

City of Bishop
WATER AND SEWER COMMISSION AGENDA
Conference Room – 377 West Line Street
Bishop, California 93514

Date: May 12, 2009
7:00 P.M.

NOTICE TO THE PUBLIC:

In compliance with the Americans with Disabilities Act, if you need Special assistance to participate in this meeting, please contact the City Clerk (760) 873-5863. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title II).

Any writing that is a public record that relates to an agenda item for open session distributed less than 72 hours prior to the meeting will be available for public inspection at City Hall, 377 West Line Street, Bishop, California, during normal business hours.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

PUBLIC COMMENT: NOTICE TO THE PUBLIC: This time is set aside to receive public comment on matters not calendared on the agenda.

APPROVAL OF MINUTES

- (1) Minutes of the Water and Sewer Commission meeting held on March 10, 2009 subject for approval.

NEW BUSINESS

- (2) 2008 Water and Sewer Study Review and Recommendations to Council

OLD BUSINESS:

- (3) Meter Readings
- (4) Cash balance and revenue & expenditures update on water and sewer reserves
- (5) Public Works report for March and April

STAFF AND COMMISSION REPORTS

ADJOURNMENT: The next regularly scheduled meeting will be July 14, 2009 at 7:00 P.M. in the City Council Chambers, 301 West Line Street, Bishop.



CITY OF BISHOP

377 West Line Street - Bishop, California 93514
Post Office Box 1236 - Bishop, California 93515
760-873-8458 publicworks@ca-bishop.us
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Minutes

Water and Sewer Commission

March 10, 2009

Call To Order:

Vice-Chairman Martin called the meeting to order at 7:05 P.M.

Pledge of Allegiance:

The Pledge of Allegiance was led by Vice Chairman Martin

Commissioners Present:

Martin, Bhakta and Underhill

Commissioners Absent:

Cross and Mathieu

Others Present:

Dave Grah, Public Works Director
Deston Dishion, Public Works Superintendent
Michele Thomas, Secretary

Public Comment:

There was no public comment.

(1) Approval of the Minutes:

Vice Chairman Martin moved to approve the minutes of the January 13, 2008 meeting as written and motion carried.

New Business:

(2) Storage Units

Grah explained how the City is charging storage unit accounts for water fees only and would like to discuss whether these accounts should be charged for sewer in addition even though they do not generate wastewater. Martin asked if different lots in city limits are charged in the same manner. Grah stated that very few developed lots within City limits are charged for water only and said the reason they were only charged for water is because they are not served by city sewer. It was noted there are large undeveloped lots around the city, especially in the north-west part of the city, that are not charged for either water or sewer. Dishion added that the empty lots we now charge water and sewer, previously had houses on the property and still have water and

sewer availability. At this time, our connections fees are \$0 and we will look into charging a connection fee when development seems more likely.

Commissioner Underhill brought up the question of how some of the accounts only receive water or sewer because their location is outside of city limits. Grah explained how our city limit line goes down West Line Street at one point and some properties in this area on the north side are within limits and properties on the south side are outside city limits.

The best time to change fees to an account is when the new fiscal year starts in July. Grah feels all properties in the city with the availability to water and sewer suitable for development, regardless if they should be charged for both.

Chairman Martin made a motion to go forward and start charging storage unit accounts for both water and sewer at the beginning of the 2009/2010 fiscal year in July.

Ayes: Underhill, Bhakta and Martin

MOTION CARRIED: 3-0

(3) Jim Tatum – Tri-County Fairgrounds

Dishion added that the city is not responsible for any water leaks or line breaks at the fairgrounds. Tatum has expressed to Dishion that he does understand now why and how the fairgrounds are charged. This was discussed in greater detail at an earlier meeting.

Old Business:

(4) Update on rate study.

We received the updated draft on Monday March 9th from Ecologic. We expect to have the finals prior to the next water/sewer commission meeting in May. Ecologic's draft studies suggest the water fees change from \$32.00 to \$29.05 per month and sewer fees from \$20.00 to \$26.61 per month. The consultant feels that our categories are pretty good with the exception of gas station islands and hotels and how they are charged for water and sewer. When we do receive the final draft, Grah would like the commission to discuss any recommendations for the City Council for any rate changes. Due to the delay in the rate study and how our billing system works, we will not be able to implement any changes until the 2010/2011 fiscal year. The rates from Ecologic came from our current assets, their depreciation span, and when we will need replacements.

(5) Meter Readings

Dishion went over the meter readings for all accounts a water meter is installed. The city does not charge by meters at this time. The meters are for city use only but provide interesting information on usage for various accounts.

(6) Cash Balance and Revenue & Expenditures Update On Water and Sewer Reserves

Grah discussed the reports for water and sewer reserves for January and February. In sewer, expenditures tend to exceed income.

(7) Public Works Reports for January and February

Dishion highlighted the reports for January and February. The Well Assessment project was completed tonight, with Well 2 put back together, treated with chlorine, and is now having chlorine flushed out of it. Well 2 had the bowls rebuilt, was videoed, and the casing was found to be in good shape. Well 4 has a new pump, new strainer, new head shaft, was also videoed and also shows to be in good shape. The well was pumping 1663 gallons a minute before we started and now we are pumping 1805 gallons with an 8% improvement. This increase will save us \$5,000 to \$6,000 a year in electricity.

Once Well 4 was put back together, there was a large amount of chlorine added to disinfect it and then the chlorine was flushed out. Once this was done, a water sample was taken and it came back positive for bacteria. We re-chlorinated and flushed and received a second positive bacteria sample. Again the flushing was done with chlorine, and for the third sample, it came back negative, so we put the well back in service. The positive bacteria sample showed total coliform, no e. coli or fecal indications. Last week when the weekly water samples were taken, they too came back positive for total coliform again. This could be caused by something dirty in the system, but at the moment there is no reason for this to happen that we can identify. We have notified the state as this is part of our procedure. We will continue to chlorinate and monitor the system. We have been told this problem will fix itself in time. We will be notifying the newspapers this week to inform the public of the issue.

Staff and Commission Reports:

There was no staff and commission report at this time.

Items to Be Discussed at the Meeting of May 12, 2009:

- Update on the Rate Study
- Meter Readings
- Cash balance and revenue and expenditures update on water and sewer reserves
- Well 4

Vice Chairman Martin adjourned the meeting at 8:22 P.M. The next regularly scheduled meeting will be Tuesday, May 12, 2009 at 7:00 P.M. in the City Council Chambers.

Clarence Martin, Vice-Chairman

Michele Thomas, Secretary

Memorandum

To: David Grah, Director of Public Works
From: Georgette Aronow, Catherine Hansford, and Erin Costa
CC: John Enloe
Date: May 5, 2009
RE: 2008 Water and Sewer Rate Study

ECO:LOGIC has reviewed and analyzed the City's water and sewer rate and revenue needs and have prepared separate technical memorandums for water and sewer that are attached hereto. This memo summarizes the findings and recommendations for the water and sewer enterprise funds. The methodology used in calculating the rates is described in detail in the attached technical memos.

It should be noted that particular focus was given to the projected costs for each fund. City staff carefully reviewed the current costs and projected future year costs for the water and sewer funds, paying particular attention to personnel costs and capital costs.

For personnel costs, the City adjusted the annual cost based on a review of actual time spent (based on an analysis of time cards) by staff on water or sewer tasks over the last few years. For capital costs, the City staff looked the total value of the water and sewer systems if constructed today and an assumption of life between replacement or reconstruction for each element in the system.

WATER ENTERPRISE FUND

Based on the comparison of projected expenses versus revenues, it is recommended that monthly water rates be reduced over the next two fiscal years, and then increase from current levels in fiscal year 2011-12. Alternatively, the City could maintain the current rates and set the additional revenue generated into a rate stabilization fund to minimize future year increases.

The calculated water rates are as follows:

**Table S-1
Calculated Water Rates**

| | Basis of Charge | EDU Factor | 2008-09 Current Rate | Calculated Monthly Charge | | | | |
|-------------------------|-----------------|------------|-------------------------|---------------------------|----------|----------|----------|----------|
| | | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Residential | | | | | | | | |
| Single Family Residence | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Multi-Family Residence | Unit | 0.80 | \$25.60 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Hotel Manager Quarters | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Non-Residential | | | | | | | | |
| Church* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Church Recreation Hall* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hospital* | Bed | 0.33 | \$10.67 | \$9.79 | \$10.36 | \$10.96 | \$11.60 | \$12.28 |
| Lodge or Meeting Hall* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hall Bar* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Public School | Student | 0.04 | \$1.28 | \$1.17 | \$1.24 | \$1.31 | \$1.39 | \$1.47 |
| Other School | Student | 0.03 | \$1.02 | \$0.94 | \$0.99 | \$1.05 | \$1.11 | \$1.17 |
| Fairgrounds | Each | 7.00 | \$224.00 | \$205.46 | \$217.40 | \$230.06 | \$243.50 | \$257.78 |
| Gas Station | Island | 0.40 | \$12.80 | \$11.74 | \$12.42 | \$13.15 | \$13.91 | \$14.73 |
| Self Serve Car Wash | Stall | 3.00 | \$96.00 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Beauty or Barber Shop | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Bar* | Seat | 0.08 | \$2.56 | \$2.35 | \$2.48 | \$2.63 | \$2.78 | \$2.95 |
| Hotel Room* | Each | 0.25 | \$8.00 | \$7.34 | \$7.76 | \$8.22 | \$8.70 | \$9.21 |
| Laundry* | Each | 3.00 | \$96.00 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Laundromat | per Washer | 0.80 | \$25.60 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Restaurant | Seat | 0.10 | \$3.20 | \$2.94 | \$3.11 | \$3.29 | \$3.48 | \$3.68 |
| Trailer Dump Facility | Each | 2.00 | \$64.00 | \$58.70 | \$62.11 | \$65.73 | \$69.57 | \$73.65 |
| Commercial/ Other Fac | Toilet | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |

* These fees are additive for each account.

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SEWER ENTERPRISE FUND

Sewer rates are projected to increase each year through 2013-14, with an increase of 22% necessary in the first year of rate increases, and approximately 6% annually thereafter. The projected increase in rates is primarily being driven by cost adjustment factors that are intended to reflect inflation and other cost escalation pressures, while no new growth is anticipated to spread the increased costs over a greater number of customers. The calculated sewer rates are shown in Table S-2.

Based on a review of current EDU factors and wastewater generation rates, ECO:LOGIC is recommending that the EDU factor for gas station islands and hotels be revised. Gas stations typically have significant wastewater generation as the customers use the restrooms frequently, particularly in towns such as Bishop, which see tourism traffic. It is recommended that the EDU factor be increased from the current 0.4 to 1.9 equivalent dwelling units, as is the standard generation rate as reported by the State Water Resources Control Board (SWRCB).

Hotel rooms can also produce large wastewater flow. It is recommended that the EDU factor be increased from 0.25 to 0.4 EDUs per room, also based on the SWRCB published standards.

**Table S-2
Calculated Sewer Rates**

| Customer Type | Basis of Charge | EDU Factor [1] | Current Rate | Calculated Rates | | | | |
|-------------------------|-----------------|----------------|--------------|------------------|----------|----------|----------|----------|
| | | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Residential | | | | | | | | |
| Single Family Residence | Each | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |
| Multi-Family Residence | Unit | 0.80 | \$16.00 | \$19.55 | \$20.77 | \$22.07 | \$23.44 | \$24.89 |
| Hotel Manager Quarters* | Each | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |
| Non-Residential | | | | | | | | |
| Church* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Church Recreation Hall* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Hospital* | Bed | 0.33 | \$6.67 | \$8.74 | \$9.29 | \$9.87 | \$10.48 | \$11.13 |
| Lodge or Meeting Hall* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Hall Bar* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Public School | Student | 0.04 | \$0.80 | \$0.88 | \$0.93 | \$0.99 | \$1.05 | \$1.12 |
| Other School | Student | 0.03 | \$0.64 | \$0.70 | \$0.75 | \$0.79 | \$0.84 | \$0.89 |
| Fairgrounds | Each | 7.00 | \$140.00 | \$164.86 | \$175.16 | \$186.10 | \$197.68 | \$209.91 |
| Gas Station | Island | 1.90 | \$8.00 | \$49.82 | \$52.93 | \$56.24 | \$59.75 | \$63.44 |
| Self Serve Car Wash | Stall | 3.00 | \$60.00 | \$54.21 | \$57.58 | \$61.17 | \$64.97 | \$68.98 |
| Beauty or Barber Shop | Each | 1.00 | \$20.00 | \$25.85 | \$27.47 | \$29.18 | \$31.00 | \$32.92 |
| Bar* | Seat | 0.08 | \$1.60 | \$1.95 | \$2.08 | \$2.21 | \$2.34 | \$2.49 |
| Hotel Room* | Each | 0.48 | \$5.00 | \$13.46 | \$14.31 | \$15.20 | \$16.15 | \$17.15 |
| Laundry* | Each | 3.00 | \$60.00 | \$99.83 | \$106.09 | \$112.73 | \$119.77 | \$127.19 |
| Landromat* | per Washer | 0.80 | \$16.00 | \$18.13 | \$19.27 | \$20.47 | \$21.74 | \$23.09 |
| Restaurant* | Seat | 0.10 | \$2.00 | \$3.50 | \$3.72 | \$3.96 | \$4.20 | \$4.47 |
| Trailer Dump Facility | Each | 2.00 | \$40.00 | \$48.87 | \$51.93 | \$55.17 | \$58.60 | \$62.23 |
| Commercial/Other Fac. | Toilet | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |

* These fees are additive for each account.

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[1] Proposed revised EDU factor noted in bold.

AUTOMATIC RATE INFLATORS

The City of Bishop is interested in instituting an automatic rate inflator. Based on ECO:LOGIC experience and research, there are two typical types of inflators commonly used. The first is a set, not to exceed, annual percentage increase, typically ranging 3 to 5 percent.

The second option is for the inflator to be tied to a price index such as the consumer price index (CPI) as published by the Bureau of Labor statistics. The CPI is more directly tied to national inflation. Given the current economic situation, CPI has fluctuated around zero for 2009 thus far.

We generally recommend that the City set a fixed not to exceed inflator that is more reflective of the projected cost needs of the individual City as opposed to the national CPI index.

The City of Bishop also has options as to when to institute the automatic inflator. The rate analysis projects rates from 2009/10 to 2013/14. If the City were to adopt the full five year rate schedule, the automatic inflator could go into effect in 2014/15. However, it is recommended, and arguably required by Proposition 218, that water and sewer rates be reviewed at least every

five years. However, the automatic rate inflator could ensure that the City's revenue needs stay on track in the event that the five-year rate review takes some time to implement.

The City also has the option of only adopting the first year rate projections (2009/10) and then having the rate inflator go into effect for the following year(s).

**City of Bishop – 2008 Water and Sewer Rate Study
Technical Memorandum No. 3 Revised**

Prepared For: David Grah, Director of Public Works
Prepared By: Georgette Aronow, Catherine Hansford, and Erin Costa
CC: John Enloe
Date: May 5, 2009
Subject: Revised Draft Water Rates Analysis

This memorandum summarizes the findings for the City of Bishop 2008 water rate study and provides supporting tables for the City's review. The analysis presented in this memorandum differs from previous memorandums by incorporating updated financial data for 2008-09, as provided by the City, and by funding improvements on a pay-as-you-go basis only. Prior memorandum discussion regarding the borrowing option for capital improvement project has been removed from the analysis.

Summary of Findings

WATER RATES

Based on the comparison of projected expenses versus revenues, it is recommended that monthly water rates be reduced over the next two fiscal years, and then increase from current levels in fiscal year 2011-12. Key aspects of the water rate analysis are bulleted below:

- **Water Rates Projected through 2013-14:** Water rates are projected through 2013-14 and allow for increases in ongoing operations and maintenance costs as well as some funding of capital improvements on a pay-as-you-go basis.
- **Rates Were Calculated Emphasizing Rate Equity:** Rate equity assumes that all customers pay their fair share of costs. Equivalent dwelling unit (EDU) factors and the estimated number of gallons per day per customer/account were used to determine rate equality. The flow usage factor for a single family residential unit was assumed to be 449 gallons per day (gpd) based on per capita consumption documented in the City's Master Plan, page 21.
- **Rates Projected to Decrease Initially:** Projected rates for fiscal years 2009-10 and 2010-11 are lower than current rates set by the City. The calculated reduced rates will cover projected expenses during these years and continue to maintain the enterprise fund's healthy operating reserve.

Table 1 provides a summary of the calculated water rates. The calculated rates incorporate annual cost inflators for all expenditures. The cost inflators are held constant through the 2013-14 fiscal year.

Table 1
City of Bishop
Water Enterprise Fund
Summary of Calculated Water Rates -- FY 08-09 to FY 13-14

DRAFT

| | Basis of Charge | EDU Factor | 2008-09 Current Rate | Calculated Monthly Charge | | | | |
|-------------------------|-----------------|------------|-------------------------|---------------------------|----------|----------|----------|----------|
| | | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Residential | | | | | | | | |
| Single Family Residence | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Multi-Family Residence | Unit | 0.80 | \$25.60 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Hotel Manager Quarters | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Non-Residential | | | | | | | | |
| Church* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Church Recreation Hall* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hospital* | Bed | 0.33 | \$10.67 | \$9.79 | \$10.36 | \$10.96 | \$11.60 | \$12.28 |
| Lodge or Meeting Hall* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hall Bar* | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Public School | Student | 0.04 | \$1.28 | \$1.17 | \$1.24 | \$1.31 | \$1.39 | \$1.47 |
| Other School | Student | 0.03 | \$1.02 | \$0.94 | \$0.99 | \$1.05 | \$1.11 | \$1.17 |
| Fairgrounds | Each | 7.00 | \$224.00 | \$205.46 | \$217.40 | \$230.06 | \$243.50 | \$257.78 |
| Gas Station | Island | 0.40 | \$12.80 | \$11.74 | \$12.42 | \$13.15 | \$13.91 | \$14.73 |
| Self Serve Car Wash | Stall | 3.00 | \$96.00 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Beauty or Barber Shop | Each | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Bar* | Seat | 0.08 | \$2.56 | \$2.35 | \$2.48 | \$2.63 | \$2.78 | \$2.95 |
| Hotel Room* | Each | 0.25 | \$8.00 | \$7.34 | \$7.76 | \$8.22 | \$8.70 | \$9.21 |
| Laundry* | Each | 3.00 | \$96.00 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Laundromat | per Washer | 0.80 | \$25.60 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Restaurant | Seat | 0.10 | \$3.20 | \$2.94 | \$3.11 | \$3.29 | \$3.48 | \$3.68 |
| Trailer Dump Facility | Each | 2.00 | \$64.00 | \$58.70 | \$62.11 | \$65.73 | \$69.57 | \$73.65 |
| Commercial/ Other Fac | Toilet | 1.00 | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |

* These fees are additive for each account.

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Water Rate Analysis

The water rate methodology consists of several steps that systematically result in the calculated future water rates by customer type. The primary steps in computing the rates are as follows:

1. ***Establish the Annual Costs to be Funded*** – Annual Costs include operations and maintenance, facility replacement, capital improvements, and existing debt service.
2. ***Establish the Water Customer Base and User Characteristics*** – The water customer base includes residential and commercial users. User characteristics are based on estimated or assumed water flow. One EDU is assumed to use 449 gallons per day (gpd), per the City’s Master Plan, page 21.
3. ***Determine the Unit Cost for Purposes of Allocating Costs to Customer Categories*** – The unit cost is calculated by dividing the annual cost/expenses by the total annual water flow, which results in a cost per million gallons of flow. This cost is converted into a cost per gallon of flow per day.
4. ***Calculate the Base User Charge per Month*** – The cost per gallon of flow is multiplied by the assumed water use per account per day to determine the flat monthly water service charge.

Each of these steps is described in greater detail below.

WATER RATE MODEL

The following discussion provides an overview of each primary step in the methodology used to calculate future water rates for residential and commercial customers within the City of Bishop.

PROJECTED COSTS TO BE FUNDED

The City has amended the water enterprise fund capital expenditures for fiscal year 2008-09, and these costs provide the platform for projecting future capital improvement costs. The City based the capital expenditure cost on the total value of the water system if constructed today and an assumption of life between replacement or reconstruction for each element in the system. This report assumes that the City pays for capital improvements on a pay-as-you-go basis. The amount indicated for each year is based on the projection of City staff of \$360,830 escalated by five percent per year.

The calculated rates are based on projected annual water costs for operations and maintenance and capital costs of the water enterprise fund. A historical comparison of revenues and costs is presented in **Table 2**.

Table 2
City of Bishop
Water Enterprise Fund
Historical Budget Information

DRAFT

| | Water Enterprise Fund Fiscal Year Ended June 30 | | | | | Current Cost Projection | % Change |
|---|--|------------------|------------------|--------------------|--------------------|----------------------------|-----------------|
| | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 [1] | 2003-2008 |
| REVENUES | | | | | | | |
| Operating Revenues | | | | | | | |
| Service Collections | \$358,892 | \$819,404 | \$967,511 | \$1,057,198 | \$1,095,739 | \$1,100,000 | 25.11% |
| Service Penalties | \$2,640 | \$2,294 | \$2,828 | \$4,591 | \$5,583 | \$6,000 | 17.84% |
| Interest Earnings | \$5,574 | \$9,004 | \$27,569 | \$42,895 | \$52,187 | \$60,000 | 60.84% |
| Miscellaneous Income | \$2,178 | \$19,486 | \$1,043 | \$9,416 | \$6,321 | \$4,000 | 12.93% |
| ESCSD/ Poleta Project | \$55,000 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Reimbursement Small Claims | \$0 | \$22 | \$33 | \$10 | \$0 | \$0 | |
| Water Permits | \$0 | \$0 | \$25 | \$0 | \$0 | \$0 | |
| Subtotal Revenues | \$424,284 | \$850,210 | \$999,009 | \$1,114,110 | \$1,159,830 | \$1,170,000 | 22.49% |
| EXPENSES | | | | | | | |
| Operating Expenses | | | | | | | |
| Salaries and Benefits | \$276,921 | \$329,935 | \$435,417 | \$449,532 | \$527,000 | \$480,000 | 11.63% |
| Services and Supplies | \$144,693 | \$134,132 | \$159,070 | \$159,102 | \$158,710 | \$143,880 | (0.11)% |
| Capital Equipment | \$0 | \$0 | \$0 | \$0 | \$0 | \$17,730 | |
| Capital Replacement | \$0 | \$0 | \$0 | \$0 | \$5,000 | \$5,000 | |
| Capital Improvements | \$0 | \$0 | \$0 | \$0 | \$566,500 | \$360,830 | |
| Subtotal Operating Expenses | \$421,614 | \$464,067 | \$594,487 | \$608,634 | \$1,257,210 | \$1,007,440 | 19.03% |
| Net Operating Revenues | \$2,670 | \$386,143 | \$404,522 | \$505,476 | (\$97,380) | \$162,560 | |
| Debt Service | | | | | | | |
| Current Debt Service | \$42,186 | \$53,386 | \$53,386 | \$53,386 | \$54,200 | \$54,200 | 5.14% |
| Future Debt Service | | | | | | | |
| Subtotal Debt Service | \$42,186 | \$53,386 | \$53,386 | \$53,386 | \$54,200 | \$54,200 | 5.14% |
| Debt Service Coverage [2] | 0.06 | 7.23 | 7.58 | 9.47 | (1.80) | 3.00 | |
| Non-Operating Expenses | | | | | | | |
| Depreciation [3] | \$13,929 | \$16,585 | \$20,600 | \$24,511 | \$24,511 | \$0 | (100.00)% |
| Interest | \$19,593 | \$18,620 | \$18,088 | \$17,280 | \$17,280 | \$17,280 | (2.48)% |
| Subtotal Non-Operating Expenses | \$33,522 | \$35,205 | \$38,688 | \$41,791 | \$41,791 | \$17,280 | (12.41)% |
| Subtotal Expenses | \$497,322 | \$552,658 | \$686,561 | \$703,811 | \$1,353,201 | \$1,078,920 | 16.75% |
| Net Op. Rev after D/S and Depreciation | (\$73,038) | \$297,552 | \$312,448 | \$410,299 | (\$193,371) | \$91,080 | |

Source: City of Bishop

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[1] This column reflects current cost projections and many not correspond to the budget as adopted for FY 2008/09.

[2] Debt service coverage is the number of times that debt service (the amount of money necessary to pay interest and principal requirements for a given or series of years) would be covered by net revenues before debt service is subtracted.

[3] 2008-09 is the base year for the rate model. Going forward, depreciation has been accounted for in the capital improvements cost.

The 2008-09 costs are used as the base year cost for future year projections. The costs are projected using the following annual percentage increases:

| Cost Category | Annual Cost Adjustment Factor |
|-----------------------|-------------------------------|
| Salaries and Benefits | 7.0% |
| Services and Supplies | 5.0% |
| Capital Equipment | 5.0% |
| Capital Replacement | 5.0% |
| Capital Improvements | 5.0% |

Per the City's methodology, depreciation has been accounted for in the capital improvements budgeted costs for fiscal year 2008-09 and is not therefore projected as a separate expense line item.

The cost adjustment factors are less than the historical average annual increase in expenses and reflect an expectation that cost increases will be more moderate in the future. The cost adjustment factors fall within the typical range for projecting future costs for the purpose of rate setting.

Table 3 shows projected water expenses by line item for the next five years.

WATER CUSTOMERS AND USAGE ASSUMPTIONS

The City currently bills on a flat monthly charge basis. **Table 4** shows the assumed water usage for each customer category. The water usage is assumed based on the water usage of 449 gallons per day for a residential unit, per the City's Master Plan. Usage for the remaining customer types is calculated based on the EDU factors shown in **Table 1**.

COST ALLOCATION AND UNIT COST CHARGES

Table 5 shows the projected revenue requirement to be met by water sales. The revenue requirement is based on the projected expenses shown in **Table 3**, plus some additional funding to allow for the accumulation of a reserve fund.

The projected revenue to be generated by water sales is divided by the total annual water usage to determine a cost per million gallons of flow. The cost per million gallons is converted into a cost per gallon per day, which is then used as the basis for allocating costs to each customer category.

The monthly water service charges per customer account are shown in **Table 6** for each customer type.

**Table 3
City of Bishop
Water Enterprise Fund
Projected Water Expenses**

DRAFT

| | Annual Cost Adj. Factor | Current Costs 2008-09 | Projected | | | | |
|------------------------------|----------------------------|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | 2009-10 | 2010-11 | 2011-2012 | 2012-13 | 2013-14 |
| Expenses | | | | | | | |
| Salaries & Benefits | 7.0% | \$480,000 | \$513,600 | \$549,552 | \$588,021 | \$629,182 | \$673,225 |
| Services & Supplies | 5.0% | \$143,880 | \$151,074 | \$158,628 | \$166,559 | \$174,887 | \$183,631 |
| Capital Equipment | 5.0% | \$17,730 | \$18,617 | \$19,547 | \$20,525 | \$21,551 | \$22,629 |
| Capital Replacement | 5.0% | \$5,000 | \$5,250 | \$5,513 | \$5,788 | \$6,078 | \$6,381 |
| Capital Improvements | 5.0% | \$360,830 | \$378,872 | \$397,815 | \$417,706 | \$438,591 | \$460,521 |
| Subtotal Expenses | | \$1,007,440 | \$1,067,413 | \$1,131,055 | \$1,198,599 | \$1,270,289 | \$1,346,387 |
| Debt Service | | | | | | | |
| Current Water Debt Service | | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 |
| New Water Debt Service | | | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal Debt Service | | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 |
| Reserve Fund [1] | | \$0 | \$8,007 | \$8,005 | \$8,001 | \$8,001 | \$8,003 |
| Total | | \$1,061,640 | \$1,129,620 | \$1,193,260 | \$1,260,800 | \$1,332,490 | \$1,408,590 |
| Percent Increase | | | 6.4% | 5.6% | 5.7% | 5.7% | 5.7% |

"t3"

[1] The Reserve Fund line allows the model to generate net revenues that then can be applied to a reserve fund for operating and maintenance costs.

Table 4
City of Bishop
Water Enterprise Fund
Customer Water Usage Assumptions and Total Annual Usage

DRAFT

| Customer Type | EDU Factor | Number of Units/Accounts | Assumed Usage Per Acct gal/day [1] | Assumed Usage mg/d | Total Annual Usage mg |
|-------------------------------|-------------------|---------------------------------|---|----------------------------|------------------------------|
| | | (A) | (B) | (C)=(A)x(B)/1000000 | (D)= (C)x(365) |
| <u>Residential</u> | | | | | |
| Single Family Residence | 1.00 | 579 | 449 | 0.2600 | 94.89 |
| Multi-Family Residence | 0.80 | 1,299 | 359 | 0.4666 | 170.31 |
| Hotel Manager Quarters* | 1.00 | 18 | 449 | 0.0081 | 2.95 |
| <u>Non-Residential</u> | | | | | |
| Church* | 1.00 | 16 | 449 | 0.0072 | 2.62 |
| Church Recreation Hall* | 1.00 | 9 | 449 | 0.0040 | 1.47 |
| Hospital* | 0.33 | 221 | 150 | 0.0331 | 12.08 |
| Lodge or Meeting Hall* | 1.00 | 4 | 449 | 0.0018 | 0.66 |
| Hall Bar* | 1.00 | 2 | 449 | 0.0009 | 0.33 |
| Public School | 0.04 | 2,060 | 18 | 0.0370 | 13.50 |
| Other School | 0.03 | 102 | 14 | 0.0015 | 0.53 |
| Fairgrounds | 7.00 | 1 | 3,143 | 0.0031 | 1.15 |
| Gas Station | 0.40 | 31 | 180 | 0.0056 | 2.03 |
| Self Serve Car Wash | 3.00 | 12 | 1,347 | 0.0162 | 5.90 |
| Beauty or Barber Shop | 1.00 | 8 | 449 | 0.0036 | 1.31 |
| Bar* | 0.08 | 276 | 36 | 0.0099 | 3.62 |
| Hotel Room* | 0.25 | 869 | 112 | 0.0975 | 35.60 |
| Laundry* | 3.00 | 1 | 1,347 | 0.0013 | 0.49 |
| Landromat* | 0.80 | 61 | 359 | 0.0219 | 8.00 |
| Restaurant* | 0.10 | 2,362 | 45 | 0.1061 | 38.71 |
| Trailer Dump Facility | 2.00 | 2 | 898 | 0.0018 | 0.66 |
| Commercial/Other Fac. | 1.0 | 674 | 449 | 0.3026 | 110.46 |
| Total | | | 11,600 | 1.390 | 507.27 |

"t5"

* These fees are additive for each account.

[1] Usage assumption based on the Water Master Plan.

**Table 5
City of Bishop
Water Enterprise Fund
Water O&M and Capital Costs Allocated To Water Sales**

DRAFT

| Cost Items | Total Flow (MG) | Costs Allocated to Water Sales (User Charges) for Fiscal Years: | | | | | |
|---------------------------------------|-------------------------|---|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | Base Year 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Total Costs | <i>A (From Table 3)</i> | \$1,061,640 | \$1,129,620 | \$1,193,260 | \$1,260,800 | \$1,332,490 | \$1,408,590 |
| Allowance for Other Revenues [1] | <i>B</i> | (\$70,000) | (\$39,390) | (\$39,710) | (\$40,050) | (\$40,410) | (\$40,790) |
| Costs Allocated to Water Sales | C=A+B | \$991,640 | \$1,090,230 | \$1,153,550 | \$1,220,750 | \$1,292,080 | \$1,367,800 |

Unit Cost Determination

| | | --- Unit Cost per MG of Flow --- | | | | | | |
|---------------------------------|-----------------------|----------------------------------|------------|------------|------------|------------|------------|------------|
| <u>Unit Cost per MG of Flow</u> | <i>D=C/Water Flow</i> | 507.27 | \$1,954.86 | \$2,149.22 | \$2,274.04 | \$2,406.52 | \$2,547.13 | \$2,696.40 |
| Cost per Gallon of Flow | | | \$0.0020 | \$0.0021 | \$0.0023 | \$0.0024 | \$0.0025 | \$0.0027 |

[1] Includes 50% of current interest earnings to provide a cushion in event of lower interest rates as future market conditions are unknown.

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Table 6
City of Bishop
Water Enterprise Fund
Calculation of Base Rate for Monthly Charge

DRAFT

| Customer Type | Assumed Usage Per Acct gallons per day | Assumed Usage Per Acct gallons per month | Water Service Charge per Account per Month (C) | | | | |
|-------------------------|--|--|--|-----------|-------------------------|-----------|-----------|
| | | | 2009-10 | 2010-2011 | 2011-2012 | 2012-2013 | 2013/2014 |
| Cost per MG flow (A) | | | \$0.0021 | \$0.0023 | \$0.0024 | \$0.0025 | \$0.0027 |
| Residential | (B) | (C)=(B)x(365)/12 | | | -----(D) = (A)x(C)----- | | |
| Single Family Residence | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Multi-Family Residence | 359 | 10,926 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Hotel Manager Quarters* | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Non-Residential | | | | | | | |
| Church* | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Church Recreation Hall* | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hospital* | 150 | 4,554 | \$9.79 | \$10.36 | \$10.96 | \$11.60 | \$12.28 |
| Lodge or Meeting Hall* | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Hall Bar* | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Public School | 18 | 546 | \$1.17 | \$1.24 | \$1.31 | \$1.39 | \$1.47 |
| Other School | 14 | 435 | \$0.94 | \$0.99 | \$1.05 | \$1.11 | \$1.17 |
| Fairgrounds | 3,143 | 95,600 | \$205.46 | \$217.40 | \$230.06 | \$243.50 | \$257.78 |
| Gas Station | 180 | 5,463 | \$11.74 | \$12.42 | \$13.15 | \$13.91 | \$14.73 |
| Self Serve Car Wash | 1,347 | 40,971 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Beauty or Barber Shop | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Bar* | 36 | 1,093 | \$2.35 | \$2.48 | \$2.63 | \$2.78 | \$2.95 |
| Hotel Room* | 112 | 3,414 | \$7.34 | \$7.76 | \$8.22 | \$8.70 | \$9.21 |
| Laundry* | 1,347 | 40,971 | \$88.06 | \$93.17 | \$98.60 | \$104.36 | \$110.48 |
| Landromat* | 359 | 10,926 | \$23.48 | \$24.85 | \$26.29 | \$27.83 | \$29.46 |
| Restaurant* | 45 | 1,366 | \$2.94 | \$3.11 | \$3.29 | \$3.48 | \$3.68 |
| Trailer Dump Facility | 898 | 27,314 | \$58.70 | \$62.11 | \$65.73 | \$69.57 | \$73.65 |
| Commercial/Other Fac. | 449 | 13,657 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |

"t9"

* These fees are additive for each account.

PROJECTED CASH FLOW

Table 7 shows the projected cash flow for the ongoing operations and maintenance of the water enterprise fund. In order to minimize projected rate increases the calculated rates provide sufficient revenue to cover costs while allowing the City to maintain an operating reserve.

Table 7
City of Bishop
Water Enterprise Fund
Projected Cash Flow

DRAFT

| | Inflation Assumption | Budgeted | Projected | | | | |
|--|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Revenues | | | | | | | |
| Monthly Charge | | \$32.00 | \$29.35 | \$31.06 | \$32.87 | \$34.79 | \$36.83 |
| Annual Charge | | \$384.00 | \$352.22 | \$372.68 | \$394.39 | \$417.44 | \$441.90 |
| Water Sales [1] | | \$1,100,000 | \$1,090,230 | \$1,153,550 | \$1,220,750 | \$1,292,080 | \$1,367,800 |
| Other Revenues | | | | | | | |
| Penalties [2] | | \$6,000 | \$5,450 | \$5,770 | \$6,100 | \$6,460 | \$6,840 |
| Interest Income | | \$60,000 | \$30,000 | \$30,000 | \$30,000 | \$30,000 | \$30,000 |
| Other Revenues | | \$4,000 | \$4,000 | \$4,000 | \$4,000 | \$4,000 | \$4,000 |
| Subtotal | | \$70,000 | \$39,450 | \$39,770 | \$40,100 | \$40,460 | \$40,840 |
| Subtotal Revenues | | \$1,170,000 | \$1,129,680 | \$1,193,320 | \$1,260,850 | \$1,332,540 | \$1,408,640 |
| Expenses | | | | | | | |
| Salaries and Benefits | 7.0% | \$480,000 | \$513,600 | \$549,550 | \$588,020 | \$629,180 | \$673,220 |
| Services and Supplies | 5.0% | \$143,880 | \$151,070 | \$158,620 | \$166,550 | \$174,880 | \$183,620 |
| Capital Equipment | 5.0% | \$17,730 | \$18,620 | \$19,550 | \$20,530 | \$21,560 | \$22,640 |
| Capital Replacement | 5.0% | \$5,000 | \$5,250 | \$5,510 | \$5,790 | \$6,080 | \$6,380 |
| Capital Improvements | 5.0% | \$360,830 | \$378,870 | \$397,810 | \$417,700 | \$438,590 | \$460,520 |
| Subtotal Expenses | | \$1,007,440 | \$1,067,410 | \$1,131,040 | \$1,198,590 | \$1,270,290 | \$1,346,380 |
| Net Revenue Before Debt Service | | \$162,560 | \$62,270 | \$62,280 | \$62,260 | \$62,250 | \$62,260 |
| Debt Service | | | | | | | |
| Current Debt Service | | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 |
| Add'l Debt Service | | | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Debt Service | | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 | \$54,200 |
| <i>Debt Service Coverage [3]</i> | | <i>3.00</i> | <i>1.15</i> | <i>1.15</i> | <i>1.15</i> | <i>1.15</i> | <i>1.15</i> |
| Net Revenue After Debt Service | | \$108,360 | \$8,070 | \$8,080 | \$8,060 | \$8,050 | \$8,060 |
| Beginning Operating Balance [4] | | | | | | | |
| Net Revenues | | \$108,360 | \$8,070 | \$8,080 | \$8,060 | \$8,050 | \$8,060 |
| Ending Operating Balance | | \$1,321,050 | \$1,329,119 | \$1,337,199 | \$1,345,259 | \$1,353,309 | \$1,361,370 |
| <i>Target Operating Balance [5]</i> | | <i>\$503,720</i> | <i>\$533,705</i> | <i>\$565,520</i> | <i>\$599,295</i> | <i>\$635,145</i> | <i>\$673,190</i> |

"t7"

[1] Water Sales calculated in the model.

[2] Revenue penalties are tied to water sales (historically half a percent of sewer sales).

[3] Debt service coverage is the number of times that debt service (the amount of money necessary to pay interest and principal requirements for a given or series of years) would be covered by net revenues before debt service is subtracted.

[4] Water enterprise fund cash balance as of July 1, 2008.

[5] The target operating balance represents 6 months of operating expenses, excluding debt service and CIP Improvements/Depreciation.

**City of Bishop – 2008 Water and Sewer Rate Study
Technical Memorandum No. 2 Revised**

Prepared For: David Grah, Director of Public Works
Prepared By: Georgette Aronow, Catherine Hansford, and Erin Costa
CC: John Enloe
Date: May 5, 2009
Subject: Revised Draft Sewer Rates Analysis

This memorandum summarizes the findings for the City of Bishop 2008 sewer rate study. In support of the findings are tables generated from the project's financial model, which are also included in this memorandum. The analysis presented in this memorandum differs from previous memorandums by incorporating updated financial data for 2008-09, as provided by the City, and by funding improvements on a pay-as-you-go basis only. Prior memorandum discussion regarding the borrowing option for capital improvement projects has been removed from the analysis.

Summary of Findings

SEWER RATES

Sewer rates are projected to increase each year through 2013-14, with an increase of 33% necessary in the first year of rate increases, and approximately 6% annually thereafter. The projected increase in rates is primarily being driven by cost adjustment factors that are intended to reflect inflation and other cost escalation pressures, while no new growth is anticipated to spread the increased costs over a greater number of customers. Key aspects of the sewer rate analysis are bulleted below:

- ***Sewer Rates Projected through 2013-14:*** Sewer rates are projected through 2013-14 and allow for increases in ongoing operations and maintenance costs as well as funding of capital improvements on a pay-as-you-go basis.
- ***Flow Characteristics Calculated*** – The flow assumed for each user is based on the City's current single family residential user equivalent or equivalent dwelling unit (EDU). The flow usage factor for a single family residential unit was assumed to be **263 gallons per day (gpd)** based on current flows at the wastewater treatment plant. The average flow was determined by dividing the average flow at the plant by the current number of equivalent dwelling units (EDUs).

- **Influent Concentration** – Wastewater influent characteristics (biological oxygen demand and suspended solids) were assumed for each user group category based on industry averages and ECO:LOGIC rate study experience.

Adding these characteristics to the rate analysis enhances rate equity, as certain users place more demand on the wastewater system as a result of heavy influent concentrations.

Table 1 provides a summary of the calculated sewer rates though 2013-14. The calculated rates incorporate annual cost inflators for all expenditures. The cost inflators are held constant through the 2013-14 fiscal year.

Table 1
City of Bishop
Sewer Enterprise Fund
Rate Summary - Current vs. Calculated Rates

DRAFT

| Customer Type | Basis of Charge | EDU Factor [1] | Current Rate | Calculated Rates | | | | |
|-------------------------|-----------------|----------------|--------------|------------------|----------|----------|----------|----------|
| | | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Residential | | | | | | | | |
| Single Family Residence | Each | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |
| Multi-Family Residence | Unit | 0.80 | \$16.00 | \$19.55 | \$20.77 | \$22.07 | \$23.44 | \$24.89 |
| Hotel Manager Quarters* | Each | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |
| Non-Residential | | | | | | | | |
| Church* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Church Recreation Hall* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Hospital* | Bed | 0.33 | \$6.67 | \$8.74 | \$9.29 | \$9.87 | \$10.48 | \$11.13 |
| Lodge or Meeting Hall* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Hall Bar* | Each | 1.00 | \$20.00 | \$23.55 | \$25.02 | \$26.59 | \$28.24 | \$29.99 |
| Public School | Student | 0.04 | \$0.80 | \$0.88 | \$0.93 | \$0.99 | \$1.05 | \$1.12 |
| Other School | Student | 0.03 | \$0.64 | \$0.70 | \$0.75 | \$0.79 | \$0.84 | \$0.89 |
| Fairgrounds | Each | 7.00 | \$140.00 | \$164.86 | \$175.16 | \$186.10 | \$197.68 | \$209.91 |
| Gas Station | Island | 1.90 | \$8.00 | \$49.82 | \$52.93 | \$56.24 | \$59.75 | \$63.44 |
| Self Serve Car Wash | Stall | 3.00 | \$60.00 | \$54.21 | \$57.58 | \$61.17 | \$64.97 | \$68.98 |
| Beauty or Barber Shop | Each | 1.00 | \$20.00 | \$25.85 | \$27.47 | \$29.18 | \$31.00 | \$32.92 |
| Bar* | Seat | 0.08 | \$1.60 | \$1.95 | \$2.08 | \$2.21 | \$2.34 | \$2.49 |
| Hotel Room* | Each | 0.48 | \$5.00 | \$13.46 | \$14.31 | \$15.20 | \$16.15 | \$17.15 |
| Laundry* | Each | 3.00 | \$60.00 | \$99.83 | \$106.09 | \$112.73 | \$119.77 | \$127.19 |
| Landromat* | per Washer | 0.80 | \$16.00 | \$18.13 | \$19.27 | \$20.47 | \$21.74 | \$23.09 |
| Restaurant* | Seat | 0.10 | \$2.00 | \$3.50 | \$3.72 | \$3.96 | \$4.20 | \$4.47 |
| Trailer Dump Facility | Each | 2.00 | \$40.00 | \$48.87 | \$51.93 | \$55.17 | \$58.60 | \$62.23 |
| Commercial/Other Fac. | Toilet | 1.00 | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |

* These fees are additive for each account.

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[1] Proposed revised EDU factor noted in bold.

Sewer Rate Analysis

OVERVIEW

The sewer rate methodology consists of several steps that systematically result in the calculated future monthly service charges by customer type. The primary steps in computing the rates are as follows:

1. ***Establish the Annual Costs to be Funded*** – Annual costs include operations and maintenance, facility replacement, capital improvements, and debt service.
2. ***Establish the Sewer Customer Base and User Characteristics*** – The sewer customer base includes residential and non-residential users. The user characteristics include flow, biological oxygen demand (BOD) and suspended solids (SS).
3. ***Allocate the Annual Costs to Either Flow, BOD, or SS*** – The Annual Costs are distributed to either flow, BOD, or SS depending on an ***assumed*** percentage distribution of O&M operations (or Project capital expenditures) attributed to flow, BOD, or SS.
4. ***Determine the Unit Cost per Flow, BOD, or SS*** – The Unit Cost is determined by dividing the allocated cost per flow or concentration category by the total system demand for that category. This is determined for each Cost Category (as described under Step 1 above).
5. ***Determine the Annual Cost per Customer Type*** – The Unit Costs (for flow, BOD, and SS by Cost Category) are then multiplied by number of customers to determine the annual user cost per customer type. The annual amount per customer type can be divided by 12 to establish the monthly charge per customer type.

Each of these steps is described in greater detail below. In addition, the next section of this memorandum describes some of the major assumptions used in calculating the future sewer user charges.

ANNUAL COSTS TO BE FUNDED

CAPITAL IMPROVEMENT PROJECTS IDENTIFIED

The City and its engineer, Nolte Associates, Inc. recently completed the Wastewater Master Plan. The Master Plan identifies and recommends capital projects to be completed over the near (1 to 5 years) and long term (6 to 20 years). With this knowledge, the City has amended the sewer enterprise fund capital expenditures for fiscal year 2008-09, and these costs provide the platform for projecting future capital improvement costs. The City based the capital expenditure cost on the total value of the sewer system if constructed today and an assumption of life between replacement or reconstruction for each element in the system.

This report assumes that the City pays for capital improvements on a pay-as-you-go basis. The amount budgeted for each year is based on staff's 2008-09 cost estimate of \$351,874 escalated by five percent per year.

PROJECTED O&M COSTS TO BE FUNDED

The calculated rates are based on projected annual sewer costs for operations and maintenance and capital costs of the sewer enterprise fund. A historical comparison of revenues and expenses is presented in **Table 2**.

Table 2
City of Bishop
Sewer Enterprise Fund
Historical Budget Information

DRAFT

| | Sewer Enterprise Fund Fiscal Year Ended June 30 | | | | | Current Cost Proj. [2] | % Change |
|------------------------------------|--|-------------------|-------------------|------------------|--------------------|---------------------------|---------------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2008/09 | 2004-2009 |
| REVENUES | | | | | | | |
| <u>Operating Revenues</u> | | | | | | | |
| Sewer Service Collections | \$273,310 | \$394,559 | \$484,330 | \$598,496 | \$682,575 | \$700,000 | 20.7% |
| Sewer Service Penalties | \$2,229 | \$1,218 | \$1,394 | \$2,580 | \$3,490 | \$4,000 | 12.41% |
| Sewer Permits | \$0 | \$1,255 | \$67 | \$27 | \$0 | \$0 | |
| Reimbursement Small Claims | \$0 | \$22 | \$22 | \$10 | \$0 | \$0 | |
| Interest Earnings | \$14,673 | \$18,971 | \$28,882 | \$35,747 | \$29,196 | \$40,000 | 22.21% |
| Miscellaneous Income | \$1,000 | \$0 | \$0 | \$12,087 | \$9,882 | \$6,000 | 43.10% |
| Subtotal Revenues | \$291,212 | \$416,025 | \$514,695 | \$648,947 | \$725,143 | \$750,000 | 25.62% |
| EXPENSES | | | | | | | |
| <u>Operating Expenses</u> | | | | | | | |
| Salaries and Benefits | \$296,235 | \$333,358 | \$436,137 | \$467,384 | \$528,700 | \$475,000 | 9.90% |
| Services and Supplies | \$103,231 | \$132,696 | \$95,010 | \$73,960 | \$71,645 | \$85,600 | (3.68%) |
| Capital Equipment | \$0 | \$0 | \$0 | \$0 | \$0 | \$32,695 | |
| Capital Replacement | \$0 | \$0 | \$0 | \$0 | \$5,000 | \$5,000 | |
| Capital Improvements[1] | \$0 | \$0 | \$0 | \$0 | \$233,500 | \$351,874 | |
| Subtotal Operating Expenses | \$399,466 | \$466,054 | \$531,147 | \$541,344 | \$838,845 | \$950,169 | 20.38% |
| Net Operating Revenues | (\$108,254) | (\$50,029) | (\$16,452) | \$107,603 | (\$113,702) | (\$200,169) | 1.24% |
| Current Debt Service | \$0 | \$0 | \$0 | \$0 | \$11,200 | \$11,200 | |
| <u>Non-Operating Expenses</u> | | | | | | | |
| Depreciation | \$10,938 | \$12,143 | \$14,030 | \$18,214 | \$18,214 | \$0 | |
| Interest | \$19,593 | \$18,620 | \$18,088 | \$17,275 | \$17,275 | \$17,275 | |
| Subtotal Expenses | \$429,997 | \$496,817 | \$563,265 | \$576,833 | \$874,334 | \$967,444 | 17.61% |
| Net Op. Rev after D/S | (\$138,785) | (\$80,792) | (\$48,570) | \$72,114 | (\$149,191) | (\$217,444) | 9.40% |

Source: City of Bishop

"12"

[1] 2008-09 is the base year for the rate model. Depreciation has been accounted for in the capital improvements cost in future years.

[2] This column reflects current cost projections and may not correspond to the budget as adopted for FY 2008-09.

Table 3 shows the projected expenses by year through 2013-14.

**Table 3
City of Bishop
Sewer Enterprise Fund
Summary of Projected Expenses**

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| Expenditures | Annual Cost Adj. Factor | Current Costs 2008-09 | Projected | | | | |
|-----------------------|----------------------------|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Salaries and Benefits | 7.00% | \$475,000 | \$508,250 | \$543,827 | \$581,895 | \$622,628 | \$666,212 |
| Services and Supplies | 5.00% | \$85,600 | \$89,880 | \$94,374 | \$99,093 | \$104,047 | \$109,250 |
| Capital Improvements | 5.00% | \$351,874 | \$369,468 | \$387,942 | \$407,339 | \$427,706 | \$449,091 |
| Capital Equipment | 5.00% | \$32,695 | \$34,329 | \$36,046 | \$37,848 | \$39,740 | \$41,727 |
| Capital Replacement | 5.00% | \$5,000 | \$5,250 | \$5,513 | \$5,788 | \$6,078 | \$6,381 |
| Subtotal | | \$950,169 | \$1,007,177 | \$1,067,701 | \$1,131,963 | \$1,200,199 | \$1,272,661 |
| Current Debt Service | | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 |
| Reserve Fund | | \$0 | \$36,000 | \$40,000 | \$44,000 | \$48,000 | \$52,000 |
| Total | | \$961,369 | \$1,054,377 | \$1,118,901 | \$1,187,163 | \$1,259,399 | \$1,335,861 |

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The projected costs were escalated each year using the following annual percentages for expense line items:

| Cost Category | Annual Cost Adjustment Factor |
|-----------------------|--------------------------------------|
| Salaries and Benefits | 7.0% |
| Services and Supplies | 5.0% |
| Capital Improvements | 5.0% |
| Capital Equipment | 5.0% |
| Capital Replacement | 5.0% |

The cost adjustment factors, shown above, fall within the typical range for projecting future costs for the purpose of rate setting and take into consideration historical average annual increases in costs as shown in **Table 2**.

Per the City’s methodology, depreciation has been accounted for in the budgeted capital improvements cost for fiscal year 2008-09. Depreciation is therefore not projected as a separate expense line item in the model.

SEWER CUSTOMERS AND USAGE ASSUMPTIONS

Table 4 shows the assumed wastewater characteristics assumed for each customer type. The average daily wastewater flow (ADWF) per equivalent dwelling unit was determined by dividing the average flow at the treatment plant by the current number of EDUs. A single family residence is typically set equal to one EDU, as is the case in Bishop. The flow factors for the other customer categories was determined by multiplying the 263 gpd times the EDU factor for each category.

ECO:LOGIC reviewed the current EDU factors and corresponding assumed wastewater flow. Based on our review, it appeared that the majority of customer categories tend to fall within the parameters as stated by the State Water Resources Control Board (SWRCB) SRF policy revenue program guidelines, (Appendix A) and within the range of flow based on ECO:LOGIC sewer rate study experience, with the exception of two categories, gas station islands and hotels. According the SWRCB, a gas station per set of pumps generates approximately 500 gpd in wastewater flow and hotels or motels without kitchens generate approximately 100 to 150 gallons per day per unit. The current and proposed revised EDU factors and corresponding ADWF is shown in **Table 5**.

In addition to flow data, wastewater influent strength characteristics were added for each customer type. The BOD and SS strength is identical for each customer category and is intended to reflect an average strength between BOD and SS.

**Table 4
City of Bishop
Sewer Enterprise Fund
Summary of Wastewater User Characteristics**

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| Customer Category | Basis of Charge | Number | Flow EDU Factor [1] | Wastewater Characteristics | | | Existing Treatment Capacity/Load | | | Total Annual Capacity/Load | | |
|-----------------------------|-----------------|--------|---------------------|----------------------------|----------|---------|----------------------------------|------------------|------------------|----------------------------|------------------|------------------|
| | | | | ADWF/User GPD [2] | BOD MG/L | SS MG/L | Flow MGD | BOD Lbs/Day | SS Lbs/Day | Flow MG | BOD Lbs/Year | SS Lbs/Year |
| | | (A) | | (B) | (C) | (D) | (E)=(A)x(B)/1000000 | (F)=(C)x(E)x8.34 | (G)=(D)x(E)x8.34 | (K)=(E)x365 | (L)=(F)x(K)x8.34 | (M)=(G)x(K)x8.34 |
| Residential | | | | | | | | | | | | |
| Single Family Residence | Each | 577 | 1.0 | 263 | 200 | 200 | 0.1518 | 253 | 253 | 55.39 | 92,389 | 92,389 |
| Multi-Family Residence | Unit | 1,299 | 0.8 | 210 | 200 | 200 | 0.2733 | 456 | 456 | 99.76 | 166,396 | 166,396 |
| Hotel Manager Quarters | Each | 18 | 1.0 | 263 | 200 | 200 | 0.0047 | 8 | 8 | 1.73 | 2,882 | 2,882 |
| Non-Residential | | | | | | | | | | | | |
| Church | Each | 16 | 1.00 | 263 | 175 | 175 | 0.0042 | 6 | 6 | 1.54 | 2,242 | 2,242 |
| Church Recreation Hall | Each | 9 | 1.00 | 263 | 175 | 175 | 0.0024 | 3 | 3 | 0.86 | 1,261 | 1,261 |
| Hospital | Bed | 221 | 0.33 | 88 | 250 | 250 | 0.0194 | 40 | 40 | 7.08 | 14,752 | 14,752 |
| Lodge or Meeting Hall | Each | 4 | 1.00 | 263 | 175 | 175 | 0.0011 | 2 | 2 | 0.38 | 560 | 560 |
| Hall Bar | Each | 2 | 1.00 | 263 | 175 | 175 | 0.0005 | 1 | 1 | 0.19 | 280 | 280 |
| Public School | Student | 2,060 | 0.04 | 11 | 130 | 130 | 0.0217 | 23 | 23 | 7.91 | 8,576 | 8,576 |
| Other Student | Student | 102 | 0.03 | 8 | 130 | 130 | 0.0009 | 1 | 1 | 0.31 | 340 | 340 |
| Fairgrounds | Each | 1 | 7.00 | 1,841 | 175 | 175 | 0.0018 | 3 | 3 | 0.67 | 981 | 981 |
| Gas Station | Island | 31 | 1.90 | 500 | 250 | 250 | 0.0155 | 32 | 32 | 5.66 | 11,796 | 11,796 |
| Self Serve Car Wash | Stall | 12 | 3.00 | 789 | 20 | 20 | 0.0095 | 2 | 2 | 3.46 | 576 | 576 |
| Beauty or Barber Shop | Each | 8 | 1.00 | 263 | 240 | 240 | 0.0021 | 4 | 4 | 0.77 | 1,537 | 1,537 |
| Bar | Seat | 276 | 0.08 | 21 | 200 | 200 | 0.0058 | 10 | 10 | 2.12 | 3,535 | 3,535 |
| Hotel Room | Each | 869 | 0.48 | 125 | 310 | 310 | 0.1086 | 281 | 281 | 39.65 | 102,506 | 102,506 |
| Laundry | Each | 1 | 3.00 | 789 | 450 | 450 | 0.0008 | 3 | 3 | 0.29 | 1,081 | 1,081 |
| Laundromat | Washer | 61 | 0.80 | 210 | 150 | 150 | 0.0128 | 16 | 16 | 4.68 | 5,860 | 5,860 |
| Restaurant | Seat | 2,362 | 0.10 | 26 | 500 | 500 | 0.0621 | 259 | 259 | 22.67 | 94,551 | 94,551 |
| Trailer Dump Facility | Each | 2 | 2.00 | 526 | 200 | 200 | 0.0011 | 2 | 2 | 0.38 | 640 | 640 |
| Commercial/Other Facilities | Toilet | 674 | 1.00 | 263 | 200 | 200 | 0.1773 | 296 | 296 | 64.70 | 107,921 | 107,921 |
| TOTAL | | | | | | | 0.8773 | 1,700 | 1,700 | 320.20 | 620,663 | 620,663 |

[1] Proposed revised EDU factors noted in bold.

[2] The ADWF was determined by multiplying the 263 gpd for a single family residence (1 EDU) times the EDU factor for each customer category.

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Table 5
City of Bishop
Sewer Enterprise Fund
Summary of Existing Rates and EDUs

| Customer Type | Effective Jul-07 | Basis | Existing | | Revised | |
|-------------------------------|------------------|---------|------------|------------|------------|------------|
| | | | EDU Factor | Flow (GPD) | EDU Factor | Flow (GPD) |
| <u>Residential</u> | | | | | | |
| Single Family | \$20.00 | Each | 1.00 | 263 | | |
| Multi-Family | \$16.00 | Unit | 0.80 | 210 | | |
| Hotel Manager Quarters | \$20.00 | Each | 1.00 | 263 | | |
| <u>Non-Residential</u> | | | | | | |
| Church | \$20.00 | Each | 1.00 | 263 | | |
| Church Recreation Hall | \$20.00 | Each | 1.00 | 263 | | |
| Hospital | \$6.67 | Bed | 0.33 | 88 | | |
| Lodge or Meeting Hall | \$20.00 | Each | 1.00 | 263 | | |
| Hall Bar | \$20.00 | Each | 1.00 | 263 | | |
| Public School | \$0.80 | Student | 0.04 | 11 | | |
| Other School | \$0.64 | Student | 0.03 | 8 | | |
| Fairgrounds | \$140.00 | Each | 7.00 | 1,841 | | |
| Gas Station | \$8.00 | Island | 0.40 | 105 | 1.90 | 500 |
| Self Serve Car Wash | \$60.00 | Stall | 3.00 | 789 | | |
| Beauty or Barber Shop | \$20.00 | Each | 1.00 | 263 | | |
| Bar | \$1.60 | Seat | 0.08 | 21 | | |
| Hotel Room | \$5.00 | Each | 0.25 | 66 | 0.48 | 125 |
| Laundry | \$60.00 | Each | 3.00 | 789 | | |
| Landromat | \$16.00 | Washer | 0.80 | 210 | | |
| Restaurant | \$2.00 | Seat | 0.10 | 26 | | |
| Trailer Dump Facility | \$40.00 | Each | 2.00 | 526 | | |
| Other Facilities | \$20.00 | Toilet | 1.00 | 263 | | |

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SEWER MODEL COST ALLOCATION

After the costs to be funded have been established and the customer base and user characteristics have been determined, the next step is to fairly allocate the costs to each customer type.

Costs are allocated to customer type and ultimately rate payers as follows:

1. Allocate the annual costs (by cost category) to flow, BOD, and SS
2. Determine the Unit Cost for flow, BOD, and SS per cost category
3. Use the Unit Costs to determine the costs allocated to customer types based on the flow and concentration of influent (flow, BOD, and SS)

The cost allocation tables discussed below are for fiscal year 2009-10.

COST ALLOCATION TO FLOW, BOD, AND SS AND UNIT DETERMINATION

Operation, maintenance and capital costs are first allocated to treatment and collection, as shown in **Table 6**. These costs are then carried forward into **Table 7** for the allocation to flow, BOD, and SS.

Costs are allocated to flow, BOD, and SS based on percentage allocation or distribution factors. These percentage allocation factors are based on the distribution of the treatment facilities O&M activities between or related to flow, BOD, and SS (collection costs are assumed to be 100 percent flow related). It should be noted that this distribution is estimated based on ECO:LOGIC's sewer rate study experience and not actual city data.

Table 6 shows the calculation of the unit costs by cost category for flow, BOD, and SS. The costs are allocated to flow, BOD, and SS based on percent allocation factors as described above. The allocated costs are then divided by the total influent, shown in **Table 4**, to determine the unit cost per flow, BOD, and SS. These unit costs are then used to determine the cost allocated to each customer type and ultimately the calculated rates for each customer account.

COST ALLOCATION BY CUSTOMER CATEGORY

Table 8 shows the cost allocated to flow, BOD, and SS by customer category for 2009-10. The unit costs determined in **Table 7** are multiplied by flow, BOD, or SS for each customer type. For example, single family residential customers are allocated approximately \$169,195 of the projected \$1,024,000 total costs.

CALCULATED RATES

Based on the costs allocated to each customer type, **Table 9** presents the calculated rates for 2009-10.

Table 6
City of Bishop
Sewer Enterprise Fund
Projected Costs and Distribution between Collection and Treatment System

DRAFT

| | Annual Cost Adj. Factor | Current Costs 2008-09 | Projected 2009-10 | Allocation | | Collection Cost | Treatment Cost |
|-------------------------|----------------------------|--|----------------------|------------|-----------|--------------------|-------------------|
| | | | | Collection | Treatment | | |
| | | Years Inflated: <input type="text" value="1"/> | | | | | |
| Expenditures | | | | | | | |
| Salaries and Benefits | 7.00% | \$475,000 | \$508,250 | 20% | 80% | \$101,650 | \$406,600 |
| Services and Supplies | 5.00% | \$85,600 | \$89,880 | 20% | 80% | \$17,976 | \$71,904 |
| Capital Improvements | 5.00% | \$351,874 | \$369,468 | 20% | 80% | \$73,894 | \$295,575 |
| Capital Equipment | 5.00% | \$32,695 | \$34,329 | 20% | 80% | \$6,866 | \$27,463 |
| Capital Replacement | 5.00% | \$5,000 | \$5,250 | 20% | 80% | \$1,050 | \$4,200 |
| Subtotal | | \$950,169 | \$1,007,177 | | | \$201,435 | \$805,742 |
| Current Debt Service | 0.00% | \$11,200 | \$11,200 | n/a | n/a | | |
| Additional Debt Service | 0.00% | \$0 | \$0 | n/a | n/a | | |
| Reserve Fund/Coverage | 0.00% | \$0 | \$36,000 | n/a | n/a | | |
| Total | | \$961,369 | \$1,054,377 | | | | |

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**Table 7
City of Bishop
Sewer Enterprise Fund
Unit Cost Determination**

DRAFT

| Cost Category | Allocated Costs | Percent Allocation | | | Cost | | | Total Influent | | | Unit Cost Per: | | |
|--------------------------------|---------------------------|--------------------|--------|--------|-------------------|------------------|------------------|----------------|----------|---------|------------------------|---------------------|--------------------|
| | | Flow | BOD | SS | Flow | BOD | SS | Flow MG | BOD Klbs | SS Klbs | Mgal of Flow (\$/Mgal) | Klb of BOD (\$/Klb) | Klb of SS (\$/Klb) |
| | (A) | (B) | (C) | (D) | (E) = (A)*(B) | (F)=(A)*(C) | (G)=(A)*(D) | (H) | (I) | (J) | (K)=(E)/(H) | (L)=(F)/(I) | (M)=(G)/(J) |
| Collection System Costs | from Table 6 \$201,435 | 100% | 0.00% | 0.00% | \$201,435 | \$0 | \$0 | 319.19 | 618.97 | 618.97 | \$631.09 | \$0.00 | \$0.00 |
| Treatment Costs | \$805,742 | 60% | 20.00% | 20.00% | \$483,445 | \$161,148 | \$161,148 | 319.19 | 618.97 | 618.97 | \$1,514.61 | \$260.35 | \$260.35 |
| Debt Service | \$11,200 | 60% | 20.00% | 20.00% | \$6,720 | \$2,240 | \$2,240 | 319.19 | 618.97 | 618.97 | \$21.05 | \$3.62 | \$3.62 |
| Reserve Fund | \$36,000 | 60% | 20.00% | 20.00% | \$21,600 | \$7,200 | \$7,200 | 319.19 | 618.97 | 618.97 | \$67.67 | \$11.63 | \$11.63 |
| SUBTOTAL | \$1,054,377 | | | | | | | | | | | | |
| Other Cost Impacts | | | | | | | | | | | | | |
| Other Revenues | (\$30,650) | 60% | 20.00% | 20.00% | (\$18,390) | (\$6,130) | (\$6,130) | 319.19 | 618.97 | 618.97 | (\$57.61) | (\$9.90) | (\$9.90) |
| Rounding | \$273 | 60% | 20.00% | 20.00% | \$164 | \$55 | \$55 | 319.19 | 618.97 | 618.97 | \$0.51 | \$0.09 | \$0.09 |
| Total | (\$30,377) | | | | (\$18,226) | (\$6,075) | (\$6,075) | | | | (\$57.10) | (\$9.82) | (\$9.82) |
| TOTAL | \$1,024,000 | | | | | | | | | | \$2,177.31 | \$265.78 | \$265.78 |

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Table 8
City of Bishop
Sewer Enterprise Fund
Allocation of Costs to Flow, BOD, and SS by Customer Category

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| Unit Cost/Customer Category | | | | Collection | Treatment | | | Debt Service | | | Reserve Fund | | | Subtotal | Other Revenue Impacts | | | Total |
|---------------------------------|-----------------------|---------------|---------------|------------------|-------------------|------------------|------------------|----------------|----------------|----------------|-----------------|----------------|----------------|--------------------|-----------------------|------------------|------------------|--------------------|
| | Flow MG/Yr | BOD Klb/Yr | SS Klb/Yr | Flow (\$/Mgal) | Flow (\$/Mgal) | BOD (\$/Klb) | SS (\$/Klb) | Flow (\$/Mgal) | BOD (\$/Klb) | SS (\$/Klb) | Flow (\$/Mgal) | BOD (\$/Klb) | SS (\$/Klb) | | Flow (\$/Mgal) | BOD (\$/Klb) | SS (\$/Klb) | |
| Unit Cost (from Table 7) | | | | \$629.09 | \$1,509.82 | \$259.64 | \$259.64 | \$20.99 | \$3.61 | \$3.61 | \$67.46 | \$11.60 | \$11.60 | \$2,777 | (\$56.92) | (\$9.79) | (\$9.79) | \$2,701 |
| Residential | <i>(from Table 5)</i> | | | | | | | | | | | | | | | | | |
| Single Family Residence | 55.39 | 92 | 92 | \$34,845 | \$83,627 | \$23,988 | \$23,988 | \$1,162 | \$333 | \$333 | \$3,736 | \$1,072 | \$1,072 | \$174,157 | (\$3,153) | (\$904) | (\$904) | \$169,195 |
| Multi-Family Residence | 99.76 | 166 | 166 | \$62,757 | \$150,616 | \$43,203 | \$43,203 | \$2,094 | \$601 | \$601 | \$6,729 | \$1,930 | \$1,930 | \$313,664 | (\$5,678) | (\$1,629) | (\$1,629) | \$304,728 |
| Hotel Manager Quarters | 1.73 | 3 | 3 | \$1,087 | \$2,609 | \$748 | \$748 | \$36 | \$10 | \$10 | \$117 | \$33 | \$33 | \$5,433 | (\$98) | (\$28) | (\$28) | \$5,278 |
| Subtotal | 156.88 | 261.67 | 261.67 | \$98,688 | \$236,852 | \$67,939 | \$67,939 | \$3,292 | \$944 | \$944 | \$10,582 | \$3,035 | \$3,035 | \$493,253 | (\$8,930) | (\$2,561) | (\$2,561) | \$479,201 |
| Non-Residential | | | | | | | | | | | | | | | | | | |
| Church | 1.54 | 2 | 2 | \$966 | \$2,319 | \$582 | \$582 | \$32 | \$8 | \$8 | \$104 | \$26 | \$26 | \$4,653 | (\$87) | (\$22) | (\$22) | \$4,522 |
| Church Recreation Hall | 0.86 | 1 | 1 | \$544 | \$1,304 | \$327 | \$327 | \$18 | \$5 | \$5 | \$58 | \$15 | \$15 | \$2,617 | (\$49) | (\$12) | (\$12) | \$2,544 |
| Hospital | 7.08 | 15 | 15 | \$4,451 | \$10,682 | \$3,830 | \$3,830 | \$148 | \$53 | \$53 | \$477 | \$171 | \$171 | \$23,868 | (\$403) | (\$144) | (\$144) | \$23,176 |
| Lodge or Meeting Hall | 0.38 | 1 | 1 | \$242 | \$580 | \$146 | \$146 | \$8 | \$2 | \$2 | \$26 | \$7 | \$7 | \$1,163 | (\$22) | (\$5) | (\$5) | \$1,130 |
| Hall Bar | 0.19 | 0 | 0 | \$121 | \$290 | \$73 | \$73 | \$4 | \$1 | \$1 | \$13 | \$3 | \$3 | \$582 | (\$11) | (\$3) | (\$3) | \$565 |
| Public School | 7.91 | 9 | 9 | \$4,976 | \$11,943 | \$2,227 | \$2,227 | \$166 | \$31 | \$31 | \$534 | \$99 | \$99 | \$22,333 | (\$450) | (\$84) | (\$84) | \$21,714 |
| Other Student | 0.31 | 0 | 0 | \$197 | \$473 | \$88 | \$88 | \$7 | \$1 | \$1 | \$21 | \$4 | \$4 | \$885 | (\$18) | (\$3) | (\$3) | \$860 |
| Fairgrounds | 0.67 | 1 | 1 | \$423 | \$1,015 | \$255 | \$255 | \$14 | \$4 | \$4 | \$45 | \$11 | \$11 | \$2,036 | (\$38) | (\$10) | (\$10) | \$1,978 |
| Gas Station | 5.66 | 12 | 12 | \$3,559 | \$8,542 | \$3,063 | \$3,063 | \$119 | \$43 | \$43 | \$382 | \$137 | \$137 | \$19,085 | (\$322) | (\$115) | (\$115) | \$18,532 |
| Self Serve Car Wash | 3.46 | 1 | 1 | \$2,174 | \$5,218 | \$150 | \$150 | \$73 | \$2 | \$2 | \$233 | \$7 | \$7 | \$8,014 | (\$197) | (\$6) | (\$6) | \$7,806 |
| Beauty or Barber Shop | 0.77 | 2 | 2 | \$483 | \$1,159 | \$399 | \$399 | \$16 | \$6 | \$6 | \$52 | \$18 | \$18 | \$2,555 | (\$44) | (\$15) | (\$15) | \$2,482 |
| Bar | 2.12 | 4 | 4 | \$1,333 | \$3,200 | \$918 | \$918 | \$44 | \$13 | \$13 | \$143 | \$41 | \$41 | \$6,664 | (\$121) | (\$35) | (\$35) | \$6,475 |
| Hotel Room | 39.65 | 103 | 103 | \$24,942 | \$59,861 | \$26,615 | \$26,615 | \$832 | \$370 | \$370 | \$2,675 | \$1,189 | \$1,189 | \$144,658 | (\$2,257) | (\$1,003) | (\$1,003) | \$140,394 |
| Laundry | 0.29 | 1 | 1 | \$181 | \$435 | \$281 | \$281 | \$6 | \$4 | \$4 | \$19 | \$13 | \$13 | \$1,236 | (\$16) | (\$11) | (\$11) | \$1,198 |
| Laundromat | 4.68 | 6 | 6 | \$2,947 | \$7,073 | \$1,522 | \$1,522 | \$98 | \$21 | \$21 | \$316 | \$68 | \$68 | \$13,656 | (\$267) | (\$57) | (\$57) | \$13,274 |
| Restaurant | 22.67 | 95 | 95 | \$14,264 | \$34,234 | \$24,549 | \$24,549 | \$476 | \$341 | \$341 | \$1,530 | \$1,097 | \$1,097 | \$102,477 | (\$1,291) | (\$926) | (\$926) | \$99,336 |
| Trailer Dump Facility | 0.38 | 1 | 1 | \$242 | \$580 | \$166 | \$166 | \$8 | \$2 | \$2 | \$26 | \$7 | \$7 | \$1,207 | (\$22) | (\$6) | (\$6) | \$1,173 |
| Commercial/Other Facilities | 64.70 | 108 | 108 | \$40,702 | \$97,686 | \$28,020 | \$28,020 | \$1,358 | \$389 | \$389 | \$4,365 | \$1,252 | \$1,252 | \$203,435 | (\$3,683) | (\$1,056) | (\$1,056) | \$197,639 |
| Subtotal | 163.33 | 251.07 | 251.07 | \$160,491 | \$483,445 | \$65,189 | \$65,189 | \$2,070 | \$906 | \$906 | \$6,653 | \$2,913 | \$2,913 | \$357,689 | (\$5,614) | (\$2,458) | (\$2,458) | \$347,160 |
| TOTAL | 320.20 | 620.66 | 620.66 | \$201,435 | \$483,445 | \$161,148 | \$161,148 | \$6,720 | \$2,240 | \$2,240 | \$21,600 | \$7,200 | \$7,200 | \$1,054,377 | (\$18,226) | (\$6,075) | (\$6,075) | \$1,024,000 |

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Table 9
City of Bishop
Sewer Enterprise Fund
Detailed Sewer Rate Calculation

DRAFT

| Customer Category | Number of Customers | Allocated Cost | Annual Cost Per Customer | Monthly Cost Per Customer | | Current Charge |
|-----------------------------|---------------------|--------------------|--------------------------|---------------------------|-----------------|----------------|
| | | | | 2009-10 Mo. Charge | Basis of Charge | |
| | (A) | (B) See Table 8 | (C)=(B)/(A) | (D)=(C)/12 | | |
| Residential | | | | | | |
| Single Family Residence | 577 | \$169,195 | \$293.23 | \$24.44 | Each | \$20.00 |
| Multi-Family Residence | 1,299 | \$304,728 | \$234.59 | \$19.55 | Unit | \$16.00 |
| Hotel Manager Quarters | 18 | \$5,278 | \$293.23 | \$24.44 | Each | \$20.00 |
| Subtotal | | \$479,201 | | | | |
| Non-Residential | | | | | | |
| Church | 16 | \$4,522 | \$282.62 | \$23.55 | Each | \$20.00 |
| Church Recreation Hall | 9 | \$2,544 | \$282.62 | \$23.55 | Each | \$20.00 |
| Hospital | 221 | \$23,176 | \$104.87 | \$8.74 | Bed | \$6.67 |
| Lodge or Meeting Hall | 4 | \$1,130 | \$282.62 | \$23.55 | Each | \$20.00 |
| Hall Bar | 2 | \$565 | \$282.62 | \$23.55 | Each | \$20.00 |
| Public School | 2,060 | \$21,714 | \$10.54 | \$0.88 | Student | \$0.80 |
| Other Student | 102 | \$860 | \$8.43 | \$0.70 | Student | \$0.64 |
| Fairgrounds | 1 | \$1,978 | \$1,978.36 | \$164.86 | Each | \$140.00 |
| Gas Station | 31 | \$18,532 | \$597.82 | \$49.82 | Island | \$8.00 |
| Self Serve Car Wash | 12 | \$7,806 | \$650.52 | \$54.21 | Stall | \$60.00 |
| Beauty or Barber Shop | 8 | \$2,482 | \$310.21 | \$25.85 | Each | \$20.00 |
| Bar | 276 | \$6,475 | \$23.46 | \$1.95 | Seat | \$1.60 |
| Hotel Room | 869 | \$140,394 | \$161.56 | \$13.46 | Each | \$5.00 |
| Laundry | 1 | \$1,198 | \$1,198.01 | \$99.83 | Each | \$60.00 |
| Laundromat | 61 | \$13,274 | \$217.61 | \$18.13 | Washer | \$16.00 |
| Restaurant | 2,362 | \$99,336 | \$42.06 | \$3.50 | Seat | \$2.00 |
| Trailer Dump Facility | 2 | \$1,173 | \$586.47 | \$48.87 | Each | \$40.00 |
| Commercial/Other Facilities | 674 | \$197,639 | \$293.23 | \$24.44 | Toilet | \$20.00 |
| Subtotal | | \$544,799 | | | | |
| TOTAL | | \$1,024,000 | | | | |

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PROJECTED CASH FLOW

Table 10 shows the projected cash flow for the ongoing operations and maintenance of the sewer enterprise fund. The revenue projections show the need for an immediate increase in sewer rates in 2009-10 and each subsequent year through 2013-14.

In order to minimize projected rate increases the calculated rates provide sufficient revenue to cover costs and minimum levels of net revenues. The accumulation of net revenues allows the City to build up an operating reserve. An operating reserve of approximately 6 months of operating costs would allow the City to be prepared in times of unforeseen costs or if revenues do not accumulate as projected. The rate projections as shown allow a reserve buildup of approximately 5.3 months of operating, maintenance, and capital costs over 5 years time.

Table 10
City of Bishop
Sewer Enterprise Fund
Projected Cash Flow

DRAFT

| | Inflation Assumption | Current Cost Prj. 2008-09 | Projected | | | | |
|--|----------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Revenues | | | | | | | |
| Monthly Charge | | \$20.00 | \$24.44 | \$25.96 | \$27.58 | \$29.30 | \$31.12 |
| Annual Charge | | \$240 | \$293.23 | \$311.55 | \$331.02 | \$351.62 | \$373.38 |
| Sewer Sales [1] | | \$700,000 | \$1,024,000 | \$1,088,000 | \$1,156,000 | \$1,228,000 | \$1,304,000 |
| Other Revenues | | | | | | | |
| Penalties [2] | | \$4,000 | \$4,820 | \$5,120 | \$5,440 | \$5,780 | \$6,140 |
| Interest Income | | \$40,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 |
| Other Revenues | | \$6,000 | \$6,000 | \$6,000 | \$6,000 | \$6,000 | \$6,000 |
| Subtotal | | \$50,000 | \$30,820 | \$31,120 | \$31,440 | \$31,780 | \$32,140 |
| Subtotal Revenues | | \$750,000 | \$1,054,820 | \$1,119,120 | \$1,187,440 | \$1,259,780 | \$1,336,140 |
| Expenses | | | | | | | |
| Salaries and Benefits | 7.0% | \$475,000 | \$508,250 | \$543,830 | \$581,900 | \$622,630 | \$666,210 |
| Services and Supplies | 5.0% | \$85,600 | \$89,880 | \$94,370 | \$99,090 | \$104,040 | \$109,240 |
| Capital Equipment | 5.0% | \$32,690 | \$34,320 | \$36,040 | \$37,840 | \$39,730 | \$41,720 |
| Capital Replacement | 5.0% | \$5,000 | \$5,250 | \$5,510 | \$5,790 | \$6,080 | \$6,380 |
| Capital Improvements | 5.0% | \$351,870 | \$369,460 | \$387,930 | \$407,330 | \$427,700 | \$449,090 |
| Subtotal Expenses | | \$950,160 | \$1,007,160 | \$1,067,680 | \$1,131,950 | \$1,200,180 | \$1,272,640 |
| Net Revenue before Debt Service | | (\$200,160) | \$47,660 | \$51,440 | \$55,490 | \$59,600 | \$63,500 |
| Debt Service | | | | | | | |
| Current Debt Service | | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 |
| Add'l Debt Service | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Debt Service | | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 | \$11,200 |
| <i>Debt Service Coverage [3]</i> | | <i>(17.87)</i> | <i>4.26</i> | <i>4.59</i> | <i>4.95</i> | <i>5.32</i> | <i>5.67</i> |
| Net Revenue after Debt Service | | (\$211,360) | \$36,460 | \$40,240 | \$44,290 | \$48,400 | \$52,300 |
| <hr/> | | | | | | | |
| Beginning Operating Balance [4] | | \$557,780 | \$346,420 | \$382,880 | \$423,120 | \$467,410 | \$515,810 |
| Net Revenues | | (\$211,360) | \$36,460 | \$40,240 | \$44,290 | \$48,400 | \$52,300 |
| Ending Operating Balance | | \$346,420 | \$382,880 | \$423,120 | \$467,410 | \$515,810 | \$568,110 |
| <i>Target Operating Balance [5]</i> | | <i>\$475,080</i> | <i>\$503,580</i> | <i>\$533,840</i> | <i>\$565,975</i> | <i>\$600,090</i> | <i>\$636,320</i> |

"19"

[1] Sewer sales calculated by the model.

[2] Revenue penalties are tied to sewer sales (historically half a percent of sewer sales).

[3] Debt service coverage is the number of times that debt service (the amount of money necessary to pay interest and principal requirements for a given or series of years) would be covered by net revenues before debt service is subtracted.

[4] Beginning operating balance reflects unrestricted cash and cash equivalents as of July 1, 2008.

[5] The target operating balance represents 6 months of operating expenses, excluding debt service and depreciation.

Appendix A

**SWRCB SRF Revenue Program User Characteristic
Guidelines**

POLICY FOR IMPLEMENTING
THE STATE REVOLVING FUND FOR
CONSTRUCTION OF WASTEWATER TREATMENT FACILITIES

Prepared by:
THE DIVISION OF FINANCIAL ASSISTANCE

STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

Last amended on January 22, 2003

COMMERCIAL USER STRENGTH CHARACTERISTICS

| <u>STANDARD CLASSIFICATIONS</u> | <u>BOD₅(ppm)</u> | <u>SS(ppm)</u> |
|--|-----------------------------|------------------|
| Residential (average varies depending on average water usage per capita) | 175 to 250 | 175 to 250 |
| Auto Steam Cleaning | 1,150 | 1,250 |
| Bakery, wholesale | 1,000 | 600 |
| Bars without dining facilities | 200 | 200 |
| Car Wash | 20 | 150 |
| Department and Retail Store | 150 | 150 |
| Hospital and Convalescent | 250 | 100 |
| Hotel with dining facilities | 500 | 600 |
| Hotel/Motel without dining | 310 | 120 |
| Industrial Laundry | 670 | 680 |
| Laundromat | 150 | 110 |
| Laundry, commercial | 450 | 240 |
| Market with garbage grinders | 800 | 800 |
| Mortuary | 800 | 800 |
| Professional Office | 130 | 80 |
| Repair Shop and Service Station | 180 | 280 |
| Restaurant | 1,000 | 600 |
| School and College | 130 | 100 |
| Septage | 5,400 | 12,000 |
| Soft Water Service | 3 | 55 |

TABLE G-1
Estimated water consumption at different types of establishments.

| TYPE OF ESTABLISHMENT | FLOW in GPD per PERSON or UNIT |
|---|--------------------------------------|
| Dwelling units, residential: | |
| Private dwellings on individual wells or metered supply | 50-75 |
| Private dwellings on public water supply, unmetered | 100-200 |
| Subdivision dwelling on individual well, or metered supply, per bedroom | 150 |
| Subdivision dwelling on public water supply, unmetered, per bedroom | 200 |
| Dwelling units, multiple: | |
| Apartment houses on individual wells | 75-100 |
| Apartment houses on public water supply, unmetered | 100-200 |
| Hotels: | 50-100 |
| Boarding houses: | 50 |
| Lodging houses and tourist homes: | 40 |
| Motels, without kitchens, per unit: | 100-150 |
| Camps: | |
| Pioneer type | 25 |
| Children's, central toilet and bath | 40-50 |
| Day camp, no meals | 15 |
| Luxury, private bath | 75-100 |
| Labor | 35-50 |
| Trailer with private toilet and bath, per unit | 125-150* |
| Restaurants (including toilet): | |
| Average | 7-10 |
| Kitchen wastes only | 2.5-3 |
| Short order | 4 |
| Short order, paper service | 1-2 |
| Bars and cocktail lounges: | 2 |
| Average type, per seat | 35 |
| Average type, 24 hour, per seat | 50 |
| Tavern, per seat | 20 |
| Service area, per counter seat (highway) | 350 |
| Service area, per table seat (highway) | 150 |
| Institutions: | |
| Average type | 75-125 |
| Hospitals | 150-250 |
| Schools: | |
| Day | 5-10 |
| Day, with cafeteria or lunch room | 10-15 |
| Day, with cafeteria and showers | 15-20 |
| Boarding | 75 |
| Theaters: | |
| Indoor, per seat, two showings per day | 3 |
| Outdoor, including food stand, per car | 3-5 |
| Automobile service station: | |
| Per vehicle served | 10 |
| Per set of pumps | 500 |
| Stores: | |
| First 25 feet of frontage | 450 |
| Each additional 25 feet of frontage | 400 |
| Country clubs: | |
| Resident type | 100 |
| Transient type, serving meals | 17-25 |
| Offices: | 10-15 |
| Factories, sanitary wastes, per shift: | 15-35 |
| Self service laundry: | 250-500 |
| Bowling alleys, per alley: | 200 |
| Swimming pools and beaches, toilet and shower: | 10-15 |
| Picnic parks, with flush toilets: | 5-10 |
| Fairgrounds (based on daily attendance): | 1 |
| Assembly halls, per seat: | 2 |
| Airport, per passenger: | 2½ |

* Add 125 gal. per space for lawn sprinkling, car washing, leakage, etc. NOTE: Water under pressure, flush toilets, and wash basins are assumed unless otherwise noted. Figures are flows per capita per day unless otherwise stated.

TABLE G-2

Design unit sewage flows for recreational facilities

(Yellowstone National Park)

| Establishment | Unit | Flow in gpd |
|-----------------------------|-----------------|-------------|
| Cafeteria | Table seat | 150 |
| Campground (developed) | Person | 25 |
| Cocktail lounge | Seat | 20 |
| Coffee shop | Counter seat | 250 |
| Dining room | Table seat | 150 |
| Dormitory, bunkhouse | Person | 50 |
| Fish cleaning station | Station | 7,500 |
| Gas station | Station | 2,000-5,000 |
| Hospital | Bed | 200 |
| Hotel | Person | 75 |
| Laundromat | Washing machine | 500 |
| Lodge or cabins | Person | 50 |
| Mess hall | Person | 15 |
| Offices and stores | Employee | 25 |
| Residence homes, apartments | Person | 75 |
| Trailer village | Person | 35 |
| Visitor centers | Visitor | 5 |

TABLE G-3

Sewage flows from commercial districts

| Establishment | Unit | Flow in gpd |
|-----------------|-----------|-------------|
| Airport | Passenger | 5 |
| Hotel | Person | 100 |
| Motel | Person | 50 |
| Restaurant | Meal | 7 |
| Shopping Center | Employee | 60 |
| Small business | Employee | 20 |
| Theater | Seat | 5 |

TABLE G-4

Average sewerage flows from institutional facilities

| Establishment | Unit | Flow in gpd |
|--------------------|-----------------|-------------|
| Elementary schools | Student & Staff | 10 |
| High schools | Student & Staff | 20 |
| Medical Hospital | Patient & Staff | 175 |
| Mental hospital | Patient & Staff | 125 |
| Prisons | Inmate & Staff | 175 |

TABLE G-5

Miscellaneous water usage estimates

| Item | Unit | Avg. gal. used |
|---|---------|----------------|
| Air conditioner, home type, water cooled | gpd | 2,880 |
| Automatic home laundry machine | Load | 30-50 |
| " " " " | Person | 6½-9 |
| Bathtub | Per Use | 30 |
| Dishwashing machine, home type | Load | 4-8 |
| " " " " | Person | 6 |
| Dishwashing machine, commercial type, stationary rack | gpm | 6-9 |
| " " " " , Conveyor type | gpm | 4-6 |
| Drinking fountain, continuous flowing | gph | 75 |
| Garbage disposal, home type | Person | 1-4 |
| Shower head | Per Use | 25-30 |
| Wash basin | Per Use | 1½ |
| Water closet, tank | Per Use | 4-5 |
| Water closet, flush valve | gpm | 30 |

TABLE G-6

Typical composition of domestic waste

| Constituent | Strong | Medium | Weak |
|--|--------|--------|------|
| Alkalinity (as CaCO ₃)* | 200 | 100 | 50 |
| Biochemical Oxygen Demand, 5-day, 20°C (BOD ₅) | 300 | 200 | 100 |
| Chemical Oxygen Demand (COD) | 1000 | 500 | 250 |
| Chlorides* | 100 | 50 | 30 |
| Grease | 150 | 100 | 50 |
| Nitrogen, (total as N) | 85 | 40 | 20 |
| Organic | 35 | 15 | 8 |
| Free ammonia ⁵⁰ | 50 | 25 | 12 |
| Nitrites | 0 | 0 | 0 |
| Nitrates | 0 | 0 | 0 |
| Phosphorus, (total as P) | 20 | 10 | 6 |
| Organic | 5 | 3 | 2 |
| Inorganic | 15 | 7 | 4 |
| Settleable solids, (ml/liter) | 20 | 10 | 5 |
| Solids, total | 1200 | 700 | 350 |
| Dissolved, total | 850 | 500 | 250 |
| Fixed | 525 | 300 | 145 |
| Volatile | 325 | 200 | 105 |
| Suspended, total | 350 | 200 | 100 |
| Fixed | 75 | 50 | 30 |
| Volatile | 275 | 150 | 70 |
| Total organic carbon (TOC) | 300 | 200 | 100 |

NOTE: All values except settleable solids are expressed in mg/liter. * Values should be increased by amount in carriage water.

CITY OF BISHOP WATER SEWER CASH BALANCES

SEWER

| <u>DATE:</u> | <u>BEGINNING BALANCE:</u> | <u>EXPENDITURES:</u> | <u>RECEIPTS:</u> | <u>ENDING BALANCE:</u> |
|--------------|---------------------------|----------------------|------------------|------------------------|
| OCTOBER | \$639,622.63 | \$59,634.17 | \$51,429.93 | \$631,418.39 |
| NOVEMBER | \$616,418.39 | \$63,997.86 | \$46,554.76 | \$598,975.29 |
| DECEMBER | \$598,975.29 | \$63,191.51 | \$51,748.63 | \$587,532.41 |
| JANUARY | \$587,532.41 | \$74,181.27 | \$46,559.92 | \$559,911.06 |
| FEBRUARY | \$559,911.06 | \$75,535.10 | \$52,487.46 | \$536,863.42 |
| MARCH | \$536,863.42 | \$81,192.38 | \$56,422.91 | \$512,093.95 |
| APRIL | \$512,093.95 | \$52,202.51 | \$56,449.60 | \$516,341.04 |
| MAY | \$516,341.04 | | | |
| JUNE | \$0.00 | | | |
| JULY | \$0.00 | | | |
| AUGUST | \$0.00 | | | |
| SEPTEMBER | \$0.00 | | | |
| OCTOBER | \$0.00 | | | |
| NOVEMBER | \$0.00 | | | |
| DECEMBER | \$0.00 | | | |
| JANUARY | \$0.00 | | | |
| FEBRUARY | \$0.00 | | | |
| MARCH | \$0.00 | | | |
| APRIL | \$0.00 | | | |
| MAY | \$0.00 | | | |
| JUNE | \$0.00 | | | |
| JULY | \$0.00 | | | |
| AUGUST | \$0.00 | | | |
| SEPTEMBER | \$0.00 | | | |
| OCTOBER | \$0.00 | | | |
| NOVEMBER | \$0.00 | | | |
| DECEMBER | \$0.00 | | | |

WATER

| <u>DATE:</u> | <u>BEGINNING BALANCE:</u> | <u>EXPENDITURES:</u> | <u>RECEIPTS:</u> | <u>ENDING BALANCE:</u> |
|--------------|---------------------------|----------------------|------------------|------------------------|
| OCTOBER | \$1,538,475.92 | \$73,383.71 | \$80,031.91 | \$1,545,124.12 |
| NOVEMBER | \$1,530,124.12 | \$64,030.67 | \$77,732.81 | \$1,543,826.26 |
| DECEMBER | \$1,543,826.26 | \$54,511.06 | \$77,541.98 | \$1,566,857.18 |
| JANUARY | \$1,566,857.18 | \$68,933.30 | \$85,636.39 | \$1,583,560.27 |
| FEBRUARY | \$1,583,560.27 | \$67,580.48 | \$63,859.28 | \$1,579,839.07 |
| MARCH | \$1,579,839.07 | \$121,795.34 | \$92,828.38 | \$1,550,872.11 |
| APRIL | \$1,550,872.11 | \$85,359.03 | \$69,390.77 | \$1,534,903.85 |
| MAY | \$1,534,903.85 | | | |
| JUNE | \$0.00 | | | |
| JULY | \$0.00 | | | |
| AUGUST | \$0.00 | | | |
| SEPTEMBER | \$0.00 | | | |
| OCTOBER | \$0.00 | | | |
| NOVEMBER | \$0.00 | | | |
| DECEMBER | \$0.00 | | | |
| JANUARY | \$0.00 | | | |
| FEBRUARY | \$0.00 | | | |
| MARCH | \$0.00 | | | |
| APRIL | \$0.00 | | | |
| MAY | \$0.00 | | | |
| JUNE | \$0.00 | | | |
| JULY | \$0.00 | | | |
| AUGUST | \$0.00 | | | |
| SEPTEMBER | \$0.00 | | | |
| OCTOBER | \$0.00 | | | |
| NOVEMBER | \$0.00 | | | |
| DECEMBER | \$0.00 | | | |



CITY OF BISHOP

377 West Line Street - Bishop, California 93514
Post Office Box 1236 - Bishop, California 93515
760-873-8458 publicworks@ca-bishop.us
www.ca-bishop.us

PUBLIC WORKS REPORT

March 2009

Water

1. Wood Rodgers completed work on the Well 4 and Well 2 Assessment Project. Well 2 bowls (the heart of a well pump) were rebuilt as part of this project.
2. Began extensive disinfection of Well 4 to remedy positive bacteria tests for total coliform.
3. V and C Construction began installing new 8 inch valves and crosses at the intersections on North Second at Clarke Street and Short Street. They also constructed approximately 200 feet of new 8 inch water main at the same location.
4. Worked with Rollins Electric and Severn Trent to resolve issues with control panel on sodium hypochlorite generator. The problem has not been solved as of April 1.
5. Began annual main line valve exercising program. .
6. Took monthly readings of all water meters.
7. Took routine bacteria samples.
8. Continued to work with Eco-Logic on rate study.
9. Made minor repairs to water meter at the Tri-County Fairgrounds to get it back in operation.
10. Participated in Bishop Water and Sewer Commission meeting.
11. Issued water conservation news release.

Sewer

1. Completed installation of new components in the north digester.
2. Continued cleaning and video inspections of sewer mains throughout the city.
3. Serviced sludge pumps at the Waste Water Treatment Plant.
4. Made routine inspections of grease interceptors.
5. Generated a No Spill Certification for the state and reported the same.
6. Performed routine main line cleaning in trouble areas.

7. Cleaned grit and sludge drying beds.
8. Submitted applications for federal economic stimulus funding for sewer improvements related to existing and proposed street projects.
9. V and C Construction installed 300 feet of new 8 inch plastic sewer main on Clarke Street.

Streets

1. Completed annual crack sealing operations.
2. V and C Construction started work on the South Second Street Improvements project.
3. Widened the sidewalk at the west end of Grove Street on the south side to accommodate handicap access around a fire hydrant.
4. Repaired and or replaced various street signs.
5. Patched potholes and gutters where needed.
6. Swept city streets and alleys.
7. Continued work with consultants on plans and environmental documents for future street projects.
8. Participated in environmental hearings and processed environmental documents for the Grove Street Sidewalks, West Pine Street Improvements, and Sneden Street Improvements projects.
9. Met with Mary Baker concerning trees being removed on Grove Street including an "on site" meeting.
10. Met with various residents on Grove Street to resolve design issues on the future Grove Street Sidewalks project.
11. Worked with Eastern Sierra Engineering to finalize Grove Street Sidewalks plans, specifications, and estimates.
12. Met with Inyo County staff regarding impacts of Grove Street Sidewalks project on parking at the county offices at Warren Street.
13. Worked with Triad to finalize plans, specifications, and estimates for Road Improvement Project A.
14. Met with Caltrans staff and staff from consultants on candidate street projects for economic stimulus funding (Hanby Avenue, North Fowler, and West Elm).
15. Participated in the Bishop Tree Committee meetings and worked toward updating the City of Bishop street tree list.

16. Worked with county's Pavement Management System (PMS) consultant on location for new traffic counts to be obtained on city streets as part of the cooperative PMS project between the city and the county.

17. R. O. Anderson began work on Pine to Park Path project.

Miscellaneous

1. Constructed a new 4 inch water service for the City Park to accommodate the irrigation on the new ball field next to Field 4.
2. Hauled off trash and debris from the Fowler Street trash pit.
3. Made minor repairs and performed maintenance to light trucks and heavy equipment.
4. General Shop clean up and organization.
5. Made minor repairs and performed maintenance to light trucks and heavy equipment.
6. Provided weekly safety meetings for Public Works crew.
7. Start planning for new landscaping in shop planters.
8. Worked with staff from Enplan and Inyo County to improve parcel data in the Bishop Geographic Information System (GIS).