Dublin San Ramon Services District

Water, wastewater, recycled water

FINAL REPORT

Water Capacity Reserve Fee

May 2016

HDR

May 23, 2016

Mr. John Archer
Administrative Services Manager
Dublin San Ramon Services District
7051 Dublin Blvd
Dublin, CA 94583

Subject: Final Water Capacity Reserve Fee Report

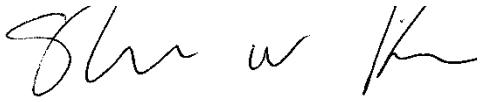
Dear Mr. Archer:

HDR Engineering, Inc. (HDR) was retained by the Dublin San Ramon Services District (District) to update the water capacity reserve fees for the District's water system. As a note, the calculated water capacity reserve fee for the District is in addition to the connection fee for Alameda County Water Conservation and Flood Control District, Zone 7 where applicable. Enclosed please find HDR's final report on this topic. The conclusions and recommendations contained within this report should enable the District to implement cost-based water capacity reserve fees that meet the District's objectives for their water system.

This report has been prepared using "generally accepted" financial and engineering principles. The District's financial, budgeting and engineering data were the primary sources for much of the data contained in this report. This report was developed with significant participation and input by District management and staff. Prior to adoption of the proposed water capacity reserve fees, HDR recommends that the District have its legal counsel review the report to ensure compliance with California law.

HDR appreciates the opportunity to assist the District in this matter. We also would like to thank you and your staff for assistance provided to us. If you have any questions, please call.

Sincerely,
HDR Engineering, Inc.



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1 Introduction

1.1 Introduction

HDR Engineering, Inc. (HDR) was retained by the Dublin San Ramon Services District (District) to review and update its water capacity reserve fees (CRF). The objective of this study is to calculate cost-based water capacity reserve fees for new customers connecting to, or expanded connection (increased meter size), to the District's water system. The fee calculated for the District is in addition to the connection fee charged by Alameda County Water Conservation and Flood control District, Zone 7 (Zone 7).

> ***"The objective of this study is to calculate cost-based water capacity reserve fees for new customers connecting to the District's distribution system."***

Water capacity reserve fees provide the means of balancing the cost requirements for new utility infrastructure between existing customers and new customers. The portion of existing infrastructure and future capital improvements that will provide service (capacity) to new customers is included in the capacity reserve fees. In contrast to this, the District has future capital improvement projects that are related to renewal and replacement of existing infrastructure in service. These future renewal and replacement project costs are typically included within the rates charged to the District's customers, and are not included within the calculation of the capacity reserve fee.

The District has invested significant funds to build the majority of the system therefore many of the future connections will benefit from assets already in place. For purposes of this study, the component of the capacity reserve fee associated with existing infrastructure is referred to as the "buy-in component" the component of the capacity reserve fee associated with future capital costs is referred to as the "expansion component". District debt which was used to finance expansion facilities is referred to as the "debt service component". By establishing cost-based water capacity reserve fees, the District will take a position of having "growth pays for growth" and existing utility customers should, for the most part, be sheltered from the financial impacts of growth.

1.2 Organization of Report

This report documents the methodology, approach and technical analysis undertaken by HDR and the District to develop the District's water capacity reserve fees. The report is divided into four sections. Section 1 provides a brief introduction and overview of the study. Given this brief introduction, Section 2 provides an overview of capacity reserve fees and the criteria and general methodology that should be used to calculate and establish cost-based capacity reserve fees. Next, Section 3 provides an overview of the requirements under California law for determining capacity reserve fees. Finally, Section 4 reviews the District specific calculations of the cost-based water capacity reserve fees and provides a summary of the analyses and the "allowable" capacity reserve fees.

1.3 Disclaimer

HDR, in its calculation of the water capacity reserve fees presented in this report, has used "generally accepted" engineering and ratemaking principles. This should not be construed as a legal opinion with respect to California law. District recommends that the District have its legal counsel review the capacity reserve fees as set forth in this report to ensure compliance with California law.

"By establishing cost-based capacity reserve fees, the District will take a position of having "growth pay for growth" and existing utility customers should, for the most part, be sheltered from the financial impacts of growth."

2 Overview of Capacity Reserve Fees

2.1 Introduction

An important starting point in establishing water capacity reserve fees is to have a basic understanding of the purpose of these fees, along with the criteria and general methodology that is used to establish cost-based capacity reserve fees. Presented in this section of the report is an overview of water capacity reserve fees and the criteria and general methodology that is used to develop cost-based water capacity reserve fees.

2.2 Defining Capacity Reserve Fees

The first step in establishing cost-based water capacity reserve fees is to gain a better understanding of the definition of a system development charge (SDC) or capacity reserve fee. For the purposes of this report, an SDC or CRF is defined as follows:

> *"System development charges (capacity reserve fees) are one-time charges paid by new development to finance construction of public facilities needed to serve them."*[1]

Simply stated, SDCs are a contribution of capital to either reimburse current customers for the available capacity in the existing system, or help finance planned future growth-related capacity improvements. At some utilities, capacity reserve fees may be referred to as system development charges, impact fees, infrastructure investment fees, etc. Regardless of the label used to identify them, their objective is the same. That is, these charges are intended to provide funds to the utility to finance all or a part of the capital improvements needed to serve and accommodate new customer growth. Absent those fees, many utilities would likely be unwilling to build growth-related facilities (i.e., burden existing rate payers with the entire cost of growth-related capacity expansion).

2.3 Economic Theory and Capacity Reserve Fees

Capacity reserve fees are generally imposed as a condition of service. The objective of a capacity reserve fee is not merely to generate funds for a utility, but to ensure that all customers seeking to connect to the utility's system bear an equitable share of the cost of excess capacity that current customers have invested in the existing system and any future growth-related expansions. Through the implementation of fair and equitable capacity reserve fees, current customers will not be unduly burdened with the cost of new development.

By establishing cost-based capacity reserve fees, the District will be taking an important step in providing adequate infrastructure to meet growth-related needs, and more importantly, providing this required infrastructure to new customers in a cost-based, fair, and equitable manner.

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[1] Arthur C. Nelson, System Development Charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1,

2.4 Capacity Reserve Fee Criteria

In the determination and establishment of the water capacity reserve fees, a number of different criteria are often utilized. The criteria often used by utilities to establish capacity reserve fees are as follows:

- Customer understanding
- System planning criteria
- Financing criteria, and
- State/local laws

The component of customer understanding implies that the fee is easy to understand. This criterion has implications on the way that the fee is implemented and assessed to the customer. For water systems, the fee is generally based on the customer meter size providing service, or specific customer usage for meter sizes over 2-inches given the flow variability in these larger meter sizes. The other implication of this criterion is that the methodology is clear and concise in its calculation of the amount of infrastructure necessary to provide service.

"The use of system planning criteria is one of the more important aspects in the determination of the capacity reserve fees. System planning criteria provide a "rational nexus" between the amount of infrastructure necessary to provide service and the fee to the customer."

The use of system planning criteria is one of the more important aspects in the determination of the capacity reserve fees. System planning criteria provides a "rational nexus" between the amount of infrastructure necessary to provide service and the fees charged to the customer. In general terms, the rational nexus test requires that there be a connection (nexus) established between new development and the new or expanded facilities required to accommodate new development, and appropriate apportionment of the cost to the new development in relation to benefits reasonably to be received.

The rational nexus test contemplates the following:

1. "A connection be established between new development and the new or expanded facilities required to accommodate such development. This establishes the rational basis of public policy.
2. Identification of the cost of these new or expanded facilities needed to accommodate new development. This establishes the burden to the public of providing new facilities to new development and the rational basis on which to hold new development accountable for such costs. This may be determined using the so-called Banberry factors. [Banberry Development Company v. South Jordan City (631 P.2d 899, Utah 1981)].

3. Appropriate apportionment of that cost to new development in relation to benefits it reasonably receives. This establishes the nexus between the fees being paid to finance new facilities that accommodate new development and benefit new development receives from such new facilities."[2]

"Adopted master plans or facility plans satisfy this first element since these plans assess existing facilities and capacity, project future capacity requirements and determine the future capital infrastructure and new facilities needed to accommodate growth."

The first element of the rational nexus test contemplates the establishment of a rational basis for the policy being implemented through the fees. This implies that planning and capital improvement studies are used to establish the need for new facilities to accommodate anticipated growth. Adopted master plans or facility plans satisfy this first element since these plans assess existing facilities and capacity, project future capacity requirements, and determine the future capital infrastructure and new facilities needed to accommodate anticipated growth.

The second element of the rational nexus test examines the seven Banberry factors the court used "…to determine the proportionate share of costs to be borne by new development:

- The cost of existing facilities
- The means by which existing facilities have been financed
- The extent to which new development has already contributed to the cost of providing existing excess capacity
- The extent to which existing development will, in the future, contribute to the cost of providing existing facilities used community wide or nonoccupants of new development
- The extent to which new development should receive credit for providing at its cost facilities the community has provided in the past without charge to other development in the service area
- Extraordinary costs incurred in serving new development
- The time-price differential inherent in fair comparisons of amount of the money paid at different times."[3]

The final element of the rational nexus test is the reasonable apportionment of the cost to new development in relation to benefits it will reasonably receive. This is accomplished in the basic methodology to establish the capacity reserve fees, which is generally discussed within this section.

One of the driving forces behind establishing cost-based capacity reserve fees is that "growth pays for growth." Therefore, capacity reserve fees are typically established as a means of having new customers pay an equitable share of the cost of their required infrastructure. The financing criteria for establishing capacity reserve fees relates to the method used to finance

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2 Ibid, p. 16 and 17. From a legal perspective, of course, the water capacity reserve fees are governed by Government Code section 66013 and California case law, not the *Banberry* case, which was decided in Utah.

3 Ibid, P. 18 and 19.

infrastructure on the system and assures that customers are not paying twice for infrastructure – once through capacity reserve fees and again through rates. The financing criteria used in the calculation of the water capacity reserve fees assures that the customer is not charged for infrastructure that was provided (contributed) by developers, even though that is not a requirement under California law.

Many states and local communities have enacted laws which govern the calculation and imposition of capacity reserve fees. These laws must be followed in the development of the capacity reserve fees. Most statutes require a "reasonable relationship" between the fee charged and the cost associated with providing service capacity to the customer. The fees do not need to be mathematically exact, but must bear a reasonable relationship to the cost burden imposed. As discussed above, the utilization of the planning criteria and the actual costs of construction and the planned costs of construction establish compliance with the reasonable relationship requirement.

2.5 Overview of the Capacity Reserve Fee Methodology

There are "generally-accepted" methodologies that are used to establish capacity reserve fees. Nelson describes eight different methodologies that may be used to establish system development charges. "They include:

- Market capacity method
- Prototypical system method
- Growth-related cost allocation method
- Recoupment value method, also known as the buy-in method
- Replacement cost method
- Marginal cost method
- Average cost method
- Systemwide and growth-related cost-attribution method"[4]

As Nelson notes, each of these methods may have certain advantages and disadvantages and should be applied in a manner that reflects circumstances and conditions of the utility. As an example, a utility which has significant capacity in their existing system and can accommodate future growth would likely use the recoupment (buy-in) method. In contrast to this, a utility with no existing capacity which requires expansion of capacity to accommodate growth could potentially use the growth-related cost allocation method or the marginal cost method. For utilities that have some existing capacity available to serve a portion of new development, but must build additional capacity to serve all future development, the system wide and growth-related attribution method may be appropriate. In the case of the District, there is capacity available within the District's existing system, but there is also the need for future facilities to

[4] Ibid., P. 71.

accommodate development through build out. Therefore the District's fees will be based on a combined approach of the buy-in and growth related cost allocation.

Regardless of the overall methodology selected, a common denominator of the technical analyses are the various steps undertaken. Within the "generally accepted" capacity reserve fee methodologies, there are a number of different steps undertaken. These steps are as follows:

- Determination of system planning criteria
- Determination of dwelling unit equivalents (DUEs)
- Calculation of system component costs
- Determination of any credits

The first step in establishing the water capacity reserve fees is the determination of the system planning criteria. This implies calculating the amount of water required by a single-family residential customer. For water systems, water demand per DUE is most often used, since this represents the basis for system design. For the District, a DUE is defined as a 5/8-inch meter equivalent. A 5/8-inch meter is typically used for residential connections. The American Water Works Association (AWWA) has a standardized method for determining meter equivalency for larger meter sizes.

Once the system planning criteria is determined, the number of dwelling unit equivalents or DUEs can be determined. For a water system, one reasonable and rational method to determine the number of DUEs is to divide the future land use based water demand by the average day usage per DUE. The land use based water demand is based on future land uses as defined in the local General Plans and historical and current water demands per land use type. This provides the linkage between the amounts of infrastructure necessary to provide service to a set number of customers.

Once the number of DUEs has been determined, a component by component analysis is undertaken to determine the portion of the capacity reserve fee attributable to each component in dollars per DUE. The calculation of the component capacity reserve fee includes existing assets, planned future assets, and the debt issued to pay for historical assets.[5] Existing assets are escalated to current dollars using a cost index (here, the Construction Cost Index for the San Francisco metropolitan area compiled by the Engineering News Record) and then depreciated using a simple straight-line method based on the useful life of each historical asset, respectively. Once the total costs of the existing and future infrastructure and debt service are determined, they are divided by the respective number of dwelling unit equivalents the infrastructure will serve to develop the cost per DUE for the specific infrastructure component.

[5] As is discussed in Section 3.2 below, California law also permits the inclusion of "supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities" in the calculation.

After each infrastructure component is analyzed and a cost per DUE is determined, the cost per DUE for each of the infrastructure components is added together to determine the "gross capacity reserve fee." The last step in the calculation of the capacity reserve fee is the determination of any credits. This is generally a calculation to assure that customers are not paying twice – once through capacity reserve fees and again within the local water rates. However, it should be noted that since the debt service the District is currently paying was incurred for expansion projects only, except for the Temporary Infrastructure Charge (TIC) levied to address the absence of connection revenue sufficient to meet the debt service during fiscal years 2009 and 2010, no expansion related debt service is included within the District's water rates, and thus it is not necessary to include this last step.[6] Additional discussion of the debt component and incorporation into the fee calculation is included later in this report.

2.6 Summary

This section of the report has provided an overview of water capacity reserve fees; the basis for establishing the fees, considerations in establishing water capacity reserve fees the burden development places on the system and the steps typically taken in the development of the technical analyses.

In the development of the District's water capacity reserve fee study, the issues identified in this section of the report have been addressed and will be discussed in more detail in later sections of the report. The next section of the report provides a brief overview of the legal considerations in establishing capacity reserve fees, particularly as they relate to California law.

6 The revenues generated by the TIC during those two fiscal years are treated as a loan to be repaid by new connections.

3 Legal Considerations for Capital Reserve Fees

3.1 Introduction

An important consideration in establishing capacity reserve fees is any legal requirements at the state or local level. The legal requirements often establish the methodology around which the capacity reserve fees must be calculated or how the funds must be used. Given that, it is important for the District to understand these legal requirements and develop and adopt their capacity reserve fees in compliance with those legal requirements. This section of the report provides an overview of the legal requirements for establishing capacity charges, or capacity reserve fees, under California law. A discussion of the applicability of Proposition 218 and Proposition 26, as it relates to capacity reserve fees, is also provided.

The discussion within this section of the report is intended to be a summary of the relevant California law as it relates to establishing capacity reserve fees. It in no way constitutes a legal interpretation of California law by HDR.

3.2 Requirements under California Law

In establishing capacity reserve fees, an important requirement is that they be developed and implemented in conformance with local laws. In particular, many states have established specific laws regarding the establishment, calculation and implementation of capacity reserve fees. The main objective of most state laws is to assure that these fees are established in such a manner that they are fair, equitable and cost-based. In other cases, state legislation may have been needed to provide the legislative powers to the utility to establish the fees.

"The laws for the enactment of capacity reserve fees or connection fees in California are found in California Government Code sections 66013, 66016, and 66022 within the 'Mitigation Fee Act.'"

The laws for the enactment of capacity reserve fees in California are codified in California Government Code sections 66013, 66016, and 66022, which are interspersed within the 'Mitigation Fee Act.' The Mitigation Fee Act is comprehensive legislation dealing mainly with development impact fees, although the above sections set forth the various requirements for imposition of capacity reserve fees in California: calculation of the fees, noticing, accounting and reporting requirements, and processes for judicial review.

A summary of the relevant statutes required in the calculation of capacity reserve fees is as follows:

> *"66013 (a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of*

providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."

"66013 (b) (3) 'Capacity charge' means a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities. A "capacity charge" does not include a commodity charge."

The District's proposed water capacity reserve fees are "capacity charges" as defined in the preceding provision. In addition to the determination of "the estimated reasonable cost of providing the service for which the fee is imposed," California law also requires the following:

- That notice (of the time and place of the meeting, including a general explanation of the matter to be considered) and a statement that certain data is available be mailed to those who filed a written request for such notice,
- That certain data (the estimated cost to provide the service and anticipated revenue sources) be made available to the public,
- An opportunity for public input at an open and public meeting to adopt or modify the fee, and
- That revenue in excess of actual cost be used to reduce the fee creating the excess.

The basic principle that needs to be followed under California law is that the charge be based on a proportionate share of the costs of the system required to provide service and that the requirements for adoptions and accounting be followed in compliance with California law.

3.3 Proposition 218 and 26 and Capacity Reserve Fees

In 1996, the voters of California approved Proposition 218, which required that the imposition of certain fees and assessments by municipal governments require a vote of the people to change or increase the fee or assessment. Of interest in this particular study is the applicability of Proposition 218 to the establishment of capacity reserve fees for the District.

In Richmond v. Shasta Community Services Dist., 32 Cal.4th 409 (2004), the California Supreme Court held that water connection fees and capacity charges are not "assessments" under Proposition 218 because they are imposed only on those who are voluntarily seeking water service, rather than being charged to particular identified parcels, and therefore such fees are not subject to the procedural or substantive requirements of Proposition 218. The court also held that such fees can properly be enacted by either ordinance or resolution.

In November 2010 the voters of California passed Proposition 26, an initiative based state constitutional amendment that provided a new definition of the term "tax" in the California Constitution. Under Proposition 26 a fee or charge imposed by a public agency is a tax unless it

meets one of seven exceptions. “Capacity fees” would be included within exceptions 1 and/or 2. These two exception note that the charge is:

(1) “A charge imposed for a specific benefit conferred… directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of conferring the benefit…,”

(2) “A charge imposed for a specific government service… directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of providing the service or product.”

In the case of the District’s water capacity reserve fee, the District does not charge one fee payer more in order to charge another fee payer less (i.e., a cross-subsidy), and it does not exceed the reasonable costs to the local government of providing the service. Given this, the fee is not a tax within the meaning of Proposition 26.

3.4 Summary

This section of the report has provided an overview of the legal requirements under California law for the establishment of capacity reserve fees. As was noted above, an important legal requirement is that the fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed. The next section of the report provides the District’s calculation of the fees, which provides the basis for the establishment of a reasonable cost (i.e. capacity reserve fee).

4 Determination of the Capacity Reserve Fee

4.1 Introduction

This section of the report presents the details and key assumptions in the calculation of the District's water capacity reserve fee. The calculation of the District's water capacity reserve fees is based upon District specific accounting and planning information. Specifically, the calculated capacity reserve fees are based upon the District's fixed asset records; water system capital improvement plan, and planning data from the Potable Water Master Plan being completed concurrently by West Yost & Associates which includes the DERWA (recycled water) Model Update and System Evaluation by Carollo Engineers, along with the recently, District updated, projection of future DUEs . As was noted in Section 2 of this report, these planning documents and projections of future DUEs provide the required "*rationally based public policy"* support for the imposition of capacity reserve fees.

To the extent that the cost and timing of future capital improvements change, the water capacity reserve fees presented in this section of the report should be updated to reflect the changes. It should also be noted that the fee calculated for the District is in addition to the connection fee charged by Alameda County Water Conservation and Flood control District, Zone 7 (Zone 7). The fee calculated for the District is in addition to the connection fee charged by Alameda County Water Conservation and Flood control District, Zone 7 (Zone 7).

4.2 Overview of the District's Water System

The District is located in the Tri-Valley region of San Francisco's East Bay area. The Cities of Dublin and San Ramon, and the District's service area, is located at the crossroads of I-580 and I-680. Growth within the District's service area has historically been significant and as a result, over the years, has required the development of a number of capacity-related expansion projects to accommodate this growth.

The District's service area will be almost 28 square miles by future build out. The District owns and operates a potable water system as well as recycled water system. Historically, the District served their customers through a combination of ground and surface water sources. The District has the right to extract groundwater from the Main Basin located in the Dublin – Pleasanton Area and from the "fringe basin", located in the Camp Parks area. Due to groundwater quality issues, the fringe basin is not utilized. Under contract Zone 7 pumps the District's annual quota from the main basin with the balance of the District's potable water being received from Zone 7's Patterson Pass and Del Valle Water Treatment Plants via the Del Valle Livermore Transmission Main, the Cross-Valley Pipeline, and the Vineyard Pipeline. These lines currently provide water to the District, which the District then distributes and treats the water through water supply turnout facilities and an interim/backup water supply turnout facility. For emergency purposes the District maintains interties with EBMUD in San Ramon and the City of Pleasanton to the south.

The District is also a participant (along with East Bay Municipal Utility District) in the DSRSD/EBMUD Recycled Water Authority (DERWA), a joint powers authority formed in 1995 to plan, design, construct, own and operate various facilities which together will maximize the volume of recycled water deliveries while recovering its costs. The Authority began its operations on June 28, 1995. DERWA constructed a water recycling system, including treatment, conveyance, pumping and storage facilities which became operational on February 1, 2006. Capital costs, including debt service, are allocated based on each member's proportional share of capital assets. This study includes only those costs related to the Districts' proportional share of these assets and debt. In addition to DERWA the District has constructed and operates a recycled system for delivery of recycled water within the Dublin and San Ramon service areas. Costs related to projects that benefit only District customers are fully allocated to the cost of this service.

In past years, the District's water capacity reserve fee was different depending upon which County the connection would be in. Delivering water in Contra Costa County posed longer distances and in higher pressure zones created sufficient differences to support a separate fee. However, at this stage of the District's development, there is much more similarity in the two areas. For this reason, and because the District operates its water system as a single, pressurized, and integrated system, the District has viewed these capacity reserve fees as a single fee ($/DUE), regardless of the location of the new development in the District's service area.

In order to adequately meet demands in the future, the District has implemented many capital projects, particularly since 2003, and plans to implement the majority of its remaining capital improvement program (CIP) projects over the course of the next ten years. This is an important observation since the District's methodology for calculating the water capacity reserve fee takes into consideration both the existing available capacity (existing infrastructure) and needed future capacity (expansion infrastructure) using the previously discussed "total cost attribute method."[7]

Future capital projects are defined in the master plans prepared periodically by the District. In general, the District completes a master plan on a 5 year basis unless there is some major event affecting the service infrastructure. Every two years the District prepares a ten year capital Improvement plan (CIP). In the CIP, capital projects are scheduled to meet the needs of future development based upon updated growth projections. The cost of future projects are updated in the CIP. The facility size is also updated in the CIP if there are any major changes provided in the master plan.

The District has established by Board policy that "Water is Water" i.e. all water, either potable or recycled, benefits all future customers equally. The cost of projects and DUEs, both potable and recycled, are combined to develop a single water capacity fee paid by each new connection to the system.

[7] See Section 2.5 for overview discussion

4.3 Present Water Capacity Reserve Fees

The District's existing water capacity reserve fee as of July 1, 2015 are shown below in Table 4 - 1.

Table 4 - 1
Present Water Capacity Reserve Fee

Meter Size [1]	5/8" Equivalence	Effective July 1, 2015 [2] [3]
5/8"	1.0	$12,407
3/4"	1.5	18,610
1"	2.5	31,015
1-1/2" (Displacement)	5.0	62,030
1-1/2" (OMNI C2)	16.0	198,512
1-1/2" (OMNI T2)	16.0	198,512
2" (Displacement)	8.0	99,248
2" (OMNI C2)	16.0	198,512
2" (OMNI T2)	20.0	248,140

[1] Meters 3" and up are determined by DSRSD based on Maximum Rate for Continuous Operation through a 5/8" meter, as defined by the American Water Works Association (AWWA).
[2] Recycled water capacity reserve fees are equivalent to potable water fees.
[3] DSRSD fees are revised annually on July 1 based on changes in the Engineering News Record (ENR) Construction Cost Index and are subject to change at other times.

As shown, the District's current charge is based on the safe operating capacity of a 5/8-inch meter (or 1 DUE) as compared with the respective safe operating capacities of other meter sizes. The District Engineer may adjust the Capacity Factor set forth in the preceding table based on revisions to the AWWA publications described below or other new empirical data regarding the respective flow rating for any of the meters described therein.

4.4 Calculation of the District's Water Capacity Reserve Fee

As was discussed in Section 2, the process of calculating capacity reserve fees is based upon a four-step process. These steps were as follows:

- Determination of system planning criteria
- Determination of dwelling unit equivalents (DUEs)
- Calculation of the capacity reserve fee for system component costs
- Determination of any capacity reserve fee credits

Each of these areas is discussed in more detail below.

4.5 System Planning Criteria

System planning criteria typically involves calculating the amount of water required by a single-family residential customer (hence the term "Dwelling Unit Equivalent" or "DUE"). Water

demand per DUE represents the basis for system design. The District prepared an analysis to project future water demand and associated DUEs for the water master plan and this study. The analysis conducted by the District indicated the average day demand for a residential customer was 330 gallons day/DUE.

Expansion related capital projects represent approximately $55 million in spending over the planning period. Of the total capital projects, $6 million are related to 2016 work already in progress (called 'Construction Work-in-Progress' or CWIP) and approximately $39 million in master plan identified projects. Another large portion of the capital projects is the Alternative Water Study - or Potable Reuse Study - which is approximately $10 million based on 25% (the portion related to the expansion of the system capacity) of the total project cost which is estimated at $40 million.

The expansion related capital improvement program was developed in order to meet the objectives of the Water Supply and Conservation Policy, adopted by the District Board of Directors on October 20, 2015. This program will focus on diversifying the sources of water supply so that no less than 60% of total demand (potable and recycled) is satisfied by local and regional water supplies. Additionally, no more than 40% of total water supply (potable and recycled) comes from any one physical source. The program will also fund the most feasible potable reuse projects outlined in the District's Long-Term Water Supply Study. As noted previously, the $40 million program will be funded 25% by the Water Expansion Fund and 75% by the Water Replacement Fund based on the ratio of current water demands to projected build-out water demands. The actual impact of this program will vary based on the funding arrangements with partner agencies as well as grant and loan opportunities. Funding scenarios for this program will be reviewed with the adoption of the next full budget and water rate study.

4.6 Dwelling Unit Equivalents

The current and projected number of dwelling units is important for the study in that certain costs may be proportionally assigned to existing or future DUEs. HDR and District staff worked in conjunction with West Yost & Associates who developed the Water Master Plan and Carollo Engineers who developed the DERWA (recycled water) Model Update to develop the projections of DUEs. The planning period utilized in the District's recently adopted Water Master Plan, adopted by the District Board on April 19, 2016, extended through 2035 which, is expected to be the year in which development anticipated within the District's service area would be completed (commonly referred to as "build out"). Therefore, the planning horizon of this water capacity reserve fee study is also through 2035.

As described above, to support this study, a projection of the number of new DUEs through 2035 was prepared by the District. The analysis developed by the District was very detailed in that it considered both the remaining available land area within the District's service area, as well as the type(s) of customers that may develop within a particular area. This approach to forecasting DUEs is far more reasonable and accurate than simply projecting future DUEs by

taking the existing number of DUEs and applying an assumed growth rate. It should also be noted that the development of the DUEs includes both potable and recycled water DUEs. Provided in Table 4 - 2 is a summary of the projected DUE's for 2015 through 2035 for both potable and recycled water.

Table 4 - 2
Potable and Recycled Water Dwelling Unit Equivalents (DUEs) Projection

Year	Recycled Water DUEs [1]	Potable Water DUEs [1]	DUE Credits	Total DUEs [1]
2015	216	770	0	986
2016	216	475	(68)	623
2017	216	399	(70)	545
2018	216	358	(58)	517
2019	216	257	(24)	449
2020	216	296	(35)	477
2021	21	623	(35)	610
2022	21	1,147	(21)	1,147
2023	21	779	0	800
2024	21	692	0	713
2025	21	810	0	831
2026	21	532	0	553
2027	21	706	0	727
2028	21	760	0	781
2029	21	731	0	752
2030	21	332	0	353
2031	21	105	0	126
2032	21	28	0	49
2033	21	28	0	49
2034	21	28	0	49
2035	21	28	0	49
Total	**1,611**	**9,884**	**(310)**	**11,186**

[1] DUE figures contain decimals and rounding; totals may not equal the sum of the actual values

A summary of the projected total DUEs used in the development of the study are presented in Table 4 - 3. Details of the projected DUEs, by year, are provided on Exhibit 1 of the Technical Appendix.

Table 4 - 3 Water System Dwelling Unit Equivalents (DUEs)	
Description	**Dwelling Unit Equivalents (DUEs)**
Beginning Number of DUEs in 2006	25,910
Net additional DUEs 2006 - 2010	4,221
Net additional DUEs 2006 - 2010 + Future DUEs 2015 - 2035	15,407
Net additional DUEs 2011 - 2014	2,572
Net additional DUEs 2011-2035	13,758
Net additional DUEs 2006-2035	17,979
Net additional DUEs 2003-2035	26,576
Net Future DUEs 2015 - 2035	11,186
Projected 2035 Total DUEs (build out)	**42,142**

As will be seen later in the capacity reserve fee analysis, the various DUE figures in Table 4 - 3 are key time frames for determining the appropriate number of DUEs to be applied to establish a reasonable and proportional allocation of costs per DUE. As an example, future CIP projects that provide expansion capacity will be divided by the future DUEs for 2015 – 2035 to determine a fee per DUE. The facilities to be built during that time frame benefit those specific customers. Another way to think about it is, absent the projected future customer growth from 2015 – 2035, the portion of the future facilities attributed to growth would not need to be built.

4.7 Calculation of the Capacity Reserve Fee

The next step of the analysis is to review each major functional infrastructure component in service and determine the capacity reserve fee for that component. In calculating the capacity reserve fees for the District, existing components, debt service for existing facilities, and planned future capital projects were included. The major components of the District's water system that were reviewed for purposes of calculating capacity reserve fees were as follows:

- Source
- Pump Stations
- Reservoirs
- Transmission/Distribution

For purposes of this study, the component of the capacity reserve fee associated with existing infrastructure is referred to as the "buy-in component," the component of the capacity reserve fee associated with future capital projects is referred to as the "expansion component," and the component of the capacity reserve fee associated with the debt service for existing facilities is referred to as the "debt service component."

Although the debt service component is commonly accounted for as part of the buy-in component, for the purposes of this study it has been identified separately because it relates

solely to expansion projects. The District has a separate and distinct expansion fund to account for and track all expansion-related projects and their associated costs. Debt service incurred to finance those expansion projects is also accounted for within the expansion fund, with the exception of the case where a project may have some portion related to replacement. Only that portion of the project that provides expansion capacity is included in the expansion fund. The District's clear segregation of costs, through its internal financial practices, between expansion and replacement avoids the need to split costs between expansion and replacement within the capacity reserve fee study.

4.7.1 Buy-in Component

To calculate the value of the existing assets for the buy-in component, the District's methodology considered the original cost of each asset as provided in the District's asset records. The original cost of the asset was then adjusted to reflect replacement cost. The replacement cost of each asset was then depreciated for the remaining useful life (i.e. replacement cost less depreciation). A replacement cost method "is appropriate when the system has been completely built out, or possesses substantial excess capacity to accommodate new development on a fill-in basis..."[8]

The District provided an asset listing for the various existing components and their corresponding installation date. The original cost of each asset was escalated to current, 2015 dollars (2015$), based on the San Francisco area Engineering News & Record (ENR) Construction Cost Index (CCI). Then, based on the installation date and an estimated useful life provided by the District for each asset, the escalated cost for each asset was depreciated.

Given the value of the asset, the next step was to determine the portion of the project costs that were deemed eligible to be included in the calculation of the capacity reserve fee. The term "Capacity reserve fee eligible" simply describes the amount of the asset to be included within the calculation of the fee. Within this study, contributed assets were not included in the capacity reserve fee calculation. In contrast to this, non-contributed assets were included as 100 percent (%) eligible. Given the value of the "capacity reserve fee eligible" assets, they were sum totaled for each system component and divided by the appropriate number of DUEs. The final value of the assets was reduced by the amount of future principal on the debt associated with the assets as the principal will be recovered via the debt component.

The District's last water capacity reserve fee study was completed in 2011. To appropriately, and equitably, reflect the costs of providing capacity to new customers the buy-in component has been divided into three categories: 1) assets built prior to 2006, 2) assets built between 2006 and 2010, and 3) assets built between 2011 and 2015. This differentiation was made to reflect the proper allocation of costs to those connections (DUEs) during each time period. These time periods were also used to establish the appropriate amount of DUEs used to reflect

[8] Arthur C. Nelson, System Development Charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, P. 77

the proper allocation of outstanding debt to finance the improvements during those periods that can be served by those improvements.

For the assets built prior to 2006, the capacity reserve fee eligible value was divided by the total DUEs projected at build out (42,142 EDUs). This is the same calculation as in the 2011 study.

For projects built between 2006 and 2010, a slightly different approach was used. The assets built between 2006 and 2010 were included as "future" projects in the District's 2006 Water Capacity Reserve Fee Report. These projects were considered to be exclusively expansion related. As a result, the total value of the assets built between 2006 and 2010 were divided by the total new DUEs between 2006 and 2010, plus the future DUEs through build out (2015 to 2035). The District believes this is the most equitable and proportional method for these particular costs since it assigns those expansion costs over the appropriate time period related DUEs.

Lastly, the capital projects built between 2011 and 2015 were divided by the net additional DUEs from 2011 to build out in 2035.

As will be described below, the remaining principal portion of the debt associated with the assets built between 2003 and 2015 was deducted from the total eligible asset value prior to calculating the capacity reserve fee. This debt credit is then added back to the calculation as a separate component of the reserve capacity fee to reflect the costs of funding improvements through long-term debt.

4.7.2 Expansion Component

To determine the expansion component, the District's future capital improvement needs were reviewed to determine what portion of planned future projects is required to serve future growth. The growth related portion of each project was summed to determine the total eligible future project value, which was then divided by projected DUEs through build out (11,186) [2015 – 2035]. This approach is equitable and proportional in that these facilities will be built to serve the customers connecting during this time. As noted previously, the District closely examined their CIP in order to identify the percent (%) growth related in order to calculate the expansion component.

It is projected that the District will invest approximately $55 million over the planning period. Of that total, $6 million is construction work-in-progress currently being worked on in 2016. The vast majority of projects, approximately $39 million, were identified in the 2016 Water Master Plan by West Yost & Associates. It is also important to note the $10 million Alternative Water Study (Potable Reuse Study) which is 25% - the proportion related to growth - of the total project cost which is estimated at $40 million.

4.7.3 Debt Service Component

In addition to the buy-in and expansion fee components, a third fee component, debt service, was also determined. This component accounts for the principal and interest on existing assets that were built to accommodate future expansion. The debt service component was calculated separately due to the manner in which the District collects capacity reserve fees and allocates those funds. As previously described, the District's existing debt was incurred to pay for expansion projects; therefore, the District pays its debt service with revenues from the expansion fund (i.e., through the capacity reserve fee revenues). By segregating the debt service out, the cost can be clearly identified and calculated appropriately. To avoid double-counting of the assets financed with debt, the future principal associated with those assets was deducted from the existing infrastructure calculation before the buy-in component was calculated. Refer to Exhibits 7 and 8 in the Technical Appendix for additional information.

In developing the debt service component, the debt issues which are related to expansion were individually analyzed by the District. In general terms, each debt issue was analyzed from the date of issuance and then divided by the number of DUEs to build out. In viewing debt service in this manner, the debt service for each debt issue is equitably assigned over the total number of DUEs related to the particular debt issuance. Debt payments between 2003 and 2011 were not supported by a capacity fee that included the cost of the debt payment. During the 2011 study discussions with the development community resulted in an agreement, with the development community, that the debt component of those payments must be paid by operations as no funds had been collected in the expansion fund for the payment of debt during the period of time. This study applies the same methodology as applied in the 2011study.

Provided below in Table 4-4 is a summary of the debt service component followed by a brief overview of each of the debt issues and the method of determining the cost per DUE.

Table 4 - 4 Summary of the Debt Service Component						
Loan	**Total Debt (P&I) $/000s**		**DUEs [1]**	**Basis for DUEs**		**Total CRF $/DUE**
DERWA State Loan [2]	$8,791,325	+	17,979	Net Add'l 2006-2035	=	$489
2011 Revenue Bond [3]						
- Water Reuse Loan	26,311,795	+	26,576	Net Add'l 2003-2035	=	990
- DERWA Commercial Paper	53,941,408	+	17,979	Net Add'l 2006-2035	=	3,000
Ratepayer Loan [4]	3,995,154	+	11,186	Net Future 2015 - 2035	=	357
WateReuse Loan	7,103,875	+	26,576	Net Add'l 2003 - 2035	=	267
Total Debt	$100,143,557					**$5,288**
Less: Working Capital [5]	($11,502,595)	+	11,186	Net Future 2015 - 2035	=	**($1,028)**
Total Debt Service Component	**$88,640,962**					**$4,075**

[1] See Exhibit 1 in Technical Appendix for details.
[2] Includes District's share (52.4%) of payments for FY 2016 - FY 2026. FY 2015 CAFR pg. 41.
[3] Includes payments for FY 2016 - FY 2042; FY 2015 CAFR pg. 41
[4] Balance as of FYE 2015; provided by District.
[5] Balance as of June 30, 2014, provided by District.

- DERWA State Loan - The DERWA JPA received two state loans with the majority of the funds received in 2005. The portion of the debt attributed to the District has been included in the debt component. This loan is a low-interest loan with a final payment in 2026. Costs have been allocated over the 17,979 DUEs remaining as of the beginning of FY 2006. This resulted in a cost of $489/DUE.
- 2011 Water Bond - The District issued a bond in January 2011 in order to refinance two variable rate issuances, the WateReuse Loans and commercial paper issued by DERWA. The bond principal attributed to each of these initial debts, as well as the interest component and applicable costs, were allocated over the future DUEs based upon the original issuance date (26,576 DUEs was used for the WateReuse share and 17,979 DUEs was used for the commercial paper). These loans were refinanced for two reasons – 1) to stabilize the interest rates that became highly volatile after the market crash and 2) to extend the length of the loans due to the significant change in the time to build out. This resulted in a cost of $3,990/DUE ($990 WateReuse/DUE+ $3,000 DERWA Commercial Paper = Total $3,990).
- Ratepayer Loan Repayment - Due to market fluctuations, the District internally borrowed $7.9 million of ratepayer monies via the Temporary Infrastructure Charge (TIC) in order to fund expansion related costs when no revenue was being received from capacity reserve fees. These are expansion-related debt service payments that would have been paid from capacity reserve fees had there been sufficient connections. This ratepayer loan is a zero interest loan that will be repaid in the future as expansion funds

are available and it has been allocated to the future (2015 – 2035) DUEs (11,186). This resulted in a cost of $357/DUE.

- WateReuse Loan – This portion of the WateReuse loan was not a part of the 2006 fee calculation and therefore, the interest expense was not recouped from the fee. The District then paid off the loan when it was refinanced with reserve funds. This means that prior customers paying the capacity reserve fees were not reimbursed. The amount was $7.1 million and that figure was divided by the total number of DUEs, both actual and projected from 2003 to 2035. This resulted in a total number of DUEs of 26,576 DUEs, which resulted in a a cost of $267 per DUE ($7.1 million/26,576 DUEs).
- Working capital reflects the funds available in the District's expansion fund that have been funded through past reserve capacity fee revenues. Given this balance of funds, which can be used to fund future expansion related improvements, it is deducted to provide a credit against the available cash to fund future projects. Working Capital in the amount of $11.5 million was deducted from the total debt resulting in a working capital credit of $1,028.

Finally, since it is assumed that build out will occur in 2035, the interest on debt beyond 2035 was not included (i.e., because sufficient capacity reserve fee revenues would have been received by 2035 to fully pay off the debt).

In summary, when all expansion related debt issues are taken together, the total debt service component was determined to be $4,075/DUE. Detailed worksheets of the calculation of the debt service component can be found in Exhibits 7 and 8 in the Technical Appendix.

4.8 Summary of the Capacity Reserve Fee by Component

A brief discussion of the water capacity reserve fee calculated for various infrastructure and debt service components is provided below.

4.8.1 Source

The District now receives all of its water from the Zone 7 Water Agency. The District's total cost for its potable water also includes fluoride treatment assets, as well as other miscellaneous source-related assets. The portion of the capacity reserve fee for source-related facilities is $3,380 per DUE. Details of the calculation are provided in Exhibit 3 of the Technical Appendix.

4.8.2 Pumping Stations

The District currently has twenty pump station facilities. Future improvements are to provide pump station upgrades for increased capacity and reliability to serve growth. The portion of the capacity reserve fee for pump stations is $1,408 per DUE, based on the cost of existing pump stations and the portion of future CIP projects related to expansion results. Details of this calculation are provided in Exhibit 4 of the Technical Appendix.

4.8.3 Reservoirs

The District currently has 14 reservoirs with a capacity of approximately 27.05 million gallons (mg) for the potable system and for the recycled system, has 2 reservoirs with a capacity of approximately 1.95 mg. The District's capital improvement plan calls for construction of two (2) new storage facilities with additional capacity of over 2.4 mg. The portion of the capacity reserve fee for distribution storage is $1,914 per DUE. Details of the calculation are provided in Exhibit 5 of the Technical Appendix.

4.8.4 Transmission/Distribution System

The capacity reserve fee for existing transmission and distribution mains is $1,330 per DUE. For future transmission and distribution assets, the portion of the capacity reserve fee is $655 per DUE. This results in a total capacity reserve fee for transmission/distribution mains of $1,985 per DUE. Details of the calculation are provided in Exhibit 6 of the Technical Appendix.

4.8.5 Debt Service

The debt component of the capacity reserve fee is essentially made up of the interest on the District's existing debt obligations as previously described (the principal is backed out of the current assets). Debt was issued to finance assets, including recycled water treatment facilities, pump stations, storage reservoirs, and transmission and distribution lines. As described above, the portion of the capacity reserve fee for debt service is $4,075. Details of the calculation are provided in Exhibits 7 and 8 of the Technical Appendix.

As previously described, the District's debt service is paid out of the expansion fund (i.e., only capacity reserve fees). Given that debt service is not included within the water rates, no debt service credit is required.[9]

4.9 Allowable Water Capacity Reserve Fees

Based on the sum of the component costs calculated above, the allowable water capacity reserve fee can be determined. "Allowable" refers to the concept that the calculated capacity reserve fee shown on Table 4 - 5 is the District's cost-based water capacity reserve fees. The District, as a matter of policy, may charge any amount up to the allowable capacity reserve fee, but not over that amount. Charging an amount greater than the allowable capacity reserve fee would not meet the nexus test of a cost-based capacity reserve fee. Details are provided in Exhibit 9a and 9b of the Technical Appendix.

[9] This potential debt service credit is different than the debt service credit noted in the discussion on the buy-in component. This debt service credit is to avoid having a customer pay for debt service within the water capacity fee and also within their water rates. As noted previously, all debt service is paid from the expansion fund and not from rates.

Table 4 - 5 Calculated Allowable Water Capacity Reserve Fees - $/DUE							
Component	Buy-In		Expansion		Debt Service		Total CRF $/DUE
Source	$546	+	$2,834	+	$445	=	$3,825
Pumping	1,395	+	13	+	1,284	=	2,692
Storage	539	+	1,376	+	1,117	=	3,031
Trans. & Distrib.	1,330	+	655	+	1,229	=	3,214
Total Allowable Fee	**$3,809**	+	**$4,878**	+	**$4,075**	=	**$12,763**

As can be seen in Table 4 - 5, the maximum allowable water capacity reserve fee is $12,763 per DUE. From the calculated allowable capacity reserve fee, the fee is then placed in the context of the size and type of meter. The capacity reserve fee varies based upon the safe operating capacity of the customer's meter.

The District Engineer may adjust the Capacity Factor set forth in the Table 4-6 based on revisions to the AWWA publications described below or other new empirical data regarding the respective flow rating for any of the meters described therein.

Table 4 - 6 provides a summary of the calculated and allowable capacity reserve fee by meter type and size.

Table 4 - 6 Proposed Water Capacity Reserve Fee by Meter Type and Size		
Meter Type & Size [1]	5/8" Meter Equivalent (DUE)	Capacity Reserve Fee (CRF; $/DUE) [2] [3]
5/8" (Displacement)	1.0	$12,763
3/4" (Displacement)	1.5	19,145
1" (Displacement)	2.5	31,908
1-1/2" (Displacement)	5.0	63,815
1-1/2" (Compound - OMNI C2)	16.0	204,208
1-1/2" (Turbine - OMNI T2)	16.0	204,208
2" (Displacement)	8.0	102,104
2" (Compound - OMNI C2)	16.0	204,208
2" (Turbine - OMNI T2)	20.0	255,260

[1] Meters 3" and up are determined by DSRSD based on Maximum Rate for Continuous Operation through a 5/8" meter, as defined by the American Water Works Association (AWWA).
[2] Recycled water capacity reserve fees are equivalent to potable water fees.
[3] DSRSD fees are revised annually on July 1 based on changes in the Engineering News Record (ENR) Construction Cost Index and are subject to change at other times.

For each customer seeking a new or expanded connection to the District's water supply facilities from and after July 1, 2016 through a meter larger than those shown in Table 4-6, the applicable water capacity reserve fee is established in the respective amount that is the product

of the appropriate capacity factor, determined as set forth in the following sentence, times the water capacity reserve fee for a 5/8-inch meter as set forth in the preceding table. The appropriate capacity factor shall be determined by the District Engineer as the quotient calculated by dividing the flow rating for the meter to be installed by the flow rating of a 5/8-inch displacement type meter, with the flow ratings for displacement type meters being defined by the then-current AWWA C700 Standard for Cold-Water Meters- Displacement Type, Metal Alloy Main Case, and the flow ratings for turbine type meters being defined by the then-current AWWA C701 for Cold Water Meters-Turbine Type, and the flow ratings for compound type meters being defined by AWWA C702 for Cold Water Meters—Compound Type. The District Engineer may adjust the capacity factors for the respective meters based on revisions to the AWWA publications described above or other new empirical data regarding the respective flow ratings. Any changes to the capacity factor will impact the above water capacity reserve fees.

4.10 Key Assumptions

In the development of the water capacity reserve fees for the District's water system, a number of key assumptions were utilized. These are as follows:

- The District's water system is a pressurized, integrated system with many redundancies for system reliability. Given that, the District has viewed its capacity reserve fee from a unified system perspective.
- The District's capacity reserve fees were developed on the basis of planning documents, anticipated future connections (stated in terms of DUEs) and the needed capital improvements to serve those future connections.
- District staff developed their projections of future DUEs based upon a detailed analysis of available land area and type of development.
- The District's asset records were used to determine the existing infrastructure assets.
- The District provided the most recent CIP for future expansion improvements.
- The District determined the portion of future improvements that were growth-related.
- The original cost of the assets financed with the DERWA State Loan and WaterReuse Loan, was deducted from the cost of the existing assets before the buy-in component was calculated to avoid double counting.
- The District's most recent master plan was completed in late 2015.
- The calculation of the debt service component included only current outstanding expansion related debt service. The District provided a review of each individual debt issue to determine an equitable assignment per DUE of expansion related debt service.
- No debt service credit was included because the District's debt service is only paid for with funds generated through capacity reserve fees.

4.11 Implementation of the Water Capacity Reserve Fees

The methodology used to calculate the water capacity reserve fees takes into account the cost of money or interest charges and inflation. Therefore, HDR recommends that the District adjust

the water capacity reserve fees each year by an escalation factor to reflect the cost of interest and inflation. The most frequently used source to escalate capacity reserve fees is the Engineering News Record Construction Cost Index (ENR CCI) which tracks changes in construction costs for municipal utility projects. This method of escalating the District's water capacity reserve fees should be used for no more than a four-year to five-year period. After this time period, it is recommended that the District update the charges based on the actual cost of infrastructure and any new planned facilities that would be contained in an updated master plan, capital improvement plan, or rate study.

To adjust the Water Capacity Reserve Fee in future years, the District will adjust the fees July 1, starting July 1, 2017, by the percentage increase in the most recent ENR Construction Cost Index for the San Francisco Bay Area as of April 30 in relation to the most recent corresponding Construction Cost Index available the preceding April 30.

4.12 Compliance with the Rational Nexus Test

In calculating the District's water capacity reserve fees, significant thought and consideration was given developing a fair and reasonable methodology that would meet the critical legal elements for capacity reserve fees. These critical elements were previously discussed in Section 2. In summary form, the three tests to comply with the rational nexus test for the calculated fees require the following:

1. ***A connection should be established between new development and the new or expanded facilities required to accommodate such development. This establishes the rational basis of the public policy being implemented through the fees.***

   In the development of this study, the District's capacity reserve fees were based upon District specific accounting and planning information. Specifically, the capacity reserve fees are based upon the District's fixed asset records; water system capital improvement plan and planning data from the master plan being developed concurrently by West Yost & Associates and updated projection of future DUEs. The use of this data and information was the "best available" and "reasonable" information and provides the required evidentiary support for a "*rationally based public policy"* to support the imposition of capacity reserve fees.

2. ***Identification of the cost of these new or expanded facilities needed to accommodate new development. This establishes the burden to the public of providing new facilities to new development and the rational basis on which to hold new development accountable for such costs. This may be evaluated using the so-called Banberry factors, which are among the factors that help inform such decisions. Banberry states that under Utah law, "consideration must be given to seven factors to determine the proportionate share of costs to be borne by new development:***

   - ***The cost of existing facilities.*** *The* District's analysis considers the existing assets with a buy-in component. The assets are valued using a depreciated replacement cost value.

- ***The means by which existing facilities have been financed.*** The District's analysis considered the debt service component related to the expansion fund. The methodology provided a debt service credit for the principal related portion of the debt service. The debt service included only debt service payments through 2035 (i.e., build out).
- ***The extent to which new development has already contributed to the cost of providing existing excess capacity*** The District's methodology excluded all contributed capital from the calculation of the buy-in component of the capacity reserve fee, even though that is not a requirement under California law.
- ***The extent to which existing development will, in the future, contribute to the cost of providing existing facilities used community wide or nonoccupants of new development*** The District considers all future projects for the benefit of future expansion, for absent growth, the District's existing facilities are sufficient to serve existing District customers.
- ***The extent to which new development should receive credit for providing at its cost facilities the community has provided in the past without charge to other development in the service area.*** The District is not aware of any situation or condition to which this factor would apply. Accordingly, no credits have been included within the calculation of the District's capacity reserve fee for new development providing at its cost facilities the community has provided in the past without charge to other development in the service area.
- ***Extraordinary costs incurred in serving new development.*** No extraordinary costs are assumed to have been incurred in the past, nor are any extraordinary costs assumed to be incurred in the future and included within the calculation of the District's capacity reserve fee.
- ***The time-price differential inherent in fair comparisons of amount of money paid at different times.*** By using a depreciated replacement cost methodology for the buy-in component, the District has fully accounted for the age and remaining useful life of the facilities. The adjustment for the Engineering News Record appropriately takes into consideration the time-price differential as a customer connects to the system.

3. ***Appropriate apportionment of that cost to new development in relation to benefits it reasonably receives. This establishes the nexus between the fees being paid to finance new facilities that accommodate new development and benefit new development receives from such new facilities.***

The District's methodology considered the value of existing and future assets to determine the fee. The value of those assets were divided by the number of DUEs that would be served by those assets. For example, expansion projects to be built between 2015 and 2035 were divided by the projected DUEs for 2015 – 2035.

Based upon the above, HDR is of the opinion that the District's calculated capacity reserve fee meets the rational nexus test. While different parties may agree or disagree on certain

assumptions or approaches, the overall test is a reasonableness relationship between the fee imposed and the benefit derived.

The other perspective to consider is the following finding by the Florida Supreme Court. The court ruled the fees were valid when they:

- "Do not exceed that which is reasonably required to fund expansion to benefit future capacity reserves
- Are needed to finance expansion that accommodates new development
- Are earmarked for expansion"[10]

For the District, the answer to each of these tests is "yes." As calculated the proposed fees will be no greater than the calculated fees. The District's calculated capacity reserve fees are needed to not only pay for existing debt on past expansion projects needed to serve growth, but also needed to fund future planned expansion projects. Finally, as this report has noted, the District has a separate and segregated expansion fund and all capacity reserve fees collected will remain in the expansion fund and be used to fund existing expansion related debt and future expansions.

Finally, and more to the point, put in terms of California law, the water capacity reserve fees recommended in this report do "not exceed the estimated reasonable cost of providing the service for which the fee is imposed."

4.13 Consultant Recommendations

Based on our review and analysis of the District's water capacity reserve fees, HDR makes the following recommendations:

- The District should revise and update the water capacity reserve fees for new connection to, or those customers looking to expand current capacity on, the water system that are no greater than the capacity reserve fees as set forth in this report.
- The District should include within its resolution the provision for periodic (annual) adjustments to the capacity reserve fees based on changes in the Engineering News Record Construction Cost Index (ENR CCI).
- The District should update the actual calculations for the water capacity reserve fees based on the methodology as approved by the resolution or ordinance setting forth the methodology for capacity reserve fees at such time when a new capital improvement plan, public facilities plan, master plan or a comparable plan is approved or updated by the District.

[10] Florida Supreme Court, Contractors and Builders Association of Pinellas County v. City of Dunedin [329 So. 2nd 314 (Fla. 1976)]. From a legal perspective, of course, the water capacity reserve fees are governed by Government Code section 66013 and California case law, not the above case.

4.14 Summary

The water capacity reserve fee developed and presented in this section of the report is based on the engineering design criteria of the District's water system, the value of the existing assets, future capital improvements, current debt service on existing assets and "generally accepted" ratemaking principles. Adoption of the water capacity reserve fees will provide multiple benefits to the District and create equitable and cost-based charges for new customers connecting to the District's water system.

5 Technical Appendix

DSRSD
Capacity Reserve Fees Study
DUE Projections
Exhibit 1

Fiscal Year End	DUE Credits	Historical DUEs (1)	Cumulative DUEs (1)
2002			15,566
2003		3,588	19,154
2004		2,426	21,580
2005		2,583	24,163
2006		1,747	25,910
2007		1,544	27,454
2008		890	28,344
2009		30	28,374
2010		10	28,384
2011	(177)	1,928	30,135
2012	(73)	249	30,311
2013	(5)	321	30,627
2014	(10)	340	30,956

		15,655	

Fiscal Year End	Projected DUEs (2)	DUE Credits (3)	Cumulative DUEs (1)
2015	986	0	31,942
2016	691	(68)	32,565
2017	615	(70)	33,110
2018	574	(58)	33,627
2019	473	(24)	34,076
2020	512	(35)	34,553
2021	644	(35)	35,163
2022	1,168	(21)	36,310
2023	800	0	37,110
2024	713	0	37,823
2025	831	0	38,654
2026	553	0	39,207
2027	727	0	39,935
2028	781	0	40,716
2029	752	0	41,467
2030	353	0	41,821
2031	126	0	41,947
2032	49	0	41,995
2033	49	0	42,044
2034	49	0	42,093
2035	49	0	42,142
	---	---	
Total DUEs 2015 - 2035	**11,495**	**(310)**	
Net Future DUEs 2015 - 2035 (4)		**11,186**	

Summary Totals	**DUEs**
Beginning # of DUEs in 2006	25,910
Projected 2035 Total DUEs	42,142
Net add'l DUEs 2006 - 2010	4,221
Net add'l DUEs 2006 - 2010 + Future DUEs 2015 - 2035	15,407
Net add'l DUEs 2011 - 2014	2,572
Net add'l DUEs 2011-2035	13,758
Net add'l DUEs 2006-2035	17,979
Net add'l DUEs 2003-2035	26,576
Net Future DUEs 2015 - 2035	11,186

Notes:

(1) *Except where noted, data obtained From DSRSD's DUE Calculations for Fee Study WY Dec 2015*

(2) *Data obtained From DSRSD's "DUE Calculations for Fee Study WY Dec 2015"*

(3) *DUE credits represent DUEs that have already been sold, but not yet developed*

(4) *Calculated as the Projected DUEs minus the DUE Credits*

DSRSD
Capacity Reserve Fees Study
Capital Improvement Projects
Exhibit 2

	[1]	Total 2015$	CF Eligible [2]	Cost 2015$
Future Source Related Assets				
Capital Improvements to Increase Water Supply, Phase 1		$3,964,824	67%	$2,656,432
Capital Improvements to Increase Water Supply, Phase 2 (Future Potable Reuse)		10,000,000	100%	10,000,000
Water System Master Plan & Operations Plan Update/Fee Study		1,700,000	100%	1,700,000
Urban Water Management Plan		1,000,000	10%	100,000
DERWA Supplemental Study		1,491,019	100%	1,491,019
Corp Yard & Admin. Facilities		1,851,727	30%	555,518
DERWA Recycled Water Plant - Phase 2		9,608,710	100%	9,608,710
DERWA Recycled Water Plant - Phase 3		1,650,820	100%	1,650,820
DERWA Recycled Water Plan Financing costs (SRF)		1,600,000	100%	1,600,000
Water Reuse Demonstration project		300,000	100%	300,000
Water Supply Reliability		500,000	35%	175,000
		$33,667,100		**$29,837,499**
Future Reservoir				
New Water Reservoir 10A		$7,636,000	100%	$7,636,000
New Water Reservoir 20B		7,753,000	100%	7,753,000
		$15,389,000		**$15,389,000**
Future Transmission/Distribution				
Water Main - Bollinger Canyon Rd to Reservoir 200B		$824,256	100%	$824,256
Water Main - Fallon Road, Tassajara Rd to Tassajara Creek		315,500	100%	315,500
Turnout 6		2,009,000	100%	2,009,000
Automated Water Meter Data Transmission System Program		360,000	80%	288,000
		$3,508,756		**$3,436,756**
Total Future Capital Improvements		**$52,564,856**		**$48,663,255**

Notes:

[1] - Capital Improvements from 2016 Master Plan Table 7-3 and other District input
[2] - District staff provided estimates on Capacity Reserve Fee related percentage

Year		Useful Life(1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Existing Source Related Assets - Pre 2006								
1965	MOTOR CONTROL CENTER	25	$7,007	9.21	$64,504	100%	100%	$0
1965	MOTOR CONTROL CENTER	25	7,007	9.21	64,504	100%	100%	0
1976	INSTRUMENTATION & CABINET	15	26,205	3.59	94,066	100%	100%	0
1976	FLUORIDE PUMP CONTROL	10	9,827	3.59	35,274	100%	100%	0
1983	FIBERGLASS TANK - 3,500 GALLON	15	16,343	2.18	35,589	100%	100%	0
1983	FLUORIDE DAY TANK & SCALE	15	5,561	2.18	12,110	100%	100%	0
1983	WALL MOUNTED INSTRUMENTATION	10	7,804	2.18	16,993	100%	100%	0
1984	FLUORIDE DAY TANK & SCALE	15	5,447	2.21	12,034	100%	100%	0
1984	FLUORIDE ANALYZER	10	7,392	2.21	16,330	100%	100%	0
1985	CHLORINE ANALYZER	10	5,120	2.21	11,299	100%	100%	0
1985	MOTOR CONTROL PANELS	25	13,538	2.21	29,874	100%	100%	0
1995	RESIDUAL CHLORINE ANALYZER (WALL MOUNT)	10	6,039	1.70	10,271	100%	100%	0
1999	Radio Water Meter Reading	10	55,936	1.64	91,536	100%	100%	0
2000	Camp Parks Well land	LAND	938,000	1.50	1,404,870	0%	100%	1,404,870
2001	8" Invensys Meter W-3500	15	5,474	1.51	8,253	93%	100%	550
2001	8" Invensys Meter W-3500	15	5,474	1.51	8,253	93%	100%	550
2001	Unimag flow tube & transmitter	10	6,450	1.51	9,725	100%	100%	0
2001	Sensus Model W-5000 DR 10" Turbine Meter - Touch Read	15	7,525	1.51	11,346	93%	100%	756
2001	Unimag Magnetic Closed Pipe Flow Meter	25	8,395	1.51	12,656	56%	100%	5,569
2002	UV Modules	25	31,563	1.46	46,058	52%	100%	22,108
2002	UV Module	25	31,563	1.46	46,058	52%	100%	22,108
2002	UV Module	25	31,563	1.46	46,058	52%	100%	22,108
2005	2005 Source Projects (PS and Res 30)	15	166,541	1.32	219,532	67%	100%	73,177
	Total Existing Source Related Assets - Pre 2006		**$1,405,775**		**$2,307,193**			**$1,551,796**
	Projected 2035 Total DUEs							**42,142**
	Existing Source Related, Pre-2006, Buy-in CRF ($/DUE)							**$36.82**

Year		Useful Life(1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Master Plan Projects for New Development - 2006-2010 (4)								
2006	2006 Source Projects	25	$121,085	1.22	$148,289	36%	100%	$94,905
2007	Refurbish Fluoride Sys @ Turnout 1,2& 4	25	411,634	1.22	502,836	32%	100%	341,929
2008	Dougherty Valley Emergency Intertie	25	56,124	1.14	64,004	28%	100%	46,083
2008	Integrated software system	14	225,845	1.14	257,555	50%	100%	128,777
2008	System turnout 1	50	117,483	1.14	133,978	14%	100%	115,221
2008	08-619c	5	10,613	1.14	12,103	100%	100%	0
2009	Field Operations Corporation Yard	LAND	4,794,000	1.15	5,500,563	0%	100%	5,500,563
2009	Net communication	10	66,282	1.15	76,051	60%	100%	30,421
2009	Turnout 5	50	52,968	1.15	60,775	12%	100%	53,482
2009	Data Warehouse/Business Intelligence	10	35,389	1.15	40,605	60%	100%	16,242
2009	District Office Roofing	10	13,735	1.15	15,759	60%	100%	6,304
2009	Ops Dept office config	10	11,643	1.15	13,359	60%	100%	5,344
2009	WWTP-Maintenance Building	100	941,390	1.15	1,080,137	6%	100%	1,015,328
2009	Derwa	35	186,832	1.15	214,368	17%	100%	177,619
2009	SCADA System Master Plan	14	322,226	1.15	369,717	43%	100%	211,267
2009	District Facilities Security Project	15	122,630	1.15	140,704	40%	100%	84,422
2009	District Office Improvements	10	58,690	1.15	67,340	60%	100%	26,936
2009	WAN Communications	14	42,808	1.15	49,117	43%	100%	28,067
2009	Supplemental Water Supply Evaluation	10	10,248	1.15	11,758	60%	100%	4,703
2009	RWTF Effluent Quality Improvements	20	(285,109)	1.15	(327,129)	30%	100%	(228,990)
2010	Maintenance Building Security	14	6,000	1.10	6,613	36%	100%	4,252
DERWA(4)								
2006	Program Planning	35	1,269,154	1.22	1,554,290	26%	100%	1,154,616
2006	Planning FY02 and Prior Years	35	1,757,090	1.22	2,151,849	26%	100%	1,598,516
2006	Design FY02 and Prior Years	35	42,727	1.22	52,326	26%	100%	38,871
2006	DERWA Program Planning	35	1,373,000	1.22	1,681,467	26%	100%	1,249,090
2008	Backbone Corrosion	15	$121,410	1.14	$138,457	47%	100%	$73,844
2009	Fine Screening	25	189,422	1.15	217,340	24%	100%	165,178
	Total Existing Source Related Assets - 2006-2010		**$12,075,319**		**$14,234,231**			**$11,942,988**
	Credit for Existing Source Related Debt (5) *see Exhibit 7*							**($5,441,361)**
	Net Existing Source Related Assets - 2006-2010							**$6,501,627**
	Net add'l DUEs 2006 - 2010 + Future DUEs 2015 - 2035							**15,407**
	Existing Source Related - 2006-2010, Buy-in CRF ($/DUE)							**$422.00**

Year		Useful Life(1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Improvements After 6.30.10 - 6.30.15								
2010	POWERNET UPGRADE V3.5 - PXS-PRPN2S	5	$8,381	1.10	$9,238	100%	100%	$0
2011	60T TRANE COMPRESSOR 1C - HVAC DO	10	11,333	1.09	12,388	40%	100%	7,433
2011	DISTRICT OFFICE PARKING LOT	25	269,952	1.09	295,090	16%	100%	247,876
2011	DISTRICT OFFICE PARKING LOT - LIGHTING	15	59,736	1.09	65,298	27%	100%	47,885
2012	CISCO UNIFIED COMPUTING SYSTEM (UCS)	7	123,114	1.08	132,468	43%	100%	75,696
2013	CISCO NETWORK SECURITY	5	15,975	1.02	16,335	40%	100%	9,801
2013	BACKUP NETWORK STORAGE EX23TB (EX10000E APPLIANCE)	5	24,940	1.02	25,502	40%	100%	15,301
2013	NETWORK POWER UPGRAGE	5	24,896	1.02	25,457	40%	100%	15,274
2013	DO HVAC AIR HANDLER BOX CAR UNIT	10	99,293	1.02	101,532	20%	100%	81,226
2014	CISCO UCS B200 M3 SERVERS FOR UNIFIED	5	17,857	1.02	18,261	20%	100%	14,609
2014	TOWER GATEWAY BASE STATIONS (3)	10	41,730	1.02	42,676	10%	100%	38,408
2014	ASSUREON NEXSAN SECURED 8TB STORAGE	7	32,264	1.02	32,995	14%	100%	28,282
2014	DISTRICT OFFICE HVAC UNITS (3)	10	53,942	1.02	55,165	10%	100%	49,649
2015	CISCO COMMUNICATION SYSTEM	10	489,552	1.00	489,552	0%	100%	489,552
2015	WWTP UNIFIED COMPUTING SYSTEM (CISCO)	7	75,724	1.00	75,724	0%	100%	75,724
	Total Existing Source Related Assets - 2011-2015		**$1,348,689**		**$1,397,684**			**$1,196,717**
	Net add'l DUEs 2011-2035							**13,758**
	Existing Source Related Assets, Built 2011-2015, Buy-in CRF ($/DUE)							**$86.99**
	Total Source Related Buy-in CRF ($/DUE)							**$545.81**
Construction Work in Progress 6.30.15 - 6.30.16								
	Water Sys Mstr Plan Update/Capacity Res				$381,523		100%	$381,523
	Recycled Wtr Expan - Camp Parks Phs1				18,581		100%	18,581
	Recycled Wtr Expan - State Grant Assist				26,796		100%	26,796
	Wide Area Network Communications				42,808		100%	42,808
	Impact of Corp Yard (included as Future above)				4,648,273		30%	1,394,482
					$5,117,981			**$1,864,190**
	Net Future DUEs 2015 - 2035							**11,186**
	CWIP Source Related Assets, Built 2016, Buy-in CRF ($/DUE)							**$166.66**
Future Source Related Assets								
	Capital Improvements to Increase Water Supply, Phase 1				$3,964,824		67%	$2,656,432
	Capital Improvements to Increase Water Supply, Phase 2 (Future Potable Reuse)				10,000,000		100%	10,000,000
	Water System Master Plan & Operations Plan Update/Fee Study				1,700,000		100%	1,700,000
	Urban Water Management Plan				1,000,000		10%	100,000
	DERWA Supplemental Study				1,491,019		100%	1,491,019
	Corp Yard & Admin. Facilities				1,851,727		30%	555,518
	DERWA Recycled Water Plant - Phase 2				9,608,710		100%	9,608,710
	DERWA Recycled Water Plant - Phase 3				1,650,820		100%	1,650,820
	DERWA Recycled Water Plan Financing costs (SRF)				1,600,000		100%	1,600,000
	Water Reuse Demonstration project				300,000		100%	300,000
	Water Supply Reliability				500,000		35%	175,000
	Total Future Source Related Assets				**$33,667,100**			**$29,837,499**
	Net Future DUEs 2015 - 2035							**11,186**
	Future Source Related Expansion CRF ($/DUE)							**$2,667.47**
	Total Future Source Related Expansion CRF ($/DUE)							**$2,834.13**
Total Source-Related Buy-in and Expansion CRF ($/DUE)								**$3,379.93**

Notes:

(1) *Useful life provided by DSRSD.*

(2) *Costs are Fund 620 (expansion) only*

(3) *ENR factor is based on San Francisco CCI Index, current SF CCI ENR is 11,155*

(4) *Assets built between 2006 and 2015 were built to accommodate future growth*

(5) *The principal on debt and repayment of the Temporary Infrastructure Charge is subtracted here, as it is accounted for separately. See exhibit 7.*

DSRSD **Base Year / Month: 2015 / September**
Capacity Reserve Fees Study
Pump Stations *Page 1 of 3*
Exhibit 4

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Existing Pump Station Assets, Pre-2006								
1992	STORAGE LOCKERS AND SHELVING	25	$6,341	1.77	$11,237	92%	100%	$899
1983	CATHODIC PROTECTION	25	9,235	2.18	20,110	100%	100%	0
1986	INTERIOR COATING	10	8,759	2.03	17,738	100%	100%	0
1985	MOTOR CONTROL BLDG	40	10,637	2.21	23,473	75%	100%	5,868
1985	PUMP STATION "B" (FENWICH)	40	10,753	2.21	23,729	75%	100%	5,932
1983	CATHODIC PROTECTION	25	13,240	2.18	28,830	100%	100%	0
1979	INTERIOR COATING	10	13,733	2.93	40,248	100%	100%	0
1986	CATHODIC PROTECTION	25	13,139	2.03	26,608	100%	100%	0
1996	PS2C IMPROVEMENTS	25	14,762	1.68	24,839	76%	100%	5,961
1979	INTERIOR COATING	10	16,480	2.93	48,299	100%	100%	0
1988	UTILITY BLDG REMODEL	15	22,248	1.95	43,279	100%	100%	0
1990	UTILITY BLDG REMODEL	15	24,293	1.84	44,750	100%	100%	0
1972	UTILITY BUILDING	40	25,603	4.92	126,019	100%	100%	0
1990	SEISMIC IMPROVEMENTS	25	56,378	1.84	103,855	100%	100%	0
1990	SEISMIC IMPROVEMENTS	25	131,550	1.84	242,328	100%	100%	0
1992	STORAGE BUILDING	25	156,989	1.77	278,199	92%	100%	22,256
1990	PUMP STATION 3A	25	178,219	1.84	328,298	100%	100%	0
2001	Water Pump Station 4B	40	559,853	1.51	844,052	35%	100%	548,634
2001	Water Pump Station 20A	40	1,038,746	1.51	1,566,047	35%	100%	1,017,930
1999	Wtr Main Pump Station	40	1,450,357	1.64	2,373,412	40%	100%	1,424,047
1996	FLOWAY PUMP	15	7,101	1.68	11,949	100%	100%	0
1996	FLOWAY PUMP	15	7,101	1.68	11,949	100%	100%	0
1996	FLOWAY PUMP	15	7,101	1.68	11,949	100%	100%	0
1990	PUMP 1	25	11,064	1.84	20,381	100%	100%	0
1990	PUMP 2	25	11,064	1.84	20,381	100%	100%	0
1990	PUMP 3	25	11,064	1.84	20,381	100%	100%	0
1979	PEERLESS PUMP #2	25	13,296	2.93	38,968	100%	100%	0
1985	PACO CENTRIFUGAL PUMPS	25	17,512	2.21	38,645	100%	100%	0
1985	PACO CENTRIFUGAL PUMPS	25	26,155	2.21	57,717	100%	100%	0
1992	PUMP	25	85,828	1.77	152,096	92%	100%	12,168
1992	PUMP	25	85,828	1.77	152,096	92%	100%	12,168
1992	PUMP	25	85,828	1.77	152,096	92%	100%	12,168
1999	Cummins-West 125kw generator/5 pump motors	25	105,833	1.64	173,189	64%	100%	62,348
2002	PS 30 Motor and Pump	25	1,200,000	1.46	1,751,083	52%	100%	840,520
2003	Zone 2	40	5,108,456	1.43	7,316,298	30%	100%	5,121,409
2003	PS 200 A	40	1,402,556	1.43	2,008,732	30%	100%	1,406,112
2003	PS 300 A	40	1,077,786	1.43	1,543,598	30%	100%	1,080,519
2003	30 A Fallon Rd	40	893,802	1.43	1,280,098	30%	100%	896,069
Total Existing Pump Station Assets, Pre-2006			**$13,918,692**		**$20,976,953**			**$12,475,008**
	Projected 2035 Total DUEs							**42,142**
	Existing Pump Station, Pre-2006, Buy-in CRF ($/DUE)							**$296.03**

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Master Plan Projects for New Development - Built 2006-2010 (4)								
2006	PS 10 Camp Parks	40	$1,629,000	1.22	$1,994,982	23%	100%	$1,546,111
2006	R20	40	578,484	1.22	708,450	23%	100%	549,049
2006	No. Dougherty Valley Z3 Potable Wtr Fac	40	955,000	1.22	1,169,556	23%	100%	906,406
2006	Recycled Water Pump Station R300	40	1,583,490	1.22	1,939,247	23%	100%	1,502,916
2007	Recycled Water Pump Station R300	40	83,681	1.22	102,222	20%	100%	81,777
2007	Water Pump Station 10 (Parks RFTA)	40	1,991,091	1.22	2,432,241	20%	100%	1,945,793
2008	Water Pump Station 20B	40	3,157,034	1.14	3,600,299	18%	100%	2,970,247
2009	PS 300B LAND	Land	167,260	1.15	191,912	0%	100%	191,912
2009	Water Pump Station 300B	40	3,375,247	1.15	3,872,707	15%	100%	3,291,801
2009	Water Pump Station 4 & Water Res 4	40	1,991,154	1.15	2,284,620	15%	100%	1,941,927
2009	PS 4 Land	Land	126,955	1.15	145,666	0%	100%	145,666
2009	Pump Station Impr in Pressure Zone 2 & 3	25	350,278	1.15	401,904	24%	100%	305,447
2009	Upgrade Water Pump Station 4B	25	146,506	1.15	168,099	24%	100%	127,755
2010	Pump Station 300B	40	175,000	1.10	192,893	13%	100%	168,782
DERWA(4)								
2006	Treatment Plant	35	8,948,843	1.22	10,959,347	26%	100%	8,141,230
2006	Pump Stations	40	6,772,195	1.22	8,293,680	23%	100%	6,427,602
	Total Existing Pump Station Assets, Built 2006-2010		**$32,031,218**		**$38,457,824**			**$30,244,419**
	Credit for Existing Pump Station Related Debt (5) *See Exhibit 7*							**($15,693,663)**
	Net Existing Pump Station Assets, Built 2006-2010							**$14,550,756**
	Net add'l DUEs 2006 - 2010 + Future DUEs 2015 - 2035							**15,407**
	Existing Pump Station, Built 2006-2010, Buy-in CRF ($/DUE)							**$944.44**
Improvements After 6.30.10 - 6.30.15								
2014	PUMP STATION 4B - BUILDING	50	$937,674	1.02	$958,927	2%	100%	$939,748
2014	PUMP STATION 4B - ELECTRICAL	25	248,208	1.02	253,834	4%	100%	243,680
2014	PUMP STATION 4B - SCADA	7	27,579	1.02	28,204	14%	100%	24,175
2015	PUMP STATION #2C - MCC ELECTRICAL UPGRADES	25	291,491	1.00	291,491	0%	100%	291,491
2011	FLOWAY VERTICAL TURBINE PUMP	7	13,120	1.09	14,341	57%	100%	6,146
2011	FLOWAY VERTICAL TURBINE PUMP	15	12,824	1.09	14,018	27%	100%	10,280
2012	PUMP 1: FLOWAY VERTICAL TURBINE (PS1A)	25	14,763	1.08	15,885	12%	100%	13,978
2014	PUMP STATION 4B - PUMPS	25	606,730	1.02	620,482	4%	100%	595,663
	Total Existing Pump Station Assets, Built 2011-2015		**$2,152,388**		**$2,197,181**			**$2,125,162**
	Net add'l DUEs 2011-2035							**13,758**
	Existing Pump Station, Built 2011-2015, Buy-in CRF ($/DUE)							**$154.47**

Year	Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Construction Work in Progress 6.30.15 - 6.30.16							
Upgrade Water Pump Station 4B				$146,506		100%	$146,506
							$146,506
Net Future DUEs 2015 - 2035							**11,186**
CWIP Pump Station Related Assets, Built 2016, Buy-in CRF ($/DUE)							**$13.10**
Future Pump Station							
Total Future Pump Station				**$0**			**$0**
Net Future DUEs 2015 - 2035							**11,186**
Future Pump Station Expansion CRF ($/DUE)							**$0.00**
Total Future Pump Station Expansion CRF ($/DUE)							**$13.10**
Total Pump Station Buy-in and Expansion CRF ($/DUE)							**$1,408.04**

Notes:

(1) *Useful life provided by DSRSD*
(2) *Costs are Fund 620 (expansion) only*
(3) *ENR factor is based on San Francisco CCI Index, current SF CCI ENR is 11,155*
(4) *Assets built between 2006 and 2015 were built to accommodate future growth*
(5) *The principal on debt and repayment of the Temporary Infrastructure Charge is subtracted here, as it is accounted for separately. See exhibit 7.*

DSRSD **Base Year / Month: 2015 / September**
Capacity Reserve Fees Study
Reservoirs
Exhibit 5

Year	#		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Existing Reservoir, Pre-2006									
1961	1A	Rhoda Ave	40	$136,698	9.21	$1,258,338	100%	100%	$0
1962	2A	Betlen Ave	40	67,862	9.21	624,686	100%	100%	0
1983	1B	Dougherty	40	187,292	2.18	407,840	80%	100%	81,568
1985	3A	Brittany	40	287,531	2.21	634,502	75%	100%	158,625
1997	3B	Brigadoon and Swanson	40	562,925	1.66	932,906	45%	100%	513,098
1999	10A	Parks	50	3,988,519	1.64	6,526,943	32%	100%	4,438,321
2002	10B	Ledgewood Terr	50	3,791,167	1.46	5,532,207	26%	100%	4,093,833
2001	20A	Off Fallon Rd	40	3,205,116	1.51	4,832,133	35%	100%	3,140,887
2003	R300	East Branch Rd	40	677,318	1.43	970,051	30%	100%	679,035
2003	200A	Off East Branch	40	1,318,458	1.43	1,888,287	30%	100%	1,321,801
2004	R100	DERWA 1	50	4,764,332	1.36	6,458,913	22%	100%	5,037,952
2004	R200	DERWA 2	50	2,454,353	1.36	3,327,319	22%	100%	2,595,309
2004	30A	E. Dublin Z3 Off Fallon	40	3,277,275	1.36	4,442,939	28%	100%	3,221,131
2004	R20	Off Fallon Rd	50	2,862,201	1.36	3,880,231	22%	100%	3,026,580
2004	10A	Upgrade	10	1,120,000	1.36	1,518,362	100%	100%	0
2005	300A	Water Reservoir	40	3,159,404	1.32	4,164,677	25%	100%	3,123,508
	Total Existing Reservoir Assets, Pre-2006			**$31,860,451**		**$47,400,333**			**$31,431,648**
	Projected 2035 Total DUEs								**42,142**
	Existing Reservoir, Pre-2006, Buy-in CRF ($/DUE)								**$745.86**
Master Plan Projects for New Development - Built 2006-2010 (4)									
2006	300B	DV Zone 3	50	$3,659,104	1.22	$4,481,182	18%	100%	$3,674,569
2007	200B	Water Reservoir 200B	50	516,844	1.22	631,357	16%	100%	530,340
2008	10A	Water Reservoir 10A (Parks RFTA)	15	1,243,040	1.14	1,417,570	47%	100%	756,037
2008	200B	Water Reservoir 200B	50	3,520,334	1.14	4,014,608	14%	100%	3,452,563
2009	4A	9541 Dublin Blvd	40	1,644,050	1.15	1,886,358	15%	100%	1,603,404
	Total Existing Reservoir Assets, 2006-2010			**$10,583,372**		**$12,431,074**			**$10,016,913**
	Credit for Existing Reservoir Related Debt (5) *See Exhibit 7*								**($13,655,084)**
	Net Existing Reservoir Assets, Built 2006-2010								**($3,638,170)**
	Net add'l DUEs 2006 - 2010 + Future DUEs 2015 - 2035								**15,407**
	Existing Reservoir, Built 2006-2010, Buy-in CRF ($/DUE)								**($236.14)**

Year	#		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	CRF Eligible	CRF Eligible
Improvements After 6.30.10 - 6.30.15									
2015	3A	RESERVOIR 3A ACCESS ROAD	25	$21,471	1.00	$21,471	0%	100%	$21,471
2015	20A/30A	RESERVOIR 20A/30A ACCESS ROAD	25	47,965	1.00	47,965	0%	100%	47,965
2015	200A/R300	RESERVOIR 200A/R300 ACCESS ROAD	25	59,704	1.00	59,704	0%	100%	59,704
2015	Dougherty	DOUGHERTY RESERVOIR ACCESS ROAD	25	29,498	1.00	29,498	0%	100%	29,498
2015	10A	RESERVOIR 10A REHABILITATION	15	237,999	1.00	237,999	0%	100%	237,999
	Total Existing Reservoir Assets, 2011-2015			**$396,637**		**$396,637**			**$396,637**
	Net add'l DUEs 2011-2035								**13,758**
	Existing Reservoir, Built 2011-2015, Buy-in CRF ($/DUE)								**$28.83**
	Total Reservoir Related Buy-in CRF ($/DUE)								**$538.54**
Construction Work in Progress 6.30.15 - 6.30.16									
						$0		100%	$0
									$0
	Net Future DUEs 2015 - 2035								**11,186**
	Existing Reservoir Related Assets, Built 2016, Buy-in CRF ($/DUE)								**$0.00**
Future Reservoir									
		New Water Reservoir 10A				$7,636,000		100%	$7,636,000
		New Water Reservoir 20B				7,753,000		100%	7,753,000
	Total Future Reservoir					**$15,389,000**			**$15,389,000**
	Net Future DUEs 2015 - 2035								**11,186**
	Future Reservoir Expansion CRF ($/DUE)								**$1,375.77**
	Total Future Reservoir Expansion CRF ($/DUE)								**$1,375.77**
Total Reservoir Buy-in and Expansion CRF ($/DUE)									**$1,914.32**

Notes:

(1) *Useful life provided by DSRSD.*
(2) *Costs are 620 (expansion) only*
(3) *ENR factor is based on San Francisco CCI Index, current SF CCI ENR is 11,155*
(4) *Assets built between 2006 and 2015 were built to accommodate future growth*
(5) *The principal on debt and repayment of the Temporary Infrastructure Charge is subtracted here, as it is accounted for separately. See exhibit 7*

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	Contributed Asset (4)	CRF Eligible	CRF Eligible
Misc. Transmission & Distribution Assets (SCADA)									
1996	RTU PANEL (SCADA)	15	$15,954	1.68	$26,845	100%	NC	100%	$0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1996	RTU PANEL (SCADA)	15	15,954	1.68	26,845	100%	NC	100%	0
1998	Modification of SCADA System Master Controls	10	8,587	1.63	13,992	100%	NC	100%	0
1998	Intellution Upgrades for SCADA nodes	10	12,310	1.63	20,060	100%	NC	100%	0
1999	SCADA enhancements	10	35,251	1.64	57,686	100%	NC	100%	0
2001	SCADA concentrator facility (design/installation)	10	23,872	1.51	35,990	100%	NC	100%	0
2001	PS 4B SCADA set-up/programming	10	31,476	1.51	47,453	100%	NC	100%	0
2002	SCADA Security - iFIX June 2002	10	7,612	1.46	11,108	100%	NC	100%	0
2002	SCADA software - iFix	10	9,269	1.46	13,526	100%	NC	100%	0
2002	SCADA Security System Server	10	7,056	1.46	10,297	100%	NC	100%	0
			-------------		-------------				------------
			$310,932		**$505,409**				**$0**
Transmission/Distribution Lines, Pre-2006									
1971	Z2 & 3 WTR MN - WINDEMERE PKWY TO FALLON	50	$8,658,345	5.35	$46,286,415	88%	NC	100%	$5,554,370
1983	Z2 & 3 WATER MAIN TIE-IN FALLON RD EXT N	75	5,734	2.18	12,486	43%	NC	100%	7,159
1993	1044 LF 16" WATER MAIN - FALLON RD EXT N	75	196,705	1.72	338,727	29%	NC	100%	239,367
1995	1037 LF 20" WATER MAIN - FALLON RD EXT N	75	233,983	1.70	397,993	27%	NC	100%	291,861
1996	POTABLE WATER PIPING - PS2A	75	30,952	1.68	52,080	25%	NC	100%	38,887
1997	POTABLE WATER PIPING PS2B	75	11,340	1.66	18,793	24%	NC	100%	14,283
1998	WATER MAIN-N. DUBLIN RANCH RD	75	128,938	1.63	210,108	23%	C	0%	0
1998	WATER MAIN- TASSAJARA RD/I-580 RESERVOIR	75	44,790	1.63	72,986	23%	C	0%	0
1998	COUNTY WATER SYSTEM INTEGRATION	75	28,228	1.63	45,998	23%	C	0%	0
1998	POTABLE WATER PIPING PS2C	75	437,445	1.63	712,828	23%	NC	100%	551,254
1998	POTABLE WATER PIPING PS3C	75	584,124	1.63	951,846	23%	NC	100%	736,094
1999	ALACO AREA WD FACIL.SUPP AGMT NO1- SEG 3	75	28,325	1.64	46,352	21%	C	0%	0
1999	ALACO AREA WD FACIL. SUPP AGMT NO1-SEG.4	75	397,000	1.64	649,664	21%	C	0%	0
1999	ALACO AREA WD FACIL.SUPP AGMT NO1- SEG 5	75	119,000	1.64	194,735	21%	C	0%	0
1999	WATER IMPROVEMENTS- HOLIDAY INN EXPRESS	75	21,000	1.64	34,365	21%	C	0%	0
1999	12" PVC TRANSMISSION PIPLINE- SO SECTION	75	138,011	1.64	225,846	21%	C	0%	0
1999	PS4A POTABLE WATER PIPING	75	20,384	1.64	33,357	21%	NC	100%	26,241
2000	12" CI TRANSMISSION PIPELINE- SO SECTION	75	130,930	1.50	196,098	20%	C	0%	0
2000	EASEMENT FOR PIPELINE FR P'TON WELL	75	44,664	1.50	66,895	20%	C	0%	0
2000	CREEKSIDE BUSINESS PARK	75	166,200	1.50	248,923	20%	C	0%	0
2000	PARK SIERRA PHASE I	75	121,711	1.50	182,290	20%	C	0%	0
2000	STONERIDGE CHRYSLER PLYMOUTH	75	10,660	1.50	15,966	20%	C	0%	0
2000	EMERALD POINT PHASE I	75	30,000	1.50	44,932	20%	C	0%	0
2001	JEFFERSON AT DUBLIN APTS	75	37,800	1.51	56,988	19%	C	0%	0
2001	MINCE SUBDIVISION TRACT 6985	75	3,550	1.51	5,352	19%	C	0%	0
2001	1,583 LINEAR FT WATER PIPE	75	246,240	1.51	371,239	19%	C	0%	0
2001	630 LINEAR FT WATER PIPE	75	252,367	1.51	380,476	19%	C	0%	0
2001	42 LINEAR FT WATER PIPE	75	275,945	1.51	416,023	19%	C	0%	0
2001	5,167 LINEAR FT WATER PIPE	75	176,822	1.51	266,582	19%	C	0%	0
2001	3,512 LINEAR FT WATER PIPE	75	606,636	1.51	914,583	19%	C	0%	0
2001	7,410 LINEAR FT WATER PIPE	75	860,445	1.51	1,297,234	19%	C	0%	0
2001	3,653 LINEAR FT WATER PIPE	75	192,193	1.51	289,756	19%	C	0%	0
2001	11,152 LINEAR FT WATER PIPE	75	62,609	1.51	94,391	19%	C	0%	0
2001	3012 LF PW - WINDEMERE PH2 TRACT 8715	75	402,100	1.51	606,218	19%	NC	100%	493,058
2001	3892 LF PW - WINDEMERE PH2 TRACT 8716	75	498,028	1.51	750,843	19%	NC	100%	610,686
2001	RES 4A POTABLE WATER PIPING	75	838,249	1.51	1,263,770	19%	NC	100%	1,027,866
2001	PS300B POTABLE WATER PIPING	75	15,303	1.51	23,071	19%	NC	100%	18,764
2002	8,885 LINEAR FT WATER PIPE	75	385,050	1.46	561,879	17%	C	0%	0

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	Contributed Asset (4)	CRF Eligible	CRF Eligible
Transmission/Distribution Lines, Pre-2006									
2002	2,093 LINEAR FT WATER PIPE	75	152,250	1.46	222,169	17%	C	0%	0
2002	3,849 LINEAR FT WATER PIPE	75	221,670	1.46	323,469	17%	C	0%	0
2002	3,418 LINEAR FT WATER PIPE	75	179,300	1.46	261,641	17%	C	0%	0
2002	3961 LINEAR FT WATER PIPE	75	203,870	1.46	297,494	17%	C	0%	0
2002	1200 LINEAR FT WATER PIPE	75	30,700	1.46	44,799	17%	C	0%	0
2002	3466 LINEAR FT WATER PIPE	75	192,000	1.46	280,173	17%	C	0%	0
2002	3572 LINEAR FT WATER PIPE	75	201,460	1.46	293,978	17%	C	0%	0
2002	1772 LINEAR FT WATER PIPE	75	102,300	1.46	149,280	17%	C	0%	0
2002	735 LINEAR FT WATER PIPE	75	78,365	1.46	114,353	17%	C	0%	0
2002	1867 LINEAR FT WATER PIPE	75	69,319	1.46	101,153	17%	C	0%	0
2002	8345' WATER MAIN TASSAJARA T/O RES 1A	75	289,760	1.46	422,828	17%	C	0%	0
2002	WATER MAIN - CENTRAL/HACIENDA/TASSA	75	231,580	1.46	337,930	17%	C	0%	0
2002	950 L.F.OF 8"&850 L.F. OF 10" WATER MAIN	75	36,521	1.46	53,293	17%	C	0%	0
2002	65' OF 10" PIPE	75	129,140	1.46	188,446	17%	C	0%	0
2002	DUBLIN BLVD WATER MAIN EXTENTION	75	114,480	1.46	167,053	17%	C	0%	0
2002	ALACO AREA WIDE FACILITIES SUPP AGMT 1	75	146,222	1.46	213,372	17%	C	0%	0
2002	ALACO AREA WIDE FACILITES SUPP AGMT 1	75	43,640	1.46	63,681	17%	C	0%	0
2002	5548 LF PW - WINDEMERE PH2 TRACT 8717	75	800,000	1.46	1,167,389	17%	NC	100%	965,041
2002	560 LF PW - VILLAGE PKWY RETAIL	75	202,844	1.46	295,997	17%	NC	100%	244,691
2003	PARK SIERRA PAHSE II - CONTRIB CAPITAL	75	258,280	1.43	369,907	16%	C	0%	0
2003	AREA G BACKBONE IMPROVEMENTS	75	21,200	1.43	30,363	16%	C	0%	0
2003	HANSEN HILLS PHASE II	75	203,730	1.43	291,781	16%	C	0%	0
2003	WATER PIPES INSTALLED PRIOR 1987	75	187,200	1.43	268,107	16%	C	0%	0
2003	6261 LINEAR FT WATER	75	132,350	1.43	189,551	16%	C	0%	0
2003	4574 LINEAR FT WATER PIPE	75	116,750	1.43	167,209	16%	C	0%	0
2003	4569 LINEAR FT WATER PIPE	75	101,063	1.43	144,741	16%	C	0%	0
2003	340 LF WATER PIPE	75	69,372	1.43	99,354	16%	C	0%	0
2003	300 LF WATER PIPE	75	91,860	1.43	131,561	16%	C	0%	0
2003	3660 LF WATER PIPE	75	192,448	1.43	275,623	16%	C	0%	0
2003	3180 LF WATER PIPE	75	69,100	1.43	98,965	16%	C	0%	0
2003	2676 LF WATER PIPE	75	549,900	1.43	787,563	16%	C	0%	0
2003	2354 LF WATER PIPE	75	187,200	1.43	268,107	16%	C	0%	0
2003	2331 LF WATER PIPE	75	313,500	1.43	448,993	16%	C	0%	0
2003	2168 LF WATER PIPE	75	161,200	1.43	230,870	16%	C	0%	0
2003	2056 LF WATER PIPE	75	237,800	1.43	340,576	16%	C	0%	0
2003	1939 LF WATER PIPE	75	78,200	1.43	111,998	16%	C	0%	0
2003	1870 LF WATER PIPE	75	151,800	1.43	217,407	16%	C	0%	0
2003	1426 LF WATER PIPE	75	61,300	1.43	87,793	16%	C	0%	0
2003	1140 LF WATER PIPE	75	110,510	1.43	158,272	16%	C	0%	0
2003	6120 LF PW LINE - TASS CRK PHASE 1	75	123,200	1.43	176,446	16%	C	0%	0
2003	875 LF PW LINE - TASS CRK PHASE 2	75	201,800	1.43	289,017	16%	C	0%	0
2003	11,900 LF PW LINE - WINDEMER PHASE 1	75	76,200	1.43	109,133	16%	C	0%	0
2003	1689 LF PW - GALE RANCH PH3A RA 1153	75	206,836	1.43	296,229	16%	NC	100%	248,833
2003	1730 LF PW - LOCKHART ST TO FALLON	75	390,435	1.43	559,179	16%	NC	100%	469,710
2003	2398 LF PW - LOCKHART TO GLEASON	75	232,957	1.43	333,639	16%	NC	100%	280,257
2003	3766 LF PW - GALE RANCH PH3A RA 1154	75	111,080	1.43	159,088	16%	NC	100%	133,634
2003	MAINT BLDG - OUTSIDE PIPING	75	71,400	1.43	102,259	16%	NC	100%	85,897
2004	3180 LF PW LINE - SCARLETT PLACE	75	69,200	1.36	93,813	15%	C	0%	0
2004	2142 LF PW LINE - GALE RANCH PH2	75	113,500	1.36	153,870	15%	C	0%	0
2004	8271 LF PW LINE - GALE RANCH PH2	75	88,500	1.36	119,978	15%	C	0%	0
2004	4050 LF PW LINE - GALE RANCH PH2	75	122,800	1.36	166,478	15%	C	0%	0
2004	5950 LF PW LINE - GALE RANCH PH2	75	22,700	1.36	30,774	15%	C	0%	0
2004	1359 LF PW LINE - DUBLIN RANCH	75	6,000	1.36	8,134	15%	C	0%	0
2004	3261 LF PW LINE - WATERFORD	75	6,300	1.36	8,541	15%	C	0%	0
2004	2740 LF PW LINE - DUBLIN RANCH	75	30,600	1.36	41,484	15%	C	0%	0
2004	2205 LF PW LINE - DUBLIN RANCH	75	179,000	1.36	242,667	15%	C	0%	0
2004	2530 LF PW LINE - DUBLIN RANCH	75	207,800	1.36	281,710	15%	C	0%	0
2004	3469 LF PW LINE - GALE RANCH PH 2	75	133,000	1.36	180,306	15%	C	0%	0
2004	1484 LF PW LINE - GALE RANCH PH 2	75	59,200	1.36	80,256	15%	C	0%	0
2004	1813 LF PW LINE - GALE RANCH PH2	75	159,200	1.36	215,824	15%	C	0%	0
2004	1850 LF PW LINE - GALE RANCH PH2	75	102,300	1.36	138,686	15%	C	0%	0

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	Contributed Asset (4)	CRF Eligible	CRF Eligible
Transmission/Distribution Lines, Pre-2006									
2004	2450 LF PW LINE - VALLEY CHRISTIAN CTR	75	159,700	1.36	216,502	15%	C	0%	0
2004	2144 LF PW LINE - GALE RANCH PH2	75	133,300	1.36	180,712	15%	C	0%	0
2004	508 LF PW LINE - DOUGHERTY ELEM. SCHOOL	75	245,100	1.36	332,277	15%	C	0%	0
2004	120 LF PW LINE - FIRE STATION #18	75	111,400	1.36	151,023	15%	C	0%	0
2004	130 LF PW LINE - FIRE STATION #17	75	155,300	1.36	210,537	15%	C	0%	0
2004	117,112 LF WATER LINE CONTRIBUTED FY10	75	617,026	1.36	836,490	15%	NC	100%	713,805
2004	PIPING	75	944,475	1.36	1,280,406	15%	NC	100%	1,092,613
2005	739 LF PW LINE -DUBLIN RANCH GOLF COURSE	75	37,300	1.32	49,168	13%	C	0%	0
2005	4464 LF PW LINE - GALE RANCH PH 2	75	8,500	1.32	11,205	13%	C	0%	0
2005	4220 LF PW LINE - WINDEMERE RANCH	75	362,200	1.32	477,446	13%	C	0%	0
2005	3100 LF PW LINE - WINDEMERE RANCH	75	247,100	1.32	325,723	13%	C	0%	0
2005	1240 LF PW LINE - WINDEMERE RANCH	75	1,330	1.32	1,753	13%	C	0%	0
2005	3130 LF PW LINE - WINDEMERE RANCH	75	187,200	1.32	246,764	13%	C	0%	0
2005	2080 LF PW LINE - WINDEMERE RANCH	75	67,800	1.32	89,373	13%	C	0%	0
2005	3190 LF PW LINE - WINDEMERE RANCH	75	71,500	1.32	94,250	13%	C	0%	0
2005	2830 LF PW LINE - WINDEMERE RANCH	75	214,200	1.32	282,355	13%	C	0%	0
2005	6320 LF PW LINE - WINDEMERE RANCH	75	121,400	1.32	160,028	13%	C	0%	0
2005	WATER MAIN DV - WINDEMERE INFRASTRUCTURE	75	122,400	1.32	161,346	13%	C	0%	0
2005	RES. 200A - WINDEMERE INFRASTRUCTURE	75	190,900	1.32	251,641	13%	C	0%	0
2005	1958 LF PW - GALE RANCH PH2 TRACT 8632	75	209,900	1.32	276,687	13%	C	0%	0
2005	3210 LF PW - WINDEMERE PH1 TRACT 8154	75	121,000	1.32	159,500	13%	C	0%	0
2005	2119 LF PW - MICRODENTAL LABORATORIES	75	218,800	1.32	288,419	13%	C	0%	0
2005	904 LF PW - HIDDEN HILLS ELEMENTARY	75	168,300	1.32	221,850	13%	C	0%	0
2005	199 LF PW - DUBLIN CIVIC CTR PUBLIC LIB.	75	292,700	1.32	385,833	13%	C	0%	0
2005	3760 LF PW - AUTONATION	75	29,000	1.32	38,227	13%	C	0%	0
2005	70 LF PW - DUBLIN VOLKSWAGON	75	267,400	1.32	352,483	13%	C	0%	0
2005	6710 LF PW - DUBLIN RANCH 1 TRACT 6925	75	332,000	1.32	437,637	13%	C	0%	0
2005	3007 LF PW - GALE RANCH 3 RA1157	75	164,800	1.32	217,237	13%	C	0%	0
2005	1575 LF PW - GALE RANCH PH2 RA1148	75	156,900	1.32	206,823	13%	C	0%	0
2005	1972 LF PW - GALE RANCH 2 RA 1139	75	141,800	1.32	186,919	13%	C	0%	0
2005	4011 LF PW GALE RANCH 2 TRACT 8685	75	14,600	1.32	19,245	13%	C	0%	0
2005	2900 LF PW GALE RANCH 2 TRACT 8690	75	34,700	1.32	45,741	13%	C	0%	0
2005	3040 LF PW - GALE RANCH 2 TRACT 8681	75	99,700	1.32	131,423	13%	C	0%	0
2005	3712 LF PW GALE RANCH 2 TRACT 8682	75	123,300	1.32	162,532	13%	C	0%	0
2005	2880 LF PW GALE RANCH 2 TRACT 8683	75	84,100	1.32	110,859	13%	C	0%	0
2005	3491 LF PW GALE RANCH 2 TRACT 8684	75	128,100	1.32	168,859	13%	C	0%	0
2005	3165 LF PW - GALE RANCH 2 TRACT 8686	75	141,700	1.32	186,787	13%	C	0%	0
2005	6054 LF PW GALE RANCH 2 TRACT 8699	75	161,900	1.32	213,414	13%	C	0%	0
2005	498 LF PW GALE RANCH 2 RA1138	75	231,800	1.32	305,555	13%	C	0%	0
2005	4822 LF PW GALE RANCH 3 RA1152	75	83,200	1.32	109,673	13%	C	0%	0
2005	WATER PIPE LINES CAMP PARKS IMPROVE.	75	114,500	1.32	150,932	13%	C	0%	0
2005	PUMP STATION TO TANK PIPING	75	101,600	1.32	133,928	13%	C	0%	0
2005	WATER MAIN - BOLLINGER SEGMENT 1	75	131,000	1.32	172,682	13%	C	0%	0
2005	3250 LF PW - GALE RANCH PH3A RA 1156	75	575,000	1.32	757,956	13%	NC	100%	656,895
2005	2637 LF PW - WINDEMERE TRACT 8646	75	730,836	1.32	963,377	13%	NC	100%	834,927
	Total Existing Transmission/Distribution System, Pre-2006		**$34,732,765**		**$83,606,416**				**$15,336,192**
	Total Existing Transmission/Distribution System and Miscellaneous Ancillary Assets, Pre-2006								**$15,336,192**
	Projected 2035 Total DUEs								**42,142**
	Existing Transmission/Distribution System, Pre-2006, Buy-in CRF ($/DUE)								**$363.92**

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	Contributed Asset (4)	CRF Eligible	CRF Eligible
Transmission/Distribution Lines, Built 2006-2010 (5)									
2006	DERWA Pipelines	75	$11,940,879	1.22	$14,623,593	12%	NC	100%	$12,868,762
2006	WATER MAIN - BOLLINGER SEGMENT 2	75	222,700	1.22	272,733	12%	C	0%	0
2006	WATER MAIN - WINDEMERE PARKWAY	75	157,100	1.22	192,395	12%	C	0%	0
2006	WATERLINE & VALVE REPLACEMENT	75	185,600	1.22	227,298	12%	C	0%	0
2006	WATER MAIN - DOUGHERTY/AMADOR BRANCH	75	283,300	1.22	346,948	12%	C	0%	0
2006	2822 LF PW - WINDEMERE PH1B TRACT 8153	75	253,400	1.22	310,330	12%	C	0%	0
2006	2848 LF PW - WINDEMERE PH1B TRACT 8155	75	106,000	1.22	129,815	12%	C	0%	0
2006	2539 LF PW - WINDEMERE PH1B TRACT 8156	75	64,000	1.22	78,379	12%	C	0%	0
2006	226 LF PW - WINDEMERE PH1B TRACT 8618	75	72,500	1.22	88,788	12%	C	0%	0
2006	659 LF PW - WINDEMERE PH1B TRACT 8619	75	279,409	1.22	342,183	12%	C	0%	0
2006	3751 LF PW - DUBLIN RANCH TRACT 7325	75	206,493	1.22	252,885	12%	NC	100%	222,539
2006	3550 LF PW - DUBLIN RANCH TRACT 7324	75	36,548	1.22	44,760	12%	NC	100%	39,388
2006	2142 LF PW - DUBLIN RANCH TRACT 7326	75	29,601	1.22	36,251	12%	NC	100%	31,901
2006	92 LF PW - EMERALD POINT PRKG STRUCTURE	75	350,580	1.22	429,344	12%	NC	100%	377,822
2006	1800 LF PW - WINDEMERE MIDDLE SCHOOL	75	83,681	1.22	102,482	12%	NC	100%	90,184
2006	5789 LF PW - FAIRWAY RANCH TRACT 7453	75	165,477	1.22	202,654	12%	NC	100%	178,336
2006	PIPELINE TO 300B	75	227,850	1.22	279,040	12%	NC	100%	245,555
2007	2333 LF PW - WINDEMERE PH2 ROADWAYS	75	2,650,700	1.22	3,237,994	11%	C	0%	0
2007	WATER MAIN - BOLLINGER SEGMENT 3	75	83,559	1.22	102,072	11%	NC	100%	91,185
2007	6868 LW PW - GLEASON DR EXT TO FALLON	75	246,101	1.22	300,627	11%	NC	100%	268,561
2007	38,859 LF PW FY07 CONTRIBUTED ASSETS	75	227,169	1.22	277,501	11%	NC	100%	247,901
2007	3526LF PW WINDEMERE PHASE 2	75	8,439	1.22	10,309	11%	NC	100%	9,210
2007	606LF PW WINDEMERE TRACT 8713	75	20,513	1.22	25,058	11%	NC	100%	22,385
2007	491LF PW WINDEMERE TRACT 8714	75	171,698	1.22	209,739	11%	NC	100%	187,367
2007	796LF PW FAIRWAY RANCH TRACT 7453	75	115,370	1.22	140,932	11%	NC	100%	125,899
2007	1712 LF 20" DIP ZONE 1 WATER MAIN	75	157,018	1.22	191,807	11%	NC	100%	171,348
2007	1991 LF 16" DIP ZONE 1 WATER MAIN	75	212,178	1.22	259,188	11%	NC	100%	231,542
2007	42 LF 20" DIP ZONE 2 WATER MAIN	75	187,822	1.22	229,436	11%	NC	100%	204,963
2007	189 LF 16" DIP ZONE 2 WATER MAIN	75	427,330	1.22	522,010	11%	NC	100%	466,329
2007	1996 LF 14" DIP ZONE 2 WATER MAIN	75	158,919	1.22	194,130	11%	NC	100%	173,423
2007	WATER MAIN-DUBLIN BLVD/TASSAJARA	75	36,713	1.22	44,847	11%	NC	100%	40,063
2007	1175LF 16" DIP WATER MAIN FALLON ROAD	75	1,434,302	1.22	1,752,088	11%	NC	100%	1,565,199
2007	780LF 20" DIP WATER MAIN ZONE 2	75	345,086	1.22	421,544	11%	NC	100%	376,579
2008	2429 LF PW - WINDEMERE PH2 TRACT 8712	75	2,079,784	1.14	2,371,797	9%	C	0%	0
2008	760 LF 16" DIP TO PS 10A	75	56,124	1.14	64,004	9%	NC	100%	58,030
2008	1100 LF 20" DIP & APPURTENANCE - PS10A	75	117,483	1.14	133,978	9%	NC	100%	121,474
2008	460 LF PW RESERVOIR R300 ACCESS RD	75	735,000	1.14	838,198	9%	NC	100%	759,966
2008	27,776 LF WATER LINE CONTRIBUTED FY08	75	1,000,084	1.14	1,140,502	9%	NC	100%	1,034,055
2008	40 LF POTTABLE WATER MAIN	75	275,000	1.14	313,612	9%	NC	100%	284,341
2009	1354 LF PW - WINDEMERE PH2 TRACT 8713	75	3,996,609	1.15	4,585,648	8%	C	0%	0
2009	8TH ST WATER MAIN - 9514LF	75	43,623	1.15	50,052	8%	NC	100%	46,048
2009	50' - 8" WTR MAIN & FLANGE	75	1,521,740	1.15	1,746,022	8%	NC	100%	1,606,340
2009	180 LF 16" DUCTILE IRON PIPE	75	577,786	1.15	662,943	8%	NC	100%	609,908
2009	14" ZONE 2 WATER MAIN TASSAJARA	75	463,386	1.15	531,683	8%	NC	100%	489,148
2009	16" ZONE 2 WATER MAIN SILVERA RANCH	75	241,215	1.15	276,766	8%	NC	100%	254,625
2009	PS20B - PIPES PW	75	224,478	1.15	257,563	8%	NC	100%	236,958
2009	RES 200B - PIPES	75	16,731	1.15	19,197	8%	NC	100%	17,661
2009	57,293 LF WATER LINE CONTRIBUTED FY09	75	23,424	1.15	26,876	8%	NC	100%	24,726
2009	16" C905 DR 18 MN (1146 LF)	75	133,849	1.15	153,576	8%	NC	100%	141,290
2009	16"&20" WATER MAIN, WINDERMERE PH5	75	8,366	1.15	9,599	8%	NC	100%	8,831
2010	2458 LF PW - WINDEMERE PH2 TRACT 8714	75	5,490,244	1.10	6,051,611	7%	C	0%	0
2010	Z2&3 WTR MAIN - WINDEMERE TO TASSAJ	75	28,665	1.10	31,595	7%	NC	100%	29,489
2010	16" WATER MAIN (1441 LF)	75	199,271	1.10	219,646	7%	NC	100%	205,003
2010	TIE IN 20" TO 12" TO5	75	229,899	1.10	253,405	7%	NC	100%	236,512
2010	20" DUCTILE IRON WATER PIPE CAMINO TASS	75	749,608	1.10	826,254	7%	NC	100%	771,171
	Total Existing Transmission/Distribution System, 2006-2010		**$39,360,405**		**$46,443,690**				**$25,172,016**
	Credit for Existing Transmission/Distribution Related Debt (6) *See Exhibit 7*								**($15,024,054)**
	Net Transmission/Distribution Assets, Built 2006-2010								**$10,147,962**
	Net add'l DUEs 2006 - 2010 + Future DUEs 2015 - 2035								**15,407**
	Existing Transmission/Distribution System, Built 2006-2010, Buy-in CRF ($/DUE)								**$658.67**

Year		Useful Life (1)	Original Cost (2)	ENR Factor (3)	Cost 2015$	Depreciation Percent	Contributed Asset (4)	CRF Eligible	CRF Eligible
Improvements After 6.30.10 - 6.30.15									
2011	6-INCH WATER MAIN 6TH ST CAMP PARKS	50	$29,349	1.09	$32,082	8%	NC	100%	$29,516
2011	TURNOUT 5 - WATER MAIN	25	277,724	1.09	303,586	16%	NC	100%	255,012
2011	10" WATER MAIN DUBLIN BLVD@SILVERGATE (330LF)	50	76,007	1.09	83,085	8%	NC	100%	76,438
2011	33,676 LF WATER LINE CONTRIBUTED FY11	50	1,804,707	1.09	1,972,763	8%	C	0%	0
2011	2,640 LF RW LINE CONTRIBUTED FY11	50	112,700	1.09	123,195	8%	C	0%	0
2012	22,047 LF WATER LINE CONTRIBUTED FY12	50	1,522,882	1.08	1,638,593	6%	C	0%	0
2012	2,322 LF RW LINE CONTRIBUTED FY12	50	79,490	1.08	85,530	6%	C	0%	0
2013	26,224 LF WATER LINE CONTRIBUTED FY13	50	954,205	1.02	975,721	4%	C	0%	0
2013	EMERGENCY INTERTIE - TURNOUT 5	50	31,261	1.02	31,966	4%	NC	100%	30,687
2013	REPLACE WATER LINE CAMP PARKS - 200LF	50	24,600	1.02	25,155	4%	NC	100%	24,148
2013	3,668 LF RW LINE CONTRIBUTED FY13	50	68,380	1.02	69,922	4%	C	0%	0
2013	REPLACE RECYCLED WATER LINE DUBLIN SPORTS GND	50	73,365	1.02	75,019	4%	NC	100%	72,018
2013	12" PVC RW LINE - DUBLIN HIGH (1560 LF)	50	797,245	1.02	815,221	4%	NC	100%	782,612
2013	12" PVC RW LINE - DAVONA DRIVE (1680 LF)	50	590,623	1.02	603,940	4%	NC	100%	579,782
2013	4" PVC RW LINE - BRIGHTON DR (770 LF)	50	230,148	1.02	235,338	4%	NC	100%	225,924
2013	12" PVC RW LINE - AMADOR VALLEY BLVD (1280 LF)	50	517,843	1.02	529,520	4%	NC	100%	508,339
2013	6" PVC RW LINE - BRIGHTON & TAMARACK (935 LF)	50	208,117	1.02	212,810	4%	NC	100%	204,297
2013	4" PVC RW LINE - PENN DR (1515 LF)	50	367,075	1.02	375,352	4%	NC	100%	360,338
2013	4" PVC RW LINE - PENN DR (1515 LF)	50	64,815	1.02	66,276	4%	NC	100%	63,625
2013	6" PVC RW LINE - IRON HORSE TRAIL (365 LF)	50	79,155	1.02	80,939	4%	NC	100%	77,702
2014	40,675 LF PW LINE CONTRIBUTED FY14	50	3,078,170	1.02	3,147,938	2%	C	0%	0
2014	WATER MAIN - SCHAEFER RANCH	50	937,674	1.02	958,927	2%	NC	100%	939,748
2014	5,391 LF RW LINE CONTRIBUTED FY14	50	260,070	1.02	265,965	2%	C	0%	0
2015	6,416 LF RW LINE CONTRIBUTED FY15	50	342,418	1.00	342,418	0%	C	0%	0
2015	39,902 LF PW LINE CONTRIBUTED FY15	50	2,837,728	1.00	2,837,728	0%	C	0%	0
	Total Existing Transmission/Distribution System, 2011-2015		**$15,365,751**		**$15,888,987**				**$4,230,188**
	Net add'l DUEs 2011-2035								**13,758**
	Existing Transmission/Distribution System, Built 2011-2015, Buy-in CRF ($/DUE)								**$307.48**
	Total Transmission/Distribution System Buy-in CRF ($/DUE)								**$1,330.07**
Construction Work in Progress 6.30.15 - 6.30.16									
	RW Expan - Distrib to W Dublin					$1,391,491		100%	$1,391,491
	Dougherty Road Utilities					2,086		100%	2,086
	RW Expan - Distrib to W Dublin (Remaining year to date)					2,496,023		100%	2,496,023
						$3,889,600			**$3,889,600**
	Net Future DUEs 2015 - 2035								**11,186**
	Existing Transmission/Distribution Related Assets, Built 2016, Buy-in CRF ($/DUE)								**$347.73**
Future Transmission/Distribution									
	Water Main - Bollinger Canyon Rd to Reservoir 200B				$824,256			100%	$824,256
	Water Main - Fallon Road, Tassajara Rd to Tassajara Creek				315,500			100%	315,500
	Turnout 6				2,009,000			100%	2,009,000
	Automated Water Meter Data Transmission System Program				360,000			80%	288,000
	Total Future Transmission/Distribution				**$3,508,756**				**$3,436,756**
	Net Future DUEs 2015 - 2035								**11,186**
	Future Transmission/Distribution System Expansion CRF ($/DUE)								**$307.25**
	Total Future Transmission/Distribution System Expansion CRF ($/DUE)								**$654.97**
Total Transmission/Distribution System Buy-in and Expansion CRF ($/DUE)									**$1,985.04**

Notes:

(1) *Useful life provided by DSRSD.*

(2) *Costs are 620 (expansion) only*

(3) *ENR factor is based on San Francisco CCI Index, current SF CCI ENR is 11,155*

(4) *Contributed assets are identified with a "C", non-contributed assets with a "NC". Contributed assets were not included in the Capacity Reserve fee calculation.*

(5) *Assets built between 2006 and 2015 were built to accommodate future growth*

(6) *The principal on debt and repayment of the Temporary Infrastructure Charge is subtracted here, as it is accounted for separately. See exhibit 7.*

DSRSD
Capacity Reserve Fees Study
Credit for Buy-in Component
Exhibit 7

Component	DERWA Debt	WateReuse Debt	Payments	Ratepayer Loan (1)	Net Credit (2)	% of Total Debt
Source	$4,752,803	$0	($310,231)	$998,789	$5,441,361	*10.9%*
Pumping	15,721,038	0	(1,026,164)	998,789	15,693,663	*31.5%*
Storage	7,218,685	8,112,521	(2,674,911)	998,789	13,655,084	*27.4%*
Trans/Dist	9,095,930	7,912,479	(2,983,144)	998,789	15,024,054	*30.2%*
	$36,788,456	**$16,025,000**	**($6,994,450)**	**$3,995,154**		
			Total Credit to Buy-in Component		**$49,814,160**	

Notes:

(1) *The ratepayer loan was paid by rate payers as the Temporary Infrastructure Charge (TIC) to pay for capital expansion projects when no revenue was available from connection fees. It is included in the Debt Component to reimburse the rate payers. As a result, the equivalent amount has been deducted from the system components to avoid double counting. The Ratepayer Loan was split equally among the system components.*

(2) *Credits were applied to the CRF eligible total for the Buy-in CRF for each component to avoid double counting the principal.*

DSRSD
Capacity Reserve Fees Study
Debt Service Component
Exhibit 8

	Principal	Interest	Total Debt	DUEs (1)	$ / DUE	Basis
2011 Revenue Bond (2)						
WateReuse Loan	$11,617,553	$14,694,242	$26,311,795	26,576	$990.07	**Net add'l DUEs 2003-2035**
DERWA Commercial Paper	24,002,447	29,938,961	53,941,408	17,979	3,000.29	**Net add'l DUEs 2006-2035**
	$35,620,000	$44,633,203	$80,253,203		**$3,990.36**	
DERWA State Loan (3)	$7,656,531	$1,134,794	$8,791,325	17,979	$488.99	**Net add'l DUEs 2006-2035**
Ratepayer Loan (4)	$3,995,154	$0	$3,995,154	11,186	$357.17	**Net Future DUEs 2015 - 2035**
WateReuse Loan	$3,635,000	$3,468,875	$7,103,875	26,576	$267.31	**Net add'l DUEs 2003-2035**
Total Debt	**$50,906,685**	**$49,236,872**	**$100,143,557**		**$5,103.82**	
Less: Working Capital (5)			($11,502,595)	11,186	($1,028.33)	**Net Future DUEs 2015 - 2035**
	$50,906,685	**$49,236,872**	**$88,640,962**		**$4,075.49**	

Notes:

(1) *See Exhibit 1 for details*
(2) *Includes payments for FY 2016 - FY 2035; FY 2015 CAFR pg. 41*
(3) *Includes District's share (52.4%) of payments for FY 2016 - FY 2026; FY 2015 CAFR pg. 41*
(4) *Balance as of FYE 2015; email from Karen Vaden on 12.15.15*
(5) *Balance as of June 30, 2014, provided by District in email 3.22.16*

DSRSD
Capacity Reserve Fees Study
Allowable Water Distribution Capacity Reserve Fees
Exhibit 9a

Component (1)	CRF Calculation Results ($/DUE)
Source	$3,379.93
Pump Stations	1,408.04
Reservoirs	1,914.32
Transmission & Distribution	1,985.04
Debt Service	4,075.49

Total	**$12,762.82**
Net Water Distribution Capacity Reserve Fee *[Rounded]*	**$12,763**
Current Water Distribution Capacity Reserve Fee	**$12,407**
Difference	***$356***

Water Distribution Capacity Reserve Fees

Meter Size	Weighting Factor (2)	CRF ($/DUE)
5/8”	1.00	$12,763
3/4”	1.50	19,145
1”	2.50	31,908
1 -1/2” (Displacement)	5.00	63,815
1 -1/2" (OMNI C2)	16.00	204,208
1 -1/2" (OMNI T2)	16.00	204,208
2” (Displacement)	8.00	102,104
2" (OMNI C2)	16.00	204,208
2" (OMNI T2)	20.00	255,260

Notes:

DSRSD
Capacity Reserve Fees Study
Allowable Water Distribution Capacity Reserve Fees
Exhibit 9b

Component	Buy-in	Expansion	Debt Service	Total ($/DUE)
Source	$545.81	$2,834.13	$445.18	$3,825.11
Pump Stations	1,394.94	13.10	1,283.96	2,692.00
Reservoirs	538.54	1,375.77	1,117.18	3,031.49
Transmission & Distribution	1,330.07	654.97	1,229.18	3,214.22
Total	**$3,809.36**	**$4,877.97**	**$4,075.49**	**$12,762.82**

Net Water Distribution Capacity Reserve Fee	**$12,763**
Current Water Distribution Capacity Reserve Fee	**$12,407**
Difference	***$356***