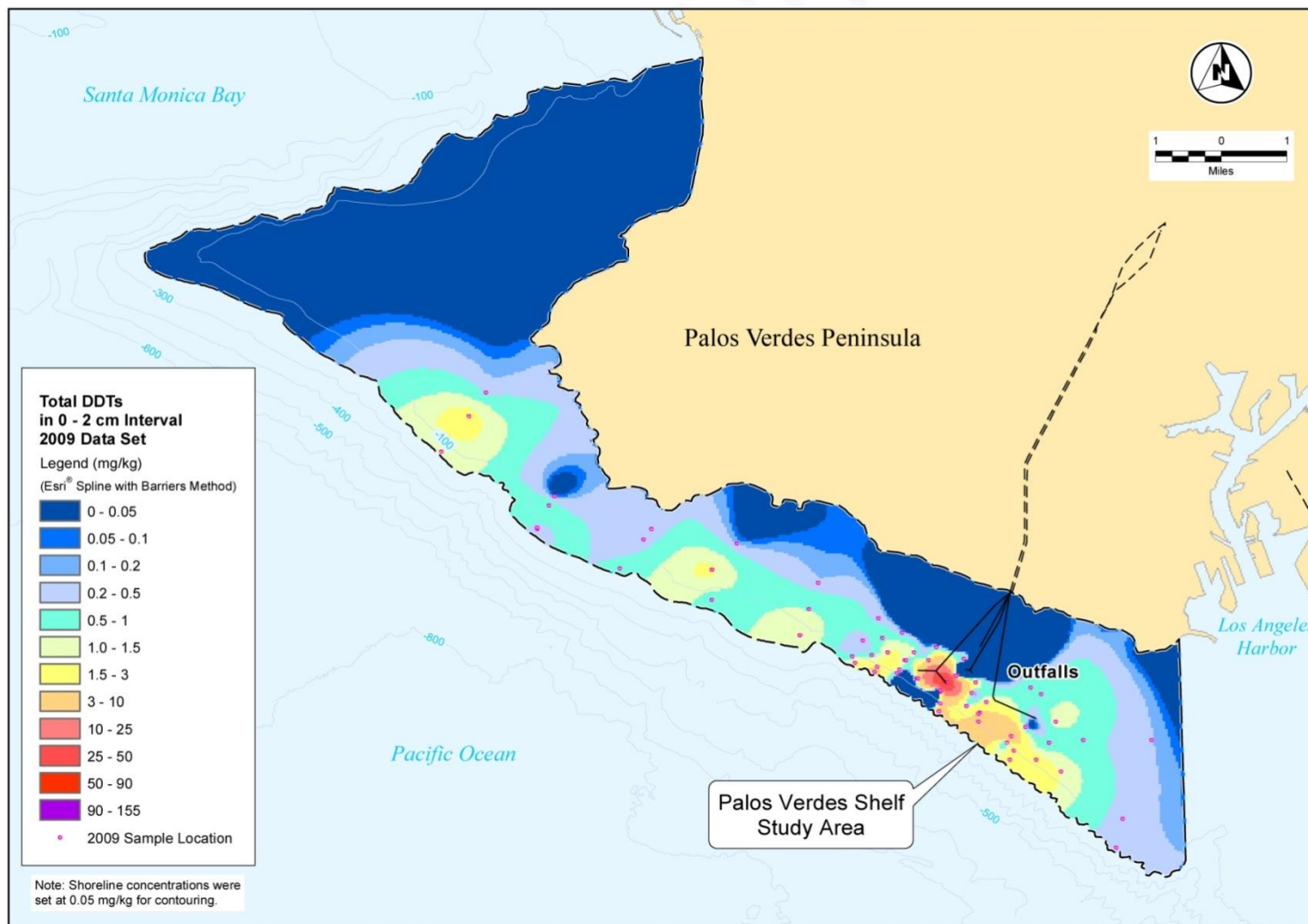


# Interpretive contours – 0-2-cm interval DDTs (2002/2004 data set)





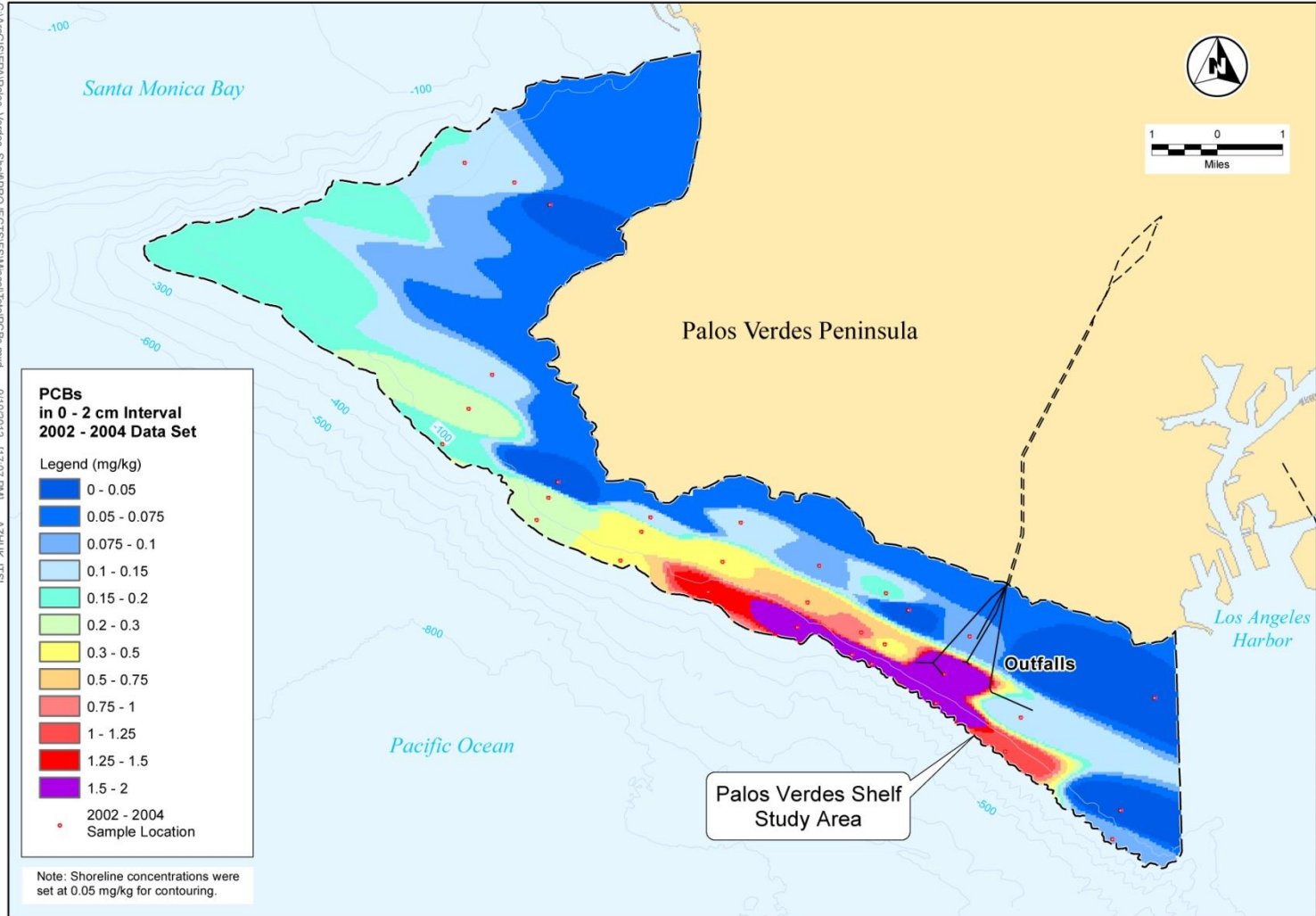
# Interpretive contours – 0-2-cm interval Total DDTs (Fall 2009 data set)



# Interpretive contours – 0-2-cm interval PCBs (2002/2004 data set)

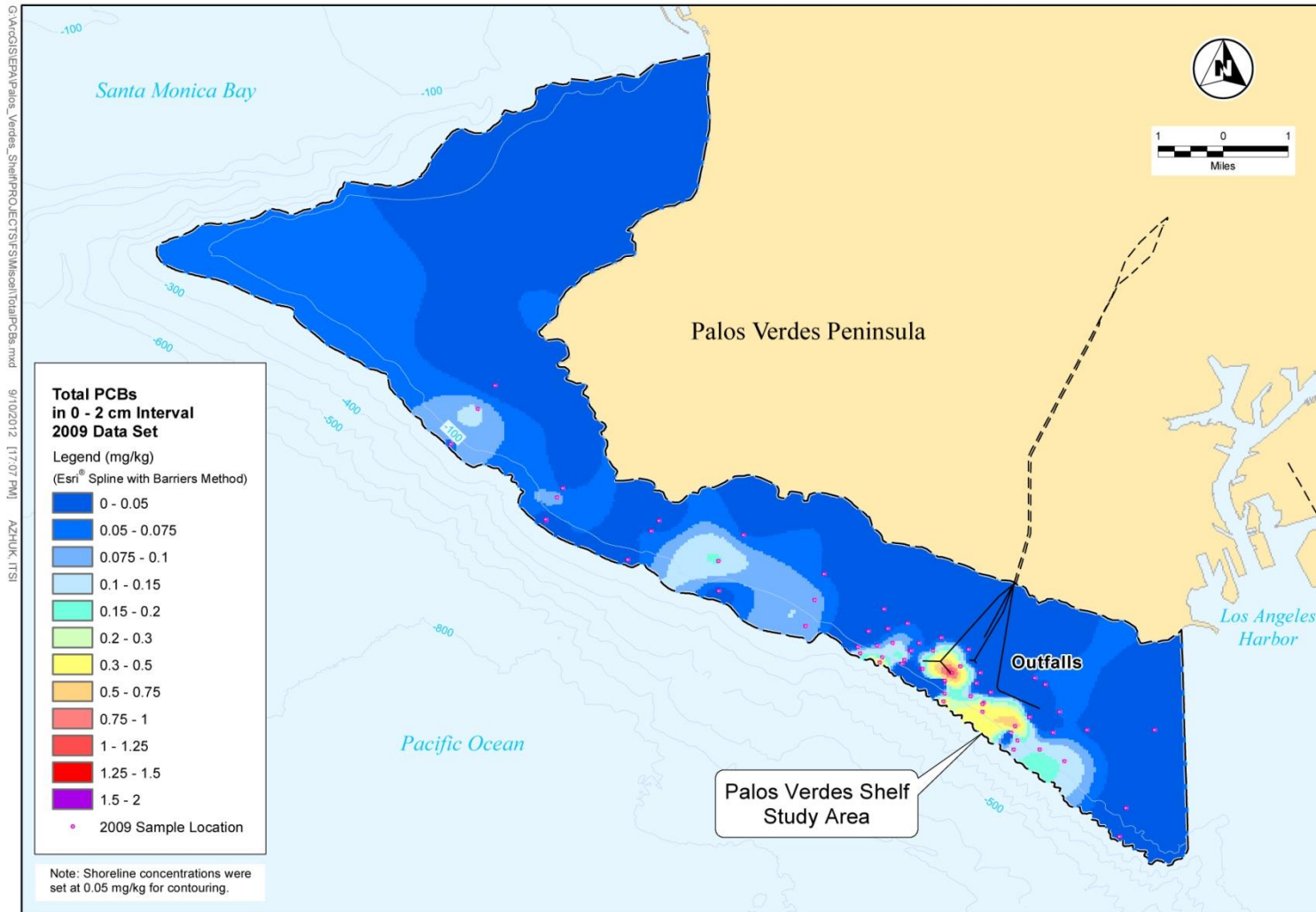


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# Interpretive contours – 0-2-cm interval Total PCBs (Fall 2009 data set)







## Conclusions of Fall 2009 sediment sampling

- It appears that concentrations and mass inventories of DDTs and PCBs are trending downward.
- Reasons for downward trends are likely due to the processes of MNR, a component of the remedy.
- An interim cap may not be necessary because mean concentrations in surface sediments are lower than IROD goals for the cap (78 mg/kg OC for DDTs; 7 mg/kg OC for PCBs).



# 2013 - 2014 Sampling Program

- Sediment
- Water Column
  - Passive Sampling
  - High resolution Analysis Pilot
- Fish (Special Study)
  - Early to Mid 2014

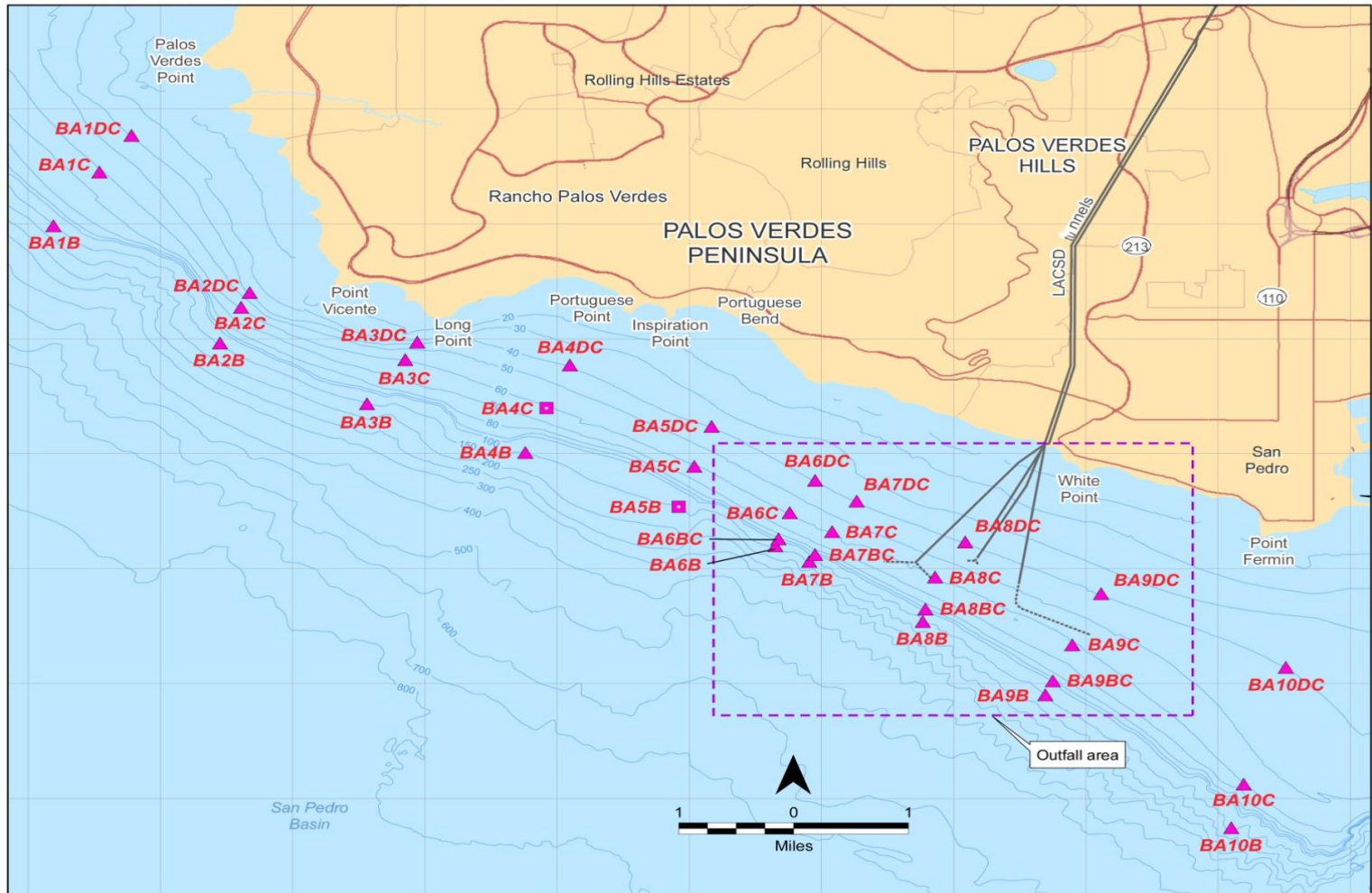


# 2013 - 2014 Sampling Program - Sediment

- Analytes:
  - DDT and DDT related compounds and 28 PCB congeners
  
- Sampling Locations:
  - 2009 sampling locations (34 baseline and 25 in the outfall area) plus 10 additional locations in the outfall area



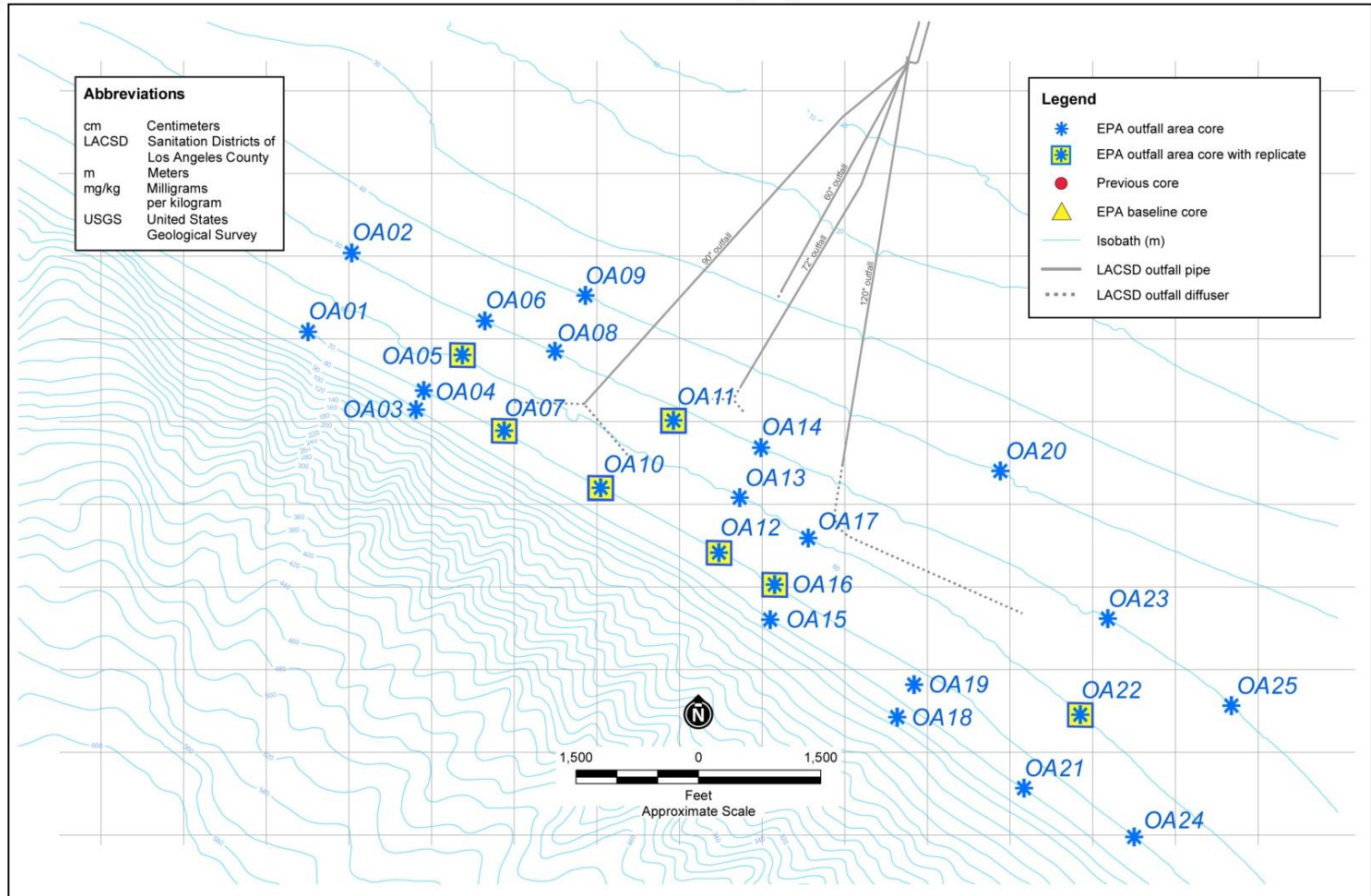
# Baseline Sampling Locations







# Outfall Area Sampling Locations



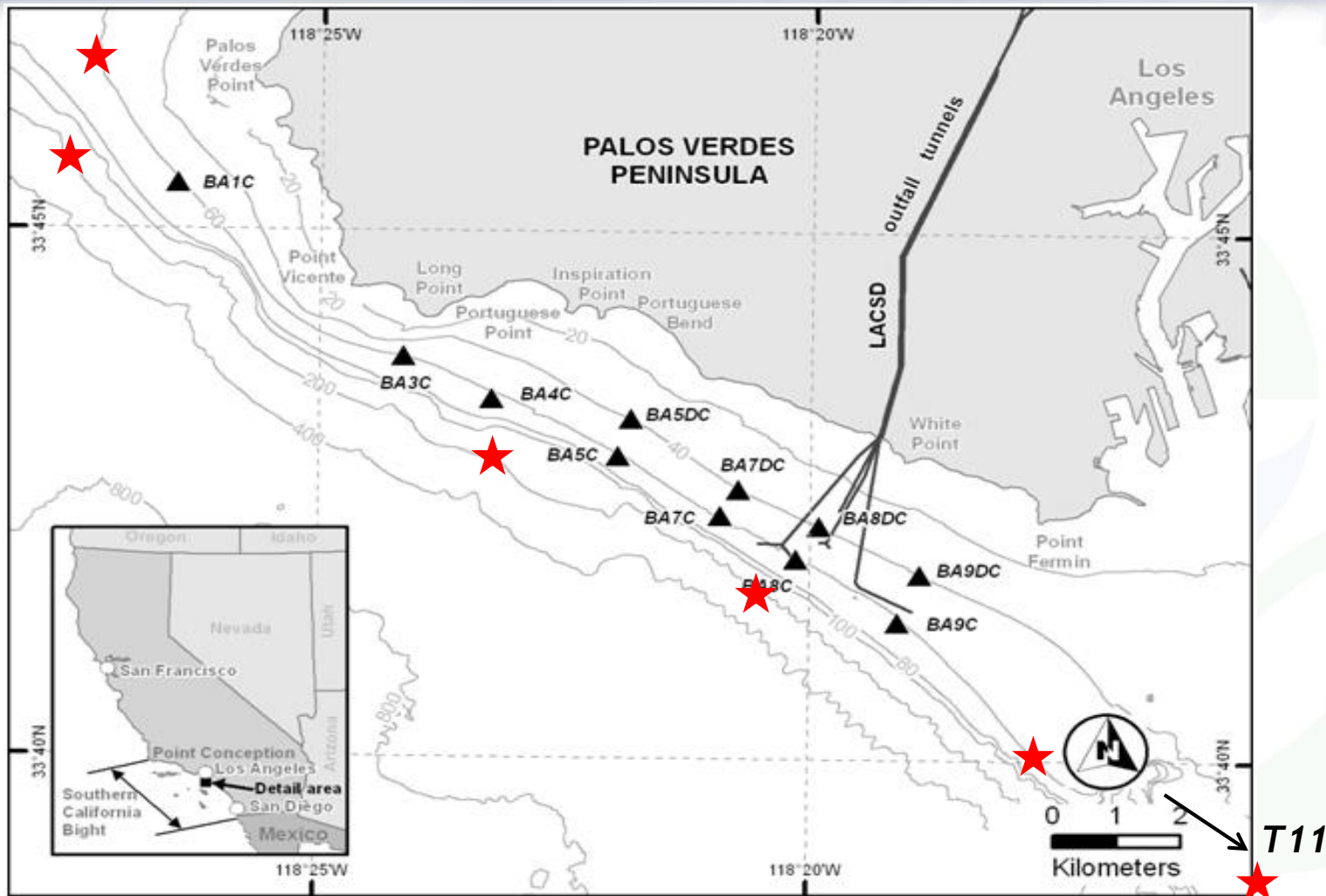


# 2013 -2014 Sampling Program - Water Column

- **Passive Sampling Devices (PSD)**
  - Locations (17 total): original 9 stations, 1 reference station, and 7 new stations
  - Depths: 5 meters above ocean floor, mid-column, and 5 meters below ocean surface
  
- **High-Resolution Analysis Pilot Study:**
  - 17 PSD locations plus 23 baseline sediment locations
  - Depths
    - PSD locations: 2 meters and 5 meters above ocean floor, mid-column, and 5 meters below ocean surface.
    - Baseline locations: 2 meters above ocean floor, mid-column, and 5 meters below ocean surface



# Water Column Passive and High Resolution Sampling Locations

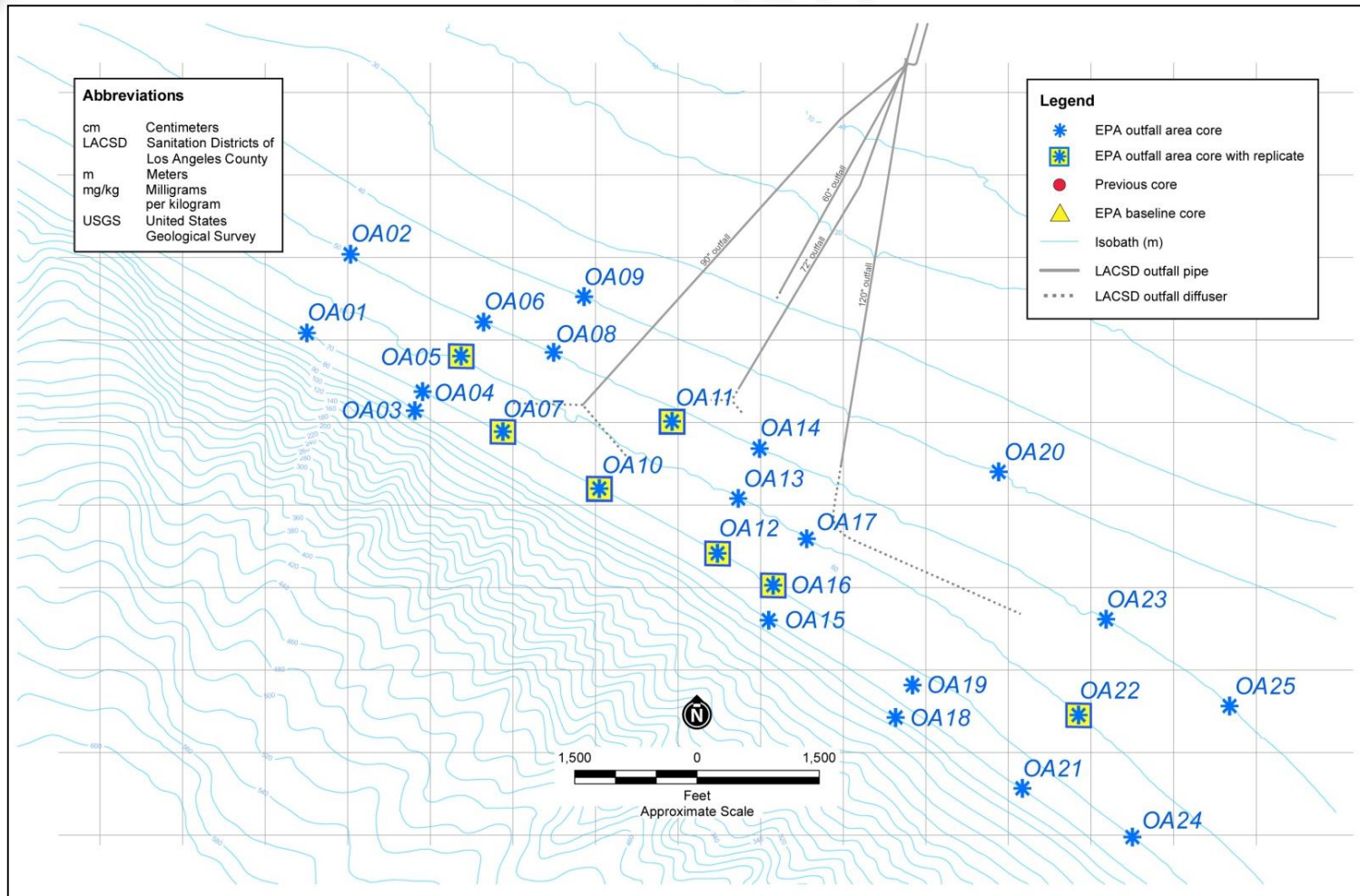


★ Stations outside of the Palos Verdes Shelf Study Area





# Water Column High Resolution Sampling Locations







# 2013 – 2014 Sampling Program Schedule

- Sediment Sample Collection: October 2013
  
- Water Column Sample Collection:
  - Passive Sampling Devices: September – October 2013
  - High-Resolution Analysis Pilot Study: Early 2014
  
- Fish Collection : Mid 2014
  
- Draft Report: December 2014\*

\*Without Special Fish Study Results



# Where Do We Go From Here?

- Early 2014: Design PV Shelf Special Fish Study
- Summer 2014: Fish Collection
- December 2014: Release Draft 2013 -2014 Sampling Report
- February 2015: Discussion and Consultation with Palos Verdes Shelf Technical Information Exchange Group
  - Do we need to collect more data?
  - Should we implement the cap?
  - Should we eliminate the cap?
  - Do we have enough information for a Final Remedy for the site?
- Proceed to Final Record of Decision
- Implement the Final Remedy



# Clarifying Questions?



## Strategic Discussions

- What are areas where EPA and partners can collaborate to help EPA get to a final ROD?
- What are possible challenges in getting to a final ROD? How can partners help overcome these challenges?