

# **ATTACHMENT 3**

**(2 OF 2)**

## **WATER-ENERGY PROJECT SYSTEM MAPS AND FIGURES**



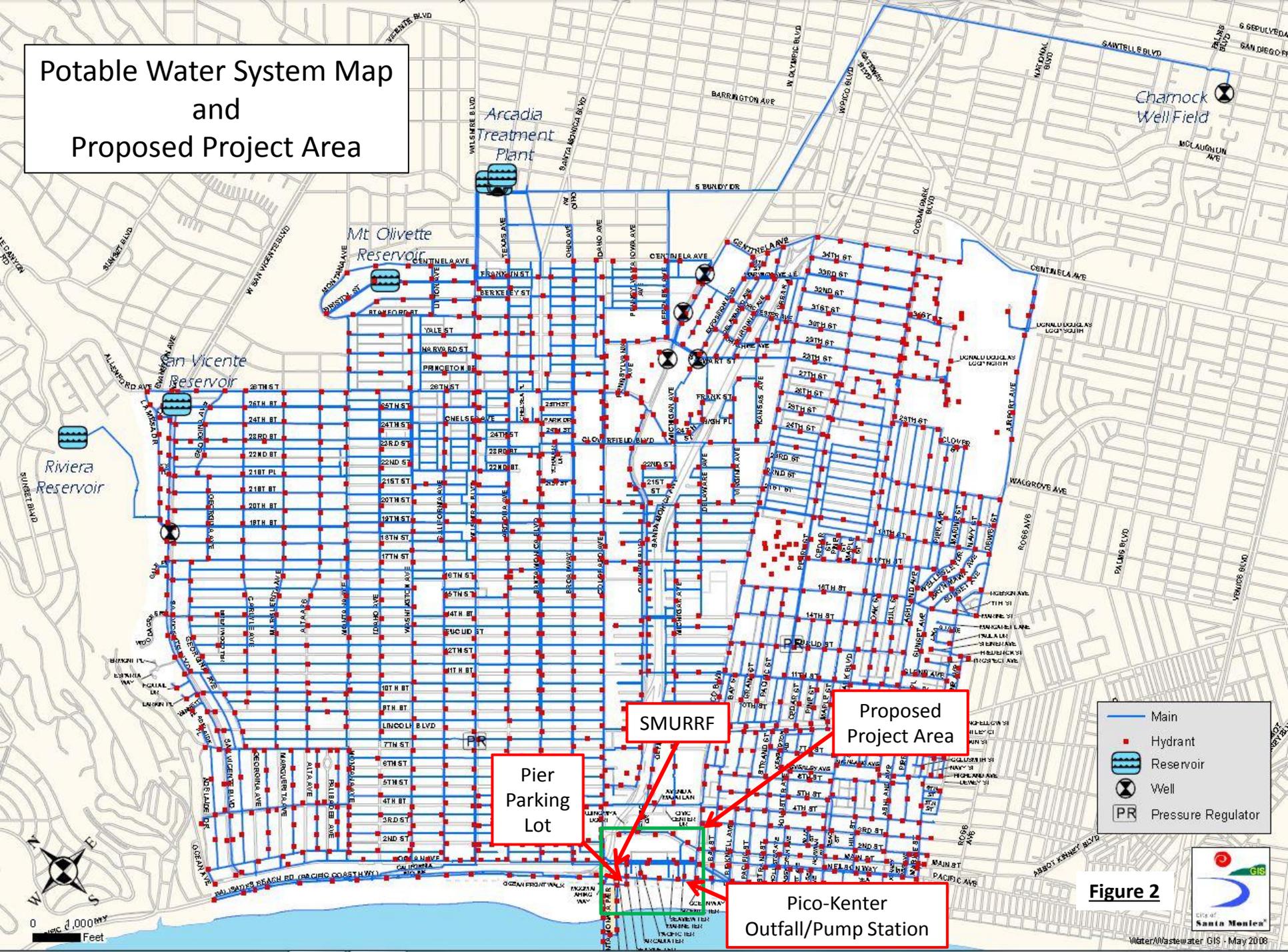
## Water-Energy Project Figures

This project will capture and treat urban/stormwater runoff and beach well extracted brackish groundwater via the innovative use of modular/containerized solar panels and reverse osmosis technologies. The proposed project elements will be incorporated into existing City infrastructure including the Santa Monica Urban Runoff Recycling Facility (SMURRF) and the City's recycled water distribution system. Once completed the project will eliminate the use of imported water and locally sourced potable supply at SMURRF. In doing so, the City will generate project lifetime water savings of 2,463.6 MG and energy savings of 8.9M kWh. Beneficial uses of the treated water include planned aquifer reinjection/maintenance and other recycled uses.

For this project the principal map of interest is the City's reclaimed water system map (**Figure 1**). This system will be utilized to distribute the advance treated water generated by the completed water-energy project. **Figure 2** shows the City's current potable water supply system. The three principal project areas are all within the City and include the existing SMURRF plant where the modular advanced treatment equipment will be located, the Pier parking lot where some of the solar panels that will power the project will be sited, and the Pico-Kenter pump station where the brackish water extraction well, solar panels and equalization tanks will be located (**Figure 3**). **Figure 4** is a detail of the location proposed for the reverse osmosis unit. **Figure 5** provides a conceptual configuration of the project key elements. **Figures 6-7** depicts the location of the proposed brackish water beach extraction well. Figures 8-9 show details of the solar panel locations.



# Potable Water System Map and Proposed Project Area



- Main
- Hydrant
- Reservoir
- Well
- PR Pressure Regulator

# Aerial View of Proposed Project Area



**Figure 3**

# Containerized BWRO Addition At SMURRF



Figure 4

# PROPOSED CONCEPTUAL CONFIGURATION

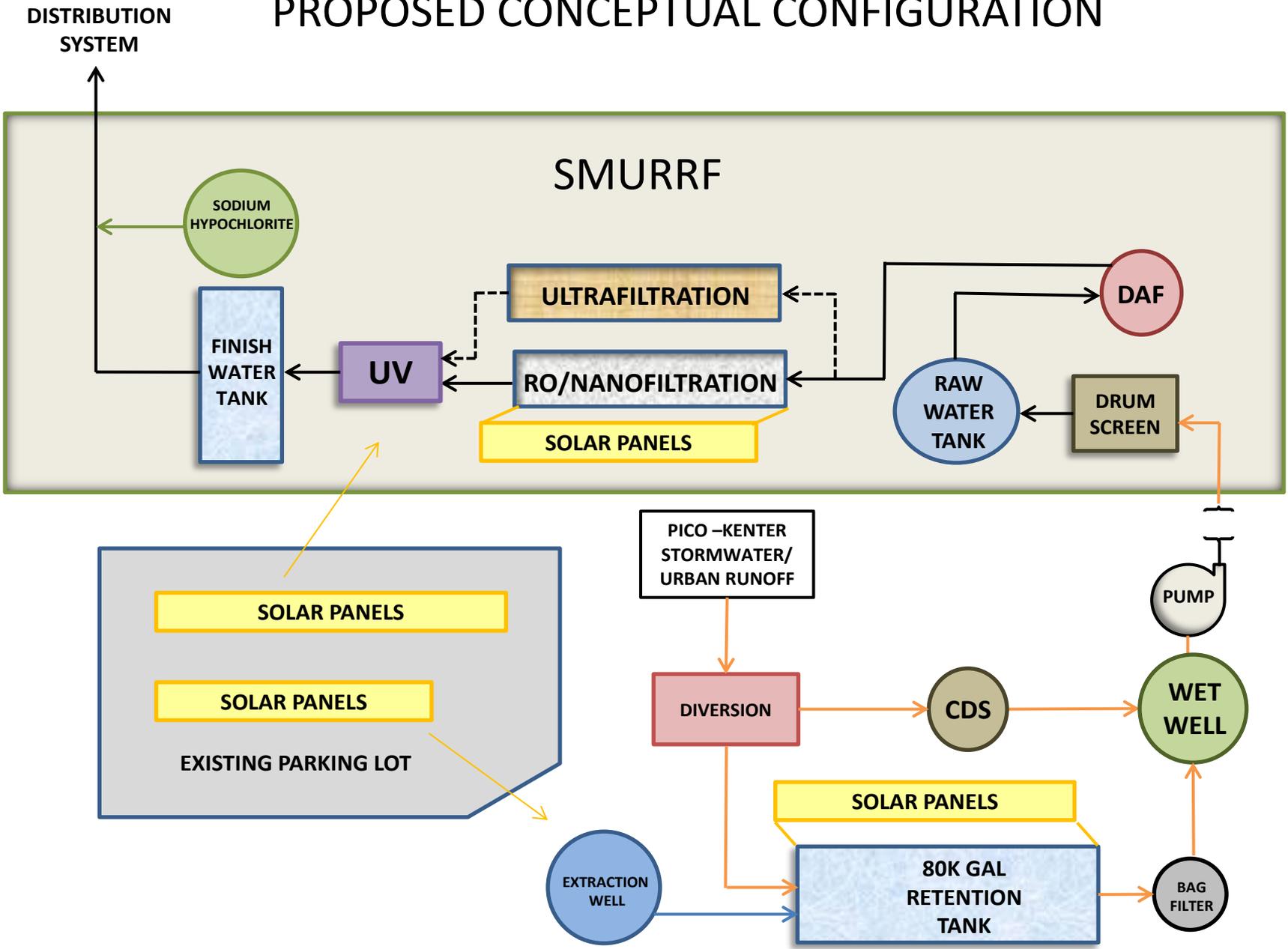


Figure 5

# Proposed Location Pico-Kenter Angle-Drilled Brackish Water Extraction Well



Project Area



Well Head



Bottom Hole Location

25 feet 10 m

**Figure 6**

# Pico-Kenter Beach Extraction Well

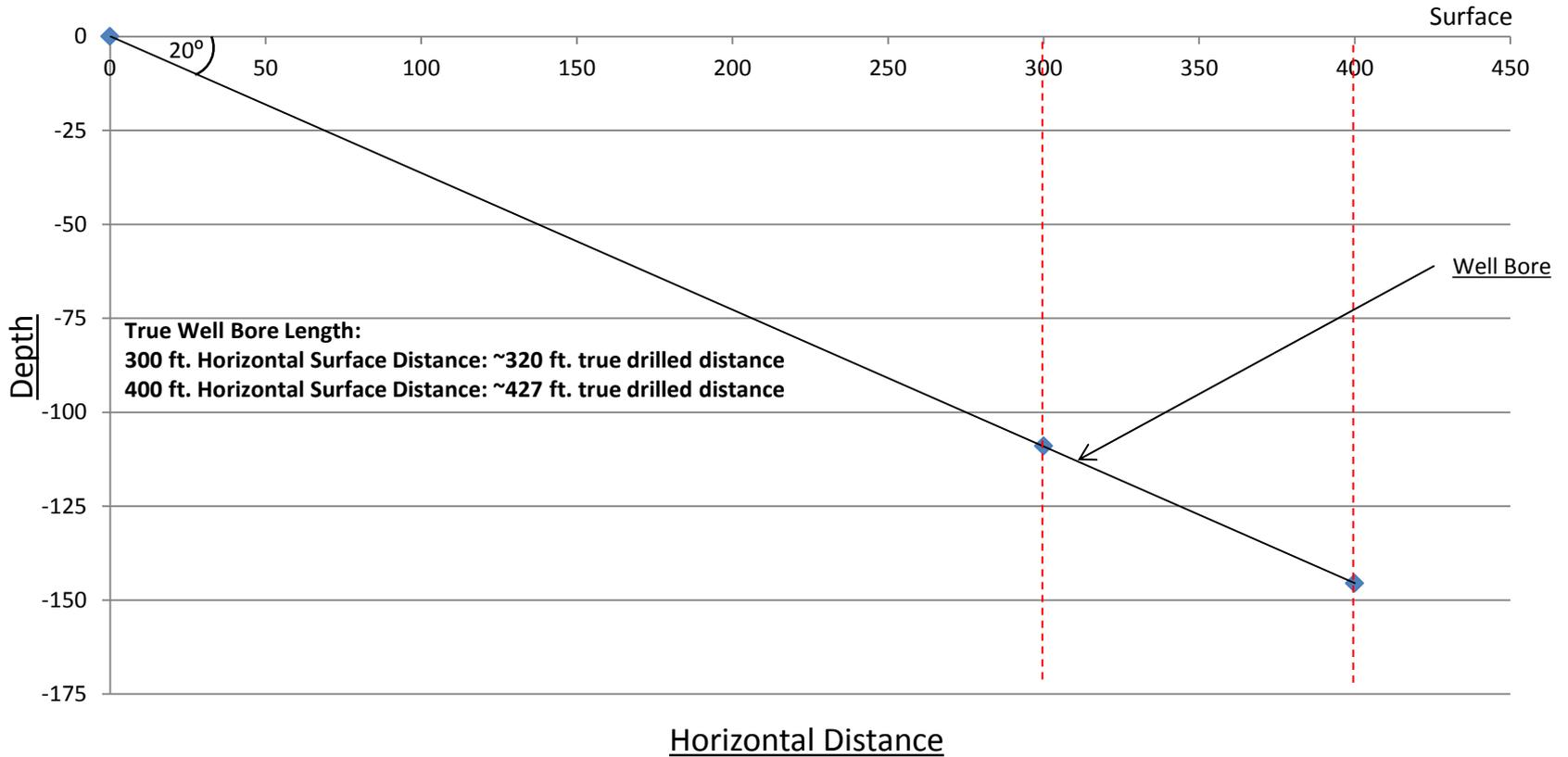


Figure 7

# Proposed Project Solar Panel Locations



25 feet 10 m

Figure 8

# Proposed Project Solar Panel Locations



**Figure 9**