

# PCBs Source Identification

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City of Richmond

# City of Richmond

- ▶ Industrial City currently and historically
  - More than 50 NOI facilities.
  - High PCBs concentration detected in soil collected in Public ROW in industrial part of the City that drains to the Santa Fe Watershed (Lauritzen Canal).

# Where to look?

- ▶ Industrial Sources
  - PGE Substations and Maintenance Yards.
  - Recycling (SIMMs Metal) and demolition facilities.
- ▶ PCBs in Building Materials
  - Masonry Buildings or Buildings constructed before 1979.

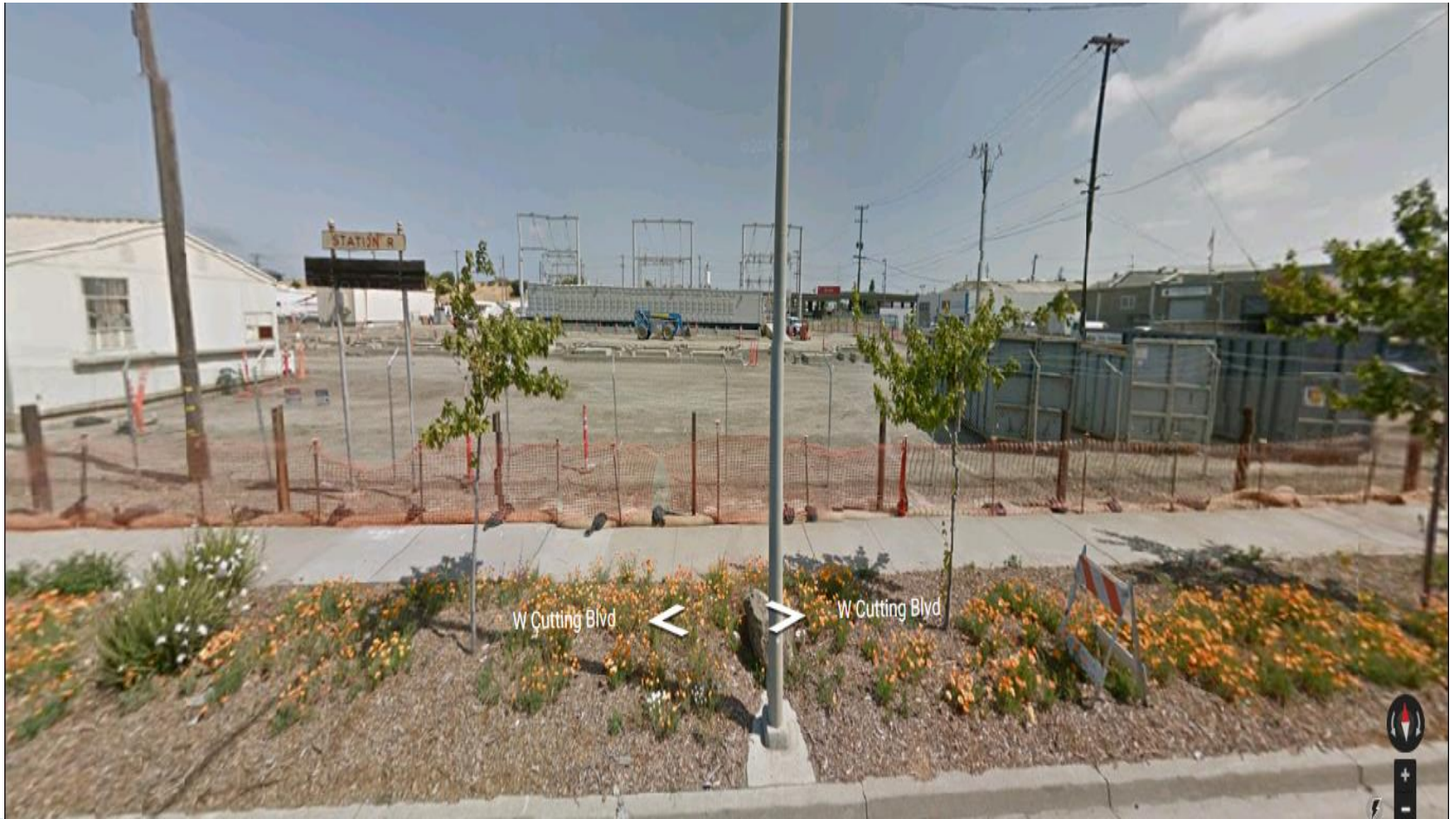
# Santa Fe Channel



# PG&E Substation on Cutting Blvd & S 1<sup>st</sup> St



# PG&E Substation (con't)



# PG&E Maintenance Yard

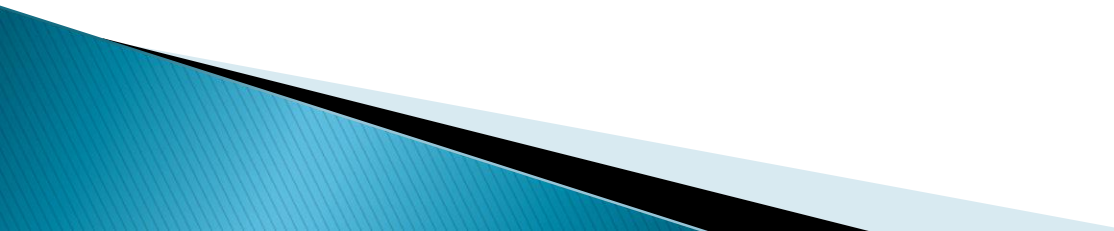


# PG&E Maintenance Yard (con't)





# Sources Identified so far, Now What?

- ▶ Thorough C.4 inspections at facilities to ensure proper BMPs implemented to prevent spills and leaks of materials containing PCBs.
  - ▶ Carefully review records to ensure proper disposals of materials containing PCBs.
  - ▶ Spill Prevention, Control, and Countermeasure (SPCC) Plan.
  - ▶ Interview facility staffs with institutional knowledge of buildings/building demolitions.
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# What about Areas in the Public Right-of-Way with high PCB Concentration from historic land-uses?

- ▶ EPA Grant/BASMAA – Clean Watershed for a Clean Bay (2011)
  - Pilot Project – Green Infrastructure Approach.
    - Bio-retention facility constructed in the public right of way at Cutting Blvd and S 1<sup>st</sup> St to treat stormwater run-off from street and sidewalk.
    - Monitor effluent for PCBs concentrations to determine effectiveness of Green Infrastructure.

# Green Infrastructure at Cutting Blvd and S 1<sup>st</sup> St



# Green Infrastructure (con't)



# What happens when there are spills of materials containing PCBs in your backyard?

- ▶ Port Potrero reported incident of oil spills from an old transformer at Basin 3 on November 14, 2014.
- ▶ On November 18, 2014, oils leaks from transformer at Basins 1, 4, and 5 were discovered.
  - Clean up efforts initiated immediately by City Staff and its contracted consultant group (BKF, Cal Inc.)
  - Regulatory agencies were notified – EPA, Coast Guards, Regional Water Quality Control Board, Dept. of Toxic Control Substances.
  - Appropriate reports generated as required EPA and National Response Center.
    - Clean up action plan deemed in compliance by EPA

# Spills (Con't)

- ▶ Cal Inc. staff staged at spill site 24 hours as rain was predicted in the forecast.
  - Covered spilled areas, transformer, and drums with plastic covers to prevent contact with rain water.
- ▶ Lab results showed oils from transformers contained 60% of Aroclor 1260, which was high concentration of PCBs.
- ▶ On-going clean up actions involved:
  - Block off spill site for safety concerns.
  - Removal and disposal of transformers from all Basins.
  - Removal of concrete materials where spilled materials came in contact.
  - Decontamination using Hexane.
  - Followed EPA 40 CFR 761 Subpart G for clean up and sampling protocols.

# Spills (con't)

- Drained and disposed of remaining oils in transformers.
- Solids wastes properly transferred disposed at landfill in Clive, Utah. Liquid wastes properly transferred and incinerated of at facility in Dugway, Utah.

# Spills (con't)





# Spills (con't)



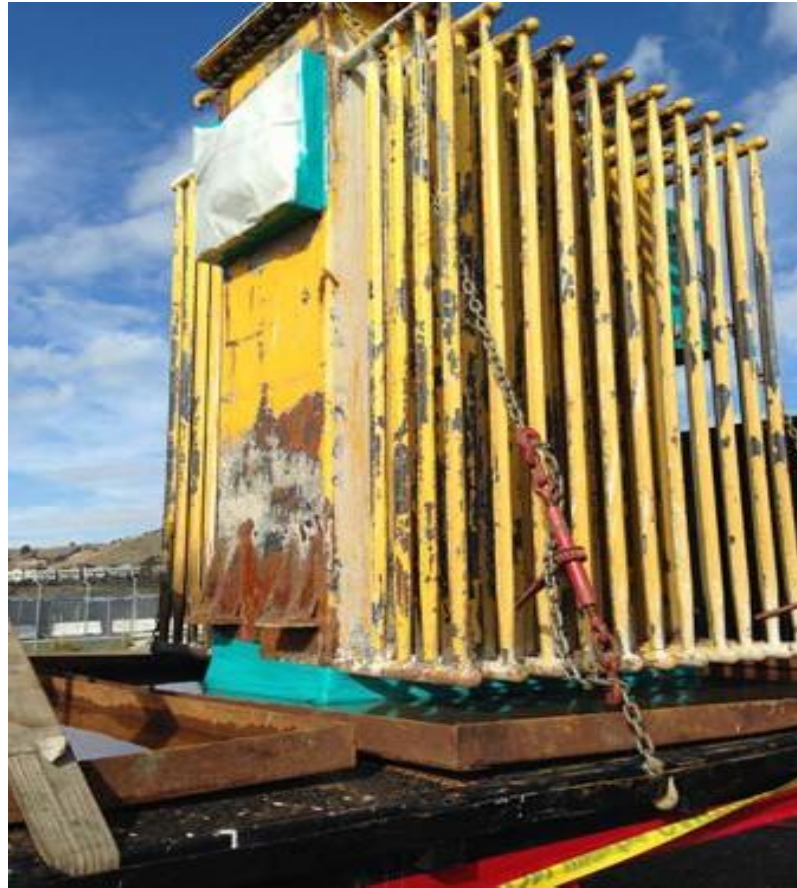
# Spills (con't)



# Spills (con't)



# Spills (con't)



# Conclusion

- ▶ Municipalities continue to do search for high opportunity sites for source control, thus receiving credits from Waterboard.
- ▶ Inspectors can assist with this efforts through thorough inspections and reports.
  - If necessary, inform municipality staff immediate when sources of PCBs identified.
- ▶ Stay tuned until adoption and implementation of MRP 2.0.