

## **X. RECYCLED WATER**

### **A. Existing Recycled Water System**

#### **1. Existing Recycled Water and Supply System**

Currently, there is not an existing source of recycled water at Alameda Point. Accordingly, there are no existing recycled water distribution facilities within the Project Site.

### **B. Proposed Recycled Water System**

#### **1. Proposed Recycled Water Supply**

EBMUD is implementing the East Bayshore Recycled Water Project, which currently supplies recycled water to portions of Oakland and Emeryville. EBMUD plans to extend their recycled water service to the City of Alameda, including Alameda Point, with future phases of this project. This multi-phase project will eventually supply an annual average of approximately 2.2 MGD of recycled water to portions of Alameda, Albany, Berkeley, Emeryville and Oakland.

EBMUD's source of recycled water for Alameda Point is generated at their Main Wastewater Treatment Plant (MWWTP) located at the eastern landing of the Bay Bridge. The recycled water facilities at the MWWTP utilize microfiltration and extra disinfection to produce recycled water that meets or exceeds the California Department of Health standards for unrestricted use.

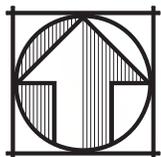
Currently, EBMUD has existing operational recycled water distribution facilities in portions of West Oakland, near 7th Street and Jefferson Street intersection. The East Bayshore Recycled Water Project will eventually construct a recycled water supply line from these facilities in West Oakland, across the Oakland - Alameda Estuary, and into the western portions of Alameda. Alameda Point will likely connect to the recycled water facilities installed with the Bayport project, in order to connect to EBMUD's reliable supply. See Figure 47 depicting the existing and planned future facilities associated with EBMUD's East Bayshore Recycled Water Project.

#### **2. Proposed Recycled Water System and Uses**

As a key component of the Project's sustainable objectives to reduce potable water consumption and demand, a new recycled water distribution system will be installed at Alameda Point. A network of recycled water pipelines will be constructed within the proposed rights of ways of the backbone streets and will range in size from 6 to 12 inches. The recycled water facilities will be designed and constructed in accordance with EBMUD's regulations, standards and specifications.

The proposed recycled water system at Alameda Point will include a backbone network of pipelines throughout all Sub-Districts. This network of facilities will allow for continued growth of recycled water uses and flexibility for the Development and Reuse Areas to utilize this resource. The system will also extend to all anticipate large open space or park facilities, such as the Northwest Territories, Sports Complex and Enterprise Park areas. See Figure 48 depicting the proposed recycled water system.

The recycled water usage at Alameda Point will supplement and minimize the potable water usage. The anticipated uses of recycled water within the Project include landscape irrigation, wetland restoration support and irrigation, plumbing fixtures in dual-plumbed buildings and industrial processes. The recycled



**ALAMEDA POINT  
MASTER INFRASTRUCTURE PLAN**

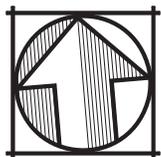
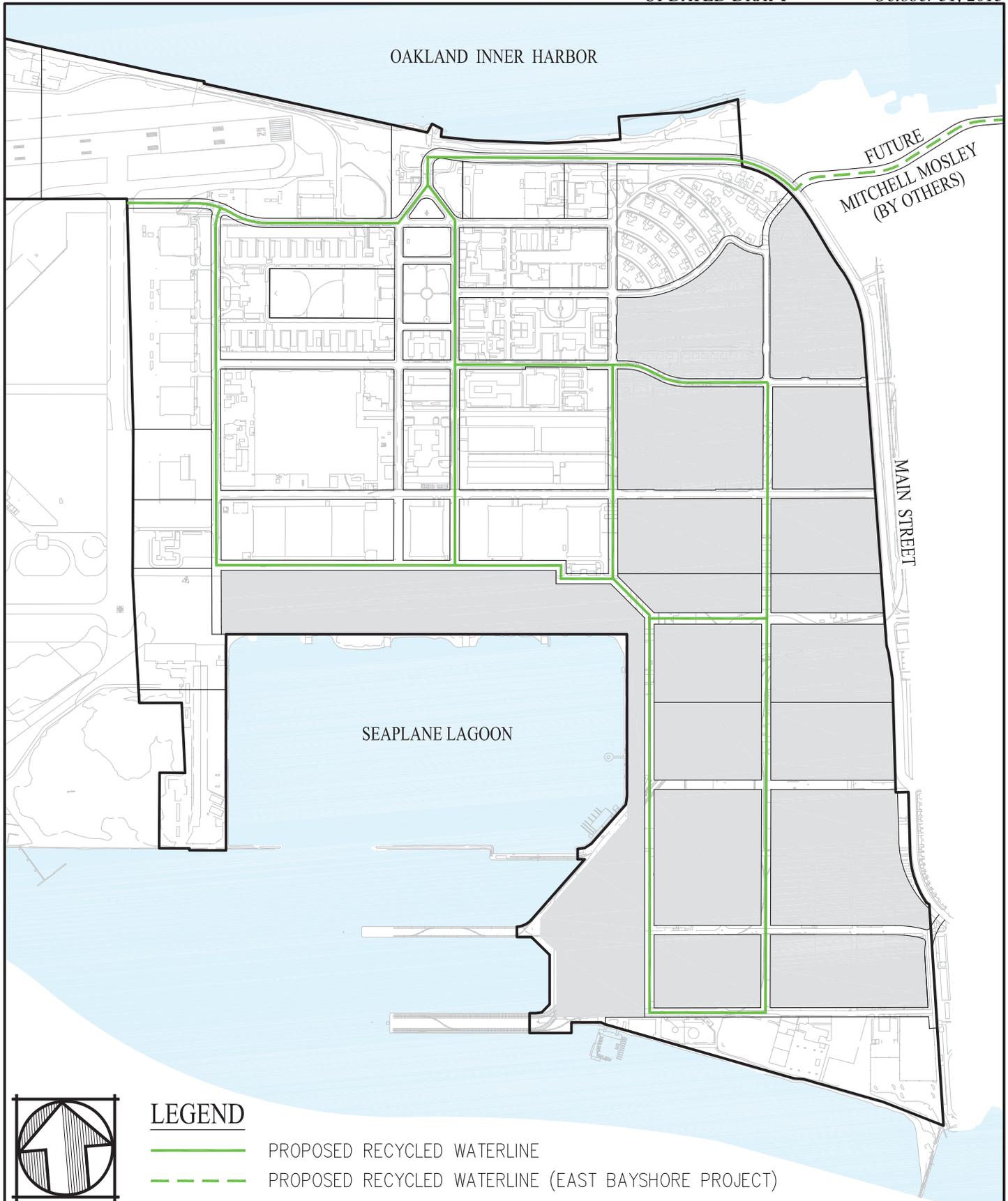
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

DATE: OCTOBER, 2013 NOT TO SCALE

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**FIGURE 47  
EBMUD EAST BAYSHORE  
RECYCLED WATER PROJECT**

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**LEGEND**

- PROPOSED RECYCLED WATERLINE
- - - PROPOSED RECYCLED WATERLINE (EAST BAYSHORE PROJECT)

**ALAMEDA POINT  
MASTER INFRASTRUCTURE PLAN**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

DATE: OCTOBER, 2013 SCALE: 1" = 1,000'

**Carlson, Barbee, & Gibson, Inc.**

**FIGURE 48  
PROPOSED  
RECYCLED WATER**

water demand to provide irrigation to the proposed public open space areas within the Project Site is estimated to be 0.95 MGD. This is the largest expected demand for recycled water at Alameda Point and supply to these areas will be prioritized. All other proposed uses of recycled water will need to confirm available supply with EBMUD at the time of that project application.

There is potential that the EBMUD East Bayshore Recycled Water Project will not have extended recycled water supply to the western portions of Alameda by the commencement of construction of the Alameda Point backbone infrastructure. The proposed recycled water system will be installed regardless so that recycled water can be distributed throughout Alameda Point once EBMUD's supply is available. Additionally, under this scenario dual water services, potable and recycled, will need to be installed to all public open spaces and other uses that anticipate utilizing the recycled water once it is available. Potable water will be utilized at these locations until the conversion to recycled water use is complete.

As described above, the recycled water usage throughout the Project Site will reduce the potable water consumption. Utilizing recycled water for the irrigation demand of the large public open spaces planned within the Project Site will reduce the potable water demand by 0.95 MGD.

### **C. Value Engineering Opportunities**

The largest anticipate demands for recycled water are the irrigation to landscape and wetland restoration areas and industrial processes. A value engineering opportunity is to limit the recycled water backbone system to only provide recycled water service to the areas within the Open Space and Adaptive Reuse Sub-Districts. This would reduce the backbone infrastructure costs by approximately \$1.8 million.