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Fiscal Policy ■ Financial Planning ■ Analysis ■ Training ■ Organizational Review

MEMORANDUM

January 31, 2014

TO: Avila Beach Community Services District

FROM: Bill Statler

SUBJECT: SUPPLEMENTAL REVIEW: REVENUE REQUIREMENTS AND RATE STRUCTURE

The purpose of this report is to present in written form the briefing considered by the Finance Committee on January 27, 2014, which provided supplemental information to the NBS study regarding rate requirements and rate structure concepts.

BACKGROUND

Given the many years since the District's water and sewer rates were last reviewed in a comprehensive manner, the District contracted with NBS (one of the leading firms in the State that prepare these types of reviews) in 2012 to take a deep look at operating revenue requirements, rate structure and capacity charges for its water and sewer systems. The results of the NBS study were first presented to the Board in March 2013. Several workshops and hearings have followed since then, resulting in the adoption of capacity charges in December 2013.

Water and sewer rates remain under consideration, with the most recent review by the Board on January 14, 2014, where it considered a number of refinements to the proposed rates. Action was deferred at that time to the February 11, 2014 meeting. On January 27, 2014, the Finance Committee further considered proposed rates in the context of supplemental information regarding rate requirements and rate structures.

Purpose of the Supplemental Review. As noted above, NBS is one the leading firms that prepare these types of studies, and is highly respected for its work. Based on my review of the NBS rate study, it clearly has taken a deep, comprehensive look at the District's "analytics" in preparing its report. That said, the District requested this supplemental review to provide a focused look at proposed restaurant rates, reserves,

revenue requirements and rate structure concepts, and other issues that might surface in the course of this review.

NBS Study: Complex and Comprehensive. Given its scope, the report prepared by NBS provides a necessarily complex and comprehensive analysis of the District's revenue requirements and rates for both its water and sewer systems. Each of these systems have separate and distinct operations and related financial needs. Along with taking a deep look at each system, the study comprehensively analyzes three distinct components of the District's financial operations:

- Revenue Requirements
- Rate Structure
- Capacity Charges

Analyzing, understanding and then making decisions about each of these components for both systems is a challenging task. In the case of capacity charges, this challenge was compounded by the consideration of two scenarios regarding Chevron's direct participation in the funding of water and sewer improvements.

The District first tackled capacity charges, adopting rates in December 2013 based on Scenario 2 (no direct participation by Chevron). Fortunately, first resolving this important component of "non-rate" revenues helps facilitate looking at the other two issues of revenue requirements and rate structure.

The following outlines key rate-setting concepts, followed by an analysis of how these were used by NBS in preparing its study.

RATE SETTING CONCEPTS

Revenue Requirements vs Rate Structure

Revenue requirements and rate structure are separate and distinct issues that can make review of both at the same time difficult.

- ***Revenue Requirements:*** How much revenue needs to be generated from rates in recovering costs?

- ***Rate Structure:*** Who pays? In short, how will revenues be allocated among different types of customers?

In considering these two issues, it is important to note that <u>any rate structure can be designed to meet revenue requirements</u>.

For example, if 15% more revenues from rates are needed to recover costs, this can be met through an across-the-board rate increase of 15% in current rate categories: assuming that the current rate structure is meeting the agency's policy goals, no change in the current rate structure is needed.

On the other hand, if current revenues are adequate but the agency is concerned that the rate structure is not achieving its goals – such as revenue stability, encouraging conservation or being easily understood by customers – then the agency could adopt a new structure that is revenue neutral: that generates the same amount of revenue but collects them differently from different customer classes.

Assuming a revenue neutral change in the rate structure, an "average user" will typically pay about the same under any rate structure. However, the new rate structure will determine how the "non-average" user will be affected. Stated simply, rate structures tell us how costs will be allocated to non-average customers: will they pay more or less than the average customer if they use more or less of the service? For example, in the case of water rates, will low water users pay more or less under the new rate structure compared with the current one? How will high water users be affected?

Both Revenue Requirements and Rate Structure Are Policy Issues

While the quantitative analysis like that prepared by NBS can help inform the discussion, revenue requirements and rate structure are ultimately policy issues, not cost accounting ones, that only the governing body can decide.

- ***Revenue requirements*** are determined by *policy* decisions on service levels, and the operating, capital and debt service costs needed to achieve them. These are typically determined by the governing body via the budget process, long-term capital improvement plans and other fiscal policies. On the other hand, rate studies are necessarily based on key assumptions, not policy decisions.

- ***Rate structure*** is determined by *policy* decisions on rate goals and principles.

Rate-Setting Goals and Principles

The NBS study outlines the goals and principles it used in preparing its findings and recommendation, summarized as follows for water rates:

- Revenue adequacy
- Equity among customer classes
- Revenue stability
- Promotes water conservation
- Subsidy to low income users

These are in the mainstream of rate goals; however, they do not reflect adopted District policy; nor do they reflect priorities among competing priorities. For example, revenue stability and conservation objectives are potentially in conflict:

- For high revenue stability, some water agencies will lean heavily towards minimum charges regardless of consumption.

- On the other hand, some water agencies will rely more heavily on usage ("commodity") charges in order to encourage conservation.

From an analytical perspective, reasonable arguments can be made for high reliance on flat water rates: at any one point in time, most water costs are fixed and do not vary much with changes in total consumption. They also have the advantage of providing a high degree of revenue stability compared with those based on consumption. This is especially important in considering the effect of rate increases on usage ("price elasticity of demand.") In short, depending on the circumstances, a 10% increase in price may not yield a 10% increase in revenues: in fact, based on the "price elasticity of demand" for the service, it is conceivable that total revenues could decline.

On the other hand, the marginal costs of obtaining and treating new water supplies are typically very high, and as such, a reasonable argument can be made that it makes sense to rely on charges based largely on consumption. It may also appear intuitively fairer that those who use more should pay more (and thus also easier for customers to understand and for staff to administer) while also encouraging conservation. Moreover, depending on the elasticity of demand, the amount of water consumed may decrease when rates are based largely on consumption. This is ideal if the goal is to use the pricing structure to send conservation cues to consumers; but it has the potential downside of requiring "yo-yoing" rates up and down to ensure revenue adequacy if usage fluctuates significantly. This can be mitigated by the development of strong reserves to help smooth peaks and valleys in revenues based on changes in consumption.

Other Objectives and Setting Priorities

As noted above, the rate objectives used by NBS in preparing its study are in the mainstream of those adopted by other agencies and make sense for the District. However, the District may also want to consider one other rate principle adopted by many water and sewer agencies:

- Customer service: easy for customers to understand and for staff to administer

As noted above, some of these rate-setting goals are complementary (for example, revenue adequacy) while others may be in conflict:

- Rates designed for conservation may not be as stable as flat rates
- Ensuring revenue adequacy may mean unavoidable spikes in rates
- Providing equity between customer classes may lead to complicated rates that are difficult for customers to understand

For these reasons, the District may also want to consider prioritizing its rate goals. This will help make decisions about rate structure easier by articulating the underlying principles first.

For example, if rate stability is a high priority, this is likely to result in rates that rely more strongly on minimum charges (for example, 70% of revenues from minimum charges and 30% from commodity charges). On the other hand, if water conservation is a higher priority than rate stability, then this is likely to result in rates that rely more strongly on commodity charges (for example, 70% of revenues from commodity charges and 30% from minimum charges). If both are of equal importance, this might lead to

about 50% coming from each. Lastly, if customer service is a high priority, this might lead to simpler rate structures than those that might achieve even greater equity between customer classes.

Determining Rate Revenue Requirements

There are four key steps in determining revenue requirements:

Step 1: Determine total cost recovery needs

Projected operating, capital, debt service costs

Step 2: Subtract non-rate revenues

Property tax, capacity charges, grants, interest earnings, other revenues

Step 3: Identify rate revenue needs

Difference between Steps 1 and 2

Step 4: Determine new rate-based revenues

Difference between revenues under current rates and amount from Step 3

The following is a simple example of determining revenue requirements:

Table 1

Sample Revenue Requirements from Rates		
Step 1	Costs	
	Operating	150,000
	Capital	25,000
	Debt Service	15,000
	Total Costs	190,000
Step 2	Less Non-Rate Revenues	
	Property Taxes	(5,000)
	Capacity Charges	(15,000)
	Interest Earnings	(1,500)
	Other	(2,500)
	Total Non-Rate Revenues	(24,000)
Step 3	Rate Revenue Requirements	166,000
Step 4	Revenues: Current Rates	148,000
	New Revenue Needs	**18,000**
	Percent Increase	**12%**

In this simple example, the agency needs $18,000 in new revenues from rates, or an increase of 12% from current revenues. This could be accomplished from the existing rate structure by simply increasing all rates by 12%. On the other hand, if the agency wants to change its rate structure to better reflect its rate goals, then the same about of revenue from rates ($166,000 in the example) can be generated from whatever "structure" the agency adopts.

Adjustments to the Revenue Requirements Sample

In conjunction with these four basic steps, agencies also need to consider:

- Multi-Year Projections: The model in Table 1 looks at revenue needs based on a one-year snapshot: effective revenue requirement analyses will take a multi-year look at needs.
- Smoothing for Peaks and Valleys: Based on the multi-year projections, the agency may want to look at ways to smooth rate increases if there are "lumpy" revenues or costs, like capacity charges and capital projects.
- Use/Additions to Reserves: As part of "rate smoothing," the agency may want to consider adding to reserves or using them.
- Debt Coverage Requirements: If there is outstanding debt, the agency will also want to ensure that any debt coverage requirements are met through the rate revenue.
- Other Factors: There may be other revenue and cost factors that need to be considered within the basic four step model.

Approach Used by NBS

The rate study prepared NBS reflects this "four-step" model along with the adjustments noted above.

Determining Rate Structure

It is often easier to consider rate structure after determining revenue requirements: the fact is that there are many rate structure options, but they all need to generate the same amount of revenue.

Sample Water Rate Structures: Flat Versus Use Rates

Table 2 provides an example of how significantly different rate structures can generate the same amount of revenue. In this example, with 15,000 customer accounts using 1.8 million billing units annually, both rate structures will generate $10 million in annual revenues.

Table 2

Customer Use (Billing Units Per 100 Cubic	Alternative Rate Structures				
	Flat Rate @ $55.56/Month		Use Rate @ $5.56/Unit		
	Monthly Bill	Cost/ Unit	Monthly Bill	Cost/ Unit	Monthly Difference
5	$55.56	$11.11	$ 27.80	$5.56	($27.76)
10	55.56	5.56	55.60	5.56	$0.04
15	55.56	3.70	83.40	5.56	$27.84
20	55.56	2.78	111.20	5.56	$55.64

- **Flat rates.** On one hand, all the needed revenue could be generated from flat rates. For example, a monthly flat rate of $55.56 per account will fully cover the revenue rate requirements of $10 million. This flat rate approach means that customers who use small amounts of water will pay the same amount as those who use large amounts. While this does not offer much of an incentive to conserve, where costs are relatively fixed, and the agency has set rate stability as a high priority, this rate structure makes sense.

- **Commodity charges.** On the other hand, rates could be based solely on consumption. Water use is typically measured by billing units (most often 100 cubic feet of water) and customers are charged for each billing unit consumed. In this sample, a commodity charge of $5.56 per unit, with no minimum charge, will also generate $10 million annually. Again, this rate structure could make sense where the marginal cost of new water supplies is high and the agency wants to strongly encourage conservation. It may also be easier for customers to understand that there is a direct relationship between use and cost, since each unit of water consumed costs the same amount.

In this example, both rate structures will generate the same amount of revenue ($10 million annually) necessary to cover expected costs. However, the small water user (5 units per month) will pay $27.76 more per month under a flat rate system – twice as much as under the structure based on consumption. On the other hand, large users will pay significantly less – $27.84 less for 15 units and $55.64 for 20 units – under a flat rate structure than they would under the consumption-based system.

This example also underscores an important point about rate structures: the average customer will pay about the same amount under either rate structure. In this example, the "average user" of 10 units per month pays the same under both rate structures. The rate structure determines how costs will be allocated to non-average customers: will they pay more or less than the average customer if they use more or less of the service? It also underscores the point that different structures can generate the same amount of revenue. In short, rate structures are not about revenue adequacy but about who pays how much.

NBS Proposed Rate Structures

In practice, virtually all agencies throughout the state have water and sewer rate structures that include some combination of both minimum and commodity charges. This is the case for the District's current rate structures as well as those proposed by NBS. However, as discussed in greater detail below, they are structured differently.

- **Water rates.** No usage is included in the proposed minimum charge (which encourages conservation); and minimums are based on meter size (which mitigates the impact of proposed higher minimum charges on smaller users). It should be noted that as a water conservation measure, eliminating usage allowances (as proposed by NBS) is in the mainstream of rate structures throughout the state: while including a usage allowance in the minimum charge was once common, this is no longer the case. This is also the case for setting minimum charges: while most agencies in the state have minimum charges, they are commonly based on meter size: "per account" is rare.

- **Sewer rates.** NBS is proposing major shifts in cost distribution between user types.

NBS STUDY FINDINGS AND RECOMMENDATIONS

Based on these concepts, the following summarizes key findings and recommendations in the NBS study regarding revenue requirements and rate structures.

Revenue Requirements

Key Assumptions

Revenue requirements are driven by key assumptions for revenues and costs, summarized as follows:

- Customer Growth
  Very modest: 0% to 0.3%

- Water Consumption
  Reduction of 5% from current use due to rate increases

- Operating Costs
  Generally increase by inflation: about 3% annually

- Reserves
  - Operating: 25% of operating costs
  - Capital: Two times annual average capital cost assumptions from 2013 through 2019
    Water: $300,000
    Sewer: $520,000

- Capital Projects and Debt Service

  The following summarizes capital costs and funding sources for the five years covered by the rate study for water and sewer:

Table 3
Water Capital Projects: 2014-2018

Projects	
Storage Improvements: Water Tank 1	37,500
Lopez Booster Station	169,300
Water Line Replacements	234,200
Other Improvements	431,300
Total	$872,300

Funding Sources	
Capacity Charges (Transfer from Reserve)	333,200
Rates	539,100
Total	$872,300

Table 4
Sewer Capital Projects: 2014-18

Projects	
WWTP Secondary Treatment Expansion	562,900
Regulatory Permit Compliance	90,800
Ocean Outfall Insp/Benthic Monitoring	98,600
Chlorine Contact Chamber Coating	69,700
San Luis Street Sewer Replacement	214,400
Influent Wet Well Coating	21,400
Avila Beach Drive Sewer Replacement	111,000
First Street Sewer Replacement	237,900
Front Street Sewer Replacement	184,800
San Miguel Street Sewer Replacement	616,100
Marine Outfall Cleaning	88,800
Collection Line Repairs	172,700
Other Improvements	615,000
Total	$3,084,100
Funding Sources	
Capacity Charges (Transfer from Reserve)	412,400
Harbor District Contribution	1,079,500
State Revolving Fund (SRF) Loan	600,000
Rates	992,200
Total	$3,084,100
SRF Loan Annual Debt Service, 2018	$53,800

Notes

- Project costs and funding sources by year are detailed in the Appendix of the NBS rate study.
- The amount funded by capacity charges is based on retaining about 50% of the projected amount available over the next five years for future projects.
- The Harbor District contribution is based on the current agreement with it.
- Debt financing from SRF loans is assumed for several sewer line replacement projects in the amount of $600,000. The rate impact of the loans is reflected in debt service costs, which are projected to be $53,800 in 2018.

Revenue Requirement Increases

Based on these revenue requirement assumptions, the NBS study shows the need for the following revenue increases from rates.

Water
- 2013-14: 12%
- 2014-15: 12%
- 2015-16: 12%
- 2016-17: 4%
- 2017-18: 0%
- Cumulative over five years: 46.1%

Sewer
- 2013-14: 25%
- 2014-15: 25%
- 2015-16: 25%
- 2016-17: 20%
- 2017-18: 0%
- Cumulative over five years: 134.4%

Mitigating Revenue Requirements

In ensuring revenue adequacy, reducing these increases would require making different assumptions about the District's financial needs. The following summarizes options available to the District.

- **Customer Growth.** The assumption of customer growth of 0% to 0.3% appears to be a reasonable one. Moreover, increasing this by a modest amount would not significantly alter the results.

- **Water Consumption.** A reduction of 5% from current use also seems to be a reasonable assumption.

- **Operating Costs.** The assumption is that operating costs will increase in the future by inflation, generally about 3% annually, using the 2012 Budget as the base. Absent the presence of known cost drivers in excess of 3%, this is also a modest and reasonable assumption.

- **Reserves.** The recommendation to set operating reserves at 25% of operating costs (90 days cash flow) is reasonable and in the mainstream of other water and sewer operation. For context, the District provides 30 days of service before billing for this cost; and provides 30 days for payment before the bill is delinquent. Thus, the District needs at least 60 days for reserves (17%) for cash flow from rates alone. Cash flow needs are compounded by the fact that the District's second most important revenue source - property taxes – are not received until December, when 50% of revenues are remitted from the County – 180 days into the fiscal year. This only leaves 30 days of revenue for other operating contingencies. In fact, without other reserves (such as the capital reserve recommended by NBS), 25% is most likely too low.

  However, with the proposed capital reserve of two-times the annual capital costs from 2013-2019, the 25% operating reserve becomes more prudent. NBS proposed this target as a starting point in addressing long-term needs. If rates can generate this level of funding, the District will have developed a partial reserve that can be applied toward future replacement and rehabilitation needs.

  Compared with other water and sewer agencies, this is a modest reserve goal. For example, the Vandenberg Village Community Services District sets its capital reserve requirement at accumulated depreciation plus 25% of the annual budget. In addition to this amount is an emergency reserve of 10% of the value of its capital assets.

  In summary, the proposed reserve targets reflect modest assumptions; and justification could be provided for higher ones.

- **Capital Projects**. While the other assumptions impact revenue requirements, funding for capital projects is the largest factor driving rate needs. They are also the factor most under the District's control. Accordingly, if the District wants to mitigate the need for the proposed rate increases, considering changes in capital project costs, scheduling and/or funding sources is the most effective place to look.

NBS Rate Structure Methodology

In developing the proposed rate structure, NBS began by assigning costs to user types:

- For water rates, the key factors are fixed versus variable costs; and the allocation of minimum charges based on potential capacity (meter size), rather than just "per account." In encouraging conservation, it also eliminates usage (5 billing units) as part of the minimum for all customers.

- For sewer rates, the analysis is more complicated. Like water rates, "flow" (the amount of effluent discharged to the system, which is based on water consumption for billing purposes) is a key factor in the rates. However, the rate structure also needs to reflect the quality (or lack thereof) of the discharge. This is determined based on the relative amount of solid material in the effluent (total suspended solids: TSS) and its strength (measured by biological oxygen demand: BOD). It is typical for sewer rate structures to make differentiations between user types based on these factors –and both the current and proposed sewer rate structure do so. In setting the differentials in its rate study, NBS used standard TSS and BOD factors developed by the State.

Proposed Water Rates

Table 5 presents proposed water rates compared with current ones:

Table 5 (Source: NBS Rate Study)

Water Rate Schedule	Current Rates	Proposed Rates				
		FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Projected Annual Increase in Revenue Requirements		12.00%	12.00%	12.00%	4.00%	0.00%
Fixed Meter Charge (currently, this is the base/minimum charge)						
5/8 x 3/4 inch	$40.70	$55.42	$62.07	$69.52	$72.30	$72.30
1 inch	$40.70	$145.43	$162.88	$182.42	$189.72	$189.72
1 1/2 inch	$40.70	$181.43	$203.20	$227.58	$236.69	$236.69
2 inch	$40.70	$361.44	$404.81	$453.39	$471.52	$471.52
2 inch compound	$40.70	$577.45	$646.74	$724.35	$753.32	$753.32
Commodity Charge (per hcf)						
All Users						
0 - 5 hcf	$0.00	$3.90	$4.36	$4.89	$5.08	$5.08
5 + hcf	$8.14	$3.90	$4.36	$4.89	$5.08	$5.08

Note: Low-income customers will receive a $10 credit on their monthly water bill (subject to qualification by ABCSD staff).

As reflected above, along with overall revenue increases, key changes include basing minimum charges on meter size rather simply per account; and eliminating 5 units of consumption from the minimum charge. This results in higher minimums and lower commodity charges compared with the current rate structure.

Stated simply, the proposed rates will mean relatively higher bills for low water users and lower ones for higher users. Table 6 helps explain this shift: under the current rate structure, about 45% of rate revenues come from fixed charges and 55% from variable (commodity) charges. Under the proposed rates, this shifts to 70% fixed/30% variable charges.

Table 6 (Source: NBS Rate Study)

Revenue from Fixed vs. Variable Charges	Exisiting Rates		Proposed Rates	
Fixed Charges	$164,591	46%	$291,309	70%
Variable Charges	$194,188	54%	$124,159	30%
Total Revenue	**$358,779**	**100%**	**$415,467**	**100%**

Table 7 shows the impact of the rate structure change on the monthly bill of various types of customers, based on meter size and consumption. For an "apples-to-apples" comparison of the impact of the rate structure change, the sample bills are "revenue neutral:" the same amount of revenue will be generated by both structures. To do this, the current rates are increased by 12% across-the-board for minimum and commodity charges, which is the revenue increase assumed by NBS for 2014.

Table 7

Water Rate Structure Impacts								
	Usage (Per 100 Cubic Feet)							
Rates	1	2	3	4	5	10	20	100
Current Plus 12% Increase								
Minimum Per Account	$45.58	$45.58	$45.58	$45.58	$45.58	$45.58	$45.58	$45.58
Commodity Charge @ $9.12/unit	-	-	-	-	-	45.60	136.80	866.40
Total	45.58	45.58	45.58	45.58	45.58	91.18	182.38	911.98
Cost Per Unit	45.58	22.79	15.19	11.40	9.12	9.12	9.12	9.12
Proposed								
Minimum Per Meter Size								
Commodity Charge @ $3.90/unit								
5/8x3/4 Inch: $55.42	59.32	63.22	67.12	71.02	74.92	94.42	133.42	445.42
1 Inch: $145.43	149.33	153.23	157.13	161.03	164.93	184.43	223.43	535.43
1 1/2 Inch: $181.43	185.33	189.23	193.13	197.03	200.93	220.43	259.43	571.43
2 Inch: $361.44	365.34	369.24	373.14	377.04	380.94	400.44	439.44	751.44
2 Inch Compound: $577.45	581.35	585.25	589.15	593.05	596.95	616.45	655.45	967.45
Increase (Decrease)								
5/8x3/4 Inch	13.74	17.64	21.54	25.44	29.34	3.24	(48.96)	(466.56)
1 Inch	103.75	107.65	111.55	115.45	119.35	93.25	41.05	(376.55)
1 1/2 Inch	139.75	143.65	147.55	151.45	155.35	129.25	77.05	(340.55)
2 Inch	319.76	323.66	327.56	331.46	335.36	309.26	257.06	(160.54)
2 Inch Compound	535.77	539.67	543.57	547.47	551.37	525.27	473.07	55.47

Average water user

Note: While the rate results in the shaded, cross-hatched sections are theoretically possible, they are highly unlikely. For example, there are no accounts with a 2-inch meter that only use 1 unit of water per month.

As reflected above, assuming a 12% revenue increase under both scenarios, very low water users will pay significantly more than under the current rate structure. On the other hand, very large water users will pay significantly less.

Proposed Sewer Rates

Table 8 presents proposed sewer rates compared with current ones:

Table 8 (Source: NBS Rate Study)

Sewer Rate Schedule	Current Rates	Proposed Rates				
		FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Projected Annual Increase in Revenue Requirements		25.00%	25.00%	25.00%	20.00%	0.00%
Fixed Charge (currently, this is the base/minimum charge)						
Single-Family	$28.70	$30.68	$38.35	$47.94	$57.53	$57.53
Multi-Family	$30.35	$30.68	$38.35	$47.94	$57.53	$57.53
Commercial General[1]	$38.70	$23.53	$29.42	$36.77	$44.13	$44.13
Commercial Hotel	$38.70	$1,262.02	$1,577.53	$1,971.91	$2,366.29	$2,366.29
Restaurant	$41.35	$5,100.00	$6,375.00	$7,968.75	$9,562.50	$9,562.50
Industrial	$44.15	$29.21	$36.51	$45.64	$54.77	$54.77
Public Facility	$38.70	$127.77	$159.71	$199.64	$239.57	$239.57
Commodity Charge (per hcf, currently >5 hcf)						
Single-Family	$5.74	$2.84	$3.55	$4.44	$5.33	$5.33
Multi-Family	$6.07	$2.84	$3.55	$4.44	$5.33	$5.33
Commercial General[1]	$7.74	$2.62	$3.27	$4.09	$4.91	$4.91
Commercial Hotel	$7.74	$2.74	$3.42	$4.28	$5.14	$5.14
Restaurant	$8.27	$5.63	$7.03	$8.79	$10.55	$10.55
Industrial	$8.83	$2.41	$3.02	$3.77	$4.53	$4.53
Public Facility	$7.74	$2.36	$2.95	$3.69	$4.42	$4.42

1. For the one customer that is a vacant lot, currently billed as a Restaurant and is expected to develop into a mixed use customer - NBS recommends billing the customer as General Commercial on a temporary basis and should be able to retain their previous designation as a restaurant if/when the customer builds something new.

Note: The staff has recommended setting the minimum charge for restaurants to $18.15 per table.

As reflected above, along with overall revenue increases, key changes include breaking-out hotels from general commercial and eliminating 5 units of consumption from the minimum charge.

Table 9 shows how revenue allocations by users will shift from the current rate structure. Revenues from residential customers remain about the same: 40.5% under the proposed rate structure compared with 41.2% under the current one. Because there is no significant change, this results in rate increase for this class of customers that is very similar to the overall increase in revenues: 23% for the class versus 25% overall. On the other hand, cost allocations shift significantly for restaurants, from 17% to 28%, resulting in an increase of 102%.

Table 9 (Source: NBS Rate Study)

`	COS Allocated Costs: 2014		Current Rates		
	Revenue Requirements	Allocation	Revenue Requirements	Allocation	Increase (Decrease)
Residential	129,391	40.5%	105,363	41.2%	23%
Commercial General	18,558	5.8%	28,669	11.2%	-35%
Commercial Hotel	64,904	20.3%	57,911	22.6%	12%
Restaurant	89,186	27.9%	44,228	17.3%	102%
Industrial	2,003	0.6%	3,382	1.3%	-41%
Public Facility	15,332	4.8%	16,478	6.4%	-7%
Total	$319,374	100.0%	$256,031	100.0%	25%

Table 10 shows the impact of the rate structure change on the monthly bill of various types of customers based on consumption. For an "apples-to-apples" comparison of the impact of the rate structure change, the sample bills are "revenue neutral:" the same amount of revenue will be generated by both structures. To do this, the current rates are

increased by 25% across-the-board for minimum and commodity charges, which is the revenue increase assumed by NBS for 2014.

Table 10

Sewer Rate Structure Impacts										
	Minimum	Commodity	Usage (Per 100 Cubic Feet)							
Rates	Charge	Charge	1	2	3	4	5	10	20	100
Current Plus 25%										
Single Family	$35.88	$7.18	$35.88	$35.88	$35.88	$35.88	$35.88	$71.75	$143.50	$717.50
Multi-Family	37.94	7.59	37.94	37.94	37.94	37.94	37.94	75.88	151.75	758.75
Commercial General	48.38	9.68	48.38	48.38	48.38	48.38	48.38	96.75	193.50	967.50
Commercial Hotel	48.38	9.68	48.38	48.38	48.38	48.38	48.38	96.75	193.50	967.50
Restaurant	51.69	10.34	51.69	51.69	51.69	51.69	51.69	103.38	206.75	1,033.75
Industrial	55.19	11.04	55.19	55.19	55.19	55.19	55.19	110.38	220.75	1,103.75
Public Facility	48.38	9.68	48.38	48.38	48.38	48.38	48.38	96.75	193.50	967.50
Proposed										
Single Family	30.68	2.84	33.52	36.36	39.20	42.04	44.88	59.08	87.48	314.68
Multi-Family	30.68	2.84	33.52	36.36	39.20	42.04	44.88	59.08	87.48	314.68
Commercial General	23.53	2.62	26.15	28.77	31.39	34.01	36.63	49.73	75.93	285.53
Commercial Hotel	1,262.02	2.74	1,264.76	1,267.50	1,270.24	1,272.98	1,275.72	1,289.42	1,316.82	1,536.02
Restaurant	5,100.00	5.63	5,105.63	5,111.26	5,116.89	5,122.52	5,128.15	5,156.30	5,212.60	5,663.00
Industrial	29.21	2.41	31.62	34.03	36.44	38.85	41.26	53.31	77.41	270.21
Public Facility	127.77	2.36	130.13	132.49	134.85	137.21	139.57	151.37	174.97	363.77
Increase (Decrease)										
Single Family			(2.36)	0.48	3.33	6.17	9.01	(12.67)	(56.02)	(402.82)
Multi-Family			(4.42)	(1.58)	1.26	4.10	6.94	(16.80)	(64.27)	(444.07)
Commercial General			(22.23)	(19.61)	(16.99)	(14.37)	(11.75)	(47.02)	(117.57)	(681.97)
Commercial Hotel			1,216.39	1,219.13	1,221.87	1,224.61	1,227.35	1,192.67	1,123.32	568.52
Restaurant			5,053.94	5,059.57	5,065.20	5,070.83	5,076.46	5,052.93	5,005.85	4,629.25
Industrial			(23.57)	(21.16)	(18.75)	(16.34)	(13.93)	(57.07)	(143.34)	(833.54)
Public Facility			81.76	84.12	86.48	88.84	91.20	54.62	(18.53)	(603.73)

Average water user

Note: While the rate results in the shaded, cross-hatched sections are theoretically possible, they are unlikely. For example, there are no hotels that only use 1 unit of water per month.

In the case of sewer revenues, after adjusting for the proposed 25% revenue increase, the proposed rate structure does not result in a significant shift in revenue allocation between customer types, with one notable exception: restaurants will pay significantly higher charges than would be the case under the current rate structure.

KEY ISSUES

Revenue Requirements

As discussed above, the revenue requirements based on assumptions for customer growth, conservation, operating costs and reserves are modest and reasonable. While changes in assumptions in these factors to mitigate rate impacts are possible – such as reducing projected operating cost increases to 2% – these are not likely to have a significant impact on revenue requirements. On the other hand, capital project costs play a major role in determining revenue requirements, and as such, different assumptions in this area can lead to reductions in needed revenues.

Water Rate Structure: Impact on Lower Users

Compared with current rates, the proposed rate structure will have an adverse impact on lower water users. As discussed above, depending on rate goals and principles, this may

be an appropriate shift. However, the District should keep in mind three things if it is interested in mitigating the study's impact on lower users:

- Reducing rates for low water users will require higher rates for others: the same amount of revenue needs to be generated.
- Making this change should be done in the *policy* context of rate goals and principles.
- Altering the mix between fixed and variable charges is the likely strategy for mitigating the impact on lower users.

Sewer Rate Structure

As noted above, the proposed sewer rate structure will have modest changes on most customers, with the notable exception of restaurants. There may be an interest in mitigating this impact on such a small class of users, especially small restaurants:

- Reducing the proposed restaurant rate will mean higher rates for others: the same amount of revenue needs to be generated.
- The reduction should be policy based. Some options include:
  - Recognizing that allocations to restaurants are based on estimates using state guidelines, which may not be the case in Avila Beach (see discussion below on the pitfalls in differentiating between customer classes).
  - Using general purpose property tax revenues as the offset for lower rates (similar to the recommended approach for funding low income subsidies).
  - Providing a minimum number of tables within the minimum fee (similar to the current use allowance for water customers). This would also help with the challenge of determining the appropriate rate category when there are multiple uses behind the meter.

Differentiating Between Customer Classes

There are pitfalls for the District in making strict differentiations between customer classes (such as restaurants versus general commercial).

Very Small Data Set

The District only has 337 customers. This means that a few "outliers" can significantly skew results. For example:

- The District's "Top 6" customers account for 35% of water use and 43% of revenues.
- 80% of the District customers use 5 units of water or less per month.

Limited Data

Partly because of the small data set, the District of necessity must use standard statewide factors, which may not accurately reflect the situation in Avila Beach.

NEXT STEPS

Where to from Here?

Via the NBS study, the District is fortunate to have a strong analytical base for the policy decisions ahead of it. The following is a suggested approach for moving forward.

❶ Tackle Revenue Requirements First

It is difficult to deal with revenue requirements and rate structure at the same time: it can easily lead to circular arguments. Given where the District is today, I recommend first reaching consensus on revenue requirements. There are two advantages to this:

- The range of issues seems narrower (largely capital projects) than the rate structure ones.

- Assures that all rate structure options will be revenue neutral: they all need to generate the same amount of revenue.

❷ Then Tackle Rate Structure Issues

This can best be accomplished by discussing and then adopting key rate principles. From this, the District will then have a policy framework for considering issues like "fairness," customer service and water conservation, which in turn is likely to drive the mix of minimum versus commodity charges, and how complicated to make customer classes.

In assessing the relative weight of minimum versus commodity charges, the District should look at rate structures used by comparable agencies. While the District should never have its policies driven by others, this comparison will help frame the range of reasonable options.

Lastly, several sewer customer classes have very similar rates. The District should consider simplifying this.

Water Tiers: Do they make sense in Avila Beach?

In encouraging water conservation, many agencies throughout the state have adopted rate tiers, under which higher units of consumption have a higher per unit rate. This makes sense for communities that have larger average water use than Avila Beach (such as communities with large residential lots and high summer temperatures). However, given the already low water use in Avila compared with many communities in California, tiered rates may not be as important in encouraging water conservation. Moreover, tiered rate

structures are often less revenue-stable, since drops in consumption will results in proportionately greater revenue decreases.

IMPLEMENTATION

Proposition 218 Requirements

Under Proposition 218 adopted by the voters in June 1996, there are extensive notice and protest requirements for water and sewer fee increases. Mailed notice to all ratepayers is required at least 45 days before the governing body can consider rate increases. The consideration of the changing rates must include opportunities for citizens to be heard through a public hearing. The notice can be a separate mailing or included with utility bills. The notice must provide current and proposed rates; the date, time and place of the public hearing; and the effective date of the rate changes. While not required, agencies should also consider providing information in the notice about the need for the proposed rate increase, along with how to get more information about it, including contact phone numbers and website links as appropriate.

Multi-year rates can be adopted by the governing body at one public hearing, as long as the proposed rates were included in the 45-day notice. The governing body may adopt rates lower than those indicated in the notice but it cannot adopt higher rates (that would require a new 45-day notice).

If a majority of customers file written protests by the noticed public hearing date, the governing body cannot adopt an increase. However, the governing body is not precluded from reconsideration of a rate increase following another 45-day noticing process.

Issues for this Proposed Rate Increase

Getting Started

Before the Board can formally consider rate increases in any amount, it must first issue the Proposition 218 notices. Following that, it can then begin deliberation of rates, and make reductions as it may think appropriate. Accordingly, the rates proposed in the Proposition 218 notice are the start of the rate review process, not the end.

Setting Multi-Year Rates

It is important to note that if the Board approves multi-year rates and future budgets show lower revenue requirements, it can always reduce rates: it just cannot increase them without re-noticing.

Rate Structure Revisions

With revisions in rate structure, the notice must address impacts in each rate category. For example, while the proposed 2014 water rate increases revenues by 12%, some will pay less than this and some will pay more. This needs to be discussed in the Proposition 218 notice.

CONCLUSION

The rate study prepared by NBS provides an excellent analytical basis for decision-making. However, the study itself is necessarily based on assumptions. The next steps ahead of the Board are to make the policy decisions necessary for the effective stewardship of the District's financial resources, which is its unique responsibility.