



DEFENSE LOGISTICS AGENCY

THE NATION'S COMBAT LOGISTICS SUPPORT AGENCY



**DFSP Norwalk
RESTORATION
ADVISORY BOARD**

February 28, 2019



WARFIGHTER FIRST



Remediation of Upper 10 Feet



Soil Remediation Project Progress

- **Western Area Report submitted to the RWQCB; *Office of Environmental Health Hazard Assessment (OEHHA)* has provided comments via memo to the RWQCB.**
- ***OEHHA Conclusions:***
 - **According to the methods used by DLA the cancer risks and noncancer hazards were below acceptable benchmarks.**
 - **OEHHA methods showed the cancer risk above 1-in-a-million and noncancer hazard above 1.0 benchmark.**
 - **Difference in Results was Due to Differing Dilution Factors (Attenuation Factor).**
 - **Response Has Been Prepared and will be Discussed with OEHHA**



Status of Remediation System



- **Groundwater Remediation:**
 - **1.2M gallons of groundwater extracted and treated in 2018**
 - **79.3 MM gallons of groundwater extracted and treated since April 1996**
- **SVE System:**
 - **18,000 pounds of vapor-phase hydrocarbons removed in Q1-Q2 2018**
 - **2.99MM pounds of vapor-phase hydrocarbons removed since April 1996**
- **LNAPL Recovery:**
 - **2055 gallons of LNAPL were recovered during Q1-Q2 2018 via hand bailing, absorbent socks, and automatic pumping**
 - **51,750 gallons of LNAPL recovered since April 1996**



Status of Remediation System



- **New 3,000-scfm Natural Gas-fired Thermal Oxidizer has been Constructed, Delivered, and Installed**
- **Natural Gas Services Upgrades have been Completed.**
- **System Start-up Schedule for March 5.**
- **System Start-up and Testing Protocol will be completed by end of March.**
- **After Start-up, Long-term, Full-time Operational Status will be Maintained.**
- **During System Start-up, Noise Monitoring will be Completed at Property Boundary (Excelsior Blvd) to Ensure that 65 Decibel Threshold is not Exceeded.**



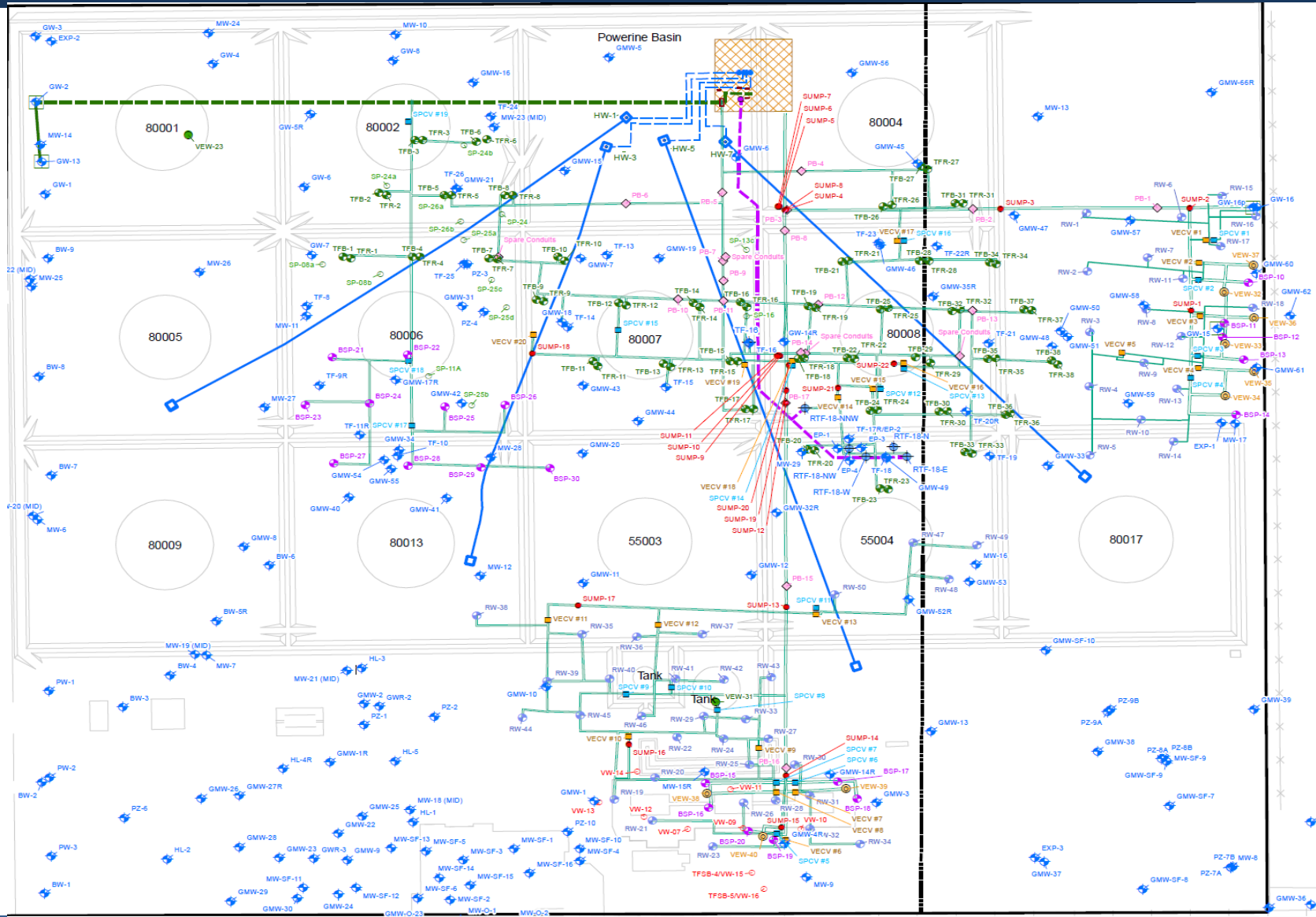
Status of Remediation System



- **Soil and Groundwater Treatment System Components:**
 - **Three Horizontal Vapor Extraction Wells**
 - **40 New Total Fluids (LNAPL and Groundwater) Recovery Wells Throughout the Tank Farm**
 - **65 New Biosparge Wells - To Enhance BioRemediation of Groundwater**
 - **66 Vertical Vapor Extraction Wells – To Enhance Remediation of Deeper Soils**
- **Planned for 2019:**
 - **Abandon HW-3 (Fill with Concrete Grout)**
 - **Replace HW-3 with Parallel Well, and Connect to SVE System.**



Focus on Deep Soil and LNAPL



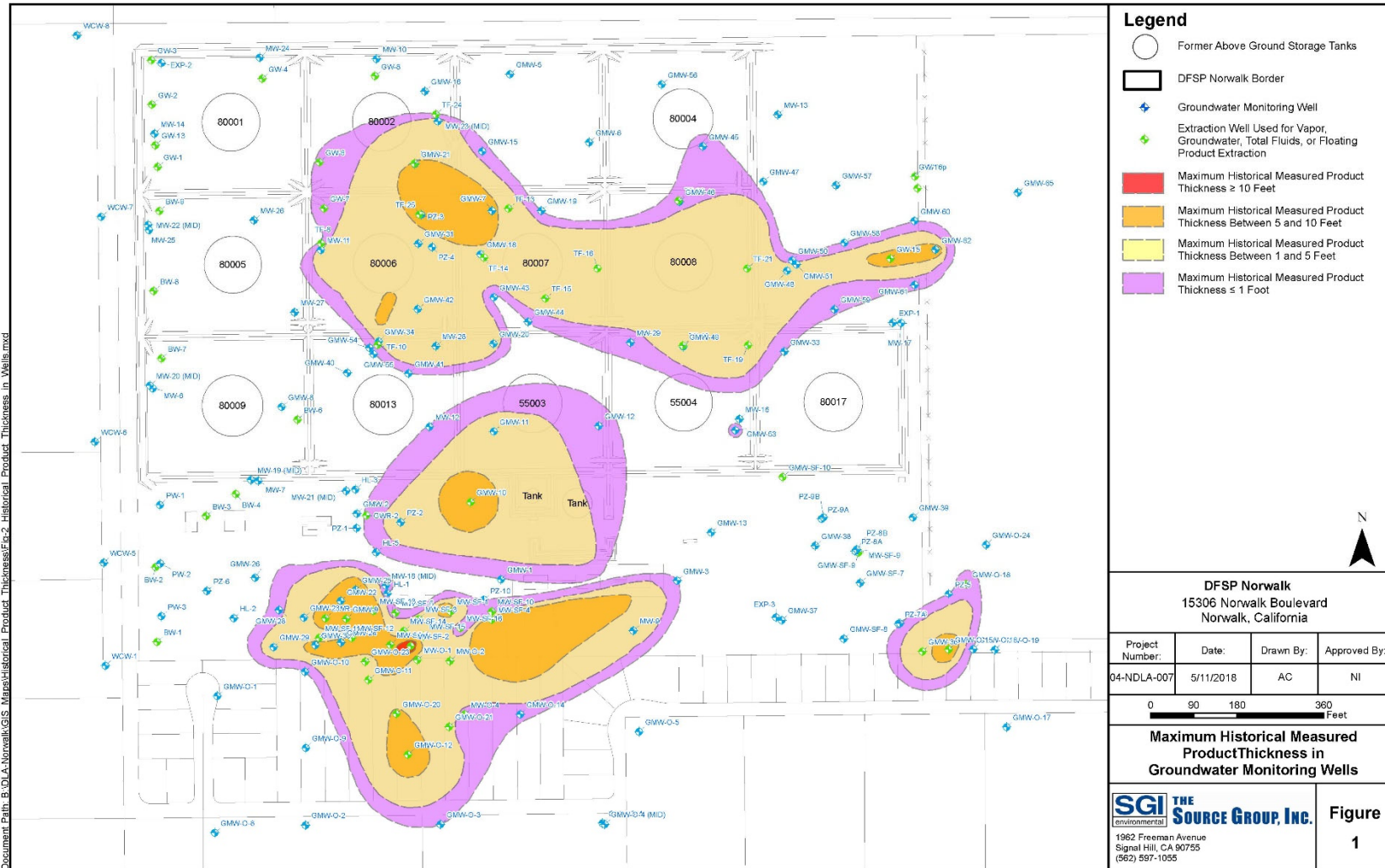


New Thermal Oxidizer



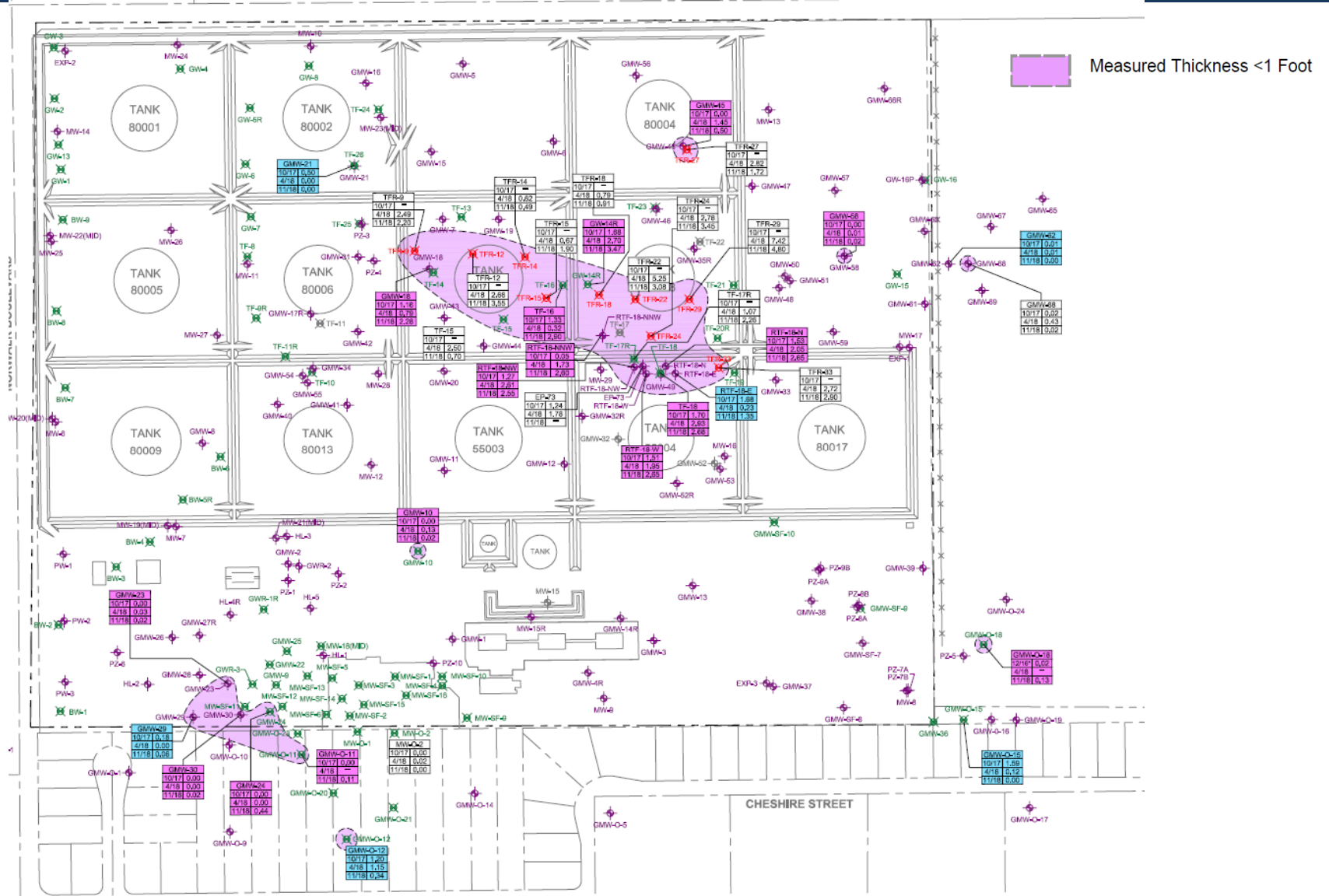


LNAPL - Maximum





LNAPL - Current





Dust Control



- **Problem: Santa Ana Winds Cause Dust Clouds to Form at the Site.**
- **DLA Actions:**
 - **In Response to City and Neighbor Concerns, in August 2018, DLA Began Twice-Weekly (mid-week and Fridays) Dust Control via Water Trucks**
 - **Water Truck Applications will be Conducted in Anticipation of Future Forecasted Santa Ana Conditions**
 - **Evaluating use of Environmentally Friendly, non-Toxic Soil Binder to Further Mitigate Dust During Wind Events**

