



Three Reliability Projects at Lake Skinner & the Skinner Plant

Engineering & Operations Committee

Item 7-2

October 13, 2014

Current Action

- Appropriate \$960,000
- Authorize 3 reliability projects
 1. Lake Skinner Outlet Tower chlorine injection upgrades
 2. Finished Water Reservoir inlet chemical mixing upgrades
 3. Admin. Bldg. HVAC system replacement

Distribution System



Skinner Area



Background

- Chlorine diffuser in outlet tower has deteriorated & needs upgrades for quagga mussel control
- Inadequate mixing of chlorine & ammonia in FWR inlet conduit increases potential for taste-and-odor problems, & needs to be upgraded
- The 38-year-old HVAC system has deteriorated and is obsolete, & needs to be replaced
 - More than 25 repairs made since 2013
 - No direct replacement units available

1. Lake Skinner Outlet Tower Chlorination Upgrades

- Scope
 - Procure equipment
 - Install new chlorine diffuser system
 - Repair concrete
- Design & construction by Metropolitan staff
- Total cost: \$550,000



2. FWR Chemical Mixing Upgrades

- Scope
 - Procure equipment
 - Install new chemical mixing system
- Design & construction by Metropolitan staff
- Total cost: \$335,000



3. Admin. Bldg. HVAC Replacement

- Planned Work
 - Replacement of two air conditioning units
 - Modification of HVAC controls & existing electrical system
 - Replacement of exterior ductwork
 - Local reinforcement of roof structure



3. Admin. Bldg. HVAC Replacement (cont'd)










- Scope of this action
 - Field investigations
 - Preparation of bid documents
 - Design by Metropolitan staff
- Estimated const. cost: \$360,000 to \$400,000



Requested Funds

	1. Outlet Tower Chlor.	2. Chemical Mixing	3. Admin. Bldg. HVAC
Labor			
Metropolitan force const.	\$284,000	\$183,000	\$ 0
PM & environmental	25,000	17,000	27,000
Field investigations	14,000	17,000	5,000
Final design	52,000	31,000	35,000
Submittals review & record drwgs.	5,000	6,000	0
Materials	84,000	25,000	0
Remaining budget	86,000	56,000	8,000
Total	\$550,000	\$335,000	\$75,000
	Total funds requested: \$960,000		

Schedule

Activity	2014	2015	2016
1. Outlet Tower Chlorine			
2. FWR Chemical Mixing			
3. Admin. Bldg. HVAC			

	Preliminary Design		Board Action
	Final Design		Completion
	Construction		

Board Options

- Option #1
 - Adopt the CEQA determination that the proposed action is categorically exempt
 - Appropriate \$960,000
 - Authorize design & construction of modifications to the Lake Skinner outlet tower chlorine system & the FWR chemical mixing system; & design to replace the Skinner Admin. Bldg. HVAC system

Board Options

- Option #2
 - Do not proceed with the three projects at this time

Staff Recommendation

- Option #1

