



**Meeting of the Metro Commission  
and Metro Wastewater JPA**

**AGENDA**

**Thursday, December 6, 2007  
12:00 p.m.**

**SANDAG Boardroom  
401 B Street, 7th Floor**

“The mission of the Metro Commission is to create an equitable partnership with the San Diego City Council on wastewater issues in the San Diego region that ensures fair rates for participating agencies, concern for the environment, and regionally balanced decisions through data analysis, collaboration among all stakeholders, and open dialogue.”

Documentation  
Included

1. ROLL CALL
2. PUBLIC COMMENT
- X 3. **ACTION** - APPROVE MINUTES OF NOVEMBER 1, 2007
4. METRO TAC UPDATE
5. METRO COMMISSION/JPA - PAST & FUTURE
  - a) Looking Back - Presentation by Commissioner Caires on the history of the Commission/JPA
  - b) Looking Forward - Presentation by Chair Abarbanel on key goals of the Commission/JPA for the future
6. FINANCIAL SUMMARY UPDATE
- X 7. SECONDARY TREATMENT AND WAIVER STATUS UPDATE
8. STATUS OF CITY OF SAN DIEGO PUBLIC WORKS/MWWD PERSONNEL CHANGE AND IMPACTS TO METRO COMMISSION/JPA
9. METRO TAC UPDATE
10. IROC UPDATE
11. FINANCE AD HOC COMMITTEE

12. REGIONAL JOINT GOVERNANCE AD HOC COMMITTEE
- X 13. **ACTION:** REVIEW OF THE CAPACITY VALUATION STUDY
- X 14. **ACTION:** REVIEW OF THE CONCEPT OF LEASING CAPACITY BETWEEN METRO JPA MEMBERS
15. **ACTION:** CHLORINATION AT POINT LOMA TREATMENT PLANT
- X 16. **ACTION:** NORTH CITY WATER RECLAMATION PLANT – LIVE STREAM DISCHARGE FEASIBILITY STUDY
17. METRO COMMISSIONERS’ AND JPA BOARD MEMBERS’ COMMENTS
18. ADJOURNMENT OF METRO COMMISSION AND JPA

\*Item 2 - This portion of the agenda provides an opportunity for members of the public to address the Commission and/or JPA items within the jurisdiction of the Commission and/or JPA that have not previously been before the Commission and/or JPA. Comments are limited to three (3) minutes per individual. **Note:** Any member of the Public may address the Commission and/or JPA on any Agenda Item. Please complete a Speaker's Slip in advance of the specific item being called. For alternative agenda format or disabled access to Metro Commission, please call M. Barrett at (619) 236-6585. \*The Metro Commission and/or JPA may take action on any item listed in this Agenda whether or not it is listed "For Action." All items are for Metro Commission and JPA consideration unless otherwise specified.

# AGENDA ITEM 3



**Metro Commission and  
Metro Wastewater JPA Meeting**

**9192 Topaz Way (MOC II) Auditorium  
San Diego, California**

**November 1, 2007  
Draft Minutes**

Chairman Abarbanel called the meeting to order at 12:00 p.m. A quorum of the Metro Wastewater JPA and Metro Commission was declared, and the following representatives were present:

**1. ROLL CALL**

<u>Agencies</u>	<u>Representatives</u>		<u>Alternate</u>
City of Chula Vista	Cheryl Cox		Steve Castaneda
City of Coronado	Al Ovrom	X	
City of Del Mar	Henry Abarbanel	X	
City of El Cajon	Mark Lewis		Rob Turner
City of Imperial Beach	Mayda Winter	X	
City of La Mesa	Ernie Ewin	X	
Lemon Grove			
Sanitation District	Jerry Jones	X	
City of National City	Luis Natividad	X	
City of Poway	Merrilee Boyack		No Representation
City of San Diego	Tim Bertch	X	
County of San Diego	Dianne Jacob		Daniel Brogadir
Otay Water District	Mark Robak	X	
Padre Dam MWD	Augie Caires	X	
Metro TAC Chair	Scott Huth	X	

**2. PUBLIC COMMENT**

There was no public comment.

**3. APPROVE MINUTES FROM THE MEETING OF OCTOBER 4, 2007**

The minutes for the meeting of October 4, 2007 were approved by consensus.

**4. CONSIDERATION OF DATE CHANGE FOR MEETING OF JANUARY 3, 2008**

There was consensus to change the January 3, 2008 meeting date to January 10, 2008.

**5. METRO TAC UPDATE**

Scott Huth reported TAC discussed the following item:

- The Capacity Study and Pooled Capacity Sharing amongst agencies will be reviewed at their November meeting and will be on the December JPA agenda.

**6. CONSIDERATION OF AGENDA ITEMS FOR DISCUSSION AT QUARTERLY MEETING WITH SAN DIEGO MAYOR SANDERS**

Mayor Sanders will be attending the next Metro Wastewater JPA meeting, which will be held at the SANDAG Board Room on December 6<sup>th</sup> at 12:00. Vice Chair Winter asked for any agenda items for this

meeting or for future consideration. None were provided at this time. Commissioner Caires was asked to provide a history of the positive interaction from AFFORD to current status.

**7. PRESENTATION ON SECONDARY TREATMENT AND THE WAIVER PROCESS**

Dr. Timothy Bertch, Director of the Metro Wastewater Department, provided a presentation on secondary treatment and the waiver process. A second letter will be sent to the Mayor restating the JPA's position on the waiver.

**8. PRESENTATION ON THE STATE'S PROPOSED WATER RECYCLING PROGRAM**

Maria Mariscal, Senior Water Resources Specialist with the San Diego County Water Authority, gave a presentation on the State's proposed water recycling program. She noted the State's public hearing to consider adoption of this policy is scheduled for December 4, 2007 in Sacramento.

**9. FINANCE AD HOC COMMITTEE**

- Commissioner Ewin noted concern for the 2006 audit delay, which may be as late as March instead of January.
- Information has been received for the City of San Diego's proposed funding. They have a request for participating agencies to get involved in some of the debt service coverage and operational reserves. This includes refunding of existing debt and new debt and will be fairly significant. The committee will report back as more information is available and an analysis has been completed.

**10. REGIONAL JOINT GOVERNANCE AD HOC COMMITTEE**

There was no report.

**11. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/WASTEWATER JPA MEETING**

There were no suggested items.

**12. METRO COMMISSIONERS' AND JPA BOARD MEMBERS' COMMENTS**

There were no comments.

**13. ADJOURNMENT OF METRO COMMISSION AND JPA**

At 1:05 p.m., there being no further business, Chairman Abarbanel declared the meeting adjourned.

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Recording Secretary

# AGENDA ITEM 7

6 December 2007

Mayor Jerry Sanders  
Council President Scott Peters  
City of San Diego  
San Diego, CA

Dear Mayor Sanders and Council President Peters,

Now that the decision has been made to seek an extension of the waiver on secondary treatment at the Point Loma Wastewater Plant, on behalf of the Metro Wastewater JPA, I would like to suggest we jointly examine the options we face if that waiver is not granted.

The participating agencies (PAs) now constitute 35% of the costs of the Metro Wastewater system, and that number is growing. Our financial involvement is substantial, and we wish to work with you on alternatives should the waiver not be forthcoming or result in disputes over its issuance.

Of course, one, blunt, instrument to deal with the withholding of the waiver is a series of, certainly expensive, lawsuits. As we would have to bear 35% of those costs as well, we wish to engage with you in careful planning for any strategies that need to be implemented.

In that regard, we propose a small working group composed of one or two San Diego City Councilmembers, one person from the Mayor's office and two members of the Metro JPA to begin in early 2008 working together to explore options to the waiver that serve the ratepayers both in the City of San Diego and the eleven jurisdictions of the PAs.

Please let us know by 15 January 2008 who among your colleagues would be designated to work with us on these matters. We will be delighted to have Dr. Tim Bertch of your Metro Wastewater Department join our staff in assisting with this effort.

It is our intention to have a preliminary report to all of our City Councils and Water Boards as well as to the Mayor's office by 1 May 2008 suggesting productive paths down which all of us can proceed.

Sincerely,

Henry Abarbanel

Mayda Winter

# AGENDA ITEM 13



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April 17, 2007

Mr. Douglas Wilson, CPA, Treasurer  
Metro Wastewater Joint Powers Authority  
C/O Padre Dam Municipal Water District  
9300 Fanita Parkway  
Santee, California 92071

**Via Electronic Mail  
and Regular Mail**

Dear Mr. Wilson:

Raftelis Financial Consultants, Inc. (“RFC”) is pleased to present its draft results to the Metro Wastewater Joint Powers Authority (“Metro JPA”) regarding its analysis to determine the ‘value’ of the City of San Diego’s Metropolitan Wastewater System (“Metro System”) assets, including an assessment of methodologies to address valuations of capital investments and/or capacity rights.

### ***Scope of Work***

Specifically, RFC collected relevant data and discussed the background of the project with Metro JPA representatives. RFC reviewed the technical memorandum provided by the Metro Technical Advisory Committee (“TAC”) regarding the capacity valuation practices of other large regional agencies, prior sales of capacity within Metro JPA, and other relevant information. Furthermore, RFC assessed methodologies used by other water and wastewater utilities to value excess capacity. These methodologies included those developed by RFC for other utilities.

Using the methodologies deemed the most relevant, RFC developed a model (“Model”) to determine the value for the Metro Wastewater JPA assets and/or capacity rights using the different methodologies. The Model was structured so that future changes in the Metro Wastewater JPA system can be incorporated to recalculate the value of the assets.

RFC then compared this calculated value with other indicators of value in this particular case, including: prior sales of capacity, the buyer’s avoided cost, the seller’s potential future cost, and returns from alternative investments.

As a final alternative, RFC also performed an analysis to determine appropriate payments if the capacity were to be leased between two member agencies. This would allow a temporary

transfer of the value of the asset to the member agency in need of the capacity, while allowing the owner of the capacity to retain control of the asset into the future.

### ***Selected Methodologies Considered and Calculated***

RFC determined that the “investment value” of the Metro JPA capacity was more relevant to determining the appropriate transaction price as opposed to “fair market value”. In this particular case, “fair market value” is less appropriate as a standard of value given the size of the marketplace and the characteristics of the asset itself.

In determining the investment value of the capacity, RFC used the asset approach to valuation as the most technical and standardized approach considered. There are many ways to perform the asset approach, and based upon a critical assessment of the different methodologies as discussed further in the report, RFC calculated two scenarios of the asset approach to valuation. Both scenarios are based upon the reproduction cost of the existing assets, calculated using indices to escalate original costs to today’s dollars, with an adjustment for outstanding debt principle. One of the scenarios takes this calculation a step further to also adjust for depreciation of the assets based upon the relative book depreciation of the assets. The other scenario makes no adjustment for depreciation.

As detailed in Table 1, the resulting values under the asset approach were very low relative to the prior sale of capacity between the City of Poway and Padre Dam Municipal Water District. RFC, therefore, considered many alternatives to calculating the investment value of the capacity in the Metro JPA system. The following alternative considerations are presented:

- Prior capacity sale as a base-line for expected future transactions;
- The cost avoided by the buyer by purchasing capacity in the Metro JPA system;
- The future cost and risk assumed by the seller if it sells capacity in the Metro JPA system; and
- The alternative return afforded by an investment in another project with similar risk characteristics as that of the Metro JPA system.

### ***Results of the Analysis***

Based upon these methodologies, the Table 1 presents the results of these analyses:

**Table 1: Investment Value Analyses of Capacity in the Metro JPA System**

<b>Value Approach/ Pricing Perspective</b>	<b>Total Value* (2005)</b>	<b>Divisor</b>	<b>Price per gpd (2005)</b>	<b>Price per gpd (2006)</b>
Asset Approach				
- Without depreciation adjustment	\$1.8 billion	255 mgd	\$7.27	\$7.47
- With depreciation adjustment	\$1.3 billion	255 mgd	\$4.94	\$5.08
Prior Sale				
- Without inflationary adjustment	\$3.4 billion	255 mgd	\$13.185	\$13.185
- With inflationary adjustment	\$3.9 billion	255 mgd	\$15.21	\$15.63
Buyer's Avoided Cost				
- Best case alternative	\$4.1 billion	255 mgd	\$15.87	\$16.30
- Worst case alternative	\$6.6 billion	255 mgd	\$25.78	\$26.49
Seller's Potential Future Cost				
- Without upgrade adjustment	\$5.9 billion	255 mgd	\$23.08	\$19.61
- With upgrade adjustment	\$4.9 billion	255 mgd	\$19.08	\$23.72
Alternative Investment Value	\$3.2 billion	255 mgd	\$12.70	\$13.51

\* Implied value of total Metro system.

***Conclusions and Recommendations***

The current Metro JPA system has significant economies of scale, and its value on a gallon per day basis is low relative to future incremental additions of capacity. This creates a large discrepancy between the value of one unit of the current capacity and the cost to build the next unit of capacity.

Under free market conditions, supply and demand naturally dictate the price of a commodity. In this situation, however, there is a limited amount of available capacity, thereby creating a semi-monopoly for this commodity. Given the nature of the Metro JPA “marketplace”, a price should be determined that would allow the seller to earn a return on its investment, but that would not take advantage of a buyer with limited options for purchasing capacity. As such, RFC recommends a price negotiated between \$13.51 and \$16.30 per gallon per day. This range could be updated based upon additional feasibility analyses by the buyer. As presented in more detail in the report, a lease arrangement could also be made to allow the temporary use of the capacity of the system at a cost-effective rate by the “buyer”, while protecting the “seller” from the risk associated with purchasing capacity in the future.

We welcome your feedback and reactions to the draft report and are planning to be present at the May 16<sup>th</sup>, 2007 meeting to discuss our results. We have been delighted to have this opportunity to work with your organization.

Very truly yours,

Leta K. Hals  
 Director of Valuation Services

**Metro Wastewater  
Joint Powers Authority**

**Capacity Valuation Analysis**

**Draft Report**

**April 17, 2007**



## **Section 1: Project Overview**

Raftelis Financial Consultants, Inc. (“RFC”) was engaged by the Metro Wastewater Joint Powers Authority (“Metro JPA”) to determine the ‘value’ of the City of San Diego’s Metropolitan Wastewater System (“Metro System”) assets, including an assessment of methodologies to address valuations of capital investments and/or capacity rights.

Specifically, RFC collected relevant data and discussed the background of the project with Metro JPA representatives. RFC reviewed the technical memorandum provided by the Metro Technical Advisory Committee (“TAC”) regarding the capacity valuation practices of other large regional agencies, prior sales of capacity within Metro JPA, and other relevant information. Furthermore, RFC assessed methodologies used by other water and wastewater utilities to value excess capacity. These methodologies included those developed by RFC for other utilities.

RFC assessed the various methodologies and considered the following characteristics:

- appropriateness as a generally recognized, established valuation methodology;
- applicability for valuing the subject;
- availability of relevant data;
- ease and cost of implementation;
- equity of value across varying situations; and
- complexity of communicating methodology to other relevant parties.

Using the methodologies deemed the most relevant, RFC developed a model (“Model”) to determine the value for the Metro Wastewater JPA assets and/or capacity rights using the different methodologies. The Model was structured so that future changes in the Metro Wastewater JPA system can be incorporated to recalculate the value of the assets.

RFC then compared this calculated value with other indicators of value in this particular case, including: prior sales of capacity, the buyer’s avoided cost, the seller’s potential future cost, and returns from alternative investments.

As a final alternative, RFC also performed an analysis to determine appropriate payments if the capacity were to be leased between two member agencies. This would allow a temporary transfer of the value of the asset to the member agency in need of the capacity, while allowing the owner of the capacity to retain control of the asset into the future.

## Section 2: Standards of Value

In determining a value for utility assets, it is important to understand the appropriate “standards” of value. There are two basic standards of value for water and wastewater utilities: 1) fair market value and 2) investment value.

### 2.1 Fair Market Value Standard

“Fair Market Value” is typically the standard of value used by legal, taxing, and other governing bodies. The Internal Revenue Service (“IRS”) created Revenue Ruling 59-60 to set guidelines for business valuation (including utilities). Although it is intended for tax purposes, many experts look to this ruling for authoritative guidance when fair market value is appropriate for valuation purposes.

Revenue Ruling 59-60 defines fair market value as follows:

*“The price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts... In addition, the hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property.”<sup>1</sup>*

State statutes and major business appraisal organizations define fair market value in a similar manner, but also add that the value should be in cash equivalents (i.e., in a form of payment that can be converted to cash very quickly).

There are three approaches for analyzing and estimating fair market value. These are referred to as the income approach, the market approach, and the asset approach. The income approach is based on the premise that a utility, as is the case with any operating company, is worth the present value of its future earnings. The market approach is based on the assumption that the value of a utility can be reasonably estimated based on the market value placed by investors on companies with similar investment risk. The asset approach is based on the premise that the utility is worth the sum of the individual components or assets that make up the utility plus an adjustment for goodwill or economic obsolescence as appropriate. A combination of the three approaches described above is usually performed and each is given a weighted value at the discretion of the appraiser in order to determine the final fair market value.

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<sup>1</sup> Internal Revenue Service, Revenue Ruling 59-60: 1959-1, Congressional Bulletin 237, Section 2.02.

## 2.2 Investment Value Standard

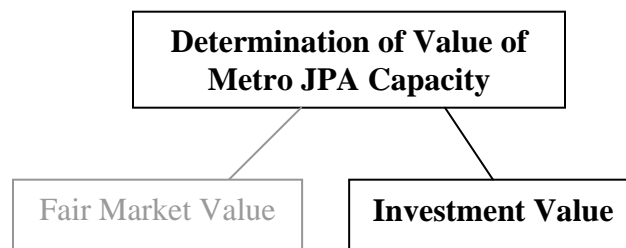
Whereas fair market value is the standard used by most legal and taxing bodies, investment value is the value to a specific owner, given that owner’s perceived synergistic capabilities and opportunities, as well as the owner’s risk position. Whereas fair market value determines the value placed on a utility by the general marketplace, investment value determines the value from the perspective of a specific buyer or seller. Calculation of investment value can take many different forms, and is primarily based upon an analysis of a buyer’s or seller’s objectives.

## 2.3 Appropriate Standard for Valuing Capacity in Metro JPA Wastewater System

The fair market standard is typically used for assets for which there is a viable market where, based upon the definition of fair market value, there are willing buyers and sellers that are under no compulsion to buy or sell. The only real market for the capacity in the Metro JPA system are the Metro JPA members themselves, and it can be argued that there can not be a fair market value transaction since a buyer would likely be under compulsion to purchase capacity from another member as necessitated by their system flows.

Difficulties with the fair market value standard also arise when considering its three approaches to value. The capacity in the system is not an income generator on a stand-alone basis. Furthermore, there are no comparable “fair market value” capacity transactions that can be appropriately assessed under the market approach (i.e., transactions that were free of “compulsion” by the buyer). The asset approach can be performed, but its use as a stand-alone approach for fair market value in this context is less supportable. However, the asset approach can be considered when using the investment value standard (Figure 1).

**Figure 1**



Excluded Methodology:

Fair Market Value Income and Market Approaches

Valuation Characteristic Failure:

Applicability and availability of data

### Section 3: Asset Approach for Capacity Valuation

As mentioned previously, the investment value standard is primarily based upon an analysis of a buyer’s or seller’s objectives in the deal. It is RFC’s understanding that Metro JPA desires a methodology that can be easily updateable and that can be applied over time in an equitable manner between buyers and sellers of capacity within the Metro JPA member agencies.

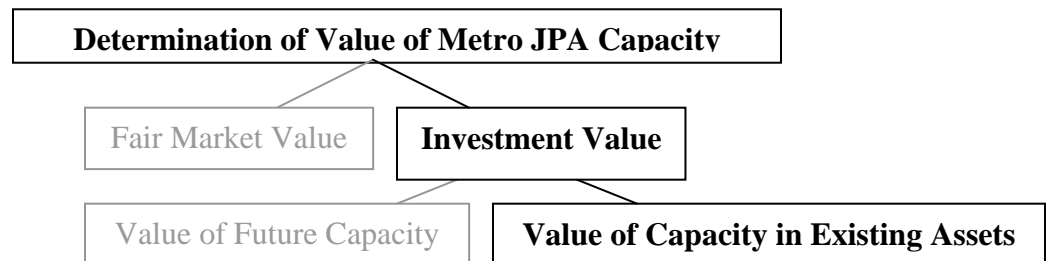
When valuing utility capacity, an asset approach to value is often used, and can be one measure of Metro JPA’s investment value. There are, however, many components used in the industry for capacity valuation. In assessing the value of the equity in Metro JPA’s capacity-related assets, the following components were assessed based upon the criteria identified in Section 1 of this report:

- Cost of current versus future assets;
- Methodology to determine “cost” value of the assets;
- Applicability and determination of depreciation adjustment;
- Adjustments for outstanding principal debt;
- Inclusion or exclusion of assets that were grant-funded or contributed; and
- Inclusion or exclusion of financing costs.

#### 3.1 Current vs. Future Assets

The economic benefit provided by the assets of the system can be analyzed from two perspectives. The first perspective is to determine the value of the invested equity in the existing assets. A second perspective is to value the capacity based on the avoidance of future costs to build new capacity (Figure 2). Under the asset approach to valuation, future expansion costs are typically not considered under standard valuation practices since the projection of future expansion costs is subjective, and the factors affecting these costs will likely change over time. Therefore, RFC has focused on the value of the invested equity in the existing assets, which allows for a more dependable, straight-forward analysis for valuing the equity in the existing assets. This analysis will inherently take into account the costs of future expansion and capital improvements as they are added to asset inventory. (Note that future expansion costs are addressed in Section 4.)

Figure 2



Excluded Methodology: Value based on Future Capacity  
 Valuation Characteristic Failure: Recognized valuation methodology, availability of data, and ease of implementation

### 3.2 Methodology to Determine “Cost” Value of the Assets

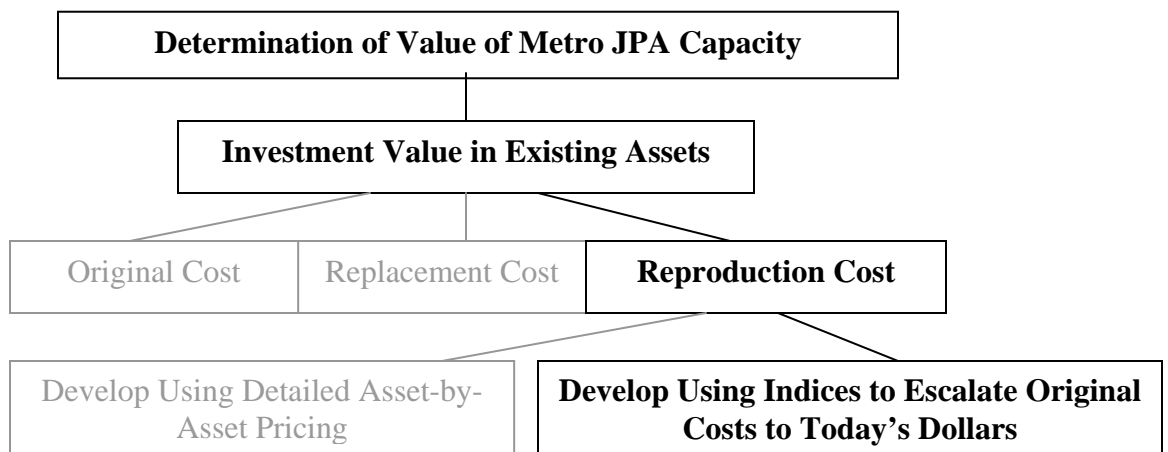
The first component of the asset approach to valuation is based on the premise that the utility is worth the sum of the individual components or assets that make up the utility. Under the asset approach, the original cost of the assets is typically not considered under standard valuation practices since it does not represent the equity of those assets today, similar to the example that today a house is typically worth more than its original purchase price. (Note that an analysis based on the opportunity cost of the original investment is considered in Section 4.)

As such, the replacement or reproduction cost of the assets should be considered (Figure 3). The replacement analysis considers the cost to replace the assets today, given current advances in technology and regulatory requirements. This analysis is relatively costly and can be highly subjective.

The reproduction cost analysis considers the cost to reproduce exactly what exists today. The reproduction cost analysis can be performed by determining the cost to replace each asset on the market today, or by using industry indices to escalate original costs to today’s dollars.

Given Metro JPA’s objectives for a less subjective, repeatable analysis, RFC has selected the reproduction cost analysis developed using indices to escalate original costs to today’s dollars (Figure 3).

**Figure 3**



Excluded Methodology:	Original Cost
Valuation Characteristic Failure:	Applicability
Excluded Methodology:	Replacement Cost
Valuation Characteristic Failure:	Availability of data and ease of implementation
Excluded Methodology:	Reproduction Cost based on Detailed Asset Pricing
Valuation Characteristic Failure:	Availability of data and ease of implementation

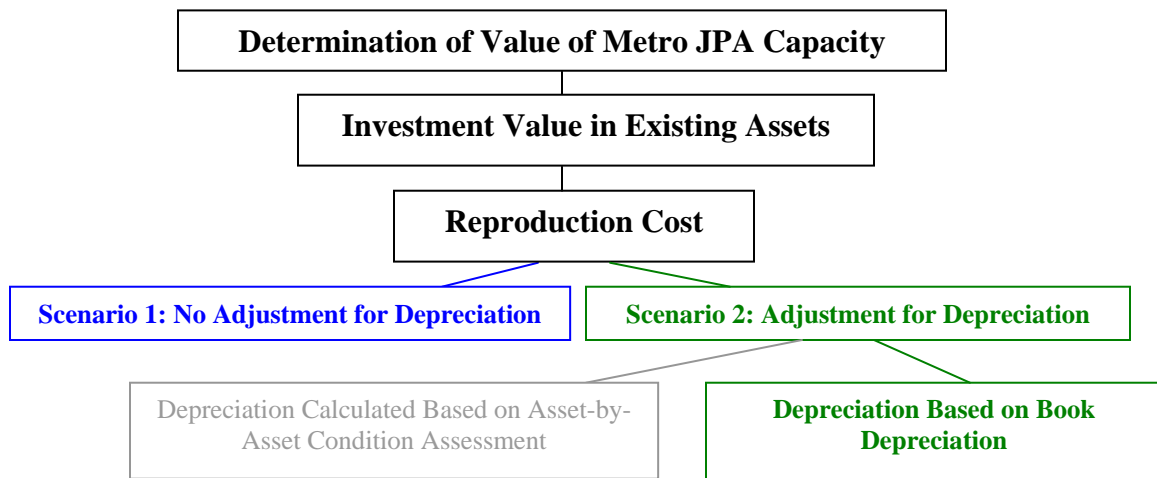
### 3.3 Applicability and Determination of Depreciation Adjustment

Once the reproduction cost is established, the next step is to consider the depreciation of the assets. One perspective is to exclude depreciation since the seller would be forced to build the assets new if it needed the assets or capacity in the future. Similarly, if the buyer did not purchase the capacity from another member, it would be forced to build the assets new.

On the other hand, the capacity that is being sold is for assets that are not new, and will require future renewal and replacement more quickly and extensively than new assets, and therefore, a depreciation adjustment should be taken. To establish the depreciation adjustment, a detailed condition assessment can be performed on an asset-by-asset basis, or a depreciation adjustment can be made based on the book depreciation of the assets.

For the asset approach analysis, RFC performed two scenarios: one that does not adjust for depreciation, and one that does (Figure 4). Again based upon Metro JPA’s objectives to have a repeatable, less subjective methodology, RFC will base depreciation on the relative book depreciation of the assets.

Figure 4

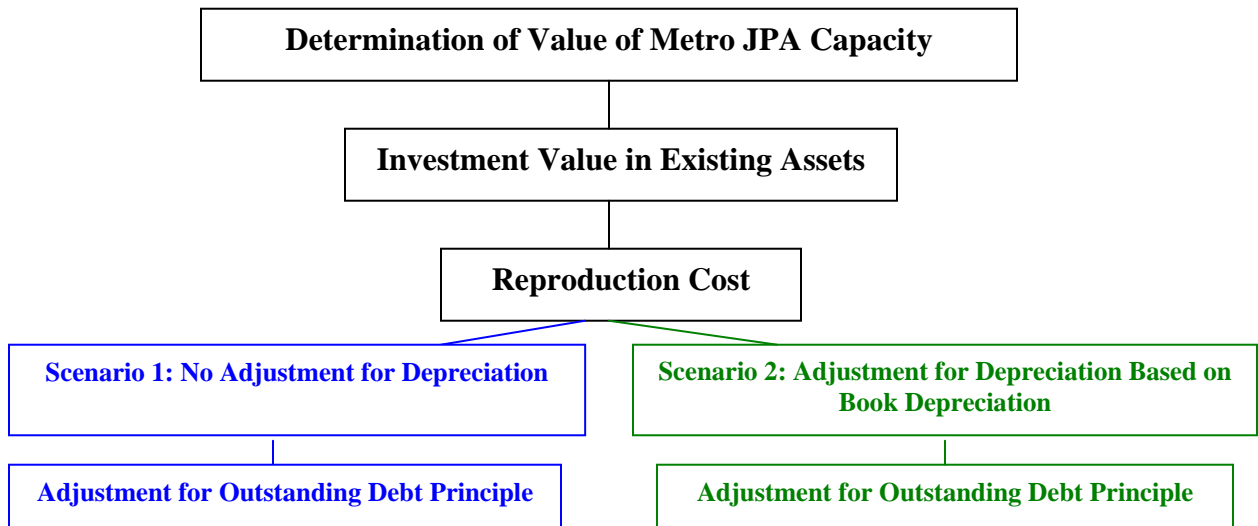


**Excluded Methodology:**                      **Reproduction Cost based on Detailed Condition Assessment**  
**Valuation Characteristic Failure:**      **Availability of data and ease of implementation**

### 3.4 Adjustments for Outstanding Principal Debt

Each year, the current debt service payment for outstanding debt is allocated to the members based upon flows and loadings for each member. Therefore, the remaining outstanding debt principal should be deducted from the adjusted reproduction value so that the buyer does not pay for these assets twice. In other words, to obtain the equity in the current assets, the outstanding debt must be deducted from adjusted reproduction value (Figure 5).

**Figure 5**



### 3.5 Other Items Excluded from Calculation

There are other components that could have been considered in the calculation. First, one could argue that grant funded or contributed items should be excluded since they were “free” assets. However, as the purpose is to value the investment value of the equity in the system, these assets are likely necessary to the value of the whole, and would need to be reproduced if additional capacity were needed today. Furthermore, it is RFC’s understanding that grant-funded and/or contributed assets are likely not significant in relation to the size of the system. Therefore, RFC did not remove these assets from the analysis.

At times, the costs of financing the purchase of the assets are included in the analysis. However, since RFC is considering the reproduction cost of the assets rather than the original cost of the

assets, the cost to finance the original purchase price is not included. Inclusion of these costs would be more appropriate for an analysis using the original cost of the assets.

### **3.6 Value of Metro JPA Capacity Based on Devised Methodologies**

#### *Scenarios*

Using the methodologies described in the previous section, RFC determined the value of the capacity in the Metro JPA system for two scenarios:

#### Scenario 1:

- Original cost of existing assets escalated by construction indices to represent the reproduction cost of the assets in today's dollars;
- Less the outstanding principal on existing debt for the Metro JPA assets;
- Divided by the capacity of the Metro JPA system (255 MGD) to obtain a per gallon per day value.

#### Scenario 2:

- Scenario 1, with a negative adjustment for depreciation based upon the book depreciation of the assets

#### *Calculation of Value*

The San Diego Metro JPA fixed assets are tracked in significant detail and were available to RFC through 2005. Acquisition date, acquisition cost, useful life, and depreciation are tracked for each fixed asset. For organizational purposes, assets are grouped into the following major categories:

- Mains
- Laterals
- Other Distribution and Collection
- Land
- Structures and Improvements
- Equipment-Municipal
- Equipment-Metro
- Work in Progress

Each asset is assigned code numbers that allow management to track the asset department, funding source, and other relevant data. These code numbers make it possible to segregate non-municipal assets relevant to the valuation project, thereby ensuring that only appropriate assets

are included in the analysis. Assets tied to funds 41508 and 41509 were included whereas assets tied to municipal fund 41506 were excluded.

In order to develop estimates of current asset values, original asset costs were multiplied by cost escalators and then reduced by a percentage reflecting their accumulated depreciation. Cost indices were derived from two different sources:

- The Engineering News and Record (ENR) Construction Cost Indices and
- Consumer Price Indices.

The ENR indices were used to escalate all assets except land. For assets acquired prior to 1951, ENR national average indices were used. For post-1951 assets, the analysis relied on the ENR Cost Index for Los Angeles/Riverside County. The Los Angeles/Riverside County indices were not available for years before 1951 and therefore could not be applied to pre-1951 assets.

Land asset values were escalated using Consumer Price Indices. As with the ENR indices, more locally targeted indices have become available for more recent years. As a result, land assets acquired after 1996 were escalated using CPI data for San Diego, whereas 1990-96 acquisitions were escalated using Los Angeles CPI data. Land acquired between 1913 and 1989 was escalated using the Department of Labor national average CPI, and land acquired prior to 1913 was escalated using McCusker's Composite Consumer Price Index. These indices are blended to create a seamless composite index reflecting CPI changes across more than 125 years.

Use of the above cost escalation indices, coupled with the data included in the fixed asset records, made it possible to estimate the current value of the Metro infrastructure both with and without depreciation.<sup>2</sup> The value of the assets were then divided by the capacity of the Metro JPA system (255 MGD) to obtain a per gallon per day value. Based upon this analysis, the value of the Metro JPA facilities is \$7.27 per gallon per day under Scenario 1 (without adjustment for depreciation) and \$4.94 per gallon per day under Scenario 2 (with an adjustment for depreciation) (Figure 6).<sup>3</sup>

As this analysis was based upon asset data only through 2005, the result can be escalated to December 31, 2006 using 2.8% as an annual escalation rate,<sup>4</sup> providing a value for the Metro JPA capacity under the asset approach to valuation of \$7.47 excluding depreciation (Scenario 1) and \$5.08 including an adjustment for depreciation (Scenario 2).

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<sup>2</sup> The assets detailed may not fully include the facilities needed for extra solids handling. RFC was unable to obtain a proxy cost of these facilities. Nonetheless, the additional value of these facilities would likely not be material to this analysis.

<sup>3</sup> Note that the asset data provided only documented assets added as of 2005. Additional assets added since that time should be added to this analysis.

<sup>4</sup> This escalation rate is based upon the percent change in the San Diego CPI from 2005 to 2006.

**Figure 6**

<b>City of San Diego Sewer Fixed Asset Analysis: Summary</b>				
<b>Only assets in funds 41508 and 41509 are included.</b>				
<b>All assets except land are escalated by a inflation indices from the Engineering News and Record.</b>				
	Original Cost	Scenario 1:		Scenario 2:
		2005 Estimated Reproduction Cost	Accumulated Depreciation	2005 Est. Repr. Cost Less Depr.
<b>Work in Progress</b>				
Mains-Average All Types	\$ 25,470,497	\$ 29,266,843	\$ -	\$ 29,266,843
Electric Pumping Equipment	946,599	1,063,140	-	1,063,140
Structures and Improvements	151,977	157,398	-	157,398
Subtotal: Work in Progress	26,569,073	30,487,381	-	30,487,381
<b>Mains</b>				
Mains-Average All Types	416,481,774	701,146,900	222,344,912	478,801,987
<b>Laterals</b>				
Mains-Average All Types	600,000	780,102	390,051	390,051
Subtotal: Distribution and Collection System	417,081,774	701,927,002	222,734,964	479,192,038
<b>Land</b> (escalated by Consumer Price Index)	25,176,985	112,828,484	-	112,828,484
<b>Structures and Improvements</b>	943,577,360	1,251,370,665	228,586,459	1,022,784,206
<b>Equipment</b>	192,435,516	241,286,820	140,334,477	100,952,342
<b>Grand Total</b>	<b>\$ 1,604,840,708</b>	<b>\$ 2,337,900,351</b>	<b>\$ 591,655,900</b>	<b>\$ 1,746,244,452</b>
Cost per Unit of Capacity		\$ 9.17		\$ 6.85
Gallons Per Day = 255,000,000				
<b>Outstanding Debt Principal Payments Owed:</b>				
Future Value	\$ 943,693,694			
Present Value (2005)	\$ 485,323,235			
Discount Rate	6.42%			
<b>NBV Less PV of Outstanding Debt Principal</b>	<b>\$ 1,119,517,473</b>	<b>\$ 1,852,577,116</b>		<b>\$ 1,260,921,217</b>
<b>Cost per Unit of Capacity</b>	<b>\$ 4.39</b>	<b>\$ 7.27</b>		<b>\$ 4.94</b>

## **Section 4: Other Drivers of Investment Value Perspective**

The asset approach described in Section 3 is based upon a specific, theoretical, valuation technique. However, Metro JPA members' perception of the investment value of its capacity is influenced significantly by other factors. Four factors in particular can influence the investment value perspective: 1) prior sales of Metro JPA capacity, 2) the buyer's avoided cost of building a separate, stand-alone facility (i.e., investment value of the buyer), 3) future potential cost to the seller to replace the sold capacity and 4) the return afforded by alternative investments.

### **4.1 Prior Sales of Capacity**

In 2001, the City of Poway purchased capacity from Padre Dam Municipal Water District for \$13.185 per gallon per day. Although other capacity transfers in the region show lower values for capacity transfers, it is likely that Metro JPA members may have established this price as a base-line for their investment value of capacity based upon this transaction. Escalation of this figure based upon the San Diego CPI provides a value of \$15.63 in 2006 (\$15.21 in 2005).

### **4.2 Buyer's Avoided Cost**

As indicated in Brown and Caldwell's April 2005 Water Reclamation Plant Feasibility Study for the City of Chula Vista ("Chula Vista Report"), it would cost between \$15.87 and \$25.78 per gallon per day for the City of Chula Vista to construct its own water reclamation facility.<sup>5</sup> Escalation of these figures based upon the San Diego CPI results in a range of \$16.30 and \$26.49. These figures inherently represent this buyer's investment value and are why it would consider purchasing capacity from another Metro JPA member. Regardless of the seller's own true investment value, the seller may wish to maximize its sales price relative to the buyer's next best alternative for obtaining capacity.

It is RFC's understanding that Chula Vista is performing another feasibility analysis to consider the feasibility of a venture between the City of Chula Vista, the Sweetwater Authority, and Otay Water for the construction of a Water Reclamation Plant. The results of this analysis could significantly change the estimate of the buyer's avoided cost.<sup>6</sup>

### **4.3 Seller's Potential Future Cost**

If the seller was to sell its capacity in the Metro JPA system, it would likely need to recoup this capacity if it was needed in the future. The City of San Diego has estimated that this cost would cost approximately \$23.08 per gallon per day. This estimate was based upon the 2005 projected

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<sup>5</sup> For facilities with on-site solids handling. Scenarios considering other solids handling options were excluded due to increased O&M costs.

<sup>6</sup> RFC will continue to research the results of this analysis to include in its final draft if possible.

cost of the South Bay Wastewater Treatment Plant of \$22.4 million/mgd, plus the cost of a 5 mgd capacity in the South Bay outfall of an estimated \$0.6806, for a total of \$23.08.

This analysis should be adjusted given that this alternative considers the cost of full secondary treatment, and the existing facilities do not have this capability. RFC the analysis of “Secondary Treatment Alternatives” performed by Karyn Keese of PBS&J and Ann Sasaki of the City of San Diego and presented to the Metro TAC/Commission. Based upon this analysis, and the alternatives chosen, the capital cost to upgrade the Metro JPA facilities to secondary treatment likely range between \$888 million and \$1.577 billion, or between \$3.48 and \$6.18 per gallon per day. Given the relevance of these different scenarios, RFC assumed an estimate of \$4 per gallon per day to upgrade to full secondary treatment, and has adjusted the \$23.08 figure to \$19.08 per gallon per day (2005 dollars).

Escalation of this figure based upon the San Diego CPI provides values of \$19.61 and \$23.72 as of December 31, 2006 for the seller’s potential future cost, with and without adjustment for secondary upgrade, respectively.

#### **4.4 Return from Alternative Investments**

An alternative to the asset approach for determining the investment value is to consider the value of an investment with similar risk characteristics. RFC considered several methods of making this assessment:

- Escalation of original cost by Metro JPA’s estimated weighted average cost of capital (WACC);
- Return on Metro JPA’s equity investment (similar to return on rate base);
- Consideration of investment dollars, including interest payments; and
- Additional non-utility plant asset equity.

RFC determined that escalation of the original cost by Metro JPA’s WACC was the most reliable and straight-forward method for considering alternative investment values. Using an estimated WACC of 6.42% (Figure 7), the present value of Metro JPA’s initial investment of \$1.6 billion in its assets was \$3.7 billion as of 2005. This analysis indicates that if the same investment were made in ventures that yielded 6.42% per year, the value of that investment in 2005 would have been worth \$3.7 billion. After deducting the outstanding debt of \$485 million and dividing by the capacity of 255 MGD, the investment value on a per gallon per day basis is \$12.70 (Figure 8). Using this same methodology, this value would be \$13.51 in 2006.

**Figure 7 – Metro JPA WACC**

<b>COST OF DEBT CAPITAL</b>	
Metro JPA Cost of Debt (1)	5.00%
<b>COST OF EQUITY CAPITAL</b>	
Risk Free Rate - Long-Term U.S. Treasury Bond Yield (2)	4.60%
Equity Risk Premium (2)	7.10%
Beta for Water Companies (3)	0.725
Adjusted Equity Risk Premium	5.15%
Total Buildup of Cost of Equity Capital	9.75%
<b>DEBT STRUCTURE (4)</b>	
Debt as Percentage of Capital	70.0%
Equity as Percentage of Capital	30.0%
<b>WEIGHTED AVERAGE COST OF CAPITAL (WACC)</b>	
Weighted Cost of Debt	3.50%
Weighted Cost of Equity	2.92%
<b>Weighted Average Cost of Capital</b>	<b>6.42%</b>
(1) Based upon an analysis of outstanding bond issuances.	
(2) Key Variables in Estimating the Cost of Capital, SBBI Valuation Edition 2006 Yearbook (based on 2005 data).	
(3) Median beta for the 8 publicly traded water companies reported in the April 28, 2006 Value Line Investment Survey - Small and Mid-Cap Edition, Part 3-Ratings and Reports.	
(4) Based on financing estimate of facilities of 70% debt and 30% equity.	

**Figure 8 – Alternative Investment Analysis Based on Uniform Escalation of 6.42%**

	Original Cost	2005 Escalated Original Cost
<b>Work in Progress</b>		
Mains-Average All Types	\$ 25,470,497	\$ 31,261,059
Electric Pumping Equipment	946,599	1,103,591
Structures and Improvements	151,977	161,706
Subtotal: Work in Progress	26,569,073	32,526,355
<b>Mains</b>		
Mains-Average All Types	416,481,774	898,341,859
<b>Laterals</b>		
Mains-Average All Types	600,000	1,117,851
Subtotal: Distribution and Collection System	417,081,774	899,459,710
<b>Land</b>		
	25,176,985	922,886,546
<b>Structures and Improvements</b>		
	943,577,360	1,563,286,029
<b>Equipment</b>		
	192,435,516	304,462,306
<b>Grand Total</b>	<b>\$ 1,604,840,708</b>	<b>\$ 3,722,620,945</b>
Cost per Unit of Capacity		\$ 14.60
<i>Gallons Per Day = 255,000,000</i>		
<b>Outstanding Debt Principal Payments Owed:</b>		
Future Value	\$ 943,693,694	
Present Value (2006)	\$ 485,323,235	
Discount Rate	6.42%	
<b>NBV Less PV of Outstanding Debt Principal</b>	<b>\$ 1,119,517,473</b>	<b>\$ 3,237,297,710</b>
<b>Cost per Unit of Capacity</b>	<b>\$ 4.39</b>	<b>\$ 12.70</b>

## Section 5: Summary and Value Recommendation

Based upon these analyses, there is a significant range for the investment value of the capacity in Metro JPA’s facilities (Figure 9). Ultimately, the transaction should be based upon a fair and equitable exchange between two member agencies. The buyer would like to avoid the high cost of building a stand-alone facility by buying into a pre-existing facility with economies of scale. The seller would like to receive fair compensation for its asset and to protect itself economically if it were to need the additional capacity in the future.

**Figure 9 – Pricing Perspectives**

<b>Value Approach/ Pricing Perspective</b>	<b>Total Value (2005)</b>	<b>Divisor</b>	<b>Price per gpd (2005)</b>	<b>Price per gpd (2006)</b>
Asset Approach - RCN				
- Without depreciation adjustment	\$1.8 billion	255 mgd	\$7.27	\$7.47
- With depreciation adjustment	\$1.3 billion	255 mgd	\$4.94	\$5.08
Prior Sale				
- Without inflationary adjustment	\$3.4 billion	255 mgd	\$13.185	\$13.185
- With inflationary adjustment	\$3.9 billion	255 mgd	\$15.21	\$15.63
Buyer’s Avoided Cost				
- Best case alternative	\$4.1 billion	255 mgd	\$15.87	\$16.30
- Worst case alternative	\$6.6 million	255 mgd	\$25.78	\$26.49
Seller’s Potential Future Cost				
- Without upgrade adjustment	\$5.9 billion	255 mgd	\$23.08	\$19.61
- With upgrade adjustment	\$4.9 billion	255 mgd	\$19.08	\$23.72
Alternative Investment Value	\$3.2 billion	255 mgd	\$12.70	\$13.51

\* Implied value of total Metro system.

### 5.1 Alternative #1: Sale of Capacity

Given these considerations, the alternative investment value of the assets of \$13.51 (in 2006 dollars) establishes the floor for the investment value of the capacity in the Metro JPA system. Also relevant is the prior sale of capacity to City of Poway from Padre Dam Municipal Water District for \$13.185 per gallon per day, or \$15.63 in 2006 dollars. Although there are not enough “fair market value” transactions to perform a market approach analysis, this transaction has set the precedence for the member agencies’ expectations regarding the investment value of their capacity in the Metro JPA system. In an open sale, it is reasonable to expect that market conditions, such as they are in the “Metro JPA marketplace”, would prevail.

Given the information provided in the Chula Vista report, the buyer’s most economical option for building its own treatment facility is \$16.30 in today’s dollars. This price establishes the ceiling of the investment value for this transaction. As mentioned previously in Section 4.2, the

analysis upon which RFC relied will likely be replaced by the new feasibility analysis for the Chula Vista/Sweetwater/Otay venture.

It is, therefore, RFC's recommendation that a price should be negotiated between \$13.51 and \$16.30 (subject to modification) by the two parties. Although this price does not fully protect the seller from the future potential cost of replacing the capacity, this price range provides a significant windfall over the cost of the existing capacity (\$5.08-\$7.47 per gallon per day), and would provide income that could be used more effectively until future capacity is potentially needed in the future.

## **5.2 Alternative #2: Lease of Capacity**

As an alternative, the seller could lease the excess capacity based upon the value determined under the asset approach (\$5.08 per gallon per day in 2006 dollars). The lower asset approach value should be used since the owner would retain ownership of the capacity and would not be open to future risk associated with purchase of capacity in the future. Although the lease payments would be relatively low over the lease period, the lessor (seller) would be protected from increases in the price of capacity in the future. The lease term could be set based upon expectations for future capacity needs of the lessor in the future. This alternative would provide for the most efficient use of the capacity and would allow the lessee (buyer) to pay the lowest price for the capacity. However, it would not protect the lessee from future capacity costs. Figure 10 demonstrates the calculation of the lease payment for different lease periods.<sup>7</sup>

## **5.3 Conclusions**

In conclusion, the current Metro JPA system has significant economies of scale, and its value on a gallon per day basis is low relative to future incremental additions of capacity. This creates a large discrepancy between the value of one unit of the current capacity and the cost to build the next unit of capacity.

Under free market conditions, supply and demand naturally dictate the price of a commodity. In this situation, however, there is a limited amount of available capacity, thereby creating a semi-monopoly for this commodity. Given the nature of the Metro JPA "marketplace", a price should be determined that would allow the seller to earn a return on its investment, but that would not take advantage of a buyer with limited options for purchasing capacity. As such, RFC

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<sup>7</sup> Note that this analysis is based upon 2005 data and assumes that future upgrades and/or other capital costs would be distributed based upon member flows. If possible post-2005 data should be incorporated, and if costs of future capital costs are based upon capacity ownership, the lease price should be reset to pass on these costs to the user of the capacity.

recommends a price negotiated between \$13.51 and \$16.30 per gallon per day. This range could be updated based upon additional feasibility analyses by the buyer.

As an alternative, a lease arrangement could be created based upon the asset approach valuation (\$5.08 per gallon per day), which would provide the buyer access to cost effective capacity, but would allow the seller to mitigate future risk of increases to capacity costs.

**Figure 10 – Lease Arrangement**

	<b>Lease Term</b>			
	<b>5 years</b>	<b>10 years</b>	<b>15 years</b>	<b>20 years</b>
<b><u>Input Data</u></b>				
Present Value (2005)	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217
Residual Value at End of Lease	\$ 1,163,416,700	\$ 1,142,861,104	\$ 1,119,818,033	\$ 1,079,317,778
Lease Rate	6.42%	6.42%	6.42%	6.42%
Lease Period (Years)	5	10	15	20
<b><u>Depreciation Portion</u></b>				
Present Value	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217
Less: Residual Value	(1,163,416,700)	(1,142,861,104)	(1,119,818,033)	(1,079,317,778)
Total	\$ 97,504,517	\$ 118,060,112	\$ 141,103,184	\$ 181,603,439
Divided by: Lease Period	5	10	15	20
<b>Depreciation Payment</b>	<b>\$ 19,500,903</b>	<b>\$ 11,806,011</b>	<b>\$ 9,406,879</b>	<b>\$ 9,080,172</b>
<b><u>Lease Rate Portion</u></b>				
Present Value	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217	\$ 1,260,921,217
Plus: Residual Value	1,163,416,700	1,142,861,104	1,119,818,033	1,079,317,778
Total	\$ 2,424,337,916	\$ 2,403,782,321	\$ 2,380,739,249	\$ 2,340,238,995
Divided by: 2	2	2	2	2
Average Amount Financed	\$ 1,212,168,958	\$ 1,201,891,160	\$ 1,190,369,625	\$ 1,170,119,497
Multiplied by: Lease Rate	6.42%	6.42%	6.42%	6.42%
<b>Lease Rate Payment</b>	<b>\$ 77,821,247</b>	<b>\$ 77,161,413</b>	<b>\$ 76,421,730</b>	<b>\$ 75,121,672</b>
<hr/>				
<b>TOTAL ANNUAL LEASE PAYMENT</b>	<b>\$ 97,322,151</b>	<b>\$ 88,967,424</b>	<b>\$ 85,828,609</b>	<b>\$ 84,201,844</b>
Capacity of System (Gallons per Day)	\$ 255,000,000	\$ 255,000,000	\$ 255,000,000	\$ 255,000,000
<b>Annual Lease Payment per Gallon per Day</b>	<b>\$ 0.38</b>	<b>\$ 0.35</b>	<b>\$ 0.34</b>	<b>\$ 0.33</b>
<b>Annual Lease Payment for 5 MGD</b>	<b>\$ 1,908,277</b>	<b>\$ 1,744,459</b>	<b>\$ 1,682,914</b>	<b>\$ 1,651,017</b>

# AGENDA ITEM 14

**SEWER CAPACITY TRANSFER CONCEPT ALLOWING PARTICIPATING AGENCIES TO ANNUALLY ALLOCATE UNUSED CONTRACT CAPACITY TO ANOTHER PARTICIPATING AGENCY**

**ISSUE:** Whether Participating Agencies should develop and enter into an agreement allowing a Participating Agency which exceeds its contract capacity to use the unused contract capacity of one or more other Participating Agencies for a specific period of time, and to use annual metered flows to determine the transferred capacity quantities for the distribution of payments on a pro-rata basis using a pre-determined value for the transferred capacity.

**RECOMMENDATION:** The Metro Wastewater JPA should:

- (1) Authorize Best, Best, and Krieger, in cooperation with the MetroTAC members, to develop an agreement that allows certain Participating Agencies to transfer excess Contract Capacity among other Participating Agencies for a fair and reasonable fee;
- (2) Direct the MetroTAC to obtain the City of San Diego's approval for the transfer of unused capacity; and
- (3) Execute the completed agreement.

**FISCAL IMPACT:** A one-time cost for staff to create a formal agreement, and a recurring cost to annually monitor, reconcile, and enforce the terms of the agreement.

**BACKGROUND:** The Participating Agencies desire to equitably resolve interim wastewater treatment capacity deficiencies in a manner that will benefit all wastewater rate payers in the region. Participating Agencies intend to retain their allocated treatment capacity rights as specified in the Regional Wastewater Disposal Agreement, but also desire to transfer and share unused capacity on a temporary basis. This practice would maximize each member's contract capacity limit, and possibly delay the need to construct wastewater treatment capacity within the system. Capacity transfers would be an interim solution, to augment any one member's need for capacity above its contract capacity. A permanent solution to allocated capacity limits would still need to be discussed and pursued among the parties as defined in the Regional Wastewater Disposal Agreement.

**AUTHORITY:** Pursuant to Section IV, Capacity Rights, Paragraph B, Transfer of Contract Capacity, in the Regional Wastewater Disposal Agreement, dated May 18, 1998, and as amended from time to time, The Participating Agencies

“may buy, sell or exchange all or part of their Contract Capacity among themselves on such terms as they may agree upon. The City [of San Diego] shall be notified prior to any transfer. Any transfer shall be first approved by the City.”

**DISCUSSION:** Although a Participating Agency does not plan to exceed its contract capacity, some Participating Agencies desire to commit to providing wastewater

treatment capacity over and above their specified contract capacities to accommodate future development. This need exists for a limited period before a permanent solution for acquiring additional capacity to treat wastewater is determined. Conversely, several of the Participating Agencies estimate that they will have excess contract capacity in the near term, but they are reluctant to sell or permanently transfer their excess capacity in anticipation of future growth and needs. As such, the Participating Agencies would like to develop a contractual arrangement to temporarily transfer excess capacity in such a manner that does not adversely impact the Metro System and protects each Participating Agency's rights with respect to existing contract capacity limits.

The agreement should allow the City of San Diego to contribute some or all of its excess capacity to the pool as well. The City of San Diego emphasizes that this agreement should truly be an interim solution to resolving treatment capacity needs, and that the Participating Agencies shall continue to comply with the requirements to provide long term projections for conveyance and treatment capacity needs, as currently required in the Regional Wastewater Disposal Agreement. Also, the agreement must be crafted to prevent adverse impacts on the Metro and Muni systems, and assure that no flow imbalances will occur in the system because of the transfer agreement. Finally, the City of San Diego desires to execute Transportation Agreements with the Participating Agencies prior to the agencies executing a capacity transfer agreement.

Based on discussions among the Participating Agencies and the City of San Diego, the following terms should be incorporated into a transfer agreement:

- (1) The term of the transfer agreement should be for a period of time, anticipated to be between eight (8) and ten (10) years, that allows Participating Agencies to acquire sufficient permanent treatment capacity;
- (2) The transfer agreement should include an annual evaluation of the status of the agreement at which time every Participating Agency and the City of San Diego has the option to (a) renew its commitment for another subsequent period, or (b) remain a member for the initial duration of the term the Participating Agency initially agreed to;
- (3) Any Participating Agency and the City of San Diego may become a party to the transfer agreement, and a party is not required to join;
- (4) Using recorded and agreed upon meter flows, each party's unused contract capacity will be determined on an annual basis, and this capacity will form the Unused Contract Capacity Pool;
- (5) Using recorded and agreed upon meter flows, the amount of flow over a party's contract capacity will be determined on an annual basis for each party that exceeds its contract capacity;
- (6) Parties that exceed their contract capacity will 'withdraw' capacity from the Unused Contract Capacity Pool, and compensate each party who contributed to the Unused Contract Capacity Pool, a sum proportional to each party's contribution based upon the party's excess capacity value for that year;
- (7) The fee for the use of excess capacity shall be determined in advance, included in the transfer agreement, and updated as needed on an annual basis as part of the year end reconciliation;

- (8) If no party exceeds its contract capacity, regardless of a commitment to 'draw' upon the Unused Contract Capacity Pool, no party shall receive compensation for the amount of excess contract capacity contributed to the pool; and
- (9) Fee payments shall be deposited with the Treasurer of the Metro Commission by the parties that exceed their contract capacity, and the Treasurer shall disburse fee payments to the parties contributing to the Unused Contract Capacity Pool for that year, based on a pro-rated basis as determined by the financial services consultant. Fee payments will first be used to offset the annual Metro Commission operating costs allocated to each Participating Agency eligible to receive a fee payment in the amount that the Participating Agency would have received as a fee payment.

# Agenda Item 16

**City of San Diego  
Metropolitan Wastewater Department**

**Project Name:** North City Water Reclamation Plant – Live Stream Discharge Feasibility Study

**Name of Project Presenter:** Guann Hwang, Senior Engineer

**Objective:**

The objective of this feasibility study is to investigate the possibility of discharging reclaimed water from the City of San Diego's North City Water Reclamation Plant (NCWRP) to tributaries of streams and to provide sufficient data supporting a permit application to the Regional Water Quality Control Board.

**Project Description:**

Reclaimed water from the 30-mgd NCWRP is distributed to irrigation and industrial customers within the northern portion of the City via a reclaimed water distribution system. During periods of wet weather, there is much less demand for reclaimed water and most NCWRP flows are discharged back into the sewer system for transport to the City's Point Loma Wastewater Treatment Plant, where it is retreated prior to discharge to the Pacific Ocean via the Point Loma Ocean Outfall. Additionally, during such periods of wet weather, total system-wide inflows to the Point Loma plant are increased as a result of inflow and infiltration into the Metropolitan Sewer System. Therefore, MWWD seeks to evaluate the potential for discharge to a stream as a method of offloading its collection, pumping, and treatment facilities during extreme wet weather events.

Evaluation of such discharge potential is a necessary component of MWWD's facility master planning. A NPDES permit allowing such a live stream discharge during the extreme wet weather events will defer the Wet Weather Storage projects by approximately five years and significantly reduce the capital investment money for the Metro Agencies.

This feasibility study consists of two phases. The Phase I includes a consultation meeting with the Regional Water Quality Control Board and a fair estimate on the possibility of the Board's approval of the NPDES permit. Only a fair possibility of such an approval will warrant the proceeding of the Phase II, which includes sampling and testing of the stream water, discharge frequency analysis, diversion facility planning, hydraulic and environmental impact analysis, permit compliance assistance, and stakeholder awareness meetings.

**Project Cost and Schedule:**

This feasibility study has a total cost value of not-to-exceed four hundred seventy-thousand dollars (\$470,000), in which the Phase I costs \$24,000 and the Phase II costs \$446,000. The study is expected to be completed in 16 months after the issuance of the notice to proceed.