

MAGNOLIA TANK FARM HISTORICAL SUMMARY & ENVIRONMENTAL STATUS

21845 MAGNOLIA STREET, HUNTINGTON BEACH, CALIFORNIA

For:

Huntington Beach City Council

By:

Roux Associates, Inc. on behalf of SLF HB-Magnolia LLC

November 18, 2019

Presentation Overview

1. Historical Use of MTF
 - Pre-development
 - Post-development
2. Questions Related to MTF History
3. Chemicals of Potential Concern for MTF
 - Crude oil (well drilling/oil production)
 - Fuel oil (ASTs)
4. Environmental Status of MTF
 - Regulatory Process (DTSC, HBFD, City)
 - Environmental Sampling Completed
 - Ascon Considerations
5. Questions Related to MTF Environmental Status

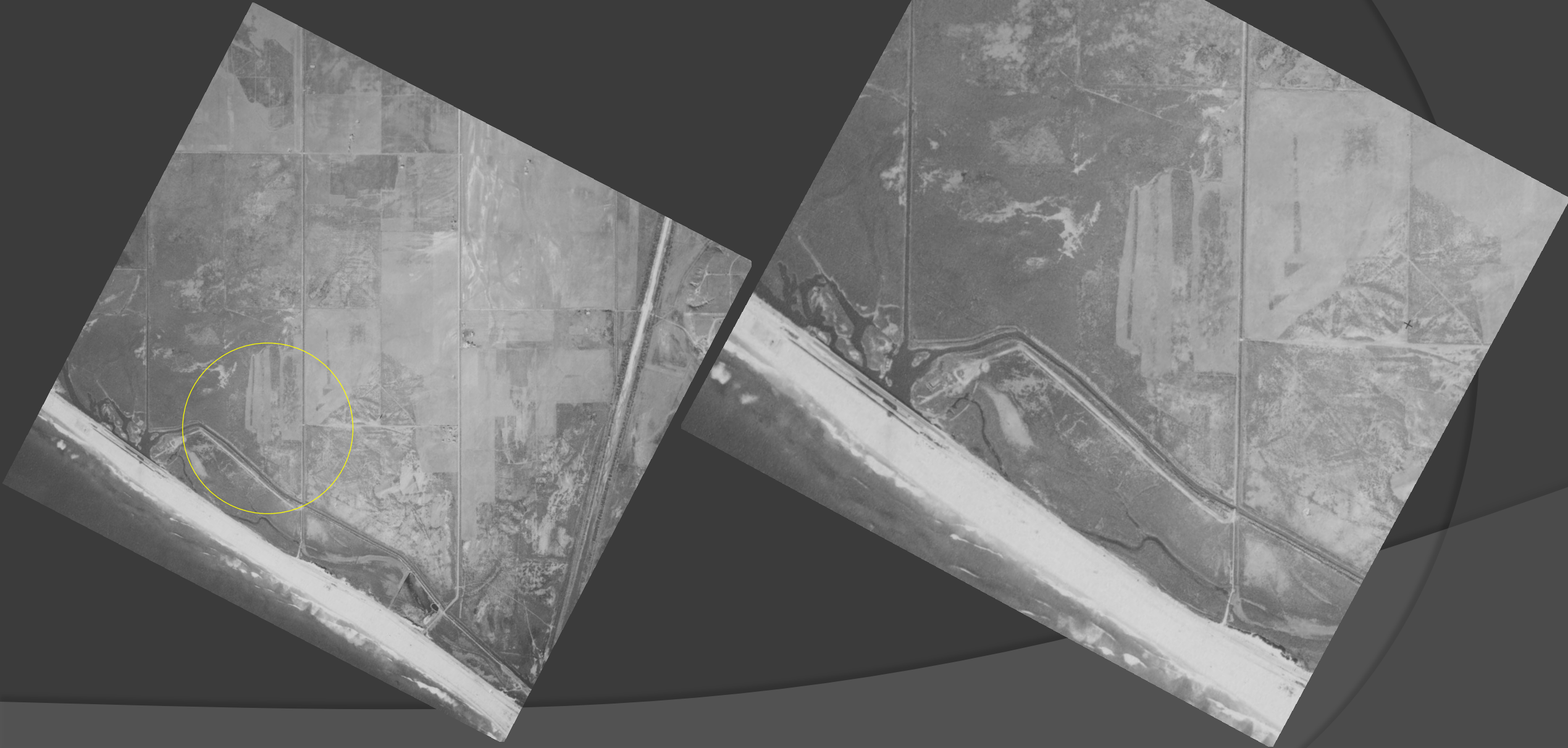
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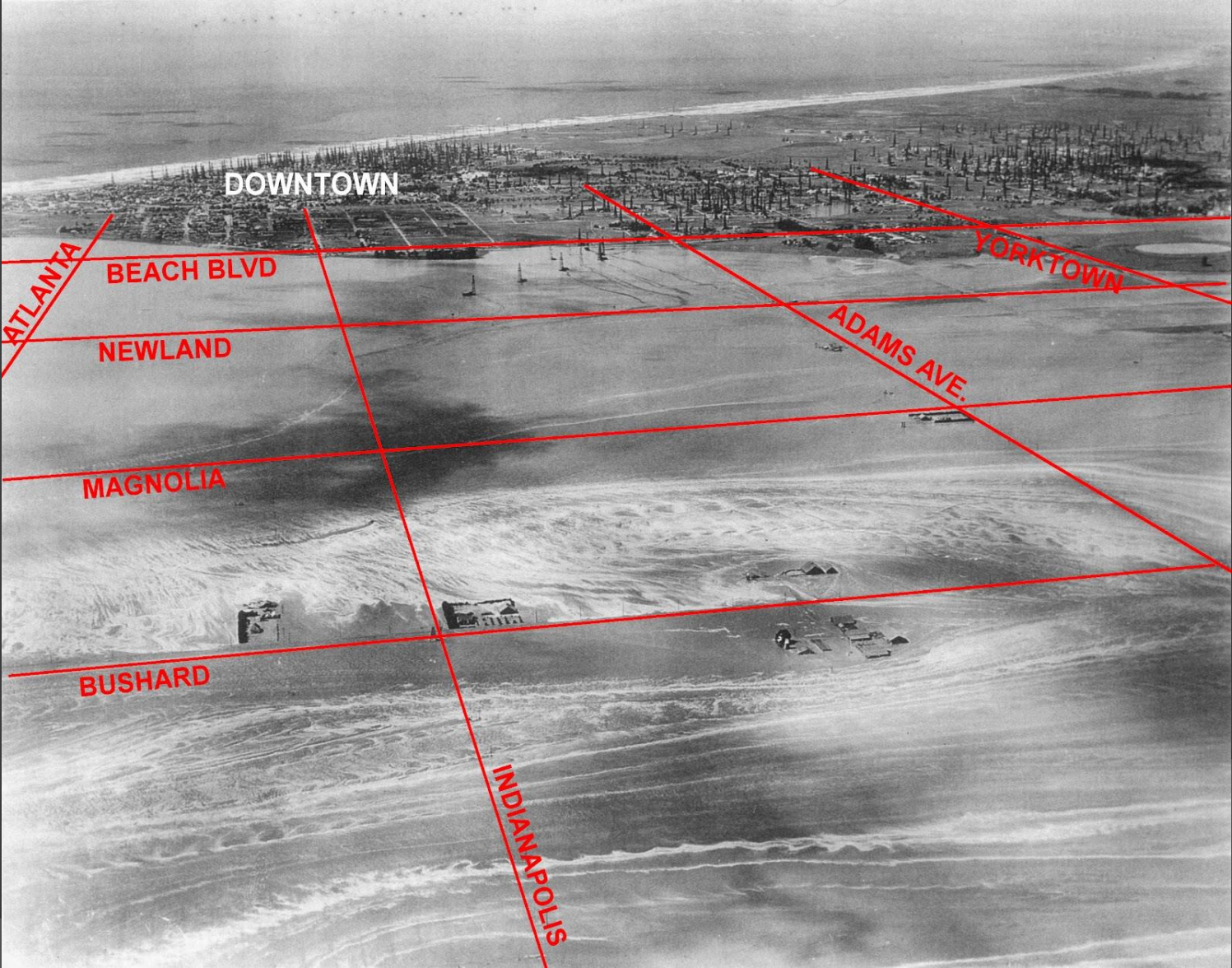
1. Historical Use of MTF

- ⦿ Agricultural from at least 1930s until ~mid/late 1960's
- ⦿ Three (3) oil wells drilled in 1955 & abandoned 1972
- ⦿ Three (3) 25 million-gallon above ground fuel-oil storage tanks constructed in ~1970 for HBGS
- ⦿ ASTs removed in 2017 (~45 years)
- ⦿ Site most recently used as temporary construction staging area

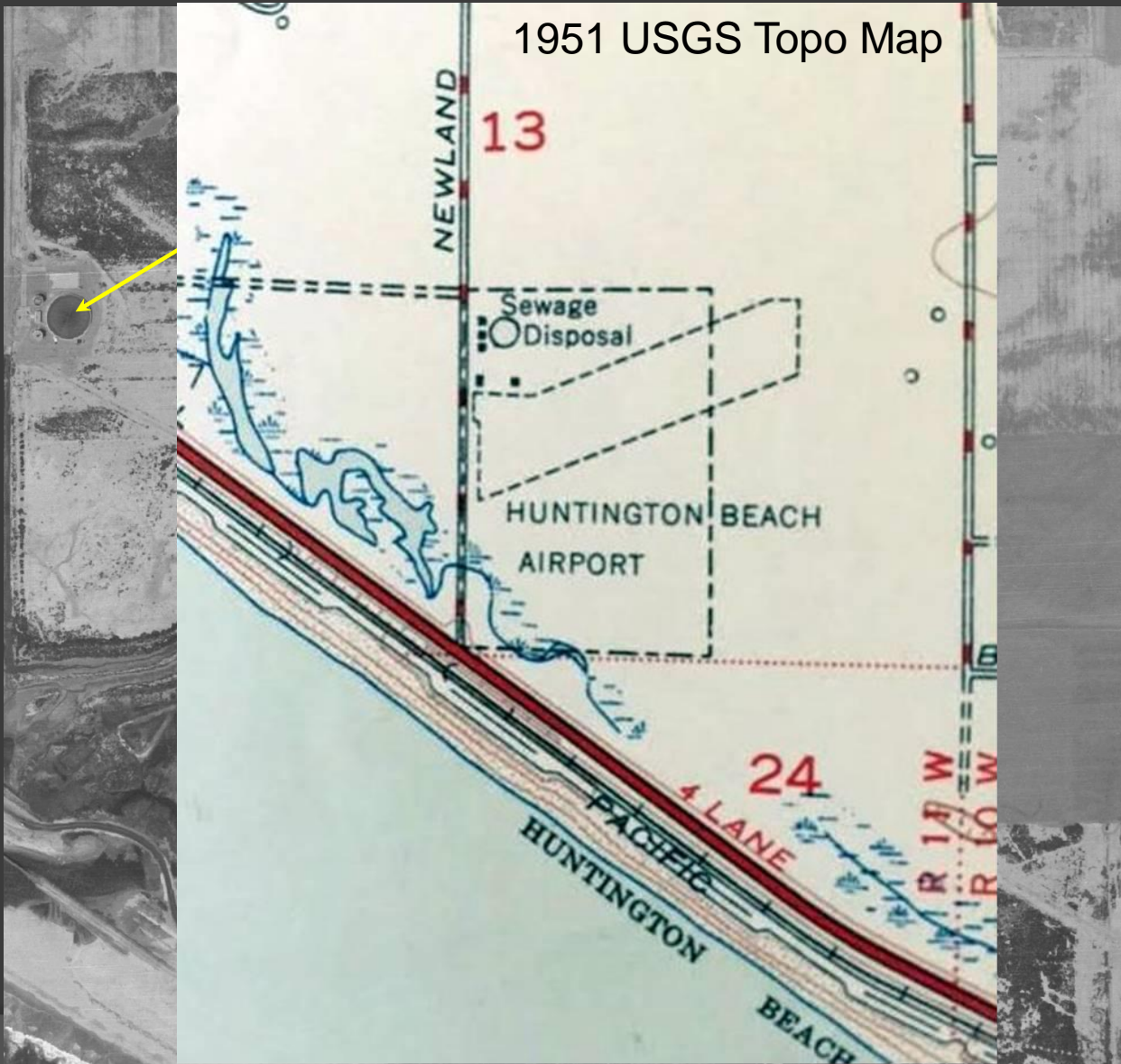
Historical Uses (1927)



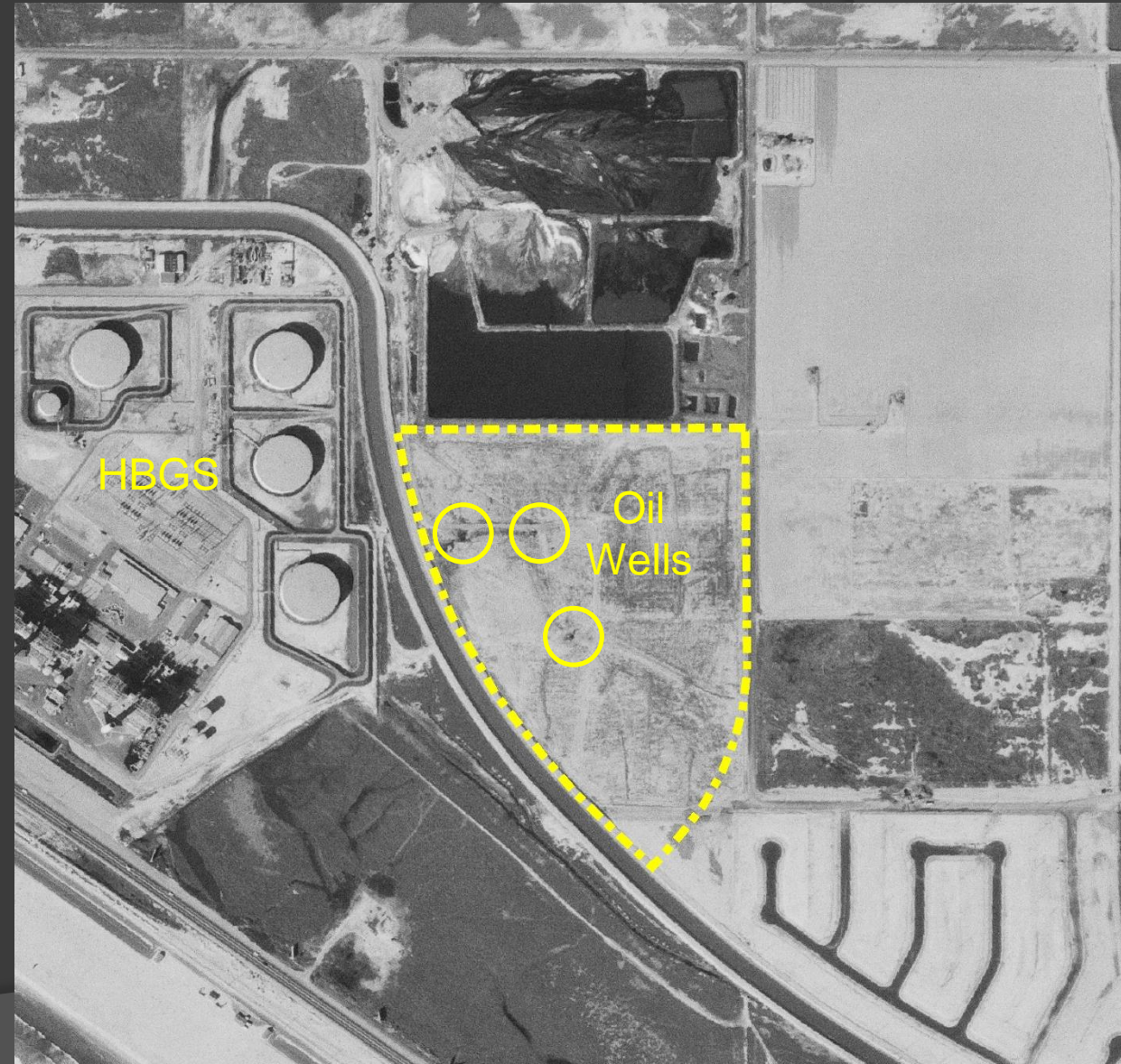
Historical Uses (1938)



Historical Uses (1938 & 1947)



Historical Uses (1953 & 1963)



Historical Uses (1972 & 1994)



Present-Day Conditions



Historical Use of MTF - Recap

- ⦿ Agricultural – 1930s until ~mid/late 1960's
- ⦿ Three (3) oil wells – drilled 1955/abandoned 1972
- ⦿ Three fuel-oil ASTs constructed in ~1970 for HBGS
- ⦿ ASTs on-Site ~45 years (demolished 2017)
- ⦿ Site vacant (most recently construction staging area)

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2. Questions Related to MTF History

- Was MTF historically used for a landfill like Ascon?

No. *Ascon and MTF were always separate and distinct with no landfill operations ever existing on MTF.*

- Did an airport once operate within boundaries of MTF?

No. *The airport (referred to as Huntington Beach Airport) was to the northwest of MTF, adjacent to the west of Ascon, immediately south of a former Sewage Treatment Plant.*

- Was MTF historically occupied by over 20 oil wells?

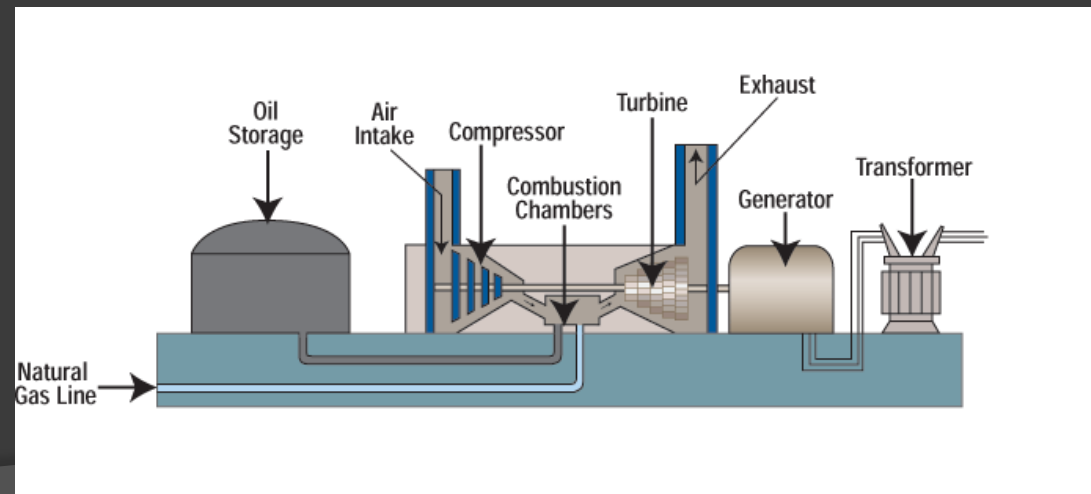
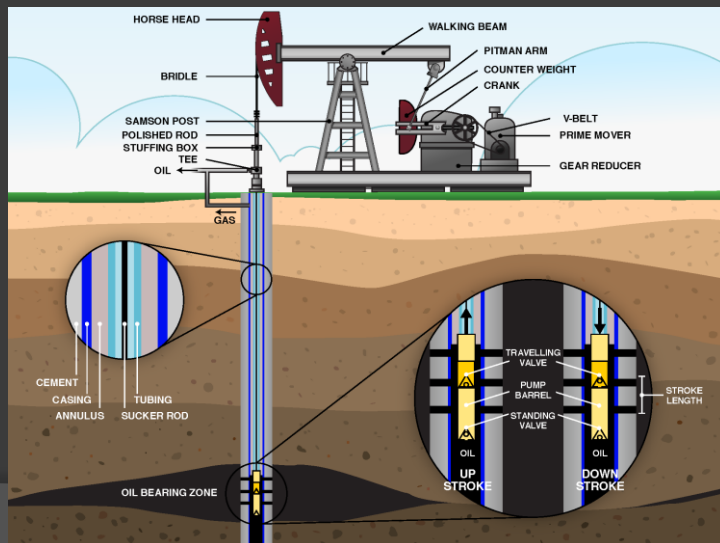
- No.** *Multiple historical sources confirm three oil wells were drilled at MTF in 1955 and abandoned in 1972.*

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3. Chemicals of Potential Concern at MTF

- Based on the history of MTF, chemicals of potential concern (COPCs) include crude oil (petroleum) and fuel oil.
 - Petroleum (crude oil): Heavy; viscous; naturally occurring; common to Southern California and Huntington Beach. Can be associated with methane.
 - Fuel Oil (aka, heavy oil/marine fuel): Heaviest commercial fuel that can be obtained from crude oil; dense; viscous; low volatility.



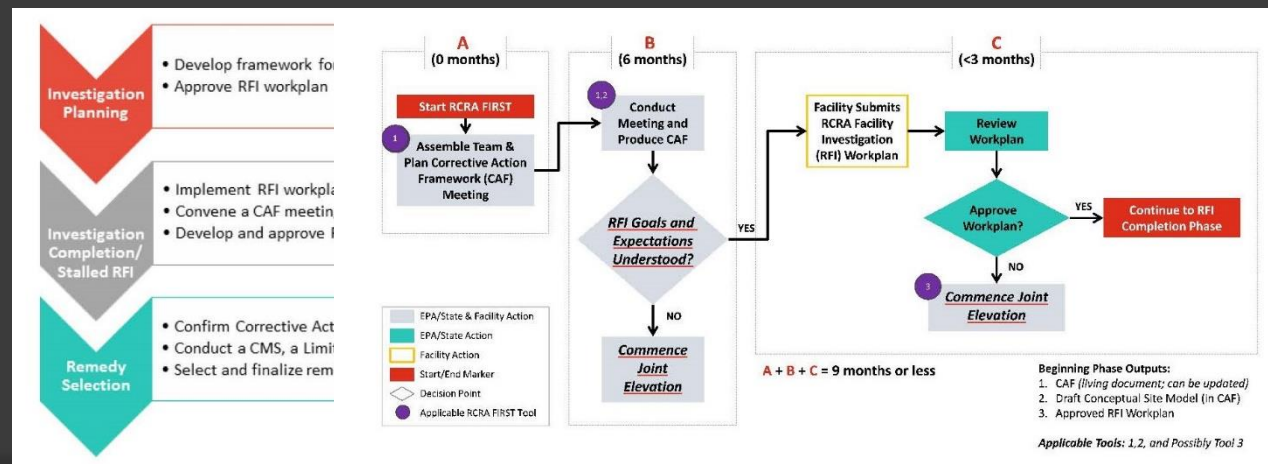
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4. Environmental Status of MTF

Regulatory Process

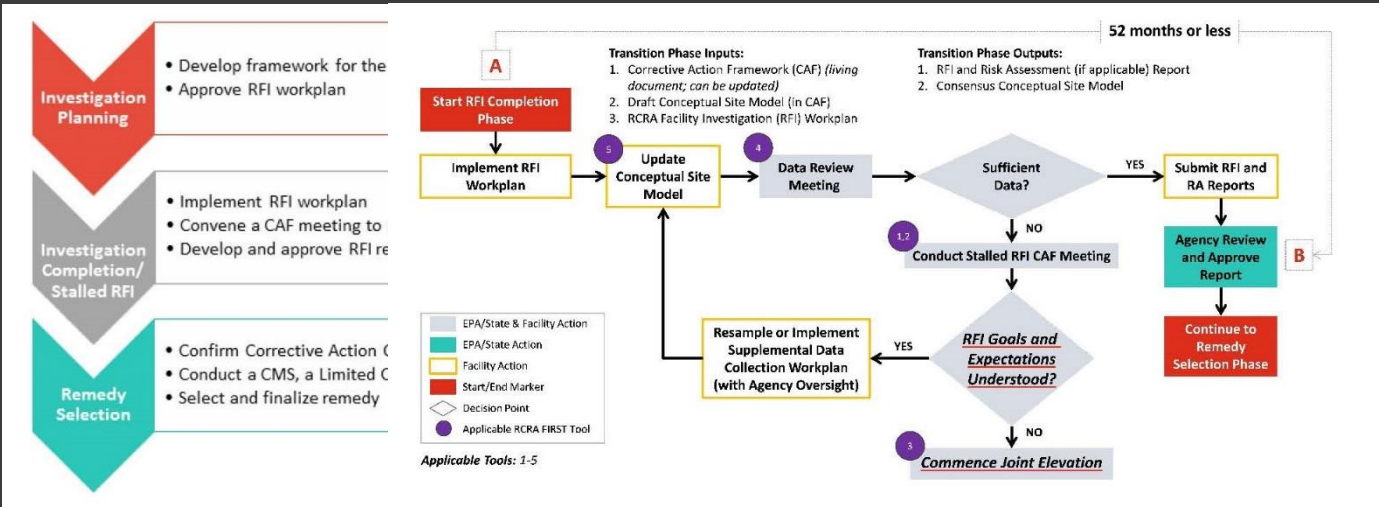
- Department of Toxic Substances Control
 - SCE responsible for assessment/cleanup
 - MTF moving through a rigid regulatory process with DTSC



Environmental Status of MTF

Regulatory Process

- Department of Toxic Substances Control



- Process continues until data gaps closed and DTSC satisfied

Environmental Status of MTF

◉ Regulatory Process

- Department of Toxic Substances Control
 - ◉ February 1995: DTSC required SCE to investigate environmental conditions at numerous generating stations, including HBGS
 - ◉ April 2015: SCE submits RCRA Facility Investigation (RFI) Workplan
 - ◉ August 2016: SCE implements the RFI Workplan
 - ◉ February 2017: SCE issues DRAFT RFI Report to DTSC
 - ◉ 2017/2018: DTSC & SCE trade comments on DRAFT RFI Report:
 - Groundwater wells installed April/May 2018; samples collected 2018/2019
 - Workplan for additional soil sampling submitted March 2018/amended Dec 2018
 - ◉ June 2019: Additional samples collected at MTF
 - ◉ Late 2019: Revised/Updated RFI Report

Environmental Status of MTF

⦿ Regulatory Process

- Huntington Beach Fire Department
 - April/May/June 2017: AST demolition and removal.
 - May 2017: Workplans to HBFD for removal of hydrocarbon impacted soils beneath ASTs; HBDF approved.
 - June 2017: Removal of soils to 6-inches beneath three ASTs.
 - June 2017: Removal of oily soils from beneath piping and crude oil line at/near northern MTF boundary.
 - August 2017: HBFD issued NFA for AST removal and soils remediation.

Environmental Status of MTF

Regulatory Process

- Huntington Beach Fire Department
 - February/March 2018: HBFD stated that:
 - DTSC is lead agency to issue environmental closure for MTF;
 - DTSC closure will independently ensure that impacts at MTF are less than significant for development;
 - HBFD approvals will be required after DTSC closure for compliance with City Specification 431-92 (soil) and 429 (methane)
 - December 2018 and October 2019: Shopoff meetings with HBFD and its technical consultant to discuss specific requirements post-DTSC closure
 - ~First Quarter 2020: Shopoff Workplan to HBFD for additional sampling (as necessary and required) – after DTSC closure
 - ~Mid/Late 2020: Oil well re-abandonments/design of methane barriers

Environmental Status of MTF

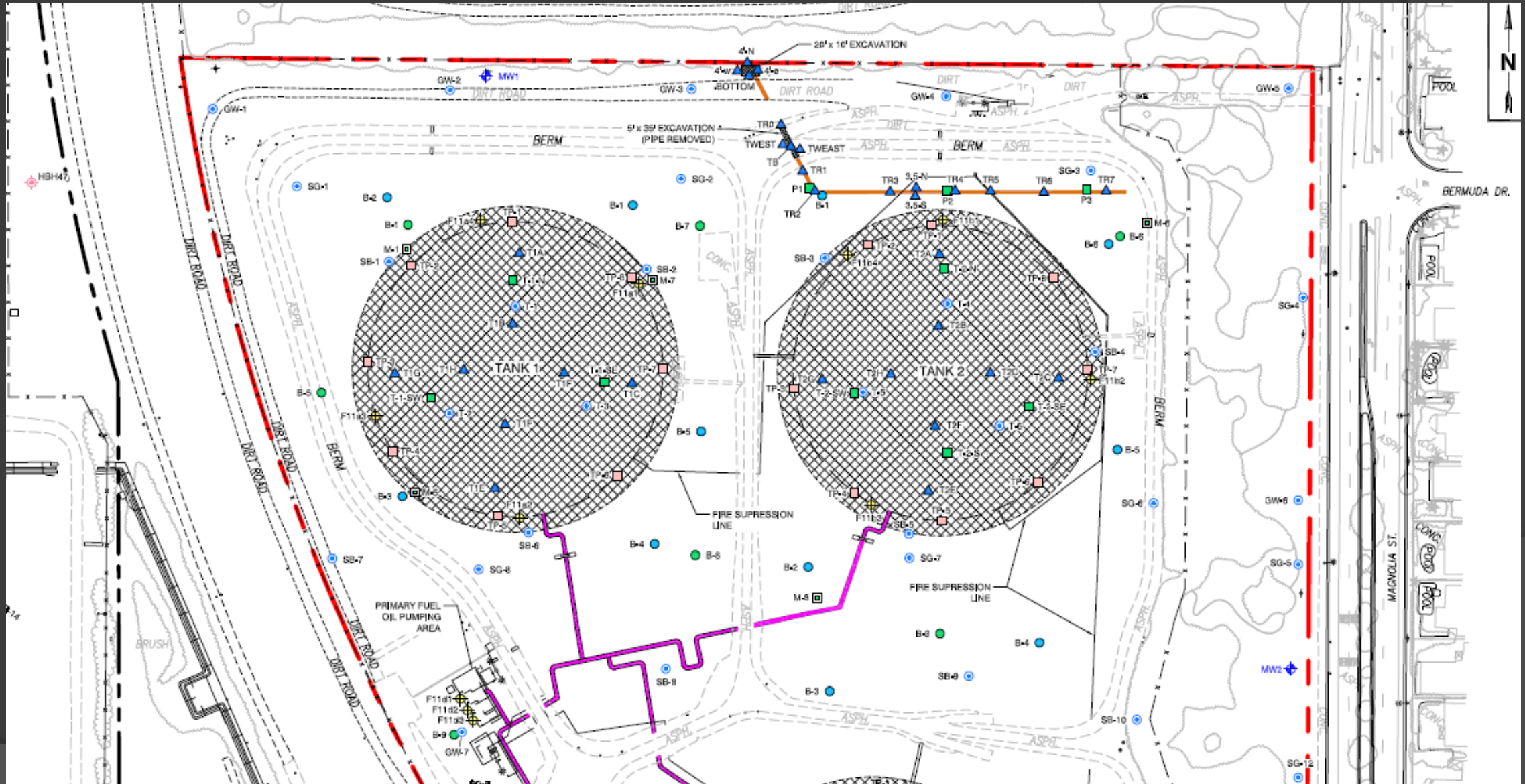
⦿ Regulatory Process

- City of Huntington Beach
 - Requires completion of DTSC process;
 - Requires State and local requirements be implemented for methane testing/mitigation and petroleum in soils;
 - Requires DOGGR be consulted regarding historical oil wells and DOGGR requirements; and,
 - Requires a Soil Management Plan for development.

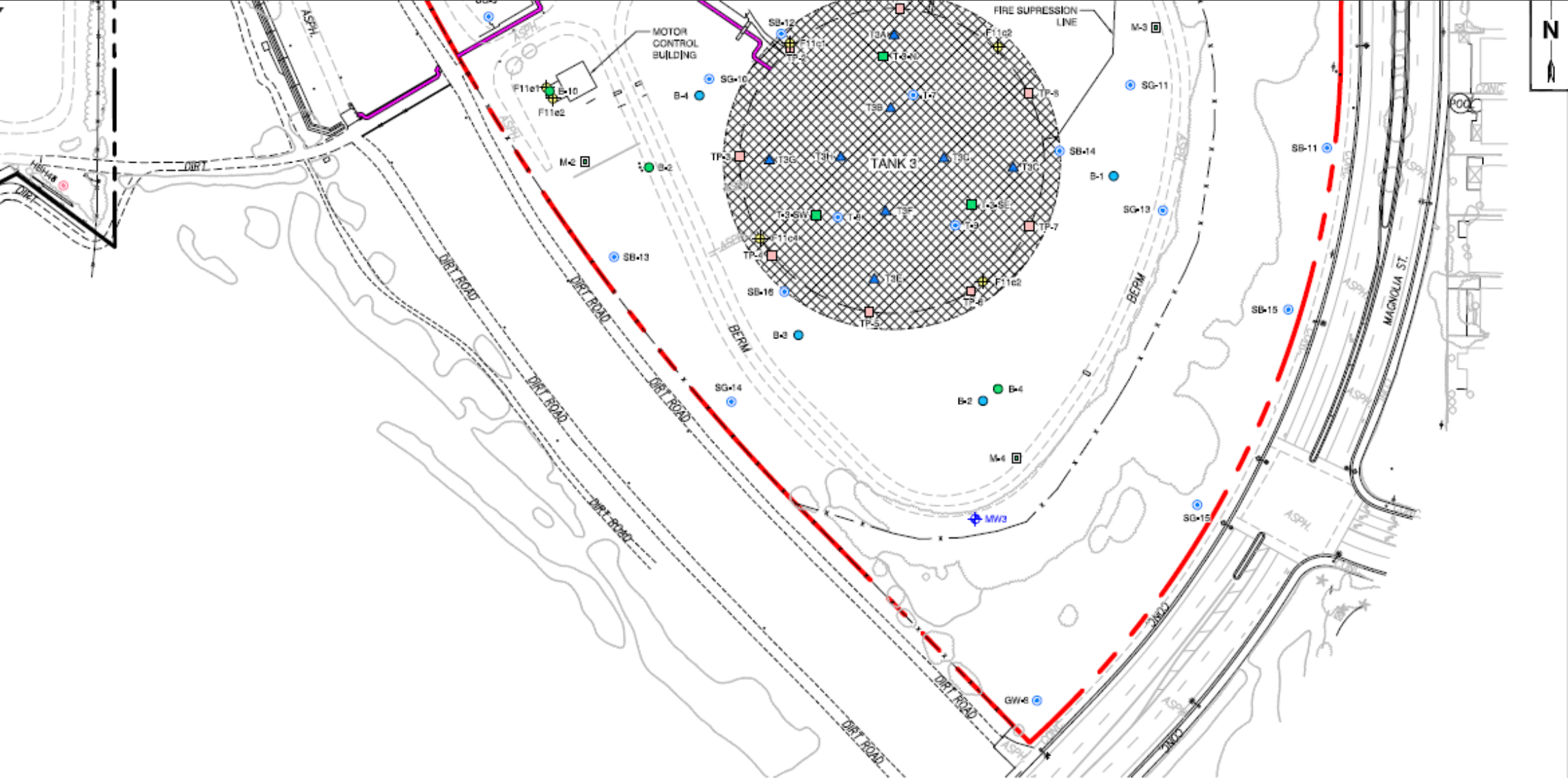
Environmental Status of MTF

Environmental Sampling Completed

- Comprehensive analytical results indicate conditions acceptable for residential development.
 - Soil samples collected from more than 150 locations.
 - Soil vapor samples collected from more than 20 locations.
 - Groundwater samples collected from 10 locations.
- Additional sampling was conducted by SCE in June 2019 to close remaining data gaps.



Environmental Status of MTF

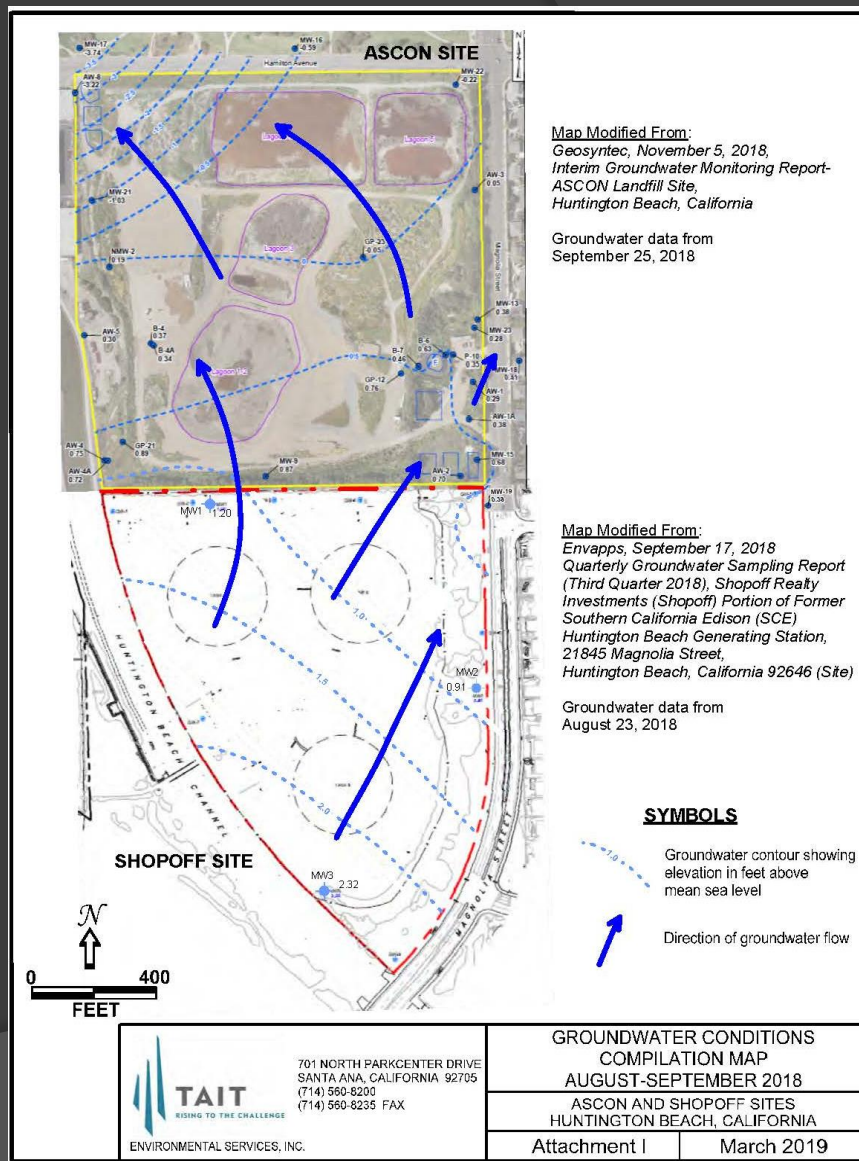
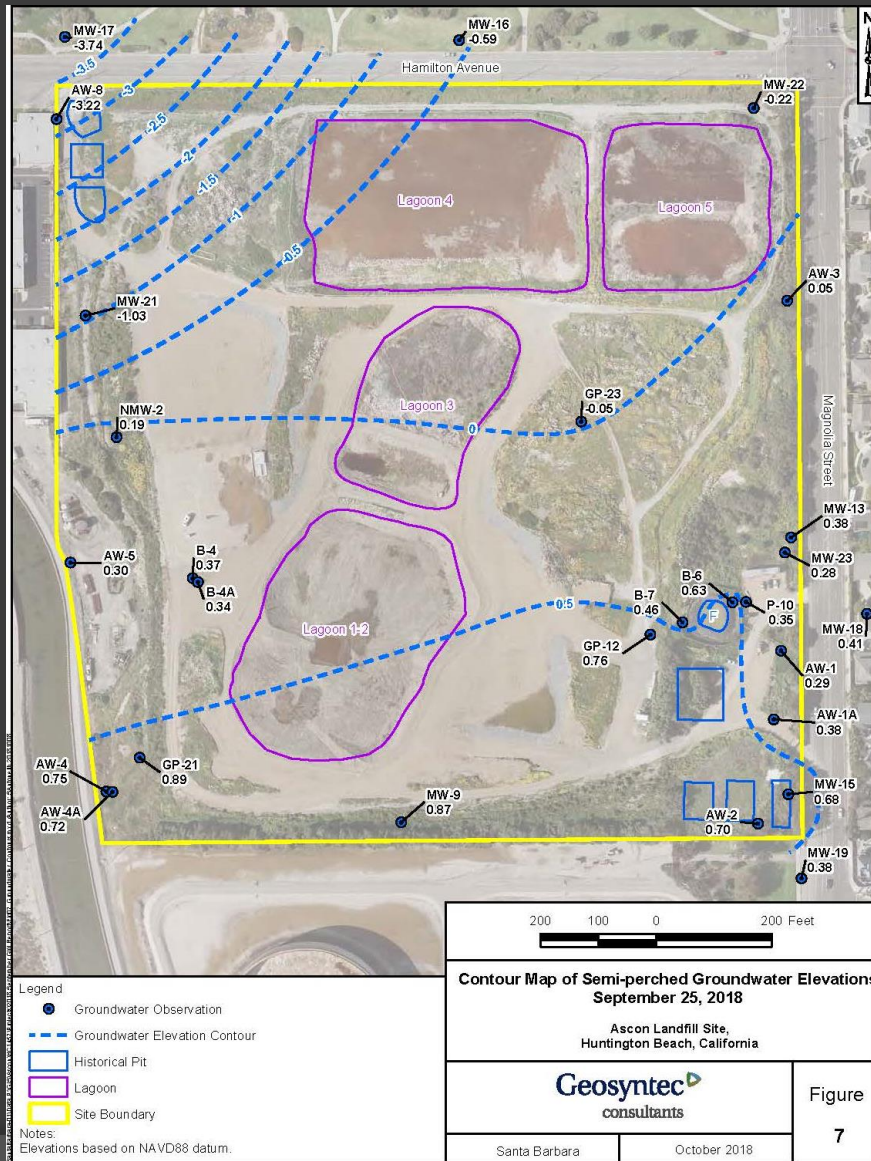
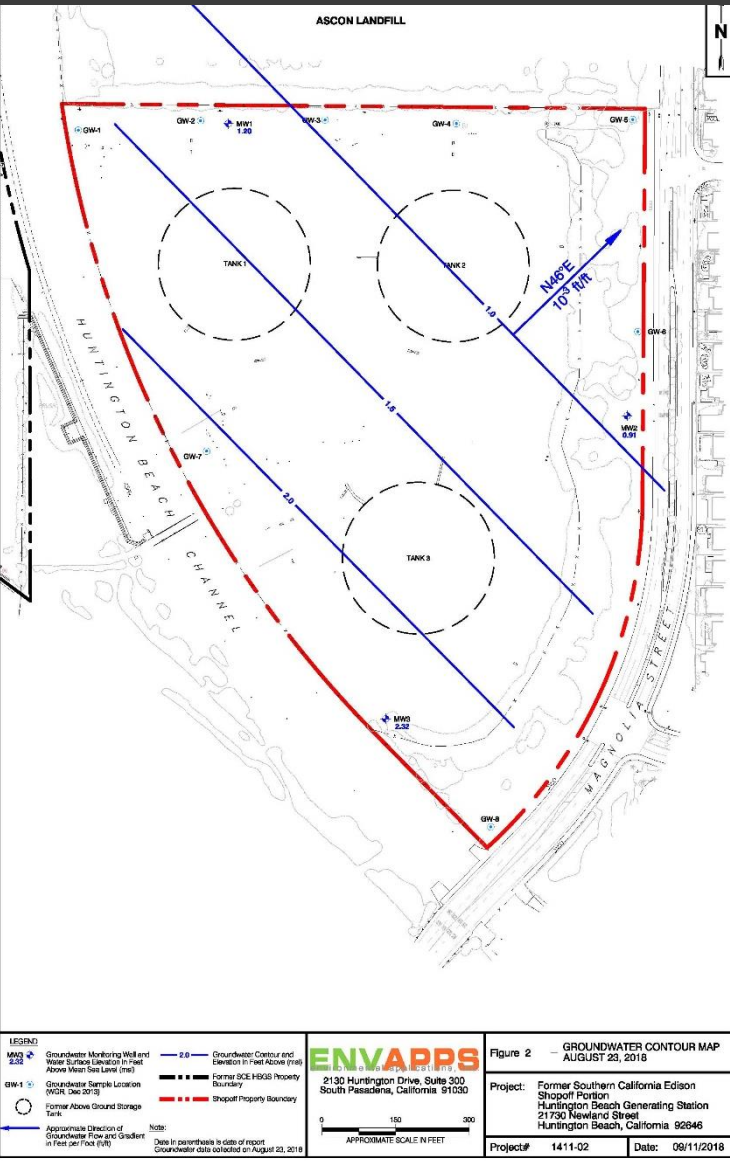


Environmental Status of MTF

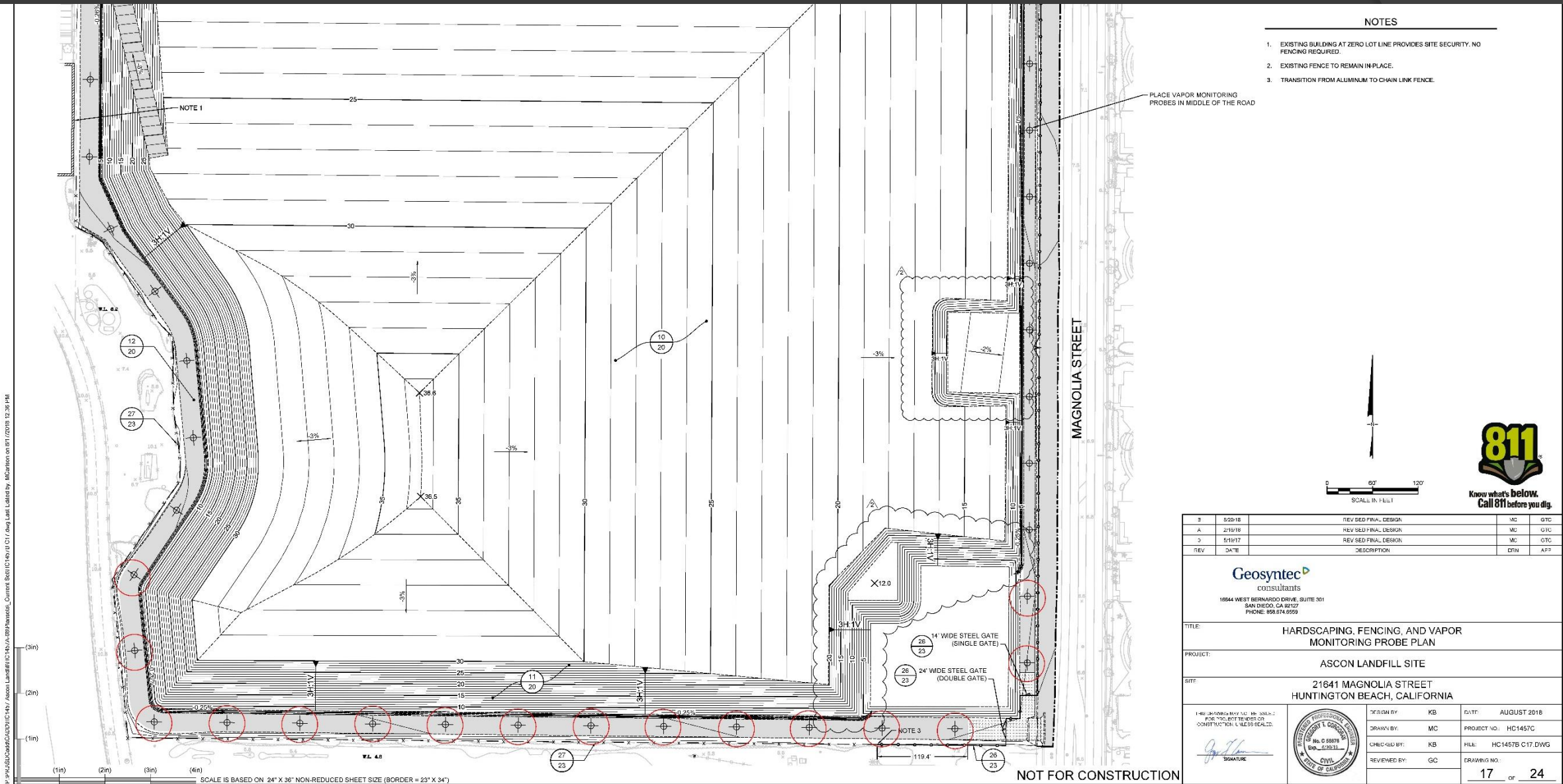
Ascon Considerations

- Groundwater flows to north (from MTF to Ascon)
- Soil, soil gas, groundwater sampling along boundary shows no contamination from Ascon to MTF
- Ascon Final Remedy to include:
 - Waste consolidation
 - Engineered cap
 - Landfill gas collection system
 - Monitoring of soil gas and groundwater in perpetuity
- No complete exposure pathways

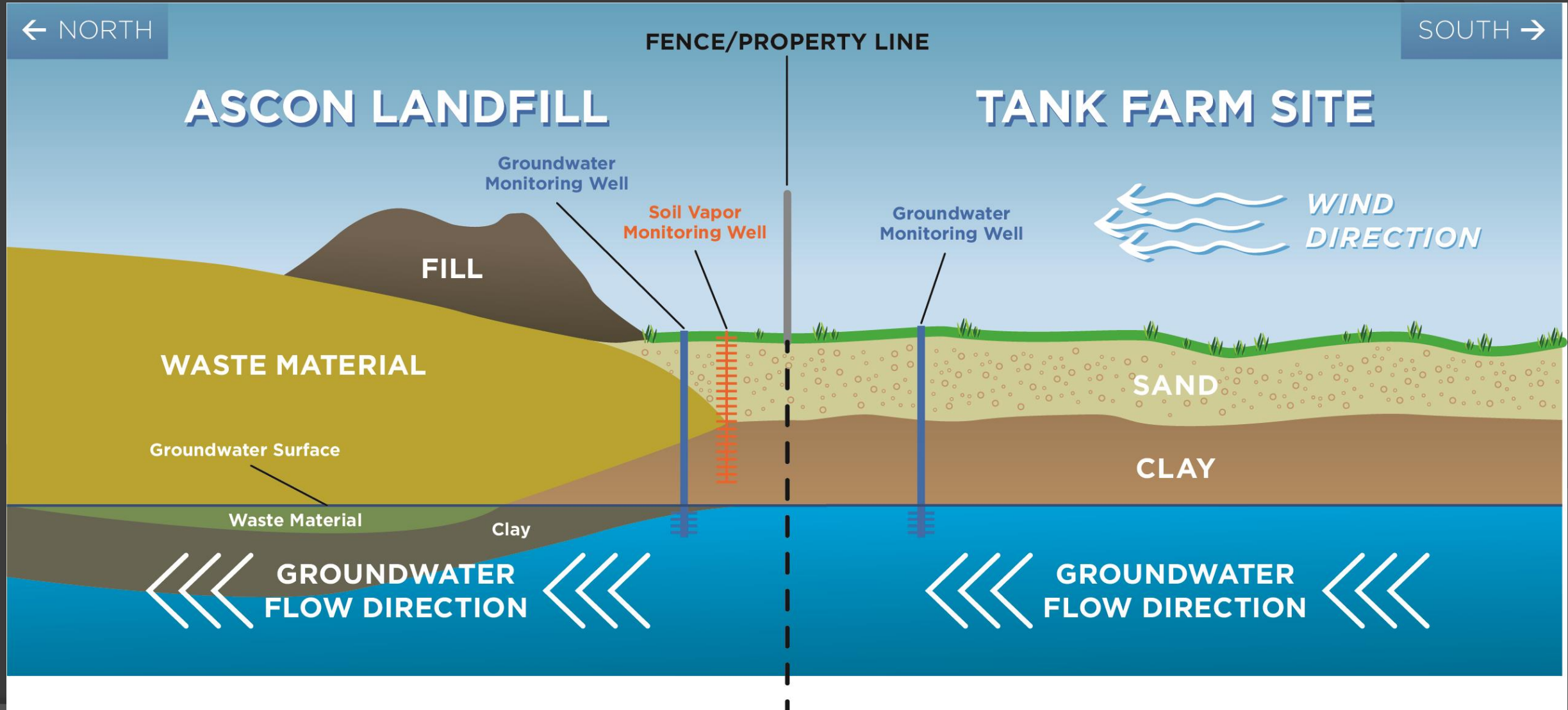
Groundwater Flow (Aug & Sept 2018)



Ascon Final Remedy



Conceptual Site Model



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5. Questions on MTF Environmental Status

- Are chemicals historically used at MTF known and understood?

Yes. *Former oil field operations may have introduced petroleum to the shallow subsurface, consistent with regional historical activities.*

Fuel oil, a heavy, viscous petroleum hydrocarbon, was stored in three (3) 25 million-gallon ASTs for use as a fuel source for power generation at HBGS.

Engineered fill below the ASTs contained petroleum hydrocarbons. These materials were excavated and removed in 2017.

Shallow petroleum hydrocarbon impacted soils were encountered below former piping; these impacted soils also were removed.

Questions on MTF Environmental Status

- Has there been sufficient sampling at MTF to understand potential impacts and to determine if MTF can be safely developed into residential and commercial uses?

Yes. *There have been numerous soil, soil gas, and groundwater investigations conducted at MTF.*

SCE is completing the RFI, which will determine whether MTF can be issued closure or whether additional actions are needed.

Closure from DTSC is expected in early 2020 after which HBFD requirements (conformance with City Specifications) will need to be met.

Questions on MTF Environmental Status

- Will MTF development place health risks on current and future residents?

No. *DTSC will not issue closure until all COPCs have been characterized and considered in the context of future residential and commercial development.*

Prior to allowing development, the City will require a formal closure letter from DTSC and conformance with City Specifications through HBFD.

Finally, DTSC will require restriction in perpetuity on use of groundwater beneath MTF as a drinking water source.

Questions on MTF Environmental Status

- Is there reason to believe that the future development at MTF will be impacted by Ascon?

No. Numerous investigations have confirmed groundwater flows to north (from MTF to Ascon); and soil, soil gas, groundwater sampling along the boundary show no contamination from Ascon to MTF.

Ascon's Final Remedy includes: waste consolidation; engineered cap; landfill gas collection; and monitoring of soil gas and groundwater – O&M will be in perpetuity.

There are no complete exposure pathways.

Questions on MTF Environmental Status

- Is MTF known to share any of Ascon's toxic chemicals?

No. *Data from multiple rounds of soil, soil gas, and groundwater sampling along the northern boundary of MTF show no evidence of contamination from Ascon to MTF.*

Groundwater flow direction is to the north and northeast, which is from MTF onto Ascon.

Wastes at Ascon are known to have been placed into pits and lagoons, which would not readily allow for lateral migration in soils.

Questions on MTF Environmental Status

- Are there contingencies in the event soils impacted with COPCs are unexpectedly encountered at MTF during development?

Yes. *A Soil Management Plan is prescribed in the EIR for MTF.*

The SMP will include guidance concerning the proper monitoring, handling, segregation, stockpiling, dust control, testing, transport and disposal of potentially impacted soils, which may be encountered during future development activities.

Questions on MTF Environmental Status

- Is a former oil field pipeline that is present off-Site at the northern boundary with Ascon a possible source of contamination that could impact MTF?

No. *The pipeline was removed from MTF and cut at the northern boundary with Ascon in 2017.*

A limited volume of soil impacted by crude oil was removed with confirmation samples showing clean conditions.

The pipeline is present beneath Ascon; Shopoff is working with DTSC and the HBFD to request that it be properly abandoned.

Questions on MTF Environmental Status

- Is DTSC closure of MTF dependent on Ascon completion of their final remedy?

No. *MTF and Ascon are both under the oversight of the DTSC but are entirely independent from one another, including separate DTSC branches.*

Contamination from Ascon to MTF has been considered, studied, analyzed, and ruled out.

Once the RFI and any needed remedy is completed to the satisfaction of DTSC, MTF will be issued a letter of closure.