

3/20/2017

City of Fresno - File #: ID17-389

ENVIRONMENTAL FINDINGS

The Water Capacity Fee item is not a project pursuant to California Environmental Quality Act (CEQA) Guidelines section 15378. First, the Water Capacity Fees, in and of themselves, do not have the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment and therefore are not considered a "project" under CEQA. (Pub. Resources Code, § 21065, 14 Cal. Code Regs., § 15378, subd. (a).) Further, the Water Capacity Fees are considered a government funding mechanism that do not involve any commitment on behalf of the City to any specific project which may result in a potentially significant physical impact on the environment. (14 Cal. Code Regs., § 15378, subd. (b)(4).)

The Water Capacity Fee program is intended to fund as-yet unknown, future projects and programs, which may include potential infrastructure related to growth. The proposed Water Capacity Fees do not commit the City to approve any particular project, program, or capital improvement, but will be placed in a separate fund for potential unidentified future projects. Adoption of the Water Capacity Fee involves no commitment to any project which may result in a significant physical impact on the environment. Any activities, including infrastructure improvements, which may be funded by these Water Capacity Fees will be subject to future environmental review under CEQA, if applicable, prior to Council approval.

LOCAL PREFERENCE

Local preference was not implemented because the proposed Bill and Master Fee Resolution amendment do not include an award of construction or services contract.

FISCAL IMPACT

Approval of the proposed Water Capacity Fees will not impact the General Fund. Pursuant to Government Code, revenues generated by the Water Capacity Fees can only be used for the purpose for which the fees were collected. Revenues from Water Capacity Fees will be deposited in the Water Capacity Fund established for the purpose of financing the construction of water supply facilities and to reimburse developers for the construction of water supply facilities that are of proportional benefit to new and expanded connections to the City's water system.

Attachments:

Water Capacity Fee Study (Attachment 1)

Bill for Introduction (Attachment 2)

Amendment to the Master Fee Schedule (Attachment 3)

Table 11 - Proposed Reduced Water Capacity Fee Calculation	
1) GROUNDWATER & DISTRIBUTION SYSTEM ASSETS BENEFITTING GROWTH	
Buy-In for Existing Infrastructure Benefitting Growth	
Buy-in for Previously-Funded Infrastructure with Capacity to Serve Growth	Excluded
Present Value of 24.7% of Future 2010 Water Bond Payments ¹	<u>\$40,353,528</u>
Subtotal	\$40,353,528
Share Allocable to Growth % ²	31.5%
Share Allocable to Growth \$	\$12,725,024
Capital Improvements Benefitting Growth	
Groundwater & Distribution System Capital Improvements ²	\$143,865,079
Subtotal	\$156,590,103
Projected Increase in Demand Through Buildout (AF)²	60,072
Cost per Unit	
\$/AF	\$2,607
\$/HCF	\$5.984
2) SURFACE WATER IMPROVEMENTS FOR GROWTH	
Expansion Capacity (Oversizing) of NE Surface Water Treatment Plant	Excluded
Surface Water Improvements Phase 1: for Existing Customers	Excluded
Surface Water Improvements Phase 2: for Next 30 mgd of Growth ³	<u>\$161,019,000</u>
Subtotal	<u>\$161,019,000</u>
Expansion Capacity	
mgd	30
AF	33,604
Cost per Unit	
\$/AF	\$4,792
\$/HCF	\$11.000
TOTAL CAPACITY FEE PER UNIT	
Groundwater & Distribution System Assets	
<i>Average Cost per Unit Through Buildout (\$/hcf)</i>	<u>\$5.984</u>
Surface Water Improvements for Growth	
<i>Expansion Cost per Unit (\$/hcf)</i>	<u>\$11.000</u>
Total	<u>\$16.984</u>

1 Source: Tables 8-10

2 Source: Table 4

3 Source: Table 6



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§ 15273. Rates, Tolls, Fares, and Charges.

14 CA ADC § 15273

BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations [Currentness](#)

Title 14. Natural Resources

Division 6. Resources Agency

Chapter 3. Guidelines for Implementation of the California Environmental Quality Act

Article 18. Statutory Exemptions

14 CCR § 15273

§ 15273. Rates, Tolls, Fares, and Charges.

(a) CEQA does not apply to the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, and other charges by public agencies which the public agency finds are for the purpose of:

- (1) Meeting operating expenses, including employee wage rates and fringe benefits,
- (2) Purchasing or leasing supplies, equipment, or materials,
- (3) Meeting financial reserve needs and requirements,
- (4) Obtaining funds for capital projects, necessary to maintain service within existing service areas, or
- (5) Obtaining funds necessary to maintain such intra-city transfers as are authorized by city charter.

(b) Rate increases to fund capital projects for the expansion of a system remain subject to CEQA. The agency granting the rate increase shall act either as the lead agency if no other agency has prepared environmental documents for the capital project or as a responsible agency if another agency has already complied with CEQA as the lead agency.

(c) The public agency shall incorporate written findings in the record of any proceeding in which an exemption under this section is claimed setting forth with specificity the basis for the claim of exemption.

Note: Authority cited: Section 21083, Public Resources Code. Reference: Section 21080(b)(8), Public Resources Code.

HISTORY

1. Change without regulatory effect amending Note filed 10-6-2005 pursuant to section 100, title 1, California Code of Regulations (Register 2005, No. 40).

This database is current through 3/10/17 Register 2017, No. 10

14 CCR § 15273, 14 CA ADC § 15273

END OF DOCUMENT

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PLANT EXPANSION CONSTRUCTION COSTS - CITY OF FRESNO

COST ESTIMATE DESCRIPTION:	FEB 2015 CH2MHill		FEB 2017 UPDATE Carollo		FEB 2007 DRAFT Carollo		OCT 2006 FINAL Carollo	
	QTY		QTY		QTY		QTY	
1 General Conditions				5,650,000		4,400,000		
2 Civil Site Work - Yard Piping		1,790,000		4,520,000		5,600,000		
3 Raw Water Pump Station				2,100,000		100,000		
4 Pretreatment - Actiflo		9,356,000		6,370,000		1,400,000		
5 Interimdate Ozone		11,613,000		5,340,000		3,900,000		
6 Filters	6	13,641,000		7,670,000		2,900,000		
7 Treated Water Reservoir	5MG	6,426,000		4,750,000	2.5MG	2,900,000	4 MG	4,600,000
8 Treated Water Pump Station				3,680,000		25,000		1,000,000
9 Residuals Handling				2,470,000				
10 Chemical Facilities		4,109,000		3,200,000				
11 Electrical		6,340,000		8,470,000				
12 Instrumentation and Controls				2,260,000				
13 Inline Rapid Mix		1,475,000						
14 Finished Water Pumping	2	2,971,000						
15 Backwash Equalization - Pumping		1,916,000						
16 Sludge Dewatering Beds		1,820,000						
17 Wastewater Recycle Pumping		857,000						
18 Plant Computer System		1,085,000						
19 Submittals - Approvals - Fabrication - Delivery						8,500,000		
20 Clarification Basins						1,500,000		
21 Chemical Storage Building						2,300,000		
22 Plaza - Tunnel - Meter Facility						42,000		
23 Waste Washwater Reclamation						500,000		500,000
SUBTOTAL:		\$63,399,000		\$56,480,000	**	\$31,167,000	**	31,900,000
Contingency:	0%	\$0.00	30%	\$16,940,000	0%	\$0.00	35%	\$13,000,000
Engineering - Legal - Admin (Soft Cost):	30%	\$19,020,000	15%	\$11,010,000	12%	3,700,000	20%	\$10,000,000
TOTAL:		\$82,419,000		\$84,430,000		\$34,867,000		\$61,000,000

CH2M HILL®

NE SWTF EXPANSION PROJECT
Opinion of Probable Capital Costs
February 2015

Description	Amount	Notes
Inline Rapid Mix	\$1,475,000	Expansion to existing system.
Actiflo	\$9,356,000	New Actiflo system for 30 mgd.
→ Ozone	\$11,613,000	Generator, basins, diffusion. ← <i>not needed</i>
Filters	\$13,641,000	6 more filters.
Finished Water Storage	\$6,426,000	5 MG concrete storage tank.
Finished Water Pumping	\$2,971,000	Additional high service pumping.
→ Backwash Equalization / Pumping	\$1,916,000	EQ basin and pumping to dewatering. ← <i>not needed</i>
Sludge Dewatering Beds	\$1,820,000	2 more lagoons for dewatering.
Wastewater Recycle Pumping	\$857,000	Recycle system for wastewater.
Chemical Feed Systems	\$4,109,000	Expansion to chemical feed systems.
Site Work	\$1,790,000	Required site work.
Plant Computer System	\$1,085,000	SCADA Improvements.
Yard Piping/Electrical	\$6,340,000	Piping & electrical between processes.
Subtotal	\$63,399,000	
Soft Costs (30%)	\$19,020,000	Engineering, PM, & CM.
TOTAL	\$82,419,000	

increased from a value of 6635 in April 2003, to a value of 7692, in March 2006. All costs presented herein are in 2006 US Dollars.

2.1 Construction Cost Estimate for Alternative 1: Plant Expansion

Design criteria developed as part of the design of the existing SWTP formed the basis for the cost estimates presented herein, and are included in the Appendix of this Technical Memorandum. The plant design also included design criteria for expansion of the design capacity to 60 mgd and the hydraulic capacity to 100 mgd. The plant expansion alternative considered herein, increases the hydraulic capacity of the plant from 30 to 60 mgd, and not to 100 mgd. Therefore, the criteria used for estimating the cost of this expansion differ, in some cases, from those presented in the original plant design. The specific criteria and assumptions used to develop the costs are presented in the following paragraph.

The plant expansion includes the cost of the addition of two raw water pumps, for a total of six. The existing ozone generator was designed with excess capacity and therefore no new ozone generators have been included in the cost of the plant expansion. Two new clarification basins are included to provide a total of four basins. The existing backwash pump capacity is sufficient for the expansion, and therefore no new backwash pumps have been included. One additional treated water pump has been included (for a total of five) and two additional washwater pumps are included, for a total of four. Two additional ozone contact basins (eight-stage counter/co-current) are also included. The cost of the installation of six new GAC/sand filters and a new filter building has also been included. The cost of a 2.5 million gallon (MG) treated water reservoir has been included, to provide a total treated water storage capacity of 4 MG on site. The cost of a new washwater equalization basin has been included, for a total of two basins, and also the addition of two solids drying beds, for a total of six. The expansion does not include any significant changes to the plaza area or operations building. A construction cost estimate for Alternative 1 is presented in Table 2.1.

Table 2.1 Construction Cost Estimate for Expansion of the Existing Plant (30 to 60 mgd) Water Treatment Cost Estimates City of Fresno	
Project Element	Cost
Mobilization and General Conditions	\$4,400,000
Submittals, Approvals, Fabrication and Delivery	\$8,500,000
Sitework	\$5,600,000
Clarification Basins	\$1,500,000
Chemical Storage Building	\$2,300,000
Filter Building	\$3,900,000

~~\$2~~ 32 M original sheet
eng.

Plaza, Tunnel, and Meter Facility	\$42,000
Operations Building	\$0
Ozone Contact Basins	\$1,400,000
Raw Water Pump Station and Electrical	\$100,000
Treated Water Pump Station and Electrical	\$25,000
2.5 MG Treated Water Reservoir	\$2,900,000
Waste Washwater Reclamation	\$500,000
Subtotal	\$31,000,000
Engineering and Administration @ 12%	\$3,700,000
Total Construction Cost Estimate	\$35,000,000

Notes:

- 2006 US dollars, indexed to ENR Construction Cost Index of 7,692.
- Construction cost includes general conditions, contractor overhead and profit.

2.2 Construction Cost Estimate for Alternative 2: New Plant

For Alternative 2 construction of a new plant in the Southeast area of Fresno, construction costs have been based upon the design criteria for the existing SWTP, with a design capacity of 30 mgd, and a hydraulic capacity of 30 mgd. The main difference between the conceptual Southeast plant and the existing plant, is that it includes the cost of a 4 MG treated water reservoir, instead of a 1.5 MG treated water reservoir. A construction cost estimate for Alternative 2 is presented in Table 2.2.

Project Element	Cost
Mobilization and General Conditions	\$4,400,000
Submittals, Approvals, Fabrication and Delivery	\$9,800,000
Sitework	\$5,600,000
Clarification Basins	\$1,500,000
Chemical Storage Building	\$2,300,000
Filter Building	\$3,900,000
Plaza, Tunnel, and Meter Facility	\$142,000
Operations Building	\$2,500,000
Ozone Contact Basins	\$1,400,000

3/3/17

to Fred Tommy

**Table 2.2 Construction Cost Estimate for a New 30 mgd Plant
Water Treatment Cost Estimates
City of Fresno**

Project Element	Cost
Treated Water Pump Station and Electrical	\$1,000,000
4 MG Treated Water Reservoir	\$4,600,000
Waste Washwater Reclamation	\$500,000
Construction Cost Subtotal	\$38,000,000
Contingency @ 35%	\$13,000,000
Total Construction Cost	\$51,000,000
Engineering, Legal and Administration @ 20%	\$10,000,000
Total Project Cost Estimate	\$61,000,000

Notes:
 a. March 2006 US dollars, indexed to ENR Construction Cost Index of 7,692.
 b. Construction cost includes general conditions, contractor overhead, and profit.

The construction cost of expanding the new Southeast plant, from 30 to 60 mgd, would be essentially the same as that of expanding the existing SWTP. Without the addition of an additional treated water reservoir, the construction subtotal is \$28 million plus \$10 million for contingencies (at 35 percent), for a total construction cost of \$38 million. Including engineering, legal, and administration at 20 percent, the total project cost is \$46 million (all costs March 2006 US dollars).

2.3 Cost Summary

The construction and land costs for Alternatives 1 and 2 are summarized in Table 2.3.

**Table 2.3 Project Cost Estimate Summary
Water Treatment Cost Estimates^a
City of Fresno**

Cost Element	Alternative 1:	Alternative 2: New Plant ^b	
	Expansion to 60 mgd	30 mgd ^c	Expansion to 60 mgd ^d
Design and Construction	\$54 million	\$61 million	\$46 million
Land Purchase	\$0 ^e	\$0 ^f	\$6.0 million ^g
Total Cost Estimate	\$54 million	\$61 million	\$52 million

Notes:
 a. March 2006 US dollars.
 b. Assume southeast corner of McKinley Ave. and Clovis Ave. for this comparison.
 c. Includes 4 MG treated water reservoir.
 d. Does not include additional treated water reservoir.
 e. Approximately 17 acres of land are required, however the City already owns

- The City's preferences and standards.
- Current and projected water quality data and regulatory requirements.
- Physical constraints of site topography and pumping requirements.

COST ESTIMATES

Capital cost estimates presented herein are Class IV Budget Estimates as defined by the Association for the Advancement of Cost Engineering (AACE) revised classification (1999) with an expected accuracy of plus 30 to minus 15 percent. Cost estimates are based upon the Engineer's perception of current conditions in the project area and are subject to variances in the costs of labor, materials, equipment, and services provided by others as well as economic conditions. The estimates reflect the Engineer's professional opinion of accurate costs.

The following assumptions are used in the cost estimates presented in Table 1.

- Costs are in present day dollars estimated as January 2017 ENR CCI of 10532 (20-City Average).
- Project contingency is 30 percent.
- Engineering, legal, and administrative costs is 15 percent.

(NOTE: This project will require some off-site improvements to the regional transmission and distribution piping that are not defined or included at this time, but will represent a project cost adder for the new facilities.)

Table 1 NESWTF Expansion Cost Estimate		
	Description	Cost
1	General Conditions	\$5.65 M
2	Civil Site Work / Yard Piping	\$4.52 M
3	Raw Water Pump Station	\$2.10 M
4	Pretreatment (Actiflo)	\$6.37 M
5	Intermediate Ozone	\$5.34 M
6	Filters	\$7.67 M
7	Treated Water Reservoir	\$4.75 M
8	Treated Water Pump Station	\$3.68 M
9	Residuals Handling	\$2.47 M
10	Chemical Facilities	\$3.20 M
11	Electrical	\$8.47 M
12	Instrumentation and Controls	\$2.26 M
	Total Direct Cost	\$56.48 M
	Contingency (30%)	\$16.94 M
	Total Estimated Construction Cost	\$73.42 M
	Engineering, Legal & Admin (15%)	\$11.01 M
	Total Estimated Project Cost	\$84.43 M