North Beach Public Development Authority



Water Rate Study

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Executive Summary

North Beach Public Development Authority (NBPDA) is an enterprise utility and relies completely upon its rates and charges in order to pay for operations and to make improvements. The purpose of this Water Rate Study is to make recommendations to the NBPDA's Board of Directors to establish water rates, service charges and other fees that will pay for operational costs and debt services; and establish operational and capital reserves to provide cash liquidity and fund improvements to the water system for the next five years. In order to accomplish these goals, the General Manager recommends that the Board of Directors of NBPDA adopt a rate schedule that will increase water rates and monthly service charges by 15% in 2008, 11% in 2009, 10% in 2010, 10% in 2011, and 5% in 2012, and set other fees as outlined in this study.

Introduction

NBPDA was created in 2004 and purchased the Ocean Park Water Company and the Pacific Water Company in 2006. NBPDA incurred loans of approximately \$5.7 million to purchase the two water companies and make certain improvements to the water system. In March 2008, residents approved the formation of the North Beach Water District (NBWD). NBWD will receive the assets and liabilities of NBPDA once a transfer agreement between the two agencies is executed. NBPDA currently has revenues of about \$1.089M and expenses of about \$1.137M. NBPDA currently has a small Capital Reserve of about \$100K.

Methodology

NBPDA's water system functions much like an enterprise business. The water system relies completely upon its rates and charges in order to pay for operations and to make improvements. In order to assure the adequate funding of the water system, NBPDA must charge its customers rates and charges that provide for the funding of normal operational costs, the repayment of debt, and the creation of operational and capital reserves to provide cash liquidity and fund depreciation and improvements to the water system. The NBPDA has more the 2,600 service connections and produces about 750 acrefeet of water per year. The focus of this rate study is to make sure the water rates and charges support NBPDA's expenses and reserves through 2012.

Regular Operating Costs

For 2008, Operating Costs are project to be \$727,292 for the year. It is anticipated that expenses will grow at a rate of about 5% per year through 2012.

The operating expenses are projected to be as follows:

2008	2009	2010	2011	2012
\$ 727,292	\$ 763,657	\$ 801,839	\$ 841,931	\$ 884,028

In the event that projected growth in expenses exceeds 5%, operating cost overages would draw from the Operational Reserve fund, which is discussed on Page 4 of this study. Likewise, if projected growth is less than the 5% projection, excess revenues would be transferred to the Operational Reserve fund.

Debt Payment

When NBPDA purchase the two water companies and made certain improvements to the water system, it funded these activities through a combination of loans and bonds totaling about \$5.7 million. Over the next five years payment will be made on both interest and capital. The payment schedule is fixed, and will not change unless the debt is refinanced. These debt payments assume a refinance by 2011 at a rate equal to NBPDA's current payment regime.

The debt payments are projected to be as follows:

2008	2009	2010	2011	2012
\$ 410,364	\$ 410,364	\$ 410,364	\$ 410,364	\$ 410,364

Establishment of Operational Reserves

Enterprise utilities like NBPDA need to maintain an operational reserve in order to garner cash liquidity for a variety of reasons. These reasons include: covering seasonal fluctuations in income and expenses; paying for operational repairs and replacements with cash; having a cash resource available for business opportunity; and having a "rainy day" fund for emergencies and disaster response. In essence, an operational reserve in much like a water reservoir, it makes money available to cover changes in spending demands and emergencies.

Typically, an established water utility institutes an operational reserve of one year's operational expenses. Since the NBPDA, and its successor agency NBWD, are relatively new, I recommend establishing an operational reserve of one year's of operational expenses to be fully funded by 2012.

Funding for the Operational Reserves is projected as follows:

2008	2009	2010	2011	2012
\$ 176,806	\$ 176,806	\$ 176,806	\$ 176,806	\$ 176,806

Should the Operational Reserve be overfunded primarily through under estimation of Operational Costs, these excess funds would then be transferred to the Capital Reserve fund, which is discussed on Page 5 of this study.

Water System Plan

In 2007 NBPDA began the preparation of a Water System Plan (WSP). The WSP is necessary to fulfill legal requirements pursuant to WAC 246-290-100 and WAC 246-291-140. The WSP evaluates NBPDA's

ability to provide for service of existing customers, provide for future demands, establish a schedule of system improvements necessary to provide adequate service, and assure continued compliance with the Federal Safe Drinking Water Act. The WSP is prepared to conform to the requirements of the Washington State Department of Health. The NBPDA is expected to approve the WSP in May 2008.

The culmination of the WSP is a series of projects that the NBPDA needs to fund in order to provide a safe and adequate supply of drinking water to present and future customers. Growth related improvements will be funded by the developers and will not be funded by NBPDA, and thus are not a part of this study. Non-growth related improvements will be funded by NBPDA and total \$1.99 million in 2007 dollars. A Capital Reserve fund will be established to provide support for these improvements.

Establishment of Capital Reserves

A Capital Reserve is a fund to set aside monies to be used to make improvements to the water system. In order to fund improvements detailed in the WSP, NBPDA has three options it could pursue, each with its own pluses and minuses. These options are:

- Grants NBPDA could pursue grants from local, state and federal agencies to fund its
 improvements. Unfortunately, it is highly unlikely that these projects would receive full funding,
 or even partial funding through grants. While NBPDA should pursue grants at any available
 opportunity, I have not factored in grant awards in this Water Rate Study.
- Bonds/Loans NBPDA could pursue funding for improvements through a series of bonds or loans much the same way it did with the initial purchase of the two water companies and improvements made thereafter. The interest cost of the bonds/loans varies by institution and program type. Most bonds/loans require some contribution by the utility which also can affect the interest rate. Additionally the repayment of the bonds/loans has to be considered in NBPDA's Debt Payment accounts. For the purpose of this Water Rate Study, I have not factored in obtaining any bonds/loans to make improvements because of their long-term costs and NBPDA's already significant debt load.
- Cash NBPDA could fund these improvement from cash set aside in Capital Reserves. This is my preferred option, as it doesn't encumber NBPDA with any future debt and potential interest payments on that debt. In order to make the "out of pocket" cash flow work without a great burden to the rate payers, NBPDA would need to extend the amount of time for 6 years to 10 years to complete the projects contemplated by the WSP. Additionally, NBPDA would fund only exceptionally necessary projects for the first two years (2008-09) in order to let the reserve build up and provide cash liquidity for future projects. Because the projects are estimated in 2007 dollars, I have used a 5% cost increase per year in my estimates.

Funding for the Capital Reserves is projected as follows:

2008	2009	2010	2011	2012
\$ 199,430	\$ 209,402	\$ 219,872	\$ 230,865	\$ 242,408

Should the Capital Reserve be overfunded primarily through fund transfers out of the Operational Reserve account, these excess funds would then be transferred to pay down the principal of existing bonds and loans, which is discussed on Page 3 of this study.

Recommendation for Water Rates and Monthly Service Charges

"You cannot make easy decisions unless you first commit yourself to hard solutions." - Harri Holkeri

NBPDA, and its successor agency NBWD, are special districts which function as enterprise utilities. This means that their sole source of its income is derived from its rate payers. This income is generated primarily through monthly service charges and water rates paid by its customers. Thus, in order to raise the funds necessary to operate the utility and plan for its future, rates must be adjusted accordingly. Under current water rate and monthly service charge rates, NBPDA is projected to have revenue of \$1.089 million.

A concise look at the needed increase in revenue to fully fund expenses, debt services, and reserves is presented in the spreadsheet below:

FULL FUNDING OPTION						
YEAR	2008	2009	2010	2011	2012	
OPERATIONAL EXPENSES	\$727,292	\$763,657	\$801,839	\$841,931	\$884,028	
DEBT REPAYMENT	\$410,364	\$410,364	\$410,364	\$410,364	\$410,364	
OPERATIONAL RESERVE	\$176,806	\$176,806	\$176,806	\$176,806	\$176,806	
CAPITAL RESERVE	\$199,430	\$209,402	\$219,872	\$230,865	\$242,408	
TOTAL FUNDING NEEDED	\$1,513,892	\$1,560,229	\$1,608,881	\$1,659,966	\$1,713,606	
OVERALL PERCENT INCREASE IN RATES FROM PREVIOUS YEAR	38.94%	3.06%	3.12%	3.18%	3.23%	
OVERALL DOLLAR INCREASE IN RATES FROM PREVIOUS YEAR	\$424,294	\$46,337	\$48,652	\$51,085	\$53,640	

Realizing that the "rate shock" of a 39% rate increase would be unappealing; ways to reduce future rate increase were then explored. Rates and charges were than recalculated with the following factors: reducing the goal of having a one-year's Operational Reserve funded by 2012 to six-months; Capital Reserves were not fully funded in 2008 and 2009, however they are funded in 2010, 2011 and 2012 to make up for this loss. Then the proposed rate increase was then distributed more equitably over multiple years rather than focused upon a major single year increase.

After running several rate percentage analyses, a five-year scenario of rate increases called "Across the Board", which begins with a rate increase of 15% in the first year and decreases over time to 5% in the

fifth, held the best balance of rate increase distribution versus meeting the financial needs of the agency.

"ACROSS THE BOARD" SCENERIO (15%, 11%, 10%, 10%, 5% APPLIED EQUALLY TO WATER RATES AND MONTHLY CHARGES)						
YEAR	2008	2009	2010	2011	2012	
OPERATIONS	\$727,292	\$763,657	\$801,839	\$841,931	\$884,028	
DEBT	\$410,364	\$410,364	\$410,364	\$410,364	\$410,364	
OPERATIONAL RESERVE	\$88,403	\$88,403	\$88,403	\$88,403	\$88,403	
CAPITAL RESERVE	\$26,979	\$128,448	\$229,353	\$342,257	\$384,308	
TOTAL	\$1,253,038	\$1,390,872	\$1,529,959	\$1,682,955	\$1,767,103	
PERCENT INCREASE	15.00%	11.00%	10.00%	10.00%	5.00%	
DOLLAR INCREASE	\$163,440	\$137,834	\$ 139,087	\$152,996	\$84,148	

This option should, by the end of 2012, create an Operational Reserve of around \$442K. Additionally, it s provide funding of \$1.1M towards Capital Reserve in the five-year rate cycle which is equal to the \$1.1M originally contemplated. Growth is projected at around 2% per year.

Proposed Monthly Service Charges:

"ACROSS THE BOARD" SCENERIO							
(15%, 11%,	10%, 10%, 5	5% APPLIED	EQUALLY TO	WATER RATES	AND MONTH	ILY CHARGES)
Monthly Service Charge by Meter Size	3/4"	1"	1.5"	2"	3"	4"	6"
Number of Active Accounts	2578	20	8	17	1	0	0
Current Charge	\$ 24.50	\$ 40.90	\$ 81.60	\$ 124.90	\$ 142.30	\$ 215.00	\$ 417.58
Proposed 2008 Rate	\$ 28.18	\$ 47.04	\$ 93.84	\$ 143.64	\$ 163.65	\$ 247.25	\$ 480.22
Proposed 2009 Rate	\$ 31.27	\$ 52.21	\$ 104.16	\$ 159.43	\$ 181.65	\$ 274.45	\$ 533.04
Proposed 2010 Rate	\$ 34.40	\$ 57.43	\$ 114.58	\$ 175.38	\$ 199.81	\$ 301.89	\$ 586.34
Proposed 2011 Rate	\$ 37.84	\$ 63.17	\$ 126.04	\$ 192.92	\$ 219.79	\$ 332.08	\$ 644.98
Proposed 2012 Rate	\$ 39.73	\$ 66.33	\$ 132.34	\$ 202.56	\$ 230.78	\$ 348.69	\$ 677.23

Proposed Water Rate:

"ACROSS THE BOARD" SCENERIO					
(15%, 11%, 10%, 10%, 5% APPLIED EQUALLY TO WATER RATES AND MONTHLY CHARGES)					
Water Rates	PER 100 CUBIC FEET	PER CUBIC FOOT			
Current Water Charge	\$ 1.35	\$ 0.0135			
Proposed 2008 Rate	\$ 1.55	\$ 0.0155			
Proposed 2009 Rate	\$ 1.72	\$ 0.0172			

"ACROSS THE BOARD" SCENERIO (15%, 11%, 10%, 10%, 5% APPLIED EQUALLY TO WATER RATES AND MONTHLY CHARGES)						
Water Rates	Cont. Water Rates PER 100 CUBIC FEET PER CUBIC FOOT					
Proposed 2010 Rate	\$ 1.90	\$ 0.0190				
Proposed 2011 Rate	\$ 2.09	\$ 0.0209				
Proposed 2012 Rate	\$ 2.19	\$ 0.0219				

Proposed Average Monthly Increase To Customer (3/4" Service, 446 CF Monthly Consumption):

"ACROSS THE BOARD" SCENERIO						
(15%, 11%, 10%, 10%, 5%	APPLIED EQUALLY TO WA	TER RATES AND MONTHLY				
	CHARGES)					
Average Monthly Increase To Customer (3/4" Service, 446 CCF Consumption)						
	Average Bill	Net Increase				
Current Charge	\$ 30.52					
Proposed 2008 Rate	\$ 35.10	\$ 4.58				
Proposed 2009 Rate	\$ 38.96	\$ 3.86				
Proposed 2010 Rate	\$ 42.86	\$ 3.90				
Proposed 2011 Rate	\$ 47.14	\$ 4.29				
Proposed 2012 Rate	\$ 49.50	\$ 2.36				

Recommendation for Fees and Other Charges

Staff recommends several changes to Service Charges and Monthly Fire Service Charges in order to better reflect the actual costs of these services and transactions. Recommended changes to portions of Resolution 01-2008 are in *italic* and underlined. Deleted text has a strikethrough.

Staff's recommendations are:

1.01.050 Application for <u>new</u> service <u>or transfer of service</u>.

All applications for water service connections to and/or the use of water within any premises shall be made at the <u>NBPDA</u> office or at such other place or places as the Board may designate. Every such application shall be made by the owner of the property to be furnished, or by his authorized agent, and the applicant shall state fully and truly all the purposes for which the water may be required, and must agree in writing to conform to the regulations and rules established from time to time as the condition for the use of the water. The applicant must further in writing agree as a condition precedent in the premises that the <u>NBPDA</u> shall have the right at any time, without notice, to shut off the water supply for repairs, extensions, nonpayment of rates, or for any other reason, and that the <u>NBPDA</u> shall not be responsible for any damage caused by the breaking, bursting, or collapsing of any boilers, pipes or fixtures, or

by the stoppage, or interruption of the water supply, or any damage whatever resulting directly or indirectly from the shutting off of the water <u>NBPDA providing water service</u>. <u>The customer is responsible for any and all plumbing beyond the water meter. The applicant shall pay a fee for application for new service or transfer of service as specified in Section 1.01.390.</u>

1.01.270 Main connection installation charges.

Connection- Installation charges for those mains installed as of March 2006 when the NBPDA purchased the water system shall coincide with the connection installation charges fixed by the Board and outlined in Section 1.01.390. Connection Installation charges for those mains installed by the NBPDA after March 2006 shall be based on the actual cost of installing the main including administrative and engineering charges as outlined in Section 1.01.390. Whenever the NBPDA requires a main size larger than would be required to serve the adjacent property or, in the case of a subdivision or development, a main size larger than required to serve that development, the NBPDA shall participate in the cost of the main to the extent of the additional size required, provided the amount of such participation shall be established by the NBPDA engineer prior to the commencement of construction. Participation by the NBPDA is contingent upon available funds budgeted for this purpose.

1.01.330 Occupant turning on water — Meter tampering fee.

Should the owner or occupant of the premises turn on the water or suffer or cause it to be turned on after it has been shut off at the curb cock by the Manager NBPDA, or damage the meter or service, it may be turned off by the Manager NBPDA, and an additional charge as set forth in Section 1.01.390 of this resolution made for the expense of turning it off and on, or making repair.

1.01.370 Cash deposit for water service.

Metered consumers may be required to make a cash deposit with the NBPDA, based upon the estimate of the three months average water usage and service fees, based upon meter size through the meter as set forth in Section 1.01.390 of this resolution. The deposit does not incur interest. Said deposit shall be refunded to the customer as a credit on the water bill(s) if the customer, for a period of two years, keeps their account in good stand without delinquency notification. In the event of the customer closes the account and all claims against the account are paid, the customer shall receive a refund for their deposit which the NBPDA shall issue within 60 days.

Deposit:

¾" meter	<i>\$85.00</i>
1" meter	\$195.00

1 ½" meter	\$300.00
2" meter	\$800.00
3" meter	\$850.00

Metered consumers may be required to make a cash deposit with the NBPDA, based upon the estimate of the monthly consumption through the meter as set forth in Section 1.01.390 of this resolution. The deposit shall be held by the NBPDA until the severance of the contract, and shall be repaid to the customer after all claims against the premises have been fully paid. Deposits for bimonthly customers, when required, shall be based upon the estimate of the bimonthly consumption.

1.01.380 Payment of water bills--Delinquency Notification--Service discontinued for nonpayment-Past due fees.

A. Monthly and bimonthly statements of charges for water service shall be due and payable at the office of the <u>NBPDA</u>, or at such place or places designated by the <u>NBPDA</u>, on the date established by the <u>NBPDA</u> as set forth in Section 1.01.390 of this resolution. The statements shall cover service charges for the period shown thereon and shall be issued and forwarded by mail to the customer as soon as practical after the service period. Bills are due and payable eighteen (18) calendar days from the date of mailing, at which time if unpaid become delinquent. A minimum of eight (8) working days written notice will be given a customer before service is discontinued. Service will be restored when payment of all proper charges due from customer, including the reconnection charge, have been made. <u>Returned checks or auto bill payment rejection shall be charged a fee as set forth in Section 1.01.380 of this resolution. Shall the customer desire to have the service restored after normal business hours or on weekends, the customer shall pay a fee as set forth in Section 1.01.380 of this resolution.</u>

1.01.390 Service Charges.

Within the boundary of the *NBPDA*'s service area the following rates shall apply:

1.	Occupant turning on water after shutoff Meter tampering fee	\$10 <u>0</u> .00 <u>or the actual to</u> <u>make repair, which ever is</u> <u>greater</u>	Sec.1.01.330
2.	Delinquency notification penalty	\$10.00 <u>or 1.5% of total bill,</u> which ever is greater	Sec.1.01.380
3.	Service disconnected/water reconnect for nonpayment penalty	\$25.00	Sec. 1.01.380
4.	Water for commercial construction	\$50.00	Sec.1.01.360

	purposes	per month plus consumption charge	
5.	Water for residential building construction purpose	Flat fee of \$50.00 paid at application	Sec.1.01.360
6.	Installation cost for 6-inch and smaller main installed as of March 2006	\$12.50 per front foot	Sec.1.01.270
7.	Installation cost for 8-inch main installed as of March 2006	\$15.00 per front foot	Sect. 1.01.270
8.	Installation cost for main installed after March 2006	Actual cost per front foot to install water main including engineering and administrative costs	
9.	%-inch Service	\$650.00	Sec.1.01.190
10.	1-inch and larger Service	Cost plus 15%	Sec.1.01.190
<u>11.</u>	Reconnection fee for after normal business hours or weekends	<u>\$85.00</u>	Sec. 1.01.380
<u>12.</u> <u>13.</u>	Return Check Charge/Auto Bill Rejection Application for new service or transfer of	<u>\$30.00</u>	Sec. 1.01.380
	service fee	<u>\$25.00</u>	Sec. 1.01.050

Monthly Fire Flow Service Charges

Meter Size	Ready to <u>Monthly</u> Serve Charge
¾-inch	\$ 12.25 - no consumption charge
1-inch	\$ 20.45 - no consumption charge
1.5-inch	\$ 40.80 no consumption charge
2-inch	<u>\$29.54</u>
	\$ 62.45 - no consumption charge
3-inch	<i>\$41.54</i>
	\$ 71.15 - no consumption charge
4-inch	<u>\$53.55</u>
	\$107.50 - no consumption charge
6-inch	<i>\$77.56</i>
	\$208.79 - no consumption charge
8-inch	\$101.57

All fire service connections shall be metered. There shall be no charge for water used through a fire service for fighting fires. Water may be obtained at the current rate for occasional filling of tanks through a private fire service, provided the NBPDA is notified in advance and there is an approved method of measurement. Five times the current rate will be charged for water consumed through a fire service for any other purpose.

Conclusion

In order for NBPDA to continue to provide a safe reliable water supply and plan for the future, the General Manager recommends that the Board of Directors of NBPDA adopt a rate schedule that will increase water rates and monthly service charges by 15% in 2008, 11% in 2009, 10% in 2010, 10% in 2011, and 5% in 2012, and set other fees as outlined in this Water Rate Study.

As a "start-up" enterprise utility, the NBPDA, along with its successor NBWD, have notable challenges in establishing a progressive business plan. Of chief importance is establishing water rates. This Water Rate Study is an effort to balance the needs of a utility that desire to make necessary improvements and to implement modern technologies to better provide safe and reliable water to its customers against creating "rate shock" from its customers and the negative sentiment that can follow. It is the General Manager's hope that this Water Rate Study provides a fiscally prudent direction for the NBPDA Board, and ultimately the NBWD Board, to follow for years to come.

As typical with long-range planning, there are many possible things that this Water Rate Study is unable to address, due to the unpredictability of the future. This is especially true when you consider that some of the original facilities are nearing fifty years old. Although this Rate Study builds reserves that will hopefully get the utility through hardships without directly impacting the customers financially, this plan should be reviewed annually by the governing Board, and if necessary, updated to better reflect the future conditions of the utility. Additionally, at the end of this five-year plan, it is hoped that revenues generated by the utility not only pay for costs, reserves, and debt, but also begin to contribute significantly to shortening the life of the debts themselves which in the long-term will save the utility's rate payers money.