

TO: BOARD OF DIRECTORS  
FROM: BRUCE BUEL *BB*  
DATE: OCTOBER 19, 2007



DISCUSS MERGER OF TOWN AND BLACKLAKE WATER FUNDS

**ITEM**

Review edits to Combined Water System Financial Plan and discuss merger of Town and Blacklake Water Funds [Continue Hearing until November 14, 2007].

**BACKGROUND**

In September, your Honorable Board directed Bob Reed to develop a two-tiered inclining block rate structure for Multi-Family Housing and to submit an addendum to the previously submitted Combined Water Systems Financial Plan. Attached is Mr. Reed's addendum which proposes to use the same user fees per block as single-family with a lower threshold for charging the higher user fees in the second tier per apartment. It should be noted that Legal Counsel has advised that all water customers (property owners) get a Proposition 218 notice for the January 23, 2008 protest hearing even though the change in the Multi-Family User Charges only affect properties with multi-family use.

At the October 10, 2007 meeting, President Winn advised interested parties that they could submit alternate proposals for calculation of the equity surcharge at or by this meeting, for staff analysis prior to the November 14, 2007 Board meeting. Staff has attached Bob Reed's proposed equity surcharge calculation to this staff note for comparison.

**RECOMMENDATION**

Staff recommends that your Honorable Board review the attached addendum and approve the proposed edits to the multi-family rate structure, as set forth therein. Staff further recommends that the Board receive any proposals submitted by interested parties and direct staff to evaluate and respond to those proposals in the packet for the November 14, 2007 Hearing.

**ATTACHMENTS**

- Combined Water System Financial Plan Addendum
- Excerpt from Bob Reed's Combined Water System Plan re: Equity Surcharge

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**THE REED GROUP, INC.**

October 15, 2007

Bruce Buel  
Nipomo Community Services District  
148 South Wilson Street  
P. O. Box 326  
Nipomo, CA 93444-0326

**Subject: Multi-Family Residential Tiered Water Rates**

Dear Bruce,

During the September 26<sup>th</sup> meeting of the Board of Directors, The Reed Group, Inc. presented recommendations regarding the financial plan and water rates for the combined water system. Prior to that meeting, the Board of Directors had requested that we consider a tiered water rate structure for all non-single family residential customers. We presented the rate analyses for a 2-tiered rate structure for non-single family customers with tier allocations varying with meter size. However, we also reported that the rate structure, in our opinion, would be less effective as a conservation incentive than other potential rate structures and could be perceived by some customers as punitive and unfair. Furthermore, we recommended that the District keep the present uniform rate structure for non-single family customers until such time as more analyses could be performed on alternative tier structures. We had also determined that the previously adopted water rates for 2008 and 2009 should be sufficient to meet the District's revenue needs for the next two years. Therefore, no action (other than adopting the proposed Blacklake equity surcharge) is needed on water rates at this time.

During the same Board meeting, we suggested that a more effective tiered rate structure for multi-family customers could be created based on per-dwelling-unit water usage characteristics, and that an irrigation structure based on a water budget approach (tailored for each irrigation account) could also be created. While each has additional administrative complexity, they would both be more effective in encouraging water conservation among these customer groups.

The water budget based irrigation rates would require some time and effort to create, as the District would need information on the irrigated area associated with each irrigation account. The data collection effort required does not fit with the time available for the current water rate study. However, the Board asked that we develop a 2-tiered water rate structure for multi-family residential customers using the same basis as the current 2-tiered single family rate structure.





Using data on the number of dwelling units associated with each multi-family residential account, we analyzed the water use characteristics of multi-family customers of the District on a per-dwelling-unit basis. Water usage frequency distributions, similar to those developed for single family customers, were developed for multi-family dwellings. The average and median per-dwelling unit bi-monthly water usages were found to be 13 CCF and 11 CCF, respectively. This is considerably lower than the 46 CCF and 34 CCF values, respectively, for single family customers. The lower values associated with multi-family dwellings are due, in part, to fewer people per household (on average) and limited irrigation usage (or a separate connection for irrigation).

Using information from the multi-family frequency distribution, we developed a 2-tier multi-family rate structure that would include the same proportion of water sales in the first and second tiers as the existing single family residential tier structure. A 2-tier multi-family tier structure that would be equivalent and equitable relative to the single family structure would include a break point between the first and second tiers of 11 CCF for each dwelling unit served. As an example, a fourplex would be allotted 44 CCF bi-monthly in the first tier with additional water use in the second tier. With this structure, about 65 percent of the multi-family water usage would be within the first tier, and about 35 percent in the second tier. Single family tier rates of \$1.52/CCF and \$2.59/CCF (for 2008) would also apply to the multi-family tier structure in 2008. Bi-monthly service charges based on meter size would continue, without change from those previously approved.

This multi-family tier structure with a break point of 11 CCF per dwelling unit should be revenue neutral to the previously approved uniform rate for multi-family customers. However, because the tier structure could result in higher water bills for some multi-family customers the District will have to re-adopt the rates before implementing them. The District should consult with its legal counsel regarding the specific requirements for adopting new water rates for multi-family customers for 2008 and 2009.

\* \* \* \* \*

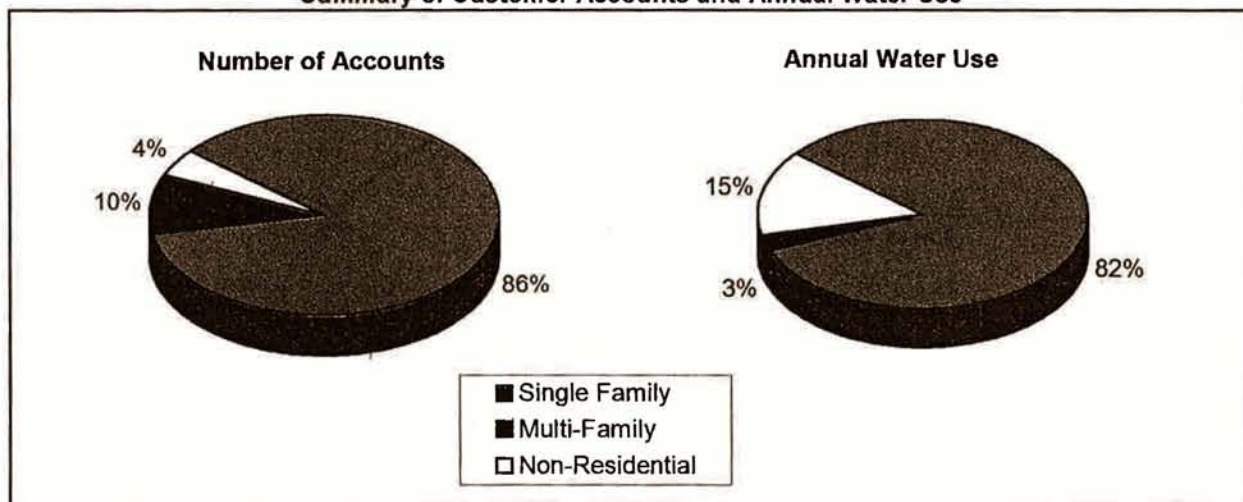
This letter amends the findings contained in the September 14, 2007 *Combined Water System Financial Plan and User Rates* report. If you have any questions regarding this amendment, please give me a call at 916-444-9622.

Sincerely,

Robert Reed  
The Reed Group, Inc.



Exhibit III-3  
Nipomo Community Services District  
Summary of Customer Accounts and Annual Water Use



Single family water use varies throughout the year based on seasonal irrigation demands. Water use also varies for other reasons as well including number of people per household, landscape characteristics, parcel size, personal habits, and other factors. Even with this variation, single family water usage characteristics are more homogeneous than other customer classes.

Exhibit III-4 provides water use frequency distributions for single family customers in the combined water system. Individual graphs summarize bi-monthly water use on an annual basis, during the peak summer billing period (September-October) and during the low use winter billing period (January-February). Average and median use is shown for each graph. The bell-shaped shaded region of each graph provides a histogram showing the number of customer bills with various levels of water usage. The curved line indicates the percentage of water use below a specified level of use. The line in the top (annual) graph is critical to tier rate design in that it indicates that amount of water that would be sold within any tier once tier break points are established. This information is used later in this section in the development of the proposed tiered water rates for single family customers.

The data presented in Exhibit III-4 reflects water use characteristics for the past 5 years.

**Blacklake Equity Surcharge**

As the District is considering the merger of the water systems for the Town and Blacklake Divisions, one unresolved issue is the relative difference in the investment made into the respective water systems by existing customers of the two systems. Customers of each system have contributed to the construction and investments made into each water system, but the relative investments in each system vary. This study included evaluating the value of water system assets within each water system, as well as financial reserves, as reflected in audited financial statements and expressing this information on a per-account basis. The difference in the value of water system assets and financial resources between the two water systems would be the basis for an equity surcharge to be paid by the customers than have made a lesser relative investment.



Financial information used in preparing the District's audited financial statements ending June 30, 2006 was used for the equity analysis. **Exhibit III-5** presents asset and financial resource information and the resulting calculation of a proposed equity surcharge.

Exhibit III-5  
Nipomo Community Services District  
Summary of Water System Assets and Financial Reserves as of June 30, 2006

	Town Division				Blacklake Division		
	Water Operating Town (Fund 120)	Water Capacity (Fund 700)	Funded Depreciation Town Water (Fund 800)	Town Division Totals	Water Operating Blacklake (Fund 140)	Funded Depreciation Blacklake Water (Fund 820)	Blacklake Division Totals
<b>Water System Assets</b>							
1520 Water - Pumping	\$ 1,598,264	\$ 774,742	\$ 192,373	\$ 2,565,379	\$ 1,576,268	\$ 39,670	\$ 1,615,938
1525 Water - Transmission	\$ 1,157,964	\$ 1,238,291		\$ 2,396,255			\$ -
1530 Water - Distribution	\$ 475,714	\$ 79,365	\$ 116,603	\$ 671,682	\$ 68,047	\$ 2,749	\$ 70,796
1535 Water - Contributed	\$ 6,147,216			\$ 6,147,216	\$ 505,732		\$ 505,732
1540 Buildings	\$ 55,188			\$ 55,188			\$ -
1545 Machinery & Equipment	\$ 82,129		\$ 126,822	\$ 208,951	\$ 9,800	\$ 30,645	\$ 40,445
1550 Computer Equipment	\$ 65,759			\$ 65,759	\$ 7,442		\$ 7,442
1555 Office Furniture & Fixtures	\$ 9,310			\$ 9,310			\$ -
1560 Land and Land Rights	\$ 43,500	\$ 235,739		\$ 279,239			\$ -
1570 Vehicles	\$ 102,507			\$ 102,507	\$ 15,667		\$ 15,667
1590 Work In Progress		\$ 30,125		\$ 30,125		\$ 13,593	\$ 13,593
1595 Accumulated Depreciation	\$ (4,396,254)	\$ (371,827)	\$ (33,851)	\$ (4,801,932)	\$ (1,103,130)	\$ (4,104)	\$ (1,107,234)
<b>Book Value of Water System Assets</b>	<b>\$ 5,341,297</b>	<b>\$ 1,986,435</b>	<b>\$ 401,947</b>	<b>\$ 7,729,679</b>	<b>\$ 1,079,826</b>	<b>\$ 82,553</b>	<b>\$ 1,162,379</b>
<b>Financial Reserves</b>							
1099 Cash Balance	\$ 899,909	\$ 4,654,295	\$ 1,776,215	\$ 7,330,419	\$ (25,287)	\$ 491,609	\$ 466,322
1210 A/R - Utility Billing	\$ 36,852			\$ 36,852	\$ 30,479		\$ 30,479
1220 Unbilled A/R - Utility Billing	\$ 331,000			\$ 331,000	\$ 29,000		\$ 29,000
1240 Receivable - Other	\$ 9,902			\$ 9,902			\$ -
2135 Accrued Interest Receivable	\$ 10,750	\$ 51,732	\$ 19,919	\$ 82,401	\$ 90	\$ 5,514	\$ 5,604
2100 Accounts Payable	\$ (47,143)	\$ (4,594)		\$ (51,737)	\$ (11,333)	\$ (2,160)	\$ (13,493)
2110 Refunds Payable - MQ	\$ (939)			\$ (939)			\$ -
2120 Construction Meter Deposits	\$ (11,500)			\$ (11,500)			\$ -
2130 Compensated Absences Payable	\$ (23,005)			\$ (23,005)	\$ (2,397)		\$ (2,397)
2320 Accrued Wages	\$ (4,352)			\$ (4,352)	\$ (968)		\$ (968)
2450 Deposit - Pomeroy Water Line				\$ -	\$ (24,170)		\$ (24,170)
2510 Revenue Bonds - Current Portion	\$ (9,000)			\$ (9,000)			\$ -
2610 Revenue Bonds Payable	\$ (129,000)			\$ (129,000)			\$ -
<b>Financial Reserves</b>	<b>\$ 1,063,474</b>	<b>\$ 4,701,433</b>	<b>\$ 1,796,134</b>	<b>\$ 7,561,041</b>	<b>\$ (4,586)</b>	<b>\$ 494,963</b>	<b>\$ 490,377</b>
<b>Total of Assets and Reserves</b>	<b>\$ 6,404,771</b>	<b>\$ 6,687,868</b>	<b>\$ 2,198,081</b>	<b>\$ 15,290,720</b>	<b>\$ 1,075,240</b>	<b>\$ 577,516</b>	<b>\$ 1,652,756</b>
No. of Equivalent Meters				3,579			636
Water System Assets per Equivalent Meter				\$ 2,160			\$ 1,829
Financial Reserves per Equivalent Meter				\$ 2,112			\$ 772
Total Assets and Reserves per Equivalent Meter				\$ 4,272			\$ 2,600
	<b>Alternative Bi-Monthly Payments Over:</b>						
	<b>Lump Sum</b>	<b>1 Year</b>	<b>2 Years</b>	<b>5 Years</b>	<b>10 Years</b>	<b>Interest</b>	
<b>Blacklake Equity Surcharge (\$/ Eq. Mtr.)</b>	\$ 1,672	\$ 286.82	\$ 146.98	\$ 63.21	\$ 35.52	5.0%	
Annual Revenue from Each Alternative	\$ 1,062,594	\$ 1,093,801	\$ 560,514	\$ 241,069	\$ 135,462		

The book value (original cost less accumulated depreciation) of water system assets of the Town Division totals about \$7.73 million. The book value of water system assets of the Blacklake Division totals about \$1.16 million. Cash reserves, adjusted for short term receivables, short term payables, deposits, and outstanding long-term debt, for the Town Division totals about \$7.56 million. Adjusted cash reserves for the Blacklake Division totals about \$490,000.

The denominator used to determine the equity surcharge is the number of 1" equivalent meters. This is similar to the number of accounts, but reflects the relative capacities of different meter sizes.



The Town Division has 3,579 equivalent meters and the Blacklake Division has 636 equivalent meters.

The relative investment in water system assets and financial resources of customers in the Town and Blacklake Divisions is \$4,272 and \$2,600 per 1" equivalent meter, respectively. The difference between these two amounts is \$1,672 and represents the amount that customers of Blacklake should make to establish equity and parity in a combined water system.

Conceivably the equity surcharge could be paid by Blacklake water system customers in a single lump sum payment. However, alternative payment approaches are possible, which would allow the surcharge to be paid over time. At the request of the District, bi-monthly payments that would last for one, two, five, or ten years were developed for the Board of Director's consideration. Bi-monthly payment alternatives all assume a 5.0 percent interest rate.

If paid entirely in a lump sum, the Blacklake equity surcharge would provide about \$1.06 million for the combined water system. The District could potentially allow each customer to elect whether to pay the lump sum amount or one or more of the bi-monthly surcharge approaches. For purposes of preparing the financial plan included in Section II of this report, it was assumed that the equity surcharge would be paid over ten years by all Blacklake customers. This is the most financially conservative assumption for planning purposes. Any other payment approach would result in the District receiving equity surcharge revenues sooner. The bi-monthly equity surcharge paid over a ten year period would be \$35.52 for water meters up to 1". A complete equity surcharge schedule for different meter sizes and payment periods is included in Exhibit I-1, in the Executive Summary of this report.

### **Water Rate Calculations**

Because the financial plan analyses presented in Section II indicate that previously adopted water rates are sufficient to meet the combined water utilities needs for the next two years, no further water rate changes are recommended at this time. However, the study did include exploring other water rate structures (which might have been adopted had previously adopted water rates been shown to be insufficient for near-term needs), and the results of those analyses are described herein.

The calculation of water rates involves a three-step process. First, the annual water rate revenue requirement must be determined. The water rate revenue requirement is that amount of revenues to be generated annually to meet operating and capital program needs with consideration of other water system revenues and reserves. Annual water rate revenue requirements were determined using the five-year financial plan model described in the previous section. The second step in the rate setting process is a cost of service analysis accomplished by the allocation of water system costs to rate components. Finally, the third step in the process is rate design and the development of water rate schedules.

### **Annual Water Rate Revenue Requirement**

The annual water rate revenue requirements were determined for each fiscal year of the planning period using the five-year financial planning model. Because the District has adjusted water rates at the beginning of each calendar year, fiscal year revenue requirements were converted into calendar year revenue requirements. Estimated current calendar year water rate revenues as well as future water rate requirements for the next five years are summarized below. The percentage change in the rate revenue requirement differs from the percentage change in overall level of rates