

Proposed Plan for Interim Remedial Action: North Hollywood West Well Field

January 4, 2017

Valley Plaza Library

Putting Customers First   

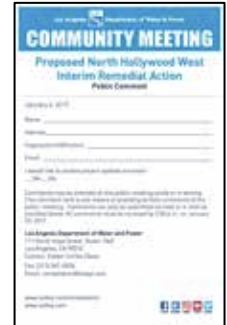
Agenda

North Hollywood West Well Field

- Proposed Plan for Interim Remedial Action

Ø *Presentation*

Ø *Public Comments*



- California Environmental Quality Act (CEQA)

Ø *Presentation*

Ø *Public Comments*



Proposed Plan for Interim Remedial Action: North Hollywood West Well Field

Evelyn Cortez-Davis, P.E., BCEE
LADWP Groundwater Planning

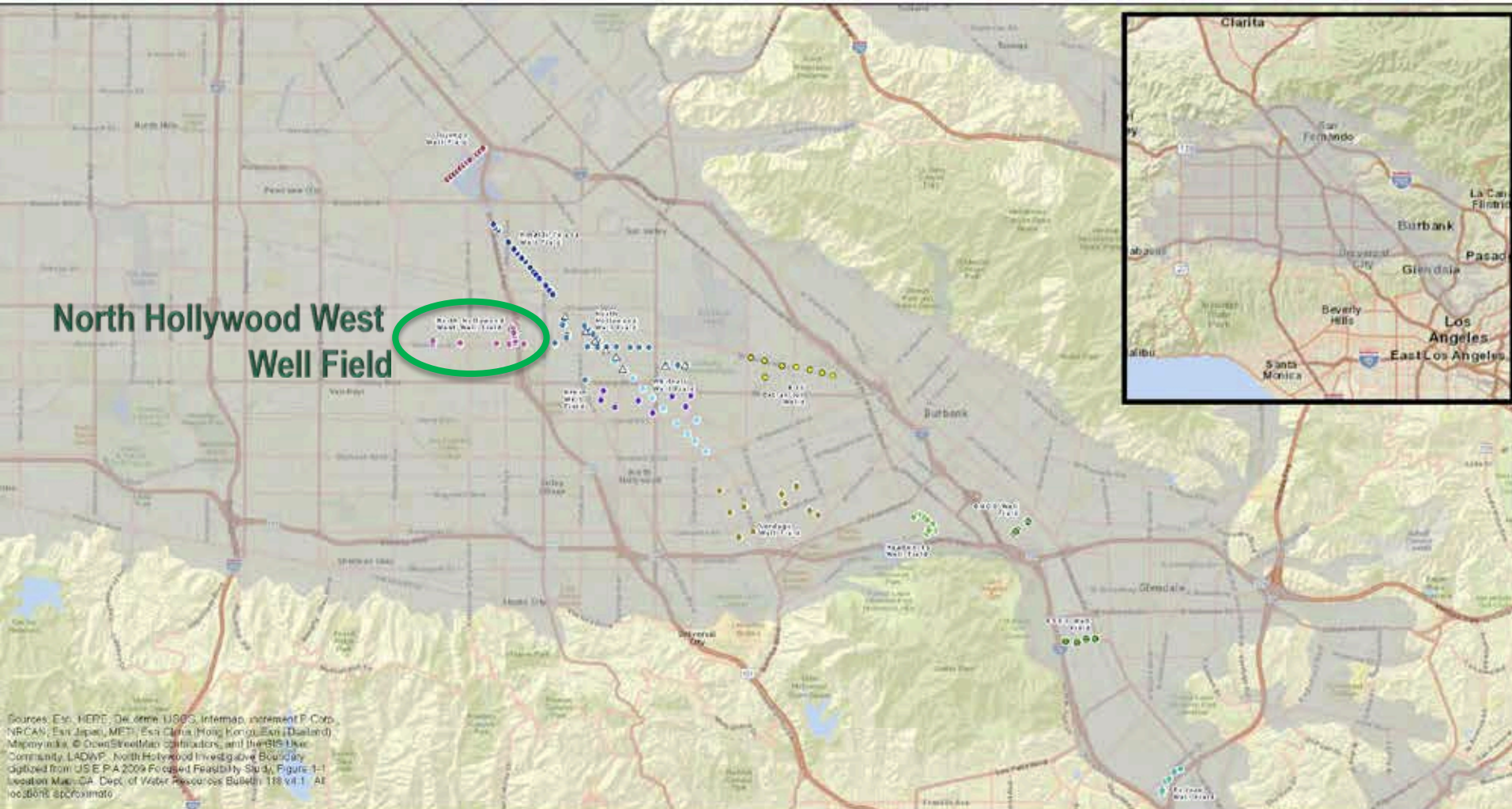


Agenda

Proposed Plan for Interim Remedial Action

- Ø Remedial Investigation/Feasibility Study
 - Ø Site Background and Characteristics
 - Ø Remedial Action Objectives
 - Ø Remedial Alternatives Evaluated
 - Ø Comparative Analysis of Alternatives
- Ø Preferred Alternative
- Ø Next Steps
- Ø Information Repositories
- Ø Public Comments

Site Background and Characteristics: San Fernando Basin Well Fields





Site Background and Characteristics:

North Hollywood West Well Field

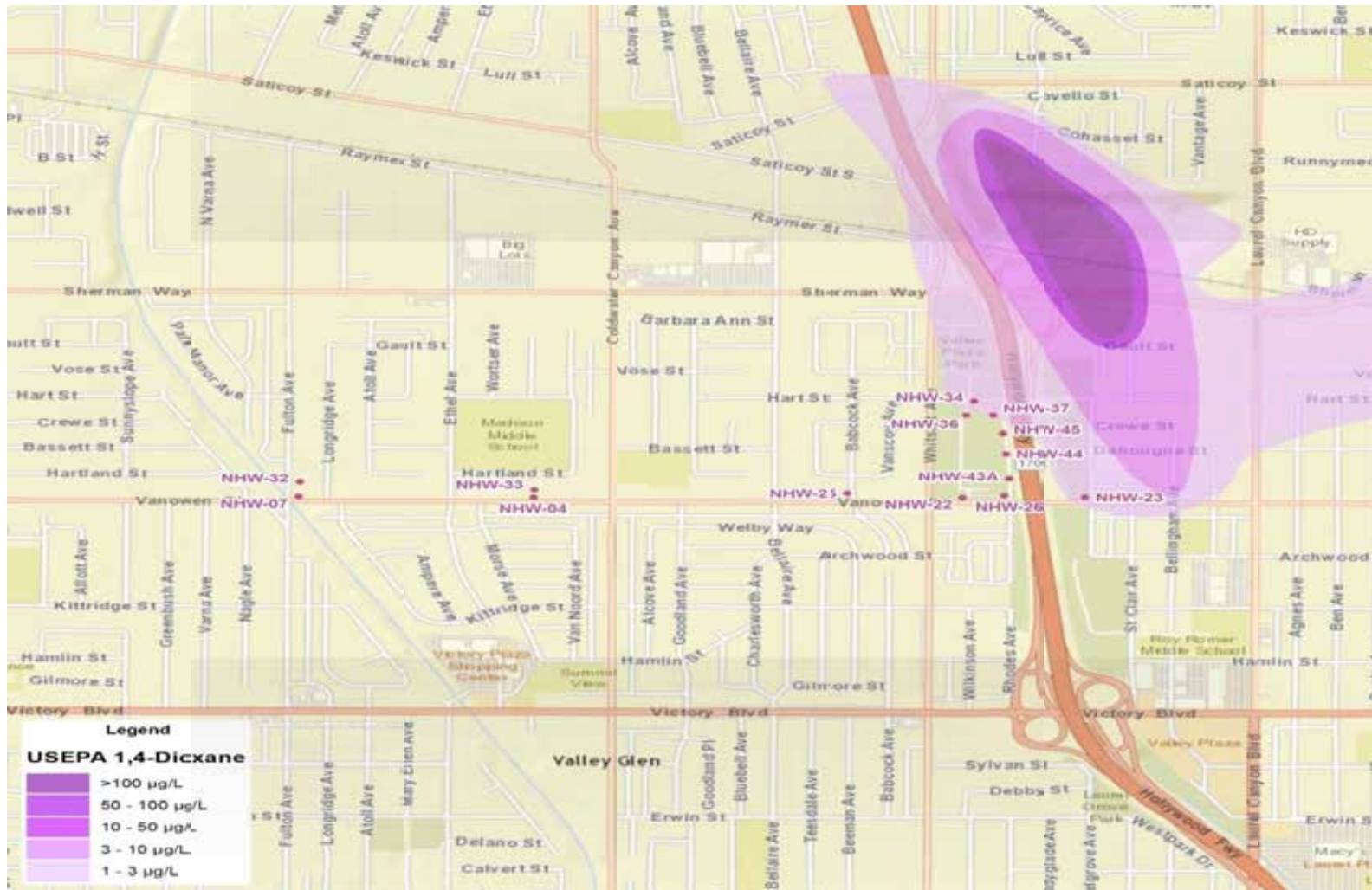
Site Background and Characteristics:

North Hollywood West Site History

- 14 production wells (installed 1924-1984)
- Well field operations carried out per *State of CA Domestic Water Supply Permit issued to LADWP*
- First 1,4-dioxane detection in 2012
- Arrival of 1,4-dioxane caused LADWP to stop production from 7 wells at NHW between Nov. 2014 and March 2015

Protection of public health is a top priority

Site Background and Characteristics: 1,4-Dioxane Source and Plume



Site Background and Characteristics: Contaminant of Concern (COC) for Interim Remedial Action

- 1,4-dioxane
 - Synthetic industrial chemical
 - Uses:
 - a stabilizer for chlorinated solvents such as TCA;
 - a solvent for impregnating cellulose acetate membrane filters;
 - a wetting and dispersing agent in textile processes; and
 - a laboratory solvent for molecular mass determinations
 - Completely dissolves in water

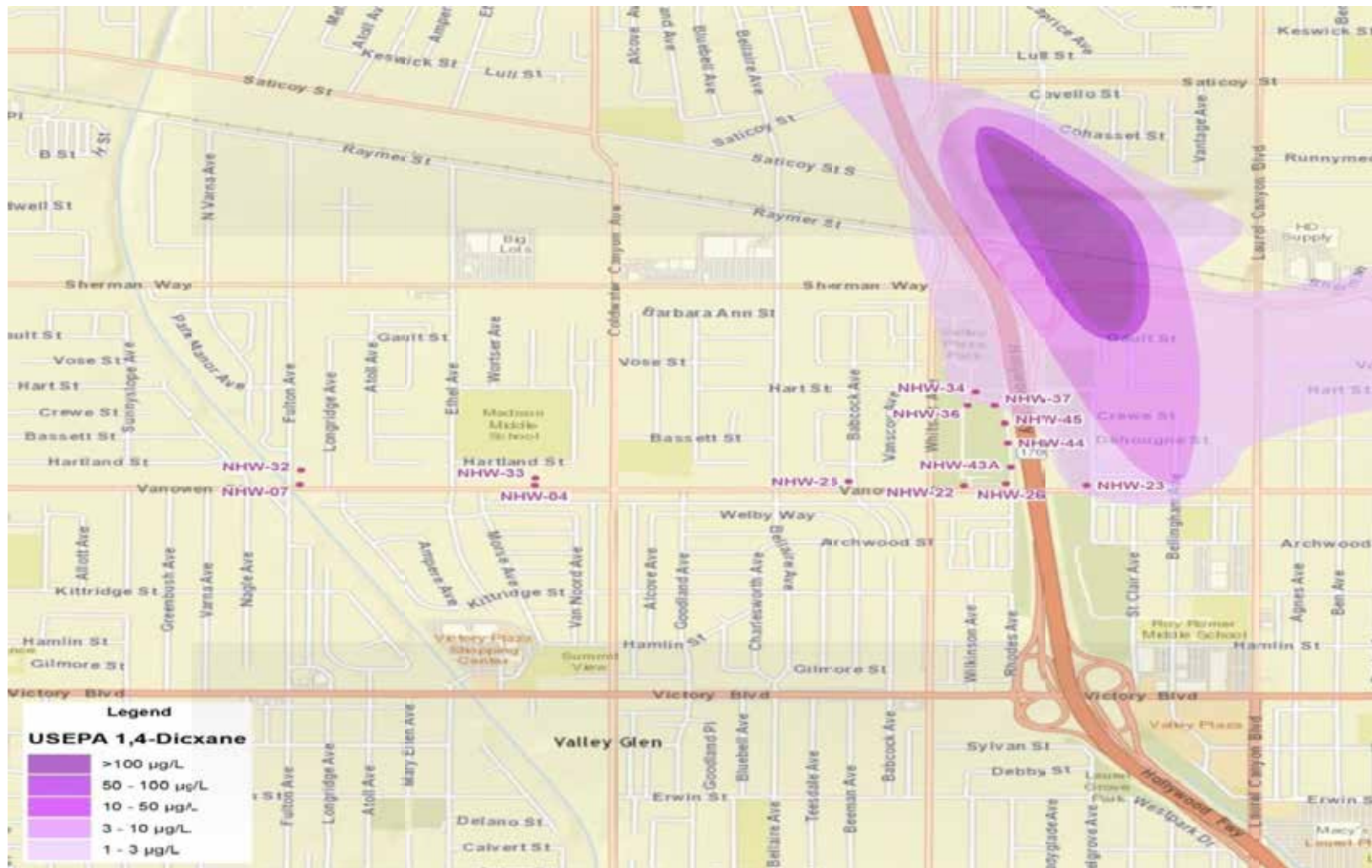
Source: Technical Fact Sheet – 1,4-Dioxane, USEPA January 2014

https://www.epa.gov/sites/production/files/2014-03/documents/ffro_factsheet_contaminant_14-dioxane_january2014_final.pdf

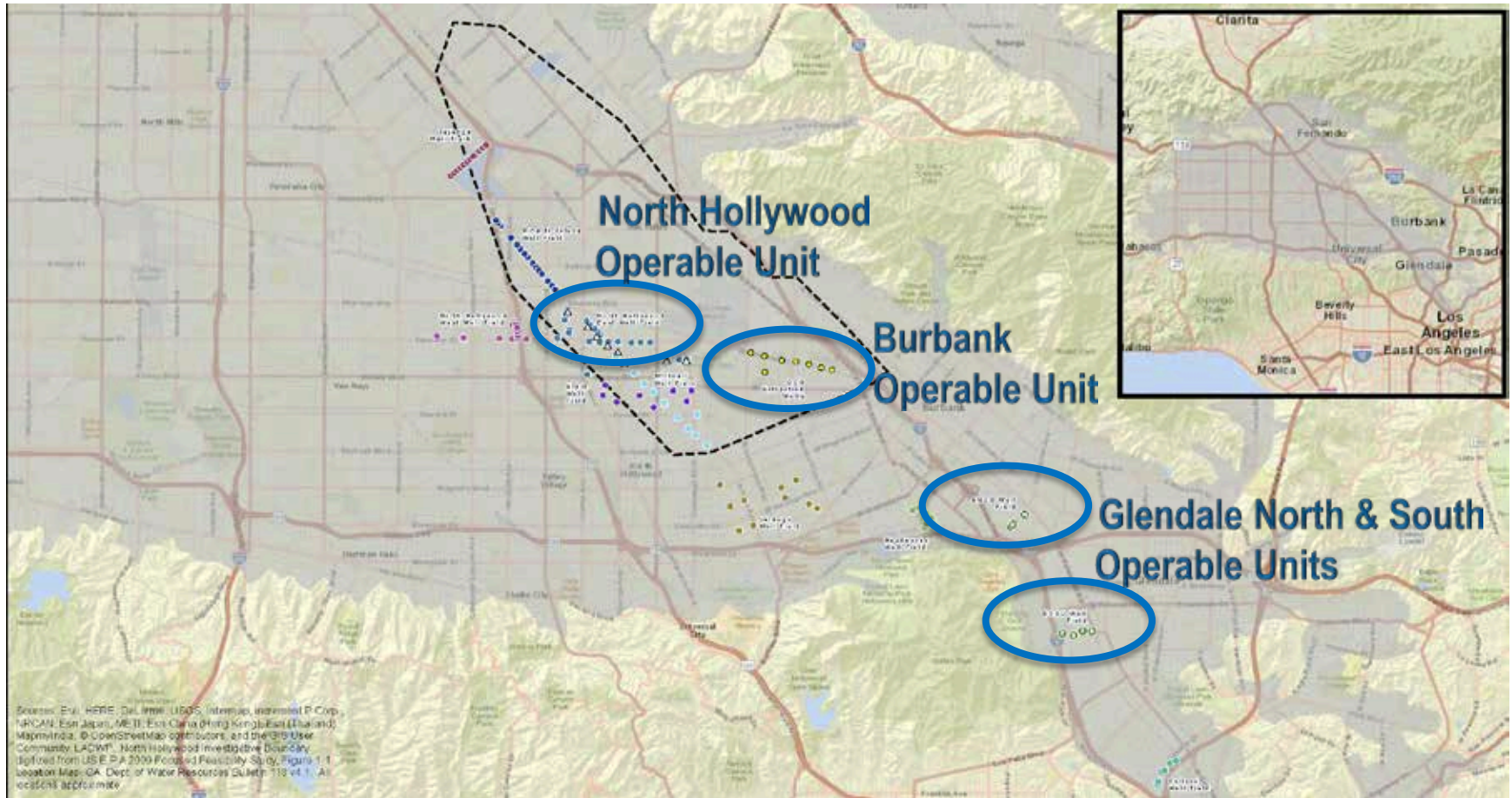


Site Background and Characteristics:

Why focus on the 1,4-Dioxane Plume?



Site Background and Characteristics: Existing Superfund Response Actions



Site Background and Characteristics:

Health Risk Evaluation Summary for NHW

- Conducted to:
 - Assess risks posed by groundwater contamination in the absence of a response action
- Exposure:
 - Residential use of groundwater via ingestion and inhalation
- Conclusion:
 - Concentrations of 1,4-dioxane in production wells resulted in potential risks from cancer and non-cancer endpoints

Remedial Investigation/Feasibility Study (RI/FS)

- Remedial Investigation (RI) provides:
 - Ø Site characterization
 - Ø Baseline risk assessment
- Feasibility Study (FS) develops and analyzes remedial action alternatives
 - Ø Identify and screen remedial technologies
 - Ø Develop and analyze alternatives in detail
 - Nine evaluation criteria are basis of remedy selection

Remedial Action Objective (RAO) Summary

- Protect human health and the environment by reducing potential for exposure to 1,4-dioxane in groundwater
- Limit the migration of 1,4-dioxane in groundwater in vicinity of the NHW Well Field
- Remove 1,4-dioxane from groundwater in the vicinity of NHW Well Field to maintain the beneficial uses and restore the aquifer to the extent practicable
- Restore LADWP's capability to operate its existing NHW Well Field consistent with historic and planned use

Remedial Action Objectives:

Preliminary Cleanup Goals

Contaminants of Concern (COCs)	Preliminary Cleanup Goal	Basis of Goal
1,4-Dioxane	1 $\mu\text{g}/\text{L}$	California NL
PCE	5 $\mu\text{g}/\text{L}$	California MCL
TCE	5 $\mu\text{g}/\text{L}$	California MCL
1,1-DCE	6 $\mu\text{g}/\text{L}$	California MCL

NL = Notification Level

MCL = Maximum Contaminant Level



Remedial Alternatives Evaluated

Three remedial alternatives:

- Alternative 1: No Action
- Alternative 2: Alternate Water Supply
- Alternative 3: Groundwater Pump and Treat for Direct Domestic Use

Remedial Alternatives Evaluated:

Alternative 1: No Action

- Required by NCP
- Existing pumping consistent with *State of California Domestic Water Supply Permit*
- No containment or treatment actions
- At least seven wells would be removed from production due to 1,4-dioxane concentration exceeding the California DDW NL

Remedial Alternatives Evaluated:

Alternative 2: Alternate Water Supply

- LADWP would implement institutional actions
 - blending, alternate pumping plans, alternate water supply, monitoring, and groundwater use restrictions
- At least seven wells would be removed from production due to 1,4-dioxane concentration exceeding the California DDW NL
- An alternate water supply would be secured from Metropolitan Water District of Southern California (MWD)

Remedial Alternatives Evaluated:

Alternative 3: Groundwater Pump and Treat for Direct Domestic Use

- Differs from Alternative 2 in that containment and treatment actions would be taken.
- Human health would be protected by capturing and removing 1,4-dioxane through hydraulic control and above-ground treatment.
- Beneficial use of the groundwater would be restored in accordance with *LARWQCB Basin Plan*

Remedial Alternatives Evaluated:

Alternative 3: Groundwater Pump and Treat for Direct Domestic Use (cont.)

- **Hydraulic Control**

- Three production wells would draw in 1,4-dioxane contamination and pull it away from other production wells
- Reduces likelihood of other groundwater production wells and down-gradient groundwater resources being impacted by 1,4-dioxane

Remedial Alternatives Evaluated:

Alternative 3: Groundwater Pump and Treat for Direct Domestic Use (cont.)

- **Treatment of 1,4-dioxane**
 - Commercially available advanced oxidation processes using hydrogen peroxide and ultraviolet light or ozone has been demonstrated to destroy 1,4-dioxane
 - Recognized by USEPA & CA State Water Resources Control Board
- **Removes other volatile organic compounds present in the remediation wells**

Comparative Analysis of Alternatives

Evaluation Criteria for Remedial Alternatives



1. Overall Protection of Human Health and the Environment
2. Compliance with Applicable or Relevant and Appropriate Requirements
3. Long-term Effectiveness and Permanence
4. Reduction of Toxicity/Mobility/Volume of Contaminants through Treatment
5. Short-term Effectiveness
6. Implementability (technical and administrative)
7. Cost (capital and annual operations & maintenance)
8. State Acceptance (agreement with analysis and recommendations)
9. Community Acceptance (agreement with analysis & Preferred Alternative)

Category
Threshold Criteria
Balancing Criteria
Modifying Criteria

Comparative Analysis of Alternatives

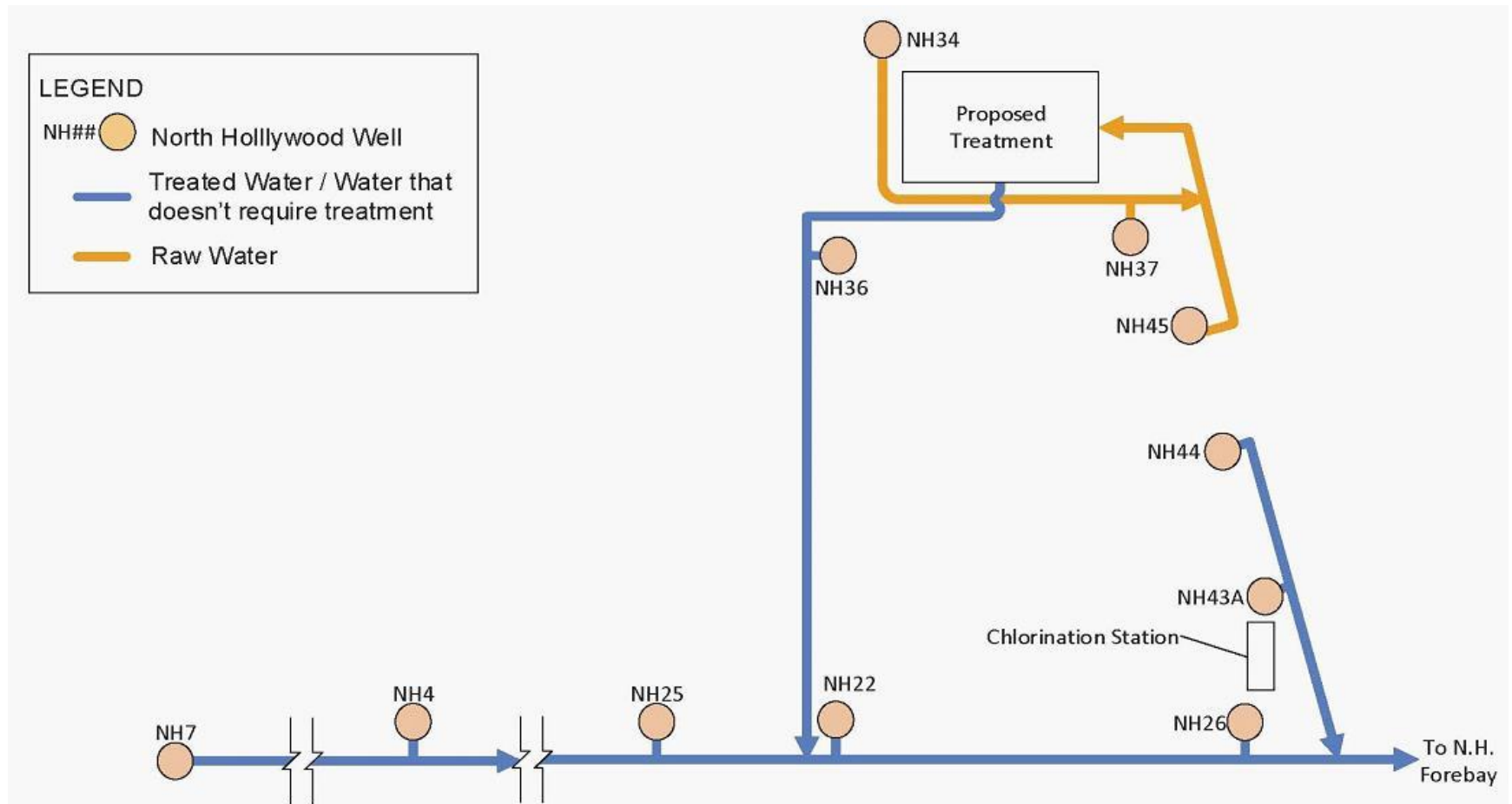
How Do Alternatives Compare to EPA's Evaluation Criteria?

Evaluation Criteria	Alternative 1 No Action	Alternative 2 Institutional Actions	Alternative 3 Groundwater Pump and Treat for Direct Domestic Use
Protection of Human Health and the Environment	Poor	Poor	Good
Compliance with ARARs	NA	Fair	Good
Long-term Effectiveness and Permanence	Poor	Poor	Good
Reduction of Toxicity, Mobility, or Volume through Treatment	Poor	Poor	Good
Short-term Effectiveness	NA	Fair	Good
Implementability	NA	Fair	Fair
Cost (Net Present Value)	\$0	\$249,200,000	\$100,400,000

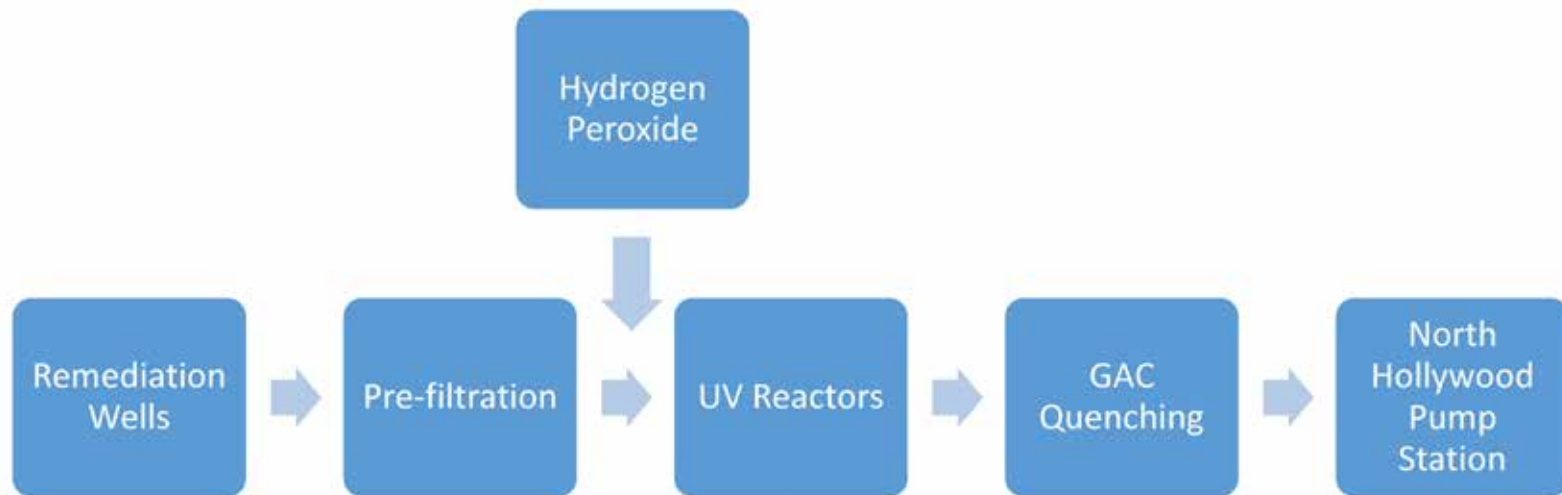
Preferred Alternative

- Alternative 3 - Groundwater Pump and Treat for Direct Domestic Use
 - Preferred remedy meets the threshold criteria and provides the best balance of tradeoffs
 - Highest degree of protection to human health and the environment
 - Satisfies requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

Preferred Alternative: Conceptual Layout



Preferred Alternative: Simplified Process Flow Diagram



Next Steps (Interim Remedial Action)

- Response to Public Comment
- LADWP Board will consider adoption of Record of Decision
 - Official decision document on remedy selection
- Remedial Design
 - Develop final design plans for selected remedy
- Interim Remedial Action
 - Remedy construction (2017-2019 [if remedy selected in 1st quarter 2017])
- Operation and Maintenance

Information Repositories

Interim Remedial Action

City of Burbank Public Library

110 North Glenoaks Street

Burbank, CA 91502

Panorama City Public Library

14345 Roscoe Boulevard

Panorama City, CA 91402

City of LA Technical Central Library

630 West 5th Street

Los Angeles, CA 90071

City of Glendale Public Library

222 East Harvard Street

Glendale, CA 91205

www.ladwp.com/remediation



Public Comment

Comments may be provided at this public meeting orally or in writing.
Comments can also be submitted via mail or e-mail as provided below.
All comments must be received by 5:00 p.m. on January 23, 2017.

INTERIM REMEDIAL ACTION

Los Angeles Department of Water and Power
111 North Hope Street, Room 1345
Los Angeles, CA 90012

Contact: Community Relations Office
Phone: (213) 367-1361
Fax: (213) 367-0928
Email: remediation@ladwp.com

Los Angeles Department of Water & Power
COMMUNITY MEETING
Proposed North Hollywood West
Interim Remedial Action
Public Comment

January 4, 2017

Name _____
Address _____
Organization/Affiliation _____
Email _____

I would like to receive project updates via email.
 Yes No

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Los Angeles Department of Water and Power
111 North Hope Street, Room 1345
Los Angeles, CA 90012
Contact: Evelyn Cortez-Davis
Fax: (213) 367-0928
Email: remediation@ladwp.com

www.ladwp.com/remediation
www.ladwp.com

California Environmental Quality Act (CEQA)

Nadia Parker
LADWP Environmental Affairs

Agenda

California Environmental Quality Act (CEQA)

- Description and Applicability
- Environmental Factors Considered
- Mitigated Negative Declaration
- Next Steps
- Information Repositories
- Public Comments

California Environmental Quality Act (CEQA)

Description

- A statute requiring state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.
- CEQA applies to all **discretionary actions** taken by “government agencies” in California, including “local agencies,” “regional agencies,” and “state agencies, boards, and commissions.”
- Prevent significant, avoidable impacts to the environment by requiring changes in projects through the use of alternatives or mitigation measures.

California Environmental Quality Act (CEQA)

Applicability

- North Hollywood West (NHW) Well Field Treatment Project is a **discretionary action** by LADWP and a **project** as defined under CEQA.
- The CEQA analysis for NHW evaluated the proposed plan (preferred alternative) identified in the NCP process described earlier.
- The CEQA analysis' intent is to assess potential impacts to the physical environment during both construction and operation of the project.

California Environmental Quality Act (CEQA)

Environmental Factors considered

- Aesthetics
- Agriculture/Forestry
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Traffic/Transportation
- Tribal Cultural Resources
- Utilities/Services Systems

California Environmental Quality Act (CEQA)

Mitigated Negative Declaration

- A Mitigated Negative Declaration (MND) was prepared for the NHW Project
- Under CEQA, an MND is appropriate is when a project has potentially significant effects on the environment, but revisions in project plans or the application of mitigation measures are developed that would avoid or mitigate effects to a point where no significant impact on the environment would occur.
- The Proposed Project analyzed in the MND is based on the Proposed Plan in the RI/FS

California Environmental Quality Act (CEQA)

CEQA Analysis

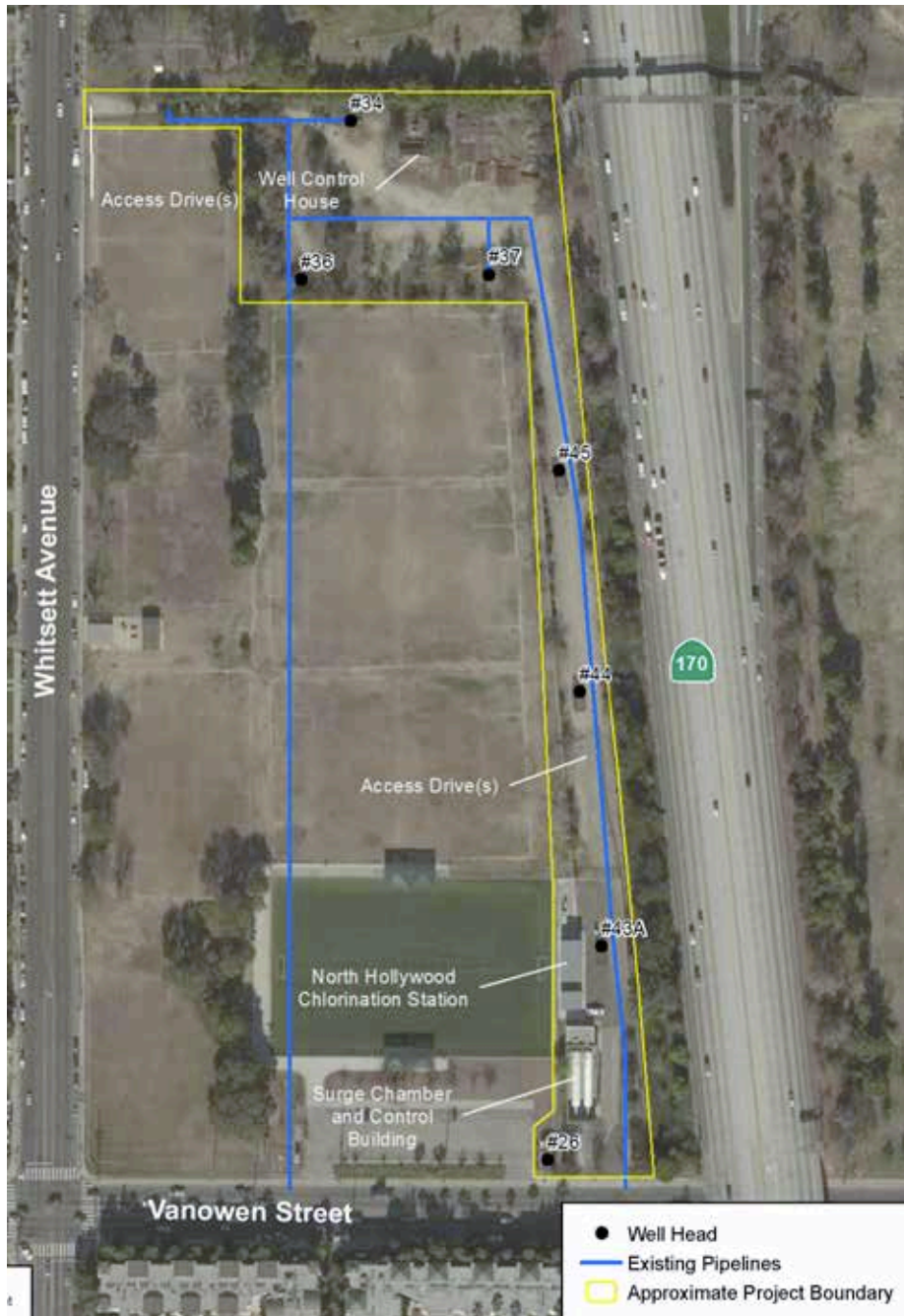
- Implementation of the Proposed Project would involve several phases, including design, procurement, construction, and commissioning.
- The CEQA analysis focused on the 12 months for construction and the subsequent operation of the project.

California Environmental Quality Act (CEQA)

Construction Details

- **Construction Phases:**
 - Site Preparation
 - Piping, Conduit, and Concrete Pad Installation
 - Equipment Installation
 - Structures
- **Construction Effort:**
 - A peak of 20 on-site personnel for several months, but usually six or fewer on-site personnel would be required.
 - A peak of about five truck round-trips would be required for several months, but usually three or fewer truck trips would be required.
 - Several pieces of heavy equipment would be required at various times during construction, including dozers, loaders, trucks, and cranes.
 - All construction activities would occur within the existing fenced LADWP well field property, adjacent to the I-170 freeway.

North Hollywood West Well Field



California Environmental Quality Act (CEQA)

Impact Conclusions

• Construction Analysis

- Most factors analyzed were under thresholds of significance established under CEQA or other guidelines
- Potentially significant impacts were identified for biological and cultural resources
- Mitigation measures were recommended to reduce the level of these impacts to less than significant

• Operations Analysis

- No significant impacts were identified during project operations
- Negligible air emissions from operations
- Greenhouse gas emissions related to energy use do not exceed thresholds
- All wastewater would be handled by existing sewer system with no capacity constraints
- Noise from running of pumps and equipment found to be less than significant

California Environmental Quality Act (CEQA)

Mitigation Measures

- **Biological Resources**

- Nesting bird surveys if construction initiated during the nesting season (mid-February through August)
- Survey for bats prior to construction
- Avoid protected trees, such as oaks

- **Cultural and Tribal Cultural Resources**

- Provisions for monitoring and resource protection in the event that archaeological or tribal cultural resources are exposed during construction activities

Next Steps (Environmental)

- Response to Public Comment
- LADWP Board Adoption of MND Documentation
- CEQA Notice of Determination
 - Official decision document on environmental compliance
- Remedial Design
 - Develop final design plans for selected remedy
- Remedial Action
 - Remedy construction

Information Repositories

Environmental (CEQA)

Mid-Valley Regional Public Library

16244 Nordhoff Street

North Hills, CA 91343

North Hollywood Regional Public Library

5211 Tujunga Avenue

North Hollywood, CA 91601

Panorama City Public Library

14345 Roscoe Boulevard

Panorama City, CA 91402

Valley Plaza Public Library

12311 Vanowen Street

North Hollywood, CA 91605

www.ladwp.com/envnotices



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Environmental (CEQA)

Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Contact: Nadia Parker
Phone: (213) 367-1745
Fax: (213) 367-4710
Email: nadia.parker@ladwp.com

Los Angeles Department of Water & Power
COMMUNITY MEETING
Mitigated Negative Declaration for the
proposed North Hollywood West Well Field
Water Treatment Project
Public Comment

January 4, 2017

Name _____
Address _____
Organization/Affiliation _____
Email _____

I would like to receive project updates via email.
___ Yes ___ No

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Email: nadia.parker@ladwp.com

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Thank
You

