

WORKSHOP AGENDA
City of Brookings
CITY COUNCIL

Brookings City Hall Council Chambers
898 Elk Drive, Brookings, Oregon 97415

Monday, April 20, 2009, 4:00 p.m.

I. Call to Order

II. Roll Call

III. Topics

- A. Household Hazardous Waste Management Plan
- B. Final Draft System Development Charge Update
- C. Final Draft Wastewater Rate Analysis

IV. Adjournment

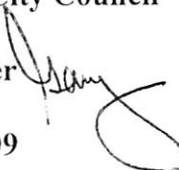
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City of Brookings
898 Elk Drive
Brookings, OR 97415



COUNCIL *WORKSHOP* REPORT

To: Mayor and City Council

From: City Manager 

Date: April 28, 2009

Subject: Household Hazardous Waste Management Plan

Recommendation: Hear presentation.

Background /Discussion:

Craig Filip with the Department of Environmental Quality will be present to make a presentation on the Coos and Curry County Household Hazardous Waste Management Plan. The 100-or-so page document is available in the Council Information Box. Attached is the executive summary.

Gary Milliman

From: FILIP Craig [Filip.Craig@deq.state.or.us]
Sent: Friday, March 13, 2009 3:13 PM
To: CityOfPowers@msn.com; cfreeman@coosbay.org; gbcityadmin@charterinternet.com; Gary Milliman; janw@uci.net; citymanager@ci.bandon.or.us; mmurphy@portorford.org; cityoflakeside@charterinternet.com; cityofmyrtlepoint@yahoo.com; toconnor@cityofcoquille.org
Cc: Delyn Kies; nowling@co.curry.or.us; Cheryl Westgaard; petes@wcnx.org; cbsan@starband.net; mamoojean@aol.com; angelam@wcnx.org
Subject: Coos and Curry County Household Hazardous Waste Management Plan

Dear City Managers, Administrators, and elected officials,

As you may know, since 1991 the Department of Environmental Quality (DEQ) has sponsored one-day Household Hazardous Waste (HHW) collection events annually around the state to collect and properly dispose of HHW which could otherwise be improperly managed, thereby posing risks to human health and the environment. In 1999, however, DEQ shifted its focus on this wastestream towards helping local governments build their own capacity to meet local needs for HHW management. This was accomplished through provision of planning, facility, and education grants and technical assistance to local governments for the development of HHW plans and programs suited to their areas.

For the past year and a half or so, DEQ has been working with representatives of Coos and Curry counties on the development of a long-term Household Hazardous Waste (HHW) Management Plan to serve the residents and qualified small businesses of the two counties. The Plan was written using DEQ grant funds by the consulting team of Delyn Kies et. al., with oversight provided by the Coos and Curry Counties Household Hazardous Waste Planning Committee. For details, please refer to the attached background information on the Plan and the process leading up to its adoption by both the Coos and Curry County Boards of Commissioners last year.

We have now reached a phase in the planning process which involves the direct participation of the incorporated cities of Coos and Curry counties. Implementation of this adopted Plan involves several steps:

- 1) Approval of an increase in franchised garbage collection rates in Coos and Curry counties to accommodate the commensurate increase in tipping fees at the Beaver Hill Disposal Site and county transfer stations necessary to provide funding to implement the Plan;
- 2) The optional adoption of the Plan by each incorporated city of Coos and Curry County;
- 3) The optional signing of the intergovernmental agreement (IGA) between the cities and counties to form a Plan implementation and facility oversight Steering Committee; and,
- 4) The optional appointment of a representative to the Steering Committee by each signatory jurisdiction to the IGA.

I would like to schedule time to meet with your city councilors to present the adopted HHW Management Plan and to answer any questions they might have. I would also like to schedule a subsequent meeting with them to approve the rate increase and, if they so choose, adopt the Plan, sign the IGA, and appoint a representative to the Steering Committee. With this e-mail I am also forwarding you a complete version of the Plan as it was adopted by the Coos and Curry County Boards of Commissioners. Please note that provision of DEQ funds for the construction of an HHW management facility is contingent upon passage of the rate increase necessary to operate the HHW management program, as set forth in the adopted Plan attached.

Please let me know if you have any questions. I will telephone city management staff beginning next week to discuss reserving some time at upcoming city council meetings for a presentation and discussion of the Plan and action on the implementation steps I've outlined. I may be reached at (800) 844-8467, ext. 7868, if you have questions in the meantime.

Sincerely Yours,

Craig C. Filip, Solid Waste Reduction Analyst
filip.craig@deq.state.or.us, 541-686-7868
 Oregon Department of Environmental Quality
 Western Region - Environmental Solutions section
 1102 Lincoln St., #210, Eugene OR 97401-3299

Messages to and from this e-mail address may be available to the public under Oregon Public Records Law.

3/18/2009

BACKGROUND ON AND SUMMARY OF THE ADOPTED COOS AND CURRY COUNTY HOUSEHOLD HAZARDOUS WASTE MANAGEMENT PLAN, 3/28/09 FINAL VERSION

by Delyn Kies, Kies Strategies and
Craig C. Filip, Department of Environmental Quality

BACKGROUND AND CHRONOLOGY

Household hazardous waste (HHW) includes a wide variety of household products that can be harmful to human health and the environment, either in their use and/or in their disposal. Examples include mercury and mercury-containing items (thermostats, thermometers, fluorescent bulbs), pesticides, herbicides, poisons, corrosives, solvents, fuels, some types of batteries, paints, certain cleaning products, motor oil, and antifreeze.

Coos County received a planning grant from the Oregon Department of Environmental Quality (DEQ) to study options for reducing the health and environmental impacts of HHW. The consultant team of Kies Strategies, Tabor Consulting Group, and Bell & Associates, Inc. was selected through a competitive request for proposals to assist in developing a HHW Management Plan.

Initial research was conducted by the consultants for Coos County, including identification of key issues, needs and opportunities, and estimates of the types and quantities of HHW that may be collected. Members of the consultant team met with Coos County and the Waste Advisory Committee on June 21, 2006 and September 13, 2006. In advance of these meetings, the consultant team prepared descriptions of several alternatives and associated cost assumptions and calculations regarding possible HHW services and funding options for Coos County. During these two meetings, Coos County and the Committee discussed alternatives, costs and implementation issues and selected initial preferences for further analysis.

In November 2007, DEQ awarded an HHW Planning Grant to Curry County to develop a joint HHW management plan with Coos County. An intergovernmental agreement between Coos and Curry Counties forming a joint Household Hazardous Waste Planning Committee (HHWC) was later signed in December 2006 and a new Grant Agreement for development of this joint plan was issued by DEQ in March 2007.

Additional research was conducted and supplemental material was prepared by the consultants for Curry and Coos Counties to further define the preferred alternatives for HHW services previously selected in the context of a joint planning process. The Curry County Board of Commissioners was briefed on the planning process and alternatives on May 7, 2007. A meeting of the HHWC was held on May 8, 2007 to discuss alternatives, costs and implementation issues for a joint Coos and Curry County plan.

Decisions made in these meetings were reflected in a Draft Plan discussed at a meeting of the Curry County Solid Waste/Recycling Committee on June 26, 2007 and at a meeting of the HHWC on June 27, 2007. Comments from these meetings and additional comments from stakeholders were incorporated into a Preliminary Final Draft HHW Management Plan for presentation to the Curry County Solid Waste/Recycling Committee on September 20, 2007 and the HHWC on October 17, 2007. The Curry County Committee recommended approval of the Plan to the Curry County Board of Commissioners and cities at their meeting on September 20. The HHWC recommended approval of the Plan to the Coos County Board of Commissioners and cities at their meeting on November 20, 2007. The Plan was forwarded by HHWC Chair Steve Allen to the Coos County Board of Commissioners on December 10, 2007 for their consideration and approval.

At a meeting of the Coos County Board of Commissioners on March 5, 2008, the HHW Management Plan was adopted with minor changes. These changes were incorporated into the final plan version, dated March 28, 2008. This adopted version of the HHW Management Plan was forwarded to the Curry County Board of Commissioners on June 13, 2008. At their meeting on July 7, 2008, the Curry County Board of Commissioners passed a resolution adopting the 3/28/08 version of the HHW management plan.

The programs, services and cost estimates in this Final Draft HHW Management Plan are based on the information available and the considered evaluation of the Counties and the Committees during the planning and adoption process. It is understood and expected that changes may occur as program details are determined and operations commence.

SERVICES AND PROGRAMS OF THE HHW PLAN

The adopted HHW Management Plan (HHW Plan) intends that Coos and Curry Counties, working in partnership with the cities, waste haulers, and other interested parties, address the management of household hazardous waste (HHW), as well as hazardous waste from certain County facilities and businesses that are “conditionally exempt small quantity generators” (CEGs). CEGs generate less than 220 pounds of hazardous waste per month. While it is understood that changes may occur during implementation, for the purposes of this HHW Plan, Coos and Curry Counties and their partners will:

- Site a permanent HHW facility at the Beaver Hill Disposal Site that will be open one day per month and by appointment for drop-off of HHW.
- Provide up to 8 satellite collection events throughout Coos and Curry Counties each year. Events may be held in Coos Bay, Coquille, Myrtle Point, Bandon, Gold Beach, Port Orford and Brookings.
- Expand promotion of existing services for recycling used motor oil, antifreeze, lead-acid (automotive) batteries, and other batteries.
- Establish an intergovernmental agreement (IGA) between the Counties and create a Steering Committee that will make decisions regarding certain operational details on an ongoing basis. The Steering Committee will consist of representatives of the two counties and the cities. The IGA will also designate Coos County as the Lead Agency of this regional service.

FINANCIAL IMPACTS

A seven-year budget projection has been prepared (Table 1 of the HHW Plan) based on detailed capital and operating cost estimates for the permanent facility and satellite collection events (Table 2 of the HHW Plan).

No fees will be charged for dropping off HHW at the permanent facility or satellite collection events. CEGs may still pay market rates for disposal of their hazardous waste, depending on the fee structure determined. Funding will be from two sources: (1) DEQ grants, and (2) the disposal fees charged on a per ton basis at the Beaver Hill Disposal Site and transfer stations in the two counties.

Assuming the programs and cost estimates of the HHW Plan as described, the tipping fees will increase by an average of approximately \$3.27 per ton of waste disposed. The impact on collection rates will vary based on size of container and service levels, but would average approximately \$0.28 per household per can per month, or \$3.40 per year. Commercial customers would pay approximately \$0.89 per container yard a month.

Actual costs are highly dependent on program participation and volumes of wastes collected, and thus may be higher or lower than estimated. The HHW Plan includes provisions for the Steering Committee to address long-term funding for the collection and disposal of HHW and to adjust services and programs based on costs and participation.

In addition, the planned HHW services and programs may reduce long-term costs because they are designed to minimize impacts to the environment and reduce hazards to worker and community safety.

Final
Household Hazardous Waste Management Plan
Coos County and Curry County, Oregon

Prepared for

Coos and Curry Counties
Coos County Courthouse
250 N. Baxter Street
Coquille, Oregon 97423

March 28, 2008

Kies Strategies
50 Plata Court
Novato, California 94947
Telephone: 415-209-0321
Fax: 415-893-9701

In Conjunction With:

Tabor Consulting Group
Portland, Oregon

Bell & Associates, Inc.
Camas, Washington

Coos County and Curry County, Oregon
Final Household Hazardous Waste Management Plan
March 28, 2008

Prepared by Kies Strategies, Tabor Consulting Group and Bell & Associates, Inc.

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Final Household Hazardous Waste Management Plan

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- 2 Household Hazardous Waste Management Planning Project
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- A BRIEFING PAPER
- B EXPANDED REVIEW OF ALTERNATIVES
- C SUPPLEMENTAL BRIEFING PAPER
- D DEQ HHW COLLECTION FACILITY DESIGN AND OPERATIONS GUIDANCE

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

This Coos County and Curry County Household Hazardous Waste Management Plan (hereafter “HHW Plan” or “Plan”) has been prepared by Kies Strategies, Tabor Consulting Group, and Bell & Associates, Inc. for consideration and review by Coos and Curry Counties and the Household Hazardous Waste Planning Committee (hereafter “Committee”).

Household hazardous waste (HHW) is waste from households that, due to its hazardous nature, has the potential to cause significant harm to human health or the environment. HHW includes common household products that are poisonous, toxic, flammable, reactive, or corrosive. Examples include pesticides, herbicides, mercury and mercury thermometers, some types of batteries, gasoline, kerosene, motor oil, antifreeze, oil-based paint, paint thinner, turpentine, pool chemicals, drain cleaners, and a variety of other products commonly used in household cleaning, around the yard, or in hobbies, crafts, and auto maintenance. Although inappropriate disposal of these wastes may harm the environment, households are exempt from most federal, state, or local separation requirements governing hazardous wastes (one exception is a prohibition of disposal of “bulk liquids”, such as large quantities of paint, in solid waste). Households are also exempt from liability under CERCLA (“Superfund”).

This Final Draft HHW Plan identifies continuing and new services which Coos and Curry Counties intend to offer pending review and consideration by decision-makers. The Counties, working in partnership with the cities, waste haulers, and other interested parties, intend to address the management of HHW, as well as hazardous waste from certain County facilities and businesses that are “conditionally exempt small quantity generators” (CEGs). CEGs generate less than 220 pounds of hazardous waste per month. While it is understood that changes may occur during implementation, for the purposes of this Plan, Coos and Curry Counties and their partners may, depending on finances and other considerations:

- Continue to provide collection and recycling of used motor oil at the Beaver Hill Disposal Site and the West Coast Recycle and Transfer facility in Coos County and all five transfer stations in Curry County including the Brookings Transfer Station, Agness Transfer Station, Nesika Beach Transfer Station, Port Orford Transfer Station in Gold Beach and the Wridge Creek Transfer Station in Brookings. The franchised garbage haulers will continue to provide curbside collection of used motor oil in the cities of Coos Bay, North Bend, and Coquille, including parts of the urban growth areas. Curbside pickup is also provided in Bandon upon request for an additional fee.
- Continue to provide collection and recycling of antifreeze for a fee at all Curry County transfer stations including the Brookings Transfer Station, Agness Transfer Station, Nesika Beach Transfer Station, Port Orford Transfer Station in Gold Beach and the Wridge Creek Transfer Station in Brookings.
- Continue to accept lead-acid (automotive) batteries for recycling at the Beaver Hill Disposal Site and the West Coast Recycle and Transfer facility in Coos County and for a fee at all transfer stations in Curry County including the Brookings Transfer Station, Agness Transfer Station, Nesika Beach Transfer Station, Port Orford Transfer Station in Gold Beach and the Wridge Creek Transfer Station in Brookings. Support collection at several local retailers.
- Continue to provide collection and recycling of rechargeable batteries (nickel cadmium (ni-cd), lithium ion, etc.) for a fee at all Curry County transfer stations including the Brookings Transfer Station, Agness Transfer Station, Nesika Beach Transfer Station, Port Orford Transfer Station in Gold Beach and the Wridge Creek Transfer Station in Brookings. Support collection at local retailers in both Coos and Curry Counties.

- Expand promotion and public education program to promote proper disposal of used motor oil, antifreeze, lead-acid batteries, and other batteries through existing recycling opportunities.
- Launch a public education program targeted at the residential sector to promote properly disposing of unused latex paint as household garbage. Develop a system to transfer all non-hazardous latex paint (paint not containing lead and mercury) accepted at the permanent HHW facility or “satellite” collection events to the transfer stations for disposal as solid waste.
- Site a permanent HHW facility at the Beaver Hill Disposal Site that will be constructed and managed by Coos County. The facility will provide a secure, protected location for waste identification, packing, and temporary storage. Collection events will be held at the permanent facility 12 days a year (one day per month in 12 different months per year). In between events, the permanent HHW facility will also serve as a location where CEGs and residents unable to wait for the next event (primarily those selling and cleaning out their homes) can drop-off HHW, on an appointment-only basis. Waste collected at the facility will be transported by a contractor for final treatment, recycling or disposal.
- Provide a series of “satellite” HHW collection events for residents on a regular basis throughout Coos and Curry Counties. Once the program is established, approximately eight satellite events will be held per year, growing to more events or decreasing to fewer events as the budget allows. Satellite events may be held in Coos Bay, Coquille, Myrtle Point, Bandon, Gold Beach, Port Orford and Brookings. These satellite HHW collection events will be serviced by a contractor. Waste collected at the events will be transported out of the counties for final treatment, recycling or disposal. The satellite events will be managed by the Counties in partnership with the cities, waste haulers, and other interested parties.
- Establish an intergovernmental agreement (IGA) between the Counties and create a Steering Committee that will make decisions regarding certain operational details on an ongoing basis. The Steering Committee will consist of representatives of the two counties and the larger cities. The intergovernmental agreement will contain language to address the long term funding for the collection and disposal of HHW collected at the HHW satellite collection events and the permanent HHW facility. The IGA will also designate Coos County as the Lead Agency of this regional service.

These proposed services are similar to “Alternative C”, described in the *Expanded Review of Alternatives*, Appendix B, of this Plan. The services described in Appendix B have been modified to include two additional satellite collection events and exclude the management of latex paint and motor oil at the permanent facility as HHW. This modification has also changed the pro forma cost estimate associated with the Alternative. According to the quantities of waste accepted at past DEQ HHW collection events, the amount of hazardous waste managed at the permanent HHW facility may decrease by 27% (latex paint 20% and motor oil 7%).

New HHW services as described in this Plan, excluding the expanded education program for used motor oil recycling and disposal of latex paint as household garbage, are projected to require approximately \$313,124 in start-up capital costs after deducting potential DEQ grant funds. Start-up costs are shown in the first year of the 7-year budget projection (see Table 1). They include facility design, permitting, construction and equipment, plus a 10% contingency. Start-up costs also include one satellite collection event held in each County prior to opening the facility. These events are shifted from the following year so that six satellite collection events will be held during the first year of facility operation. The average annual costs during the first six years of operation are estimated at \$185,587 per year (again, including contingency) after deducting potential revenue from CEGs for their disposal cost. The higher costs of the proposed collection system, relative to typical solid waste (garbage), reflects the dangerous characteristics

and special handling, storage, and disposal methods that are required for safe and proper management of hazardous waste.

Actual costs are highly dependent on program participation and volumes of wastes collected, and thus may be higher or lower than estimated. However, cost estimates contained in this Plan include a 10% contingency factor, so the Plan's cost estimates may be higher than what will actually be realized.

The Committee has identified two funding sources for the HHW collection services: (1) DEQ grants, and (2) the disposal fees charged on a per ton basis at the incinerator and transfer stations in the two counties. Approximately \$100,000 in Tier I grant funds are potentially available from DEQ for a single permanent HHW facility that provides HHW collection services to all residents of both Coos and Curry Counties. Additional DEQ grant funds may also be available for waste prevention education.

An increase in the disposal tipping fee is viewed as an equitable method of funding this community service since almost all waste from Coos and Curry Counties goes to a disposal facility within one of the counties. An increase in the disposal rate also represents a long-term source of funding. This requires the rate-setting cities and counties to approve a rate increase at the incinerator and transfer stations and a pass-through of the increased tipping fees in residential and commercial collection rates.

Assuming the programs and cost estimates of this Plan as described in Table 2 (Initial Cost Estimate - Alternative C: Permanent Facility with Eight Contracted Collection Events), the tipping fees will increase by an average of approximately \$3.27 per ton of waste disposed. The impact on collection rates will vary based on size of container and service levels, but would average approximately \$0.28 per household per month or \$3.40 per year. Commercial customers would pay approximately \$0.39 per container yard.

DEQ HHW grants are the second source of funding. The DEQ Household Hazardous Waste Management Plan for 2005-2011 offers grants for two types of facilities, Tier I and Tier II. Grants for Tier I facilities are based primarily on a population-based formula. The basic formula is \$40,000, plus \$1.00 for each resident in the facility's service area; with a minimum of \$40,000 and maximum of \$100,000. Grants for Tier II facilities will cover costs up to \$30,000. Tier II grants may also cover costs for mobile facilities or vehicles. Any Tier II permanent facilities must be located at least 20 miles from the Tier I facility.

It is assumed that the Counties will take a regional approach to funding the permanent facility. Using 2006 population estimates, Coos County has a population of 62,905 and Curry County has a population of 21,365 for a total population of 84,270 and so would be eligible for \$100,000 in Tier I grant funds for a single permanent facility to serve both Counties.

If there are remaining funds after reimbursing costs for the permanent facility, they can be used for other costs associated with the HHW collection program such as disposal costs. In order to be eligible for grant funds, the facility must be publicly owned for at least the first 5 years. Additional DEQ grant funds may also be available for waste prevention education.

For the purposes of estimating program costs for this HHW Plan, it is assumed that residents that use the collection service of the permanent facility or satellite events will not be charged a fee for drop-off of HHW. It is assumed that CEGs that use the collection service of the permanent facility or satellite events will be charged for actual disposal costs of the wastes they deliver.

This HHW Plan also includes several efficiencies to reduce overall program costs. These include focusing collection activities on higher-hazard wastes; diverting certain items from the HHW waste stream such as latex paint and motor oil; using existing staff for certain low-hazard waste (i.e. motor oil,



COUNCIL *WORKSHOP* REPORT

To: Mayor and City Council

From: City Manager

Date: May 4, 2009

Subject: System Development Charge Study

Recommendation: Discussion and direction to staff.

Background /Discussion: The City Council has discussed the System Development Charge (SDC) rate study prepared by the Dyer Partnership several times.

Councilor Hedenskog has suggested modifying the rate calculation to consider the square footage of residential uses (see attached).

Mayor Anderson has suggested retaining the existing rate schedule until development activity begins to occur in the Lone Ranch area, noting that the proposed rates assume that construction within the Lone Ranch area will begin within the next five year period.

The City Manager has suggested modifying the SDC rates for targeted businesses in the Urban Renewal Area to provide an incentive to attract new restaurants into the area.

Further Council discussion and direction is needed so that the study can be finalized and presented to the Council for action.

The latest version of the SDC study is dated November 18, 2008. Please bring this with you to the workshop.

Hi Laura Lee,

The intention of this memo is to follow up on the conversation we had today, concerning SDC charges, and the impression from some community members that a more fair formula to determine SDC fees for residences and restaurants should be adopted.

I propose a formula for residences based on an average American family home. For the sake of this memo, consider an average home (or one EDU) as being 1500 sq. ft., 3 bedrooms, and 2 baths, and a standard SDC fee for one EDU is \$20,000. This allows for a three part formula, each of the three parts being equal to 33 1/3% of the total, therefore, an SDC charge is based on the total proportion of increase or decrease of the sum of three factors. A formula could work like this (numbers are rounded for clarity):

A permit is being considered for a 2400 sq. ft. residence, 2 bedrooms, and 2 baths;

2400 / 1500 SQ. ft. = 60% increase X 1/3 = 20% increase in SDC

2 / 3 bedrooms = 33.3% decrease X 1/3 = 11% decrease in SDC

Number of baths remains constant.

This residence would net an increase of 20% - 11% = (+) 9% X \$20,000 = \$21,800 in SDC fees.

Another example is a residence that would build out at 1000 sq. ft., 2 bedrooms, and 1 bath. The formula would be:

1200 / 1500 sq. ft. = 20% decrease X 1/3 = 6.7% decrease.

2 / 3 bedrooms = 33.3% decrease x 1/3 = 11% decrease.

1 / 2 baths = 50% decrease x 1/3 = 16.7% decrease = total decrease of 34.4%

\$20,000 X (-) 34.4% = \$13,120 SDC fees.

A similar formula could be adopted for restaurants, and expanded to take in beauty salons and so forth.

The formula could be based on as many factors as needed. A suggestion for restaurants could be four or five parts:

Square feet

Number of tables

cooking / washing facilities

actual water meter readings

number of parking spaces

SDC fees for a new restaurant would be based on a similar formula for residences. In addition, a restaurant could be reviewed annually for any increase in the above 5 factors at the renewal of a City Business licence. An increase in any of the factors equals a proportionate increase in SDC fees. A decrease would not result in a rebate, but instead would go towards the historic level of impact the business has on the infrastructure, and would run as a credit to that business for any future increase charges.

The equation for a restaurant becomes more involved because an average restaurant would need to be developed for each restaurant category; i.e., fast food, cafe, full service, etc.

Because of the simplicity of the formula for residences, I feel there is no reason to not adopt a more fair methodology at the next review and adoption process coming up.

The suggested formulas would attain a more fair approach to establishing the true impact (and potential impact) new development has on the existing infrastructure.

Please forward a copy to City Manager, Gary Milliman, Mayor Anderson, and Council.

Ron



COUNCIL *WORKSHOP* REPORT

To: Mayor and City Council

From: City Manager

Date: May 4, 2009

Subject: Sewer Use Fee Study

Recommendation: Discussion and direction to staff.

Background /Discussion:

The City Council has discussed the sewer use fee study several times. The attached revised study was developed in response to several changing variables:

1. Elimination of the annual contribution to capital improvement reserves.
2. Reduction in the cost of sludge processing facility from \$6.0 million to \$2.0 million.
3. Correction to City-provided data on the number of restaurant facilities in the City.
4. A re-evaluation of wastewater discharge and reuse by South Coast Lumber.
5. A shift in functionalization to reflect equal burden on the system for both treatment and collection.

The industrial rate as it would be applied to South Coast Lumber would be based upon sewer discharge rather than water usage. As this is one major customer, it is reasonable to calculate the use fee based upon sewage flow. South Coast has indicated that they recycle/reuse a large percentage of the water purchased from the City. This new rate would be applied to South Coast Lumber only after they install a sewer flow meter, and has the potential for reducing their sewer use charge.

The restaurant rate increase is quite significant. This could be mitigated by shifting a portion of the cost to other users. Staff has requested that WILLDAN representatives be prepared to discuss the impact upon other ratepayers if the proposed restaurant rate is reduced.

Staff has also requested that WILLDAN be prepared to discuss the impact on the sewer use rate in the event the City council chooses to increase property tax rates to satisfy a portion of the debt service.

COPY

City water usage not going back to the sewer

	boiler	cooling water	total
gal/day	55,000	25,200	80,200
gal/month	1,512,500	756,000	2,268,500

on average 303,275 cubic feet of city water usage does not go back to the sewer monthly.

Currently all the water used for make up water in the boiler is captured for use in our scrubber systems. The bulk of our water usage exits the facility in the form of steam plumes.

All of the water used for cooling puposes for bearings and posidynes goes into the storm drain and ends up in our fire pond.

The bulk of the water that goes back to the sewer comes from our restrooms

Harold

**AGREEMENT FOR ACCEPTANCE OF INDUSTRIAL WASTE
INTO THE PUBLIC SEWER OF THE CITY OF BROOKINGS**

COPY

THIS AGREEMENT is entered into this 15th day of SEPTEMBER, 1992, by and between SOUTH COAST LUMBER COMPANY, an Oregon corporation, hereinafter "South Coast" and the CITY OF BROOKINGS, OREGON, a municipal corporation of the State of Oregon, hereinafter "City".

WITNESSETH

1. Pursuant to the authority of Article VI of Ordinance No. 88-0-430 enacted December 15, 1988, the City and South Coast hereby set out their agreement for the City's acceptance of the industrial waste described as water from the dryer discharge of the plywood division of South Coast located on Railroad Avenue in the City.

2. The City hereby agrees to accept that waste described in paragraph 1 above into its public sewer system in accordance with the authority of Article VI of Ordinance 430 and based upon the terms and provisions of this agreement.

3. The discharge from South Coast described in paragraph 1 above to the public sewer to the City shall not exceed 5,000 gallons per day without prior written authorization from the City.

4. The discharge from South Coast to the public sewers of the City shall be controlled and discharged in a manner so that the discharge to the public sewer system will not overtax (exceed the capacity) of the piping system or the wastewater treatment plant.

COPY

5. The City's agreement to accept the dryer discharge waste described in paragraph 1 above into its public sewer system is based upon the City's knowledge and understanding of present state and federal regulations governing this waste and test results of a sample taken of the waste on August 25, 1992. South Coast agrees to inform the City immediately upon any change in the following circumstances:

(a) Any change in the nature of the chemicals or materials used in the plywood drying process which might affect the nature of the discharge water being accepted by the City under the terms of this agreement;

(b) Any information received by South Coast as to changes in state or federal regulations concerning this waste discharge.

6. All discharge water received by the public sewer system of the City in accordance with the terms of this agreement shall be in compliance with any applicable state or federal regulation governing the activities of the parties and the subject matter of this agreement.

7. South Coast shall cooperate with the City to allow testing of the plywood dryer discharge water prior to its deposit in the public sewer of the City and at such times as the City may deem necessary for purposes of evaluating the waste being received by the public sewer of the City. South Coast shall be responsible to reimburse the City for costs of all testing necessary to monitor the discharge water in accordance with the terms of this agreement.

COPY

8. South Coast agrees that at no time shall the waste discharged to the public sewer of the City have a five (5) day biochemical oxygen demand in excess of 300 parts per million or a suspended solids content in excess of 25 pounds per day.

9. South Coast hereby agrees that it shall indemnify, defend and save the City, its employees and agents harmless from and against any suits, actions, legal or administrative proceedings, demands, claims, liabilities, fines, penalties, losses, injuries, damages, expenses or costs, including interest and attorney fees, in any way connected with the City's acceptance of the plywood dryer waste discharge to the public sewer system (including the cost of studies, surveys, clean-up and any other environmental claim expenses) or any other loss to the City occasioned in any way by the City's acceptance of the plywood dryer water discharge to the public sewer system of the City or by the negligent or intentional activities of South Coast before, during or after the term of this agreement.

The indemnity specified above by South Coast to the City specifically includes the direct obligation of South Coast to perform any remedial or other activities required, recommended or requested by any agency, government official or third party, or otherwise necessary to avoid injury or liability to any person or the public sewer system of the City or other property, or to prevent the spread of pollution. The City may, at its option, perform the remedial work necessary and thereafter seek reimbursement from South Coast for the costs thereof, or may

require South Coast to perform all remedial work in its own name and in accordance with environmental law.

9. In the event future regulations of any state or federal agency require pre-treatment of the plywood dryer discharge waste prior to deposit in the public sewers of the City, South Coast agrees to treat such waste in compliance with all applicable state or federal rules and regulations, or South Coast will immediately discontinue their discharge of waste to the public sewers of the City.

10. This agreement may be terminated by either party upon written notice to the other party 48 hours in advance of the termination time. In the event of such termination of this agreement, South Coast agrees to immediately discontinue their discharge to the public sewers of the City.

11. No additional fee or surcharge will be presently imposed by the City for the acceptance of the plywood dryer discharge water in accordance with the terms of this agreement, except for the presently imposed sewage rate based on water usage.

12. This agreement was entered into on the day and year first hereinabove written.

CITY OF BROOKINGS, an Oregon
municipal corporation

BY: *Thomas W. Cluff*

SOUTH COAST LUMBER CO., an
Oregon corporation,

BY: *Gordon Ball*, CFO

Gordon Ball

ATTEST:

Beverly S. Shields
Beverly S. Shields

AGREEMENT - 4

CITY OF BROOKINGS WASTEWATER RATE ANALYSIS

FINAL REPORT

MAY 4, 2009



Corporate Office
27368 Via Industria
Suite 110
Temecula, CA 92590
Tel: (800) 755-MUNI (6864)
Fax: (951) 587-3510

Office Locations
Anaheim, CA
Lancaster, CA
Oakland, CA

Orlando, FL
Sacramento, CA
Seattle, WA

www.willdan.com

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EXECUTIVE SUMMARY

This study of wastewater rates was conducted for the City of Brookings to determine revenue requirements, costs of services, appropriate, fair and equitable rates and rate structures, and to maintain the wastewater utility on a financially sound and stable basis over the next five fiscal years. The study was conducted using historical and projected data on operating and non-operating expenses, debt service, and capital expenditures.

The City retained Willdan Financial Services to prepare a wastewater rate analysis that will include new wastewater rate schedules that meet current and near-term projected system revenue requirements. For purposes of determining annual revenue requirements as a basis to set future wastewater rates, Willdan Financial Services initially examined a study period of ten years, spanning fiscal years 2008/2009 through 2017/2018. However, due to the uncertain nature of the economic climate and in an effort to provide the City with more realistic projections, the study period has been reduced to fiscal years ending 2009 through 2013 (the study period).

Wastewater Rate Assumptions

This section presents the assumptions used in the wastewater rate analysis.

1. The actual budget for fiscal year ending June 30, 2008 was used as the base year.
2. Capital projects are operations-related and will be funded on a "pay-as-you-go" basis as well as by a loan from the Oregon Economic and Community Development Department (OECD).
3. Construction costs were escalated annually by a factor of 4.04%, based on the average annual percentage change between 2003 and 2007 in the Engineering News Record Construction Cost Index.
4. Desired Operating Reserve Fund Balances are set at 36 days of O&M expenses (10%).
5. The annual customer growth rate for the system as a whole is assumed to be one percent (1.0%) throughout the study period.
6. An inflation factor of four percent (4%) was used to project future operating and personnel expenses.
7. The System Replacement Fund contains money set aside for repair and replacement of wastewater facilities. Currently, that fund has a balance of \$458,500, which will serve as a portion of the beginning balance for the Capital Projects Fund.

8. The beginning Operating Fund balance for fiscal year 2008/2009 is estimated at \$1,316,968, of which, \$218,116 will be transferred to the Capital Projects Fund's beginning balance along with the System Replacement Reserves to fund capital projects to be completed in fiscal year 2008/2009. At the end of fiscal year 2008/2009, and at the end of each subsequent fiscal year, all funds in excess of 10% of O&M are assumed to be transferred to the Capital Project Fund.
9. Funds totaling fifteen percent (15%) of O&M expenses are transferred to the General Fund annually to pay for administrative costs associated with general government operations of the City.
10. Harbor Sanitary District (HSD) is financially responsible for the customer and collection costs for all customers within the HSD, including all related costs of the transport of wastewater to the Brookings Wastewater Treatment Plant. The only HSD costs borne by the City are attributed to wastewater treatment.
11. Revenues included in the HSD Charges for Services are correlated to usage. The proposed rate calculated for the HSD is based on historical data as provided by the City.
12. The Wastewater utility currently is paying debt service on State Revolving Loan No. R18230 (the "SFR Loan") and General Obligation Refunding Bonds, Series 2003; the Wastewater Utility has no other outstanding debt.
13. Currently, the HSD and the City of Brookings are engaged in an Intergovernmental Agreement which requires that the HSD pay a percentage of the utility's total current outstanding debt equal to 27.59%. While the intergovernmental agreement will remain in place for the currently outstanding debt, the proposed debt issuance as discussed within this report are apportioned among both HSD and City customers based on discharge.
14. Using the FY 2007/2008 Budget, we calculated the percent transferred to the Wastewater Loan Fund for each period FY 2004/2005 through FY 2007/2008 compared to the amount of total debt service for the SRF Loan for that period. This yielded an average of fifty-one percent (51%). However, pursuant to the City's direction, future debt service payments were calculated as eighty percent (80%) of the total debt service for the following two fiscal years (FY 2008/2009 and FY 2009/2010), after which time the entire debt service would be paid using wastewater rate revenues.
15. Using the FY 2007/2008 Budget and the Debt Service Schedule from the Official Statement for the 2003 General Obligation Bond, we calculated the amount paid through the Wastewater Fund Revenues to be approximately 71% of the total Debt Service using the same approach as listed above. The FY 2006/2007 Audited Financials, however, state that 80% of total debt service is to be paid through User Fee revenues. Per direction from City staff, 80% is assumed to be paid through rate payer revenues in the future.
16. Capital project costs were spread evenly among the years in which those projects were anticipated to be completed according to the Wastewater Facilities Master Plan.

17. Priority III projects were not included because the projected dates of improvement completion are outside of the revised study period. Per direction from the City, Priority I projects will not be funded through rates, and only two-thirds of Priority II projects will be funded through rates.

Wastewater Rate Findings

This section presents the findings of the wastewater rate analysis.

1. The wastewater utility's current financial condition is not viable since revenues have not kept up with rising costs, such as facility repair and maintenance, labor, and materials.
2. Due to increasing expenses, the current revenues are insufficient to finance the utility's operations and repairs.
3. Existing rates will not adequately fund system replacement and major capital project needs.
4. Existing rates will not adequately fund recommended reserve fund balances.

Wastewater Rate Recommendations

Based on the findings of this wastewater rate analysis, we recommend that the City adopt the following items:

1. The proposed wastewater rate structure (see Table E1 below). The rate structure adequately provides for ongoing costs and debt service and allows for funding of reserves for unscheduled expenses.
2. A policy of targeting an Operating Fund balance of 36 days of annual operations and maintenance expenses to ensure that funds are available for emergency purposes and to mitigate future rate shocks.
3. A policy of setting aside funds annually in a CIP reserve account to provide for funding of ongoing capital improvements projects.

Table E1: Proposed Wastewater Rate Schedule

	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Customer Class	Discharge Rate (Per Hundred Cubic Feet/Account) ¹			
Residential	\$ 48.95	\$ 50.41	\$ 51.75	\$ 53.13
Multi Family	48.95	50.41	51.75	53.13
General Commercial	7.66	7.89	8.10	8.31
Restaurant	19.38	19.96	20.49	21.04
Industrial (Mill)	9.37	9.65	9.91	10.17
Schools	6.12	6.30	6.47	6.64
Churches	6.29	6.48	6.65	6.82
HSD	2.04	2.11	2.16	2.22

1. The Residential Customer Class is charged per account and the Multi Family customer class is charged per unit. All other customer classes are charged per hundred cubic feet.

Sources: The City of Brookings; Willdan Financial Services.

Suggested Financial Policies

As part of our recommendations, we suggest the City consider and review potential implementation of the following financial policies related to the management and planning of the wastewater utility. The objectives of setting financial policies would be to 1) guide City Council and management policy decisions that have significant fiscal impacts; 2) set forth operating principles that minimize the cost of utility operations and financial risk; 3) maintain appropriate financial capacity for present and future needs; and 4) promote sound financial management by providing accurate and timely information on the wastewater utility's financial condition. Listed below are the suggested policy items:

1. Utility rates shall be reviewed annually and adjusted, if necessary, to reflect operational and capital cost increases, maintain acceptable debt coverage and minimize future potential for large rate increases.
2. Utility rate studies shall be conducted on a regular basis, e.g. every five years, to ensure the financial viability of the wastewater utility and to ensure cost of service principles are met.
3. Rates should be consistent with City of Brookings Municipal Code 13.15 and established using generally accepted rate setting methodologies including a revenue requirements analysis, cost of service analysis and rate design analysis.
4. Fund balances in the wastewater utility enterprise fund shall be maintained at levels established through rate studies to meet operational, capital and contingency needs. At the time of this rate study, the policies for reserve level funding are as follows:
 - ♦ Operating Reserve Balance equal to thirty-six (36) days of annual operating expenditures.

Excess fund balances shall be used to offset future rate increases, fund approved capital projects, and/or meet unexpected or emergency cost demands of each utility.

INTRODUCTION

This report documents the results of the wastewater rate study conducted for the City of Brookings by Willdan Financial Services. The primary purpose of this study is to develop rate structures that will adequately fund the annual operations and capital needs of the wastewater utility.

This rate study incorporates utility revenues, operating expenses, debt service, and capital expenditures data provided by the City. The objective of the rate study is to develop rate schedules for the wastewater utility during the five-year study period. The projected rate schedules are designed to produce revenues for the wastewater utility to pay administrative, operations, maintenance, capital improvement, and debt service expenditures, in addition to maintaining fund balances at reasonable levels.

The results of the rate study are derived from projected financial analysis of the utility based upon the revenues and expenses of fiscal year ending June 30, 2008 (the base year). A five-year projection of operating results to determine future revenue requirements was developed for the wastewater utility for the fiscal years ending June 30, 2009 through 2013 (the study period).

Current Rates

The City's current wastewater rate structure as provided by the City is listed below:

Table 1: Current Wastewater Rates

City of Brookings Current Monthly Sewer Charges				
Type	Location	Base Monthly Charge	Sewer	SRF-Sewer
Single Family	ICL	None	\$44.45	\$2.60
Multi Family	ICI	None	\$44.45 per unit	\$2.60 per unit
General Commercial	ICL	\$2.41	\$4.68 per 100 cu ft of water usage	\$2.60 per EDU
Restaurant	ICL	\$2.41	\$5.31 per 100 cu ft of water usage	\$2.60 per EDU
Industrial (Mill)	ICL	\$2.41	\$6.36 per 100 cu ft of water usage	\$2.60 per EDU
Schools	ICL	\$2.41	\$2.77 per 100 cu ft of water usage	\$2.60 per EDU
Churches	ICL	\$2.41	\$2.70 per 100 cu ft of water usage	\$2.60 per EDU
HSD	N/A	\$1.429	\$2.276	\$0.00
Single Family	OCL	\$0.00	** not provided**	\$0.00
Multi Family	OCL	\$0.00	** not provided**	\$0.00
Commercial	OCL	\$0.00	** not provided**	\$0.00

Current and Projected Customers

Table 2 shows the current number of wastewater customer accounts. Table 3 depicts the estimated discharge by customer class for the study period.

Table 2: Current and Projected Number of Accounts by Customer Class

Customer Class	Base - 2007	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Residential/Multi Family	2,829	2,857	2,886	2,915	2,944	2,973
General Commercial	154	155	157	158	160	161
Restaurant	17	17	17	18	18	18
Industrial (Mill)	1	1	1	1	1	1
Schools	11	11	11	11	11	12
Churches	15	16	16	16	16	16
HSD	N/A	N/A	N/A	N/A	N/A	N/A
Total	3,027	3,057	3,088	3,119	3,150	3,181

Note: Estimated accounts for FY 2008/2009 through 2012/2013 inflated by 1.0% from base year FY 2007/2008.

Sources: The City of Brookings; Willdan Financial Services.

Table 3: Current and Projected Discharge (HCF)

Customer Class	Base - 2007	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Residential/Multi Family	180,913	182,723	184,550	186,395	188,259	190,142
General Commercial	35,840	36,199	36,561	36,926	37,295	37,668
Restaurant	8,035	8,116	8,197	8,279	8,361	8,445
Industrial (Mill)	7,589	7,665	7,742	7,819	7,897	7,976
Schools	5,733	5,791	5,849	5,907	5,966	6,026
Churches	2,283	2,306	2,329	2,352	2,375	2,399
HSD	98,220	99,202	100,194	101,196	102,208	103,230
Total	338,613	342,000	345,420	348,874	352,362	355,886

Note: Estimated discharge for FY 2008/2009 through 2012/2013 inflated by 1% from base year FY 2007/2008.

Base - 2007 discharge for Residential and Multifamily based on water consumption from February to March.

Sources: The City of Brookings; Willdan Financial Services.

ANNUAL REVENUE REQUIREMENTS

As in most cities, the City of Brookings wastewater utility is operated on an enterprise basis with expenses and revenues accounted for separately from the City's general and other funds. The City's wastewater enterprise fund must receive sufficient total revenue to ensure proper operation and maintenance of the department as well as preserve the financial integrity of the utility and the fund. Adequacy of wastewater revenues can be measured by comparing the wastewater system's revenue requirements to be met from the wastewater rates it charges to its customers.

Approaches to Determining Revenue Requirements

In order to develop adequate revenues from a system of wastewater rates, the annual revenue requirements of the wastewater utility must be determined. There are two commonly accepted bases for determining annual revenue requirements in order to develop a financially sound wastewater rate structure. These approaches are the "cash needs" approach and the "utility" approach.

The "cash needs" basis is typically used by municipally-owned wastewater utilities when establishing rates for their customers. Under this approach, the basic revenue-requirement components include:

- ♦ Operating and maintenance (O&M) expenses
- ♦ Debt service costs (principal and interest on wastewater utility-related debt instruments)
- ♦ Capital expenditures funded directly from current revenues or accruals on a pay-as-you-go basis
- ♦ Other elements such as interdepartmental expenses (cost allocation), in-lieu taxes, and interest earnings (considered as a credit to the expenses)

The "utility" basis for determining annual revenue requirements is typically used by regulated investor-owned utilities and regulated municipal utilities. Items normally included in annual revenue requirements based on this approach include:

- ♦ Operating and maintenance (O&M) expenses
- ♦ In-lieu taxes
- ♦ Depreciation expense
- ♦ Fair rate of return on the rate base

To determine the revenue requirements for the City's wastewater utility we have used the "cash" basis.

Current and Future Revenue Requirements

The annual revenue requirements are derived from maintenance and operations costs, debt service expenses, and projected capital expense items. Interest earnings, penalties, and other miscellaneous income may offset some of these expenses, but the majority of the costs should be recovered via customer rates and charges.

The City prepares an annual budget for the wastewater system that itemizes all the expenditures for each fiscal year. These expenses include personnel costs, maintenance and operations, equipment repair and replacement, and Capital Improvement Plan (CIP) costs. For the study we also established two new reserves, and added line items within the budget analysis to account for the collection of funds in these reserve accounts. The two reserve funds are as follows:

1. An Operating Reserve - to ensure that funds are available for emergency purposes and to mitigate rate shocks. The reserve amount is set at 10% of the operating revenues. At the end of each fiscal year, any funds in the Operating Reserve in excess of the 10% threshold are assumed to be transferred to the Capital Projects Fund.
2. A Capital Projects Fund - to fund CIP "pay as you go" projects. This new fund will enable comprehensive tracking of any net revenues in excess of the 10% Operating Reserve for any given year. The balance of the Capital Projects Fund at the end of FY 2012/2013 is anticipated to be \$1,055,684, which will be available to fund capital projects beyond the study period.

The wastewater system activities included in our analysis were gathered from the City's actual budget for fiscal year 2007/2008 as well as from information provided by the City. Note that fiscal year 2008/2009 projected revenues and expenditures are based on actual budget for Fiscal year 2007/2008, but additional rate increases will not become effective until the start of fiscal year 2009/2010.

Historical Revenues and Expenses

As a part of this analysis, fiscal years 2004/2005 through 2007/2008 were examined. Base year income and expense data for the wastewater system were obtained for fiscal year 2008/2009 by using the wastewater system budget for fiscal year 2007/2008. The historic financial results of the Wastewater system are shown in Table 4.

Table 4: Historic Financial Results

	Second Preceding 2004/05	First Preceding 2005/06	Actual Budget 2006/07	Actual Budget 2007/08
REVENUE SUMMARY				
Net Working Capital	\$ -	\$ -	\$ 934,924	\$ 1,158,327
Charges For Services				
Utility User Fees	1,744,737	1,754,703	2,018,006	2,056,439
Utility Connection Fees	21,020	48,661	4,598	25,269
HSD Charges For Services	510,355	550,343	499,715	286,515
Total Charges For Services	2,276,112	2,353,707	2,522,319	2,368,223
Miscellaneous Revenue				
Interest Income	12,148	25,678	39,787	30,058
Other Revenue	-	-	16,838	(2,400)
Transfer In-Wastewater Sys Dev	-	170,601	-	-
Total Miscellaneous Revenue	12,148	196,279	56,625	27,658
TOTAL REVENUES	\$ 2,288,260	\$ 2,549,986	\$ 3,513,868	\$ 3,554,208
EXPENDITURE SUMMARY				
Personnel Services				
Wastewater Collection	\$ 122,699	\$ 156,812	\$ 289,071	\$ 283,424
Wastewater Treatment	281,321	341,337	368,472	365,581
Total Personnel Services	404,020	498,149	657,543	649,005
Materials and Services:				
Wastewater Collection	90,376	147,777	185,438	180,787
Wastewater Treatment	318,705	390,245	476,851	379,086
Total Material and Services	409,081	538,022	662,289	559,873
Capital Outlay:				
Wastewater Collection	1,015,310	50,179	78,748	4,711
Wastewater Treatment	224,452	57,915	192,746	30,499
Total Capital Outlay	1,239,762	108,094	271,494	35,210
Transfers Out:				
Transfer Out-General Fund	30,000	54,484	47,895	89,638
Transfer Out-Dawson Bond Fund	-	-	-	6,028
Transfer Out-General Reserve	16,800	31,875	20,625	20,000
Transfer Out-General Fund	30,000	40,139	47,571	74,514
Transfer Out-Debt Service Fund	245,000	245,200	248,900	249,000
Transfer Out-General Reserve	-	6,500	-	-
Transfer Out-WW Loan Fund	532,025	668,068	399,223	553,973
Total Transfers Out	853,825	1,046,266	764,214	993,153
Contingencies & Reserves:				
Wastewater Treatment	-	-	-	-
Total Contingencies & Reserves	-	-	-	-
TOTAL EXPENDITURES	2,906,688	2,190,531	2,355,540	2,237,240
REVENUES LESS EXPENDITURES	\$ (618,428)	\$ 359,455	\$ 1,158,328	\$ 1,316,968

Note: HSD debt service payments for FY 2007/2008 of \$78,944 has been excluded from this budget.

Sources: City of Brookings; Willdan Financial Services.

Future Revenue Requirements

An evaluation of future revenue requirements should focus on four specific areas. These areas are increases in operating expenses, capital improvement costs, requirements for debt service, and the maintenance of reserves. The following sections discuss the impact of these four factors on the wastewater utility revenue requirements.

Operating Expense Projections

For the purpose of determining annual revenue requirements as a basis to set future wastewater rates, we used a projection period of five years. During this period (FY 2008/2009 through FY 2012/2013), costs are naturally assumed to increase due to inflationary pressures. The study assumes an expenditure growth rate of four percent (4%) to project the future costs of the system.

Capital Improvement Costs

The City maintains a Capital Improvement Plan (CIP) for the funding of annual capital projects. The values used in this analysis are based on cost estimates provided by the City. Construction costs were escalated annually by a factor of 4.04%, based on the average annual percentage change between 2003 and 2007 in the Engineering News Record Construction Cost Index.

Table 5 presents the operations CIP over the five-year planning period of this study and Table 6 presents the portion of CIP costs for each project that is assumed to be operations-related, i.e. not driven by growth, and will be funded on a “pay-as-you-go” basis or with issuance of debt.

Table 5: Capital Improvement Projects

Project Name	Priority	FY 2008/2009		FY 2009/2010		FY 2010/2011		FY 2011/2012		FY 2012/2013	
		PAYGO	New Debt	PAYGO	New Debt	PAYGO	New Debt	PAYGO	New Debt	PAYGO	New Debt
Phase I - Project I	I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II - Project G	I	-	-	-	-	-	-	-	-	-	-
Phase III - Project CE	I	-	-	-	-	-	-	-	-	-	-
Phase IV - Project JKL	I	-	-	-	-	-	-	-	-	-	-
Project 1	II	-	29,227	-	30,407	-	31,636	-	32,913	-	34,243
Project 2	II	-	14,733	-	15,328	-	15,948	-	16,592	-	17,262
Project 3	II	-	43,787	-	45,555	-	47,396	-	49,310	-	51,302
Project 4	II	-	14,467	-	15,051	-	15,659	-	16,292	-	16,950
Project 5	II	-	22,893	-	23,818	-	24,780	-	25,781	-	26,823
Project 6	II	-	23,027	-	23,957	-	24,925	-	25,931	-	26,979
Project 7	II	-	26,507	-	27,577	-	28,691	-	29,850	-	31,056
Project 8	II	12,320	-	12,818	-	13,335	-	13,874	-	14,435	-
Project 9	II	20,107	-	20,919	-	21,764	-	22,643	-	23,558	-
Project 10	II	43,587	-	45,347	-	47,179	-	49,085	-	51,068	-
Project 11	II	26,293	-	27,355	-	28,460	-	29,610	-	30,806	-
Project 12	II	37,704	-	39,227	-	40,812	-	42,460	-	44,175	-
Project 13	II	11,987	-	12,471	-	12,975	-	13,499	-	14,044	-
Project 14	II	32,613	-	33,931	-	35,301	-	36,727	-	38,211	-
Project 15	II	31,133	-	32,391	-	33,699	-	35,061	-	36,477	-
Project 16	II	24,640	-	25,635	-	26,671	-	27,748	-	28,869	-
Project 17	III	-	-	-	-	-	-	-	-	-	-
Project 18	III	-	-	-	-	-	-	-	-	-	-
Dewatering Project		-	-	-	-	-	721,614	-	750,764	-	781,091
Total Wastewater CIP Costs		\$ 240,384	\$ 174,640	\$ 250,094	\$ 181,695	\$ 260,197	\$ 910,648	\$ 270,707	\$ 947,434	\$ 281,643	\$ 985,705

Sources: City of Brookings; Willdan Financial Services.

Table 6: Allocation of CIP Costs

Project Name	Priority	City	Developer	Existing	New	Deficiency	
		Funded Cost %	Funded Cost %	Customer Cost %	Development Cost %	% PAYGO	% New Debt
Phase I - Project I	I	N/A	N/A	N/A	N/A	N/A	N/A
Phase II - Project G	I	N/A	N/A	N/A	N/A	N/A	N/A
Phase III - Project CE	I	N/A	N/A	N/A	N/A	N/A	N/A
Phase IV - Project JKL	I	N/A	N/A	N/A	N/A	N/A	N/A
Project 1	II	100%	0%	100%	0%	0%	100%
Project 2	II	100%	0%	100%	0%	0%	100%
Project 3	II	100%	0%	100%	0%	0%	100%
Project 4	II	100%	0%	100%	0%	0%	100%
Project 5	II	100%	0%	100%	0%	0%	100%
Project 6	II	100%	0%	100%	0%	0%	100%
Project 7	II	100%	0%	100%	0%	0%	100%
Project 8	II	100%	0%	100%	0%	100%	0%
Project 9	II	100%	0%	100%	0%	100%	0%
Project 10	II	100%	0%	100%	0%	100%	0%
Project 11	II	100%	0%	100%	0%	100%	0%
Project 12	II	100%	0%	90%	10%	100%	0%
Project 13	II	100%	0%	100%	0%	100%	0%
Project 14	II	100%	0%	100%	0%	100%	0%
Project 15	II	100%	0%	100%	0%	100%	0%
Project 16	II	100%	0%	100%	0%	100%	0%
Project 17	III	N/A	N/A	N/A	N/A	N/A	N/A
Project 18	III	N/A	N/A	N/A	N/A	N/A	N/A
Dewatering Project		100%	0%	100%	0%	0%	100%
Total Wastewater CIP Costs							

Sources: City of Brookings; Willdan Financial Services.

Debt Service

The wastewater utility currently is paying debt service on State Revolving Loan No. R18230. The City, when first acquiring this loan, anticipated to pay debt service primarily through System Development Charges (SDC). SDC revenue was expected to pay up to seventy percent (70%) of the loan payments; however, due to the recent severe decline in real estate development, SDC revenue has not been adequate to cover the payments. As such, a higher percentage of the debt service has been needed from rate payers to cover the current outstanding debt. Discussions with City staff indicated that 80% of the total debt service payment should be made using wastewater rate revenues for fiscal years 2008/2009 and 2009/2010, after which time, the entire debt service is projected to be paid through wastewater rate revenues. Nonetheless, should a substantial increase in SDC revenues occur, an appropriate shift in percentage of debt service paid by wastewater rate revenues may occur. Otherwise, SDC revenues would be shifted to a debt service reserve fund to ensure the City's ability to make future debt service payments.

The wastewater utility is also paying debt service on a 2003 General Obligation Refunding Bond issuance. Per the City's Audited Financial Statements, the portion of the 2003 bond issuance paid through the Wastewater Fund is approximately 80% of the total debt service. The current debt service schedules and the portion of which are paid through rates are shown in Tables 7 through 10.

Table 7: Current Debt Outstanding – State Revolving Loan

State Revolving Loan No. R18230					
Year	Principal	Interest	Fees	Total	
2009	\$ 628,977	\$ 373,511	\$ 49,832	\$ 1,052,320	
2010	652,400	350,088	46,629	1,049,117	
2011	676,696	325,792	43,307	1,045,795	
2012	701,896	300,592	39,861	1,042,349	
2013	728,035	274,453	36,287	1,038,775	
2014	755,147	247,341	32,580	1,035,068	
2015	783,269	219,219	28,734	1,031,222	
2016	812,438	190,050	24,746	1,027,234	
2017	842,694	159,794	20,609	1,023,097	
2018	874,076	128,412	16,317	1,018,805	
2019	906,627	95,861	11,866	1,014,354	
2020	940,390	62,098	7,250	1,009,738	
2021	975,422	27,078	2,461	1,004,961	
TOTAL	\$ 10,278,067	\$ 2,754,289	\$ 360,480	\$ 13,392,836	

Sources: City of Brookings; Willdan Financial Services.

Table 8: State Revolving Loan Paid Through Rates

Amount of SRF paid through Wastewater Fund				
Year	Principal	Interest	Fees	Total
2009	\$ 364,354	\$ 216,367	\$ 28,867	\$ 609,588
2010	377,922	202,799	27,011	607,733
2011	489,996	235,906	31,359	757,260
2012	508,243	217,659	28,864	754,765
2013	527,170	198,731	26,275	752,177
2014	546,802	179,100	23,591	749,493
2015	567,165	158,736	20,807	746,708
2016	588,286	137,615	17,918	743,820
2017	610,195	115,707	14,923	740,824
2018	632,918	92,983	11,815	737,717
2019	656,489	69,413	8,592	734,494
2020	680,936	44,965	5,249	731,151
2021	706,303	19,607	1,782	727,692
TOTAL	\$ 7,256,779	\$ 1,889,589	\$ 247,054	\$ 9,393,422

Note: Payments from the Harbor Sanitary District are paid separately through an intergovernmental agreement between the City and the District and are not included in these amounts.

Sources: City of Brookings; Willdan Financial Services.

Table 9: State Current Debt Outstanding – 2003 Debt Issuance

2003 General Obligation Refunding Bonds			
Year	Principal	Interest	Total
2004	\$ 340,000	\$ 51,338	\$ 391,338
2005	270,000	77,694	347,694
2006	275,000	72,244	347,244
2007	285,000	66,644	351,644
2008	290,000	60,894	350,894
2009	295,000	54,306	349,306
2010	305,000	46,044	351,044
2011	315,000	36,547	351,547
2012	215,000	26,788	241,788
2013	220,000	18,100	238,100
2014	230,000	9,938	239,938
2015	150,000	2,813	152,813
TOTAL	\$ 3,190,000	\$ 523,348	\$ 3,713,348

Sources: City of Brookings; Willdan Financial Services.

Table 10: Debt Issuance Paid Through Rates

Amount of 2003 GO Bond paid through Rates				
Year	Principal	Interest	Total	
2004 \$	196,955 \$	29,739 \$	226,694	
2005	156,406	45,007	201,412	
2006	159,302	41,850	201,152	
2007	165,095	38,606	203,700	
2008	167,991	35,275	203,266	
2009	170,888	31,458	202,346	
2010	176,680	26,672	203,353	
2011	182,473	21,171	203,644	
2012	124,545	15,518	140,063	
2013	127,442	10,485	137,927	
2014	133,234	5,757	138,991	
2015	86,892	1,630	88,522	
TOTAL	\$ 1,847,903 \$	303,166 \$	2,151,069	

Note: Payments from the Harbor Sanitary District are paid separately through an intergovernmental agreement between the City and the District and are not included in these amounts.

Sources: City of Brookings; Willdan Financial Services.

We also anticipate that the City will be able to acquire a loan provided by the OECD to fund certain capital improvement projects. Per discussion with City staff, the proposed loan would have a term of thirty (30) years and have an interest rate of approximately 4.5%. The total loan amount would be approximately \$3,557,000 and would be composed of the following:

\$3,201,000 – Capital Projects Funds

\$356,000 – Reserve Fund (10% of debt issue)

Reserve Funds

The Operating Fund for the wastewater utility has a balance of \$1,395,912 as of June 30, 2008, according to the FY 2007/2008 Actual Budget (note that this is the unaudited actual budget). Of the \$1,395,912, \$78,944 is revenue received from the HSD for outstanding debt service payments and has been excluded from the required revenue calculations. This leaves a remaining Operating Fund balance of \$1,316,968. We recommended that the City adopt a policy of maintaining a designated balance in the Operating Fund in order to satisfy expense obligations as cash flow fluctuates during the year.

Wastewater Revenue Requirements

Table 11 depicts the annual revenue requirements of the wastewater system for each year of the study period. Fiscal year 2007/2008 is being used as the base year for the study. The study assumes a customer growth rate of one percent (1.0%) and an expenditure growth rate of four percent (4%). The desired Operating Reserve Fund Balance is set at thirty-six (36) days of O&M expenses (10% of Total Operating Expenses). The beginning Operating Fund balance for fiscal year 2008/2009 is estimated at \$1,725,558 of which, \$218,116 will be transferred to the Capital Projects Fund's beginning balance along with the System Replacement Reserves to fund capital projects to be completed in fiscal year 2008/2009. At the end of fiscal year 2008/2009, and at the end of each subsequent fiscal year, all funds in excess of 10% of O&M are assumed to be transferred to the Capital Project Fund (line 66).

Table 11: Revenue Requirements Fiscal Years 2008/2009 to 2012/2013

Description	FY 2007/2008	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Operating Revenue						
1 Utility User Fees	\$ 2,056,439	2,077,004	2,097,774	2,118,751	2,139,939	2,161,338
3 Utility Connection Fees ¹	\$ 25,269	-	-	-	-	-
4 Wastewater System Replacement Charge	-	90,675	91,582	92,498	93,423	94,357
5 HSD Charges For Services ²	<u>286,515.00</u>	<u>289,380</u>	<u>292,274</u>	<u>295,197</u>	<u>298,149</u>	<u>301,130</u>
6 Total Operating Revenue	<u>2,368,223</u>	<u>2,457,059</u>	<u>2,481,629</u>	<u>2,506,446</u>	<u>2,531,510</u>	<u>2,556,825</u>
7						
8 Additional Revenue Required						
9 Year						
10 FY 2008/2009 0.00% 0	-	-	-	-	-	-
11 FY 2009/2010 3.00% 12	-	-	71,701	72,418	73,143	73,874
12 FY 2010/2011 3.00% 12	-	-	-	74,591	75,337	76,090
13 FY 2011/2012 3.00% 12	-	-	-	-	68,653	69,339
14 FY 2012/2013 3.00% 12	-	-	-	-	-	71,419
15 Total Additional Operating Revenue	<u>-</u>	<u>-</u>	<u>71,701</u>	<u>147,009</u>	<u>217,132</u>	<u>290,723</u>
16						
17 Total Required Revenue	\$ 2,368,223	\$ 2,457,059	\$ 2,553,331	\$ 2,653,455	\$ 2,748,642	\$ 2,847,548
18						
19 Applications of Funds						
20 Operating Costs						
21 Personnel Services	649,005	674,965	701,963	730,042	759,244	789,613
22 Materials and Services:	<u>559,873</u>	<u>582,268</u>	<u>605,559</u>	<u>629,781</u>	<u>654,972</u>	<u>681,171</u>
23 Total Operating Expenses	<u>1,208,878</u>	<u>1,257,233</u>	<u>1,307,522</u>	<u>1,359,823</u>	<u>1,414,216</u>	<u>1,470,784</u>
24						
25 Net Operating Income (Loss)	1,159,346	1,199,826	1,245,809	1,293,632	1,334,426	1,376,763
26						
27 Debt Service						
28 Current Debt Service (SRF Loan) ³	553,973	609,588	607,733	757,260	754,765	752,177
29 Current Debt Service (2003 Bond) ³	\$249,000	\$202,346	\$203,353	\$203,644	\$140,063	\$137,927
30 Proposed Loan	<u>-</u>	<u>12,000</u>	<u>25,000</u>	<u>90,000</u>	<u>159,000</u>	<u>232,000</u>
31 Total Debt Service	<u>802,973</u>	<u>823,934</u>	<u>836,085</u>	<u>1,050,904</u>	<u>1,053,828</u>	<u>1,122,104</u>
32						
33 Debt Coverage Ratio	1.44	1.46	1.49	1.23	1.27	1.23
34						
35 Non-Operating Revenue						
36 Interest Income	30,058	23,167	70,021	69,293	66,120	59,555
37 Other Revenue	<u>(2,400)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
38 Total Non-Operating Revenue	<u>27,658</u>	<u>23,167</u>	<u>70,021</u>	<u>69,293</u>	<u>66,120</u>	<u>59,555</u>
39						
40 Transfers						
41 Transfer Out-General Fund	89,638	102,980	107,099	111,383	115,839	120,472
42 Transfer Out-Dawson Bond Fund	6,028	-	-	-	-	-
43 Transfer Out-General Reserve	20,000	20,000	20,000	20,000	20,000	20,000
44 Transfer Out-General Fund	74,514	85,605	89,029	92,590	96,294	100,146
45 Transfer Out-General Reserve	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
46 Total Transfers	<u>190,180</u>	<u>208,585</u>	<u>216,128</u>	<u>223,973</u>	<u>232,132</u>	<u>240,618</u>
47						
47 Capital Projects Funded by Rates						
48 CIP PAYGO Projects	35,210	240,384	250,094	260,197	270,707	281,643
49 Capital Projects Fund Contribution	<u>-</u>	<u>(240,384)</u>	<u>(250,094)</u>	<u>(260,197)</u>	<u>(270,707)</u>	<u>(281,643)</u>
50 Total Capital Projects Funded by Rates	<u>35,210</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
51						
52 Net Income (Loss)	158,641	190,474	263,615	88,047	114,586	73,597

1. Connection Fee Revenue excluded for FY 2008/09 through 2012/13.

2. HSD Charges for Services does not include revenues attributed to HSD charges for Debt or HSD charges for Loan Debt in actual FY 07/08 Budget, as they are part of the terms of an intergovernmental agreement between the HSD and the City, which is not discussed in this study.

3. Current Debt Service payments exclude the 27.59% paid by HSD through intergovernmental agreement.

Sources: City of Brookings; Willdan Financial Services.

Table 11 (cont): Revenue Requirements Fiscal Years 2008/2009 to 2012/2013

Description	FY 2007/2008	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Fund Information						
Wastewater Enterprise O&M Fund						
53 Beginning Operating Fund Balance	1,158,327	1,535,084	125,723	130,752	135,982	141,422
54 Deposit (Withdrawals)	<u>158,641</u>	<u>190,474</u>	<u>263,615</u>	<u>88,047</u>	<u>114,586</u>	<u>73,597</u>
55 Sub Total O&M Fund	\$ 1,316,968	\$ 1,725,558	\$ 389,339	\$ 218,799	\$ 250,568	\$ 215,018
56						
57 Reserve Balance Percent of O&M	10%	10%	10%	10%	10%	10%
58 Desired Operating Reserve Balance	NA	125,723	130,752	135,982	141,422	147,078
59 Excess (Deficit) O&M / Excess to CIP Fund	<u>NA</u>	<u>1,599,835</u>	<u>258,587</u>	<u>82,817</u>	<u>109,147</u>	<u>67,940</u>
60 Ending O&M Fund Balance	-	\$ 125,723	\$ 130,752	\$ 135,982	\$ 141,422	\$ 147,078
61						
Capital Projects Fund						
63 Beginning CIP Fund Balance	NA	240,384	1,599,835	1,608,327	1,430,947	1,269,386
64 (Withdrawals for CIP Projects)	NA	(240,384)	(250,094)	(260,197)	(270,707)	(281,643)
65 Deposits excess O&M Funds	<u>NA</u>	<u>1,599,835</u>	<u>258,587</u>	<u>82,817</u>	<u>109,147</u>	<u>67,940</u>
66 Ending Capital Projects Fund	\$ -	\$ 1,599,835	\$ 1,608,327	\$ 1,430,947	\$ 1,269,386	\$ 1,055,684

2. Assumes \$218,116 will be transferred to the Capital Projects Fund's beginning balance along with the System Replacement Reserves to fund capital projects to be completed in FY 2008/2009. At the end of FY 2008/2009, and at the end of each subsequent fiscal year, all funds in excess of 10% of O&M are assumed to be transferred to the Capital Project Fund.

Sources: City of Brookings; Willdan Financial Services.

ALLOCATION OF WASTEWATER COSTS

Cost of Service Analysis

A cost of service analysis converts enterprise-related financing documents to costs incurred by user classes for which rates can be developed. The cost of service study for the City of Brookings is performed in three basic steps.

- The first step is called functionalization, which categorizes cost data in terms of functions performed by a wastewater system. The functions identified in this study include operating and non-operating costs.
- The second step classifies operating and non-operating expenses of the wastewater system to the cost components including the flow and strength of wastewater effluent. The cost components are defined as follows:
 - ◆ Flow Costs: Volume or flow related costs vary with the discharge of wastewater by users over a specified period of time, typically a year
 - ◆ Strength Costs: Strength costs vary with the quality of wastewater discharged as measured by the biochemical oxygen demand (BOD), suspended solids (SS), and Oil & Grease content of the discharged sewage
 - ◆ Customer Costs: Customer related costs vary with the increase or decrease in number of customers over a period of time

The final step in this analysis allocates costs of service to each customer class. This step is accomplished through the development of volume and strength related allocation factors for each customer class. Note that the customer costs are allocated equally to each account for customers within the City of Brookings.

Classification of Expenses to Cost Components

This study utilizes a cost allocation approach that fairly allocates costs among customer classes. This is accomplished by allocating costs into the treatment parameters of flow and strength. These costs are to be allocated in proportion to the percentage that each cost parameter represents. When divided by the wastewater loadings of each user class, unit costs of service are obtained. All costs incurred by a wastewater utility system can be allocated to one or more cost parameters. The allocation of each cost item among flow, BOD, SS is based on industry standards of treatment parameter data.

Each expense of the wastewater system is correlated to a certain percentage of each classification factor. The functionalization, as presented in Table 12, shows these percentages as well as the wastewater system's average projected expenditure budget throughout the study period.

Table 12: Functionalization of Wastewater Utility Revenue Requirements

Description	Classification							Average FY 2008/09 - FY 2012/13								
	Flow	BOD	CDS BOD ¹	SS	CDS SS ¹	Customer Costs	Total	Flow	BOD	CDS ¹	BOD	SS	CDS ¹	SS	Customer Costs	Total
Operating Expenses																
Personnel Services	50.0%	27.0%	0.0%	18.0%	0.0%	5.0%	100.0%	\$ 365,583	\$ 197,415	\$ -	\$ 131,610	\$ -	\$ 36,558	\$ 731,165		
Materials and Services:	50.0%	27.0%	0.0%	18.0%	0.0%	5.0%	100.0%	<u>315,375</u>	<u>170,303</u>	<u>-</u>	<u>113,535</u>	<u>-</u>	<u>31,538</u>	<u>630,750</u>		
Total Operating Expenses								680,958	367,717	-	245,145	-	68,096	1,361,916		
Current Debt Service																
Current Debt Service (SRF Loan)	0.0%	0.0%	60.0%	0.0%	40.0%	0.0%	100.0%	\$ -	\$ -	\$ 417,783	\$ -	\$ 278,522	\$ -	\$ 696,305		
Current Debt Service (2003 Bond)	0.0%	0.0%	60.0%	0.0%	40.0%	0.0%	100.0%	<u>-</u>	<u>-</u>	<u>106,480</u>	<u>-</u>	<u>70,987</u>	<u>-</u>	<u>177,466</u>		
Total Current Debt Service								-	-	524,263	-	349,508	-	873,771		
Proposed Debt Service																
Proposed Loan	50.0%	25.0%	0.0%	25.0%	0.0%	0.0%	100.0%	<u>51,756</u>	<u>25,922</u>	<u>-</u>	<u>25,922</u>	<u>-</u>	<u>-</u>	<u>103,600</u>		
Total Proposed Debt Service								51,756	25,922	-	25,922	-	-	103,600		
Transfers																
Transfer Out-General Fund	25.0%	25.0%	0.0%	25.0%	0.0%	25.0%	100.0%	27,889	27,889	-	27,889	-	27,889	111,555		
Transfer Out-Dawson Bond Fund	25.0%	25.0%	0.0%	25.0%	0.0%	25.0%	100.0%	-	-	-	-	-	-	-		
Transfer Out-General Reserve	25.0%	25.0%	0.0%	25.0%	0.0%	25.0%	100.0%	5,000	5,000	-	5,000	-	5,000	20,000		
Transfer Out-General Fund	25.0%	25.0%	0.0%	25.0%	0.0%	25.0%	100.0%	<u>23,183</u>	<u>23,183</u>	<u>-</u>	<u>23,183</u>	<u>-</u>	<u>23,183</u>	<u>92,733</u>		
Total Transfers								56,072	56,072	-	56,072	-	56,072	224,287		
Capital Projects Funded by Rates																
CIP PAYGO Projects	50.0%	25.0%	0.0%	25.0%	0.0%	0.0%	100.0%	<u>130,193</u>	<u>65,206</u>	<u>-</u>	<u>65,206</u>	<u>-</u>	<u>-</u>	<u>260,605</u>		
Total Capital Projects Funded by Rates								130,193	65,206	-	65,206	-	-	260,605		
Total Operating/Non-Operating Expenses								\$ 918,979	\$ 514,917	\$ 524,263	\$ 392,345	\$ 349,508	\$ 124,168	\$ 2,824,179		
Classification Factor								32.5%	18.2%	18.6%	13.9%	12.4%	4.4%	100.0%		

1. CDS stands for current debt service.

Sources: City of Brookings; Willdan Financial Services.

Once the functionalization is calculated, the weighted percentage of cost for each customer class is determined. Table 13 presents the loading and unit rate calculations, which is the weighted percentage of costs associated with wastewater collection per customer class based on flow of wastewater discharge into the system. Collection costs are primarily associated with the system's network of pipelines. Since the HSD is financially responsible for transportation of HSD wastewater to the City's treatment plant, the City bears no costs related to the collection of HSD wastewater, and therefore the HSD's weighted percent of collection costs is zero.

Table 13: Loading and Unit Rate Calculations – Collection

Customer Class	Projected Discharges to the Sewer System (hcf)	Flow Factor
Residential/Multi Family	180,913	75.3%
General Commercial	35,840	14.9%
Restaurant	8,035	3.3%
Industrial (Mill)	7,589	3.2%
Schools	5,733	2.4%
Churches	2,283	0.9%
HSD	-	0.0%
Total	240,394	100%

Sources: The City of Brookings; Willdan Financial Services.

Table 14 presents loading calculations associated with strength characteristics for all costs excluding current debt service. Based on total discharge of each customer class into the system and the strength of the discharge, weighted percentages for BOD and SS are calculated. This methodology ensures that each customer class is paying their proportional share of treatment costs based on both the amount and strength of discharge into the Wastewater Treatment Plant. The percentages of these equivalent discharges into the system help determine share of required revenue to be collected from each customer class. While the HSD is not technically one customer, in order to determine the appropriate rate for the City to impose, the model incorporates historic HSD discharge and the historic concentration levels of said discharge in aggregate.

Table 14: Loading and Unit Rate Calculations – Treatment

Customer Class	Projected Discharges to the Sewer System (hcf)	Concentration		Calculated Loading			
		BOD (mg/l)	SS (mg/l)	BOD (lb/yr)	BOD Factor	SS (lb/yr)	SS Factor
Residential/Multi Family	180,913	225	225	253,934	51.2%	253,934	59.2%
General Commercial	35,840	200	150	44,716	9.0%	33,537	7.8%
Restaurant	8,035	850	450	42,607	8.6%	22,557	5.3%
Industrial (Mill)	7,589	300	200	14,203	2.9%	9,469	2.2%
Schools	5,733	130	100	4,650	0.9%	3,577	0.8%
Churches	2,283	130	100	1,851	0.4%	1,424	0.3%
HSD	98,220	219	171	134,187	27.0%	104,776	24.4%
Total	338,613			496,148	100.0%	429,273	100.0%

Sources: The City of Brookings; California State Water Resources Control Board Revenue Program Guidelines; Willdan Financial Services.

Per discussions with City staff, the current outstanding debt was undertaken to fund projects related to treatment. For this reason, as shown in Table 12, the total percentages of current debt service are only allotted to BOD and SS characteristics. However, since the amount paid annually by the HSD for the 2003 Bond issue and the SFR Loan is dictated by a fixed percentage, pursuant to their intergovernmental agreement, their debt service costs have been excluded from the percent allocated to each customer class. The revenues and expenses for the HSD's portion of the current debt service have been excluded. Therefore, the HSD's weighted percent of current debt service is zero. Table 15 presents the loading calculations for the current debt service.

Table 15: Loading and Unit Rate Calculations – Current Debt Service

Customer Class	the Sewer System (hcf)	BOD (mg/l)	SS (mg/l)	BOD (lb/yr)	BOD Factor	SS (lb/yr)	SS Factor
Residential/Multi Family	180,913	225	225	253,934	70.2%	253,934	78.3%
General Commercial	35,840	200	150	44,716	12.4%	33,537	10.3%
Restaurant	8,035	850	450	42,607	11.8%	22,557	7.0%
Industrial (Mill)	7,589	300	200	14,203	3.9%	9,469	2.9%
Schools	5,733	130	100	4,650	1.3%	3,577	1.1%
Churches	2,283	130	100	1,851	0.5%	1,424	0.4%
HSD	-	-	-	-	0.0%	-	0.0%
Total	240,394			361,961	100%	324,497	100.0%

Sources: The City of Brookings; California State Water Resources Control Board Revenue Program Guidelines; Willdan Financial Services.

Table 16 shows the loading calculations of the Classification factors by customer class. These calculations are used to determine the allocation factors. The allocation factors are computed by multiplying the functionalization factors by the loading percentages of each customer class. When coupled with their flow, BOD and SS factors, the total revenue requirements can be allocated to each customer class based on their base, flow and strength characteristics. The required revenue allocations for each customer class for each year of the study period are shown in Table 17.

Table 16: Loading, Unit Rate, and Allocation Factors Calculations

<u>Classification Factors</u>						
<u>Customer Class</u>	<u>Flow Factor</u>	<u>BOD Factor</u>	<u>Current Debt Service BOD</u>		<u>Current Debt Service SS</u>	
			<u>Factor</u>	<u>SS Factor</u>	<u>Factor</u>	
Residential/Multi Family	75.3%	51.2%	70.2%	59.2%	78.3%	
General Commercial	14.9%	9.0%	12.4%	7.8%	10.3%	
Restaurant	3.3%	8.6%	11.8%	5.3%	7.0%	
Industrial (Mill)	3.2%	2.9%	3.9%	2.2%	2.9%	
Schools	2.4%	0.9%	1.3%	0.8%	1.1%	
Churches	0.9%	0.4%	0.5%	0.3%	0.4%	
HSD	0.0%	27.0%	0.0%	24.4%	0.0%	
Totals	100.0%	100.0%	100.0%	100.0%	100.0%	

<u>Functionalization Factors</u>						
<u>Average FY 2008/09 to 2012/13</u>	<u>Operating</u>		<u>Debt Service</u>		<u>Customer Costs</u>	
	<u>Flow Factor</u>	<u>BOD Factor</u>	<u>BOD Factor</u>	<u>SS Factor</u>	<u>Factor</u>	
	32.5%	18.2%	18.6%	13.9%	12.4%	4.4%

Sources: The City of Brookings; Willdan Financial Services.

<u>Allocation Factors</u>					
<u>Flow Factor</u>	<u>BOD Factor</u>	<u>Current Debt Service BOD</u>		<u>Current Debt Service SS</u>	
		<u>Factor</u>	<u>SS Factor</u>	<u>Factor</u>	
24.49%	9.33%	13.02%	8.22%	9.68%	
4.85%	1.64%	2.29%	1.09%	1.28%	
1.09%	1.57%	2.19%	0.73%	0.86%	
1.03%	0.52%	0.73%	0.31%	0.36%	
0.78%	0.17%	0.24%	0.12%	0.14%	
0.31%	0.07%	0.09%	0.05%	0.05%	
0.00%	4.93%	0.00%	3.39%	0.00%	
32.5%	18.2%	18.6%	13.9%	12.4%	

Sources: The City of Brookings; Willdan Financial Services.

Table 17: Allocation of Revenue Requirements FY 2009/10 to 2012/13

FY 2009/2010								FY 2010/2011							
Customer Class	Flow Factor	Current Debt Service BOD		Current Debt Service SS		Customer Costs ¹	Total	Customer Class	Flow Factor	Current Debt Service BOD		Current Debt Service SS		Customer Costs ¹	Total
		BOD Factor	Factor	SS Factor	Factor					BOD Factor	Factor	SS Factor	Factor		
Residential/Multi Family	\$ 602,843	\$ 229,720	\$ 320,597	\$ 202,305	\$ 239,407	\$ 101,156	\$ 1,695,028	Residential/Multi Family	\$ 627,138	\$ 238,977	\$ 333,517	\$ 210,458	\$ 248,015	\$ 105,233	\$ 1,763,338
General Commercial	119,427	40,452	56,455	26,719	31,487	5,489	280,029	General Commercial	124,240	42,083	58,731	27,795	32,756	5,710	291,314
Restaurant	25,775	38,544	53,792	17,970	21,177	609	158,859	Restaurant	27,854	40,097	55,960	18,695	22,031	634	165,271
Industrial (Mill)	25,288	12,848	17,931	7,543	8,890	36	72,537	Industrial (Mill)	26,307	13,366	18,654	7,847	9,248	37	75,460
Schools	19,105	4,206	5,870	2,849	3,358	393	35,782	Schools	19,875	4,376	6,107	2,964	3,493	409	37,224
Churches	7,607	1,675	2,337	1,135	1,337	550	14,640	Churches	7,913	1,742	2,431	1,180	1,391	572	15,230
HSD	-	121,391	-	83,473	-	-	204,865	HSD	-	126,283	-	85,837	-	-	213,121
Totals	\$ 801,045	\$ 448,837	\$ 456,983	\$ 341,995	\$ 304,656	\$ 108,233	\$ 2,461,749	Totals	\$ 833,327	\$ 466,925	\$ 475,400	\$ 355,777	\$ 316,933	\$ 112,595	\$ 2,560,957

FY 2011/2012								FY 2012/2013							
Customer Class	Flow Factor	Current Debt Service BOD		Current Debt Service SS		Customer Costs ¹	Total	Customer Class	Flow Factor	Current Debt Service BOD		Current Debt Service SS		Customer Costs ¹	Total
		BOD Factor	Factor	SS Factor	Factor					BOD Factor	Factor	SS Factor	Factor		
Residential/Multi Family	\$ 650,221	\$ 247,774	\$ 345,793	\$ 218,204	\$ 257,144	\$ 109,106	\$ 1,828,242	Residential/Multi Family	\$ 674,213	\$ 256,916	\$ 358,552	\$ 226,255	\$ 266,632	\$ 113,132	\$ 1,895,700
General Commercial	128,813	43,632	60,892	28,818	33,961	5,920	302,037	General Commercial	133,566	45,242	63,139	29,882	35,214	6,138	313,181
Restaurant	28,879	41,573	58,020	19,383	22,842	657	171,354	Restaurant	29,945	43,107	60,161	20,098	23,685	681	177,677
Industrial (Mill)	27,276	13,858	19,341	8,136	9,588	39	78,237	Industrial (Mill)	28,282	14,370	20,054	8,436	9,842	40	81,424
Schools	20,606	4,537	6,332	3,073	3,622	424	38,594	Schools	21,367	4,704	6,565	3,187	3,755	440	40,018
Churches	8,204	1,806	2,521	1,224	1,442	593	15,790	Churches	8,507	1,873	2,614	1,269	1,495	615	16,373
HSD	-	130,932	-	90,033	-	-	220,965	HSD	-	135,763	-	93,356	-	-	229,118
Totals	\$ 864,000	\$ 484,111	\$ 492,898	\$ 358,872	\$ 328,599	\$ 116,739	\$ 2,655,220	Totals	\$ 895,880	\$ 501,974	\$ 511,085	\$ 382,483	\$ 340,723	\$ 121,047	\$ 2,753,191

¹ Customer costs allocated by number of projected sewer accounts for the City of Brookings.

Sources: The City of Brookings; Willdan Financial Services.

Development of Wastewater Rates

Following the distribution of the revenue requirements to the classification factors, these requirements are used in the development of new wastewater rates. Based on the analysis conducted for the City in this rate study, a rate schedule has been developed which, if implemented by the City, should generate enough revenue to cover estimated expenses and maintain the desired wastewater fund balances depicted.

Calculation of Proposed Wastewater Rates

Tables 2 and 3 show the projected amount of discharge for each customer class as well as the projected number of customers. Note that the projected future discharge was calculated using a growth factor of one percent (1.0%) and the number of customers was calculated using a growth factor of one percent (1.0%).

Table 17 shows the wastewater rates for the study period. Note that Residential and Multifamily customers are charged per dwelling unit, while all other classes are charged based on each 100 cubic feet of water consumption. In order to estimate discharge on a per customer basis, the months with the lowest water consumption (per the billing database) were examined. Water consumption is used as a proxy to gauge the amount of wastewater discharged into the system relative to the other customer classes. The months with lowest water consumption are used to minimize the disparity between discharge and water consumption that may be attributed to water that ultimately does not enter into the Wastewater system. Therefore, the rates for Residential and Multifamily will be based on their average water consumption during February and March. This amount should be updated annually.

Brookings Municipal Code 13.15.120 requires a “base monthly charge” in addition to a charge per unit of water usage. The methodology used, as agreed upon with City staff, to calculate the below listed rates, provide sufficient revenue to operate the system while basing the non-residential rates on water usage alone.

Table 17: Calculation of Wastewater Rates

	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013
Customer Class	Discharge Rate (Per Hundred Cubic Feet/Account) ¹			
Residential	\$ 48.95	\$ 50.41	\$ 51.75	\$ 53.13
Multi Family	48.95	50.41	51.75	53.13
General Commercial	7.66	7.89	8.10	8.31
Restaurant	19.38	19.96	20.49	21.04
Industrial (Mill)	9.37	9.65	9.91	10.17
Schools	6.12	6.30	6.47	6.64
Churches	6.29	6.48	6.65	6.82
HSD	2.04	2.11	2.16	2.22

1. The Residential Customer Class is charged per account and the Multi Family customer class is charged per unit. All other customer classes are charged per hundred cubic feet.

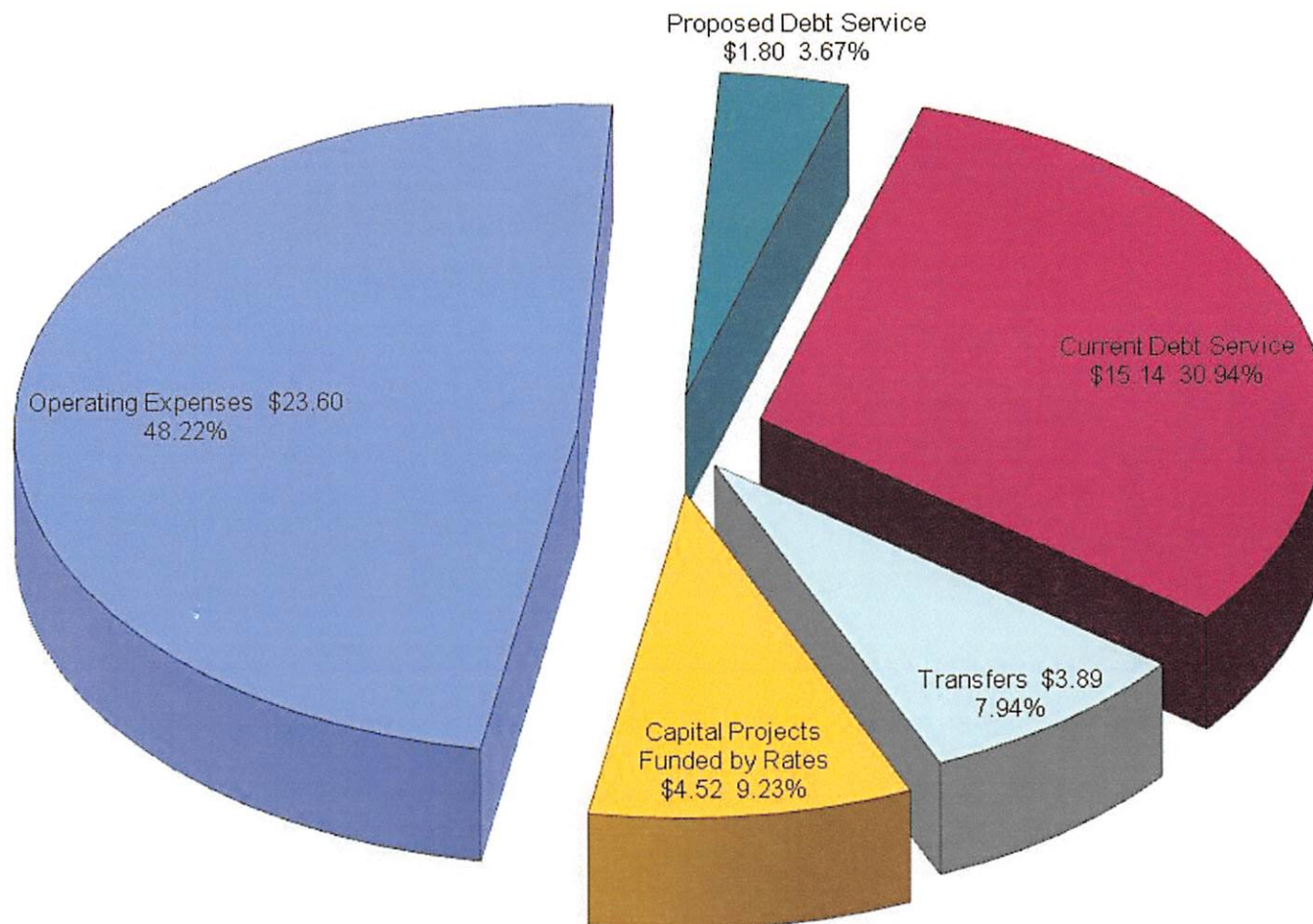
Sources: The City of Brookings; Willdan Financial Services.

Components of Proposed Wastewater Rates

The total expenses of the sewer rates are outlined in Table 12. The five major components of costs are spread among the five main categories of Operating Expenses, Current Debt Service, Transfers, Proposed Debt Service, and Capital Projects to be funded by Rates. The proposed rates are designed to spread the revenue required to capture these costs based on the usage of the system by customer class. The majority of Customers within the City of Brookings are Residential customers. Chart 1 illustrates each component as a percentage as well as the amount of the proposed Residential rate a customer would pay toward each cost category.

Of the total proposed rate, CIP projects will be funded using funds generated from Capital Projects Funded by Rates and the Proposed Debt Service.

Chart 1 - Components of Residential Sewer Rate for FY 2009/2010



CONCLUSION

The proposed wastewater rate schedules are based on the City's projected revenue requirements over the study period. The proposed rates are designed to generate additional revenues to promote revenue adequacy throughout the planning period. We recommend that the City adopt the proposed rate structures to ensure that the wastewater system has a stable cash flow stream in order to provide for ongoing costs and debt service and allow for the funding of reserves for unscheduled expenses. We also recommend setting a policy of targeting an Operating Fund balance of 36 days of annual operations and maintenance expenses to ensure that funds are available for emergency purposes and to mitigate future rate shocks.