Certification – thank you!

Figure 4 shows proposed water line. Any other subsurface trenching for utilities or other proposed redevelopment activities?

Site occupies about 1.75 acres.

Area occupied by WMS has been returned to the Harbor Dept for use by the Ports C&M Division.

As part of redevelopment activities, subsurface utilities and plans will be installed. Investigation conducted prior to subsurface utility installation to identify areas that will require removal.

First sampling event was in August 2017. 40 Soil samples collected using 50'x100' sampling grid (0.5, 2.0, 5.0, and 10 ft bgs), for metals, PCBs, TPH, VOCs, organotins, and SVOCs. 8 AC samples for PCBs only. Two grab GW samples.

Second sampling event was in November 2017. 15 soil samples (0.5, 2.5, 5, and 10 ft bgs) for metals and PCBs.

Third sampling event was in February 2018. Soil samples from 61 locations (0.5, 2, and 5 ft bgs). Five grab GW samples (filtered and unfiltered).

Fourth sampling event was in November/December 2018. Soil samples from 37 locations. AC samples from 21 locations. 3 GW samples from one borehole.

3 additional sampling events conducted through November 2018, to investigate data gaps.

Overall, a total of 165 borings, over 550 soil samples, 32 AC samples, and 10 GW samples were collected.

Use as a marine boatyard by Wilmington Marine Services. Bilge tanks were emptied and were containerized in 55-gallon drums. The boats were hoisted onto the boat staging area where they were hydroblasted and moved to the boatways for maintenance and/or repair. The drums containing bilge water were shipped off-site for recycling by a licensed facility.

In 1992, contaminated soil at the former drum storage area was excavated. During removal effort, an unconfined perched aquifer at a depth of 4 ft bgs was encountered. Additional removal to depth of 7.5 ft bgs indicated oozing oil on the floor of the excavation. Free product was encountered in the underlying confined aquifer, located at about 10 ft bgs. The contamination smeared the vadose zone due to tidal cycles. A total of 82 tons of contaminated soil were excavated. PCB sampling in soil was not conducted during this investigation. Conclusion based on hydrocarbon fingerprint analysis was that due to low permeability beneath the perched aquifer, from 4.5 to 5 ft bgs, spill in the former drum storage area only affected the top 4 ft of soil, and the deep subsurface heavy-end hydrocarbon soil contamination was caused by an off-site source. No attempts were made to identify the offsite source and its impact to the local soil and gw. The LA County FD granted closure on this release.

During 1994 investigation, ~2,500 sq ft of area was affected by Class I non-friable ACBM.

In 1994, two USTs (1,000 gallon and 250 gallon) were removed. LACFD granted tank closure and removal of impacted soil, however these agencies do not have records of these activities.

1998 site characterization per requirements by POLA for Wilmington's permit to operate – 8 borings to a depth of 4 ft bgs (soil samples at 0.5, 2, and 4 ft bgs), and analyzed for TPH, VOCs, metals, and organotins. According to the 1998 characterization, TPH-d, TPH-o, and metal contamination in surface and shallow subsurface soil were present in the boatway/railway yard and near the north pier, and were attributed to repair and cleaning operations in the boatways, and the storage of hazardous chemicals at the piers. Shallow subsurface soil TPH-oil contamination detected in the vicinity of the bilge water/waste oil storage shed and former waste oil tank, was most likely a result of spills and/or leaks from the waste oil storage containers and tank. Shallow surface soil contamination near hoist shed was likely from use of lube and gear oils for the winches and cables. No removal efforts performed??? No environmental agency oversight for this investigation???

2007 ECA by Tt – site drainage appears to flow westward/southward towards the washwater runoff holding area. However, on the northwestern site boundary, the runoff appears to flow southward directly to the Harbor. It was suggested that a berm of sandbags or other storm water BMPs be used at the shoreline to prevent materials (e.g., paint chips) [paint chips may contain PCBs???] from washing in to the Harbor. Did paint chip sampling for PCBs ever take place during the 2007 investigation?

The report indicates that environmental deficiencies did not require reporting to government agencies and were made to improve the environmental performance of WMS and to ensure BMPs were implemented correctly.

WMS obtained a NPDES permit issued by the LARWQCB and prepared a SWPPP.

2010 inspection indicated that sandblast grit was observed in the boat repair area on the ground, and it should have been collected and properly recycled or disposed off-site. [Sandblast grit may not have been properly containerized during boat refurbishing activities].

PCBs may be ubiquitous throughout the site soils; storm water accumulated onsite and migrated vertically through cracks in the asphalt and unpaved areas. This is the scenario we're seeing based on data and site history.

How does the seawater barrier affect GW flow at the site?

Shallow soil at the site is mostly fill material.

GW at site is between 4 and 8 feet bgs.

PCBs were detected in 22 out of the 31 AC samples

55 of 85 soil samples from 26 borings exceeded 1ppm PCBs. Only 11 samples from 8 borings exceeded 50ppm PCBs.

5 samples from 2 borings contained detectable concentrations of PCBs.