

5.2 Estimate of Probable Construction and CIP Costs

Table 5-2. Estimate of Probable Construction and Capital Improvement Costs

Unit Process	Description of Improvement	Opinion of Probable Construction Costs (\$M)
3.0 to 5.0 MGD ADWF Expansion		
Headworks	Add one grit pump and one grit classifier	0.7
Influent Pumping Station	None	-
Secondary Treatment		
Aeration Basin	Add one 1.6-MG basin	13.9
Secondary Clarifier	Add splitter box and one 105-diameter, 14-foot SWD clarifier	7.9
RAS/WAS Pumping		5.0
FIPS	Add three, 4300-gpm pumps	7.4
Tertiary Filtration	Install three new filter units with 20 disks to replace three existing filter units	6.1
UV Disinfection	Add one UV disinfection channel	5.3
Effluent Pumping Station	None	-
Outfall	None	-
Solids Handling and Disposal	Continued use and expansion of current methods; Add two new 0.6-MG aerobic digesters and drying beds within concrete-lined Equalization Storage Basin	16.7
Emergency Generator	Add one 2,000-kW	4.0
Odor Control	Cover and install odor for headworks channels, grit chambers, fine screens, IPS wet well, and grit classifiers	1.0
	Opinion of Probable Construction Cost	68
	Engineering, Legal, Administration, Construction Management, and Services During Construction	12
	Total Project Cost	80
Interim Project – Improvements To Be Completed After Contract 3 and Before 3.0 to 5.0 MGD Expansion^[a]		
Headworks	Replace existing perforated plate screen	
	Replace grit pumps and grit processing equipment includes two cyclones, grit classifier, and appurtenances	
Influent Pumping Station	Replace existing pumps (2-20 HP and 2-60 HP) and add 1-60 HP pump	

Unit Process	Description of Improvement	Opinion of Probable Construction Costs (\$M)
Secondary Treatment		
Oxidation Ditches	Replace surface aerator gearboxes	
Secondary Clarifiers	None	
RAS/WAS Pumping	None	
FIPS	Add one new pump to existing wet well	
Tertiary Filtration	Install one new filter unit with 20 disks	
UV Disinfection	Replace Channel 1 and 2 UV equipment with newer technology	
Chemical Addition		
Operations Building	Remodel and modify to support work areas	
Maintenance Shop	New building, approximately 2,300 square feet with space for maintenance, welding, storage, a truck bay, office, and restroom	
Site Improvements	New pavement at digester and south location	
Back-up/Shelf-Ready Spares	Aerator gearbox and drive (or multiple of both) and spares for other critical equipment as deemed necessary by OPUD	

FIPS = filter influent pumping station

IPS = influent pump station

kW = kilowatt(S)

UV = ultraviolet

RAS = return activated sludge

SWD = side water depth

WAS = waste activated sludge

^[a] Depending on funding availability, influent flows and availability capacity, OPUD may elect to include some of the listed Interim Project improvements in the 3 to 5 MGD ADWF Expansion Project.