



Interim Remedial Action Plan Public Meeting

Groundwater Remedial Project Chino Airport, Chino, California

January 18, 2018





Open House Meeting Format

- From now until 6:45 p.m., you are invited to review the posters on display around the room and speak with representatives from the County of San Bernardino (County).
- At 6:45 p.m., the County's technical representative will provide a brief 15 minute presentation on the Interim Remedial Action Plan. Following the presentation, you are invited to continue viewing the posters and speaking with the County representatives and their technical team.



Presentation Overview

- Brief Chino Airport History
 - Environmental Investigations and Findings
 - Removal Actions and Cleanup Activities
 - Remedial Action Objectives
 - Remedial Alternatives Evaluated
 - Evaluation Criteria
 - Preferred Remedial Alternative
 - Next Steps
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Brief Chino Airport History



- Agricultural Use (Prior to 1940)
- Military Operations (1940s)
- Leased to Pacific Airmotive Corporation (1950 to 1961)
- Public Airport (1961 onwards)



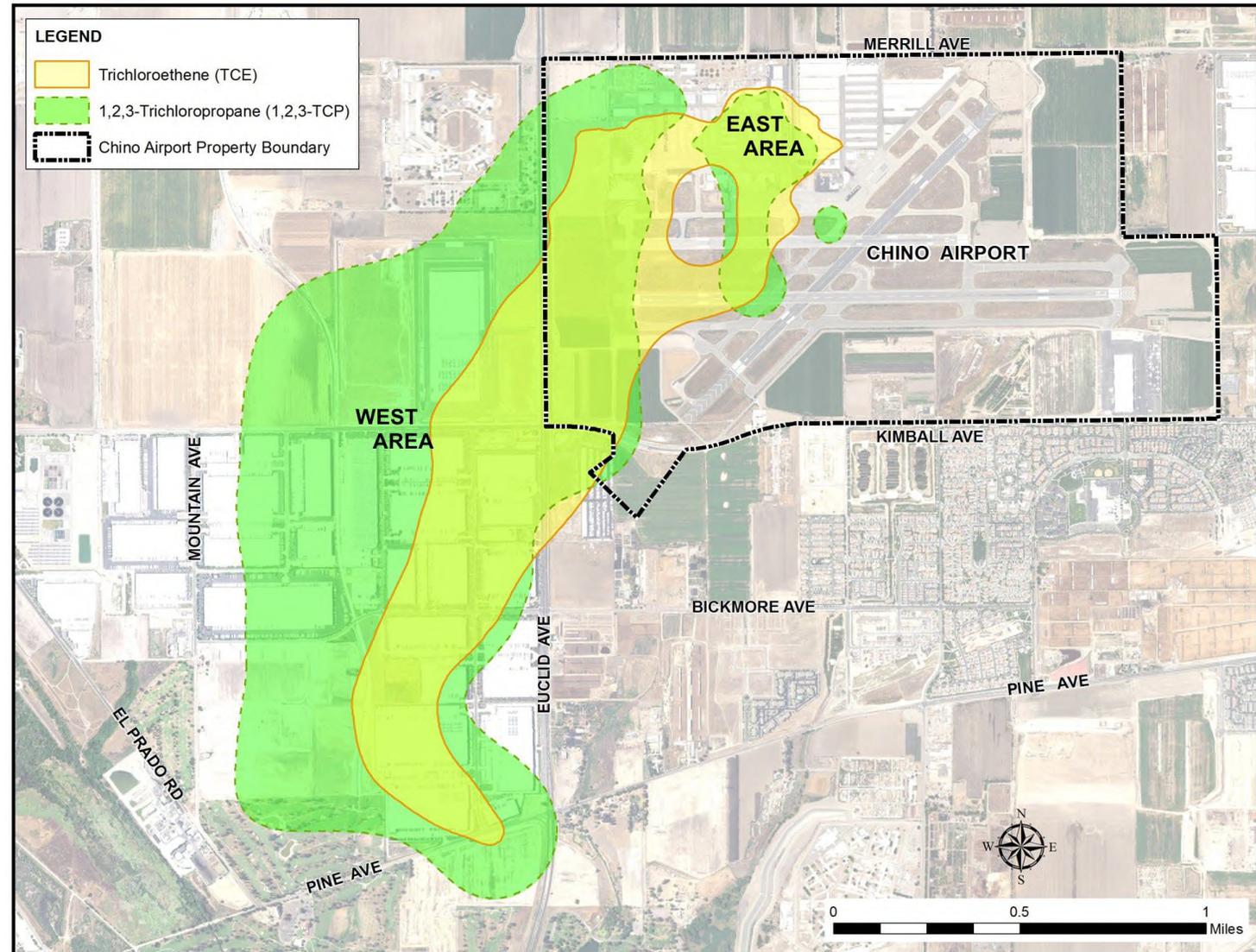
Environmental Investigations and Findings

- Drilling and sampling 280+ soil, soil gas, and groundwater borings
- Installing and sampling 75 groundwater monitoring wells
- Extensive sampling and testing of soil, soil gas and groundwater

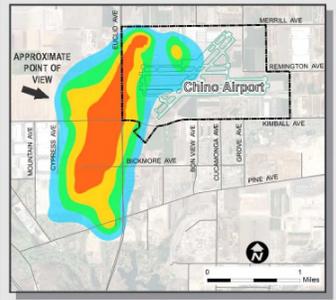
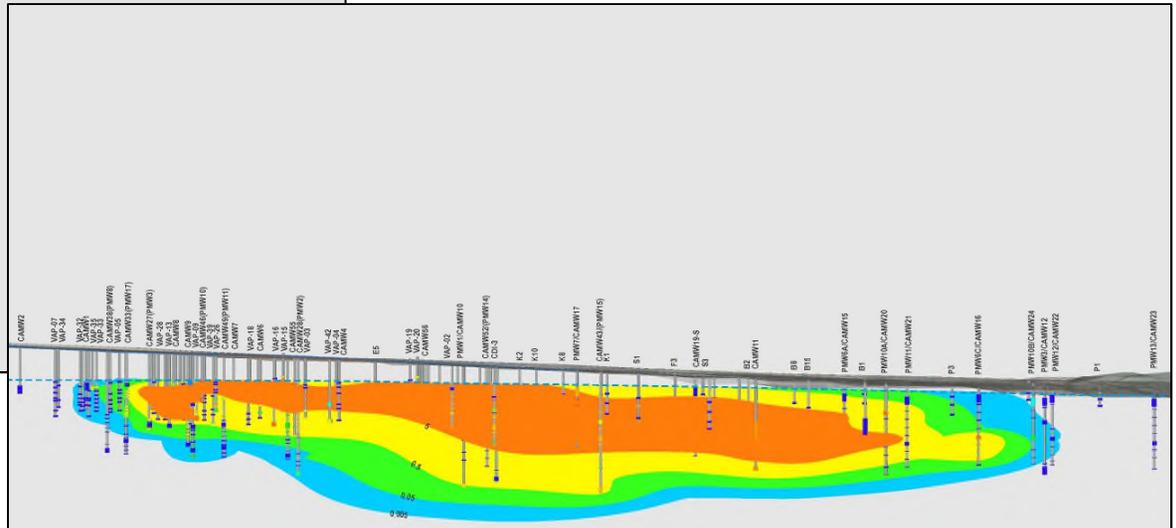
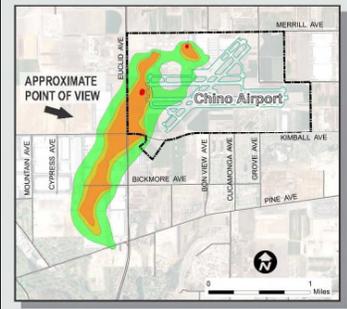
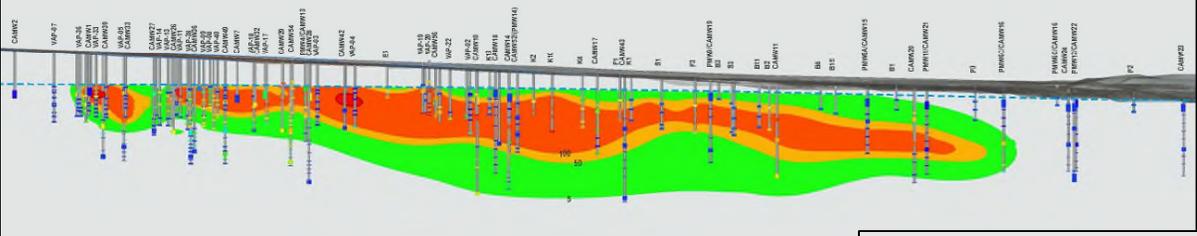


Environmental Investigations and Findings

- No additional soil sources were identified requiring cleanup during recent remedial investigations (2014-2016)
- Two groundwater areas identified: West Area and East Area
 - Impacted by chlorinated solvents and fuel components
 - Two primary compounds are trichloroethene (TCE) and 1,2,3-trichloropropane (TCP)



TCE and 1,2,3-TCP Groundwater Areas



0 1,000 2,000 Feet
 APPROXIMATE SCALE
 5X Vertical Exaggeration

Is My Drinking Water Safe?

- Residents and businesses in the area above the contaminated groundwater receiving water from municipal drinking water sources are not using untreated contaminated groundwater
- Potable drinking water is from municipal sources, and as a result, users are not at risk from consumption of the contaminated groundwater



Removal Actions and Cleanup Activities

- 310 drums/containers of hazardous waste removed
- 10 underground storage tanks (USTs) and impacted soil removed
- 51 buried drums of hazardous waste and 826 tons of impacted soil removed





Remedial Action Objectives

- Prevent exposure of human receptors to impacted groundwater
- Protect indoor air quality by monitoring and controlling the migration of impacted groundwater that may result in excessive soil gas and indoor air concentrations
- Protect off-site surface and groundwater resources by limiting the migration of impacted groundwater
- To the extent reasonably practicable, restore the beneficial uses of groundwater at and downgradient of the Airport



Remedial Alternatives Evaluated

1. No action
2. Monitoring and Institutional Controls
3. Active Remediation Alternatives
 - 12 alternatives for active remediation were developed which included various combinations of (a) source area treatment and (b) containment for both the East and West Areas

Evaluation Criteria

- Effectiveness
- Implementability
- Cost
- State and Community Acceptance

- 1 Overall Protection of Human Health and the Environment**
How the risks are eliminated, reduced, or controlled through treatment, engineering, or institutional controls.

- 2 Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)**
Federal and state environmental statutes met or grounds for waiver provided.

- 3 Long-term Effectiveness**
Maintain reliable protection of human health and the environment over time, once cleanup goals are met.

- 4 Reduction of Toxicity, Mobility, or Volume (TMV) through Treatment**
Ability of a remedy to reduce the toxicity, mobility, and volume of the hazardous contaminants present at the site.

- 5 Short-term Effectiveness**
Protection of human health and the environment during construction and implementation period.

- 6 Implementability**
Technical and administrative feasibility of a remedy, including the availability of materials and services needed to carry it out.

- 7 Cost**
Estimated capital, operation, and maintenance costs of each alternative.

- 8 State Acceptance**
State concurs with, opposes, or has no comment on the preferred alternative.

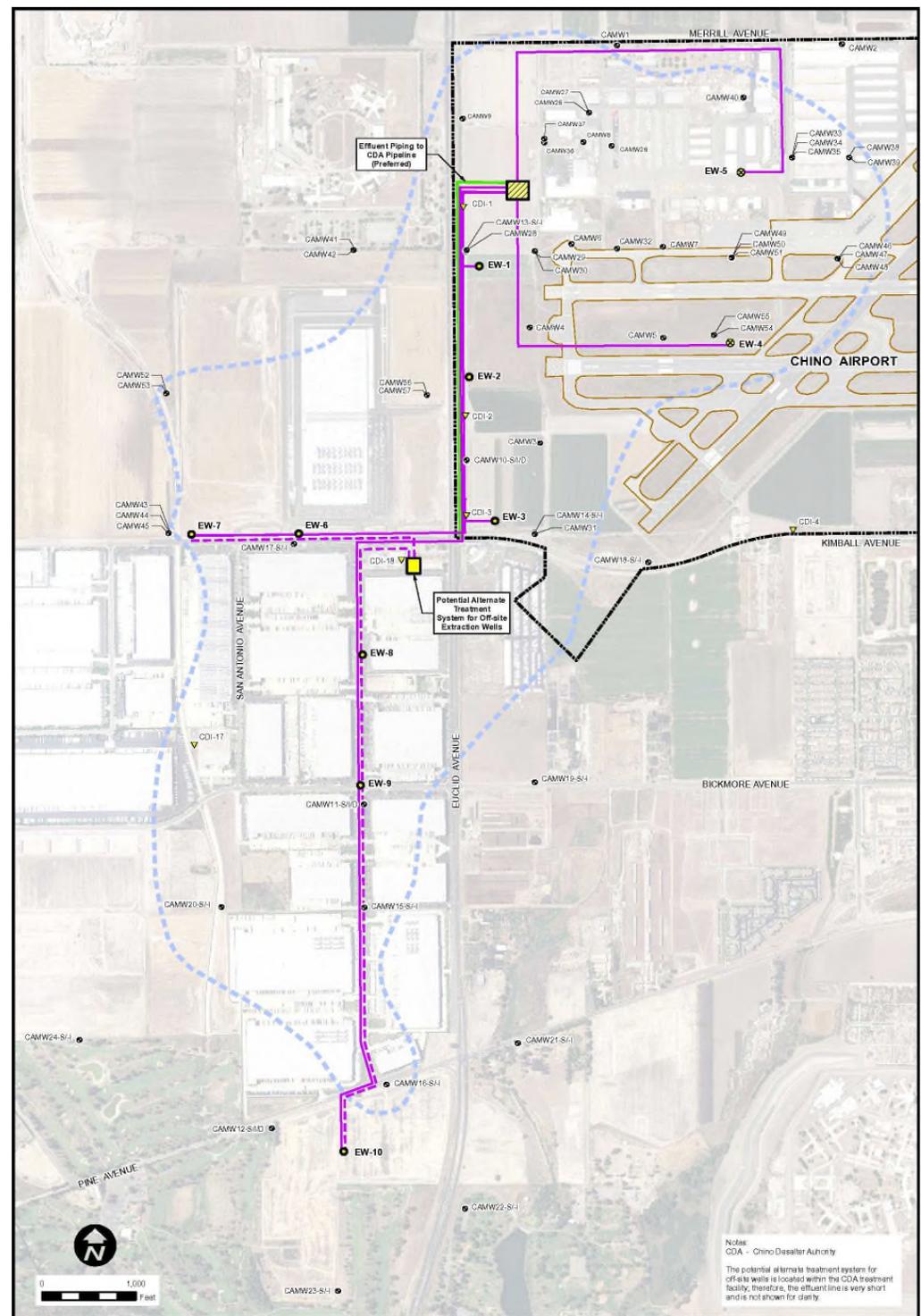
- 9 Community Acceptance**
Community concerns addressed; community preferences considered




Preferred Remedial Alternative

- Institutional Controls
- Monitored Natural Attenuation
- Containment of the West and East Areas by groundwater extraction and above-ground treatment
 - 10 new extraction well locations
 - Treatment of existing desalter wells that are impacted
 - Treatment of impacted groundwater by granular-activated carbon (GAC)

Proposed Groundwater Extraction and Treatment System Layout





Next Steps

- IRAP public review period ends Feb. 18th
- Respond to comments and finalize IRAP – April 2018
- Continue routine groundwater monitoring and reporting
- Preferred remedy implementation schedule
 - Aquifer Testing – Spring 2018
 - Groundwater Model Update – Summer 2018
 - Remedial Design and Remedial Action Work Plan – Fall 2018 to Spring 2019
 - Permitting, Planning, and Construction Procurement – Summer to Winter 2019
 - Construction of Remedial System – 2020-2021
 - Begin System Operations & Monitoring - 2021