

# NIPOMO COMMUNITY SERVICES DISTRICT

Wednesday, August 15, 2007

9:30 A. M.

## SPECIAL MEETING AGENDA AND NOTICE

### BOARD of DIRECTORS

MICHAEL WINN, PRESIDENT  
LARRY VIERHEILIG, VICE PRESIDENT  
ED EBY, DIRECTOR  
CLIFFORD TROTTER, DIRECTOR  
JAMES HARRISON, DIRECTOR

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BRUCE BUEL, GENERAL MANAGER  
LISA BOGNUDA, ASSIST. ADMINISTRATOR  
DONNA JOHNSON, BOARD SECRETARY  
JON SEITZ, GENERAL COUNSEL  
DAN MIGLIAZZO, UTILITY SUPERVISOR

### MEETING LOCATION

District Board Room  
148 S. Wilson Street  
Nipomo, California

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**Public Comment will be received on each agenda item**

- A. CALL TO ORDER, ROLL CALL, AND FLAG SALUTE**
- B. RECEIVE UPDATE FROM FUGRO WEST ON DEVELOPMENT OF PROPOSAL FOR ADDITIONAL GEO-HYDROLOGY EVALUATION OF SOUTHLAND WWTF DISPOSAL**  
ACTION REQUESTED: Receive Presentation and Discuss Progress
- C. DISCUSS BASIS FOR CALCULATION OF SEWER USER FEES**  
ACTION REQUESTED: Provide Policy Guidance
- D. REVIEW RATE STRUCTURE PRESENTATION, PROPOSE A COMBINED WATER USER FEE RATE STRUCTURE, AND DIRECT THE REED GROUP TO INCORPORATE THE PROPOSED RATE STRUCTURE INTO THE RATE REPORT**  
ACTION REQUESTED: Propose a Combined Water User Fee Rate Structure
- E. ADJOURN**

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*\*\*\* End Special Meeting Notice \*\*\**

TO: BOARD OF DIRECTORS  
FROM: BRUCE BUEL *BB*  
DATE: AUGUST 10, 2007

**AGENDA ITEM  
B  
AUGUST 15, 2007**

RECEIVE UPDATE ON SOUTHLAND WWTF DISPOSAL EVALUATION

**ITEM**

Receive Update from Fugro West on development of proposal for additional geo-hydrological evaluation of Southland WWTF disposal [RECEIVE PRESENTATION].

**BACKGROUND**

On July 23, 2007, your Honorable Board accepted Fugro West's Phase I Report ("Hydrologic Characterization – Southland WWTF") and requested Fugro to submit a proposal for their Phase II research. Staff met with Fugro and Boyle to discuss the required research on July 26, 2007 and then with RWQCB staff on August 3, 2007. RWQCB staff has agreed to respond in writing within three weeks to the District's questions regarding the significance of discharge to Nipomo Creek, the potential for discharge to the groundwater aquifer below the existing percolation ponds, and the potential for discharge to new areas along Mesa Road (See attached Figure 8-1 from Boyle June 2007 Evaluation of Water Supply Alternatives). RWQCB staff also indicated a willingness to schedule a non-hearing presentation to the RWQCB when NCSD has developed a proposal.

Dr. Shawn Roberts of Fugro is scheduled to review the pending issues with your Board at this meeting.

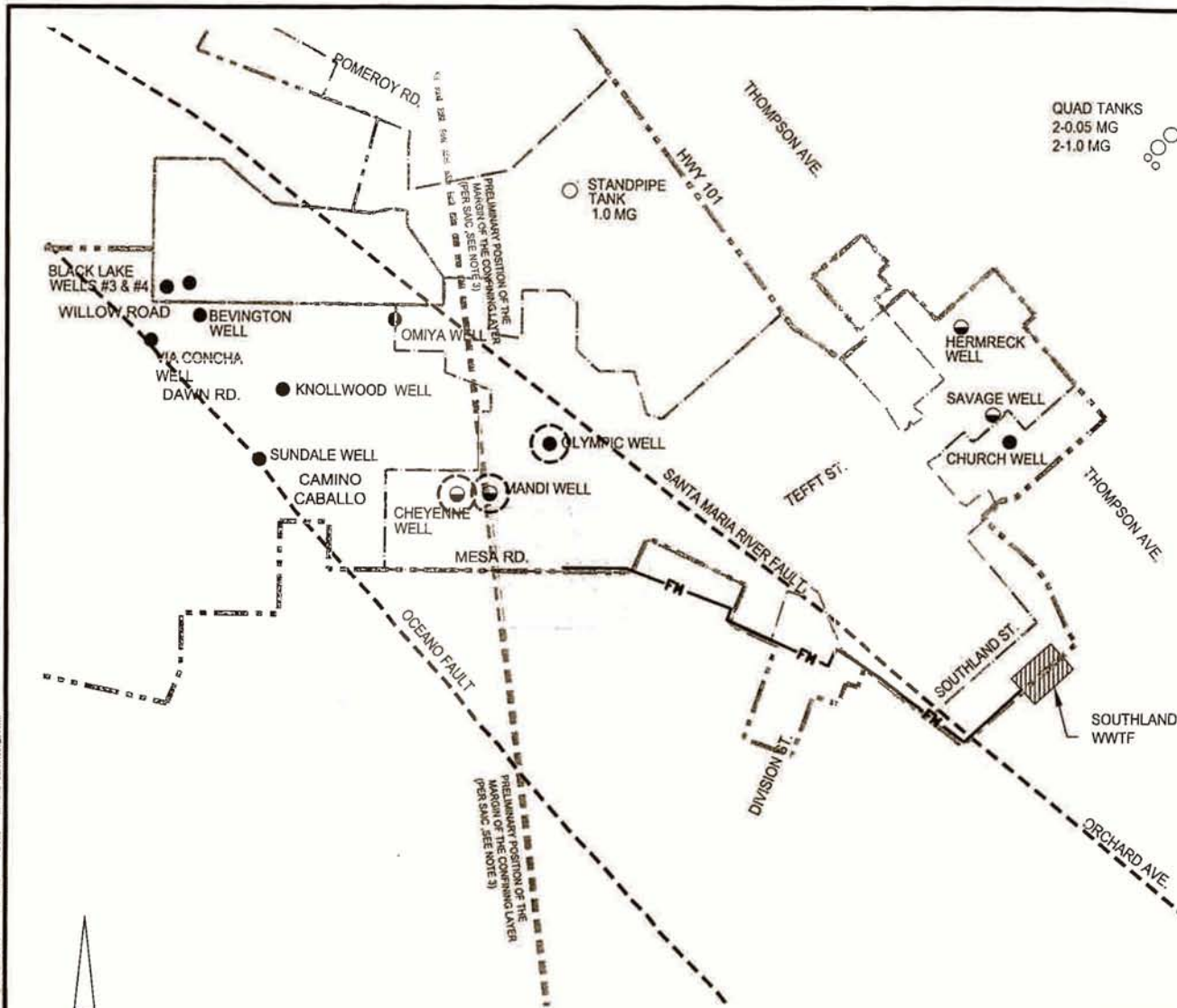
**RECOMMENDATION**

Staff believes that RWQCB input is vital to directing the upcoming research and has directed Fugro to wait on compiling its Phase II Proposal until that input is available. Staff expects that your Honorable Board will be able to consider a focused Fugro proposal at your September 12, 2007 Meeting.

**ATTACHMENT**

- Figure 8-1 from Boyle 2007 Evaluation of Water Supply Alternatives

T:\BOARD MATTERS\BOARD MEETINGS\BOARD LETTER\BOARD LETTER 2007\Southland Disposal Update.DOC



**NOTES:**

- POTENTIAL GROUNDWATER RECHARGE LOCATIONS AND PIPELINE ALIGNMENTS ARE DERIVED FROM THE 2007 GTA EVALUATION OF POTENTIAL RECHARGE LOCATIONS.
- PER SECTION 60320.010 OF CDHS GROUNDWATER RECHARGE REUSE DRAFT REGULATIONS (JAN. 4, 2007), RECYCLED WATER SHALL NOT BE EXTRACTED WITHIN 500 FEET OF ANY GRRP SURFACE SPREADING AREA.
- POSSIBLE LOCATION OF EASTERN MARGIN OF POSSIBLE CONFINING LAYER.

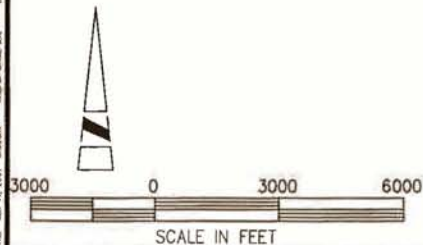
**LEGEND**

- POTENTIAL GROUNDWATER RECHARGE LOCATION (SEE NOTE 1)
- NIPOMO CSD WELLS
- NIPOMO CSD WELLS (STANDBY)
- NIPOMO CSD TANKS
- FUTURE WATER SYSTEM SERVICE AREA BOUNDARY
- EXISTING WATER SYSTEM SERVICE AREA BOUNDARY
- APPROXIMATE FAULT LINE
- RECYCLED WATER FORCE MAIN

QUAD TANKS  
 2-0.05 MG  
 2-1.0 MG

THE REGULAR POSITION OF THE MARGIN OF THE CONFINING LAYER (PER SMC SEE NOTE 3)

DATE: Jul 11, 2007 8:50am USER: rmanes



NIPOMO CSD EVALUATION OF  
 SUPPLEMENTAL WATER ALTERNATIVES  
 GROUNDWATER RECHARGE OF RECYCLED  
 WATER FROM SOUTHLAND WWTF

BEC  
 PROJECT NO.  
 19996.32

FIGURE  
 8-1

TO: BOARD OF DIRECTORS  
FROM: BRUCE BUEL *BB*  
DATE: AUGUST 10, 2007

**AGENDA ITEM  
C  
AUGUST 15, 2007**

**DISCUSS BASIS FOR CALCULATION OF SEWER FEES**

**ITEM**

Discuss basis for calculation of sewer fees [PROVIDE POLICY DIRECTION].

**BACKGROUND**

At your July 25, 2007 Board Meeting, your Honorable Board requested that this item be added to this agenda to facilitate a discussion of the advantages and disadvantages of flat sewer rates versus commodity based sewer rates for residential customers. Bob Reed of the Reed Group is scheduled to review the options with your Board at this meeting. Mr. Reed has prepared the attached summary to guide the discussion.

As background, 625 agencies out of the 753 agencies (83%) that participated in the SWRCB's FY 2006-07 Wastewater User Charge Survey report that they use a flat fee charge for residential customers. In San Luis Obispo County, 12 out of 18 agencies (67%) use a flat fee charge for residential customers (Arroyo Grande, Avila Beach CSD, Cambria CSD, Grover Beach, Morro Bay and San Simeon use commodity based charges).

California Urban Water Conservation Council's (CUWCC) BMP 11 calls for a commodity based sewer charge to encourage customers to conserve water. The State Legislature is considering making adoption of BMP 11 mandatory for agencies that receive State Grants or Loans. Attached is a memo from Water Conservation Specialist Celeste Whitlow summarizing this proposed legislation.

**RECOMMENDATION**

Staff believes that conversion to a commodity based residential sewer charge would promote conservation, but any such conversion is confusing to the District's customers and must be phased in over time with a substantial outreach effort. Staff recommends that the Board stay with the flat sewer rate for this cycle and determine if the District should prepare for a phase in during the 2011-2014 cycle.

**ATTACHMENTS**

- Reed Group Issue Summary
- Memo re AB 1420

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# Residential Sewer Rate Options

- Single flat rate for all single family customers
  - Based on average winter water use for all single family customers
- Individual flat rate for each single family customer
  - Based on individual minimum water use during winter season
    - May include a minimum and/or a cap
- Water usage based bills for each single family customer
  - Based on bi-monthly water use with appropriate discharge factor to exclude estimated irrigation usage
  - May include a service charge



# Memorandum

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**To:** Bruce Buel, General Manager  
**From:** Celeste Whitlow, Conservation Specialist (CW)  
**Date:** 8/9/2007  
**Re:** AB 1420, CUWCC's New BMP 11, and implications for State loans and funding to water purveyors.

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State Assembly Bill AB1420 has been proceeding through the legislative process and is scheduled to be heard in the Senate Appropriations Committee on 8/20/2007. This Bill, proposed to take effect on January 1, 2009, is seeking to amend Sections 10631.5 and 10644 of, and to add Section 10631.7 to, the Water Code, relating to water, water demand management measures, and water management grant or loan funds.

Quoting from the Legislative Counsel's Digest, "*Existing law requires an urban water supplier to prepare and adopt an urban water management plan that includes a description of the supplies' water demand management measures that are currently being implanted or scheduled for implementation. Existing law requires the Department of Water Resources to take into consideration whether the urban water supplier is implementing or has scheduled for implementation the water demand management activities that the supplier identified in its urban water management plan in evaluating applications for grants and loans financed by specified bond funds.*"

The current proposed Bill changes would delete the part relating to the evaluation of grant or loan applications financed by specified bond funds. Instead, the Bill "*...would require the terms of, and eligibility for, any water management grant or loan made to an urban water supplier and awarded or administered by the department, the State Water Resources Control Board, or the California Bay-Delta Authority, with certain exceptions, to be conditioned on the implementation of the water demand management measures described in the urban water management plan as determined by the department.*"

The loans and grants would include funding for programs and projects for surface or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. To grant these funds, they will be looking for "exemplary" efforts to achieve these water management policies.

In 1991 urban water purveyors, environmental organizations and other interested parties signed the Memorandum of Understanding Regarding Urban Water Conservation in California. It established the California Urban Water Conservation Council, which published 14 Best Management Practices. NCSD is not a signer of the MOU. However, the accepted standards in the water conservation field follow these 14 BMPs.

August 9, 2007

Throughout the Bill's proposed changes, reference is made to the CUWCC. The DWR will likely get information from the CUWCC (water suppliers who signed the MOU have to submit information on their BMP status, and the CUWCC has become a depository of information in this regard).

For the water suppliers who meet "standards of excellence" regarding their progress on fulfilling their urban water management plans and meeting best management practices, they will be put on a list which will be available to State entities making loans or grants.

It seems likely that the CUWCC's 14 BMPs will be tied to State loans and grants in the future.

The CUWCC's new BMP 11 (pertaining to conservation pricing) states "*Conservation pricing of sewer services provides incentives to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service, and billing for sewer service based on metered water use...."*

The District may, in the future, wish to apply for State grants or loans. It seems likely that a good-faith demonstration of meeting the CUWCC's 14 BMPs will be part of the requirements, if not by name, by practice.

Therefore, keying residential sewer rates to their metered water rates would not only be another incentive for water conservation, but would keep our options for State loans and grants in the future.

## **California Urban Water Conservation Council Best Management Practices for Urban Water Conservation**

1. Water survey programs for single-family residential and multi-family residential customers
2. Residential plumbing retrofit.
3. System water audits, leak detection and repair.
4. Metering with commodity rates for all new connections and retrofit of existing connections.
5. Large landscape conservation programs and incentives.
6. High-efficiency washing machine rebate programs.
7. Public information programs.
8. School education programs.
9. Conservation programs for all commercial, industrial and institutional accounts.
10. Wholesale agency assistance program.
11. Conservation pricing.
12. Conservation coordinator.
13. Water waste prohibition.
14. Residential ultra-low flow toilet (ULFT) replacement program



## 11. Retail Conservation Pricing

### Part I - Retail Water Service Rates

#### A. Implementation

BMP 11 promotes water conserving retail water rate structures. BMP 11 recognizes that each agency or water enterprise fund has a unique rate setting system and history. When creating a rate case, professional judgments are made to determine whether costs are accounted to a variable or fixed cost center by the staff of the agency. The final water rate case is an accumulation of all the decisions and judgments made by staff and supplemented by the financial projections leading an agency to establish its final water rate recommendation. BMP 11 is not intended to supplant this process, but rather to reinforce the need for Water Agencies to establish a strong nexus between volume-related system costs and volumetric commodity rates.

In *Bighorn-Desert View Water Agency v. Virjil* the California Supreme Court applied Proposition 218's provisions embodied in Articles XIII C and D of the California Constitution to ongoing water service. In addition, Article XIII D, Section 6 imposes procedural and substantive requirements on new or increased fees or charges for on-going water service. The Council considers the conservation principles of BMP 11 to be compatible with the cost of service requirements of Proposition 218. However, should a case arise in which a Water Agency's good faith efforts were unable to meet BMP 11's requirements due to legal constraints (e.g. Proposition 218), this would be grounds for exemption, as specified in MOU Section 4.5.

**Definition:** Conservation pricing provides economic incentives (a price signal) to customers to use water efficiently. Because conservation pricing requires a volumetric rate, metered water service is a necessary condition of conservation pricing. Unmetered water service is inconsistent with the definition of conservation pricing.

Conservation pricing requires volumetric rate(s). While this BMP defines a minimum percentage of water sales revenue from volumetric rates, the goal of this BMP is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs (which may include utility long-run marginal costs), financial stability, revenue sufficiency, and customer equity.

In addition to volumetric rate(s), conservation pricing may also include one or more of the following other charges:

1. Service connection charges designed to recover the separable costs of adding new customers to the water distribution system.

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\* Proposition 218 was approved by California voters in November 1996.

BMP 11 REVISION

2. Monthly or bimonthly meter/service charges to recover costs unrelated to the volume of water delivered or new service connections and to ensure system revenue sufficiency.
3. Special rates and charges for temporary service, fire protection service, and other irregular services provided by the utility.

The following volumetric rate designs are potentially consistent with the above definition:

1. **Uniform rate** in which the volumetric rate is constant regardless of the quantity consumed.
2. **Seasonal rates** in which the volumetric rate reflects seasonal variation in water delivery costs.
3. **Tiered rates** in which the volumetric rate increases as the quantity used increases.
4. **Allocation-based rates** in which the consumption tiers and respective volumetric rates are based on water use norms and water delivery costs established by the utility.

**Adequacy of Volumetric Rate(s):** A retail agency's volumetric rate(s) shall be deemed sufficiently consistent with the definition of conservation pricing when it satisfies at least one of the following two options.

**Option 1:** Let V stand for the total annual revenue from the volumetric rate(s) and M stand for total annual revenue from customer meter/service (fixed) charges, then:

$$\frac{V}{V + M} \geq 70\%$$

This calculation shall only include utility revenues from volumetric rates and monthly or bimonthly meter/service charges. It shall not include utility revenues from new service connection charges; revenue from special rates and charges for temporary service, fire protection, or other irregular services; revenue from grants or contributions from external sources in aid of construction or program implementation; or revenue from property or other utility taxes.

**Option 2:** Use the rate design model included with the Municipal Water and Wastewater Rate Manual published by the Canadian Water & Wastewater Association with the signatory's water system and cost information to calculate V', the uniform volume rate based on the signatory's long-run incremental cost of service, and M', the associated meter charge. [Let HCF be annual water delivery

## BMP 11 REVISION

(in hundred cubic feet).] A signatory's volumetric rate(s) shall be deemed sufficiently consistent with the definition of conservation pricing if:

$$\frac{V}{V + M} \geq \frac{V'}{V' + M'}$$

The rate design model can be downloaded at [www.cuwcc.org/technical](http://www.cuwcc.org/technical).

This calculation shall only include utility revenues from volumetric rates and monthly or bimonthly meter/service charges. It shall not include utility revenues from new service connection charges; revenue from special rates and charges for temporary service, fire protection, or other irregular services; revenue from grants or contributions from external sources in aid of construction or program implementation; or revenue from property or other utility taxes.

### ***Exemptions and At Least As Effective As***

The exemption provisions in MOU Section 4.5 apply to BMP 11 in the same way they apply to other BMPs. Water supplier signatories meeting at least one of the three exemption conditions in MOU Section 4.5 may submit an exemption to the Council per the requirements of the MOU.

Water supplier signatories may pursue an "At Least As Effective As" implementation of BMP 11 per the Preamble to Exhibit 1 of the MOU. Water supplier signatories adopting an "At Least As Effective As" implementation of BMP 11 may adopt rates that do not meet the requirements of either Option 1 or Option 2 described in Section A provided the resulting water savings are at least as effective as those options.

### **BMP Refinement**

Within five years of the adoption of this BMP revision, the Council shall reconvene the BMP 11 Revision PAC to 1) assess rate of compliance with the revised BMP, 2) identify barriers to implementation, 3) assess its compatibility with Proposition 218 requirements, 4) initiate a water savings assessment appropriate to the data and project resources available to the Council, and 5) develop further refinements as needed to improve the BMP's effectiveness.

## **B. Implementation Schedule**

### **Agencies with fully metered service areas**

- a) Agencies signing the MOU prior to [DATE OF REVISION], implementation shall commence no later than July 1, 2007.

- b) Agencies signing the MOU after [DATE OF REVISION], implementation shall commence no later than July 1 of the year following the year the Agency signed the MOU.

**Agencies with partially metered service areas<sup>1</sup>**

- a) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 2010. [One year after Agency is to complete meter installation per BMP 4.]
- b) Agencies signing the MOU after December 31, 1997, implementation shall commence no later than July 1, 2013, or within seven years of signing the MOU, but in no case later than the metering deadline specified by state law. [One year after Agency is to complete meter installation per BMP 4.]

**C. Coverage Requirements**

Agency shall maintain a rate structure that satisfies at least one of the options specified in Section A. Conformance to Option 1 or Option 2 will first be assessed using the revenue from the most recent year. If the most recent year does not satisfy the option, the average revenue from the three (3) most recent years will be used.

**D. Requirements for Documenting BMP Implementation**

- a) Report the rate structure in effect for each customer class for the reporting period.
- b) Report the annual revenue derived from volume charges for each retail customer class, as defined in Section A.<sup>2</sup>
- c) Report the annual revenue derived from monthly or bimonthly meter/service charges for each retail customer class, as defined in Section A.
- d) If agency does not comply with Option 1 in Section A, report v' and m' as determined by the Canadian Water & Wastewater Association rate design model described in Section A.
- e) If agency does not comply with Option 1 in Section A, submit to the Council the completed Canadian Water & Wastewater Association rate design model described in Section A.

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<sup>1</sup> Agencies following this schedule must be on the Council's list of Agencies with partially metered service areas.

<sup>2</sup> Note: compliance with BMP 11 will be determined based on the Agency's total revenue from all retail customer classes.

**E. Criteria to Determine BMP Implementation Status**

An agency shall be in compliance with BMP 11 provided the following is true for the Agency's total revenue from all retail customer classes within four years after [date of revision]:

- For Option 1:  $V \geq 70\% \times 1.00$
- For Option 2:  $V \geq V' \times 1.00$

The following schedule is intended to guide agencies in implementing this revision in phases:

YEARS AFTER START YEAR	FOR OPTION 1	FOR OPTION 2
1	$V \geq 70\% \times 0.70$	$V \geq V' \times 0.70$
2	$V \geq 70\% \times 0.80$	$V \geq V' \times 0.80$
3	$V \geq 70\% \times 0.90$	$V \geq V' \times 0.90$
4	$V \geq 70\% \times 1.00$	$V \geq V' \times 1.00$

An agency shall not be required to increase the volumetric component of the rate structure by more than 10% in any single year until the full implementation is achieved.

**F. Water Savings Assumptions**

Not quantified

**Part II – Retail Wastewater Rates**

**A. Implementation**

This section applies to Water Agencies that provide retail sewer service. Water Agencies that do not provide retail sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

**Conservation pricing of sewer service provides incentives to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service, and billing for sewer service based on metered water use.** Conservation pricing of sewer service is also characterized by one or more of the following components: rates in which the unit rate is the same across all units of service (uniform rates); rates in which the unit rate increases as the quantity of units purchased increases (increasing block rates); rates in which the unit rate is based upon the long-run marginal cost or the cost of adding the next unit of capacity to the sewer system.

**Rates that charge customers a fixed amount per billing cycle for sewer service regardless of the units of service consumed do not satisfy the definition of conservation pricing of sewer service. Rates in which the typical bill is determined by high fixed charges and low commodity charges also do not satisfy the definition of conservation pricing of sewer service.**

**B. Implementation Schedule**

- 1) Agencies signing the MOU prior to December 31, 1997, implementation shall commence no later than July 1, 1998.
- 2) Agencies signing the MOU or becoming subject to the MOU after December 31, 1997, implementation shall commence no later than July 1 of the first year following the year the agency signed or became subject to the MOU.

**C. Coverage Requirements**

Agency shall maintain rate structure for sewer service consistent with definition of conservation pricing for sewer service in Part II, Section in A.

**D. Requirements for Documenting BMP Implementation**

- 1) Report annual revenue requirement for sewer service by customer class for the reporting period.
- 2) Report annual revenue for sewer service from commodity charges by customer class for the reporting period.
- 3) Report rate structure by customer class for sewer service.

**E. Criteria to Determine BMP Implementation Status**

Agency rate design for sewer service shall be consistent with definition of conservation pricing for sewer service in Section A.

**F. Water Savings Assumptions**

Not quantified.

TO: BOARD OF DIRECTORS  
FROM: BRUCE BUEL *B813*  
DATE: AUGUST 10, 2007

**AGENDA ITEM  
D  
AUGUST 15, 2007**

**PROPOSE A COMBINED WATER USER FEE RATE STRUCTURE**

**ITEM**

Review rate structure presentation, propose a combined water user fee rate structure and direct the Reed Group to incorporate the proposed rate structure into the Rate Report [PROPOSE A COMBINED WATER USER FEE RATE STRUCTURE].

**BACKGROUND**

At your July 25, 2007 Meeting, your Honorable Board directed Bob Reed of the Reed Group to report back at this meeting with additional information on user fee rate structures for the Combined Water Fund. Attached is a power point presentation regarding rate structures. Bob Reed is scheduled to present this material to your Board at the meeting. Mr. Reed will also be able to run alternative scenarios at the Board's request given a 15 minute break for preparation.

Your Honorable Board should note that the two alternative rate structures presented in the attachment are different than the rate structure set forth in the July 19, 2007 draft Combined Water System Financial Plan and User Rate Report. The alternatives presented in the attachment have been restructured to reward small users for saving water and to discourage large users from using large amounts of water. The earlier rate structure would have resulted in large rate increases to the small water users and rate reductions to medium size users.

Your Honorable Board should also note that the charges by use amount for Black Lake customers set forth in the incidence table at the end of the presentation intentionally omit the new surcharge which will be added to all Blacklake Water bills for which the customer does not pre-pay their share of the loan.

Following the July 25, 2007 Board Meeting, Mr. Bill Nelson submitted the attached e-mail requesting that the Board determine if the \$2.5 million in the equipment replacement fund should be used to offset the borrowing required to fund the supplemental water project. Staff requests that the Board discuss this question after it reaches closure on the rate structure so that Mr. Reed can react accordingly.

**RECOMMENDATION**

Staff recommends that your Honorable Board receive Mr. Reed's presentation and either propose one to the alternatives described therein or another alternative developed through the discussion so that Mr. Reed can revise the Report and republish for final acceptance at your August 29, 2007 Meeting. Of the two Alternative Rate Structures presented, staff favors Alternative A since it appears to achieve a more equitable spread of costs and it sends the right signals to the customers in terms of water conservation.

In regards to the use of reserves to reduce borrowing, staff believes that the proposal to use the \$2.5 million is prudent since it reduces not only the amount of interest paid on the borrowed funds but it also reduces the front end expenses (4%+) of the borrowing.

**ATTACHMENTS**

- Water Rate Restructuring Workshop Presentation
- 7/28/07 E-Mail from Bill Nelson

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# Nipomo Community Services District

## *Water Rate Restructuring Workshop*

August 15, 2007

*The Reed Group, Inc.*



# Outline

- Potential residential sewer rate structures – conceptual discussion
- Current water rate structure
- Customer accounts and water usage
- Potential rate structures
- Proposed alternative rate structures
- Decisions/direction from Board
- Next steps



# Residential Sewer Rate Options

- Single flat rate for all single family customers
  - Based on average winter water use for all single family customers
- Individual flat rate for each single family customer
  - Based on individual minimum water use during winter season
    - May include a minimum and/or a cap
- Water usage based bills for each single family customer
  - Based on bi-monthly water use with appropriate discharge factor to exclude estimated irrigation usage
  - May include a service charge



# Current Water Rates

- Water rates include bi-monthly fixed service and litigation charge, and commodity rates
  - 2-tier commodity rates for single family
  - Uniform commodity rate for other classes
- Current rates for Blacklake are higher than Town



# Current Water Rates (2007)

	Town Division	Blacklake Division	Litigation Charge (2)
<b>Bi-Monthly Service Charges</b>			
Up to 1"	\$ 20.64	\$ 22.08	\$ 6.32
1 1/2"	\$ 58.60	\$ 61.09	\$ 14.36
2"	\$ 92.81	\$ 96.24	\$ 19.92
3"	\$ 172.68	\$ 178.33	\$ 27.92
4"	\$ 286.77	\$ 295.58	\$ 36.00
6"	\$ 571.73	\$ 588.42	\$ 59.58
8"	\$ 913.83	\$ 939.98	\$ 68.08
<b>Water Usage Rates (\$/HCF)</b>			
Single Family Residential			
Tier 1 (0-40 HCF)	\$ 1.38	\$ 1.42	
Tier 2 (>40 HCF)	\$ 2.35	\$ 2.49	
Non-Residential (3)			
All Usage	\$ 1.74	\$ 1.73	

**Notes:**

- (1) Effective January 1, 2007 as adopted with Ordinance 2005-103.
- (2) Applies to all water connections in both the Town and Blacklake Divisions.
- (3) Includes multi-family, commercial, irrigation, agricultural, industrial, and construction



# Rate setting objectives

- Meet revenues needs of the combined water system (from financial plan)
- Meet cost of service requirements as required by Proposition 218
- Improve conservation incentive embodied in water rates

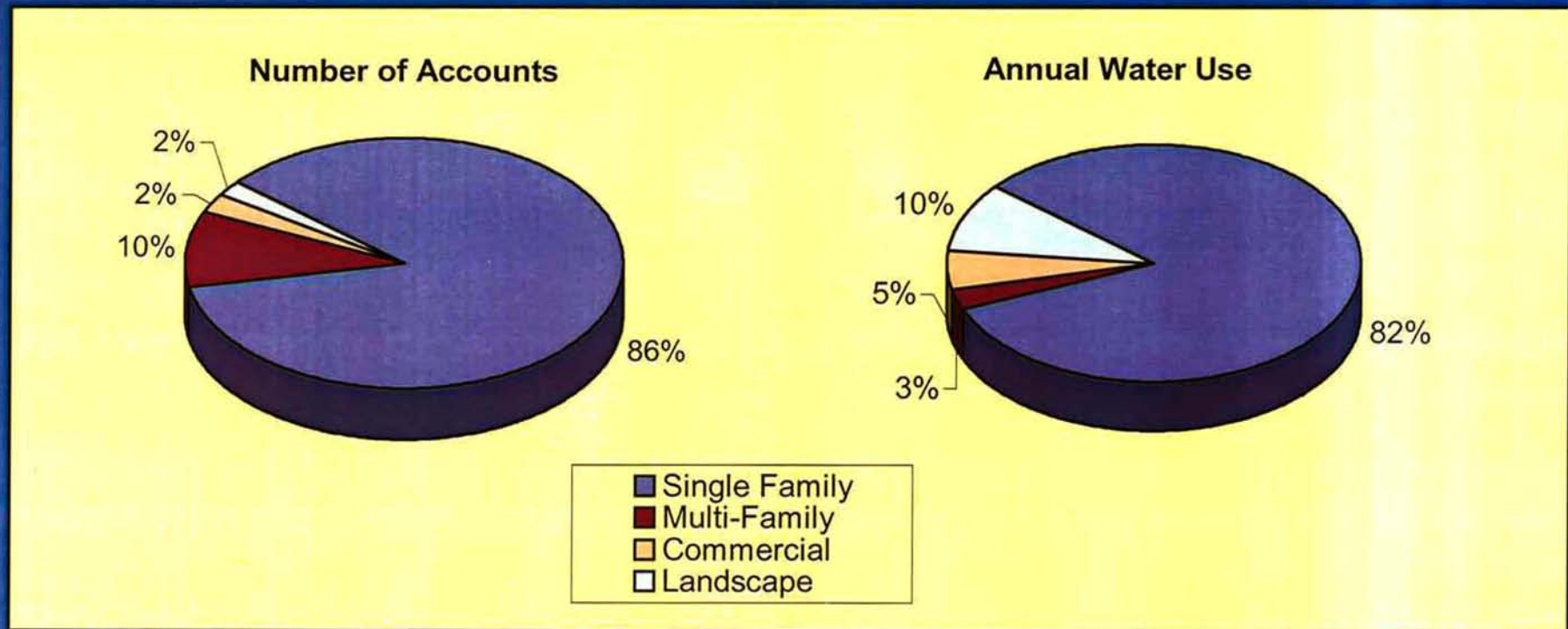


# Combined Water System Rates (Current Structure in 2008)

	2008	
	Combined Water (1)	Litigation Charge (2)
<b>Bi-Monthly Service Charges</b>		
Up to 1"	\$ 24.57	\$ 6.32
1 1/2"	\$ 70.15	\$ 14.36
2"	\$ 111.17	\$ 19.92
3"	\$ 206.88	\$ 27.92
4"	\$ 343.60	\$ 36.00
6"	\$ 685.36	\$ 59.58
8"	\$ 1,095.54	\$ 68.08
<b>Water Usage Rates (\$/HCF)</b>		
Single Family Residential		
Tier 1 (0-40 HCF)	\$ 1.54	
Tier 2 (>40 HCF)	\$ 2.61	
Non-Residential (3)		
All Usage	\$ 1.91	
<b>Notes:</b>		
(1) Rates required to meet financial requirements and combine the Town and Blacklake water systems.		
(2) No changes proposed for the litigation charge.		



# Customer Accounts and Water Use Summary



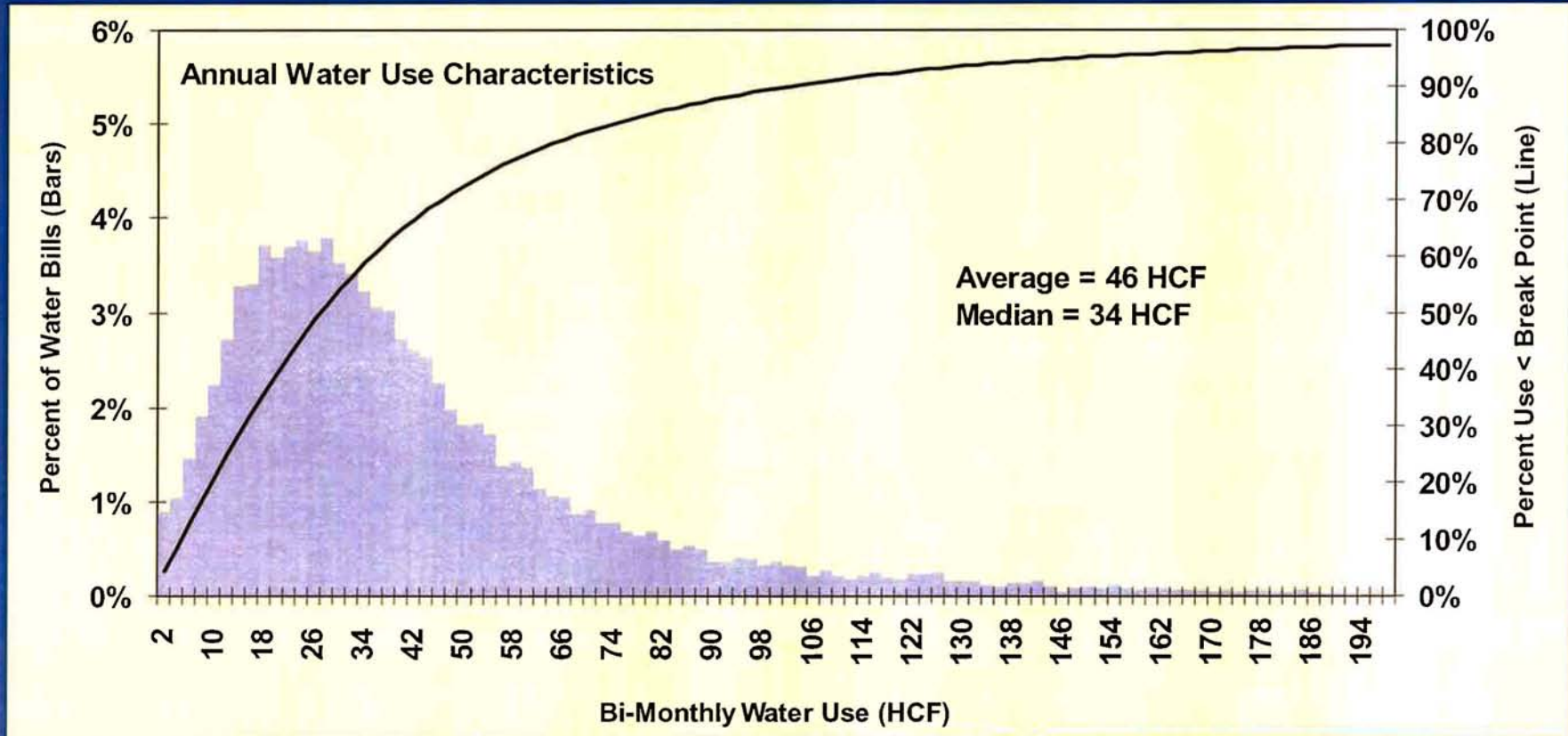


# Water Rate Structure Alternatives

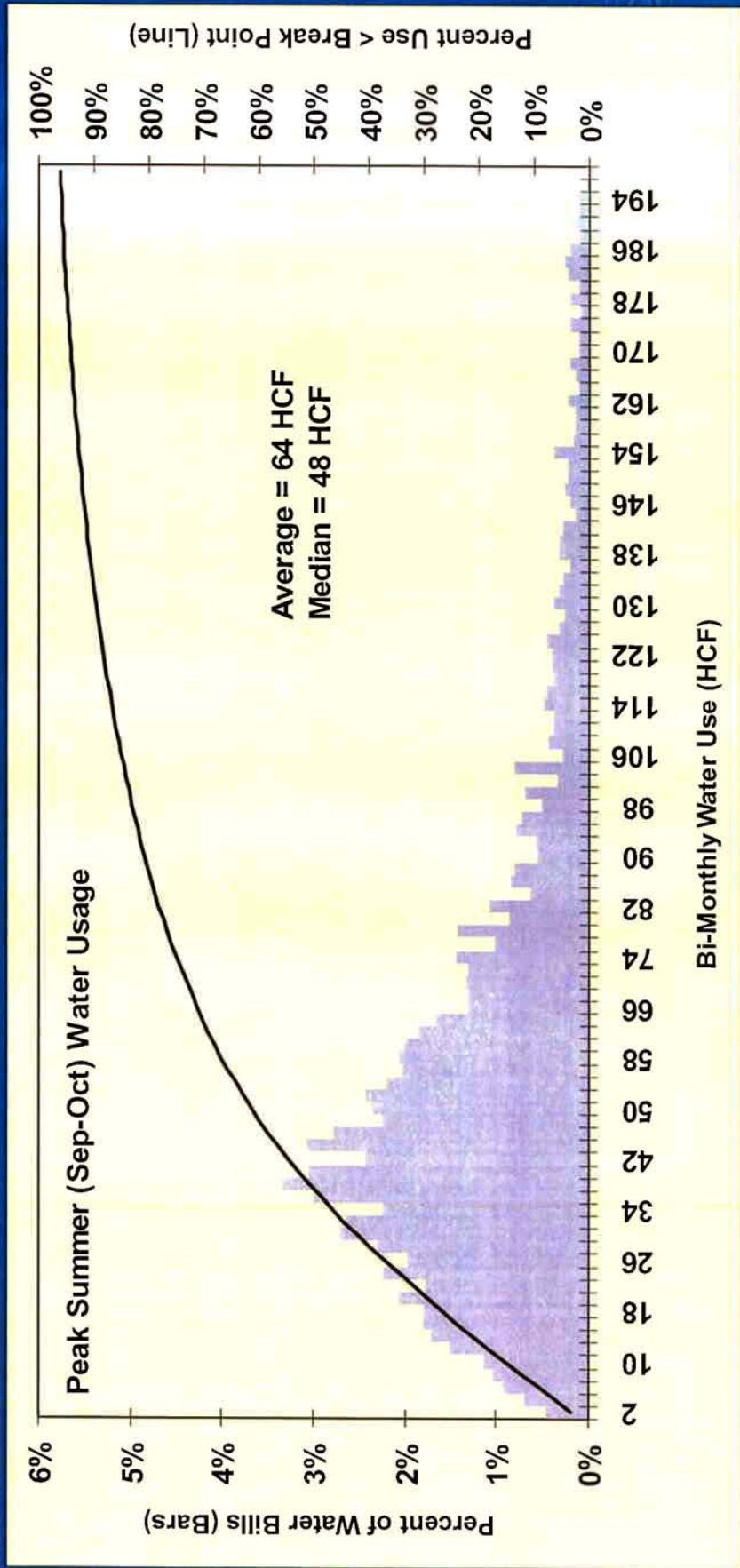
- *Reduce proportion of revenue from service charges for all customer classes*
- *Single family residential*
  - Increase tiers from 2-tiers to 3- or 4-tiers
  - Adjust break points around water use characteristics
  - Adjust tier steps to discourage excessive use
- *Multi-family residential*
  - Develop tiers based on a per-dwelling-unit water usage (not recommended)
- *Commercial accounts*
  - Develop tiers based on water usage within each meter size (not recommended)
  - Develop seasonal rates (not recommended)
- *Landscape irrigation accounts*
  - Develop seasonal rates (not recommended)
  - Water budget based tier rates based on water allocations determined from irrigated area and evapotranspiration data (not recommended)



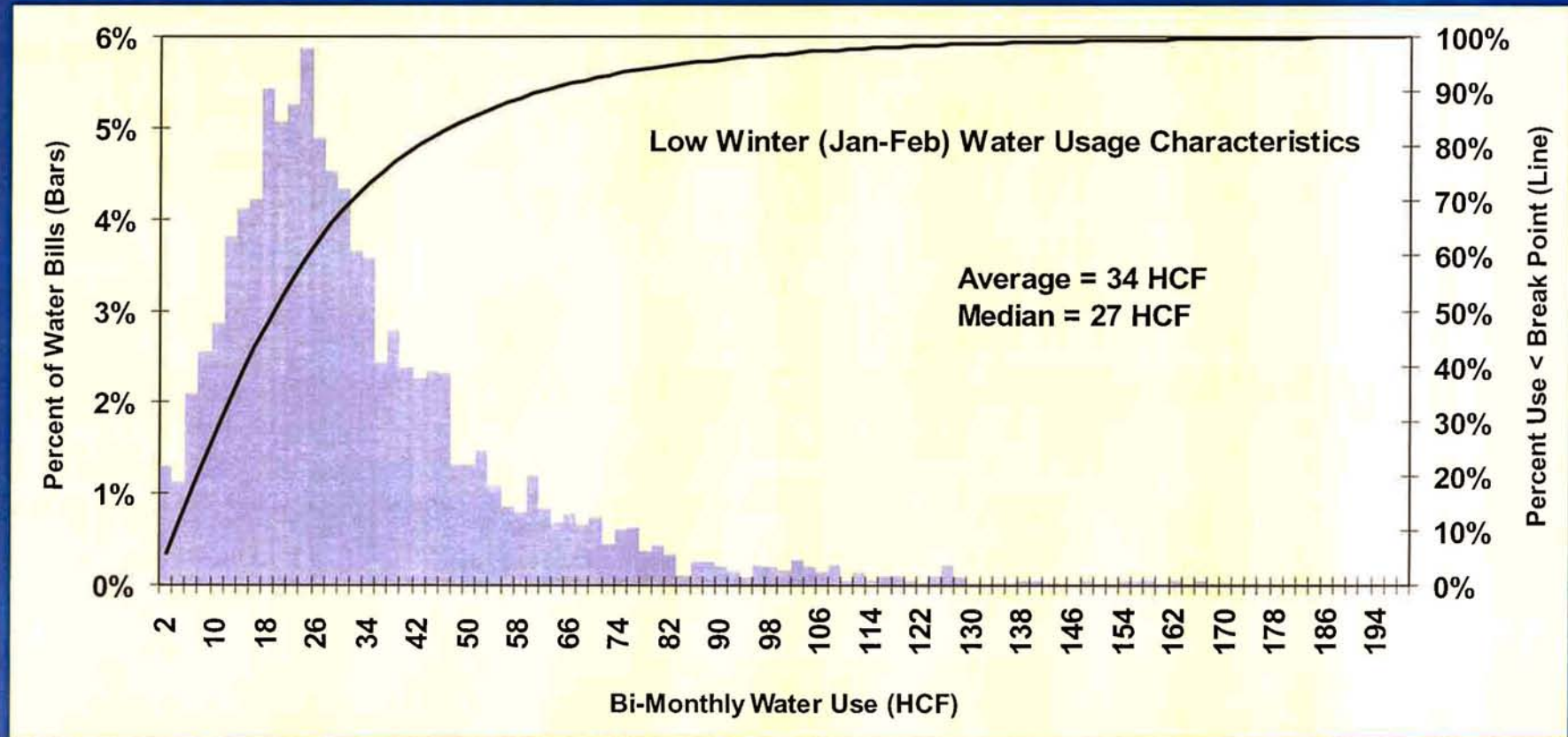
# Single Family Water Use



# Single Family Water Use



# Single Family Water Use



# Single Family Water Use Characteristics

	Annual	Summer	Winter
Median	34	48	27
Average	46	64	34
75 <sup>th</sup> Percentile	55	77	42
85 <sup>th</sup> Percentile	73	104	53
95 <sup>th</sup> Percentile	123	174	81
Standard Dev.	76	59	32
Avg. + 1 Std Dev	122	123	66



# Alternative A

	Use Range (HCF/2-mo.)	Tier Rate (\$/HCF)	Rate Step	% of Cust. Bills in Tier	% of Water Use in Tier
<b>1st Tier</b>	0-27	\$1.57		37%	49%
<b>2nd Tier</b>	28-48	\$1.96	+25%	32%	22%
<b>3rd Tier</b>	49-104	\$2.61	+33%	23%	19%
<b>4th Tier</b>	>104 HCF	\$3.91	+50%	7%	10%

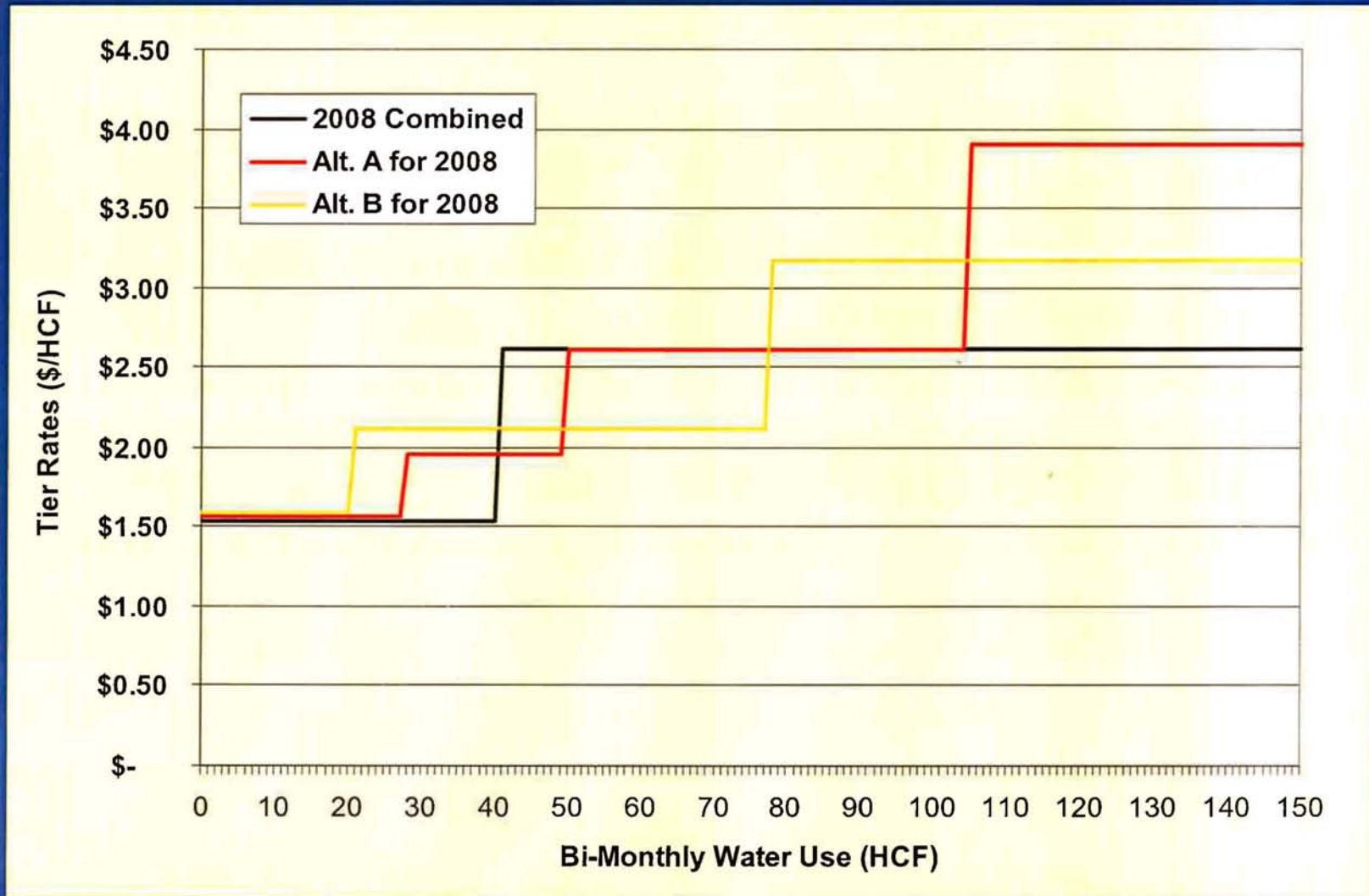


# Alternative B

	Use Range (HCF/2-mo.)	Tier Rate (\$/HCF)	Rate Step	% of Cust. Bills in Tier	% of Water Use in Tier
<b>1st Tier</b>	0-20	\$1.59		26%	40%
<b>2nd Tier</b>	21-77	\$2.12	+33%	60%	45%
<b>3rd Tier</b>	>77 HCF	\$3.18	+50%	14%	15%

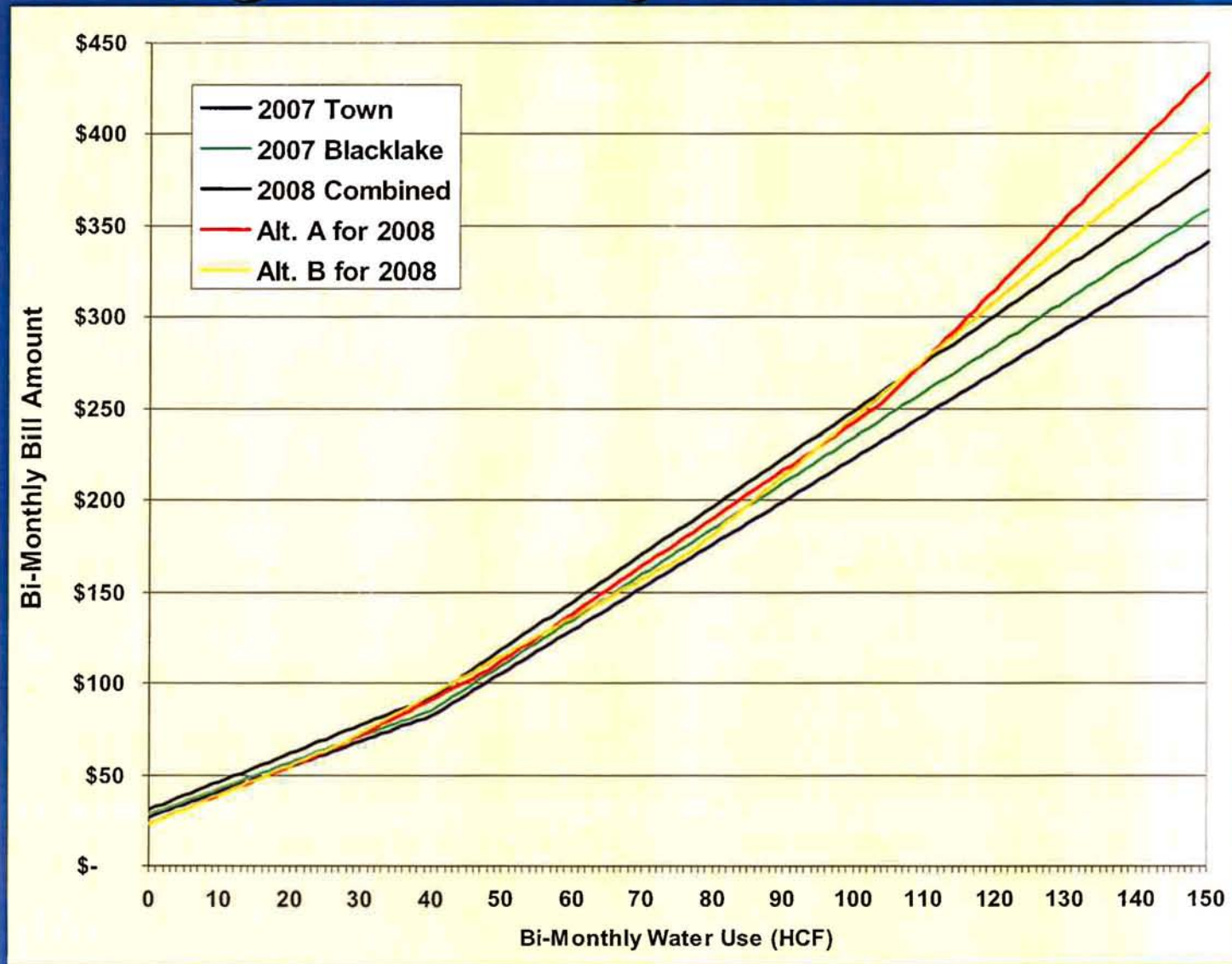


# Single Family Tier Structures





# Single Family Water Bills



# Alternative A Water Rate Schedule

	Current Rates (1)		Proposed Combined Water Rates			Litigation Charge (2)
	Town	Blacklake	Jan. 2008	Jan. 2009	Jan. 2010	
<b>Bi-Monthly Service Charges</b>						
Up to 1"	\$ 20.64	\$ 22.08	\$ 17.14	\$ 19.20	\$ 21.50	\$ 6.32
1 1/2"	\$ 58.60	\$ 61.09	\$ 47.85	\$ 53.59	\$ 60.02	\$ 14.36
2"	\$ 92.81	\$ 96.24	\$ 75.48	\$ 84.54	\$ 94.68	\$ 19.92
3"	\$ 172.68	\$ 178.33	\$ 139.97	\$ 156.77	\$ 175.58	\$ 27.92
4"	\$ 286.77	\$ 295.58	\$ 232.09	\$ 259.94	\$ 291.13	\$ 36.00
6"	\$ 571.73	\$ 588.42	\$ 462.34	\$ 517.82	\$ 579.96	\$ 59.58
8"	\$ 913.83	\$ 939.98	\$ 738.71	\$ 827.36	\$ 926.64	\$ 68.08
<b>Water Usage Rates (\$/HCF)</b>						
Single Family Residential						
Tier 1 (0-27 HCF)	\$ 1.38	\$ 1.42	\$ 1.57	\$ 1.76	\$ 1.97	
Tier 2 (28-48 HCF)	\$ 2.35	\$ 2.49	\$ 1.96	\$ 2.20	\$ 2.46	
Tier 3 (49-104 HCF)	(3)	(3)	\$ 2.61	\$ 2.92	\$ 3.27	
Tier 4 (>104 HCF)			\$ 3.91	\$ 4.38	\$ 4.91	
Non-Residential (4)						
All Usage	\$ 1.74	\$ 1.73	\$ 2.08	\$ 2.33	\$ 2.61	

**Notes:**

- (1) Effective January 1, 2007 as adopted with Ordinance 2005-103.
- (2) No changes are proposed for the litigation charge, which applies to all water connections until resolution of groundwater litigation.
- (3) Under the current rates, the Tier 1 rate applies to the first 40 HCF and the Tier 2 rate applies to use in excess of 40 HCF.
- (4) Includes multi-family, commercial, irrigation, agricultural, industrial, and construction.



# Alternative B Water Rate Schedule

	Current Rates (1)		Proposed Combined Water Rates			Litigation Charge (2)
	Town	Blacklake	Jan. 2008	Jan. 2009	Jan. 2010	
<b>Bi-Monthly Service Charges</b>						
Up to 1"	\$ 20.64	\$ 22.08	\$ 17.14	\$ 19.20	\$ 21.50	\$ 6.32
1 1/2"	\$ 58.60	\$ 61.09	\$ 47.85	\$ 53.59	\$ 60.02	\$ 14.36
2"	\$ 92.81	\$ 96.24	\$ 75.48	\$ 84.54	\$ 94.68	\$ 19.92
3"	\$ 172.68	\$ 178.33	\$ 139.97	\$ 156.77	\$ 175.58	\$ 27.92
4"	\$ 286.77	\$ 295.58	\$ 232.09	\$ 259.94	\$ 291.13	\$ 36.00
6"	\$ 571.73	\$ 588.42	\$ 462.34	\$ 517.82	\$ 579.96	\$ 59.58
8"	\$ 913.83	\$ 939.98	\$ 738.71	\$ 827.36	\$ 926.64	\$ 68.08
<b>Water Usage Rates (\$/HCF)</b>						
Single Family Residential						
Tier 1 (0-20 HCF)	\$ 1.38	\$ 1.42	\$ 1.59	\$ 1.78	\$ 1.99	
Tier 2 (21-77 HCF)	\$ 2.35	\$ 2.49	\$ 2.12	\$ 2.37	\$ 2.65	
Tier 3 (>77 HCF)	(3)	(3)	\$ 3.18	\$ 3.56	\$ 3.99	
Non-Residential (4)						
All Usage	\$ 1.74	\$ 1.73	\$ 2.08	\$ 2.33	\$ 2.61	

**Notes:**

- (1) Effective January 1, 2007 as adopted with Ordinance 2005-103.
- (2) No changes are proposed for the litigation charge, which applies to all water connections until resolution of groundwater litigation.
- (3) Under the current rates, the Tier 1 rate applies to the first 40 HCF and the Tier 2 rate applies to use in excess of 40 HCF.
- (4) Includes multi-family, commercial, irrigation, agricultural, industrial, and construction.



# Next Steps

- Finalize rate schedules and reports based on Board and staff comments and direction
  - Late-August
  - Staff presents final recommendations on August 29<sup>th</sup>
- District prepares and mails notice of public hearing (per Proposition 218)
  - Early-September
- Hold community meetings on proposed rates
  - September 25<sup>th</sup>
- Hold public hearing to adopt water rates
  - November 14<sup>th</sup>



Single Family Water Bills *														
Usage	Current Structure			Alternative A					Alternative B					
	2007 Town	2007 Blacklake	2008 Combined	Alt. A for 2008	Town Change	Blacklake Change	Town %	BL %	Alt. B for 2008	Town Change	Blacklake Change	Town %	BL %	
0	\$ 26.96	\$ 28.40	\$ 30.89	\$ 23.46	\$ (3.50)	\$ (4.94)	-13%	-17%	\$ 23.46	\$ (3.50)	\$ (4.94)	-13%	-17%	
1	\$ 28.34	\$ 29.82	\$ 32.43	\$ 25.03	\$ (3.31)	\$ (4.79)	-12%	-16%	\$ 25.05	\$ (3.29)	\$ (4.77)	-12%	-16%	
2	\$ 29.72	\$ 31.24	\$ 33.97	\$ 26.60	\$ (3.12)	\$ (4.64)	-10%	-15%	\$ 26.64	\$ (3.08)	\$ (4.60)	-10%	-15%	
3	\$ 31.10	\$ 32.66	\$ 35.51	\$ 28.17	\$ (2.93)	\$ (4.49)	-9%	-14%	\$ 28.23	\$ (2.87)	\$ (4.43)	-9%	-14%	
4	\$ 32.48	\$ 34.08	\$ 37.05	\$ 29.74	\$ (2.74)	\$ (4.34)	-8%	-13%	\$ 29.82	\$ (2.66)	\$ (4.26)	-8%	-13%	
5	\$ 33.86	\$ 35.50	\$ 38.59	\$ 31.31	\$ (2.55)	\$ (4.19)	-8%	-12%	\$ 31.41	\$ (2.45)	\$ (4.09)	-7%	-12%	
6	\$ 35.24	\$ 36.92	\$ 40.13	\$ 32.88	\$ (2.36)	\$ (4.04)	-7%	-11%	\$ 33.00	\$ (2.24)	\$ (3.92)	-6%	-11%	
7	\$ 36.62	\$ 38.34	\$ 41.67	\$ 34.45	\$ (2.17)	\$ (3.89)	-6%	-10%	\$ 34.59	\$ (2.03)	\$ (3.75)	-6%	-10%	
8	\$ 38.00	\$ 39.76	\$ 43.21	\$ 36.02	\$ (1.98)	\$ (3.74)	-5%	-9%	\$ 36.18	\$ (1.82)	\$ (3.58)	-5%	-9%	
9	\$ 39.38	\$ 41.18	\$ 44.75	\$ 37.59	\$ (1.79)	\$ (3.59)	-5%	-9%	\$ 37.77	\$ (1.61)	\$ (3.41)	-4%	-8%	
10	\$ 40.76	\$ 42.60	\$ 46.29	\$ 39.16	\$ (1.60)	\$ (3.44)	-4%	-8%	\$ 39.36	\$ (1.40)	\$ (3.24)	-3%	-8%	
11	\$ 42.14	\$ 44.02	\$ 47.83	\$ 40.73	\$ (1.41)	\$ (3.29)	-3%	-7%	\$ 40.95	\$ (1.19)	\$ (3.07)	-3%	-7%	
12	\$ 43.52	\$ 45.44	\$ 49.37	\$ 42.30	\$ (1.22)	\$ (3.14)	-3%	-7%	\$ 42.54	\$ (0.98)	\$ (2.90)	-2%	-6%	
13	\$ 44.90	\$ 46.86	\$ 50.91	\$ 43.87	\$ (1.03)	\$ (2.99)	-2%	-6%	\$ 44.13	\$ (0.77)	\$ (2.73)	-2%	-6%	
14	\$ 46.28	\$ 48.28	\$ 52.45	\$ 45.44	\$ (0.84)	\$ (2.84)	-2%	-6%	\$ 45.72	\$ (0.56)	\$ (2.56)	-1%	-5%	
15	\$ 47.66	\$ 49.70	\$ 53.99	\$ 47.01	\$ (0.65)	\$ (2.69)	-1%	-5%	\$ 47.31	\$ (0.35)	\$ (2.39)	-1%	-5%	
16	\$ 49.04	\$ 51.12	\$ 55.53	\$ 48.58	\$ (0.46)	\$ (2.54)	-1%	-5%	\$ 48.90	\$ (0.14)	\$ (2.22)	0%	-4%	
17	\$ 50.42	\$ 52.54	\$ 57.07	\$ 50.15	\$ (0.27)	\$ (2.39)	-1%	-5%	\$ 50.49	\$ 0.07	\$ (2.05)	0%	-4%	
18	\$ 51.80	\$ 53.96	\$ 58.61	\$ 51.72	\$ (0.08)	\$ (2.24)	0%	-4%	\$ 52.08	\$ 0.28	\$ (1.88)	1%	-3%	
19	\$ 53.18	\$ 55.38	\$ 60.15	\$ 53.29	\$ 0.11	\$ (2.09)	0%	-4%	\$ 53.67	\$ 0.49	\$ (1.71)	1%	-3%	
20	\$ 54.56	\$ 56.80	\$ 61.69	\$ 54.86	\$ 0.30	\$ (1.94)	1%	-3%	\$ 55.26	\$ 0.70	\$ (1.54)	1%	-3%	
21	\$ 55.94	\$ 58.22	\$ 63.23	\$ 56.43	\$ 0.49	\$ (1.79)	1%	-3%	\$ 56.85	\$ 0.91	\$ (1.37)	2%	-2%	
22	\$ 57.32	\$ 59.64	\$ 64.77	\$ 58.00	\$ 0.68	\$ (1.64)	1%	-3%	\$ 58.44	\$ 1.12	\$ (1.20)	2%	-2%	
23	\$ 58.70	\$ 61.06	\$ 66.31	\$ 59.57	\$ 0.87	\$ (1.49)	1%	-2%	\$ 60.03	\$ 1.33	\$ (1.03)	2%	-2%	
24	\$ 60.08	\$ 62.48	\$ 67.85	\$ 61.14	\$ 1.06	\$ (1.34)	2%	-2%	\$ 61.62	\$ 1.54	\$ (0.86)	3%	-1%	
25	\$ 61.46	\$ 63.90	\$ 69.39	\$ 62.71	\$ 1.25	\$ (1.19)	2%	-2%	\$ 63.21	\$ 1.75	\$ (0.69)	3%	-1%	
26	\$ 62.84	\$ 65.32	\$ 70.93	\$ 64.28	\$ 1.44	\$ (1.04)	2%	-2%	\$ 64.80	\$ 1.96	\$ (0.52)	3%	-1%	
27	\$ 64.22	\$ 66.74	\$ 72.47	\$ 65.85	\$ 1.63	\$ (0.89)	3%	-1%	\$ 66.39	\$ 2.17	\$ (0.35)	3%	-1%	
28	\$ 65.60	\$ 68.16	\$ 74.01	\$ 67.42	\$ 2.21	\$ (0.35)	3%	-1%	\$ 68.51	\$ 2.91	\$ 0.35	4%	1%	
29	\$ 66.98	\$ 69.58	\$ 75.55	\$ 69.00	\$ 2.79	\$ 0.19	4%	0%	\$ 70.63	\$ 3.65	\$ 1.05	5%	2%	
30	\$ 68.36	\$ 71.00	\$ 77.09	\$ 70.57	\$ 3.37	\$ 0.73	5%	1%	\$ 72.75	\$ 4.39	\$ 1.75	6%	2%	
31	\$ 69.74	\$ 72.42	\$ 78.63	\$ 73.66	\$ 3.95	\$ 1.27	6%	2%	\$ 74.87	\$ 5.13	\$ 2.45	7%	3%	
32	\$ 71.12	\$ 73.84	\$ 80.17	\$ 75.65	\$ 4.53	\$ 1.81	6%	2%	\$ 76.99	\$ 5.87	\$ 3.15	8%	4%	
33	\$ 72.50	\$ 75.26	\$ 81.71	\$ 77.64	\$ 5.11	\$ 2.35	7%	3%	\$ 79.11	\$ 6.61	\$ 3.85	9%	5%	
34	\$ 73.88	\$ 76.68	\$ 83.25	\$ 79.63	\$ 5.69	\$ 2.89	8%	4%	\$ 81.23	\$ 7.35	\$ 4.55	10%	6%	
35	\$ 75.26	\$ 78.10	\$ 84.79	\$ 81.62	\$ 6.27	\$ 3.43	8%	4%	\$ 83.35	\$ 8.09	\$ 5.25	11%	7%	
36	\$ 76.64	\$ 79.52	\$ 86.33	\$ 83.61	\$ 6.85	\$ 3.97	9%	5%	\$ 85.47	\$ 8.83	\$ 5.95	12%	7%	
37	\$ 78.02	\$ 80.94	\$ 87.87	\$ 85.60	\$ 7.43	\$ 4.51	10%	6%	\$ 87.59	\$ 9.57	\$ 6.65	12%	8%	
38	\$ 79.40	\$ 82.36	\$ 89.41	\$ 87.59	\$ 8.01	\$ 5.05	10%	6%	\$ 89.71	\$ 10.31	\$ 7.35	13%	9%	
39	\$ 80.78	\$ 83.78	\$ 90.95	\$ 89.58	\$ 8.59	\$ 5.59	11%	7%	\$ 91.83	\$ 11.05	\$ 8.05	14%	10%	
40	\$ 82.16	\$ 85.20	\$ 92.49	\$ 91.57	\$ 9.17	\$ 6.13	11%	7%	\$ 93.95	\$ 11.79	\$ 8.75	14%	10%	
41	\$ 84.51	\$ 87.69	\$ 95.10	\$ 94.56	\$ 9.78	\$ 6.67	10%	6%	\$ 96.07	\$ 11.56	\$ 8.38	14%	10%	
42	\$ 86.86	\$ 90.18	\$ 97.71	\$ 97.55	\$ 8.39	\$ 5.07	10%	6%	\$ 98.19	\$ 11.33	\$ 8.01	13%	9%	
43	\$ 89.21	\$ 92.67	\$ 100.32	\$ 100.40	\$ 8.00	\$ 4.54	9%	5%	\$ 100.31	\$ 11.10	\$ 7.64	12%	8%	
44	\$ 91.56	\$ 95.16	\$ 102.93	\$ 103.40	\$ 7.61	\$ 4.01	8%	4%	\$ 102.43	\$ 10.87	\$ 7.27	12%	8%	
45	\$ 93.91	\$ 97.65	\$ 105.54	\$ 106.30	\$ 7.22	\$ 3.48	8%	4%	\$ 104.55	\$ 10.64	\$ 6.90	11%	7%	
46	\$ 96.26	\$ 100.14	\$ 108.15	\$ 108.00	\$ 6.83	\$ 2.95	7%	3%	\$ 106.67	\$ 10.41	\$ 6.53	11%	7%	
47	\$ 98.61	\$ 102.63	\$ 110.76	\$ 109.75	\$ 6.44	\$ 2.42	7%	2%	\$ 108.79	\$ 10.18	\$ 6.16	10%	6%	
48	\$ 100.96	\$ 105.12	\$ 113.37	\$ 111.75	\$ 6.05	\$ 1.89	6%	2%	\$ 110.91	\$ 9.95	\$ 5.79	10%	6%	
49	\$ 103.31	\$ 107.61	\$ 115.98	\$ 114.15	\$ 6.31	\$ 2.01	6%	2%	\$ 113.03	\$ 9.72	\$ 5.42	9%	5%	
50	\$ 105.66	\$ 110.10	\$ 118.59	\$ 116.53	\$ 6.57	\$ 2.13	6%	2%	\$ 115.15	\$ 9.49	\$ 5.05	9%	5%	
51	\$ 108.01	\$ 112.59	\$ 121.20	\$ 119.46	\$ 6.83	\$ 2.25	6%	2%	\$ 117.27	\$ 9.26	\$ 4.68	9%	4%	
52	\$ 110.36	\$ 115.08	\$ 123.81	\$ 121.41	\$ 7.09	\$ 2.37	6%	2%	\$ 119.39	\$ 9.03	\$ 4.31	8%	4%	
53	\$ 112.71	\$ 117.57	\$ 126.42	\$ 124.36	\$ 7.35	\$ 2.49	7%	2%	\$ 121.51	\$ 8.80	\$ 3.94	8%	3%	
54	\$ 115.06	\$ 120.06	\$ 129.03	\$ 126.91	\$ 7.61	\$ 2.61	7%	2%	\$ 123.63	\$ 8.57	\$ 3.57	7%	3%	
55	\$ 117.41	\$ 122.55	\$ 131.64	\$ 129.40	\$ 7.87	\$ 2.73	7%	2%	\$ 125.75	\$ 8.34	\$ 3.20	7%	3%	
56	\$ 119.76	\$ 125.04	\$ 134.25	\$ 132.88	\$ 8.13	\$ 2.85	7%	2%	\$ 127.87	\$ 8.11	\$ 2.83	7%	2%	
57	\$ 122.11	\$ 127.53	\$ 136.86	\$ 135.35	\$ 8.39	\$ 2.97	7%	2%	\$ 129.99	\$ 7.88	\$ 2.46	6%	2%	
58	\$ 124.46	\$ 130.02	\$ 139.47	\$ 138.84	\$ 8.65	\$ 3.09	7%	2%	\$ 132.11	\$ 7.65	\$ 2.09	6%	2%	
59	\$ 126.81	\$ 132.51	\$ 142.08	\$ 141.21	\$ 8.91	\$ 3.21	7%	2%	\$ 134.23	\$ 7.42	\$ 1.72	6%	1%	
60	\$ 129.16	\$ 135.00	\$ 144.69	\$ 143.69	\$ 9.17	\$ 3.33	7%	2%	\$ 136.35	\$ 7.19	\$ 1.35	6%	1%	
61	\$ 131.51	\$ 137.49	\$ 147.30	\$ 146.68	\$ 9.43	\$ 3.45	7%	3%	\$ 138.47	\$ 6.96	\$ 0.98	5%	1%	
62	\$ 133.86	\$ 139.98	\$ 149.91	\$ 149.64	\$ 9.69	\$ 3.57	7%	3%	\$ 140.59	\$ 6.73	\$ 0.61	5%	0%	
63	\$ 136.21	\$ 142.47	\$ 152.52	\$ 151.62	\$ 9.95	\$ 3.69	7%	3%	\$ 142.71	\$ 6.50	\$ 0.24	5%	0%	
64	\$ 138.56	\$ 144.96	\$ 155.13	\$ 154.61	\$ 10.21	\$ 3.81	7%	3%	\$ 144.83	\$ 6.27	\$ (0.13)	5%	0%	
65	\$ 140.91	\$ 147.45	\$ 157.74	\$ 157.10	\$ 10.47	\$ 3.93	7%	3%	\$ 146.95	\$ 6.04	\$ (0.50)	4%	0%	
66	\$ 143.26	\$ 149.94	\$ 160.35	\$ 160.47	\$ 10.73	\$ 4.05	7%	3%	\$ 149.07	\$ 5.81	\$ (0.87)	4%	-1%	
67	\$ 145.61	\$ 152.43	\$ 162.96	\$ 163.07	\$ 10.99	\$ 4.17	8%	3%	\$ 151.19	\$ 5.58	\$ (1.24)	4%	-1%	
68	\$ 147.96	\$ 154.92	\$ 165.57	\$ 166.18	\$ 11.25	\$ 4.29	8%	3%	\$ 153.31	\$ 5.35	\$ (1.61)	4%	-1%	
69	\$ 150.31	\$ 157.41	\$ 168.18	\$ 169.79	\$ 11.51	\$ 4.41	8%	3%	\$ 155.43	\$ 5.12	\$ (1.98)	3%	-1%	
70	\$ 152.66	\$ 159.90	\$ 170.79	\$ 172.40	\$ 11.77	\$ 4.53	8%	3%	\$ 157.55	\$ 4.89	\$ (2.35)	3%	-1%	
71	\$ 155.01	\$ 162.39	\$ 173.40	\$ 175.01	\$ 12.03	\$ 4.65	8%	3%	\$ 159.67	\$ 4.66	\$ (2.72)	3%	-2%	
72	\$ 157.36	\$ 164.88	\$ 176.01	\$ 177.62	\$ 12.29	\$ 4.77	8%	3%	\$ 161.79	\$ 4.43	\$ (3.09)	3%	-2%	
73	\$ 159.71	\$ 167.37	\$ 178.62	\$ 180.23	\$ 12.55	\$ 4.89	8%	3%	\$ 163.91	\$ 4.20	\$ (3.46)	3%	-2%	
74	\$ 162.06	\$ 169.86	\$ 181.23	\$ 182.84	\$ 12.81	\$ 5.01	8%	3%	\$ 166.03	\$ 3.97	\$ (3.83)	2%	-2%	
75	\$ 164.41	\$ 172.35	\$ 183.84	\$ 185.45	\$ 13.07	\$ 5.13	8%	3%	\$ 168.15	\$ 3.74	\$ (4.20)	2%	-2%	

Single Family Water Bills \*

Usage	Current Structure			Alternative A					Alternative B				
	2007 Town	2007 Blacklake	2008 Combined	Alt. A for 2008	Town Change	Blacklake Change	Town %	BL %	Alt. B for 2008	Town Change	Blacklake Change	Town %	BL %
76	\$ 166.76	\$ 174.84	\$ 186.45	\$ 180.09	\$ 13.33	\$ 5.25	8%	3%	\$ 170.27	\$ 3.51	\$ (4.57)	2%	-3%
77	\$ 169.11	\$ 177.33	\$ 189.06	\$ 182.70	\$ 13.59	\$ 5.37	8%	3%	\$ 172.39	\$ 3.28	\$ (4.94)	2%	-3%
78	\$ 171.46	\$ 179.82	\$ 191.67	\$ 185.31	\$ 13.85	\$ 5.49	8%	3%	\$ 175.57	\$ 4.11	\$ (4.25)	2%	-2%
79	\$ 173.81	\$ 182.31	\$ 194.28	\$ 187.92	\$ 14.11	\$ 5.61	8%	3%	\$ 178.75	\$ 4.94	\$ (3.56)	3%	-2%
80	\$ 176.16	\$ 184.80	\$ 196.89	\$ 190.53	\$ 14.37	\$ 5.73	8%	3%	\$ 181.93	\$ 5.77	\$ (2.87)	3%	-2%
81	\$ 178.51	\$ 187.29	\$ 199.50	\$ 193.14	\$ 14.63	\$ 5.85	8%	3%	\$ 185.11	\$ 6.60	\$ (2.18)	4%	-1%
82	\$ 180.86	\$ 189.78	\$ 202.11	\$ 195.75	\$ 14.89	\$ 5.97	8%	3%	\$ 188.29	\$ 7.43	\$ (1.49)	4%	-1%
83	\$ 183.21	\$ 192.27	\$ 204.72	\$ 198.36	\$ 15.15	\$ 6.09	8%	3%	\$ 191.47	\$ 8.26	\$ (0.80)	5%	0%
84	\$ 185.56	\$ 194.76	\$ 207.33	\$ 200.97	\$ 15.41	\$ 6.21	8%	3%	\$ 194.65	\$ 9.09	\$ (0.11)	5%	0%
85	\$ 187.91	\$ 197.25	\$ 209.94	\$ 203.58	\$ 15.67	\$ 6.33	8%	3%	\$ 197.83	\$ 9.92	\$ 0.58	5%	0%
86	\$ 190.26	\$ 199.74	\$ 212.55	\$ 206.19	\$ 15.93	\$ 6.45	8%	3%	\$ 201.01	\$ 10.75	\$ 1.27	6%	1%
87	\$ 192.61	\$ 202.23	\$ 215.16	\$ 208.80	\$ 16.19	\$ 6.57	8%	3%	\$ 204.19	\$ 11.58	\$ 1.96	6%	1%
88	\$ 194.96	\$ 204.72	\$ 217.77	\$ 211.41	\$ 16.45	\$ 6.69	8%	3%	\$ 207.37	\$ 12.41	\$ 2.65	6%	1%
89	\$ 197.31	\$ 207.21	\$ 220.38	\$ 214.02	\$ 16.71	\$ 6.81	8%	3%	\$ 210.55	\$ 13.24	\$ 3.34	7%	2%
90	\$ 199.66	\$ 209.70	\$ 222.99	\$ 216.63	\$ 16.97	\$ 6.93	8%	3%	\$ 213.73	\$ 14.07	\$ 4.03	7%	2%
91	\$ 202.01	\$ 212.19	\$ 225.60	\$ 219.24	\$ 17.23	\$ 7.05	9%	3%	\$ 216.91	\$ 14.90	\$ 4.72	7%	2%
92	\$ 204.36	\$ 214.68	\$ 228.21	\$ 221.85	\$ 17.49	\$ 7.17	9%	3%	\$ 220.09	\$ 15.73	\$ 5.41	8%	3%
93	\$ 206.71	\$ 217.17	\$ 230.82	\$ 224.46	\$ 17.75	\$ 7.29	9%	3%	\$ 223.27	\$ 16.56	\$ 6.10	8%	3%
94	\$ 209.06	\$ 219.66	\$ 233.43	\$ 227.07	\$ 18.01	\$ 7.41	9%	3%	\$ 226.45	\$ 17.39	\$ 6.79	8%	3%
95	\$ 211.41	\$ 222.15	\$ 236.04	\$ 229.68	\$ 18.27	\$ 7.53	9%	3%	\$ 229.63	\$ 18.22	\$ 7.48	9%	3%
96	\$ 213.76	\$ 224.64	\$ 238.65	\$ 232.29	\$ 18.53	\$ 7.65	9%	3%	\$ 232.81	\$ 19.05	\$ 8.17	9%	4%
97	\$ 216.11	\$ 227.13	\$ 241.26	\$ 234.90	\$ 18.79	\$ 7.77	9%	3%	\$ 235.99	\$ 19.88	\$ 8.86	9%	4%
98	\$ 218.46	\$ 229.62	\$ 243.87	\$ 237.51	\$ 19.05	\$ 7.89	9%	3%	\$ 239.17	\$ 20.71	\$ 9.55	9%	4%
99	\$ 220.81	\$ 232.11	\$ 246.48	\$ 240.12	\$ 19.31	\$ 8.01	9%	3%	\$ 242.35	\$ 21.54	\$ 10.24	10%	4%
100	\$ 223.16	\$ 234.60	\$ 249.09	\$ 242.73	\$ 19.57	\$ 8.13	9%	3%	\$ 245.53	\$ 22.37	\$ 10.93	10%	5%
101	\$ 225.51	\$ 237.09	\$ 251.70	\$ 245.34	\$ 19.83	\$ 8.25	9%	3%	\$ 248.71	\$ 23.20	\$ 11.62	10%	5%
102	\$ 227.86	\$ 239.58	\$ 254.31	\$ 247.95	\$ 20.09	\$ 8.37	9%	3%	\$ 251.89	\$ 24.03	\$ 12.31	11%	5%
103	\$ 230.21	\$ 242.07	\$ 256.92	\$ 250.56	\$ 20.35	\$ 8.49	9%	4%	\$ 255.07	\$ 24.86	\$ 13.00	11%	5%
104	\$ 232.56	\$ 244.56	\$ 259.53	\$ 253.17	\$ 20.61	\$ 8.61	9%	4%	\$ 258.25	\$ 25.69	\$ 13.69	11%	6%
105	\$ 234.91	\$ 247.05	\$ 262.14	\$ 257.08	\$ 22.17	\$ 10.03	9%	4%	\$ 261.43	\$ 26.52	\$ 14.38	11%	6%
106	\$ 237.26	\$ 249.54	\$ 264.75	\$ 260.99	\$ 23.73	\$ 11.45	10%	5%	\$ 264.61	\$ 27.35	\$ 15.07	12%	6%
107	\$ 239.61	\$ 252.03	\$ 267.36	\$ 264.90	\$ 25.29	\$ 12.87	11%	5%	\$ 267.79	\$ 28.18	\$ 15.76	12%	6%
108	\$ 241.96	\$ 254.52	\$ 269.97	\$ 268.81	\$ 26.85	\$ 14.29	11%	6%	\$ 270.97	\$ 29.01	\$ 16.45	12%	6%
109	\$ 244.31	\$ 257.01	\$ 272.58	\$ 272.72	\$ 28.41	\$ 15.71	12%	6%	\$ 274.15	\$ 29.84	\$ 17.14	12%	7%
110	\$ 246.66	\$ 259.50	\$ 275.19	\$ 276.63	\$ 29.97	\$ 17.13	12%	7%	\$ 277.33	\$ 30.67	\$ 17.83	12%	7%
111	\$ 249.01	\$ 261.99	\$ 277.80	\$ 280.54	\$ 31.53	\$ 18.55	13%	7%	\$ 280.51	\$ 31.50	\$ 18.52	13%	7%
112	\$ 251.36	\$ 264.48	\$ 280.41	\$ 284.45	\$ 33.09	\$ 19.97	13%	8%	\$ 283.69	\$ 32.33	\$ 19.21	13%	7%
113	\$ 253.71	\$ 266.97	\$ 283.02	\$ 288.36	\$ 34.65	\$ 21.39	14%	8%	\$ 286.87	\$ 33.16	\$ 19.90	13%	7%
114	\$ 256.06	\$ 269.46	\$ 285.63	\$ 292.27	\$ 36.21	\$ 22.81	14%	8%	\$ 290.05	\$ 33.99	\$ 20.59	13%	8%
115	\$ 258.41	\$ 271.95	\$ 288.24	\$ 296.18	\$ 37.77	\$ 24.23	15%	9%	\$ 293.23	\$ 34.82	\$ 21.28	13%	8%
116	\$ 260.76	\$ 274.44	\$ 290.85	\$ 300.09	\$ 39.33	\$ 25.65	15%	9%	\$ 296.41	\$ 35.65	\$ 21.97	14%	8%
117	\$ 263.11	\$ 276.93	\$ 293.46	\$ 304.00	\$ 40.89	\$ 27.07	16%	10%	\$ 299.59	\$ 36.48	\$ 22.66	14%	8%
118	\$ 265.46	\$ 279.42	\$ 296.07	\$ 307.91	\$ 42.45	\$ 28.49	16%	10%	\$ 302.77	\$ 37.31	\$ 23.35	14%	8%
119	\$ 267.81	\$ 281.91	\$ 298.68	\$ 311.82	\$ 44.01	\$ 29.91	16%	11%	\$ 305.95	\$ 38.14	\$ 24.04	14%	9%
120	\$ 270.16	\$ 284.40	\$ 301.29	\$ 315.73	\$ 45.57	\$ 31.33	17%	11%	\$ 309.13	\$ 38.97	\$ 24.73	14%	9%
121	\$ 272.51	\$ 286.89	\$ 303.90	\$ 319.64	\$ 47.13	\$ 32.75	17%	11%	\$ 312.31	\$ 39.80	\$ 25.42	15%	9%
122	\$ 274.86	\$ 289.38	\$ 306.51	\$ 323.55	\$ 48.69	\$ 34.17	18%	12%	\$ 315.49	\$ 40.63	\$ 26.11	15%	9%
123	\$ 277.21	\$ 291.87	\$ 309.12	\$ 327.46	\$ 50.25	\$ 35.59	18%	12%	\$ 318.67	\$ 41.46	\$ 26.80	15%	9%
124	\$ 279.56	\$ 294.36	\$ 311.73	\$ 331.37	\$ 51.81	\$ 37.01	19%	13%	\$ 321.85	\$ 42.29	\$ 27.49	15%	9%
125	\$ 281.91	\$ 296.85	\$ 314.34	\$ 335.28	\$ 53.37	\$ 38.43	19%	13%	\$ 325.03	\$ 43.12	\$ 28.18	15%	9%
126	\$ 284.26	\$ 299.34	\$ 316.95	\$ 339.19	\$ 54.93	\$ 39.85	19%	13%	\$ 328.21	\$ 43.95	\$ 28.87	15%	10%
127	\$ 286.61	\$ 301.83	\$ 319.56	\$ 343.10	\$ 56.49	\$ 41.27	20%	14%	\$ 331.39	\$ 44.78	\$ 29.56	16%	10%
128	\$ 288.96	\$ 304.32	\$ 322.17	\$ 347.01	\$ 58.05	\$ 42.69	20%	14%	\$ 334.57	\$ 45.61	\$ 30.25	16%	10%
129	\$ 291.31	\$ 306.81	\$ 324.78	\$ 350.92	\$ 59.61	\$ 44.11	20%	14%	\$ 337.75	\$ 46.44	\$ 30.94	16%	10%
130	\$ 293.66	\$ 309.30	\$ 327.39	\$ 354.83	\$ 61.17	\$ 45.53	21%	15%	\$ 340.93	\$ 47.27	\$ 31.63	16%	10%
131	\$ 296.01	\$ 311.79	\$ 330.00	\$ 358.74	\$ 62.73	\$ 46.95	21%	15%	\$ 344.11	\$ 48.10	\$ 32.32	16%	10%
132	\$ 298.36	\$ 314.28	\$ 332.61	\$ 362.65	\$ 64.29	\$ 48.37	22%	15%	\$ 347.29	\$ 48.93	\$ 33.01	16%	11%
133	\$ 300.71	\$ 316.77	\$ 335.22	\$ 366.56	\$ 65.85	\$ 49.79	22%	16%	\$ 350.47	\$ 49.76	\$ 33.70	17%	11%
134	\$ 303.06	\$ 319.26	\$ 337.83	\$ 370.47	\$ 67.41	\$ 51.21	22%	16%	\$ 353.65	\$ 50.59	\$ 34.39	17%	11%
135	\$ 305.41	\$ 321.75	\$ 340.44	\$ 374.38	\$ 68.97	\$ 52.63	23%	16%	\$ 356.83	\$ 51.42	\$ 35.08	17%	11%
136	\$ 307.76	\$ 324.24	\$ 343.05	\$ 378.29	\$ 70.53	\$ 54.05	23%	17%	\$ 360.01	\$ 52.25	\$ 35.77	17%	11%
137	\$ 310.11	\$ 326.73	\$ 345.66	\$ 382.20	\$ 72.09	\$ 55.47	23%	17%	\$ 363.19	\$ 53.08	\$ 36.46	17%	11%
138	\$ 312.46	\$ 329.22	\$ 348.27	\$ 386.11	\$ 73.65	\$ 56.89	24%	17%	\$ 366.37	\$ 53.91	\$ 37.15	17%	11%
139	\$ 314.81	\$ 331.71	\$ 350.88	\$ 390.02	\$ 75.21	\$ 58.31	24%	18%	\$ 369.55	\$ 54.74	\$ 37.84	17%	11%
140	\$ 317.16	\$ 334.20	\$ 353.49	\$ 393.93	\$ 76.77	\$ 59.73	24%	18%	\$ 372.73	\$ 55.57	\$ 38.53	18%	12%
141	\$ 319.51	\$ 336.69	\$ 356.10	\$ 397.84	\$ 78.33	\$ 61.15	25%	18%	\$ 375.91	\$ 56.40	\$ 39.22	18%	12%
142	\$ 321.86	\$ 339.18	\$ 358.71	\$ 401.75	\$ 79.89	\$ 62.57	25%	18%	\$ 379.09	\$ 57.23	\$ 39.91	18%	12%
143	\$ 324.21	\$ 341.67	\$ 361.32	\$ 405.66	\$ 81.45	\$ 63.99	25%	19%	\$ 382.27	\$ 58.06	\$ 40.60	18%	12%
144	\$ 326.56	\$ 344.16	\$ 363.93	\$ 409.57	\$ 83.01	\$ 65.41	25%	19%	\$ 385.45	\$ 58.89	\$ 41.29	18%	12%
145	\$ 328.91	\$ 346.65	\$ 366.54	\$ 413.48	\$ 84.57	\$ 66.83	26%	19%	\$ 388.63	\$ 59.72	\$ 41.98	18%	12%
146	\$ 331.26	\$ 349.14	\$ 369.15	\$ 417.39	\$ 86.13	\$ 68.25	26%	20%	\$ 391.81	\$ 60.55	\$ 42.67	18%	12%
147	\$ 333.61	\$ 351.63	\$ 371.76	\$ 421.30	\$ 87.69	\$ 69.67	26%	20%	\$ 394.99	\$ 61.38	\$ 43.36	18%	12%
148	\$ 335.96	\$ 354.12	\$ 374.37	\$ 425.21	\$ 89.25	\$ 71.09	27%	20%	\$ 398.17	\$ 62.21	\$ 44.05	19%	12%
149	\$ 338.31	\$ 356.61	\$ 376.98	\$ 429.12	\$ 90.81	\$ 72.51	27%	20%	\$ 401.35	\$ 63.04	\$ 44.74	19%	13%
150	\$ 340.66	\$ 359.10	\$ 379.59	\$ 433.03	\$ 92.37	\$ 73.93	27%	21%	\$ 404.53	\$ 63.87	\$ 45.43	19%	13%

\* THE PROPOSED BLACKLAKE EQUITY SURCHARGE (\$35.52 BI-MONTHLY) IS EXCLUDED FROM THIS TABLE.

## Bruce Buel

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**From:** Bruce Buel  
**Sent:** Monday, July 30, 2007 7:24 AM  
**To:** 'Bill Nelson'  
**Cc:** Beeby, Bob; 'Michael Winn'; lvorchid50@earthlink.net; CTrot71@aol.com; 'edeby@charter.net'; 'James Harrison'  
**Subject:** RE: Reed Report

Bill

Thanks for your thoughtful comments. It is nice to get feedback from a third set of eyes!!

In regards to the equipment replacement fund, Bob Reed and I were trying to avoid the high cost of borrowing money. I agree that the Board should look at both options when it discusses issues at its August 15<sup>th</sup> Workshop.

In regards to the Supplemental Water loan, I agree that the report should refer to a generic borrowing instead of a COP. I think Bob Reed assumed that we would issue COPs because that is what the Board did in 2004.

Best regards

Bruce Buel

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**From:** Bill Nelson [mailto:wjnelson2@charter.net]  
**Sent:** Saturday, July 28, 2007 12:26 PM  
**To:** Bruce Buel  
**Subject:** Reed Report

A couple of ideas to consider to make the acceptance of the water merge report easier. First, I was concerned about how to explain that we had 2.5 million surplus in the equipment replacement fund that could be transferred to the supplemental water fund. My reaction was that it should be used to reduce rates instead. At the meeting it was decided to use it to prepare our system for receiving surplus water as specified by Cannon. Why not leave it in the replacement/improvement fund as work that needs to be done and not show it as a surplus transfer? Second, I would state that the money needed for supplemental water over that raised by capacity charges will come from a loan that will cost XXX dollars and not identify it as being raised by a COP.

Maybe these are just my personal idiosyncrosies but I offer them for you to think about. Bill Nelson