



ADMINISTRATION
COMMITTEE
AGENDA LETTER

Secretary of the Board of
Directors
4699 Hollister Avenue,
Goleta, CA 93110
(805) 879-4621

For Agenda Of: February 23, 2011

Estimated Time 15 min

Continued Item: No

If Yes, date from:

TO: Administration Committee

FROM: Division: Administration
Contact Info: Matthew Anderson

SUBJECT: **Update to the New Water Supply Charge**

Legal Concurrence

As to form: N/A

Recommended Actions:

Consider recommended changes to the New Water Supply Charges (NWSC), per detailed calculations and technical explanations as provided by engineering consultant Camp Dresser McKee (CDM).

Summary Text:

NWSC's and other so-called impact fees are addressed in California Government Codes 66000 et al (California AB1600), and are designed to reimburse the District and its existing customers for the cost of their water supplies, and the value of existing facilities, to future customers. CDM has completed its calculations and provided key findings and recommendations in a detailed technical memorandum (Attachment 1). They updated the NWSC rate by incorporating the cost of State Water and District infrastructure to calculate the rates at which new customers should reimburse the District and existing customers for costs incurred.

The basic NWSC methodology first establishes the costs incurred by the District, both for existing facilities and for State Water. These costs are then divided by the number of AF attributable to each water supply to produce a cost per AF. CDM's attached technical memorandum more fully explains their methods and discusses findings.

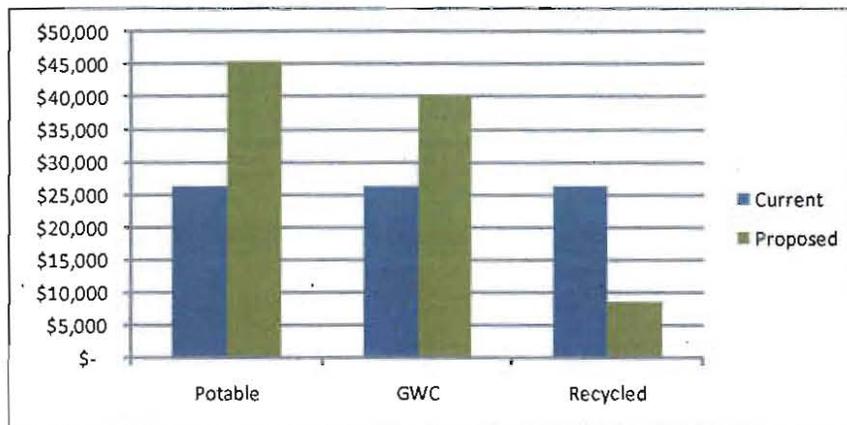
In December 1996, Montgomery Watson (MW) completed its analysis of the District's first NWSC, establishing the original rate of \$23,588 per AF. **Since then the Board occasionally increased the rate to the current rate of \$26,240.** The calculation methodologies employed by MW were similar to those utilized by CDM, with the exception that MW excluded depreciated costs of District facilities from its

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calculations. CDM has included District facilities in its calculations because these assets do not operate at maximum capacity and therefore customers can “buy in” to that excess capacity.

Whereas the District’s current NWSC of \$26,240 per Acre Foot (AF) is a blended rate for Potable, Goleta West Conduit (GWC), and Recycled water systems, CDM recommends that the District create a separate rate for each going forward. Uniquely, because the costs to develop Recycled Water are substantially less than Potable Water, this more precise measurement may be an economic incentive for project owners to purchase Recycled water versus Potable. CDM recommends the following new NWSC’s:

NWSC - Proposed Charges per AF				
Description	Current	Proposed	\$ Increase/ (Decrease)	% Increase/ (Decrease)
Potable	\$ 26,240	\$ 45,361	\$ 19,121	73%
GWC	\$ 26,240	\$ 40,221	\$ 13,981	53%
Recycled	\$ 26,240	\$ 8,758	\$ (17,482)	(67%)



For the March 08 Board meeting, staff will work with General Counsel in developing an ordinance to update the District Code.

Fiscal Analysis:

Assuming the historical average of 50 AF in new water is awarded annually (90% from potable, 10% Recycled), this updated fee increases the reimbursement value of NWSC by approximately \$770 thousand per year. This non-operating revenue would be used exclusively for capital projects needed to accommodate future growth.

Attachments:

1. CDM Technical Memorandum regarding Goleta Water District New Water Supply Charges

Authored by:

M. Anderson



Memorandum

To: *Matthew Anderson*
Administrative Manager/CFO
Goleta Water District

From: *Grant Hoag, P.E.*

Date: *February 18, 2011*

Subject: *Updated New Water Supply Charges*

The purpose of this technical memo is to document the assumptions, findings and conclusions of our update of the New Water Supply Charge (NWSC). The existing NWSC is \$26,240 per acre-foot per year (AFY) of delivered water; it is a blended rate for the Potable and Recycled water supplies and facilities. The current NWSC is from a 1996 study of the projected new water supply costs. These costs were primarily GWD annual payments for 3,800 AFY in State Water Project Supplies delivered to the Cachuma Reservoir by the Department of Water Resources (DWR), but also included certain costs for a reclamation project delivering a presumed 1,000 AFY.

The 1996 study included recommendations that the NWSC be updated in the future, and that the time-value of money is considered, with the use of discount rates, to identify the present value of (1) water supply costs and (2) the value of facilities. This update fulfills those recommendations; moreover, it proposes to divide the current NWSC among the three separate water systems in GWD to improve the nexus between GWD costs of serving new customers and their NWSC (updated capacity charges) for connecting to the GWD.

Findings

Using the water supply and facility capacity available for new water connections, and the existing investment in facilities, we recommend that the existing NWSC of \$26,240 per AFY be changed as follows:

- a) Potable Water System Updated Capacity Charge: \$45,361 (increase of 73%)
- b) Goleta West Conduit Updated Capacity Charge: \$40,221 (increase of 53%)
- c) Recycled Water System Updated Capacity Charge: \$8,758 (decrease of 67%)

These new capacity charges are determined from the following calculation tables. The calculations use the same methods described in the original 1996 study for the 3,800 AFY of new water supplies available to Potable Water and the West Conduit System customers. However, the calculations also include the GWD depreciated facility value of each system. The unique Recycled Water System capacity charge is based solely on the depreciated facility value, which has the capacity to produce 3,000 AFY of recycled water for landscape irrigation.

Potable Water System NWSC Update	
Description	Value
State Water Supply Contract Cost	\$151,883,738
Water Supply (AFY)	<u>3,800</u>
Unit Cost of Water Supply (\$/AFY)	\$39,969
GWD Potable Water System Facility Value	\$77,752,214
System Demand at Bulldout (AFY)	<u>14,422</u>
Unit Cost of Facilities (\$/AFY)	\$5,391
Combined Unit Value of Water Supply and Facilities (\$/AFY)	
Unit Cost of Water Supply	\$39,969
Unit Cost of Potable Facilities	\$5,391
Total Updated Capacity Charge	\$45,361
Current NWSC	\$26,240
Increase	73%

The Potable Water System updated capacity charge calculations are tabulated in three elements, as shown above. The unit cost of the water supply is \$39,969 per AFY, and the unit cost of the system is \$5,391 per AFY. The sum of these unit costs is \$45,361 per AFY. The tables provided in the following sections of this memo detail the basis for each of these unit costs.

West Conduit System NWSC Update	
Description	Value
State Water Supply Contract Cost	\$151,883,738
Water Supply (AFY)	<u>3,800</u>
Unit Cost of Water Supply (\$/AFY)	\$39,969
West Conduit Facility Value	\$308,069
System Demand at Bulldout (AFY)	<u>1,227</u>
Unit Cost of Facilities (\$/AFY)	\$251
Combined Unit Value of Water Supply and Facilities (\$/AFY)	
Unit Cost of Water Supply	\$39,969
Unit Cost of GWC Facilities	\$251
Total Updated Capacity Charge	\$40,221
Current NWSC	\$26,240
Increase	53%

The Goleta West Conduit System updated capacity charge calculations are tabulated in similar manner with three elements, as shown on the left. The unit cost of the water supply is also \$39,969 per AFY, but without the CDM Water Treatment Plant, well sites, reservoirs or the extensive water distribution system the unit cost of the system is only \$251 per AFY. The sum of these unit costs is \$40,221 per AFY.

Finally, the Recycled Water System updated capacity charge calculations shown below are based solely on the depreciated facility value of the Goleta Sanitary District Reclamation Plant and the GWD distribution system. As shown, the Recycled Water System updated charge is only \$8,758 per AFY, a significant 67 percent drop from the current NWSC.

Recycled Water NWSC Update	
Description	Value
Recycled Water System Facility Value	\$26,274,161
System Demand at Bulldout (AFY)	<u>3,000</u>
Updated Capacity Charge	\$8,758
Current NWSC	\$26,240
Change	-67%

These updated capacity charges will reimburse existing customers for their investments in the water supplies and GWD facilities that remain available to future customers. With the updated capacity charge, which has been calculated as required by State Government Codes, any future customer growth will "pay for itself" without being a burden on existing customers. We also recommend that the capacity charges be increased periodically based on the inflationary escalations in facility construction costs, to avoid the one-time dramatic increases in charges identified in this update.

The following sections of this memo detail the analysis used in development the recommended NWSC updates.

Calculation Guidelines

California Government Code Sections 66000 - 66024 enacted by Assembly Bill 1600 are the primary regulations applicable to the development and recovery of system development (capacity) charges, and should be the basis for development of the GWD capacity charges. Capacity charges are not subject to Proposition 218's voter approval requirement, per the California Supreme Court ruling on *Richmond v. Shasta Community Services District* (2004) 32 Cal.4th 409.

Based on varying legal opinions, these codes may be applicable only to cities with statutory authority to regulate growth. As such, GWD may not be as restricted by government code for the determination of capacity charges, as are cities. For cities regulated by this code, the three key requirements are:

- There must be a nexus between the facility costs and the charge;
- The proceeds of the charge must be segregated from other funds; and
- The revenues must be "committed" to a project within five years of receipt.

Although GWD may not be legally required to comply with these codes, the calculations provided in this analysis are consistent with these methods. As such, the facilities-based calculations described below are based on the nexus between (1) GWD new capacity costs built for and available to future growth, and (2) the charges to new development.

There are fixed annual costs to GWD for State water supplies from DWR and Central Coast Water Authority (CCWA) water supply contracts. The costs are evaluated as financing pass-through mechanisms for the DWR and CCWA facilities used to deliver water to GWD. As such, the costs represent GWD's share of the capacity rights in water delivery facilities.

Calculation Methodology

There are two basic methods used for updating the capacity charges that recover the costs of making supplies and services available for new service customers. These are the Average Cost Buy-in and the Incremental Cost methods. Note the incremental cost method is the basis for the current NWSC, as prepared in 1996.

Buy-in Method. With the Average Cost Buy-in method, charges are based on the existing investment in facilities. The existing investment is the original cost of the fixed assets less the accumulated depreciation (OCLD). These capacity charges are based solely on asset book values, and always exclude operating costs. The facility investment is divided by ultimate (build-out) system capacity, to identify the average unit value of the system to its customers. In this study, the system capacity is defined in acre-foot per year (AFY) delivery units, and the unit cost of capacity is based on dollars per AFY. The Buy-in method is used for the facilities associated with each of the three separate water systems run by GWD.

Incremental Cost Method. The incremental method is appropriate for the GWD's most recent and only remaining water supply to future customers. In this method, the cost of this supply, but not the other supplies from ground or surface water sources, is divided by its volume. This analysis is complicated by the fact that the cost of the State Water Project water supply is represented by the multi-year contractual financing terms defined by the DWR, as well as the terms of the funding of the CCWA delivery facilities. These annual costs are redefined as the present value of the supply payments, and divided by the volume of this supply.

NWSC Update Development

The purpose of this section of the memo is to determine the unit facilities cost as a component of the system capacity charge to future customers; it is calculated by dividing the system value by its capacity as represented by the customer demand at buildout.

The calculations of NWSC values are presented in Tables 1 through 4, plus Appendices A and B provided at the end of this memo. Each table and calculation step is described below; the conclusions of the calculations are also summarized in tables provided above, in the Findings section of this memo.

System Use and Capacity, Supply Availability and Facility Values

In this study, the capacity of each of the three GWD systems is represented by the ultimate customer use at build out. In addition to facility capacities, the available water supply for the Potable and the Goleta West Conduit Systems is limited to the most recent new supply increment from the State Water Project (SWP), as contracted in 1996. Under the terms defined in the GWD Water Supply Ordinance amended in 1994, the SWP supplies provide a firm average

long-term yield of 3,800 AFY, while the remaining contract water is a drought buffer per the SAFE ordinance, and is not available for growth. The total supply is 4,500 AFY.

Table 1a Current & Buildout Use of Potable System Facilities

The build-out demand in 2030 is 14,422 AFY per the 2011 Water Supply Management Plan as presented to the Water Management & Long Range Planning Committee on Feb 17, 2011.

The value represents total supplies of 16,472 AF, less 1,000 AF of Recycled Water, less the 3-year average of 1,050 AF of untreated GWC water.

As shown in Table 1a, the current FY 2008-09 use of 12,903 AFY is projected to increase by 12 percent (1,519 AFY) to 14,422 AFY. As provided above, the water for these future customers will come from the remaining SWP supplies.

**Table 1a
 Current & Buildout Use of Potable System Facilities**

Description	Water Use (AFY)	Water Use (HCF/Yr)
Current Use of Potable Facilities (a)		
Single Family	4,887	2,128,737
Agricultural Other	1,970	858,201
Other Potable	6,046	2,633,701
Total	12,903	5,620,639
Build-out Use of Facilities (a)	14,422	6,282,223
Change	12%	
Growth in Use (AFY)	1,519	

AFY: Acre-foot per year The capacity of the potable system is represented by the use at build out.

a. The Build-out in 2030 is per the 2011 Water Supply Management Plan as presented to the Water Management & Long Range Planning Committee on Feb 17, 2011. The value represents total supplies of 16,472 AF, less 1,000 AF of Recycled Water, less the 3-year average of 1,050 AF of untreated GWC water.

Table 1b Current & Buildout Use of Goleta West Conduit Facilities

As shown in Table 1b, the current FY 2008-09 use of the GWC system is 1,098 AFY, including both agricultural and conveyance customers.

The use is projected to increase by 12 percent to 1,149 AFY by buildout. As provided above, the water for these future customers

**Table 1b
 Current & Buildout Use of Goleta West Conduit Facilities**

Description	Water Use (AFY)	Water Use (HCF/Yr)
Current Use of Facilities (a)	1,098	478,133
Build-out Use of Facilities	1,227	534,412
Change	12%	
Growth in Use (AFY)	129	

AFY: Acre-foot per year

The capacity of the GWC is represented by 12 percent over current use.

a. Value are for FY 2008-09, and include the conveyance customers.

will also come from the remaining SWP supplies.

Table 2a Potable Water System Fixed Asset Value

The purpose of Table 2a is to summarize the existing fixed asset value of the Potable Water System.

There are 19 different asset categories; the \$78 million sum of the original book values less depreciation total is defined as the original cost less depreciation (OCLD) value of all fixed assets in the potable system.

The new CDM water treatment plant the most significant GWD asset, with an OCLD value of \$33 million, followed by the transmission and distribution mains at \$16 million.

**Table 2a
 Potable Water System Fixed Assets**

Description	Original Cost	Depreciated Portion (a)	FY2008-09 OCLD
CDM Water Treatment Plant			
WTP Structures & Improvements	\$23,430,049	\$1,450,320	\$21,979,729
Water Treatment Equipment	\$16,676,223	\$5,553,904	\$11,122,319
Potable Distribution System			
Reservoirs & Tanks	\$13,243,549	\$3,130,625	\$10,112,924
Wells	\$8,649,878	\$1,617,724	\$7,032,154
Hydrants	\$1,922,939	\$880,246	\$1,042,693
Pumping Equipment	\$1,686,673	\$399,644	\$1,287,029
T & D Mains & Other	\$28,392,143	\$12,306,024	\$16,086,119
Meters/Serv Connections	\$5,634,975	\$3,605,965	\$2,029,010
Other GWD Fixed Assets			
Computer Equip & S/Ware	\$4,279,364	\$1,063,459	\$3,215,904
Heavy/Other Equipment	\$579,150	\$449,213	\$129,937
Laboratory Equip	\$134,677	\$87,112	\$47,565
Land & Land Rights	\$247,199		\$247,199
Mobile Communication Equip.	\$8,217	\$6,783	\$1,434
Office Furn & Equip	\$351,942	\$225,598	\$126,344
Other Gen'l Plant	\$412,536	\$117,135	\$295,401
Power Production Equip	\$426,638	\$339,569	\$87,069
Structures & Improvements	\$3,673,812	\$1,159,328	\$2,514,484
Tools, Shop & Garage Equip.	\$201,882	\$125,190	\$76,692
Trucks & Autos	\$1,235,370	\$917,164	\$318,206
Total Potable System	\$111,187,217	\$33,435,003	\$77,752,214

a. Values as of 6/30/09 per fixed asset records. The CIP contains no expansion-related projects, and is not included in this analysis.
 OCLD: Original Cost Less Depreciation

Table 2b Goleta West Conduit Fixed Asset Value

**Table 2b
 Goleta West Conduit Fixed Assets**

Table 2b summarizes the existing fixed asset value of the GWC System, which excludes all assets assigned to the Potable Water System.

Summarized in the table are 3 different asset categories; the sum of the OCLD value of all fixed assets in the GWC system is \$308,000, with transmission and distribution mains accounting for 96 percent of the assets.

Description	Original Cost	Depreciated Portion (a)	FY2008-09 OCLD
CDM Water Treatment Plant			\$0
Potable Distribution System			\$0
Other GWD Fixed Assets			\$0
Goleta West Conduit Assets			
Meters/Srv Connections	\$31,043	\$31,043	\$0
Other T & D Plant	\$96,382	\$84,816	\$11,566
T & D Mains	\$2,470,862	\$2,174,359	\$296,503
Total	\$2,598,287	\$2,290,218	\$308,069

a. Values as of 6/30/09 per fixed asset records.
 OCLD: Original Cost Less Depreciation

Table 2c Recycled Water System Fixed Asset Value

Table 2c lists the existing fixed asset value of the GWC System, in five different asset categories. Also included is the Goleta Sanitary District Water Reclamation Plant; although the facility is owned by Goleta Sanitary District, all plant deliveries are used and paid for by GWD. As such, the fixed assets of the plant are included in the Recycled Water System value in this update, just as they were in the original 1996 study. The OCLD

**Table 2c
 Recycled Water System Fixed Assets**

Description	Original Cost	Depreciated Portion (a)	FY2008-09 OCLD
Other GWD Fixed Assets			\$0
Recycled Water System (RWS) Assets			
RWS-Other Pump Plant	\$7,379	\$885	\$6,494
RWS-Pump Equip	\$43,811	\$4,492	\$39,319
RWS_Other T&D	\$23,959,674	\$7,158,611	\$16,801,063
RWS-Meters/Serv Conns	\$16,653	\$8,882	\$7,771
RWS-T&D Mains	\$315,811	\$32,439	\$283,372
Subtotal Owned by GWD	\$24,343,328	\$7,205,309	\$17,138,019
GSD Water Reclamation Plant	\$14,846,230	\$5,710,088	\$9,136,142
Subtotal RWS Assets	\$39,189,558	\$12,915,397	\$26,274,161

a. Values as of 6/30/09 per fixed asset records.
 OCLD: Original Cost Less Depreciation

value of all fixed assets in the Recycled Water System is \$26 million, including the transmission and distribution mains valued at \$17 million, and the water reclamation plant at \$9 million.

Table 3 State Water Supply Contract Charges

For both the original 1996 study of New Water Supply Charges and the current evaluation, the costs of the State Water Project (SWP) water supply contract, and the CCWD facilities funding contract, are the main basis for the water supply charges. These annual costs are redefined as the present value of the supply payments, and divided by the volume of this supply to identify the unit NWSC. In this study, the GWD facility values are also added to the water supply costs to determine the full capacity charges to new customer's connection into the systems.

The DWR contract delivers the SWP waters to the Cachuma Reservoir under contractual financing terms requiring GWD's fixed annual facilities-based payments to DWR, from 1997 through 2035. Moreover, the facilities required to convey the water from the Cachuma Reservoir to GWD (and other CCWA member agencies) are paid to CCWA under contractual financing terms requiring fixed annual facilities-based payments from 1997 through 2022.

**Table 3
 DWR State Water Supply Contract Charges to GWD**

Fiscal Yr Ending	Treasury Rates (3 Year)	Charges for 3,800 AFY Water Supply Contract (b)		
		DWR Supply Payments	CCWA Payments	Total Payments
1997	5.8%	\$2,748,369	\$1,048,557	\$3,796,926
1998	6%	\$3,260,744	\$3,054,701	\$6,315,445
1999	5%	\$3,309,206	\$3,056,948	\$6,366,154
2000	6%	\$3,240,595	\$3,059,067	\$6,299,662
2001	5%	\$3,322,346	\$3,068,498	\$6,390,844
2002	4%	\$3,304,502	\$3,070,151	\$6,374,653
2003	3%	\$3,283,823	\$3,071,813	\$6,355,636
2004	3%	\$3,377,515	\$3,073,587	\$6,451,102
2005	4%	\$3,363,003	\$3,075,341	\$6,438,344
2006	5%	\$3,377,160	\$2,797,804	\$6,174,964
2007	5%	\$3,507,815	\$3,364,607	\$6,872,422
2008	4%	\$3,361,456	\$2,742,047	\$6,103,502
2009	Future Discount Rate	\$3,416,958	\$2,755,067	\$6,172,025
2010	4%	\$3,986,209	\$2,752,038	\$6,738,246
2011	4%	\$3,681,638	\$2,752,648	\$6,434,287
2012	5%	\$3,693,391	\$2,742,169	\$6,435,560
2013	6%	\$3,760,290	\$2,791,269	\$6,551,559
2014	7%	\$3,869,405	\$2,815,544	\$6,684,949
2015	8%	\$3,898,162	\$2,814,109	\$6,712,270
2016	9%	\$3,896,082	\$2,810,353	\$6,706,435
2017	10%	\$3,854,381	\$2,807,727	\$6,662,108
2018	10%	\$3,654,819	\$2,816,051	\$6,470,870
2019	10%	\$3,553,365	\$2,803,519	\$6,356,884
2020	10%	\$3,681,831	\$2,801,290	\$6,483,122
2021	10%	\$3,771,870	\$2,797,901	\$6,569,770
2022	10%	\$3,904,157	\$2,794,298	\$6,698,455
2023	10%	\$3,702,784		\$3,702,784
2024	10%	\$3,695,292		\$3,695,292
2025	10%	\$3,571,376		\$3,571,376
2026	10%	\$3,557,079		\$3,557,079
2027	10%	\$3,543,245		\$3,543,245
2028	10%	\$3,697,126		\$3,697,126
2029	10%	\$3,711,490		\$3,711,490
2030	10%	\$2,872,098		\$2,872,098
2031	10%	\$2,869,364		\$2,869,364
2032	10%	\$2,870,163		\$2,870,163
2033	10%	\$2,870,510		\$2,870,510
2034	10%	\$2,869,859		\$2,869,859
2035	10%	\$2,869,223		\$2,869,223
Total Payments		\$134,778,703	\$73,537,103	\$208,315,806
Increase in Est Payments from Original 1997 Report to Present:				7%
Total Projected Payments in 1996		\$103,627,764	\$91,812,824	\$195,440,588
NWSC Report				
1. PV of Past Payments made to FY 2008/09 (at Treasury Rate)				\$103,468,670
2. PV of Net Discounted Future Payments made after FY 2008/09 (c)				\$48,415,068
Total FY 2008-09 Present Value (PV) of Supply Contract Payments				\$151,883,738
Annual Increase in Value from 1997 to Present:				5.0%
1997 Then Present Value (PV) of Supply Contract Payments				\$88,722,057

AFY: Acre-foot per year; PV: Present Value
 a. The projected costs and other charges are estimated by the CCWA Deputy Director. SWP Facility expenses are contracted through 2035, per the agreement duration.
 b. The New Water Supply from the SWP as defined in the GWD Water Supply Ordinance amended in 1994 provides a firm average long-term yield of 3,800 AFY. The remaining water is a drought buffer per the SAFE ordinance, and is not available for growth.
 c. The present value of the Future Payments made after FY 2008/09 includes an annual discount rate based on projected interest rate and the time value of money, and is net of the portion of future payments that will be included in the annual service charges paid by the new customers.

The sum of these contractually obligated annual fixed payments for the right to use 3,800 AFY of water deliveries from the State Water Project, when available, totals \$208 million over the 39-year period, as detailed in Appendices A and B. Based on the time value of money, with the actual three year treasury rate used for the historical payments from 1997 through 2009, and an annual discount rate of 4 to 10 percent used for the estimated future water supply payments, the FY 2008-09 present value (PV) of the cost of the new water supply is \$152 million. The projected annual payments are also net of the portion of these future payments that will be included in the annual service charges paid by the new customers.

In contrast to the current estimated total water supply payments of \$208 million, the original 1996 NWSC report estimated the then-future payments to be \$195 million, or 7 percent less than is currently projected. Moreover, the original report placed the FY 1996-97 PV of these payments at \$89 million, in contrast the current FY 2008-09 PV of \$152 million. The difference represents an annual time-value of money rate of 5 percent between the 14 years separating the two periods. For comparison, the Engineering News Record Construction Cost Index (ENRCCI) applicable for Southern California has an annual rate of 3.5 percent between the two periods. Typically, the NWSC and similar facilities-based system development charges are escalated at the rate of the ENRCCI in order to remain current with inflationary trends, in the absence of more detailed calculations.

Updated Unit Capacity Values for the GWD Systems

Tables 4 a, b and c use the new values for capacity and the facility values presented in Tables 1 to 3 to determine the updated capacity charges for each of the three GWD systems. These tables are also provided previously in the Summary section of this memo.

The updated capacity charge also uses a division of the original single GWD NWSC among the three separate water systems, and the addition of the facilities costs of the Potable and the West Conduit Systems to the charges. As such, it is recommended that the title for the charges be expanded to New Water Supply and

Table 4a
Potable System New Water Supply & System Development Charges

Description	Value
New State Water Supply Contract Cost	\$151,883,738
New Water Supply (AFY)	<u>3,800</u>
Unit Cost of Water Supply (\$/AFY)	\$39,969
Potable Water System Facilities Value	\$77,752,214
GWD System Demand at Buildout (AFY)	<u>14,422</u>
Unit Cost of Potable Facilities (\$/AFY)	\$5,391
Combined Unit Value of Water Supply and Facilities	
Unit Cost of Water Supply (\$/AFY)	\$39,969
Unit Cost of Potable Facilities (\$/AFY)	<u>\$5,391</u>
Total Unit Cost for System Capacity (\$/AFY)	\$45,361
Current NWSC	<u>\$26,240</u>
Increase	73%

System Development Charges (aka capacity charges).

Table 4a Potable System New Water Supply & System Development Charges

The purpose of Table 4a, as provided on the prior page, is tabulate the updated NWSC by combining the capacities and values of the Potable Water System and its water supply. As shown, the unit cost of the water supply is based on the most recent increment of available supply, while the unit cost of the potable water system uses the buy-in approach of the total system value and deliveries, at buildout. The two unit values in dollars per AFY of demand are added together to determine the new potable system development charge.

Table 4b Unit Value of GWC New Water Supply & Facility Charges

The purpose of Table 4b is to combine the capacities and values of the West Conduit System and water supply, as identified in the prior tables. As shown, the unit cost of the water supply is based on the most recent increment of available supply, while the unit cost of the West Conduit system uses buy-in approach of the total system value and deliveries, at buildout. The two unit values in dollars per AFY of demand are added together to determine the new West Conduit system development charge.

**Table 4b
 Unit Value of GWC New Water Supply & Facility Charge**

Description	Value
New State Water Supply Contract Cost	\$151,883,738
New Water Supply (AFY, a)	<u>3,800</u>
Unit Cost of Water Supply (\$/AFY)	\$39,969
Goleta West Conduit Facilities Value	\$308,069
Build-out Use of Facilities	<u>1,227</u>
Unit Cost of GWC Facilities (\$/AFY)	\$251
Combined Unit Value of Water Supply and Facilities	
Unit Cost of Water Supply (\$/AFY)	\$39,969
Unit Cost of GWC Facilities (\$/AFY)	<u>\$251</u>
Total Unit Cost for System Capacity (\$/AFY)	\$40,221
Current NWSC	\$26,240
Increase	53%

Table 4c Unit Value of Recycled Water New Water Supply & Facility Charge

The purpose of Table 4c is to identify the capacities and values of the Recycled Water System. Unlike the other GWD systems, the raw water supply of this system is Goleta Sanitary District

**Table 4c
 Unit Value of Recycled Water New Water Supply & Facility Charge**

Description	Value
Recycled Water System Facilities Value	\$26,274,161
Recycled Facility Capacity (AFY)	<u>3,000</u>
Total Unit Cost for System Capacity (\$/AFY)	\$8,758
Current NWSC	\$26,240
Change	-67%

wastewater effluent, provided without charge. As such, the unit cost of the Recycled Water System uses only the buy-in approach of the total system value and deliveries, at buildout. The system deliveries at buildout, and the system capacity, are 3,000 AFY. In contrast, the current deliveries are 1,000 AFY.

Currently new recycled water customers must pay the existing blended NWSC of \$26,240. With the division of the fee among the systems, the unit charge for system capacity increases significantly in the potable and recycled systems, but decreases in the Recycled Water System.

Updating of System Development and Other Charges for Inflation

In the 14 years since the NWSC was created it has been increased twice, in 2005 and 2006. As a result, the currently proposed changes to the charge are substantial. As an alternative, GWD may consider smaller but more frequent changes to the charge, for up to five years. The semi-annual changes can be based on an inflationary index for escalations in facilities costs, rather than a full recalculation of the charges. This will simplify periodic updating of the system development charge, without having to modify the table itself.

Periodic escalations in all miscellaneous charges and system development charges for a period of up to five years will assure a full cost recovery on special services to existing and new customers. A resolution providing these updates could be written as:

This resolution shall be updated annually on or about the first day of January by an adjustment of all fees contained herein, as set forth below. Said annual adjustment shall, at a minimum, be made by multiplying each fee included in this ordinance by the ratio of the ENR construction Cost Index of Los Angeles of the current October, as reported by Engineering News-Record, the McGraw-Hill Construction Weekly. The result of said multiplications shall be rounded to the nearest five dollar (\$5.00) increment to become the fee amounts for the ensuing year, effective sixty (60) days after adoption of the revised fee amounts. Additional increases in the system development charges necessary to recover costs of projected capital improvements shall be at the discretion of the Board of Directors. Notwithstanding the foregoing, this section shall not preclude the Board of Directors from time-to-time changing the ordinance or adopting fees other than those as provided herein to be effective on any other date.

Close

If you have any questions regarding this memo, or would like a copy of the analysis model, please contact me.

Appendix A

DWR Fixed Payments by GWD to Central Coast Water Authority

Calendar Year	Transportation Capital			Coastal Branch Extension			Delta Water Interest	Water System Revenue Bond			Total Breakout by Cost Type				
	Principal	Interest	Total	Principal	Interest	Bond Cover		Total	Total	Cover	Interest	Principal	Interest	Cover	TOTAL
1997	\$389,883	\$2,129,234	\$2,519,117	\$0	\$0	\$0	\$0	\$168,713	\$102,610	(\$42,070)	\$60,540	\$389,883	\$2,400,557	(\$42,070)	\$2,748,369
1998	\$451,199	\$2,240,462	\$2,691,661	\$0	\$292,233	\$73,058	\$365,291	\$145,579	\$98,667	(\$40,454)	\$58,214	\$451,199	\$2,776,941	\$32,605	\$3,260,744
1999	\$484,546	\$2,207,507	\$2,692,052	\$0	\$288,894	\$72,224	\$361,118	\$175,653	\$136,242	(\$55,859)	\$80,383	\$484,546	\$2,808,296	\$16,364	\$3,309,206
2000	\$519,385	\$2,084,134	\$2,603,518	\$0	\$288,894	\$72,224	\$361,118	\$178,420	\$165,319	(\$67,781)	\$97,538	\$519,385	\$2,716,767	\$4,443	\$3,240,595
2001	\$551,016	\$2,135,767	\$2,686,783	\$0	\$288,894	\$72,224	\$361,118	\$178,459	\$162,687	(\$66,702)	\$95,985	\$551,016	\$2,765,808	\$5,522	\$3,322,346
2002	\$577,202	\$1,918,619	\$2,495,821	\$53,533	\$369,362	\$105,724	\$528,618	\$181,120	\$167,700	(\$68,757)	\$98,943	\$630,736	\$2,636,800	\$36,967	\$3,304,502
2003	\$604,387	\$1,888,654	\$2,493,041	\$39,151	\$369,206	\$102,089	\$510,446	\$177,308	\$174,623	(\$71,595)	\$103,027	\$643,538	\$2,609,791	\$30,494	\$3,283,823
2004	\$632,365	\$1,963,356	\$2,595,721	\$35,156	\$367,276	\$100,608	\$503,040	\$175,622	\$174,801	(\$71,668)	\$97,538	\$667,521	\$2,681,053	\$28,940	\$3,377,515
2005	\$661,586	\$1,928,377	\$2,589,963	\$48,727	\$345,887	\$98,653	\$493,267	\$182,409	\$165,025	(\$67,660)	\$97,365	\$710,312	\$2,621,698	\$30,993	\$3,363,003
2006	\$691,743	\$1,900,822	\$2,592,565	\$38,352	\$357,183	\$98,884	\$494,419	\$184,818	\$178,574	(\$73,215)	\$105,359	\$730,095	\$2,621,397	\$25,668	\$3,377,160
2007	\$723,738	\$1,863,832	\$2,587,570	\$162,197	\$355,649	\$129,461	\$647,308	\$203,154	\$118,276	(\$48,493)	\$69,783	\$885,935	\$2,540,911	\$80,968	\$3,507,815
2008	\$757,261	\$1,829,391	\$2,586,652	\$28,561	\$346,666	\$93,807	\$497,034	\$207,811	\$166,031	(\$68,073)	\$97,538	\$785,822	\$2,549,899	\$25,734	\$3,361,456
2009	\$792,347	\$1,819,582	\$2,611,929	\$29,541	\$345,096	\$93,659	\$468,295	\$227,109	\$185,806	(\$76,180)	\$109,625	\$821,888	\$2,577,562	\$17,479	\$3,416,958
2010	\$829,040	\$1,705,036	\$2,534,076	\$445,794	\$343,471	\$197,316	\$986,581	\$283,785	\$308,078	(\$126,312)	\$181,766	\$1,274,834	\$2,640,370	\$71,004	\$3,986,209
2011	\$870,094	\$1,654,795	\$2,524,889	\$197,637	\$325,172	\$130,702	\$653,512	\$309,361	\$328,604	(\$134,728)	\$193,877	\$1,067,731	\$2,617,933	(\$4,025)	\$3,681,638
2012	\$913,989	\$1,621,981	\$2,535,971	\$206,633	\$316,546	\$130,795	\$653,974	\$309,361	\$328,960	(\$134,873)	\$194,086	\$1,120,622	\$2,576,848	(\$4,079)	\$3,693,391
2013	\$960,089	\$1,586,981	\$2,547,070	\$253,462	\$306,894	\$140,089	\$700,445	\$309,361	\$344,771	(\$141,356)	\$203,415	\$1,213,551	\$2,548,006	(\$1,267)	\$3,760,290
2014	\$1,006,039	\$1,549,841	\$2,555,880	\$340,344	\$294,479	\$158,706	\$793,529	\$309,361	\$357,010	(\$146,374)	\$210,636	\$1,346,383	\$2,510,691	\$12,332	\$3,869,405
2015	\$1,055,000	\$1,510,131	\$2,565,131	\$364,357	\$278,172	\$160,632	\$803,162	\$309,361	\$373,743	(\$153,234)	\$220,508	\$1,419,357	\$2,471,407	\$7,398	\$3,898,162
2016	\$1,104,465	\$1,467,030	\$2,571,494	\$374,494	\$259,679	\$158,543	\$792,716	\$309,361	\$377,138	(\$154,626)	\$222,511	\$1,478,959	\$2,413,207	\$3,917	\$3,896,082
2017	\$1,152,775	\$1,421,641	\$2,574,416	\$360,205	\$240,664	\$150,217	\$751,087	\$309,361	\$372,064	(\$152,546)	\$219,517	\$1,512,980	\$2,343,729	(\$2,329)	\$3,854,381
2018	\$1,199,796	\$1,374,065	\$2,573,862	\$238,315	\$222,111	\$115,106	\$575,532	\$309,361	\$332,312	(\$136,248)	\$196,064	\$1,438,111	\$2,237,849	(\$21,141)	\$3,654,819
2019	\$1,251,050	\$1,318,824	\$2,569,874	\$161,829	\$209,776	\$92,901	\$464,506	\$309,361	\$355,296	(\$145,671)	\$209,625	\$1,412,879	\$2,193,256	(\$52,770)	\$3,553,365
2020	\$1,307,715	\$1,261,187	\$2,568,902	\$286,214	\$201,434	\$121,912	\$609,559	\$309,361	\$328,829	(\$134,820)	\$194,009	\$1,593,929	\$2,100,811	(\$12,908)	\$3,681,831
2021	\$1,367,322	\$1,200,935	\$2,568,257	\$372,144	\$186,893	\$139,759	\$698,796	\$309,361	\$331,281	(\$135,825)	\$195,456	\$1,739,466	\$2,028,469	\$3,934	\$3,771,870
2022	\$1,429,846	\$1,137,934	\$2,567,780	\$501,954	\$168,041	\$167,499	\$837,494	\$309,361	\$321,225	(\$131,702)	\$189,523	\$1,931,800	\$1,936,561	\$35,796	\$3,904,157
2023	\$1,495,433	\$1,072,050	\$2,567,483	\$368,048	\$142,274	\$127,580	\$637,902	\$309,361	\$318,708	(\$130,670)	\$188,038	\$1,863,482	\$1,842,393	(\$3,090)	\$3,702,784
2024	\$1,564,007	\$1,003,144	\$2,567,152	\$386,719	\$123,278	\$127,499	\$637,496	\$309,361	\$307,261	(\$125,977)	\$181,284	\$1,950,726	\$1,743,044	\$1,522	\$3,695,292
2025	\$1,635,710	\$931,079	\$2,566,789	\$320,763	\$103,318	\$106,020	\$530,100	\$309,361	\$279,874	(\$114,749)	\$165,126	\$1,956,473	\$1,623,632	(\$8,728)	\$3,571,376
2026	\$1,710,717	\$855,710	\$2,566,426	\$338,020	\$86,620	\$106,160	\$530,800	\$309,361	\$255,072	(\$104,579)	\$150,492	\$2,048,737	\$1,506,762	\$1,581	\$3,557,079
2027	\$1,788,767	\$776,889	\$2,565,656	\$333,113	\$69,024	\$100,534	\$502,672	\$309,361	\$280,605	(\$115,048)	\$165,557	\$2,121,881	\$1,435,878	(\$14,514)	\$3,543,245
2028	\$1,869,613	\$694,480	\$2,564,093	\$504,968	\$52,231	\$139,300	\$696,498	\$309,361	\$215,550	(\$88,375)	\$127,174	\$2,374,581	\$1,271,621	\$50,924	\$3,697,126
2029	\$1,955,144	\$608,335	\$2,563,479	\$533,732	\$26,838	\$140,143	\$700,713	\$309,361	\$233,792	(\$95,855)	\$137,937	\$2,488,876	\$1,178,328	\$44,288	\$3,711,490
2030	\$2,044,487	\$518,251	\$2,562,737					\$309,361				\$2,044,487	\$827,611	\$0	\$2,872,098
2031	\$2,135,932	\$424,072	\$2,560,003					\$309,361				\$2,135,932	\$733,432	\$0	\$2,869,364
2032	\$2,235,163	\$325,639	\$2,560,802					\$309,361				\$2,235,163	\$635,000	\$0	\$2,870,163
2033	\$2,338,511	\$222,639	\$2,561,150					\$309,361				\$2,338,511	\$531,999	\$0	\$2,870,510
2034	\$2,445,611	\$114,888	\$2,560,499					\$309,361				\$2,445,611	\$424,248	\$0	\$2,869,859
2035	\$2,557,661	\$2,201	\$2,559,862					\$309,361				\$2,557,661	\$311,562	\$0	\$2,869,223

Source: DWR 2011 Statement of Charges-November 2010 Version

Appendix B
Fixed Payments by GWD to CCWA

Calendar Year	Bonds		TOTAL
	Principal	Interest	
1997		\$1,048,557	\$1,048,557
1998	\$1,322,828	\$1,731,873	\$3,054,701
1999	\$1,247,951	\$1,808,997	\$3,056,948
2000	\$1,177,312	\$1,881,755	\$3,059,067
2001	\$1,125,537	\$1,942,961	\$3,068,498
2002	\$1,077,069	\$1,993,082	\$3,070,151
2003	\$1,031,923	\$2,039,890	\$3,071,813
2004	\$990,326	\$2,083,261	\$3,073,587
2005	\$952,239	\$2,123,102	\$3,075,341
2006	\$642,801	\$2,155,003	\$2,797,804
2007	\$1,022,408	\$2,342,199	\$3,364,607
2008	\$1,440,020	\$1,302,027	\$2,742,047
2009	\$1,512,082	\$1,242,985	\$2,755,067
2010	\$1,570,709	\$1,181,329	\$2,752,038
2011	\$1,635,442	\$1,117,206	\$2,752,648
2012	\$1,700,176	\$1,041,993	\$2,742,169
2013	\$1,791,780	\$999,488	\$2,791,269
2014	\$1,862,621	\$952,923	\$2,815,544
2015	\$1,956,668	\$857,441	\$2,814,109
2016	\$2,053,158	\$757,195	\$2,810,353
2017	\$2,155,755	\$651,972	\$2,807,727
2018	\$2,263,237	\$552,814	\$2,816,051
2019	\$2,354,841	\$448,678	\$2,803,519
2020	\$2,473,316	\$327,974	\$2,801,290
2021	\$2,596,677	\$201,224	\$2,797,901
2022	\$2,726,144	\$68,154	\$2,794,298

Source: CCWA