Malibu Civic Center
Stakeholders Meeting

March 28, 2013
Meeting Agenda

- Regional Water Quality Control Board
- Community Facilities District (CFD)
- Wastewater Facility Design
- Questions/Comments
- Next Meeting April 25, 2013
- Adjourn
Regional Water Quality Control Board

- Met with Eric Wu RWQCB Groundwater and Permitting Unit
- Discussed:
  - Project milestones
  - EIR
  - CDP requirements
  - Monitoring well and locations
  - US EPA requirements
  - Department of Health review
  - Permits
- Submit quarterly report to the Board by March 2013
- Submit response to RWQCB comments to the Recycled Water Use and Storage Study, Results of Phase I Work, and Conceptual Groundwater Injection Plan
Community Facilities District (CFD)

- Bond sale closed in February 2013
- City received funds in February 2013
- No other updates
Wastewater Facility Design

- Groundwater Injection Study
  - Phase 1 – cursory modeling and scoping
  - Phase 2 – preliminary feasibility assessment
  - Phase 3 – monitor and injection well testing, modeling and analysis, injection well pre-design

- Environmental Impact Report (EIR)

- Final Design/Construction Document
Project Schedule

Phase 3 Field Program

- **Pre-field Work** (March – May 2013)
  - Solicit and execute consultant and contractor agreements
  - Select monitoring well locations and secure access
  - Obtain drilling and testing permits

- **Monitoring wells construction, testing, and development** (April – August 2013)
  - Install wells
  - Test wells
  - Analyze collected data
  - Prepare well reports
Project Schedule

Phase 3 Field Program

- **Well Injection Testing** (June – August 2013)
  - MW 01
  - MW 02
  - MW 03

- **Modeling Work** (September – December 2013)
  - Updating model
  - Recalibration
  - Run scenarios
  - Perform sensitivity analysis
  - Prepare model report

- **Begin injection well design** (December 2013)
Phase III Field Program (Malibu Colony)

1. Drilling and Well Construction
   - Location of new wells
Phase III Field Program (Malibu Colony)

Location of new wells

Legend:
- Existing Wells
- Proposed Monitoring Wells
- Bedrock Only
- Shallow
- Cluster

Proposed staging area
Phase III Field Program (Malibu Colony)

- Install two additional monitoring wells adjacent to two existing monitoring wells

Location of New Well 1

Location of New Well 2
Phase III Field Program (Malibu Colony)

Steps for constructing a well

Step 1 – Staging

- Well locations will be marked and cleared for drilling
- Drill rig and support equipment will be in place at the site
- Noise curtains will be placed around drilling site to dampen noise
- Road restrictions will be in place but homes will remain accessible
Step 2 – Drill and Construct Wells

- Borings are drilled and wells constructed within holes
- Wells will be 2-inches in diameter and approximately 125 feet deep
- Sonic drill rig will be used
- Soil will be removed from site daily
- Sound blankets will be used to minimize noise
- Well be set in a Christy box set flush to grade
Phase III Field Program (Malibu Colony)

Step 3 – Develop the Wells

- Wells will be pumped to clear out sediments and ensure smooth flow of water
- Water pumped will be removed from site daily in 55-gallon drums
Phase III Field Program (Malibu Colony)

Step 4 – Wells Sampling Site Restoration

- Site will be restored to its previous state
- Equipment will be removed
- Pavement will be restored
- Site will be cleared of any debris

2. Field Testing

- Field testing will begin after construction has been completed
- Wells will be tested predominantly
  - Water level monitoring
  - Water quality sampling
# Phase III Field Program (Malibu Colony)

## Water Quality Sampling

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<tr>
<th>Cations</th>
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<th>Metals</th>
<th>EPA Regulated Priority Pollutants</th>
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<td>Aluminum</td>
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<td>Antimony</td>
<td>Semi-Volatile Organic Compounds by EPA Method 8270</td>
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**Metals**
- Aluminum
- Antimony
- Arsenic
- Barium
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- Cadmium
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- Cobalt
- Copper
- Iron
- Lead
- Manganese
- Mercury
- Nickel
- Selenium
- Silver
- Thallium
- Vanadium
- Zinc

**EPA Regulated Priority Pollutants**
- Volatile Organic Compounds by EPA Method 8260
- Semi-Volatile Organic Compounds by EPA Method 8270
- Total Dissolved Solids (TDS)
- Total Organic Carbon (TOC)
- Silica
Environmental Impact Report (EIR)

- Prepare and circulate NOP/IS  (March – May 2013)
- Prepare and circulate Draft EIR  (March 2013– January 2014)
- Prepare Final EIR  (January – April 2014)
Project Schedule

- Final design and construction documents (April – June 2014)
Questions / Comments
Next meeting April 25, 2013
Thank you