TOWN OF DISCOVERY BAY
COMMUNITY SERVICES DISTRICT

RESOLUTION NO. 2014-22

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE TOWN OF DISCOVERY BAY, A CALIFORNIA COMMUNITY SERVICES DISTRICT, ESTABLISHING FEES FOR WATER CAPACITY CHARGES AND WASTEWATER CAPACITY CHARGES

WHEREAS, the Town of Discovery Bay (TODB), a California Community Services District, requires that new development pay its proportionate share of the cost of capital improvements made necessary by that new development; and

WHEREAS, the TODB implements this requirement through the establishment and setting of Public Facilities fees for water and wastewater capacity charges ("capacity fees") as defined in Government Code Section 66013(b)(3), which are regularly reviewed to assure that they accurately identify costs and the allocation of those costs; and

WHEREAS, on September 17, 2014 the Board of Directors of the Town of Discovery Bay conducted a regular meeting to receive and consider public comments on the FY 2014/15 proposed capacity fee charges, as identified in the Bartle Wells Associates Final Draft Technical Memorandum dated September 11, 2014, attached hereto and included as a part of this action, and

WHEREAS, the TODB embarked and completed a Water Master Plan and a Wastewater Master Plan that identified future development and associated infrastructure improvements; and

WHEREAS, the TODB engaged the services of Bartle Wells Associates to review those master plans and existing assets and develop a comprehensive Capacity Fee Technical Memorandum; and

WHEREAS, that Technical Memorandum has been completed and submitted to the TODB on September 11, 2014 and identifies water capacity fees and wastewater capacity fees; and

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE TOWN OF DISCOVERY BAY COMMUNITY SERVICES DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. That Resolution No. 2014-17 be rescinded.

SECTION 2. That the Technical Memorandum prepared by Bartle Wells Associates on behalf of the TODB, and dated September 11, 2014 is included in its entirety as a part of this resolution.

SECTION 3. That Residential Capacity Fees be established as follows:

(A) Water Capacity Fees are to be established at $4,850.00 per EDU.

(B) Wastewater Capacity Fees are to be established at $12,030.00 per EDU.

SECTION 4. That non-residential Water and Wastewater Capacity Fees be established as identified in Tables 5 and 6, respectively of the Technical Memorandum prepared by Bartle Wells Associates.

SECTION 5. That the fees adopted herein shall remain in effect until changed by the Board of Directors at a date sometime in the future.

SECTION 6. That Resolution takes effect concurrent with the adoption of this Resolution.

SECTION 7. The Board Secretary shall certify the adoption of this Resolution.

PASSED, APPROVED AND ADOPTED THIS 17th DAY OF September 2014.

Carol McCall for Mark Simon

Mark Simon
Board President

I hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of the Town of Discovery Bay Community Services District at a regularly scheduled meeting, held on September 17, 2014, by the following vote of the Board:

AYES: 5
NOES: Ø
ABSENT: Ø
ABSTAIN: Ø

Carol McCall for Richard J. Howard

Richard J. Howard
Board Secretary

BARTLE WELLS ASSOCIATES
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TO: Rick Howard, General Manager, Town of Discovery Bay Community Services District

FROM: Thomas Gaffney, Principal, and Alison Lechowicz, Analyst

DATE: **Corrected -** September 11, 2014

SUBJECT: Water and Wastewater Capacity Fee – 2014 Update

TECHNICAL MEMORANDUM

Introduction

The Town of Discovery Bay Community Services District ("Town") provides water supply, treatment, and delivery as well as wastewater collection, treatment, and disposal to approximately 14,000 residents. The Town recently completed master plans that determined the level of growth for the community through FY2021 and identified needed facility improvements. Some improvements are needed to correct deficiencies in existing facilities and other improvements are needed to expand capacity to serve future development. In addition, the Town has received guidance from the Regional Water Quality Board ("Regional Board") that the Town's wastewater treatment plant must add effluent filtration by 2019 and denitrifying facilities by 2024 in order to meet regulatory requirements.

This Technical Memorandum was developed with the goal of fairly assigning the cost of improvements to existing and future customers and to calculate capacity fees that recover these costs.

Existing and Future Connections

As a first step in this analysis, the existing capacity of water and wastewater facilities was reviewed. The Water Master Plan by Luhdorff & Scalmanini Consulting Engineers, January 2012 ("Water Master Plan") determined that existing average day demand on the system is 3.658 million gallons per day ("mgd"). The Water Master Plan describes build-out of the Town occurring in the 2021 with a build-out capacity of 4.465 mgd.

Existing flow of the wastewater system is 1.800 mgd with 0.208 in additional capacity committed to Hofmann. The wastewater system is expected to grow by 0.412 mgd through FY2021 as described in the Wastewater Treatment Plant Master Plan by Stantec Consulting Services Inc., October 2011, and in the Wastewater Master Plan Addendum ("Wastewater Master Plan").

The master plans identify the typical water demand of a residential customer as about 533 gallons per day and the typical wastewater flow of a residential customer as about 335 gallons per day. This demand and flow is used to determine the number of equivalent dwelling units ("EDUs") of the Town. Table 1 summarizes the existing, committed, and build-out water demand and wastewater flows of the Town.

Under a contractual agreement with the Town, the Hofmann Land Development Company ("Hofmann") contributed significant facilities to the water and wastewater systems in exchange for committed capacity. For the purpose of this analysis, Hofmann's committed capacity is treated as existing demand. Because Hofmann has already provided significant investment in the water and wastewater systems in order to expand and improve the system for future growth, Hofmann's committed capacity is charged a reduced capacity fee based on the contractual agreement. Hofmann's remaining committed capacity was developed by the Town. Hofmann's committed capacity and capacity fees are discussed throughout this report.

Table 1
Projected Growth
Town of Discovery Bay

Water System			
Existing Demand (1)	3.658	mgd	81.9%
Committed Capacity	0.152	mgd	3.4%
Expected Growth FY2012 to 2021	0.656	mgd	14.7%
Build-out Demand (1)	4.465	mgd	100.0%
Present (2)	6,865	EDUs	
Committed Capacity (3)	284	EDUs	
Expected Growth FY2012 to 2021	1,231	EDUs	
Build-out (2)	8,380	EDUs	
Demand per EDU	533	gal/day	
Wastewater System (4)			
Average Flow	1.800	mgd	74.4%
Committed Capacity	0.208	mgd	8.6%
Transitional Customers	0.027	mgd	1.1%
Expected Growth FY2012 to 2021	0.385	mgd	15.9%
Build-out Flow	2.420	mgd	100.0%
Present	5,367	EDUs	
Committed Capacity	621	EDUs	
Transitional Customers (5)	80	EDUs	
Expected Growth FY2012 to 2021	1,148	EDUs	
Build-out	7,216	EDUs	
Flow per EDU	335	gal/day	

EDU - Equivalent Dwelling Unit
(1) Page 2-5, "Water Master Plan" by Luhdorff & Scalmanini Consulting Engineers, January 2012.
(2) Page 2-6, "Water Master Plan" by Luhdorff & Scalmanini Consulting Engineers, January 2012.
(3) Committed capacity refers to Hofmann's capacity secured by a contractual agreement with the Town. This capacity does not include the reserved future capacity described in the Water Master Plan.
(4) Wastewater system build-out is estimated in "Wastewater Treatment Plant Master Plan" by Stantec Consulting Services Inc., October 2011, and in the Wastewater Master Plan Addendum. Committed capacity (Hofmann) estimated by the Town.
(5) Customers who pulled permits under the existing capacity fee but have not completed construction

Since the presentation of this report to the Board of Directors on August 20, 2014, developers purchased 80 wastewater EDUs of capacity from the Town. These customers are referred to as transitional customers. Because these customers purchased capacity at the current fee, the Town cannot charge them the increased fee calculated in this report. The cost of effluent filtration and denitrification facilities that would have been recovered from transitional customers is therefore collected from future connections.

Methodology

The recommended capacity fees calculated in this memorandum include both a buy-in portion and an expansion portion.

Buy-in

New customers connecting to the system receive benefit from a large portion of the facilities that are already in place throughout the Town. The buy-in portion of the capacity fee recovers the costs of existing facilities that benefit all customers, existing and new.

The value of existing facilities was calculated using the Replacement Cost New Less Depreciation (RCNLD) method. The book cost of Town facilities less depreciation was escalated to present worth using the Engineering News Record's Construction Cost Index. The RCNLD of facilities is divided by the number of EDUs at build-out to yield a buy-in fee per EDU, see Table 2. A detailed list of Town facilities is shown in Appendix A.

Table 2
Buy-in to Existing Facilities, Reproduction Cost New Less Depreciation (1)
Town of Discovery Bay

	Water	Wastewater	Total
Buildings and Improvements			
Buildings and Improvements	$36,964	$880,403	$917,367
Operations Building	28,507	28,507	57,013
Wastewater Treat. Plant 2	0	8,049	8,049
Wetlands	0	3,504	3,504
Willow Lake WT Facility	1,010	0	1,010
CIP Water			
Treatment and Collections	942,119	0	942,119
Equipment			
Equipment	88,276	81,803	170,079
Wetlands	0	5,365	5,365
Land (2)	92,000	175,000	267,000
Office Furniture & Equip	1,836	1,836	3,672
Structures & Improvements			
Golf Course	0	523,000	523,000
Sewage Lift Station	0	3,512,278	3,512,278
Wetlands	0	20,728	20,728
Newport Water Treatment Plant	2,707,894	0	2,707,894
Treatment/Collection/Distribution			
Biosolids Handling Proj.	0	1,787,245	1,787,245
Discharge Pipeline	0	2,892,848	2,892,848
Treatment and Collections	1,770,343	2,072,417	3,842,759
Wastewater Treat Plant 2	0	16,505,373	16,505,373
Wetlands	0	452	452
Willow Lake WT Facility	3,887,274	0	3,887,274
Vehicles	56,234	56,234	112,469
Total	$9,612,456	$28,555,040	$38,167,496
Buildout Capacity	8,380	7,216	EDUs
Buy-in Cost	$1,150	$3,960	($/EDU)

(1) Original cost less depreciation adjusted to current construction cost.
(2) Land does not depreciate. Original book cost shown.

Expansion/Improvements

New customers connecting to the system will also benefit from a number of planned improvements described in the master plans. In consultation with staff, the Town's capital improvement projects were allocated to existing/committed connections and future/transitional connections based on how each customer group benefits from the projects. Some projects are expansion related and will not be needed if growth does not occur. Expansion projects are wholly allocated to new connections. Other projects, such as fire flow improvements, benefit all customers, and are allocated based on the total flow or demand of the system at build-out, see Table 3 and Table 4.

The Town received direction from the Regional Water Quality Control Board that the Town must construct filtration and denitrification facilities at the wastewater treatment plant. These facilities will treat the Town's wastewater effluent to Title 22 standards (a higher standard than the current facilities). Although the Town's current flows meet regulatory requirements, the Town anticipated that it would eventually need to upgrade its wastewater facilities by constructing effluent filtration facilities, even under a no-growth scenario. Both existing and future/transitional customer groups benefit from and have a financial responsibility for the facilities. The filtration and denitrification upgrades are allocated to existing and future customers based on a weighted average of all the other capital improvement projects.

The total cost allocated to future/transitional connections is then divided by expected growth in demand or flow to calculate the expansion fee, see Table 5, Table 6, and Table 7. The wastewater capacity fee is separated into general wastewater facilities allocated to expected growth (Table 6) and filtration and denitrification facilities that are allocated to both committed capacity and to expected growth (see Table 7). The committed wastewater capacity was secured by Hofmann based on the existing level of treatment. Filtration and denitrification facilities treat the Town's wastewater flow to a higher standard than the level assumed when the Hofmann capacity was committed. Both committed capacity and expected growth should share the filtration and denitrification facility cost allocated to expansion.

Table 3
Allocation of Water Capital Improvement Costs
Town of Discovery Bay

Master Plan Project No.	Capital Improvement Projects	Project Cost (ENR SF CCI 10900)	Existing & Committed Connections	Future Connections	Existing & Committed Connections	Future Connections	Project Benefit
1.a.	New Supply Well 7	$1,500,000	0%	100%	$0	$1,500,000	Facility needed to provide capacity for new connections.
	New Supply Well 8 - includes site purchase, well, pump station and new raw water line	$1,800,000	85%	15%	$1,535,600	$264,400	Project benefits existing and new connections.
1.b.	Replacement Well Site (Well 8) Contingency - includes site purchase, well, pump station and new raw water line	$1,800,000	85%	15%	$1,535,600	$264,400	Project benefits existing and new connections.
1.c.	Well 5A Abandonment/Destruction Contingency	$118,000	100%	0%	$118,000	$0	Supplies existing community.
1.d.	Well 1B Pump Equipment Upgrade	$44,000	100%	0%	$44,000	$0	Supplies existing community.
	Upgrade Well 2 Pump Station	$150,000	100%		$150,000	$0	Supplies existing community.
	Lower Well 4 Pump	$10,000	100%		$10,000	$0	Supplies existing community.
2.a.	Treatment Filter Unit at Willow Lake WTP - includes vessel, media, foundation, all new face piping and controls, upgrade VFD control for one supply well (Well 6)	$335,120	0%	100%	$0	$335,100	Existing filter unit is more than adequate for existing demand. Expansion is needed to serve growth.
2.b.	New Backwash Tank at Willow Lake WTP - includes piping modifications and foundation	$396,000	0%	100%	$0	$396,000	Facility needed to provide capacity for new treatment filter.
2.c.	New Recycle Pumps at Willow Lake WTP - includes three pumps, piping and control valves	$79,200	67%	33%	$52,800	$26,400	One pump needed for new capacity to serve growth. Two additional pumps needed to replace existing pumps.
2.d.	Chemical Room Upgrade at Willow Lake WTP - includes electrical and mechanical upgrades	$31,680	85%	15%	$27,000	$4,700	Project benefits existing and new connections. Project will correct some existing deficiencies and will expand capacity from two to three metering pumps.
2.e.	Recycle Pump Upgrade Contingency at Newport WTP	$31,680	85%	15%	$27,000	$4,700	Project benefits existing and new connections.
2.f.	Booster Pump Repair and Upgrade at Newport WTP	$33,000	85%	15%	$28,200	$4,800	See above.
3.a.i	Kellogg Creek Crossing 16-inch mainline from Discovery Pt to Point of Timber Rd	$380,160	85%	15%	$324,300	$55,800	Line will improve fire flow for existing and future connections.
3.a.ii	Kellogg Creek Crossing 16-inch mainline from Cabrillo Pt to Point of Timber Rd	$380,160	85%	15%	$324,300	$55,800	Line will improve fire flow for existing and future connections.
3.b.	Replace 8-inch mainline with new 16-inch C905 - Willow Lake Rd from Discovery Bay Blvd to Beaver Ln	$2,212,100	85%	15%	$1,887,100	$325,000	Pipe upsizing for fire flow deficiencies.
3.c.	Replace 6-inch mainline with new 8-inch C900 - Surfside Ct	$98,560	100%	0%	$98,600	$0	Benefits existing community.
3.d.	Replace 6-inch mainline with new 8-inch C900 - Surfside Pl	$80,190	100%	0%	$80,200	$0	See above.
3.e.	Replace 6-inch mainline with new 8-inch C900 - Marina Cir entry way	$59,400	100%	0%	$59,400	$0	See above.
3.f.	Replace 6-inch mainline with new 8-inch C900 - Lido Cir entry way	$47,520	100%	0%	$47,500	$0	See above.
3.g.	Replace 6-inch mainline with new 8-inch C900 - Beach Ct	$95,040	100%	0%	$95,000	$0	See above.
3.h.	Replace 6-inch mainline with new 8-inch C900 - Shell Ct	$103,950	100%	0%	$104,000	$0	See above.
3.i.	Replace 6-inch mainline with new 8-inch C900 - Edgeview Ct	$98,010	85%	15%	$83,600	$14,400	Pipe upsizing for fire flow deficiencies.
3.j.	Replace 6-inch mainline with new 8-inch C900 - South Pt	$181,764	85%	15%	$155,100	$26,700	Pipe upsizing for fire flow deficiencies.
4.a.	New Water Storage Tank at Newport WTP - includes earthwork, foundation, pipe, valves, tank, etc	$1,188,000	0%	100%	$0	$1,188,000	Existing tank can accommodate current demand. New tank is needed for build-out demand.
5.a.	Install Transducers	$23,760	85%	15%	$20,300	$3,500	Project benefits existing and new connections.
5.b.	Install Monitoring Wells	$158,400	85%	15%	$135,100	$23,300	See above.
5.c.	Survey Wellheads	$15,840	85%	15%	$13,500	$2,300	See above.
5.d.	Groundwater Basin Assessment - 10 years of data collection and reporting	$143,000	85%	15%	$122,000	$21,000	See above.
6.a.	Customer Water Meter Installations by 2020 (approx. 3,907 unmetered in 2010) ($1,641,000)	$0	0%	0%	$0	$0	Meter installations are charged directly to individual customers and are revenue neutral.
6.b.	Water Conservation Program Feasibility Evaluation (O&M) ($20,000)	$0	0%	0%	$0	$0	Project moved to operations budget.
	SCADA Upgrades	$250,000	85%	15%	$213,300	$36,700	Allocation of costs determined by Herwit Engineering.
	Total	$11,844,500			$7,291,500	$4,553,000	

Table 4
Allocation of Wastewater Capital Improvement Costs
Town of Discovery Bay

Master Plan Project No.	Capital Improvement Projects	Project Cost (ENR SF CCI 10900)	Existing & Committed Connections	Future & Transitional Connections	Existing & Committed Connections	Future & Transitional Connections	Project Benefit
1	Influent Pump Station Modifications and Upgrade	$1,411,800	83%	17%	$1,171,500	$240,300	Project will correct existing issues and increase capacity.
2	Re-Activate Pump Station W	$511,200	83%	17%	$424,200	$87,000	Facility will serve existing and future connections. Project will provide emergency storage as needed.
3	Emergency Storage Facilities	$328,600	83%	17%	$272,700	$55,900	Facility will serve existing and future connections. Project would be completed with or after the re-activation of Pump Station W.
4	Splitter Box, Oxidation Ditch, Replacement of Existing RAS Pumps and Standby Aerators for Existing Oxidation Ditches	$3,964,100	83%	17%	$3,289,500	$674,600	Project benefits existing and new connections.
4	New Clarifier Splitter Box, New Clarifier, and New RAS Pump Station at Plant 2	$2,597,200	0%	100%	$0	$2,597,200	Facility needed to provide capacity for new connections.
5	Secondary Effluent Pump Station Modifications	$300,100	0%	100%	$0	$300,100	Existing capacity is sufficient. Project required after filter is added.
6	Secondary Effluent Equalization	$816,300	83%	17%	$677,400	$138,900	Project possibly needed in the future for more stringent requirements for reclamation.
10	Additional UV Disinfection	$1,440,000	0%	100%	$0	$1,440,000	Facility needed to provide capacity for new connections.
12	Add Pump to Export Pump Station	$120,000	0%	100%	$0	$120,000	Facilities needed when peak day flow exceeds 4.0 mgd.
13	Solids Improvements, Phase 1: One New Solar Drying Pad and One Belt Press	$1,342,100	83%	17%	$1,113,700	$228,400	Project will correct current capacity deficiency.
13	Solids Improvements, Phase 2: Solar Dryer #3 and Completion of Solar Drying Pad	$2,558,400	83%	17%	$2,123,000	$435,400	Project needed to expand capacity for future connections.
14	Solar Dryer #4	$335,500	0%	100%	$0	$335,500	Project benefits new connections.
15	SCADA Improvements	$420,000	83%	17%	$348,500	$71,500	Project benefits existing and new connections.
16	Collection System Pump Station Improvements	$780,000	83%	17%	$647,300	$132,700	Project benefits existing and new connections.
62	UV Bank 4 Installation	$158,745	83%	17%	$131,700	$27,000	Project benefits existing and new connections.
63	Lift Station F	$695,538	83%	17%	$577,200	$118,400	Project benefits existing and new connections.
	Other Contingency	$300,000	83%	17%	$248,900	$51,100	Project benefits existing and new connections.
	Subtotal	$18,079,583			$11,025,600	$7,054,000	
	Weighted Average				61%	39%	
7	Effluent Filtration	$5,538,600	61%	39%	$3,378,500	$2,160,100	Allocation based on weighted average.
New	Denitrifying Facilities	$5,000,000	61%	39%	$3,050,000	$1,950,000	Allocation based on weighted average.
	Total	$28,618,183			$17,454,100	$11,164,100	

Table 5
Water Expansion Fee Calculation
Town of Discovery Bay

Expansion Capacity Fee		
Total CIP Cost Allocated to New Connections	$4,553,000	(Table 3)
Expected Growth in Demand (mgd)	0.656	(Table 1)
Residential Capacity Fee		
Expansion Capacity Fee per EDU 553 gal/day avg day demand	$3,700	
Example Nonresidential Capacity Fee		
Expansion Capacity Fee 1,000 gal/day demand	$6,940	

Table 6
Wastewater Expansion Fee Calculation: General Wastewater Improvements
Town of Discovery Bay

CIP Cost Allocated to Future & Transitional Connections (Excluding Filtration and Denitrification)	$7,054,000	(Table 4)
Expected Growth in Flow (mgd) (Future & Transitional)	0.41	(Table 1)
Residential Capacity Fee		
General Wastewater Capacity Fee per EDU (335 gal/day avg day flow)	$5,750	
Example Nonresidential Capacity Fee		
General Wastewater Capacity Fee 1,000 gal/day flow	$17,130	

Table 7
Wastewater Expansion Fee Calculation: Filtration and Denitrification
Town of Discovery Bay

Costs Allocated to Committed Capacity & New Connections		
Filtration	$2,160,100	(Table 4)
Denitrification	$1,950,000	(Table 4)
Total	$4,110,100	
Flow (1)		
Committed Capacity (mgd)	0.208	(Table 1)
Expected Growth in Flow (mgd)	0.385	(Table 1)
Total	0.593	
Residential Capacity Fee		
Expansion Capacity Fee per EDU (335 gal/day avg day flow)	$2,320	
Example Nonresidential Capacity Fee		
Expansion Capacity Fee 1,000 gal/day flow	$6,930	

(1) The wastewater capacity of transitional customers is excluded from the Filtration and Denitrification Fee calculation.

Recommended Fees

Tables 8 and 9 show the total capacity fees for water and wastewater, respectively, which include both a buy-in portion and an expansion portion. Shown in the tables are the residential capacity fees calculated on an EDU basis and example nonresidential capacity fees based on 1,000 gal/day demand or 1,000 gal/day flow.

The total recommended capacity fee per residential connection is calculated at $16,880, see Table 10. This fee is comparable to the fee charged by local agencies, see Table 11. Table 11 also indicates agencies that have Title 22 and denitrification permit requirements similar to the Town of Discovery Bay. It should be noted that although an agency may have advanced permit requirements, the cost of the upgraded facilities may not be reflected in the capacity fees. Some agencies elect to maintain capacity fees that are lower than the cost of providing facilities to meet the needs of growth.

Table 8
Water Capacity Fee Calculation
Town of Discovery Bay

Residential Capacity Fee		
Buy-in Capacity Fee per EDU	$1,150	(Table 2)
Expansion Capacity Fee per EDU	$3,700	(Table 5)
(553 gal/day avg day demand)	$4,850	
Example Nonresidential Capacity Fee		
Buy-in Capacity Fee	$2,160	
Expansion Capacity Fee	$6,940	(Table 5)
(1,000 gal/day avg day demand)	$9,100	

Table 9
Wastewater Capacity Fee Calculation
Town of Discovery Bay

Residential Capacity Fee		
Buy-in Capacity Fee per EDU	$3,960	(Table 2)
General Wastewater Improvements Capacity Fee per EDU	$5,750	(Table 6)
Filtration and Denitrification Capacity Fee per EDU	$2,320	(Table 7)
(335 gal/day avg day flow)	$12,030	
Example Nonresidential Capacity Fee		
Buy-in Capacity Fee	$11,810	
General Wastewater Improvements Capacity Fee	$17,130	(Table 6)
Filtration and Denitrification Capacity Fee	$6,930	(Table 7)
(1,000 gal/day avg day flow)	$35,870	

Table 10
Total Residential Capacity Fee
Town of Discovery Bay

Current Fees	
Capacity Fees adopted October 2012	
Water Capacity Fee per EDU	$3,900
Wastewater Capacity Fee per EDU	$9,860
Total	$13,760
Recommended Fees	
Residential Capacity Fee per EDU	
Water	
Buy-in	$1,150
Expansion	$3,700
Total Water	$4,850
Wastewater	
Buy-in	$3,960
Expansion - General Improvements	$5,750
Expansion - Filtration and Denitrification	$2,320
Total Wastewater	$12,030
Total Residential Capacity Fee per EDU*	$16,880

*Capacity fees will be adjusted annually based on the percent change in the Engineering New Record's Construction Cost Index for San Francisco.

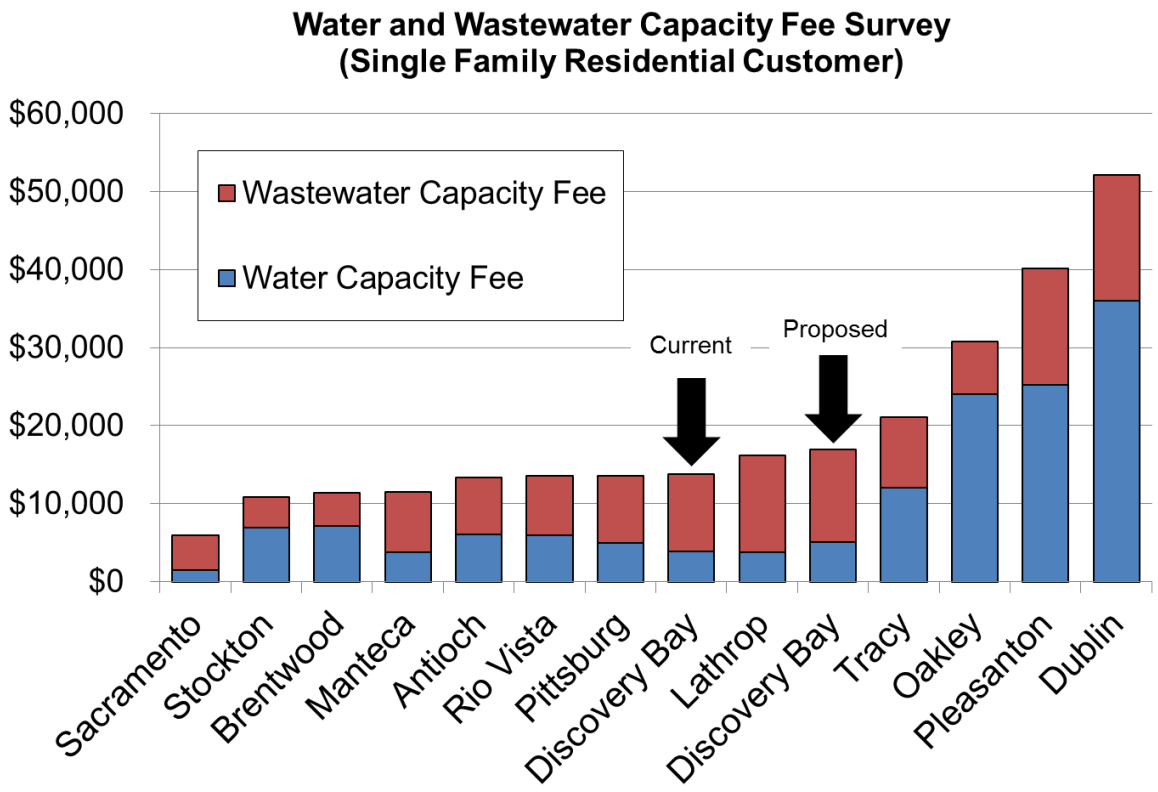

Table 11
Residential Capacity Fee Survey
Town of Discovery Bay

				Wastewater Capacity Fee	
Community	**Water**	**Wastewater**	**Total**	**Title 22**	**Dentrification**
Sacramento (1)	$1,488.57	$4,426.00	$5,914.57	TBD	TBD
Stockton (2)	$6,892.50	$5,899.50	$10,792.50	TBD	TBD
Brentwood (3)	$7,135.87	$4,260.78	$11,396.65	X	X
Manteca (4)	$3,784.00	$7,720.00	$11,504.00	X	X
Antioch (Delta Diablo SD) (5)	$6,036.20	$7,313.78	$13,349.98	X	TBD
Rio Vista (6)	$5,950.00	$7,578.19	$13,528.19	TBD	TBD
Pittsburg (Delta Diablo SD) (7)	$8,940.00	$8,530.52	$13,530.52	X	TBD
Lathrop (Manteca WQCF) (8)	$3,741.99	$12,467.12	$16,209.11	X	X
Town of Discovery Bay	**$4,850.00**	**$12,030.00**	**$16,880.00**	X	X
City of Tracy (9)	$11,998.00	$9,132.00	$21,130.00	TBD	TBD
Oakley (Ironhouse SD, Diablo WD) (10)	$24,079.00	$6,688.00	$30,767.00	TBD	TBD
Pleasanton (11)	$25,230.00	$14,885.00	$40,115.00	X	TBD
DSRSD (Dublin) (12)	$35,961.00	$16,129.00	$52,090.00	X	TBD

X – facilities are in place; TBD – facilities are unknown

(1) Wastewater fee includes a combined sewer development fee and the Sacramento Regional County Sanitation District (Regional San) treatment fee. Regional San is required to upgrade its treatment facilities to provide nitrate removal by May 2021 and filtration and disinfection by May 2023. The upgrades are currently in the planning and design phase. The wastewater capacity fees do not yet reflect the cost of treatment upgrades.

(2) Fees effective through 06/30/13. Water fees include a water connection fee plus a 3.5% administration fee and a Delta Water Supply Project Surface Water Supply fee. Wastewater fee is for the Westside Project C service area plus a 3.5% administrative fee. Additionally, is required to upgrade its treatment facilities to provide nitrate removal by May 2021 and filtration by May 2023. The wastewater capacity fees do not yet reflect the cost of treatment upgrades.

(3) Fees effective 07/01/12.

(4) Water fees effective 1/1/13. Water fee includes a Surface Water Capital Fee and Debt Service fee. Wastewater fees effective 7/20/09. Sewer fee includes a connection charge, a Manteca Water Quality Control Facility (Manteca WQCF) treatment charge, and a sewer public facilities implementation program fee. Wastewater fees based on low density residential in Zone 22. The Manteca WQCF added denitrification May 2006 and tertiary filters September 2007.

(5) City of Antioch water and sewer connection fees effective 07/01/13. Wastewater capacity fee includes a City sewer connection fee and a wastewater treatment fee from the Delta Diablo Sanitation District. Wastewater treatment capacity fee effective 07/08/11.

(6) Fees last updated in 2009. Water fee includes supply wells, storage, and transmission system fees. Wastewater fee includes a collection system fee and a connection fee. Fees are proposed to increase summer 2014.

(7) Water fee current until 11/01/12. Fee varies based on development area. Sewer fee effective 11/01/11. Wastewater treatment is provided by Delta Diablo Sanitation District.

(8) Fees effective 07/01/13. Fees shown for the East Lathrop service area. Fees vary for other development areas. The water connection fee includes a surface water supply fee and a water system well improvement fee. The wastewater connection fee includes a sewer collection fee and a wastewater treatment fee for the Manteca-Lathrop Water Quality Control Facility. Fees include a 3% administrative fee.

(9) The water connection fee includes a distribution, supply, treatment, and recycled water fee. The wastewater fee includes a conveyance fee (west service area) and a treatment plant fee.

(10) City of Oakley is served by the Ironhouse Sanitary District and the Diablo Water District. The Ironhouse Sanitary District fee is effective 07/01/13. The water fee includes facility reserve charges from the Diablo Water District (west of Jersey Island Road service area) and the Contra Costa Water District.

(11) Fees effective 04/1/14. The water capacity fee includes a City water connection fee and a Alameda County Flood Control and Water Conservation District, Zone 7, water connection fee. The wastewater capacity fee includes a DSRSD sewer connection fee and a City sewer capacity fee.

(12) Dublin San Ramon Services District - Dublin service area. Fees effective July 1, 2013. The water capacity fee includes a DSRSD water capacity reserve fee and a Alameda County Flood Control and Water Conservation District, Zone 7, water connection fee.

The nonresidential capacity fees are proportional to the water demand and wastewater flow of a typical residential customer. When a new nonresidential customer connects to the system, the Town should scale the capacity fees to the predicted demand and flow of that customer with a minimum fee based on 200 gallons per day water use and 180 gallons per day wastewater flow. The minimum capacity fee is about 50% of the residential capacity fee. Example capacity fees for nonresidential customers are shown in Table 12. For the typical nonresidential customer about 90% of water used flows into the sewer. Commercial customers typically have little to no outdoor irrigation.

Table 12
Example Nonresidential Capacity Fees
Town of Discovery Bay

Nonresidential Capacity Fee		
Water (per 1,000 gal/day demand)	$9,100	(Table 8)
Wastewater (per 1,000 gal/day avg day flow)	$35,870	(Table 9)
EXAMPLES		
Small Office (Minimum Charge)		
Water (200 gal/day demand)	$1,820	($9,100 x (200 gal/1,000 gal))
Wastewater (180 gal/day avg day flow)	$6,457	($35,870 x (180 gal/1,000 gal))
Total Capacity Fee	$8,277	
4-Unit Shopping Center		
Water (2,000 gal/day demand)	$18,200	($9,100 x (2,000 gal/1,000 gal))
Wastewater (1,800 gal/day avg day flow)	$64,566	($35,870 x (1,800 gal/1,000 gal))
Total Capacity Fee	$82,766	

Implementation

Capacity fees are collected at the time of connection to the Town's water system and sewer collection system. To ensure continued adequate implementation of the fee, the Town should:

- Maintain an annual Capital Improvement Program budget to indicate where fees are being expended to accommodate growth.

- Comply with the annual and five-year reporting requirements of Government Code 66000 et seq.

- Annually adjust capacity fees using an appropriate construction cost index. Capacity fees should be adjusted regularly to prevent them from falling behind the costs of constructing new facilities. The Engineering News Record ("ENR") magazine publishes Construction Cost Indices ("CCI") monthly for 20 major U.S. cities including San Francisco. These indices can be used to estimate the change in the construction cost of facilities, and the Town's capacity fees should be adjusted annually by the change in the ENR CCI for San Francisco.

Credit for Committed Capacity

The capacity fee shown in Table 10 is a general fee that fully recoups the Town's cost of facilities for future customers. Hofmann has contributed a number of facilities to the Town and is owed credit for these facilities as described in the Town's Ordinance No. 19, in the Reimbursement Agreement for Discovery Bay West, and contractual arrangements with the Town. The credit owed to Hofmann is in the form of committed capacity/EDUs.

The committed capacity shown in Table 1 is capacity reserved by Hofmann and is treated as existing capacity for the purpose of calculating the general capacity fees. BWA's understanding is that Hofmann is obligated to pay $297 per committed water EDU and $2,789 per committed wastewater EDU per a contractual agreement with the Town. Hofmann's wastewater contractual agreement applies to capacity at the existing treatment level. The agreement does not include capacity in the Town's filtration and denitrification facilities.

At the time of the writing of this memorandum, Hofmann intends to build an estimated 702 homes, some of them have been recently been constructed by Kiper Homes. Hofmann is owed 284 EDUs of water committed capacity. Therefore, for the first 284 EDUs connected to the system, Hofmann is obligated to pay $297 per water EDU. For all EDUs beyond the first 284, Hofmann will exceed its committed water capacity and should pay the water capacity recommended in Table 10.

Table 13
Hofmann Water EDUs Capacity Fee Schedule
Town of Discovery Bay

Hofmann Proposed Development - Water EDUs	Water Capacity Fee (per EDU)	Notes
First 284 EDUs		
Contractual agreement	$297	Hofmann is obligated to pay $297 per water EDU committed capacity per a contractual agreement between the Town and Hofmann.
Over 284 EDUs		
Water Capacity Fee	$4,850	Water EDUs exceed committed capacity to Hofmann.

Hofmann is also owed 621 EDUs of wastewater committed capacity at the current treatment level. For the first 621 EDUs connected, Hofmann is obligated to pay $2,789 per wastewater EDU based on the contractual agreement plus the capacity fee for filtration and denitrification, $2,320. The total wastewater capacity fee for Hofmann committed capacity is $5,109. For all EDUs beyond the first 621, the contractual agreement no longer applies. Hofmann will exceed its committed wastewater capacity and should pay the wastewater capacity fee recommended in Table 10. See Table 14 for a description of the Hofmann wastewater credits and capacity fees.

Table 15 provides a summary of the water and wastewater capacity fees for the Hofmann developments.

Table 14
Hofmann Wastewater EDUs Capacity Fee Schedule
Town of Discovery Bay

Hofmann Proposed Development Wastewater EDUs	Wastewater Capacity Fee (per EDU)	Notes
First 621 EDUs		
Contractual agreement	$2,789	Hofmann is obligated to pay $2,789 per wastewater EDU for committed capacity per a contractual agreement between the Town and Hofmann.
Buy-in Wastewater Capacity Fee	NA	Does not apply to committed capacity.
Expansion Wastewater Capacity Fee		
General Wastewater Capacity Fee	NA	Does not apply to committed capacity.
Filtration and Denitrification Capacity Fee	$2,320	Filtration and denitrification facilities are not included in Hofmann's contractual agreement. The capacity fee for these facilities is charged to all Hofmann EDUs.
Total Capacity Fee per EDU of Committed Capacity	$5,109	Total fee per EDU of Hofmann committed capacity.
Over 621 EDUs		
Contractual agreement	NA	Wastewater EDUs exceed committed capacity to Hofmann.
Buy-in Wastewater Capacity Fee	$3,960	Applies to EDU's in excess of committed capacity.
Expansion Wastewater Capacity Fee		
General Wastewater Capacity Fee	$5,750	Applies to EDU's in excess of committed capacity.
Filtration and Denitrification Capacity Fee	$2,320	Applies to all Hofmann EDUs.
Total Capacity Fee per EDU of Committed Capacity	$12,030	Total fee per EDU in excess of Hofmann committed capacity.

Table 15
Hofmann Proposed Development
Town of Discovery Bay

Hofmann Proposed Development	Water Capacity Fee (per EDU)	Wastewater Capacity Fee (per EDU)	Total Capacity Fee (per EDU)	Notes
First 284 EDUs	$297	$5,109	$5,406	Hofmann is obligated to pay $297 per water EDU and $2,789 per wastewater EDU for committed capacity per a contractual agreement between the Town and Hofmann. In addition, Hofmann pays an advance wastewater treatment fee of $2,320 per wastewater EDU for all EDUs (committed and in excess of committed).
Next 337 EDUs	$4,850	$5,109	$9,959	Water EDUs exceed committed capacity to Hofmann. Wastewater EDUs included in committed capacity to Hofmann.
Over 621 EDUs	$4,850	$12,030	$16,880	Exceeds committed capacity to Hofmann.

Appendix A – Replacement Cost New Less Depreciation of Existing Facilities