CITY OF BEVERLY HILLS
STAFF REPORT

Meeting Date: November 5, 2009

To: Honorable Mayor & City Council

From: Shana Epstein, Environmental Utilities Manager

Subject: Shallow Groundwater Wells

Attachments: 1. Preliminary Selection of Shallow Water-Supply Wells

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INTRODUCTION

The City of Beverly Hills has spent several years investigating the value of its shallow groundwater supply. The preliminary reports are complete and now the City is tasked with considering if it is worth investing in drilling two shallow groundwater wells in hopes that sufficient groundwater can be produced to increase locally produced water supply and make the investment worthwhile. These wells will need to be monitored for at least a year to see if this resource is a viable option to augment the City's local water supply. This next phase is costly and can potentially be funded by a third party, but it is important to understand money may be spent with the result that shallow groundwater wells will not be fiscally or physically practical.

DISCUSSION

Initially, the City presented research to the California Department of Public Health (DPH) to utilize the shallow groundwater that is collected in sumps at 331 and 407 N. Maple Drive. The water would be treated at the City's existing water treatment plant with necessary accommodation. These two properties collect and discharge to the storm drain system shallow groundwater due to these buildings having subterranean garages. DPH did not approve of this option since the structures were not designed as sanitary.

DPH did inform the City that if the shallow groundwater were to be utilized, then shallow wells may be the best option to explore. The characteristics of the shallow groundwater well is to have a 50 foot sanitary seal. Therefore, staff explored this option under the direction of Richard Slade and Associates, hydro-geologists. A report was completed on the benefits and risks of pursuing these shallow groundwater wells. The location for the wells would be on the property across the street from the Public Works Facility that is adjacent to the Maple Plaza Office Building. The footprint of each well during construction would be 100 by 150 feet and after construction, 40 by 40 feet. These properties' addresses are on Foothill Road and between the cross streets of Alden Drive and Third Street.

The major risks include:

- The water quality may be more vulnerable due to its shallow nature and the past industrial uses in this area of the City,
- The volume of water fluctuates upon hydrologic conditions,
- There is no guarantee that the proposed two wells will capture the expected volume of water.

The overarching benefit is that this project may garner an additional water source that will assist in providing a reliable water supply to the community. Due to this benefit, the Groundwater Management Plan Technical Committee recommends constructing and developing two shallow groundwater wells on City owned property close to the 331 and 407 N. Maple Drive.

Since the City Council passed the Shallow Groundwater De-watering Ordinance, properties who extract water from their subterranean structures and discharge it to the storm water system, either must redirect the use of that water for beneficial purposes, pay the City for replacement water or enter into a private agreement with the City so the City may utilize the water for beneficial purposes. Therefore, staff has approached the property owners of 331 and 407 N. Maple Drive to discuss their interest in assisting the City in exploring the use of this water. They are interested in working with us instead of paying an annual fee that would be quite costly for the life of the building.

If the City proceeds with drilling and testing two shallow groundwater wells, there are several potential outcomes:

- The wells are successful in quality and quantity,
- Additional wells are required to receive a greater volume,
- The wells are not successful so the City either abandons trying to utilize this water or explores non-potable uses including, but not limited to, irrigation.

FISCAL IMPACT

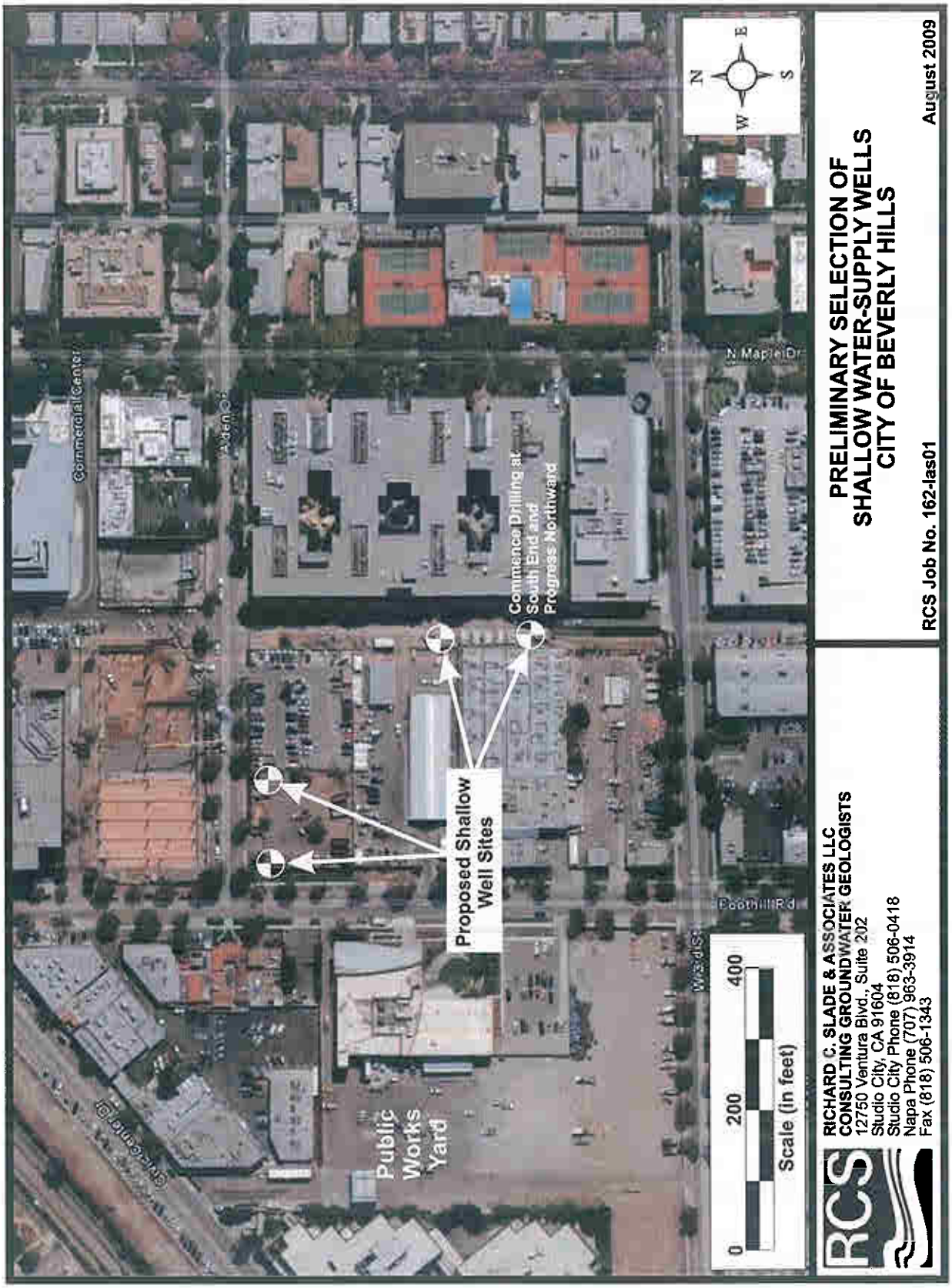
The costs are estimated at $1.5 million to design and build two shallow groundwater wells and the conveyance to the water treatment plant. This project would be administered as a Water Enterprise Fund Capital Improvement Project that is funded by private sources. These estimated costs do not include any possible changes to the water treatment plant that may be required to treat this water.

Currently, purchasing Metropolitan Water District (MWD) imported water is less costly than producing the local supply. However, as solutions to the State Water Project are developed, the cost of MWD water will likely exceed local water production in the future.

RECOMMENDATION

Staff recommends constructing and developing two shallow groundwater wells as long as an agreement may be reached with the identified property owners to fund the project.

FOR David Gustavson
Approved By


Commercial Center
Alden Dr
N Maple Dr
Commence Drilling at South End and Progress Northward
Proposed Shallow Well Sites
Public Works Yard
Poothill Rd
W 3rd St
Santa Monica Blvd
0
200
400
Scale (in feet)
N
E
S
W
RCS
RICHARD C. SLADE & ASSOCIATES LLC
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12750 Ventura Blvd., Suite 202
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PRELIMINARY SELECTION OF
SHALLOW WATER-SUPPLY WELLS
CITY OF BEVERLY HILLS
RCS Job No. 162-las01
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