AGENDA
CITY OF LINCOLN
CITY COUNCIL
AND
LINCOLN REDEVELOPMENT SUCCESSOR AGENCY
CLOSED SESSION – 4:30 PM
REGULAR MEETING – 6:00 PM
October 22, 2013

Mayor Stan Nader

Gabriel Hydrick, Mayor Pro Tem
Peter Gilbert, Council Member
Paul Joiner, Council Member
Spencer Short, Council Member

October 22, 2013
4:30 PM
City Hall – First Floor
City Manager's Conference Room
600 Sixth Street
Lincoln, CA 95648

CLOSED SESSION:

A. Conference with Real Property Negotiators
Pursuant to Government Code § 54956.8
Property Description: 2275 Hwy 193, Lincoln, Lincoln, CA
APN: 031-272-023-000
City Negotiators: Jim Estep, City Manager
Mark Miller, Community Development Director
Negotiating Parties: Chris Steele, Andrew Sackheim – East Lincoln Associates, LLC
Harry Elliot, Price Walker – Elliot Homes, Inc.
Under Negotiation: Price and Terms

B. Conference with Legal Counsel – Anticipated Litigation
Initiation of Litigation pursuant to Government Code § 54956.9(d)
(One Potential Case)

C. Conference with Legal Counsel – Anticipated Litigation
Significant exposure to litigation pursuant to Government Code § 54956.9(b)
(One Potential Case)

D. Conference with Real Property Negotiators
Pursuant to Government Code § 54956.8
Property Description: Old City of Lincoln Wastewater Treatment Site
APNs: 021-262-006; 021-262-007; 021-262-010
and 021-262-012
City Negotiators: Jim Estep, City Manager
Mark Miller, Public Services Director
Negotiating Parties: Lewis Operating Corporation
Phil Rodriguez, VP Planned Community Development

E. Conference with Legal Counsel – Existing Litigation.
Government Code Section 54956.9(a).
Name of case: Western Placer Unified School District v. City of Lincoln, et al.,
Placer County Superior Court Case No. SCV0032309

REGULAR MEETING

October 22, 2013
6:00 PM
McBean Pavilion
65 McBean Park Drive
Lincoln, CA 95648

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. INVOCATION –

5. PRESENTATIONS

A. Adopt and Present **Proclamation 2013-04** Observing October As "*Colonial Heritage Month*" – Mayor Nader

6. CONSENT AGENDA

NOTICE TO THE PUBLIC

All matters listed under the Consent Agenda are considered to be routine and all will be enacted by one motion. There will be no separate discussion of these items unless a member of the City Council or a citizen requests a specific item to be removed from the Consent Agenda for separate action. Any items removed will be considered after the motion.

6.1 CITY MANAGER'S DEPARTMENT

A. Approve Minutes of the October 8, 2013 Regular Meeting and October 15, 2013 Special Meeting.

B. Adopt **Resolution 2013-218** receiving/filing the Warrants of October 11, 2013.

C. Approval by the Successor Agency to the Dissolved Redevelopment Agency of the City of Lincoln Approving the Long Range Property Management Plan and Forwarding to the Oversight Board for Approval. ***(Amanda Norton)***

D. Adopt **Resolution 2013-219** Authorizing the City Manager to Make Changes to the CalPERS Health Contract – Adjusting Employer Healthcare Contributions for One Group. ***(Sheila Van Zandt)***

E. Adopt **Resolution 2013-220** Approving the Development Services Division Manager Job Description; **Resolution 2013-221** Approving the Public Services Division Manager Job Description; and **Resolution 2013-222** Approving the Recreation Aide Job Description. ***(Sheila Van Zandt)***

F. Adopt **Resolution 2013-223** Recognizing Domenick Casper on Achieving Eagle Scout and **Resolution 2013-224** Recognizing Jethro Buys on Achieving Eagle Scout. ***(Patricia Avila)***

G. Adopt **Resolution 2013-225** Approving Ratification and Amendment to Loan Agreement between the City of Lincoln and the former Redevelopment Agency of the City of Lincoln (1988 Loan); **Successor Agency Resolution 2013-09S** to the Dissolved Redevelopment Agency of the City of Lincoln Approving Ratification and Amendment to Loan Agreement between former Redevelopment Agency of the City of Lincoln and the City of Lincoln (1988 Loan); *and* **Resolution 2013-226** Approving Ratification and Amendment to Loan Agreement between the City of

Lincoln and the former Redevelopment Agency of the City of Lincoln (2010 Loan Agreement); *and* **Successor Agency Resolution 2013-10S** to the Dissolved Redevelopment Agency of the City of Lincoln Approving Ratification and Amendment to Loan Agreement between former Redevelopment Agency of the City of Lincoln and the City of Lincoln. ***(Amanda Norton)***

6.2 ADMINISTRATIVE SERVICES DEPARTMENT

A. Adopt **Resolution 2013-227** Authorizing the City Manager to Execute a Lease Agreement with Auburn Ravine Ranch for Farm Management of City-operated Effluent Reclamation Lands for a Ten-Year Term. ***(John Lee)***

B. Adopt **Resolution 2013-228** Authorizing the City Manager to Execute a Contract for Services with Prodigy Electric *and* **Resolution 2013-229** Authorizing the City Manager to Execute a Contract for Services with KIPP Electric for Commercial and Industrial Electrical Services, as needed when Equipment or Electrical Services Fail. ***(John Lee)***

C. Adopt **Resolution 2013-230** Approving the Purchase and Sale Agreement between the City of Lincoln and Premier United Communities LP for the Approximately 13.74 Acres of Property Commonly Known as Lakeside 6, Unit 2 and Authorize the City Manager to Execute the Agreement. ***(Steve Ambrose)***

6.3 COMMUNITY DEVELOPMENT DEPARTMENT

A. Adopt **Resolution 2013-231** Appropriating $114,000 of Reimbursable Federal Grant Funds from Fund 298 (FHWA/Caltrans CML5089(023); *and* **Resolution 2013-232** Authorizing the City Manager to Execute a Contract for Services Agreement with Mark Thomas & Company for Professional Engineering Services in the amount of $113,944 for the Lincoln Blvd Phase 2 Project. ***(Ray Leftwich)***

B. Adopt **Resolution 2013-233** Authorizing the City Manager to Execute the Letter of Agreement 13-02 between the City of Lincoln and the Placer County Transportation Planning Agency (PCTPA) to Fund the Modification of the Draft Airport Land Use Compatibility Plan (ALUCP) for the Lincoln Regional Airport. ***(George Dellwo)***

6.4 POLICE DEPARTMENT/FIRE DEPARTMENT

A. Update on Consolidated Public Safety Opportunities. ***(Rex Marks/Mike Davis)***

7. CITIZENS ADDRESSING THE COUNCIL

POLICY FOR CITIZENS ADDRESSING THE COUNCIL: As in the past, we will listen respectfully to what any citizen addressing Council may have to say regarding an item *NOT* scheduled on the posted agenda. However, those addressing the Council will be limited to five (5) minutes, unless extended by the Mayor. Comments from the audience *WITHOUT* coming to the podium will be disregarded or ruled out of order. ALL comments/questions should be addressed to the Mayor. In most cases, the City Council is prohibited from discussing or taking action on any item *not appearing on the posted agenda.* ***SPEAKER CARDS****: If you wish to speak on* ***ANY ITEM*** *please complete a speaker card (voluntary), located at the back of the room and deliver it to the City Clerk* ***prior*** *to the meeting and/or discussion of the item. When your name is called, stand to be recognized by the Mayor and then make your way to the podium. As with all speakers, time will be limited to five (5) minutes, unless extended by the Mayor.*

8. STAFF REPORTS

8.1 ADMINISTRATIVE SERVICES DEPARTMENT

A. Waiver of Fees for Special Events

Recommendation:
-Allow for staff report.
-Adopt **Resolution 2013-234** Approving the Special Events Permanent Fee Waivers and Facility Rental Permanent Fee Waivers and **Resolution 2013-235** Approving Events on Lincoln Boulevard and the Amendment to the Master Fee Schedule. ***(Kristine Pelzman)***

8.2 COMMUNITY DEVELOPMENT DEPARTMENT

A. Lincoln Meadows – Entitlements Request

Recommendation:
-Allow for staff report.
-Provide staff direction regarding a request to apply for development entitlements concerning an area within the General Plan Village 2 Planning Area, referred to as *Lincoln Meadows*. ***(Rod Campbell)***

B. Proposed Water and Wastewater Rate Adjustments

Recommendation:
-Allow for staff report.
-Waive reading and adopt by title and number only **Ordinance 869B** Amending Title 13 of the Lincoln Municipal Code Regarding Water and Wastewater Regulations and Charges. *(introduction/first reading)* ***(Steve Ambrose)***

9. PUBLIC HEARINGS - *none*

10. COUNCIL INITIATED BUSINESS

A. Other Business

11. COUNCIL COMMITTEE REPORTS

12. ADJOURNMENT

***NOTE**: Materials related to an item on this Agenda submitted to the Council/Redevelopment Agency after distribution of the agenda packet are available for public inspection in the City Clerk's office at 600 Sixth Street, Lincoln, CA during normal business hours. Such documents are also available on the City of Lincoln's website at www.ci.lincoln.ca.us subject to staff's availability to post the documents before the meeting.*

In compliance with the American with Disabilities Act, the City will provide special assistance for disabled members of the public. The meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need a disability-related modification or accommodation to participate in the meeting, please contact the City Clerk's Office at (916) 434-2493. As a courtesy, please make every effort to inform the Clerk of your needs at least 24 hours prior to the meeting so the City may make reasonable arrangements to ensure accessibility to this meeting.

Pursuant to applicable laws and regulations, including without limitation, California Government Code Section 65009 and/or California Public Resources Code Section 21177, if you wish to challenge in court any of the above decisions (including any action regarding planning, zoning and/or environmental decisions), you may be limited to raising only those issues you or someone else raised at the public hearing(s) described in this notice/agenda, or in written correspondence delivered to the City at, or prior to, the public hearing.

I HEREBY CERTIFY THE ATTACHED NOTICE WAS POSTED 72 HOURS PRIOR TO THE SCHEDULED MEETING.

Patricia Avila

PATRICIA AVILA, CITY CLERK

Dated: 10.18.13

MEMORANDUM

TO: City Council

FROM: Jim Estep, City Manager

PREPARED BY: Steve Ambrose, Financial Analyst

REVIEWED BY: Mark Miller, Community Development Director

LEGAL REVIEW: Jonathan P. Hobbs, City Attorney

DATE: October 22, 2013

ITEM: Introduce and waive the first reading of an ordinance amending sections and adding sections of Title 13 of the Municipal Code in regards to water and wastewater services with an implementation date of January 1, 2014.

RESOLUTION(s): No

ORDINANCE(s): Yes

RECOMMENDATION:

To introduce and waive the first reading of an ordinance amending sections and adding sections of Title 13 of the Municipal Code in regards to water and wastewater services with an implementation date of January 1, 2014.

BACKGROUND/ANALYSIS:

HF&H completed the rate studies for the City's three utilities, which have been reviewed and discussed by the Finance Committee during five separate meetings and a special meeting of the City Council. Consistent with Proposition 218, a properly noticed public hearing was conducted at the October 8, 2013 City Council meeting to address the proposed rates. Public comment was received at the public hearing, which largely focused on the water rates.

At the conclusion of the October 8 public hearing, the City Clerk announced that a majority protest against the water and wastewater rates had not been achieved, as provided by Proposition 218, thereby providing the City Council with the option to adopt the proposed rates. The City Council adopted the solid waste

8.2B

rates by resolution. However, the City Council did not adopt the proposed water or wastewater rates. Based on the public comment received and based on City Council comments and questions, the City Council gave direction to staff to provide additional information regarding the proposed water rates, and to re-agendize the proposed water and wastewater rates and ordinance for the October 22, 2013 City Council meeting.

Based upon the public comments received prior to and at the public hearing, HF&H has revised its rate study to address specific concerns and questions, provide further information and explanation, and includes minor language changes at various sections of the rate study. (Attachment 1). The revised rate study does not change the findings of the rate study, which determined that the water fund is reaching critical funding levels and the City would become unable to fund the necessary operating costs in the next few years without a rate adjustment. Nor did the rate study change any of its conclusions on the proposed rates. Rather, the revised rate study provides further information and explanation to address comments raised by the public and the City Council. Relative to the water rates, a summary of the further explanations in the revised rate study is as follows:

- Provides further information and charts concerning revenue requirements. (pp. 3-4).
- Provides further information about expenses for operation of the water enterprise. (pp. 9-10).
- Removes a discussion of a contingency balance, as it is not applicable to the proposed rates. The City is not seeking to establish a contingency balance with the proposed rate structure. This discussion was previously included for context and as an example of a rate structure component. (pp. 11-12).
- Provides further information concerning the cost of service. (pp. 13-15).
- Provides further information about the rate design, including tiering of rates. (pp. 15-22).

A red-lined (track-changes) version of the revised rate study, indicating the revisions, is attached as Attachment 2.

Wastewater

The wastewater rates for single-family residential customers and multi-family residential customers are currently a flat monthly rate of $32.08 per Equivalent Dwelling Unit (EDU) and are not proposed to change. The Industrial accounts will continue to pay the $32.08 based on the calculated number of EDU's as well.

Non-residential customers, other than industrial users, would pay a monthly service charge of $32.08 for each account and a flow rate charge based on the quantity of potable water delivered. The proposed rates include flow rates for

average strength and for high strength users. High strength users would typically be restaurants and groceries stores with food grinders.

Water

The public notice sent to customers provides information about the calculation and amount of the fees. In addition to the public notice, the City has provided information and tools on the City's website to assist customers in their understanding and calculation of the proposed rates. As directed by the City Council at the October 8, 2013 public hearing, staff has provided additional information regarding the proposed water rates, which was posted in the City's web-site. (Attachment 3). The information provides further explanation concerning the water fund balance, water revenue requirements, capital replacement, and the City's cost allocation for water services.

The additional information provided an annual summary of the projected water fund activity as well as a five-year total. The projected accumulated balance of the Capital Replacement Fund was also shown for the five-year study period. The City also provides a further explanation of the cost allocation methodology. This cost allocation expenditure represents the overhead and other charges borne by other city departments to support the water enterprise. Stated differently, if the water enterprise were a stand-alone entity, the water enterprise would need to procure the support services necessary for its operation (e.g. administrative, finance, legal, human resources, information technology, and other support services). These services are provided by existing city departments to efficiently support the water enterprise and other City functions, and the cost of these support services is allocated to the water enterprise.

The proposed rates, which have not been increased since 2006, would fund the projected costs to operate and maintain the water system and allow the City to achieve its goal of providing a dependable water service. The largest cost for water operations is the purchase of potable water from PCWA. The PCWA purchases and the capital replacement funding are the two largest impacts to the rates. It is important that the City address the long-term maintenance, repair and replacement of the City's $188 million dollar infrastructure. The proposed rates have phased this critical funding component over the 5 year period, reaching the full funding level in 2017.

Amendments and Additions to Title 13 of the Municipal Code

The water rates and wastewater rates are identified in Section 13.04.205 and Section 13.12.110 respectively of Title 13 in the Municipal Code. In addition to the proposed changes to the rates, staff is recommending approval and adoption of several amendments and additions to Title 13. A "Summary of Ordinance amending Title 13 of the Municipal Code" is attached as Attachment 4 and the current ordinance with the proposed changes to the specific sections of Title 13 are part of the attached proposed ordinance. Note that the proposed ordinance

presented now adds a severability clause at section 3 of the ordinance, which provides that if any portion of the ordinance is found invalid, such invalidity will not invalidate the entire ordinance. This type of severability clause is common for ordinances impacting multiple topics, such as this one.

OPTIONS: The City Council may take the following action.

1. Introduce and waive the first reading of an ordinance amending sections and adding sections of Title 13 of the Municipal Code in regards to water and wastewater rates with an effective date of January 1, 2014.

2. Provide staff with additional direction

FISCAL IMPACT: Utility rate adjustments are necessary to fund the City's water and wastewater utility operations. Without the appropriate adjustments the enterprise funds will not generate sufficient revenues to fund the operating costs.

RELATED ACTION(s): None.

STRATEGIC PLAN: The proposed rates support the City Council's strategic plans in regards to (1) achieving financial stability and sustainability, and (2) improve and maintain infrastructure, facilities and equipment.

ORDINANCE NO

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LINCOLN AMENDING SECTIONS OF THE TITLE 13 – PUBLIC SERVICES OF THE LINCOLN MUNICIPAL CODE REGARDING WATER AND WASTEWATER SERVICES

Whereas, there is a need to review and modify the water and wastewater fees charged within the City of Lincoln, and

Whereas, a comprehensive rate study was completed by an independent consultant, HF&H Company, to calculate the recommended rates (the "Rate Study"), and

Whereas, the City mailed notices to property owners and customers within the City consistent with California Constitution Article XIII D section 6, also commonly known as a component of Proposition 218, notifying them of a public hearing to be held on October 8, 2013, and the City has complied with all relevant provisions of law, including, without limitation, California Constitution Article XIII D section 6

Whereas, on October 8, 2013 the City Council opened said public hearing at which time the City Council heard objections and protests to the proposed water and wastewater rates,

Whereas, written protests against the proposed solid waste rates were not presented by a majority of the property owners, as provided in California Constitution Article XIII D section 6 and the Proposition 218 Omnibus Implementation Act, Gov Code section 53750 et seq ,

Whereas, in conjunction with the adjustment of water and wastewater rates, additional conforming changes to the City's Municipal Code are appropriate

Now, therefore, be it resolved by the City Council of the City of Lincoln that

THE CITY COUNCIL OF THE CITY OF LINCOLN DOES HEREBY ORDAIN AS FOLLOWS

Section 1 The Rate Study, with revisions, is hereby approved

Section 2 Specified sections of Chapter 13 04 of the Lincoln Municipal Code are hereby amended to read as follows

Chapter 13 04

WATER

Sections

ARTICLE I SERVICE REGULATIONS GENERALLY

13 04 010	Purpose and intent
13 04 015	Definitions
13 04 020	Service area
13 04 030	Supply source, quality, continuity

13 04 040 Classes of service
13 04 050 Service connection--Location
13 04 060 Service connection--Relocation
13 04 065 Ground wire attachments
13 04 070 Application for service
13 04 075 Reapplication
13 04 076 Establishment of water service connection
13 04 080 Application for water agency annexation
13 04 090 Interruption of service
13 04 100 Right of entry for inspection
13 04 110 Shutoff at customer request
13 04 120 Reconnection after shutoff
13 04 130 Temporary connection
13 04 140 Fire hydrants
13 04 150 Meter installation required
13 04 152 Meter Size Change
13 04 155 Meter accessibility
13 04 158 Tampering charge
13 04 160 Water connection charge

ARTICLE II OUT-OF-TOWN SERVICE

13 04 170 Approvals required--Standard for approval
13 04 180 Use
13 04 190 Continuity not guaranteed

ARTICLE III RATES AND BILLING

13 04 200 Rate classifications
13 04 202 Flat Rate water use rates
13 04 205 Metered water use rates
13 04 207 Water use rates for construction water
13 04 209 Water use rates--Outside the city
13 04 210 Billing--Meter reading
13 04 220 Payment responsibility--Property owner defined
13 04 225 Due date
13 04 230 Delinquency
13 04 232 Delinquent fees or charges
13 04 240 Shutoff for nonpayment
13 04 250 Reestablishing service after shutoff
13 04 255 Billing with other utilities

ARTICLE IV DELINQUENCY COLLECTION

13 04 260 General-taxes collection authorized
13 04 270 Report to city clerk
13 04 280 Notice of hearing
13 04 290 Hearing

13 04 300 Report to county auditor
13 04 310 Parcels not on assessment roll
13 04 320 Attachment of lien
13 04 330 Collection with general taxes
13 04 340 Applicable laws generally--Transfer or conveyance--Lien of encumbrancer
13 04 350 Compensation to county
13 04 355 Civil action

ARTICLE V CONNECTION FEES

13 04 360 Established--Apportionment--Purpose
13 04 362 Indoor Fire Sprinkler Requirement
13 04 370 Use of revenues
13 04 380 Other costs--Indemnification of city
13 04 390 Oversized-capacity reimbursement
13 04 400 Temporary-connection charges
13 04 405 Connection fee due for reapplication

ARTICLE VI CONSERVATION

13 04 410 Condition of plumbing
13 04 420 Watering spray or nozzle required
13 04 430 Irrigation hours
13 04 440 Gross waste

ARTICLE VII WELLS

13 04 450 Permit requirements
13 04 460 Workman qualifications
13 04 470 Inspections
13 04 480 Protection from contamination--Surface-water diversion
13 04 490 Forced abandonment--Filling holes
13 04 499 Potable wells prohibited

ARTICLE VIII PROHIBITIONS AND VIOLATIONS

13 04 500 Use in violation
13 04 510 Heating and cooling devices
13 04 520 Cross-connection and backflow prevention
13 04 530 Fluoridation
13 04 540 Penalties for violation

ARTICLE I SERVICE REGULATIONS GENERALLY

13 04 010 Purpose and intent The city council, in the interest of protecting the health, safety and general welfare of the people of the city, adopts the ordinance codified in this chapter to carry out the following purposes

A To supply treated water purchased from the Placer County Water Agency to users,

B To establish procedures for provision of water to residential, industrial and commercial users within the city,

C To establish procedures for provision of water to certain limited users outside the city but within Placer County Water Agency Zone No 1,

D To provide for the ongoing implementation of a metered rate system

Deleted: conversion from a flat rate system to

(Ord 364B §1 1, 1979)

13 04 015 Definitions The meanings of terms used in this chapter are as follows

A "Director" means the City employee who is responsible for the management of the department or division to which specific actions or approvals are required The director may authorize designated City employees under his/her direction to act on his/her behalf

13 04 020 Service area

A The area in which service is or will be furnished by the city is that area lying within the city limits, as such limits now prevail or may from time to time exist

B The city may provide water service to users outside the city If the proposed water service will utilize water purchased from the Placer County Water Agency, an application for the commencement of water service after May 3, 1977, outside of the city shall not be granted without the written approval of the city council and without the written consent of the Placer County Water Agency

(Ord 426B §1, 1984, Ord 364B §1 2, 1979)

13 04 030 Supply source, quality, continuity The city will exercise reasonable care to deliver a continuous and sufficient supply of water at the proper pressure to avoid any shortage or interruption in delivery All customers shall be required to accept such conditions of pressure and service as are provided by the distribution system at their point of connection and the city shall not be liable for any damage arising from high or low pressures The water will meet all federal, state and county minimum water-quality requirements for water for domestic use

(Ord 462B §2, 1984 Ord 364B §1 3(A), 1979)

13 04 040 Classes of service Water service provided by the city will be classified as follows

A Residential use

1 Flat-rate,

2 Metered,

B Non-Residential use

Deleted: Commercial/industrial

1 Flat-rate,

2 Metered

(Ord 364B §1 3(B), 1979)

13 04 050 Service connection--Location To be eligible for water service, the property to which the service is to be extended must abut on a dedicated public easement in which a city water main is constructed at a point immediately adjacent to the property, provided, however, that if the preceding requirement is not met, the city engineer may authorize the extension of service if the applicant for water service cannot dedicate a public easement in which an existing water main is constructed However, in the case of improvements installed pursuant to the subdivision

regulations, all improvements shall be the sole responsibility of the developer The size of the service connections and pipes shall be determined by the city engineer
(Ord 364B §1 4(A), 1979)

13 04 060 Service connection--Relocation A service connection may be relocated by the city at a customer's request, providing the relocation, in the judgment of the city engineer, is not detrimental to the city's water system The cost of the relocation shall be paid by the customer The cost shall be estimated by the city engineer and shall be paid in full prior to the performance of the work Where a service connection is relocated for the convenience or protection of the city, the relocation will be at the expense of the city
(Ord 364B §1 4(B), 1979)

13 04 065 Ground wire attachments The city is not responsible for providing an electrical ground through the water service equipment Customers shall not attach any ground wiring to plumbing which is or may be connected to city service equipment

13 04 070 Application for service A person desiring water service for any purpose from the city shall apply at the office of the water department, and no person shall use any city water without first making such an application The application, which shall be on a form prescribed by the city, shall set forth

A The address and, if necessary, the definite boundaries of the premises to be serviced,

B The purpose and use of the water, and

C Such other information considered proper by the city

(Ord 364B §1 5, 1979)

13 04 075 Reapplication If a new water service connection is not established within one hundred eighty (180) days of filing an application with the office of the building department pursuant to Section 13 04 070, the person desiring water service must reapply at the office of the building department in order to use any city water
(Ord 501B §1, 1988)

13 04 076 Establishment of water service connection New water service connection is deemed established when all structures to be constructed on the property for which water service is being requested have been supplied with cold running water
(Ord 551B §l, 1991 amended during 10/90 supplementation per city request, Ord 504B §1, 1988)

13 04 080 Application for water agency annexation Each applicant for water service to property not within Placer County Water Agency Zone No 1 but within the city's boundaries as they existed on September 30, 1979 that will be serviced by water purchased from the Placer County Water Agency shall apply to the Placer County Water Agency for annexation to Zone No 1 prior to submitting an application for water service to the city
(Ord 462B § 3, 1984 Ord 364B § 1 6, 1979)

Deleted: the effective date of the ordinance codified in this chapter

13 04 090 Interruption of service In case of fire, or alarm of fire, or in making repairs, or in constructing new work, or when required by the necessities of the service of the city, the city may shut off water from any customer or number of customers without notice for as long as is necessary, and the city shall not be liable for damage resulting from such discontinuance
(Ord 364B § 1 7, 1979)

13 04 100 Right of entry for inspection Any authorized agent or employee of the city, with the consent of the owner, occupant or consumer, or pursuant to court order, shall be allowed free access at any reasonable hour to any premises where water is served for the purpose of inspecting the condition of the water pipes or service or for the purpose of establishing the rate to be charged,
(Ord 364B § 1 8, 1979)

Deleted: under the provisions of Resolution 79-64

13 04 110 Shutoff at customer request Any person who desires to discontinue water service shall submit a request in writing or in person at the office of the water department not less than two (2) working days before the date on which discontinuance is desired The request shall contain the date upon which water service is to be discontinued and a forwarding address for the customer Water service may be discontinued only on ordinary working days No service may be discontinued for a period of less than thirty (30) days
(Ord 364B § 1 9(A), 1979)

13 04 120 Reconnection after shutoff Water shall not be restored to any premises after service has been discontinued until payment of all arrearages
(Ord 364B § 1 9(B), 1979)

13 04 130 Temporary connection Whenever possible, all water furnished through a temporary service connection shall be metered A permit for a temporary service connection is valid for a period not more than sixty (60) days after installation The city may extend the permit upon request The temporary service shall be discontinued and dismantled or removed upon termination of the permit period or completion of use
(Ord 364B § 1 10, 1979)

13 04 140 Fire hydrants

A Use Fire hydrants are for use by the organized fire protection agencies and by the water department Other parties, including contractors, desiring to use fire hydrants for any purpose must first obtain a temporary permit in accord with this article prior to use and shall operate the hydrant in accordance with instructions issued by the water department and pay all required fees and charges

B Obstructions It is unlawful for any person to blockade or obstruct any fire hydrants of the city in such a manner that it would be difficult or impossible to attach a fire engine hose thereto

C Permits An applicant for a permit to use a public fire hydrant shall pay a permit fee at the time of application In addition, a weekly use fee (for each week a hydrant is used, or portion thereof) shall be paid by the applicant
(Ord 364B § 1 11, 1979)

13 04 150 Meter installation required

A No tentative map shall be approved after September 30, 1979, unless, as a condition of approval, water meters are installed and dedicated to the city as part of the subdivision's improvements

Deleted: the effective date of the ordinance codified in this chapter

B Building permits and construction permits for any construction started after September 30, 1979, will be conditioned upon the installation of a water meter

Deleted: the effective date of the ordinance codified in this chapter

C All new commercial and industrial applicants for water service shall provide appropriately sized water meters as determined by the director. The City reserves the right to review the anticipated water demands based upon type of service, number of fixtures, irrigation, and all other factors affecting water use, and the right to require larger service connection or meter if anticipated demands exceed the capacity of the meter size requested

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D The director may place meters upon any service connection and thereafter charge the general service metered rate when the director determines, in his discretion, that the high consumption of water for the particular service requires metering The expense of such installation shall be charged to the consumer Upon application, any consumer may request the installation of a meter at the consumer's expense, and after such installation, the consumer shall be charged the appropriate metered water rate
(Ord 364B § 1 12, 1979)

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13 04 152 Meter Size Change Any customer desiring to change the size of any meter that has been installed shall make application to the City for such change

A Increase in meter size – The applicant shall pay the applicable fee for the new larger meter and if the change necessitates, in the City's judgment, a larger service connection, the applicant shall pay all costs associated with the installation of the new service connection

B Reduction in meter size – The applicant shall provide the City with documentation as deemed necessary by the City to recognize the permanent relinquishment of water capacity to the City The City shall not be obligated to reimburse the applicant for any water connection fees related to the relinquishment of the water capacity The relinquishment shall permanently transfer the water capacity to the City and the City shall be allowed to sell such capacity to other water customers The proceeds of such sale of water capacity in the form of water connection fees shall be used by the City at its sole discretion

13 04 155 Meter accessibility. It is the customer's responsibility to ensure accessibility to the meter at all times When a meter cannot be read because of an obstruction, the customer will be notified and shall correct the condition(s) Failure to remove the obstruction within 30 days after notification shall result in the disconnection of service All fees applicable to the disconnection shall be applied to the customer's account This is the customer's responsibility

13 04 158 Tampering charge Facility tampering includes, but is not limited to, interference with a meter, meter box, or locking mechanism, or unauthorized reconnection of a meter, or unauthorized use of water or damage to a fire hydrant Additionally, any City facilities that have been damaged or altered will be billed for time and materials The tampering charge shall be two hundred and fifty dollars ($250 00) per occurrence, and upon the third occurrence the City may remove the meter and lock the service

13 04 160 Water connection charge The basic connection unit charge for water for residential and non-residential shall be five thousand five hundred and fifty-eight dollars ($5,558 00) per equivalent dwelling unit (EDU) One water connection EDU is equal to one thousand one hundred and fifty (1,150) gallons per day

The Water connection charge set forth herein shall be subject to an annual adjustment up to the change in the San Francisco Construction Cost Index (CCI) as reported by the Engineering News Record (ENR) for the twelve month period beginning March 1st as determined by resolution of the City Council The annual adjustments shall be effective each May 1st, beginning in the year 2013

(Ord 862B § 2, 2012 Ord 811B § 1 (part), 2006 Ord 725B § 1, 2002 Ord 710B § 12, 2001 Ord 364B § 1 13, 1979)

ARTICLE II OUT-OF-TOWN SERVICE

13 04 170 Approvals required--Standard for approval Any application for use of water outside the city after the effective date of the ordinance codified in this chapter shall not be granted without written approval by the city council If the proposed water service will utilize water purchased from the Placer County Water Agency, the applicant shall also obtain the written consent of the Placer County Water Agency The city council shall approve the furnishing of city water to users outside the city only if it finds that the provision of such service will not interfere with proper service to water users within the city, that the provision of such service is economically feasible, that all plumbing and service connections are adequate to prevent backflow and, in the case of water services that will utilize water purchased from the Placer County Water Agency that such property has been annexed to Placer County Water Agency that Zone No 1 The Placer County Water Agency shall only refuse to consent to an application upon the grounds that there is insufficient water or capacity in the agency's facilities to serve the area outside the present city boundaries
(Ord 462B § 4, 1984 Ord 364B § 2 1, 1979)

13 04 180 Use No water shall be furnished outside the city boundaries for other than domestic and ordinary commercial uses
(Ord 364B § 2 2, 1979)

13 04 190 Continuity not guaranteed The city does not guarantee continuity of service or adequate pressure to users of water located outside the city The city may discontinue service to any user outside the city if the city council determines that the discontinuance of such service is necessary to assure adequate water service to users within the city or that the continuation of the service is no longer economically feasible
(Ord 364B § 2 3, 1979)

ARTICLE III RATES AND BILLING

13 04 200 Rate classifications

A The city will operate and maintain its water systems in an efficient and economical manner to distribute and supply water as fairly and equitably as possible The charges to be made for service will be set at rates no higher than necessary to enable the city to recover all costs of distributing and supplying water and shall include any costs for,

1 Purchasing, pumping, transmitting, and distributing water,
2 Customer Service,
3 Administration,
4 Overhead,
5 Debt Service, and
6 Renewal and replacements of facilities

B Water user rates shall be of two types, flat rate and metered rate, and shall be set by the city council, as provided in this chapter

C Different rates shall be established for water service outside the city but within Placer County Water Agency Zone No 1
(Ord 759B § 1, 2004 Ord 364B § 3 1, 1979)

Deleted: It is the intent and policy of the city that water user rates reflect the city's costs in providing water The city council will immediately adjust water rates to reflect increased (or decreased) costs for infrastructure and/or operating costs, including, but not limited to, wage increases, utility rate increases, chemical cost increases, and increases in the cost of water purchased from wholesale suppliers

13 04 202 Flat water use rates The monthly charge for flat rate water use shall be

Customer Class	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Residential	$ 34 19	$ 39 31	$ 45 20	$ 50 18	$ 55 68
Non-Residential	$ 37 57	$ 43 16	$ 49 67	$ 55 15	$ 61 27

13 04 205 Metered water use rates The monthly charges for metered water use shall include two components, meter service charges and volumetric charges.

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Meter Service Charges

Meter Size	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
¾"	$ 23 40	$ 26 91	$ 30 95	$ 34 35	$ 38 13
1"	$ 35 10	$ 40 37	$ 46 42	$ 51 53	$ 57 20
1 ½"	$ 117 01	$ 134 56	$ 154 75	$ 171 77	$ 190 66
2"	$ 187 21	$ 215 30	$ 247 60	$ 274 83	$ 305 06
3"	$ 374 43	$ 430 59	$ 495 18	$ 549 65	$ 610 12
4"	$ 585 05	$ 672 80	$ 773 72	$ 858 83	$ 953 30
8"	$1,664 10	$1,913 72	$2,200 78	$2,442 87	$2,711 58

Volumetric Charges

Schedule SFR-1

Single-Family Residential, All except Verdera Villages 13-17, 19 & 20

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 35,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 35,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule SFR-2

Single-Family Residential, Verdera Village 20

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1 2014	July 1 2014	July 1 2015	July 1 2016	July 1 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 53,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 53,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule SFR-3

Single-Family Residential, Verdera Villages 13-17, 19

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1 2014	July 1 2014	July 1 2015	July 1 2016	July 1 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 88 000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 88,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-1

Multi-Family Residential - 3/4" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 35,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 35,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-2

Multi-Family Residential - 1" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 88,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 88,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-3

Multi-Family Residential - 1 1/2" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14 000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21 000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 175,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 175,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-4

Multi-Family Residential - 2" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5 000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 280,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 280,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-5

Multi-Family Residential - 3" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 560,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 560,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-6

Multi-Family Residential - 4" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 875,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 875,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule MFR-7

Multi-Family Residential - 6" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 5,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001 to 14,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001 to 21,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	21,001 to 1,750,000	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5	over 1,750,000	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Schedule NR-1

Non-Residential - 3/4" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 4 39	$ 4 79	$ 5 23	$ 5 63	$ 6 07
Tier 3	88 001 to 175,000	$ 5 58	$ 6 16	$ 6 81	$ 7 38	$ 8 01
Tier 4	Over 175,000	$ 6 69	$ 7 43	$ 8 28	$ 9 01	$ 9 82
Tier 5						

Schedule NR-2

Non-Residential - 1" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175 000	$ 5 58	$ 6 16	$ 6 81	$ 7 38	$ 8 01
Tier 4	Over 175,000	$ 6 69	$ 7 43	$ 8 28	$ 9 01	$ 9 82
Tier 5						

Schedule NR-3

Non-Residential - 1 1/2" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	Over 175,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82
Tier 5						

Schedule NR-4

Non-Residential - 2" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	175,001 to 280 000	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Over 280,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

Schedule NR-5

Non-Residential - 3" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	175,001 to 560,000	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Over 560,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

Schedule NR-6

Non-Residential - 4" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88 000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	175,001 to 875,000	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Over 875,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

Schedule NR-7

Non-Residential - 6" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	175,001 to 1,750,000	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Over 1,750,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

Schedule NR-8

Non-Residential - 8" meter

	Rates per each 1,000 Gallons					
	Gallons per Month	Jan 1, 2014	July 1, 2014	July 1, 2015	July 1, 2016	July 1, 2017
Tier 1	0 to 35,000	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35 001 to 88,000	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001 to 175,000	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	175,001 to 2,485,000	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Over 2,485,000	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

(Ord 801B § 1, 2006 Ord 759B § 2, 2004 Ord 727B § 1, 2003 Ord 712B § 1, 2002 Ord 694B § 1, 2001)

13 04 207 Water use rates for construction water It is recognized that the costs of administering construction water meters, for taking readings on construction water consumption and for billing is higher for construction water services The charge for each one-thousand gallons of construction water use shall be the amount of the highest tier for water users within the city
(Ord B801B § 2, 2006 Ord 768B § 1, 2004)

13 04 209 Water use rates--Outside the city The monthly charge for water use outside the city shall be the same rates for customers by class and meter size within the city
(Ord 801B § 3, 2006 Ord 768B § 2, 2004)

13 04 210 Billing--Meter reading

A Flat-rate accounts for each month are due and payable between the first and the twelfth of the month and are payable at the office of the water department

B Metered accounts shall be billed periodically and meters shall be read as nearly as possible at regular intervals, and service bills are due and payable for the preceding period for which the meter has been read Meters will be read as required for closing bills Each meter on a customer's premises will be billed separately and the readings of two or more meters will not be combined unless for water system operating convenience or necessity two or more meters are installed in place of one
(Ord 364B § 3 2, 1979)

13 04 220 Payment responsibility--Property owner defined

A The customer shall be responsible for prompt payment of all fees and charges However, the property owner shall bear the final responsibility for payment in the event the customer fails to make prompt payment

B As used in this article and Article IV, "property owner" means the person to which the property was assessed on the last equalized assessment roll of the county
(Ord 408B § 1, 1982 Ord 364B § 3 2 5, 1979)

13 04 225 Due date Charges for service shall be due and payable on the first day following the month or other established billing period such services were used unless otherwise provided
(Ord 508B § 4, 1988)

13 04 230 Delinquency All fees or charges which are not paid on or before the thirtieth day following the date such charges were due and payable are delinquent and a penalty of ten percent of the charge shall be imposed on the thirtieth day following the date such charge was due and payable In addition, a penalty of one-half of one percent per month of the basic charge plus the ten percent penalty shall be imposed on the sixtieth day following the date such charge was due and payable and on each thirtieth day thereafter until there is payment in full of the charge plus all penalties Penalties imposed pursuant to this section shall be billed and collected in the same manner as other fees and charges imposed pursuant to this chapter
(Ord 482B § 5, 1986 Ord 408B § 2, 1982 Ord 364B § 3 3, 1979)

13 04 232 Delinquent fees or charges Delinquent fees or charges which remain unpaid for a period of sixty or more days after the date upon which they were billed shall become a lien upon the property and may be subject to collection pursuant to the procedures set forth in Article IV of this chapter In addition, water service and other city utility services at the service location

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may be terminated for nonpayment pursuant to Section 13 04 240 and Section 13 14 020 If a customer receives service at more than one service location and the bill for anyone of that customer's accounts becomes delinquent, charges for services at all other locations may also be collected pursuant to the procedures set forth in Article IV
(Ord 482B § 6, 1986)

13 04 240 Shutoff for nonpayment

A In addition to all other remedies which the city may have for the collection of delinquent water service charges, the city may terminate water service for nonpayment of a delinquent account

B At least fifteen calendar days prior to the proposed termination, the city shall give notice of the delinquency and the impending termination by first-class mail to the customer to whom the water service is billed and the property owner Notice to the property owner shall be sent to the address shown on the last equalized assessment roll of the county

C Any customer who has initiated a complaint or requested a hearing within five days of receiving the notice of termination shall be given an opportunity for review of such complaint by the city manager or his designated representative

D The city shall not terminate water service during the pendency of an investigation or review of a customer dispute or complaint or prior to any hearing initiated pursuant to this section

E The city manager is authorized to resolve complaints or disputes initiated pursuant to this section
(Ord 578B §1, 1992 Ord 402B §3, 1982 Ord 364B §3 4 5, 1979)

13 04 250 Reestablishing service after shutoff

A Water services discontinued because of delinquency in payment or upon the customer's request shall not be reestablished until all fees and charges, together with a service charge, have been paid In case of delinquent payment, a cash deposit may be required by the city as a condition to reestablishment of service

B In the event service is discontinued for delinquency in payment and service is resumed without authorization, the city may discontinue the water service and may charge and collect a penalty for each occurrence in addition to such other amount which may be due from the customer Such charges shall be paid before service is reestablished
(Ord 364B §3 4, 1979)

13 04 255 Billing with other utilities The city council may provide that fees and charges for water service pursuant to this chapter shall be collected with the rates and charges for any other utility services furnished by the city and that any or all such charges may be itemized and billed with the same bill and collected as one item
(Ord 482B §7, 1986)

ARTICLE IV DELINQUENCY COLLECTION

13 04 260 General-taxes collection authorized All delinquent water-service charges which have accrued, together with interest or penalties thereon, and service charges at other locations as provided in Section 13 04 230 may be collected on a secured tax roll, in the same manner and at the same time as general property taxes, provided that this section shall not be construed to prohibit the city from collecting any and all of the charges in any other manner provided by ordinance or law

(Ord 408B §4(part), 1982 Ord 364B §3 5, 1979)

13 04 270 Report to city clerk A written report containing a description of each parcel of real property receiving services and facilities and the amount of the delinquent water-service charges for each parcel computed in conformity with the provisions of this chapter shall be prepared and filed with the city clerk The real property may be described by reference to the county assessor's maps or by such other reference sufficient to identify the property affected
(Ord 408B §4(part), 1982 Ord 364B §3 6, 1979)

13 04 280 Notice of hearing The city clerk shall cause notice of the filing of the report and notice of the time and place of the hearing thereon by the city council to be published once a week for two successive weeks prior to the date set for hearing in the News-Messenger, a newspaper of general circulation within the city Prior to collection of charges on the tax roll, the city clerk shall mail written notice of the filing of the report and of the time and place of hearing thereon to each person to whom any part or parcel of real property described in the report was assessed on the last equalized assessment roll Notice shall be mailed to the address shown on the roll
(Ord 408B §4 (part), 1982 Ord 364B §3 7, 1979)

13 04 290 Hearing At the hearing provided for in Section 13 04 280, the city council shall hear any objections or protests by landowners liable to be assessed for delinquent fees The council may make such revisions or corrections to the report as it deems just, after which, by resolution, the report shall be confirmed
(Ord 408B §4 (part), 1982 Ord 364B §3 8, 1979)

13 04 300 Report to county auditor On or before August 10th in each year following the final determination and confirmation of the report by the city council, the city clerk shall file with the county auditor a copy of the report with a statement endorsed thereon over the city clerk's signature that it has been finally adopted by the city council, and the auditor shall enter the amounts of the delinquent fees as special assessments against the respective lots or parcels of land as they appear on the current assessment roll Where any such lots are outside the boundaries of the city, they shall be added to the assessment roll of the city for the purpose of collecting such charges
(Ord 408B §4 (part), 1982 Ord 364B §3 9, 1979)

13 04 310 Parcels not on assessment roll If the property is not described on the roll, the auditor shall enter the description thereon together with the amounts of the delinquent charges, as shown on the report
(Ord 408B §4 (part), 1982 Ord 364B §3 10, 1979)

13 04 320 Attachment of lien The amount of the charges as set forth in the confirmed report shall constitute special assessments against the respective parcels of property and are a lien against the lot or parcel of land against which the water service has been supplied The lien shall attach upon recordation in the office of the Placer County recorder of a certified copy of the report and the resolution confirming the report The tax collector shall include the amount of the delinquent charge on bills for taxes levied against the respective lots and parcels of land
(Ord 408B §4 (part), 1982 Ord 364B §3 ll, 1979)

13 04 330 Collection with general taxes After the attachment of the lien, as provided in Section 13 04 320, the amount of the delinquent water charges shall be collected at the same time and in the same manner and by the same person as, together with and not separately from, the

general taxes for the city, and shall be delinquent at the same time and thereafter by subject to the same penalties for delinquency as other taxes and assessments
(Ord 408B §4 (part), 1982 Ord 364B §3 12, 1979)

13 04 340 Applicable laws generally--Transfer or conveyance--Lien of encumbrancer
All laws applicable to the levy, collection and enforcement of general taxes of the city, including but not limited to those pertaining to the matters of delinquency, correction, cancellation, refund and redemption, are applicable to such water-service charges, except that if any real property to which such lien would attach has been transferred or conveyed to a bona fide purchaser for value, or if a lien of a bona fide encumbrancer for value has been created and attaches thereon, prior to the date on which the first installment of such taxes would become delinquent, then the lien which would otherwise be imposed by this article shall not attach to such real property and the delinquent fees, as confirmed, relating to such property, shall be transferred to the unsecured roll for collection
(Ord 408B §4 (part), 1982 Ord 364B §3 13, 1979)

13 04 350 Compensation to county The county shall be compensated for services rendered in connection with the levy, collection and enforcement of such charges for the city in an amount fixed by agreement between the board of supervisors and the city council
(Ord 408B §4 (part), 1982 Ord 364B §3 14, 1979)

13 04 355 civil action In addition to any other remedy that the city may have for the collection of delinquent fees or charges, all fees, charges, penalties and interest imposed by this chapter shall constitute a debt of the city and the city may institute a civil action to recover delinquent fees, charges, penalties and interest In such action, reasonable attorneys' fees shall be awarded to the city
(Ord 482B §8, 1986)

ARTICLE V CONNECTION FEES

13 04 360 Established--Apportionment--Purpose
A There shall be a charge for a new service connection or for a change in size or location for the customer's benefit which shall be paid before work is started Water connection fees shall include the City's water connection charge pursuant to Section 13 04 160 and either the Placer County Water Agency Water Connection Charge (PCWA WCC) or the Nevada Irrigation District Water Connection Charge (NID WCC), as determined by the City, in effect at the time of payment.

B Connection fees for every service connection to the city water system are established for the purpose of providing funds for the payment of the costs for design and construction of the city's water system and to make the required service connection payments to the Placer County Water Agency and in order that such costs be shared by those receiving the benefits (Ord 364B §4 1, 1979)

13 04 362 Indoor Fire Sprinkler Requirement The water connection fees for customers required to install indoor fire sprinklers shall be based upon the size meter that would otherwise be used to serve the customer but for the requirement of a larger meter for the sprinklers

13 04 370 Use of revenues Amounts collected shall be set aside in separate funds and used for the purposes enumerated in Section 13 04 360
(Ord 364B §4 2(part), 1979)

Deleted: be apportioned between the city and the Placer County Water Agency as provided in Resolution 79-64

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13 04 380 Other costs--Indemnification of city In addition to the connection charge, all costs and expenses incident to the installation of a water connection shall be borne by the owner The owner shall indemnify the city against any loss or damage that may result directly or indirectly from the performance of the construction and installation of the water connection (Ord 364B §4 2(part), 1979)

13 04 390 Oversized-capacity reimbursement The city may require, pursuant to the Subdivision Map Act and the subdivision regulations of the city, oversized capacity, in which case the city shall reimburse the applicant pursuant to the provisions of the law then in effect for such oversized capacity based on the prevailing costs of material and labor for such work (Ord 364B §4 3, 1979)

13 04 400 Temporary-connection charges

A An applicant for a temporary connection shall make a nonrefundable cash deposit and shall supply all materials and labor necessary for connection

B Upon request for disconnection, an applicant shall make a refundable cash deposit This fee shall be refunded, less unpaid charges, upon dismantling and removal of the connection

C Monthly charges for water usage shall be assessed in accordance with the water use rates for construction water as provided in Section 13 04 207

D Temporary connections shall be one-inch metered connections unless otherwise approved by the city Fees for any other type or size of temporary connection shall be determined by the city

(Ord 364B §4 4, 1979)

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13 04 405 Connection fee due for reapplication If a reapplication is made pursuant to Section 13 04 075, the person desiring water service must pay the new water connection fee due at the time reapplication is made with credit being given for any previously paid connection fees (Ord 501B §2, 1988)

ARTICLE VI CONSERVATION

13 04 410 Condition of plumbing All consumers, whether owners or not, shall maintain and keep in good repair the water pipes on the interior and exterior of the property served Such persons shall not allow faucets or water closets to leak, and such fixtures must not be left running (Ord 364B §5 1, 1979)

13 04 420 Watering spray or nozzle required Watering of lawns and gardens from an open hose is prohibited A spray or nozzle must, in all cases, be used (Ord 364B §5 2(A), 1979)

13 04 430 Irrigation hours The City reserves the right to limit irrigation hours in the case of water shortages or emergencies (Ord 364B §5 2(B), 1979)

Deleted: Irrigation of lawns or gardens is restricted to the hours of five a m to ten p m unless written permission from the water department is obtained

13 04 440 Gross waste It is unlawful and an infraction for any person to cause or allow any water received by such person to flow away in unreasonable amounts, from property owned or occupied by such persons, in any gutter, ditch or other manner over the surface of the ground (Ord 364B §5 2(C), 1979)

ARTICLE VII WELLS

13 04 450 Permit requirements No person shall drill for water without first obtaining a permit from the director and from the county health officer The director may deny the issuance of a permit if, in his opinion, the premises where the well is to be located can be served by the city water system If a permit for a potable drinking water well is issued, it shall be conditioned upon connection to the city water system and discontinuance of the use of such will be conditioned upon notice from the director that the premises may be served by the city water system The health officer may deny the issuance of a permit if, in his opinion, the proposed well will contaminate existing water sources or be a health menace to the community The applicant for the permit may appeal to the city council from the decision of the health officer or the director by filing a notice of appeal, in writing, with the city clerk within fifteen days of the date of the decision, and the city clerk shall place the appeal on the agenda for the next regular meeting of the city council

(Ord 492B §4, 1987 Ord 364B §6 1, 1979)

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13 04 460 Workman qualifications Wells shall be constructed, reconstructed or destroyed by persons licensed in accordance with the provisions of the Contractor's License Law (Chapter 9, Division 3 of the Business and Professions Code), unless such persons are exempted from licensing by that act

(Ord 364B §6 2, 1979)

13 04 470 Inspections Inspections may be made by the county health officer or the department of public services during the process of well construction A final inspection shall be made when the well construction is completed

(Ord 364B §6 3, 1979)

Deleted· works

13 04 480 Protection from contamination--Surface-water diversion In cases where the area adjacent to the well is susceptible to contamination, the well shall be properly protected Drainage shall be away from the well No well shall be located any closer than the distances specified in the permit All surface water shall be properly diverted away from a well site during construction or repairs Disposal of this water shall be made in such a manner so as not to flood adjacent property or constitute a public nuisance No waste discharge from well-drilling operations shall be allowed to enter a sanitary sewer

(Ord 364B §6 4, 1979)

13 04 490 Forced abandonment--Filling holes

A Upon determination that a well is polluted or contaminated and reasonable efforts to clear the pollution or contamination have been unsuccessful, the county health officer shall have the authority to enforce the permanent abandonment of such wells Wells must be abandoned according to health department rules and regulations

B Abandoned wells or test holes shall be filled with selected material to protect the water-bearing formation against possible contamination or pollution and to eliminate a potential hazard to public health and safety

(Ord 364B §6 5, 1979)

13 04 499 Potable wells prohibited Connection to the city water system is required for all drinking water Potable water wells are prohibited within the city unless owned and operated by the city and incorporated as part of the city's water system

(Ord 492B §3, 1987)

ARTICLE VIII PROHIBITIONS AND VIOLATIONS

13 04 500 Use in violation It is unlawful for any person to use, turn on or tap water except in accord with this chapter and without obtaining a permit as required by Article I
(Ord 364B §7 1, 1979)

13 04 510 Heating and cooling devices It is unlawful for any heating or cooling device to use water that is not re-circulated The only water added to such systems shall be limited to the purposes of making up losses in the process Under no circumstances shall water be returned to the distribution system of the city This prohibition shall apply to all devices for heating or cooling, whether used for residential, commercial, industrial or manufacturing purposes
(Ord 364B §7 2, 1979)

13 04 530 Fluoridation It is unlawful for any agent or employee of the city or any person, firm or corporation acting in behalf of the city under a contract with the city or otherwise, to mingle or combine any fluorides in any form or in any quantity or in any manner with the public water supply of the city
(Ord 213B, 1965)

13 04 540 Penalties for violation

A A first violation of any provision of Article VI is an infraction punishable as provided in the general state law for infractions A second or subsequent violation of a provision of Article VI during any calendar year is a misdemeanor as provided in subsection B of this section

B Any violation of this chapter, except as provided in subsection A of this section, is a misdemeanor Each day that a violation exists constitutes a separate and distinct offense

C In addition to a prosecution for a violation of this chapter, a Consumer or occupant, or owner of property served by the city with water may have such service discontinued if, after a noticed hearing, the director determines that such person willfully wastes water on a continuing basis The determination of the director may be appealed to the city council if a notice of appeal has been filed with the city clerk within ten days after the determination of the director to discontinue service has been delivered in writing to the person whose service is being discontinued During the pendency of an appeal to the council, whose decision shall be final, water service shall be maintained in effect
(Ord 364B §7 4, 1979)

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Section 3 Specified sections of Chapter 13 08 of the Lincoln Municipal Code are hereby amended to read as follows

13 08 315 Continued use of private sewer system Property owners using private sewer systems that are in compliance with applicable codes and regulations may continue to use the private system when new public sewer systems are constructed within two hundred feet or less from the building or drainage facility The construction or installation of a public sewer system will not cause property owners to abandon their private sewer systems

Section 4 Specified sections of Chapter 13 12 of the Lincoln Municipal Code are hereby amended to read as follows

13 12 110 Basic monthly sewer service charge

A The monthly unit service charge per Equivalent Dwelling Unit (EDU) for residential and non-residential industrial users within the city limits shall be as follows

Effective January 1, 2014	$32 08
Effective July 1, 2014 to June 30, 2015	$32 08
Effective July 1, 2015 to June 30, 2016	$32 08
Effective July 1 , 2016 to June 30, 2017	$32 08
Effective July 1, 2017	$32 08

The City shall determine the non-residential industrial users and classify them as such in the utility billing system

B The monthly unit service charge per account for non-residential users, excluding industrial users, within the city limits shall be as follows

Effective January 1, 2014	$32 08
Effective July 1, 2014 to June 30, 2015	$32 08
Effective July 1, 2015 to June 30, 2016	$32 08
Effective July 1 , 2016 to June 30, 2017	$32 08
Effective July 1, 2017	$32 08

Non-residential users, excluding industrial users, shall pay a flow charge in addition to the monthly unit service charge per account The flow charges shall be based upon each 1,000 gallons of water consumed as recorded by the customers water meter The flow charges will include two categories, average strength and high strength

High strength flows are defined as those types of users whose discharge into the sewer system typically exceed one of the following (1) B O D of 350 ppm (parts per million), or (2) Suspended Solids of 300 ppm, or (3) both a B O D of 250 ppm and Suspended Solids of 250 ppm

The flow charges per each 1,000 gallons of potable water delivered will be as follows

Flow Type	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Average Strength	$ 1 46	$ 2 33	$ 3 19	$ 4 05	$ 4 92
High Strength	$ 4 62	$ 5 48	$ 6 35	$ 7 21	$ 8 07

(Ord 808B § 1, 2006 Ord 635B § 1, 1993 Ord 574B § 1, 1992 Ord 437B § 1 (part), 1983 Ord § 1, 1996. Ord. 602B Ord 524B § 1, 1989 297B § 3 3 (a, b), 1975)

13 12 130 Lift station surcharge No additional monthly charge will be required to cover the costs of lift station operations, maintenance or replacement

(Ord 602B § 5, 1993 Ord 297B § 3 4, 1975)

Section 3 Severability If any provision of this ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable This City Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced

PASSED AND ADOPTED by the City Council of the City of Lincoln this ____ day of October, 2013, by the following vote

AYES

NOES

ABSENT

Mayor

ATTEST

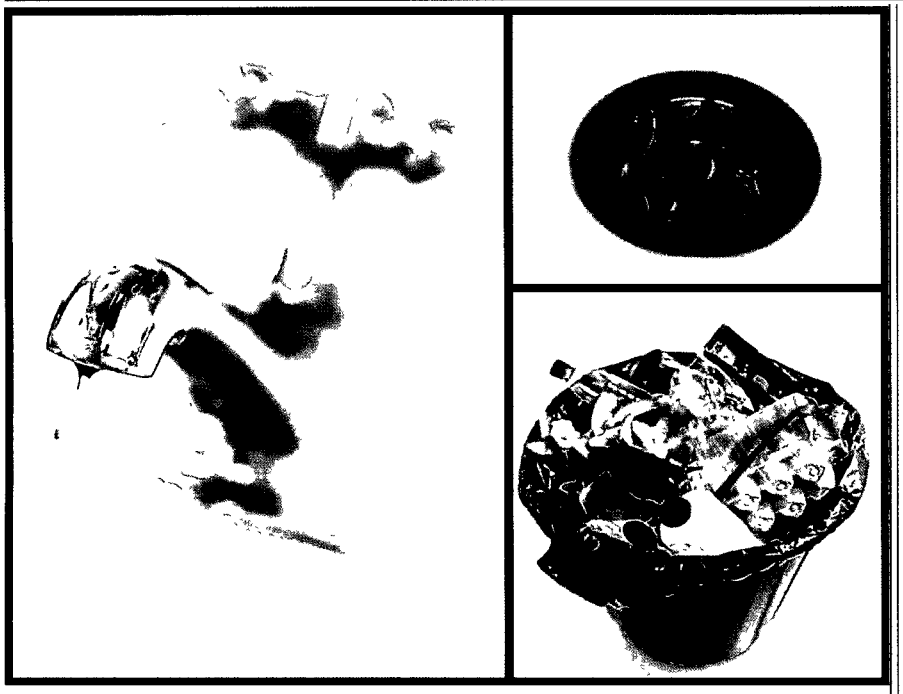
City Clerk

ATTACHMENT 1

City of Lincoln

CITY OF LINCOLN

WATER, WASTEWATER, AND SOLID WASTE RATE STUDY – REVISED



October 14, 2013

HF&H Consultants, LLC

City of Lincoln

CITY OF LINCOLN
600 6TH STREET
LINCOLN, CA 95648

WATER, WASTEWATER, AND SOLID WASTE RATE STUDY
PUBLIC HEARING FINAL REPORT

October 14, 2013

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October 14, 2013

Mr. Steve Ambrose
Financial Analyst
City of Lincoln
600 Sixth Street
Lincoln, CA 95648

Subject: Water, Wastewater, and Solid Waste Rate Study – Revised Draft

Dear Mr. Ambrose:

HF&H Consultants, LLC, is pleased to submit this report that documents the updates to the City's water, wastewater, and solid waste rates. The report was revised to address public comments received at the October 8, 2013 City Council meeting. We specifically provided more information concerning transfers, capital improvements, and rate structure proportionality with the aim of explaining how rate payer money is being spent to support each of these three enterprises.

It has been a pleasure working with you and City Staff on this challenging project.

Very truly yours,

HF&H CONSULTANTS, LLC

John W. Farnkopf, P.E., Senior Vice President
Rick Simonson, C.M.C., Vice President
Sima Mostafaei, Senior Associate

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ACRONYMS

BOD	Biochemical Oxygen Demand; an organic component of wastewater strength
CIP	Capital Improvement Plan
COS	Cost of service
DU	Dwelling unit
EDU	Equivalent Dwelling Unit; an average single-family residential customer
EMU	Equivalent meter unit
EPA	Environmental Protection Agency
FY	Fiscal Year
GCD	Gallons per Capita per Day
GPD	Gallons Per Day
HCF or CCF	Hundred (100) Cubic Feet of metered water; 748 gallons; a cube of water 4.6 feet on edge
I&I	Inflow and Infiltration; stormwater runoff that enters collection systems as inflow through surface openings or as infiltration through subsurface cracks or other openings
Mg/l	Milligrams per Liter
MRF	Material Recovery Facility
O&M	Operations and Maintenance
PAYGo	Pay-As-You-Go financing, as opposed to debt financing
PCWA	Placer County Water Agency
TGAL	Thousand Gallons
TSS	Total Suspended Solids; an inorganic component of wastewater strength
WPWMA	Western Placer Waste Management Authority

ACKNOWLEDGEMENTS

City Council
Stan Nader (Mayor)
Gabriel Hydrick (Mayor Pro Tem)
Peter Gilbert (Councilmember; Finance Committee)
Paul Joiner (Councilmember)
Spencer Short (Councilmember; Finance Committee)

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Bill Zenoni, Finance Consultant
Steve Ambrose, Public Services Financial Analyst

HF&H Consultants, LLC
John Farnkopf, Sr. Vice President
Rick Simonson, Vice President
Sima Mostafaei, Senior Associate

1. EXECUTIVE SUMMARY

The City of Lincoln (City) provides water, wastewater, and solid waste services to residents and businesses primarily located inside the city limits. The last rate studies were completed in 2006 for water and wastewater and in 2005 for solid waste. The purpose of this report is to document the rate study HF&H Consultants (HF&H) conducted in 2012 and 2013.

The process of updating the City's water, wastewater, and solid waste rates began in February 2012 with meetings with Staff to discuss rate-making objectives, recent developments that should be reflected in the analysis, data collection, and model development. Preliminary results were presented to City Staff for review and revision in late 2012. Presentations were made to the City's Finance Committee on March 15, April 19, May 6, and June 4, 2013, based on comments and direction received from the Finance Committee members. Final revisions were made and presented to the City Council at a workshop on August 5, 2013.

1.1 STUDY PURPOSE AND OBJECTIVES

The purpose of this study is to conduct a comprehensive analysis of the City's utility rates, including documentation of the analysis, underlying assumptions, and the rationale for the recommended rates. This study has several key objectives:

- Determine how much revenue is required to meet the City's requirements, including O&M, capital improvement, and reserve funds.
- Determine the cost of service for each customer class.
- Evaluate alternative rate structures that will ensure that customers within each class are paying their proportionate shares of the revenue requirements.
- Compare the City's rates and customer bills with those of its neighboring agencies.

These objectives should be met by applying industry standards so that all applicable laws are complied with.

1.2 METHODOLOGY

This rate study included three analytic stages for each utility:

- **Revenue Requirement Projections.** The City's expenses and revenues are projected based on expected cost escalation factors and growth rates. The

difference between expenses and revenues must be offset by annual revenue increases.

- **Cost of Service Analysis.** The revenue requirement for the coming rate year is allocated to each customer class based on the cost of service attributable to each class.

- **Rate Design and Bill Comparison.** Rates are designed for each customer class to recover its share of the cost of service. The reasonableness of the rate design is evaluated by comparing bills between customer classes to ensure that proportionality is maintained.

1.3 RATE-MAKING OBJECTIVES

The City has several rate-making objectives that the recommended rates are designed to achieve:

- **Revenue Sufficiency.** Rates need to generate sufficient revenue to fund operating and capital costs and maintain adequate reserves.

- **Revenue Stability.** Rates are designed to balance revenue from fixed and variable charges to stabilize revenue.

- **Conservation Signal**. Rates are designed to reward customers for efficiency and to discourage waste.

- **Administrative Ease**. Rates are designed to enable easy implementation and ongoing administration, including monitoring and updating.

- **Affordability.** Rates need to be as affordable as possible while maintaining the City's sound financial position and credit rating.

- **Customer Acceptance**. Rates are designed to be as simple as possible to facilitate customer understanding and acceptance.

- **Fairness.** Rates are designed so that each customer class pays its proportionate share of the required revenue in compliance with legal rate-making requirements.

1.4 FINDINGS AND RECOMMMENDATIONS

Revenue Requirement Projections

Figure 1-1 summarizes the annual increases in revenue requirements that rates must be set to fund for each enterprise. The comparatively high increase in water revenue

requirements is driven by the need to increase the amount of capital improvement that are needed in water infrastructure and by projected increases in the cost of purchased water from PCWA. The comparatively low increases in sewer and solid waste revenue requirements are driven primarily by inflation.

Figure 1-1. Revenue Requirement Projections

		Proposed				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Water	$11,367,370	$11,592,358	$12,538,528	$13,365,432	$14,217,343	$15,426,152
Wastewater	$ 6,734,876	$ 7,155,121	$ 6,857,972	$ 7,119,843	$ 7,305,044	$ 7,625,366
Solid Waste	$ 5,038,128	$ 5,089,450	$ 5,262,675	$ 5,449,451	$ 5,647,516	$ 5,861,792

Figures 1-2, 1-3, and **1-3** show the relative distribution of the major components of the revenue requirements for each enterprise in FY 2013-14. These figures generally indicate how rate payer revenue is spent.

Figure 1-2. FY 2013-14 Water Revenue Requirements

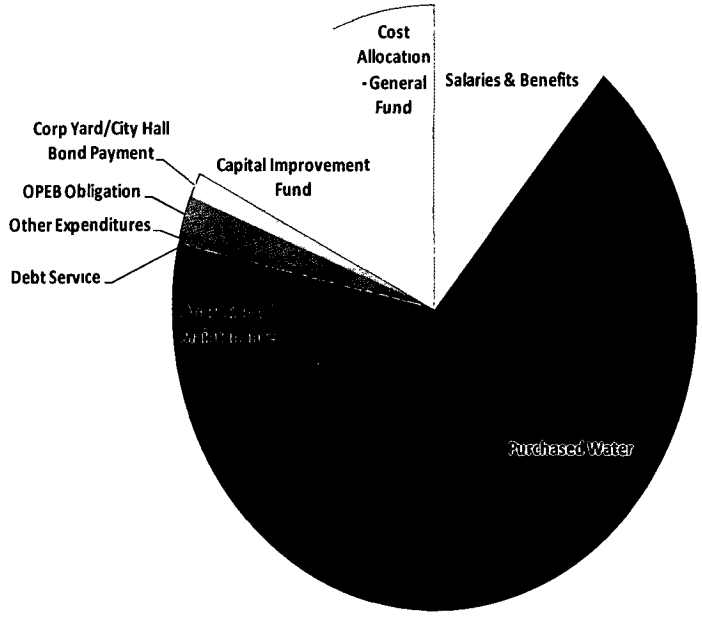


Figure 1-3. FY 2013-14 Sewer Revenue Requirements

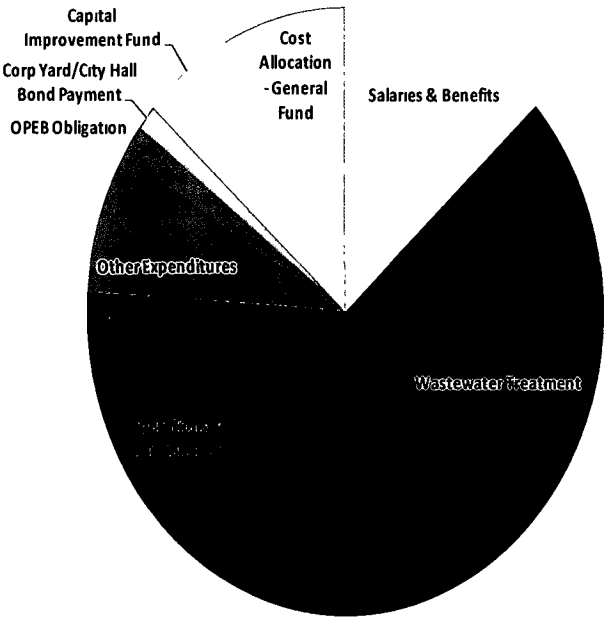
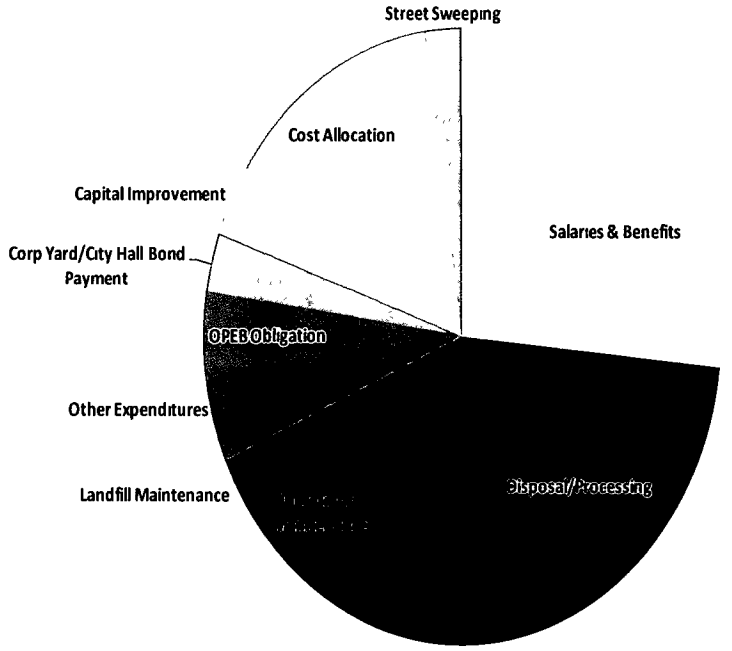


Figure 1-4. FY 2013-14 Solid Waste Revenue Requirements



Cost of Service Analysis

The cost of service analysis for water indicated that the current rates generate less than the cost of serving single family residential customers. Water rates were set to align the resulting revenue from each class with the cost of service for each class beginning in FY 2013-14.

The cost of service analysis for sewer indicated that the current rates generate less than the cost of serving non-residential customers. Sewer rates were set to align the resulting revenue from each class with the cost of service for each class by FY 2017-18.

The cost of service analysis for solid waste indicated that the current rates are closely aligned with the cost of serving each class; no adjustments in the rate structure are recommended.

Rate Design

The water rate structure was modified as follows:

- Convert the current base charge, which is a flat rate per account for all customers, to a service charge, which varies in proportion to the size of the customer's meter. By doing so, customers will pay for their proportionate shares of the capacity that they require in the water system. This recommendation complies with industry standards.

- Convert the service charges over a five-year period. This will reduce the immediate impact on the customers with larger services.

- Create different quantity charges for single family, multi family, and non-residential customers with tiers sized specifically for the levels of demand for each class. By doing so, each rate structure can be designed to provide a price signal that is appropriate to each class.

- Charge for all water including the water in Tier 1, which currently amounts to over 50% of total water use in the City. By doing so, customers will only pay for water they use. This recommendation complies with industry standards.

The sewer rate structure was modified as follows:

- Convert the non-residential customers from charges per EDU to charges based on a flat charge per account (equal to the residential charge) plus a volumetric component based on the estimated volume and strength of wastewater discharged.

- A five-year transition toward the cost of service is recommended because of the need to gradually implement the new non-residential rate structure, which is based on flow, rather than on EDUs.

There were no rate structure modifications in solid waste rates.

The result of the foregoing revenue increases, cost of service adjustments, and rate restructuring can be found in the body of this report.

Customer Bills

Figure 1-5 summarizes the average monthly customer bills for single family water, sewer, and solid waste customers. **Figure 1-6** plots the combined bills for each service through FY 2017-18. After the increases in FY 2013-14, the subsequent increases are comparatively gradual. The current $74.96 averag increases in FY 2013-14 to $87.45 per month, an increase of $12.49 per month In subsequent years, the average increase is $6.67 per month.

Figure 1-7 compares the City of Lincoln's current and proposed average single-family residential bills for FY 2013-14 with its neighboring agencies. The City's residential bills are low compared to its neighbors.

Each year, prior to implementing the rate increases, City staff should confirm the need for the rate increase. The City can implement a lower rate increase, if conditions warrant, without going through the Proposition 218 notification process. If higher rate increases are needed that exceed the adopted rates, the City will need to initiate a new Proposition 218 proceeding, which includes mailing notices to affected rate payers and property owners.

Figure 1-5. Summary of Projected Monthly Bills – Single Family Customers

	Current	Proposed				
		FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Water						
Average Monthly Water Bill*	$ 22 90	$ 34 19	$ 39 31	$ 45 20	$ 50 18	$ 55 68
Incremental Increase		*$ 11 29*	*$ 5 12*	*$ 5 89*	*$ 4 98*	*$ 5 50*
Wastewater						
Monthly Wastewater Bill	$ 32 08	$ 32 08	$ 32 08	$ 32 08	$ 32 08	$ 32 08
Incremental Increase		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Solid Waste						
Monthly Solid Waste Bill	$ 19 98	$ 21 18	$ 22 45	$ 23 57	$ 24 75	$ 26 00
Incremental Increase		*$ 1 20*	*$ 1 27*	*$ 1 12*	*$ 1 18*	*$ 1 25*
Combined						
Average Monthly Bill	$ 74 96	$ 87 45	$ 93 84	$ 100 85	$ 107 01	$ 113 76
Incremental Increase		*$ 12 49*	*$ 6 39*	*$ 7 01*	*$ 6 16*	*$ 6 75*

** Reflects monthly bill for 8,000 gallons which was the median single-family usage from May 2011 - April 2012*

Figure 1-6. Projected Average Monthly Single-Family Bills – All Services

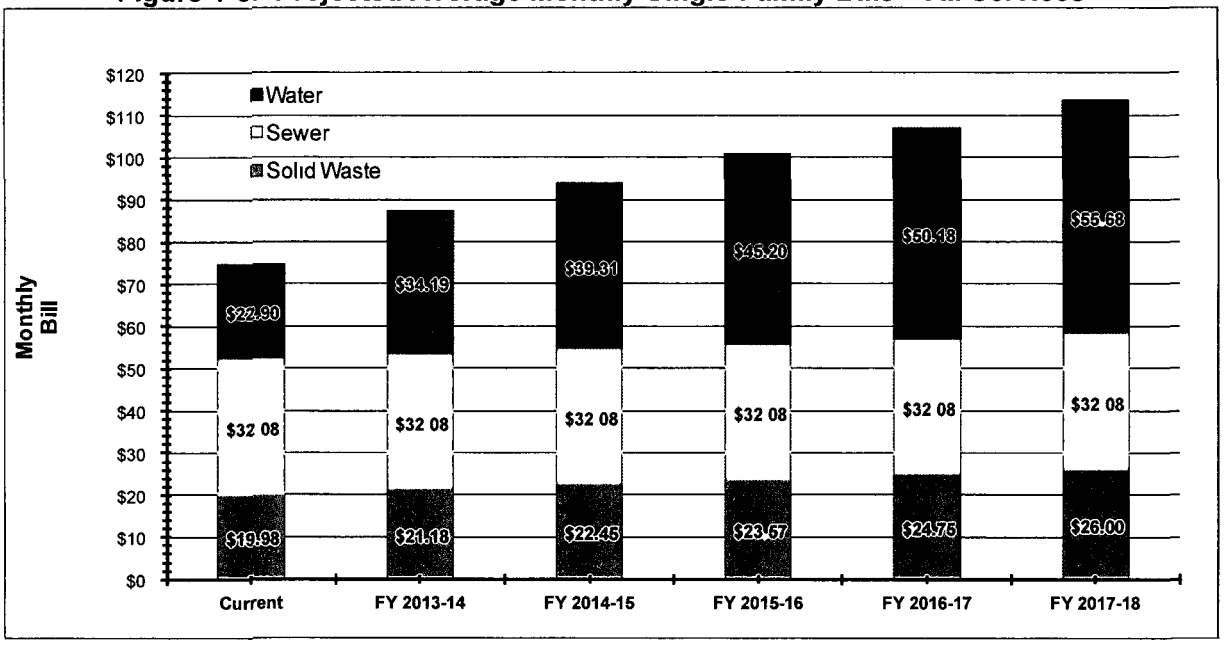
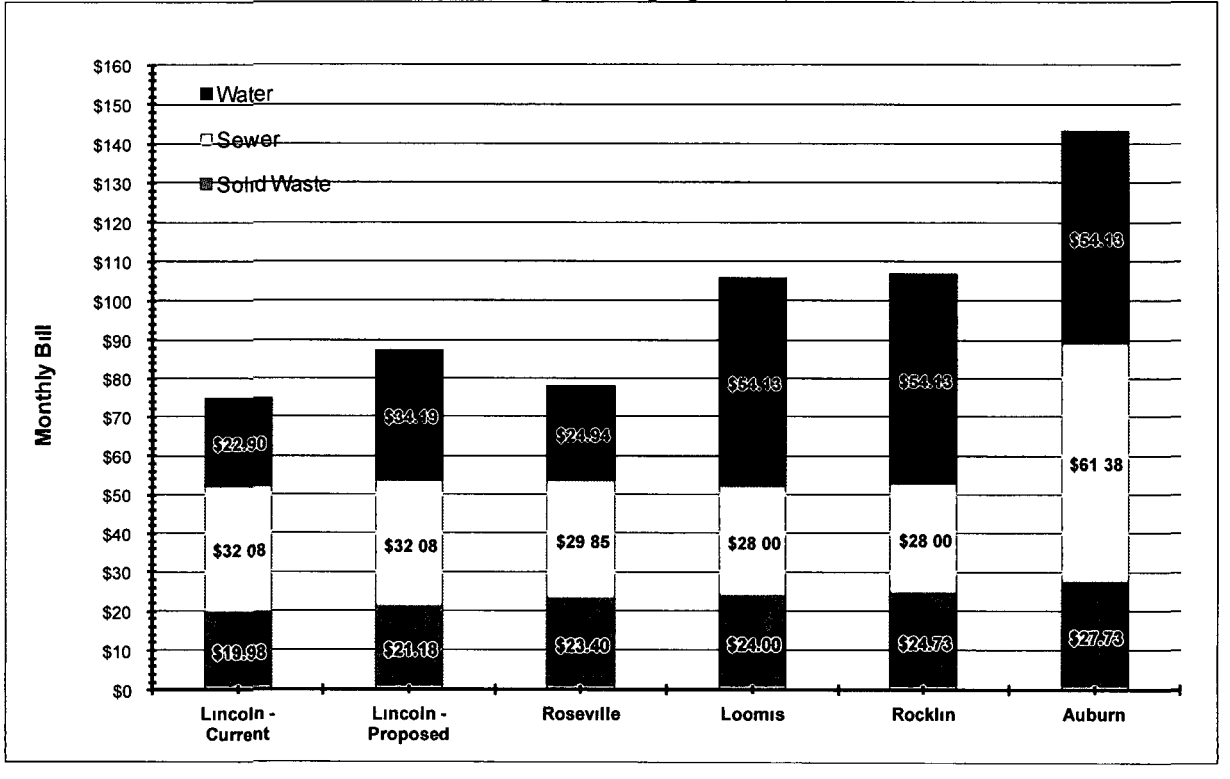


Figure 1-7. Comparison of Average Monthly Single-Family Bills
(With neighboring agencies)



2. WATER RATES

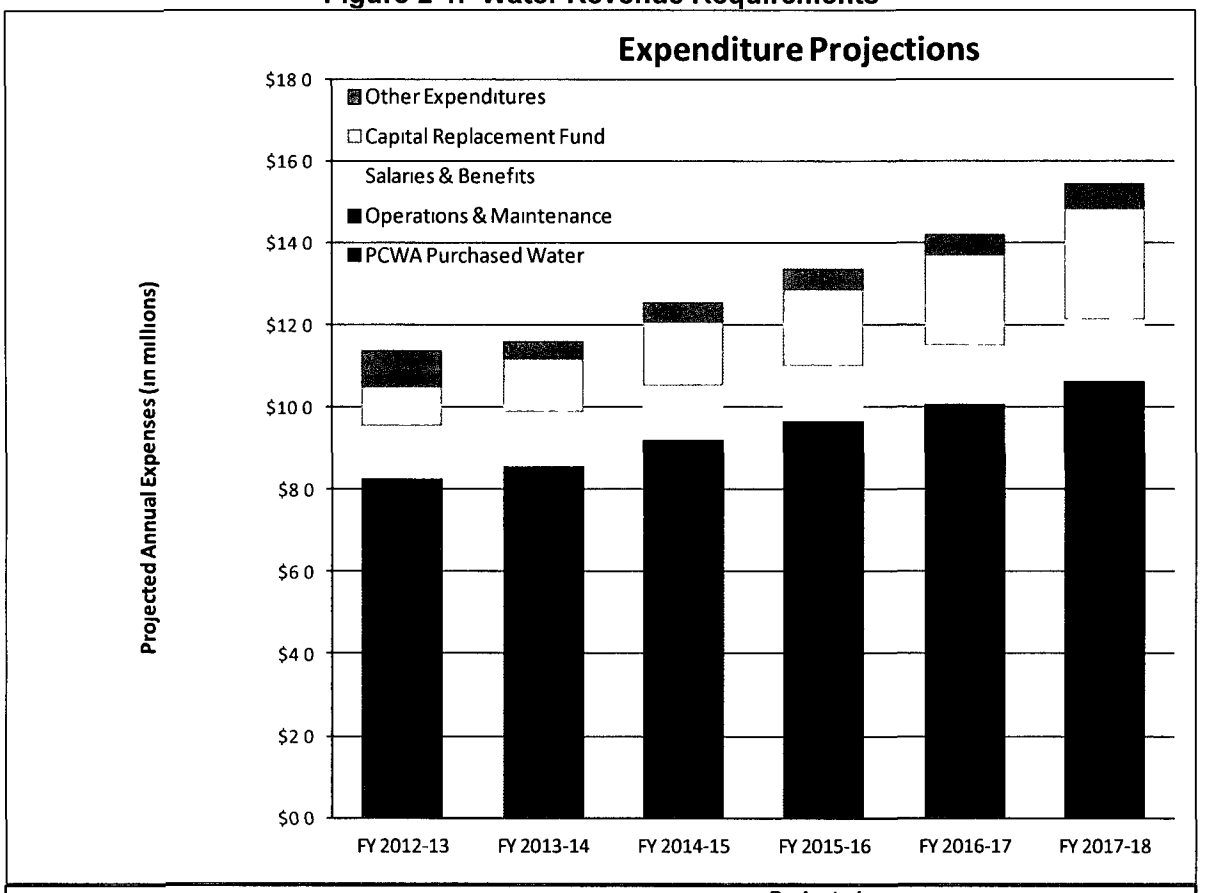
2.1 BACKGROUND

The City provides water service to more than 16,000 accounts through a system of wells, reservoirs, booster pumps, and distribution pipelines; all of the customers are metered. The City currently charges customers monthly bills that are the sum of a base charge plus a volumetric charge. The current base charge is $22.90 per month per Equivalent Dwelling Unit (EDU), and includes up to 10,000 gallons of water per month at no additional charge. The volumetric charges per 1,000 gallons applies to water use over 10,000 gallons per month. Because the median residential demand is about 8,000 per month, much of the water used is included in the minimum charge.

2.2 REVENUE REQUIREMENT PROJECTIONS

Rate analysis begins by determining the revenue requirements that must be met by rates. For purposes of this study, a five-year rate projection period was developed using a spreadsheet model. With this model, revenue requirements were projected for FY 2013-14 through FY 2017-18 by using the FY 2012-13 budget as the starting point. **Figure 2-1** summarizes the major categories comprising the revenue requirements.

Figure 2-1. Water Revenue Requirements



		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
PCWA Purchased Water	$ 6,564,304	$ 6,824,500	$ 7,363,016	$ 7,698,862	$ 8,005,042	$ 8,454,413
Operations & Maintenance	1,671,241	1,741,954	1,816,292	1,928,473	2,050,049	2,181,894
Salaries & Benefits	1,278,924	1,286,826	1,313,415	1,374,412	1,439,165	1,507,959
Capital Replacement Fund	947,369	1,307,627	1,575,314	1,839,760	2,163,028	2,656,819
Other Expenditures	905,532	431,451	470,491	523,925	560,061	625,067
Total Revenue Requirment	$ 11,367,370	$ 11,592,358	$ 12,538,528	$ 13,365,432	$ 14,217,343	$ 15,426,152

Key Assumptions

PCWA Purchased Water Expense

The largest operating expense is the cost to purchase water from PCWA. The City's budget for FY 2012-13 served as the starting point for projecting PCWA purchased water expenses. FY 2013-14 and FY 2014-15 values reflect the latest PCWA rate projections and inflationary increase of 3.0% per year, thereafter. The cost of PCWA water is set by PCWA and is passed through to customers at cost.

Salaries and Benefits Expense

The City's budget for existing personnel as of FY 2012-13 served as the starting point for projecting operating and administrative wage and benefit expenses. It should be noted that the City's FY 2012-13 budget includes the proposed addition of two new water

technicians and an allocation of 35% and 45% of an Environmental Services Manager and a Senior Engineer, respectively. For FY 2013-14 through FY 2017-18, the salaries and benefits for the existing and proposed staff were assumed to increase due to increases in health care premiums, workers' compensation insurance rates, and wage rates.

Operations and Maintenance Expense

The City's operations and maintenance (O&M) expenses (excluding salaries, benefits, and purchased water costs) budget for FY 2012-13 served as the starting point for projecting operations and maintenance expenses. Generally, these expenses were increased by 3.0% per year to approximate assumed inflationary increases.

Transfers to the General Fund are included in O&M. These transfers reimburse the General Fund for services provided to the water enterprise. The City conducts annual analyses to allocate governmental overhead to each of the enterprises to ensure that each enterprise provides full reimbursement for services received.

Capital Replacement Fund

The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for capital improvement projects. The City plans to fund future capital improvements of existing infrastructure on a PAYGo basis using a portion of annual rate revenue and available reserves. Capital improvements are projected to increase over the five-year period from $1.0 million to $2.7 million.

PAYGo funding is less expensive because it avoids financing costs. It is also appropriate for the type of capital improvements, which are on-going renewals and replacements that are needed to keep pace with depreciation. Larger, periodic capital projects such as major new facilities are more appropriate candidates for debt financing. Existing debt service is minimal and will be retired in FY 2016-17; there are no plans to issue additional debt for water capital projects.

Other Expenditures

The other expenditures are comprised of the Water enterprise's share of the corp yard bond payment, debt service, annual OPEB obligation, and a one-time transfer of $500,000 in FY 2012-13 for infrastructure improvements.

Projected Revenue Increases

The amount by which revenue needs to be increased to cover the revenue requirements is determined by comparing the revenue requirements with the revenue from current rates. Annual surpluses or deficits are credited or debited to reserves. It can be seen that a deficit occurred in FY 2012-13 and that future deficits are projected unless rates are increased (or the projected cost increases are eliminated, which would mean

significantly reducing the planned capital improvements). **Figure 2-2** shows the annual revenue increases that are required.

Figure 2-2. Water Revenue Increases

		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Revenue Requirement	$ 11,367,370	$11,592,358	$12,538,528	$13,365,432	$14,217,343	$15,426,152
Revenue from Current Rates	$8,870,348	$8,916,971	$8,963,595	$9,010,218	$9,056,842	$9,103,465
Surplus/(Deficit)	($2,497,022)	($2,675,386)	($3,574,933)	($4,355,214)	($5,160,501)	($6,322,687)
Fund Balance (before increase)	$3,712,659	$1,271,671	($2,121,339)	($6,584,763)	($12,085,943)	($18,816,301)
Revenue Increase	0 0%	15 0%	15 0%	15 0%	11 0%	11 0%
Revenue from Increases	$0	$668,773	$2,761,908	$4,556,762	$6,242,721	$7,823,643
Fund Balance (after increase)	$3,712,659	$1,942,115	$1,311,875	$1,406,580	$2,152,197	$3,253,321

Revenue is increased not only to cover projected expenditures but also to maintain operating and capital reserves at adequate levels. It is the City's practice to maintain two reserve funds for water operations: an operating reserve and a capital replacement reserve. For purposes of rate setting, the following reserve target balances were established

- **Minimum Balance**. The Minimum Balance is based on the amount of revenue that is needed to provide month-to-month cash flow for O&M expenses. By maintaining this minimum reserve, the enterprise is able to meet its cash flow without borrowing from the General Fund. The fund balance should never drop below the Minimum Balance, which is currently about $1.0 million. The Minimum Balance is based on the bill frequency. For utilities that bill monthly, a minimum of approximately six weeks of O&M expenses is recommended.

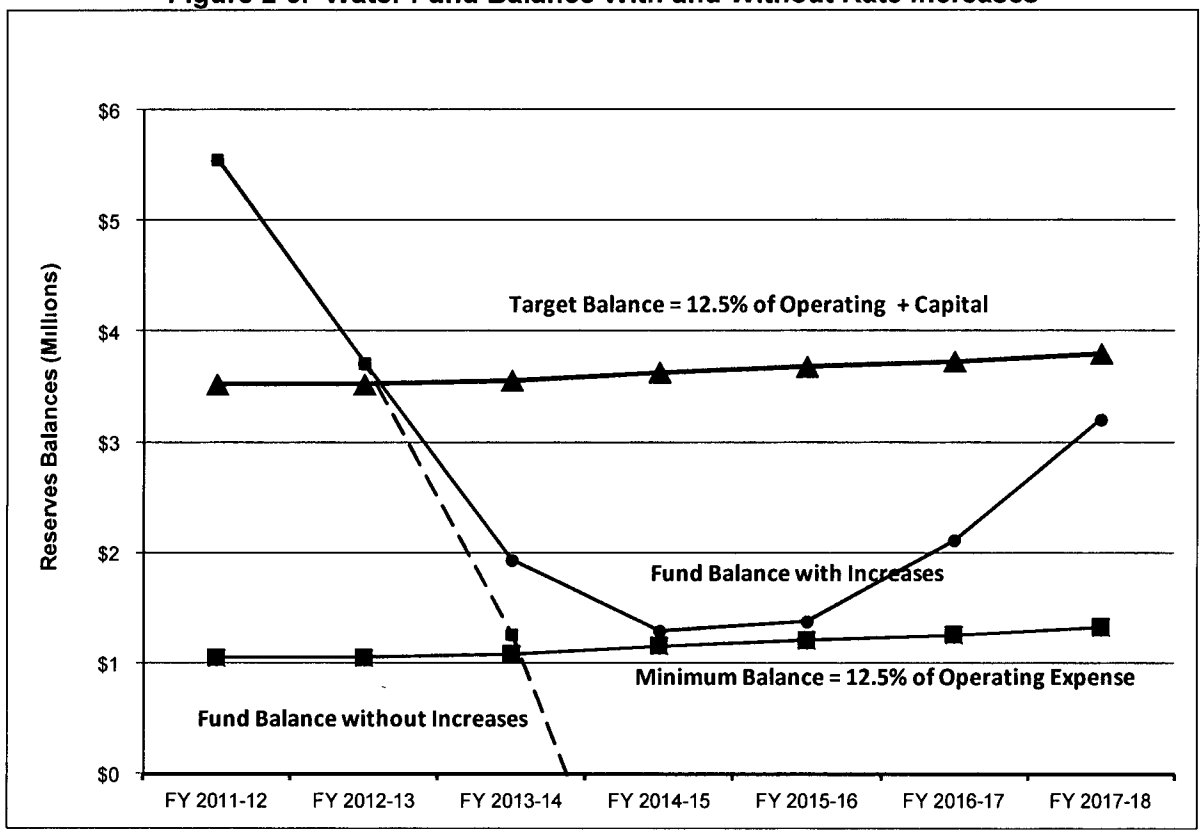
- **Target Balance**. The Target Balance is the Minimum Balance plus an additional cash margin for capital improvements so that sufficient funds are available to pay for ongoing PAYGo projects without cash flow constraints. The capital component is set to two times the average annual PAYGo expenditures, which is about $2.5 million.

The Target Balance does not provide additional reserves for emergencies, complying with regulatory uncertainty, and other unforeseeable contingencies. For that reason, the Target Balance should be regarded as a minimal reserve. It is desirable to maintain reserves above the Target Balance to provide a prudent margin to stabilize rates.

The preceding modeling assumptions lead to the projected fund balances shown in **Figure 2-3**. The need for the series of revenue increases in **Figure 2-2** is demonstrated by the resulting fund balances. Larger revenue increases are required initially to avert

the declining fund balance. Subsequent revenue increases are required as capital improvements are ramped up to the required level.

Figure 2-3. Water Fund Balance With and Without Rate Increases



2.3 COST OF SERVICE ANALYSIS

Cost of service analysis determines each customer class' proportionate share of the revenue requirement. Rates are then designed to ensure that each class is paying its proportionate share of the revenue requirements. The cost of service is determined in three steps.

- Revenue requirements are categorized into functions or services.
- The unit cost of service is calculated by dividing the cost for each service by its respective units of service.
- The revenue requirements are allocated to each class by multiplying the unit costs times the units of service used by each class.

Allocation of Costs to Functions

Water supply systems provide capacity to meet demands. For purposes of this rate study, the revenue requirements are accordingly apportioned into two categories

corresponding to capacity and demand functions. The capacity function is defined as those operating and capital costs that are primarily fixed in nature. Fixed costs are commensurate with capacity, which is also static, as opposed to demand costs, which vary with demand. Capacity costs are recovered through a fixed charge that is proportionate to the customer's proportionate share of capacity in the system as measured by the size of the service connection. Much of the water system's costs are fixed and do not vary in proportion to flow, such as capital and personnel costs. In FY 2012-13, approximately 43% of the revenue requirement is fixed; by FY 2017-18, the fixed component is projected to increase to 45% as additional capital funding occurs.

The City's existing base rate, which is a fixed charge, generates 52% of total rate revenue. At 52%, the base charges recover close to the amount of fixed costs. During meetings with the Finance Committee, it was concluded that the rates should continue to generate a similar portion of fixed revenue to provide revenue stability at a time when significant rate restructuring is occurring.

Figure 2-4 shows the allocation of revenue between capacity and demand charges, which serves as the basis for the cost-of-service allocations. The $10,287,747 revenue is based on the FY 2012-13 revenue in **Figure 2-2** increased by 15% (ignoring bad debt and sales outside the City, which together are minimal).

Figure 2-4. Allocation of FY 2013-14 Revenue to Water Functions

	Capacity Costs	Demand Costs	Total
Current	$5,300,287	$4,987,459	$10,287,747
	52%	48%	100%
Cost of Service	$5,143,873	$5,143,873	$10,287,747
	50%	50%	100%

The capacity costs serve as the basis for allocating costs in proportion to water meter size. These allocations are independent of customer class. The demand costs serve as the basis for allocating costs to each customer class in proportion to demand.

Unit Costs of Service

There are units of service for the capacity and demand functions. For capacity related costs, equivalent meter units (EMUs) are used. For demand costs, the units of service are thousand gallons (TGALs).

Capacity Units of Service

EMUs are determined based on the capacity that larger meters provide compared to the smallest meters, which for purposes of this study are considered to be 5/8" and 3/4" meters. **Figure 2-5** shows the multipliers that were used to establish the number of EMUs. When the EMU multipliers are multiplied by the number of meters of each size,

the total number of EMUs is derived. The unit cost of capacity is derived by dividing the capacity costs by the number of EMUs.

Figure 2-5. Equivalent Meter Units

EMU Multipliers		Meters	EMUs
5/8"	1 00	15	15
3/4"	1 00	16,325	16,325
1"	1 50	220	330
1 1/2"	5 00	95	475
2"	8 00	61	488
3"	16 00	22	352
4"	25 00	6	150
6"	40 00	1	40
8"	71 11	2	142
		Total EMUs	18,317
		Capacity costs	$5,143,873
		Annual unit cost	$280 82
		Monthly unit cost	$23 40

Demand Units of Service

The demand units of service are derived by dividing the demand costs by the projected demand ($5,143,873 divided by 2,600,150 TGAL), which yields $1.978 per TGAL. We note that the projected single family demand is reduced by 5% in anticipation of conservation by customers. Factoring conservation is prudent and will reduce the revenue shortfall that would occur when sales revenue drops because of conservation. Even with conservation, most costs remain and need to be recovered.

Revenue Requirement Allocations to Customer Classes

The allocation of revenue requirements to the capacity function is independent of customer class and hence no further allocation step is needed. The resulting unit costs are used in the next section for calculating service charges.

The allocation of revenue requirements to the demand function is dependent on customer classes and is discussed in this section. The allocation is shown in **Figure 2-6.** The $1.978/TGAL unit cost is applied to the projected units of demand for each class to determine each class' share of the demand function. By applying the same unit cost to all customer classes, a common measure of proportionality is maintained and no class is disproportionately impacted. The resulting allocations were used in the next section to derive the quantity charges for each class.

Figure 2-6. FY 2013-14 Cost of Service Comparison – Water

	Projected Demand (tgal)	Unit Cost of Service	Cost of Service Allocation	Existing Allocation	COS Minus Existing
Single-Family	2,133,807	$1 978	$4,221,307	$3,179,024	$1,042,283
Multi-Family	92,120	$1 978	$182,241	$346,938	($164,697)
Commercial	164,439	$1 978	$325,310	$595,073	($269,763)
Industrial	68,501	$1 978	$135,515	$297,367	($161,851)
Irrigation	141,283	$1 978	$279,500	$569,057	($289,557)
Subtotal	374,223		$740,325	$1,461,497	($721,172)
	2,600,150		$5,143,873	$4,987,459	$156,414

Figure 2-6 indicates that the revenue from existing rates differs from each class' share of the cost of service. Single family rates need to increase to bring them in line with the cost of serving this class.

2.4 RATE DESIGN

Service charges are designed to recover the capacity costs in **Figure 2-5** and quantity charges are designed to recover the demand costs in **Figure 2-6.**

Service Charges

The service charge for each meter size is derived by multiplying the $23 40 unit cost of service per EMU times the number of EMU multipliers for each meter. The resulting charges for FY 2013-14 are shown in **Figure 2-7.**

Figure 2-7. Monthly Service Charges (FY 2013-14)

EMU Multipliers		Unit Cost	Monthly Service Charge
5/8"	1 00	$23 40	$23 40
3/4"	1 00	$23 40	$23 40
1"	1 50	$23 40	$35 10
1 1/2"	5 00	$23 40	$117 01
2"	8 00	$23 40	$187 21
3"	16 00	$23 40	$374 43
4"	25 00	$23 40	$585 05
6"	40 00	$23 40	$936 07
8"	71 11	$23 40	$1,664 10

When the annual revenue increases are applied in subsequent years, the projected service charges are shown in **Figure 2-8.** The proposed charges for larger meters are significantly greater than the existing base charges (which also include the first 10,000 gallons of monthly demand). This differences demonstrates how little of the fixed costs

of capacity are recovered by the current base charges. The cost of capacity includes more than just the cost of the meter, which is a small component of the overall costs of capacity. The cost of capacity includes capacity in all of the transmission and distribution pipelines, wells, reservoirs, and booster pump stations. The current base charges fail to recover these costs in proportion to the capacity that is needed by customers with larger sized meters. By increasing the service charges in proportion to the capacity of the meter, the customers with larger sized meters pay their proportionate share of capacity.

Figure 2-8. Monthly Service Charges (FY 2013-14 to FY 2017-18)

Meter Size	Current Charge	Proposed Monthly Service Charges				
		1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
5/8"	$22.90	$ 23.40	$ 26.91	$ 30.95	$ 34 35	$ 38 13
3/4"	$22.90	$ 23.40	$ 26.91	$ 30.95	$ 34 35	$ 38 13
1"	$22 90	$ 35 10	$ 40.37	$ 46.42	$ 51.53	$ 57.20
1 1/2"	$22.90	$ 117 01	$ 134 56	$ 154.75	$ 171 77	$ 190 66
2"	$22 90	$ 187.21	$ 215.30	$ 247.60	$ 274 83	$ 305 06
3"	$22.90	$ 374 43	$ 430 59	$ 495 18	$ 549.65	$ 610.12
4"	$22.90	$ 585 05	$ 672 80	$ 773.72	$ 858.83	$ 953.30
6"	$22 90	$ 936 07	$1,076 48	$1,237 96	$1,374.13	$1,525.29
8"	$22.90	$1,664.10	$1,913 72	$2,200 78	$2,442 87	$2,711.58

Quantity Charges

The derivation of the quantity charges was a collaborative process between City staff and HF&H. HF&H conducted the core analysis with City staff making adjustments to recover the additional costs of capacity charged by PCWA when customers exceed their purchased capacity.

Current Quantity Charges

The City's current quantity charges are shown in **Figure 2-9.** This is a tiered structure that applies to all customer class in which the rates increase as demand exceeds various levels. In Tier 1, customers receive the first 10,000 gallons at no charge (the cost is included the $22.90 based charge). The price increments between the subsequent tiers are very slight compared to the actual costs of providing for higher demands.

Figure 2-9. Current Quantity Charges

Current Monthly Charges - Per 1,000 Gallons		
	Gallons per Month	Rate
Tier 1	0-10,000 gals	$0.00
Tier 2	10,001-20,000 gals	$3 53
Tier 3	20,001-60,000 gals	$3.63
Tier 4	60,001-350,000 gals	$3 73
Tier 5	Over 350,000 gals	$3.83

In meetings with the Finance Committee, the following changes were made to the current rate structure:

- Create different quantity charges for single family, multi family, and non-residential customers with tiers sized appropriately for the levels of demand for each class. By doing so, each rate structure can be designed to provide a price signal that is specific to each class.

- Charge for all water including the water in Tier 1, which currently amounts to over 50% of total water use in the City. By doing so, customers will only pay for water they use.

- Price water for each tier that is more closely aligned with the cost of service by charging less than the average unit cost for below-average use (because it is less expensive to serve low demand) and by charging above the average cost for above-average use, which burdens the system with the expense of providing for high peak demands.

The detailed derivations of the rate calculations performed by HF&H are provided in the appendix to this report; additional documentation for the City's refinements are available from the City. For purposes of illustrating the methodology, the calculations for single family customers are presented below.

Residential Quantity Charges

The analysis was performed using one recent year of residential customer billing data (i.e., all of the residential bills from the prior year). The billing data was sorted from smallest to largest and plotted in **Figure 2-10** and **Figure 2-11.** Note that the median[1] use is 8 tgals, which is less than the current 10 tgal Tier 1 breakpoint. This means that more than half of the bills do not exceed Tier 1 where there is no charge for water. In effect, the City is making limited use of its water meters, which, as an industry practice in California, are typically used for billing for all water use. In this way, customers

[1] The median is a statistical parameter indicating that half of the total values are less than the median and half is greater

receive a benefit from using as little water as possible at all times, which is an appropriate conservation signal in a semi-arid state.

Figure 2-10. Water Bill Distribution Curve

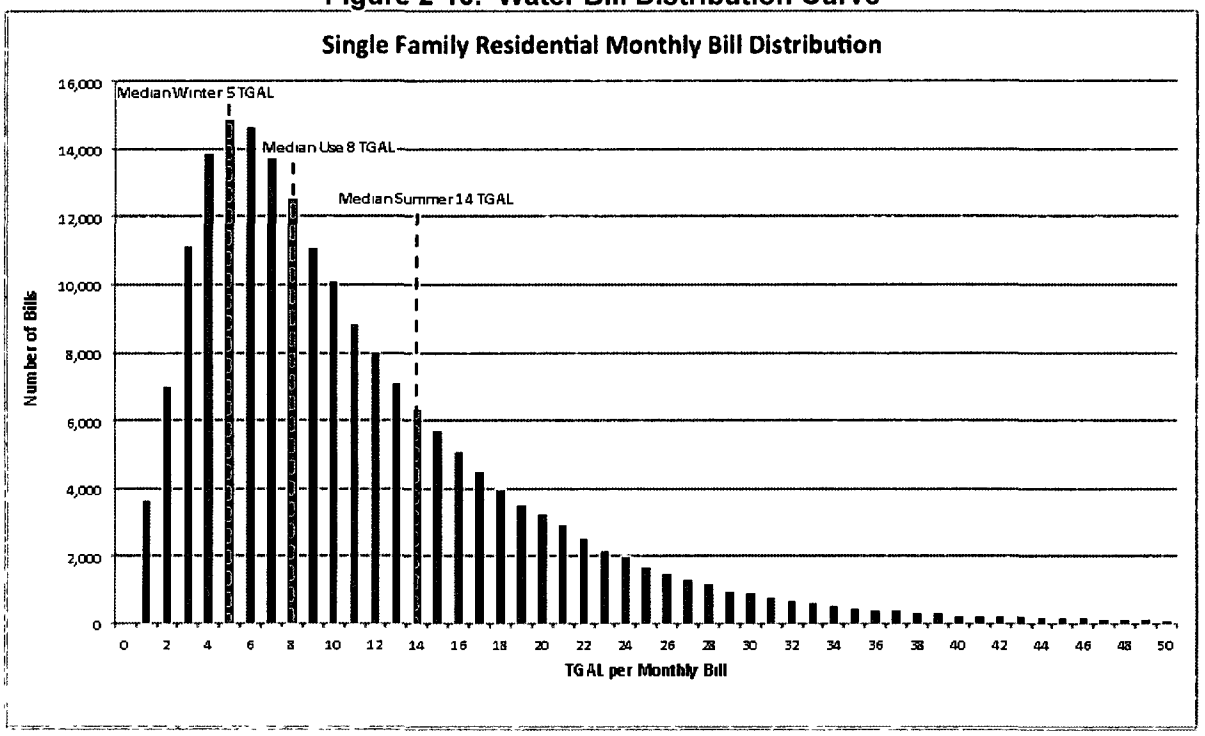


Figure 2-11. Cumulative Bill Distribution Curve

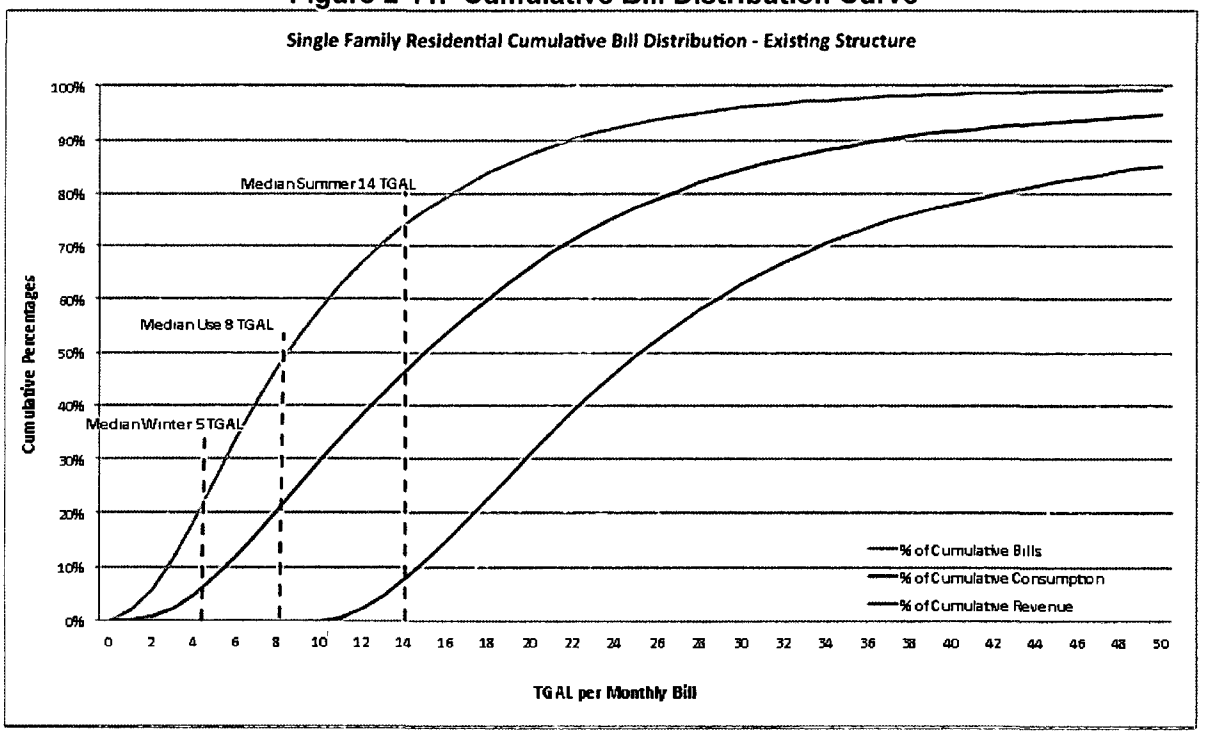


Figure 2-11 indicates that 60% of single family bills fall within the current 10 tgal allowance. As a result, only 40% of the bills include billed consumption, which amounts to 70% of the total single family consumption.

Figure 2-12 illustrates the tier structures for the existing and proposed rates and compares them with the average cost. The breakpoints and prices for the proposed rates were developed working with the City's Finance Committee to ensure that the rate structure achieved the City's rate-making objectives.

The rationale for determining the location of each breakpoint is as follows:

- **Tier1/Tier 2 breakpoint.** 5 tgals is the winter median demand, which represents the most efficient demand with the least irrigation and attendant peaking on the system.
- **Tier 2/Tier 3 breakpoint.** 14 tgals is the summer median demand. Demand at this level falls within the design capacity of the system and imposes no excessive peak demand on the system.
- **Tier 3/Tier 4 breakpoint.** 21 tgals is 50% greater than summer median demand and includes 90% of the bills, leaving the last 10% of bills for the highest tiers.
- **Tier 4/Tier 5 breakpoint.** 35 tgals represents the demand for one EDU of capacity purchased from PCWA. Demand in excess of this amount imposes an additional charge for capacity from PCWA on the City, which is recovered in the highest tier.
- **Tier 5 breakpoint.** Above 35 tgals is a small set of customers with demand that exceeds their purchased capacity from PCWA.

The rationale for setting the rates for each tier is as follows:

- **Tier 1 rate.** Tier 1 use is the most efficient and the least expensive to serve. A cost equal to 55% of the average cost recognizes the lower cost of service as well as provides are reward for efficiency, which also serves to encourage continued conservation.
- **Tier 2 rate.** Tier 2 use includes indoor use as well as a moderate amount for outdoor use. Use at this level does not burden the system and is priced at close to the average cost.
- **Tier 3 rate.** Tier 3 use exceeds moderate use. If all customer use were at this level, the average cost would be greater than it currently is. For that reason, Tier 3 is priced at 150% of the average cost.
- **Tier 4 rate.** Tier 4 use comprises use that is as high as 35 tgals. This unusually high use is comparable to the indoor water use for 21 people based on 55 gallons per day (using State guidelines). Such high use is priced at 275% of the average cost.

- **Tier 5 rate.** Tier 5 use includes the highest 4% of excessively high bills. Demand at this level burdens the system with providing for expensive peaking that is well above moderate needs. Because this demand exceeds the 35 tgals provided for in purchasing one EDU of capacity, the City incurs additional costs for additional capacity needed from PCWA. To cover this cost, $2.61 is added to this rate based on the City's amortized cost of this capacity. Such excessive use is priced at 400% of the average cost to provide a strong deterrent to discourage waste.

Figure 2-12. Single Family Residential Quantity Charge Structure

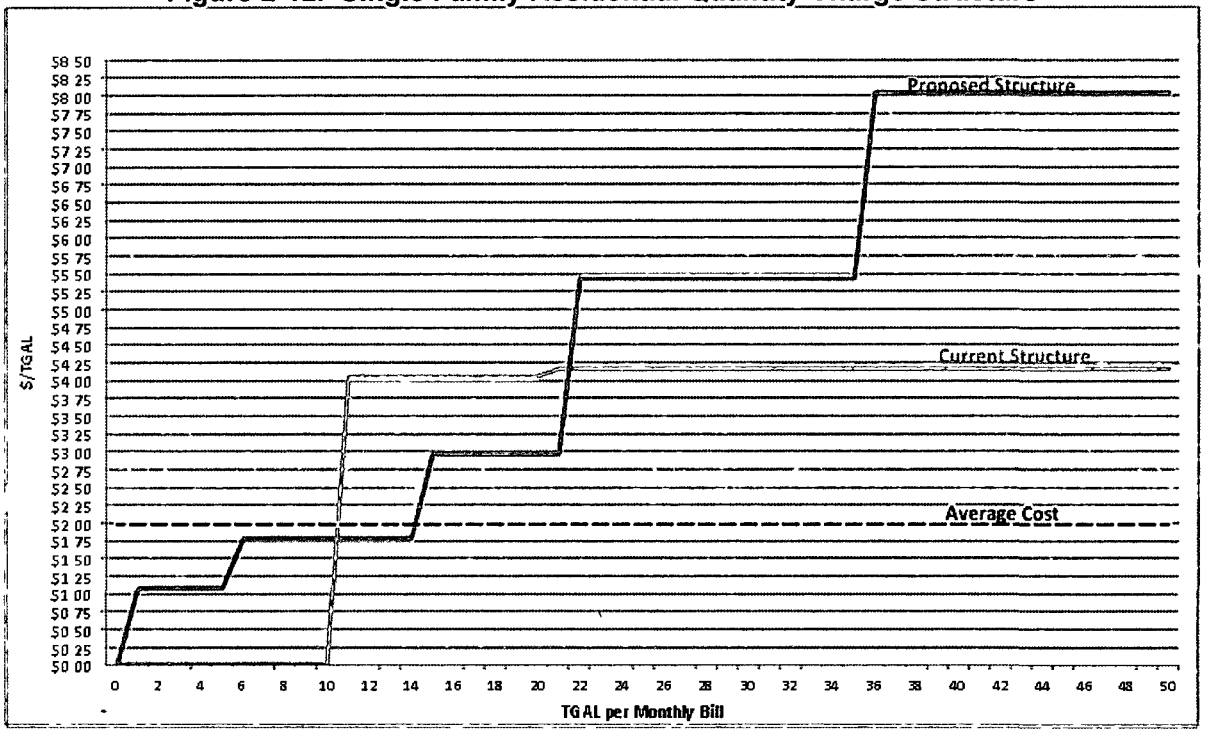


Figure 2-13 summarizes the results of the analysis, which shows the location of the proposed breakpoints and the distribution of water among tiers. The distribution shows that only a small amount of the water is billed at the highest rates. The rates per tier are shown, indicating how much the rate is in each tier compared to the average cost. The distribution of revenue is also shown. Note that the total revenue generated from these quantity charges includes $216,000 for the cost of additional capacity from PCWA for use in excess of 35,000 gallons.

Figure 2-13. FY 2013-14 Monthly Quantity Charges

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Total
Breakpoints (tgal/mo)	5	14	21	35	35+	
Water billed in tier (tgal)	885,180	808,056	228,143	134,837	77,591	2,133,805
Percent of total water	41%	38%	11%	6%	4%	100%
Rate per tier ($/tgal)	**$1.088**	**$1.780**	**$2.967**	**$5.440**	**$8.050**	**$1.978**
Rate compared to avg cost	55%	90%	150%	275%	400%	
Revenue produced per tier	$ 963,132	$1,438,718	$ 677,001	$ 733,554	$ 624,608	4,437,013
Percent of total revenue	22%	32%	15%	17%	14%	100%

Figure 2-14 compares bills (the sum of a service charge for a 3/4" meter and the quantity charge) across a range of consumption. The bills based on a uniform rate are bills in which the quantity charge is the same amount for all consumption, as opposed to the tiered structures for the current and proposed bills.

Figure 2-14. SFR Monthly Bill Comparison with Rate Increase

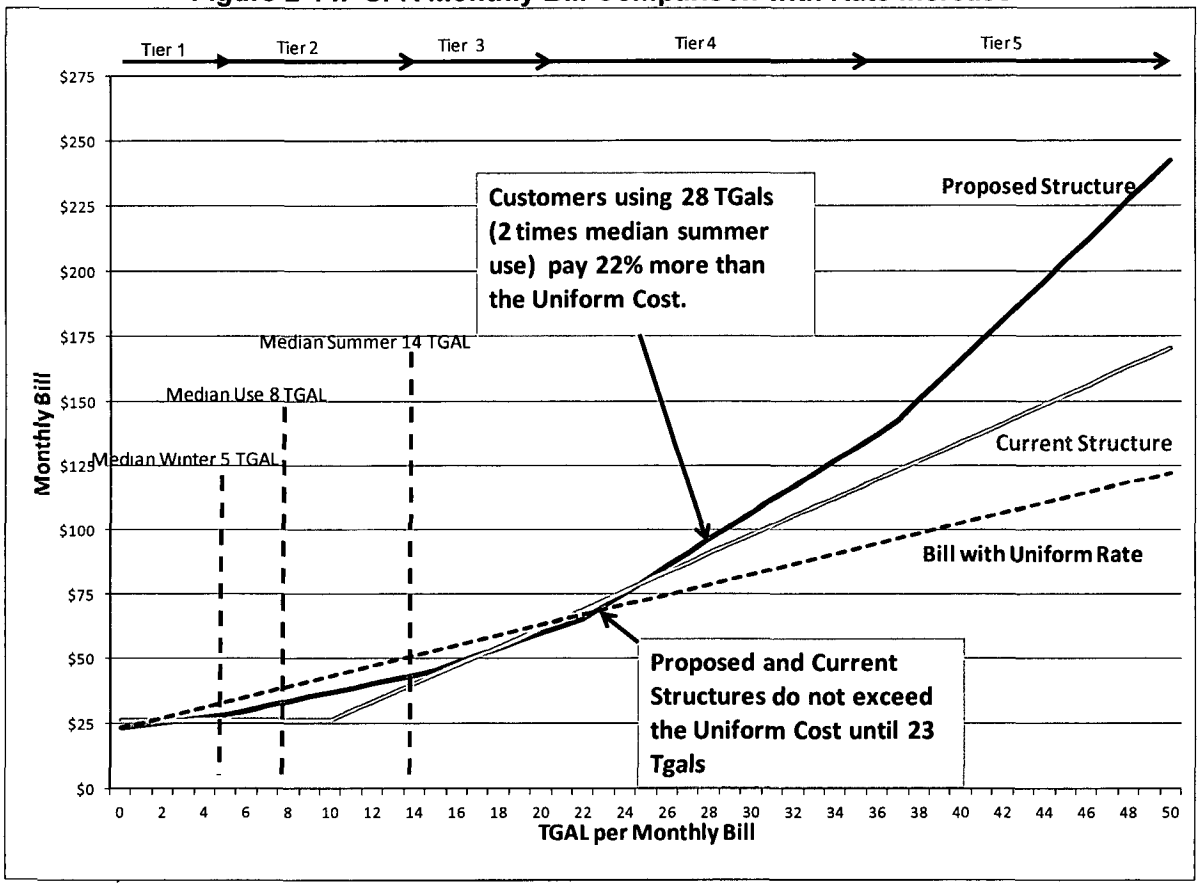


Figure 2-14 shows that customers pay less than the average cost until demand exceeds 23,000 gallons, which is well above median summer demand. For the proposed rates, this occurs because the rates for Tiers 1 and 2 are below the average cost. The cumulative benefit they initially receive is not offset until their demand moves well beyond Tier 2.

We note that the line representing bills under the current rate structure is based on the current rates simply increased 15%. As such, the current rates will generate the required revenue but will not generate all of the revenue from single family customers that is equal to their share of the cost of service, as is the case with the proposed rates.

Figure 2-15 shows the projected rates for the single family customers. It is noted that City staff increased the size of the breakpoint for Tier 4 for areas of the City in which the customers had paid for more PCWA capacity. In those areas, the larger breakpoints allow customers to purchase more water before they pay the higher rates in Tiers 4 and 5, which have been increased over the amounts shown in **Figure 2-13** to cover the additional cost of capacity that the City will be subject to because of excessive water demand.

Figure 2-15. Single Family Quantity Charges (FY 2013-14 to FY 2017-18)

	Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-5,000 gals	$ 1 09	$ 1.25	$ 1.44	$ 1 60	$ 1.78
Tier 2	5,001-14,000 gals	$ 1.78	$ 2 05	$ 2.35	$ 2.61	$ 2.90
Tier 3	14,001-21,000 gals	$ 2.97	$ 3.42	$ 3 93	$ 4.36	$ 4.84
Tier 4 (SFR-1)	21,001-35,000 gals	$ 5.44	$ 6.26	$ 7 19	$ 7.99	$ 8.86
Tier 4 (SFR-2)	21,001-53,000 gals	$ 5.44	$ 6 26	$ 7 19	$ 7.99	$ 8.86
Tier 4 (SFR-3)	21,001-88,000 gals	$ 5 44	$ 6.26	$ 7.19	$ 7.99	$ 8 86
Tier 5 (All SFR)	Flow over Tier 4	$ 8.05	$ 9 00	$ 10 07	$ 11 01	$ 12.04

Multi Family Quantity Charges

A similar modeling methodology was used for calculating rates for the multi family customer class. **Figure 2-16** shows the projected rates. The breakpoints for Tiers 4 and 5 reflect the same adjustment for additional capacity as was made for the single family customers, in this case, however, by meter size, rather than by location.

Figure 2-16. Multi Family Quantity Charges (FY 2013-14 to FY 2017-18)

	Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-5,000 gals	$ 1.09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001-14,000 gals	$ 1.78	$ 2 05	$ 2.35	$ 2 61	$ 2 90
Tier 3	14,001-21,000 gals	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4 (MFR-1)	21,001-35,000 gals	$ 5 44	$ 6 26	$ 7.19	$ 7 99	$ 8 86
Tier 4 (MFR-2)	21,001-88,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7.99	$ 8.86
Tier 4 (MFR-3)	21,001-175,000 gals	$ 5.44	$ 6 26	$ 7.19	$ 7 99	$ 8 86
Tier 4 (MFR-4)	21,001-280,000 gals	$ 5.44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-5)	21,001-560,000 gals	$ 5 44	$ 6.26	$ 7.19	$ 7.99	$ 8.86
Tier 4 (MFR-6)	21,001-875,000 gals	$ 5 44	$ 6.26	$ 7.19	$ 7 99	$ 8 86
Tier 4 (MFR-7)	21,001-1,750,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7.99	$ 8.86
Tier 5 (All MFR)	Flow over Tier 4	$ 8.05	$ 9 00	$ 10 07	$ 11.01	$ 12.04

Non-Residential Quantity Charges

A similar modeling methodology was used for calculating rates for the non-residential customers. **Figure 2-17** shows the projected rates. The breakpoints for Tiers 4 and 5 reflect the same adjustment for additional capacity as was made for the single family customers, in this case, however, by meter size, rather than by location.

Figure 2-17. Non-Residential Quantity Charges (FY 2013-14 to FY 2017-18)

	3/4" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1.25	$ 1.44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 4 39	$ 4.79	$ 5 23	$ 5.63	$ 6 07
Tier 3	88,001-175,000 gals	$ 5 58	$ 6.16	$ 6.81	$ 7 38	$ 8.01
Tier 4	Over 175,000 gals	$ 6.69	$ 7 43	$ 8.28	$ 9.01	$ 9.82
	1" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1.25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1.78	$ 2 05	$ 2.35	$ 2.61	$ 2 90
Tier 3	88,001-175,000 gals	$ 5.58	$ 6 16	$ 6 81	$ 7.38	$ 8 01
Tier 4	Over 175,000 gals	$ 6.69	$ 7 43	$ 8 28	$ 9.01	$ 9 82
	1 1/2" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1.25	$ 1 44	$ 1.60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2.90
Tier 3	88,001-175,000 gals	$ 2.97	$ 3 42	$ 3.93	$ 4.36	$ 4 84
Tier 4	Over 175,000 gals	$ 6.69	$ 7.43	$ 8 27	$ 9.01	$ 9.82
	2" through 8" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1.25	$ 1.44	$ 1.60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1 78	$ 2.05	$ 2.35	$ 2 61	$ 2 90
Tier 3	88,001-175,000 gals	$ 2.97	$ 3 42	$ 3 93	$ 4 36	$ 4.84
Tier 4 (NR-4)	175,001-280,000 gals	$ 4 08	$ 4 69	$ 5.40	$ 5.99	$ 6.65
Tier 4 (NR-5)	175,001-560,000 gals	$ 4.08	$ 4.69	$ 5 40	$ 5 99	$ 6.65
Tier 4 (NR-6)	175,001-875,000 gals	$ 4.08	$ 4.69	$ 5.40	$ 5.99	$ 6 65
Tier 4 (NR-7)	175,001-1,750,000 gals	$ 4.08	$ 4.69	$ 5 40	$ 5.99	$ 6.65
Tier 4 (NR-8)	175,001-2,485,000 gals	$ 4 08	$ 4.69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Flow over Tier 4	$ 6 69	$ 7.43	$ 8.27	$ 9 01	$ 9 82

2.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figures 2-18 and **2-19** compare the City's proposed FY 2013-14 bills (including the City's proposed rate change effective January 1, 2014).

Figure 2-18. Residential Bill Comparison

	Current Bill	Current (with Incr.)	Proposed Bill	Rocklin (PCWA)[1]	Roseville[2]	Folsom[1]	San Juan WD[1]
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(5 Tgal/mo - Winter Median)*	0 00	0 00	5 44	9 05	3 08	7 56	3 14
Total Bill	$22 90	$26 34	$28 84	$48 64	$23 18	$22 56	$38 33
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(14 Tgal/mo - Summer Median)*	14 12	16 24	21 46	26 06	11 30	20 52	8 53
Total Bill	$37 02	$42 57	$44 87	$65 65	$31 40	$35 52	$43 72
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(35 Tgal/mo - PCWA Contract Limit)*	89 75	103 21	119 61	70 05	37 58	58 80	28 96
Total Bill	$112 65	$129 55	$143 01	$109 64	$57 68	$73 80	$64 15

[1] Rate effective January 1, 2013

[2] Rate effective July 1, 2013

Figure 2-19. Non-Residential Bill Comparison

	Current Bill	Current (with Incr.)	Proposed Bill	Rocklin (PCWA)[1]	Roseville[2]	Folsom[1]	San Juan WD[1]
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$16 62	$35 19
Volumetric Charge *(11 Tgal/mo)*	3 53	4 06	11 99	19 20	12 9	16 8	9 64
Total Bill	$26 43	$30 39	$35 39	$58 79	$33 00	$33 42	$44 83
Service Charge *(2" Service)*	$22 90	$26 34	$187 21	$181 28	$98 65	$84 29	$149 94
Volumetric Charge *(76 Tgal/mo)*	240 18	276 21	111 13	132 12	87 72	114 24	65 55
Total Bill	$263 08	$302 54	$298 34	$313 40	$186 37	$198 53	$215 49
Service Charge *(4" Service)*	$22 90	$26 34	$585 05	$525 06	$305 10	$259 82	$455 70
Volumetric Charge *(300 Tgal/mo)*	1262 20	1451 53	900 88	523 81	344 86	449 12	252.63
Total Bill	$1,285 10	$1,477 87	$1,485 93	$1,048 87	$649 96	$708 94	$708 33

[1] Rate effective January 1, 2013

[2] Rate effective July 1, 2013

3. WASTEWATER RATES

3.1 BACKGROUND

The City provides wastewater conveyance and treatment services to the City's 16,000 accounts through a system of pipelines and pump stations that transport their wastewater to the City's treatment facilities. The City currently charges customers $32.08 per equivalent dwelling unit (EDU) per month. An EDU is defined as a single-family residential unit. Therefore, single-family residential accounts pay $32.08 per month and multi-family residential accounts pay $32.08 per month for each dwelling unit within the multi-family complex. Non-residential customers are charged the per EDU rate of $32.08 based on the number of EDU's determined by City staff using various criteria (e.g., square footage, number of fixtures).

3.2 REVENUE REQUIREMENT PROJECTIONS

To determine whether additional rate revenue is required, projected operating and capital expenses are compared with projected revenue from current rates. Rates are then increased so that expenses are covered and operating and capital reserves are maintained.

Key Assumptions

The City's FY 2012-13 budget served as the basis for determining the revenue requirement projections for the five-year planning period from FY 2013-14 through FY 2017-18. **Figure 3-1** summarizes the projected expenditure trends, which are noteworthy in the following respects:

Wastewater Treatment Expense

The largest operating expense covered by the wastewater rate is the cost to treat the wastewater at the City's Wastewater Treatment and Reclamation Facility (WWTRF). The majority of the $3 million annual expense for wastewater treatment is for unpredictable utility and chemical expenses which are beyond the control of the City. Wastewater treatment expenses were assumed to increase at an inflationary rate of 3.0% per year during the 5-year projection period.

Salaries and Benefits Expense

The City's budget for existing personnel as of FY 2012-13 served as the starting point for projecting operating and administrative wage and benefit expenses. It should be noted that the City's FY 2012-13 budget includes the proposed addition of three new wastewater technicians and an allocation of 35% and 45% of an Environmental Services Manager and a Senior Engineer, respectively. For FY 2013-14 through FY 2017-18, the salaries and benefits for the existing and proposed staff were assumed to increase 1.54%

- 4.73% per year due to increases in health care premiums, workers' compensation insurance rates, and wage rates.

Operations and Maintenance Expense

The City's operations and maintenance expenses (excluding salaries, benefits, and treatment costs) budget for FY 2012-13 served as the starting point for projecting operations and maintenance expenses (O&M). Generally, on-going maintenance and operations expenses were generally increased by 3.0% per year to approximate inflationary increases.

Debt Service

Existing debt service is paid off in FY 2015-16 and there are no plans to issue additional debt for wastewater capital projects. The City plans to fund future capital improvements of existing infrastructure on a pay-as-you-go (PayGo) basis using a portion of annual rate revenue and available reserves.

Capital Replacement Fund

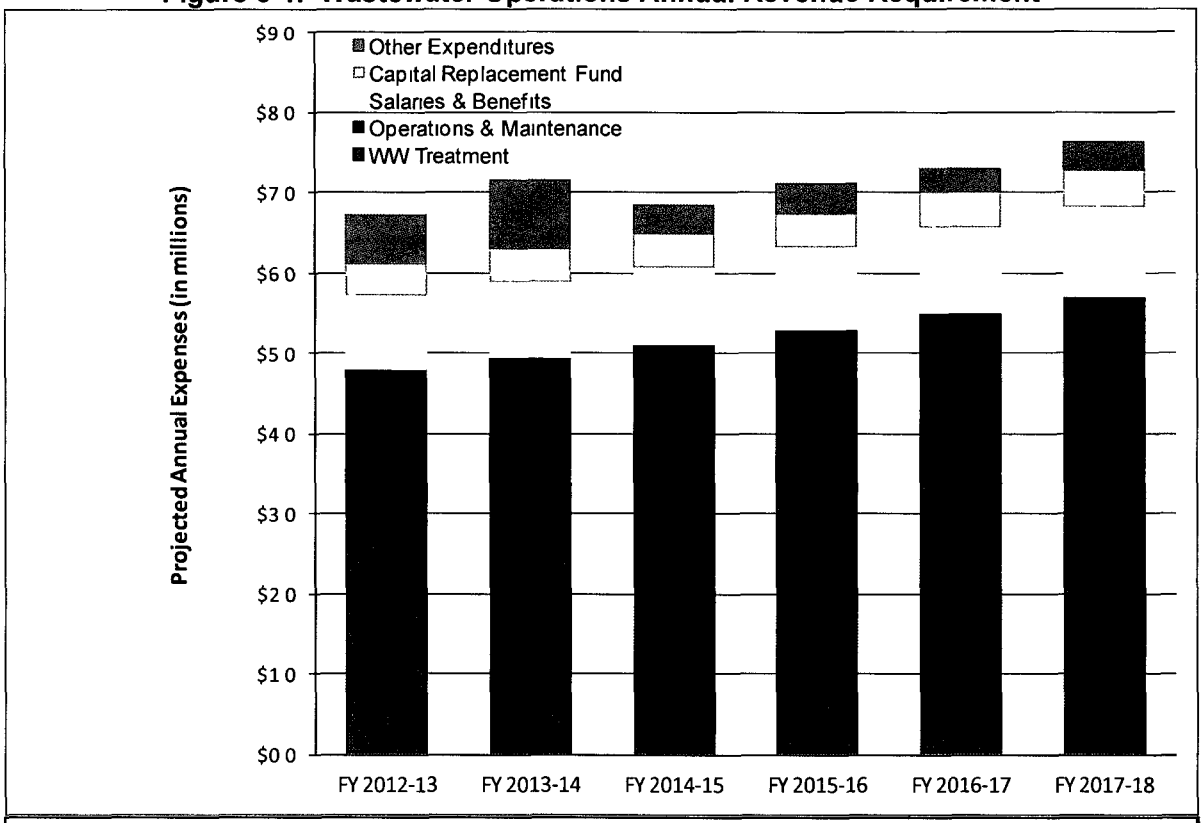
The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for capital improvement projects. The City plans to fund future capital improvements of existing infrastructure on a PAYGo basis using a portion of annual rate revenue and available reserves. Capital improvements are projected on average to total $430,000 annually over the five-year period.

PAYGo funding is less expensive because it avoids financing costs. It is also appropriate for the type of capital improvements, which are on-going renewals and replacements that are needed to keep pace with depreciation. Larger, periodic capital projects such as major new facilities are more appropriate candidates for debt financing. Existing debt service is minimal and will be retired in FY 2015-16; there are no plans to issue additional debt for sewer capital projects.

Other Expenditures

The other expenditures are comprised of the Wastewater enterprise's share of the corp yard bond payment, debt service, annual OPEB obligation, and a transfer of $270,000 FY 2012-13 and $500,000 in FY2013-14 for infrastructure improvements.

Figure 3-1. Wastewater Operations Annual Revenue Requirement



		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Wastewater Treatment	$ 2,954,200	$ 3,042,826	$ 3,134,111	$ 3,228,134	$ 3,324,978	$ 3,424,727
Operations and Maintenance	1,824,974	1,893,693	1,965,527	2,062,759	2,166,888	2,278,508
Salaries and Benefits	926,794	945,944	966,570	1,011,765	1,059,746	1,110,725
Capital Replacement Fund	393,380	405,181	417,337	429,857	442,753	456,035
Other Expenditures	635,528	867,477	374,427	387,328	310,679	355,370
Total Revenue Requirment	$ 6,734,876	$ 7,155,121	$ 6,857,972	$ 7,119,843	$ 7,305,044	$ 7,625,366

Figure 3-2 summarizes the projected revenue requirements, revenue from current rates (i.e., without any rate increases), annual surpluses and deficits, and the fund balance before rate increases. **Figure 3-2** also shows the projected revenue increases to offset future deficits so that the wastewater reserves are maintained at an adequate level (see discussion on the adequate level of reserves). The rate adjustments that are projected would become effective July 1 of each year.

Figure 3-2. Wastewater Revenue Increases

		Projected				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Revenue Requirement	$6,734,876	$7,155,121	$6,857,972	$7,119,843	$7,305,044	$7,625,366
Revenue from Current Rates	$7,061,404	$7,098,519	$7,135,633	$7,172,748	$7,209,862	$7,246,977
Surplus/(Deficit)	$326,528	($56,603)	$277,662	$52,905	($95,182)	($378,389)
Fund Balance (before increases)	$7,634,029	$7,032,294	$6,818,845	$6,378,466	$5,813,219	$4,950,050
Revenue Increase	0 0%	0 0%	2.8%	2 7%	2 6%	2.5%
Revenue from Increase	$0	$0	$181,057	$379,601	$579,167	$779,750
Fund Balance (after increases)	$7,634,029	$7,032,294	$7,000,355	$6,942,382	$6,967,733	$6,903,656

The revenue increases would ordinarily be applied across-the-board to the current residential and non-residential service charges. However, based on the results of the cost of service analysis conducted (and summarized in Section 3.4), only the non-residential rate shall be adjusted to generate the revenue increases necessary. In this way, by FY 2017-18, each customer class will pay its proportionate share of the costs.

Operating and Capital Reserve Funds

The revenue increases indicated in **Figure 3-2** are required to offset the City's increased costs and to maintain adequate reserves. It is the City's practice to maintain two reserve funds for wastewater operations: an operating reserve and a capital replacement reserve. For purposes of rate setting, the following combined reserve target balances were established.

- **Minimum Balance.** The Minimum Balance is based on the amount of revenue that is needed to provide month-to-month cash flow for O&M expenses. By maintaining this minimum reserve, the enterprise is able to meet its cash flow without borrowing from the General Fund. The fund balance should never drop below the Minimum Balance, which is currently about $600,000. The Minimum Balance is based on the bill frequency. For utilities that bill monthly, a minimum of approximately six weeks of O&M expenses is recommended.

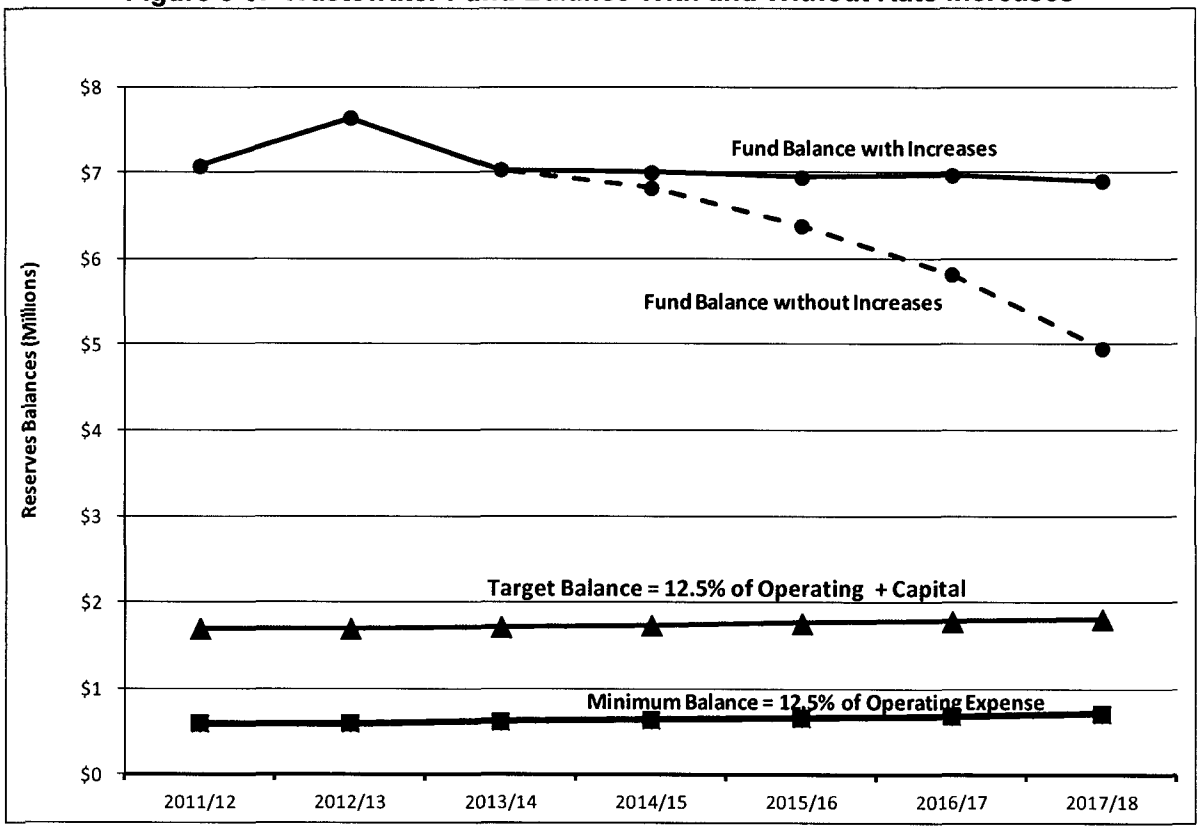
- **Target Balance.** The Target Balance is the Minimum Balance plus an additional cash margin for capital improvements so that sufficient funds are available to pay for ongoing PAYGo projects without cash flow constraints. The capital component is set to 1.5 times the average annual PAYGo expenditures, which is about $1.1 million; therefore, the Target Balance is currently about $1,700,000.

Figure 3-3 shows the combined fund balance for the operating and capital improvement reserves compared with the target balances. The line labeled "Minimum Balance" represents the operating reserve target balance. The line labeled "Target Balance"

(diamond symbols) is the sum of the target balances for the Operating Reserve in the Capital Improvement Reserve.

Figure 3-3 indicates that the fund balance is currently, and will remain, above the target balance. In this way, the increased operating and capital costs that are projected will be covered throughout the planning period. As described in Section 3.4 below, the additional revenue throughout the planning period is the result of growth and increases to non-residential rates.

Figure 3-3. Wastewater Fund Balance With and Without Rate Increases



3.3 COST OF SERVICE ANALYSIS

The City's current wastewater rates determine how much of the total revenue requirement is paid by each customer class (e.g., single-family residents, multi-family residents, commercial accounts, industrial accounts). A cost of service analysis determines how much each class should pay based on its respective share of flow and wastewater strength (i.e., biochemical oxygen demand and total suspended solids, the standard measures of wastewater strength). A cost of service analysis should be conducted periodically to account for any material changes in the loadings.

Allocation of Costs to Functions

The cost of service analysis is a process by which expenses (i.e., the City's FY 2013-14 revenue requirement) are allocated to the four functions that represent the services the City provides to customers. Three of the functions are related to the "loading" on the collection system and treatment facility produced by the volume and strength of wastewater; the fourth function is related to customer accounts. The revenue requirement is allocated to functional categories that represent the functions performed by the City's facilities: customer accounts (i.e., customer service activities, which includes billing), flow, biochemical oxygen demand (BOD), and total suspended solids (TSS), as shown in **Figure 3-4**.

When each of these functionalized costs is divided by the associated units of service, the unit costs of service are derived. For example, the unit cost per parcel to service accounts is $12.07 per year; the unit cost per thousand gallons of flow is $3.55, as shown **in Figure 3-4**. The unit costs are independent of customer class. In other words, the unit cost to treat flow is the same regardless of customer class because it represents the average for all customers. The unit costs are not rates, however. Unit costs are used to determine each class' share of the revenue requirement based on each class' required services. The rate design determines how the revenue requirement is paid for by each customer depending on which class of service it belongs.

Figure 3-4. Wastewater Allocation of FY 2013-14 Costs to Functions

	FY 2013-14 Rev Req	Alloc Type	Allocation Factors					Allocated Costs				
			Accounts	Flow	BOD	TSS	Total	Accounts	Flow	BOD	TSS	Total
Direct Expense Allocations												
Treatment Plant												
Professional Services	$ 3,042,826	1	0%	40 0%	30 0%	30 0%	100%	$ -	$ 1,217,130	$ 912,848	$ 912,848	$ 3,042,826
Debt Service	150,208	1	0%	40 0%	30 0%	30 0%	100%	-	60,083	45,062	45,062	150,208
Subtotal - Treatment Plant	3,193,034							-	1,277,214	957,910	957,910	3,193,034
Customer Accounts												
Admin Services - Utility Billing	160,582	3	100%	0 0%	0 0%	0 0%	100%	160,582	-	-	-	160,582
Subtotal - Customer Accounts	160,582							160,582	-	-	-	160,582
Collection System												
Public Services - Operations	1,929,403	2	0%	90 0%	5 0%	5 0%	100%	-	1,736,463	96,470	96,470	1,929,403
Transfer to Capital Proj Reserve	405,181	2	0%	90 0%	5 0%	5 0%	100%	-	364,663	20,259	20,259	405,181
Subtotal - Collection System	2,334,584							-	2,101,126	116,729	116,729	2,334,584
Total Direct Expenses	$ 5,688,201							$ 160,582	$ 3,378,340	$ 1,074,639	$ 1,074,639	$ 5,688,201
			% of Total Direct Expenses					2 8%	59 4%	18 9%	18 9%	100 0%
Composite Expense/(Revenue) Allocations												
Public Services - Engineering	$ 133,581	4	3%	59%	19%	19%	100%	$ 3,771	$ 79,336	$ 25,237	$ 25,237	$ 133,581
Public Services - Administration	90,330	4	3%	59%	19%	19%	100%	2,550	53,649	17,065	17,065	90,330
City Attorney	24,720	4	3%	59%	19%	19%	100%	698	14,682	4,670	4,670	24,720
Finance - Retiree Health Benefits	30,650	4	3%	59%	19%	19%	100%	865	18,204	5,791	5,791	30,650
OPEB Expense	121,270	4	3%	59%	19%	19%	100%	3,424	72,025	22,911	22,911	121,270
Allocated Costs - General Fund	451,280	4	3%	59%	19%	19%	100%	12,740	268,025	85,258	85,258	451,280
Transfer to Fund #915 & 970	92,673	4	3%	59%	19%	19%	100%	2,616	55,040	17,508	17,508	92,673
Transfer out	500,000	4	3%	59%	19%	19%	100%	14,115	296,960	94,462	94,462	500,000
Transfer to/(from) Operating Reserves	(3,246)	4	3%	59%	19%	19%	100%	(92)	(1,928)	(613)	(613)	(3,246)
Total Composite Expenses	1,441,258							40,688	855,993	272,289	272,289	1,441,258
			% of Total Net Revenue Requirement					2 8%	59 4%	18 9%	18 9%	100 0%
Total Direct and Composite Expenses	$ 7,129,459						A	$ 201,270	$ 4,234,332	$ 1,346,928	$ 1,346,928	$ 7,129,459

Allocation Types.

1 - Treatment Plant
2 - Direct attribution with HF&H estimate of flow, BOD, and TSS
3 - Customer Account Allocations - Direct attribution
4 - Composite Expense Allocation Composite of 1, 2, 3

Unit Cost Calculations					
Units of Service	B	16,682	1,193,050	2,541,612	2,419,009
Unit Type		Accounts	Tgals	Pounds	Pounds
Unit Costs (A – B)		$12 07	$3 55	$0 53	$0 56
		$/Account	$/Tgals	$/lb	$/lb

Customer Class Loadings

Wastewater flows from individual customers are not metered; therefore winter water use data for residential customers is the closest representation of flows that customers discharge to the City's system for conveyance and treatment. The assumption is that residents use minimal outside or irrigated water during the winter period. A full twelve months of actual water flows were used for non-residential customers. HF&H obtained the metered water data from City and summarized the data by customer class. The respective flow data was then multiplied by the strength concentrations stipulated by the State Water Resources Control Board's *Guidelines*[2] to determine the total loadings on the system for each customer class; **Figure 3-5** presents the results of this calculation.

[2] State Water Resources Control Board *Revenue Program Guidelines*. Appendix G 1979

Figure 3-5. Wastewater Customer Class Loadings

Customer Class	Accounts	Flow	Mass Balance BOD	Mass Balance TSS	Total BOD	Total TSS
	Accounts	Tgals	mg/l	mg/l	lbs	lbs
Residential						
SFR	16,270					
MFR	92					
Total Residential	16,362	960,110	260	240	2,083,150	1,922,908
Non-Residential						
Average Strength	276	202,582	200	200	338,110	338,110
High Strength	44	30,358	475	624	120,352	157,991
Total Non-Residential	320	232,940	236	1426	458,462	496,101
Total	16,682	1,193,050	255	243	2,541,612	2,419,009

Revenue Requirement Allocation

In a cost of service analysis, all customer classes are treated equally through the application of the same unit costs, which is the fundamental purpose of cost of service analysis. A cost of service analysis fairly distributes the revenue requirement to each customer class, after which rates can be designed to generate the revenue required of each class. **Figure 3-6** presents the results of the revenue requirement allocation, which is calculated for each customer class by multiplying the per unit costs by customer class loadings from **Figure 3-5** above.

Figure 3-6. Wastewater Revenue Requirement Allocations to Customer Classes

	FY 12-13 Cost-of-Service per Unit				Total Cost
	Accounts	Flow	BOD	TSS	of Service
	per account	per Tgals	per lb	per lb	
Cost of Service per Unit *(from Figure 4-2)*	**$12.07**	**$3.55**	**$0.53**	**$0.56**	
Residential	**$ 197,409**	**$3,407,588**	**$ 1,103,966**	**$ 1,070,694**	**$5,779,658**
Non-Residential					
Average Strength	3,330	718,998	179,181	188,263	1,089,773
High Strength	531	107,746	63,781	87,971	260,028
Total Non-Residential	**3,861**	**826,744**	**242,962**	**276,234**	**1,349,801**
Total Revenue Requirement	$ 201,270	$4,234,332	$ 1,346,928	$ 1,346,928	$7,129,459

Figure 3-7 compares the cost of service allocations (from **Figure 3-6**) with the projected revenue for FY 2013-14 under the existing rate structure. The difference indicates whether a class is paying more or less than its share of the cost of service. The analysis indicates that the non-residential customers are paying less than their share of the cost of service.

Figure 3-7. Wastewater FY 2013-14 Cost of Service Comparison

Customer Class	Current EDUs	Current Rate	Current Revenue	Cost of Service	$ Variance	% Variance
		per EDU		*(from Figure 4-4)*		
Residential	17,066	$ 32 08	$ 6,569,727	$ 5,779,658	$ (790,069)	-12%
Non-Residential	1,454	$ 32 08	$ 559,732	$ 1,349,801	$ 790,069	141%
Total Revenue Requirement			$ 7,129,459	$ 7,129,459		

3.4 RATE DESIGN/RATE INCREASES

After each class' share of the revenue requirement was determined by the cost of service analysis (see **Figure 3-6**), rates can be designed to ensure that each class' rates generate its respective share of the cost of service.

Residential

The current per EDU rate for residential customers is sufficient to cover the cost of service calculated in **Figure 3-6** for residential customers during the five-year projection period; therefore, no change to the rate design or per EDU rate is recommended during the five-year projection period.

Non-Residential

As shown in **Figure 3-7**, current non-residential rate revenue is not sufficient to cover the cost to provide such service to non-residential customers. Therefore, we are recommending the following modifications to the rate design and recommending the phasing in of rate increases over the five-year projection period to generate sufficient revenue to cover the cost of service by FY 2017-18.

The common rate design objectives are rate payer equity, financial stability, legal compliance, administrative simplicity, and customer understanding. Of these five objectives, balancing rate payer equity with financial stability requires the greatest discretion. Rate payer equity can be improved through the flow charge, which reflects differences in flow among customers. However, the more revenue that is associated with flow, the less stable the revenue will be from year to year. In addition, if the fixed charge is too low, customers with very low flow will pay bills that are far below the baseline fixed cost of service.

In the City's case, we recommended a fixed charge per account (rather than per EDU) for non-residential accounts which will remain the same, at $32.08 per account, during the five-year projection period. In addition, we recommend implementing flow-based charges for non-residential customers based on the strength of the discharge being transported and processed. The increases in the flow-based charges are being phased-in over the planning period.

Figure 3-8 summarizes the recommended residential and non-residential monthly charges for the five-year projection period and the projected revenue generated. As shown in **Figure 3-8**, the proposed monthly charges are projected to generate sufficient non-residential revenue ($1,371,005 by FY 2017-18) to cover the non-residential cost of service of $1,349,901 (as shown in **Figure 3-7**).

Figure 3-8. Wastewater Proposed Monthly Charges

Customer Class	Current Monthly Charge	Proposed Monthly Charges FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Residential						
Single Family (per EDU)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Multi Family (per EDU)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Non-Residential						
Fixed Charge (per Account)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Flow Charge						
Average Strength (per Tgal)	$0 00	$1 46	$2 33	$3 19	$4 05	$4 92
High Strength (per Tgal)	$0 00	$4 62	$5 48	$6 35	$7 21	$8 07
Revenue from Rates						
Residential		$ 6,569,727	$ 6,602,576	$ 6,635,589	$ 6,668,767	$ 6,702,111
Non-Residential		559,732	761,035	963,345	1,166,667	1,371,005
		$ 7,129,459	$ 7,363,611	$ 7,598,934	$ 7,835,434	$ 8,073,116

Note Projected residential revenue reflects growth in accounts, Projected non-residential revenue reflects growth in accounts, as well as the recommended rate increase

3.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figure 3-9 compares the City's proposed FY 2013-14 rates (with the City's proposed rate change effective January 1, 2014) for all residents and typical average- and high-strength non-residential customers.

Figure 3-9. Wastewater Monthly Customer Bill Comparison (FY 2013-14)

Customer Class	Average Monthly Flow (Tgals)	Lincoln (current)	Lincoln (proposed)	Auburn	Loomis[1]	Rocklin[1]	Roseville[1,2]
Residential							
Single Family		$32 08	$32 08	$61 38	$28 00	$28 00	$29 85
Multi Family		$32 08	$32 08	$61 38	$28 00	$28 00	$29 85
Non-Residential							
Church	5	$32 08	$39 15	not available	$28 00	$28 00	$29 85
Large Retailer	165	$32 08	$273 02	not available	$28 00	$28 00	$658 13
Small Grocery Store*	4	$64 16	$50 16	not available	$56 00	$56 00	$59 70
Restaurant*	93	$417 04	$461 34	not available	$364 00	$364 00	$729 88
Large Grocery Store*	176	$433 08	$845 60	not available	$378 00	$378 00	$1,077 55

[1]Rate effective 7/1/2013
[2]Customers served by the City of Roseville
[3]Flow charge applies to water use in excess of 10 Hundred Cubic Feet per month for metered commercial customers
*Denotes high strength customer

Note Non-residential charge based on May 2011 through April 2012 average monthly flows

4. SOLID WASTE RATES

4.1 BACKGROUND

The City provides residential and commercial solid waste and residential yard waste collection to the City's 16,000 accounts. The City currently charges its residents $19.98 per month for once-a-week servicing of 90-gallon solid waste container and a 64- or 90-gallon yard waste container. The solid waste container is delivered to the Western Placer Waste Management Authority (WPWMA) material recovery facility (MRF) on Athens Road, where it is sorted and recyclable materials are separated and recycled. Non-residential customers are charged a monthly rate based on their subscription level (e.g., 1 cubic yard bin, serviced 1 time per week; 3 cubic yard bin, serviced 3 times per week).

4.2 REVENUE REQUIREMENT PROJECTIONS

To determine whether additional rate revenue is required, projected operating and capital expenses are compared with projected revenue from current rates. Rates are then increased so that the expenses are covered and operating and capital reserves are maintained.

Key Assumptions

The City's FY 2012-13 budget served as the basis for determining the revenue requirement projections for the five-year planning period from FY 2013-14 through FY 2017-18. **Figure 4-1** summarizes the projected expenditure trends, which are noteworthy in the following respects:

Disposal and Processing

Disposal and processing costs increase 2.1% annually based on: 1) planned per-ton tip fee increases at the WPWMA MRF; and, 2) projected increases in volume of materials collected and processed.

Salaries and Benefits

The City's FY 2012-13 budget includes the proposed addition of an Environmental Services Manager and a Senior Engineer which shall be shared with the water and wastewater utilities. The solid waste enterprise has been allocated 30% of the Environmental Services Manager and 10% of the Senior Engineer (approximately $78,000 per year). Salaries and benefits for the existing and proposed staff were assumed to increase an average of 1.8% - 4.7% per year due to the projected increases in health care premiums, workers' compensation insurance rates, and wage rates.

Operations and Maintenance Expense

The majority of the City's operations and maintenance expenses (excluding salaries and benefits) are projected to gradually increase during the planning period at the projected rate of inflation. Cost increases greater than inflation include: an additional 640 hours of leaf collection per year (annual average of $38,000); and, additional landfill maintenance expenses (annual average of $128,000).

Debt Service

The solid waste enterprise does not currently have any debt service, nor are there plans to incur debt to finance collection vehicle purchases during the planning period.

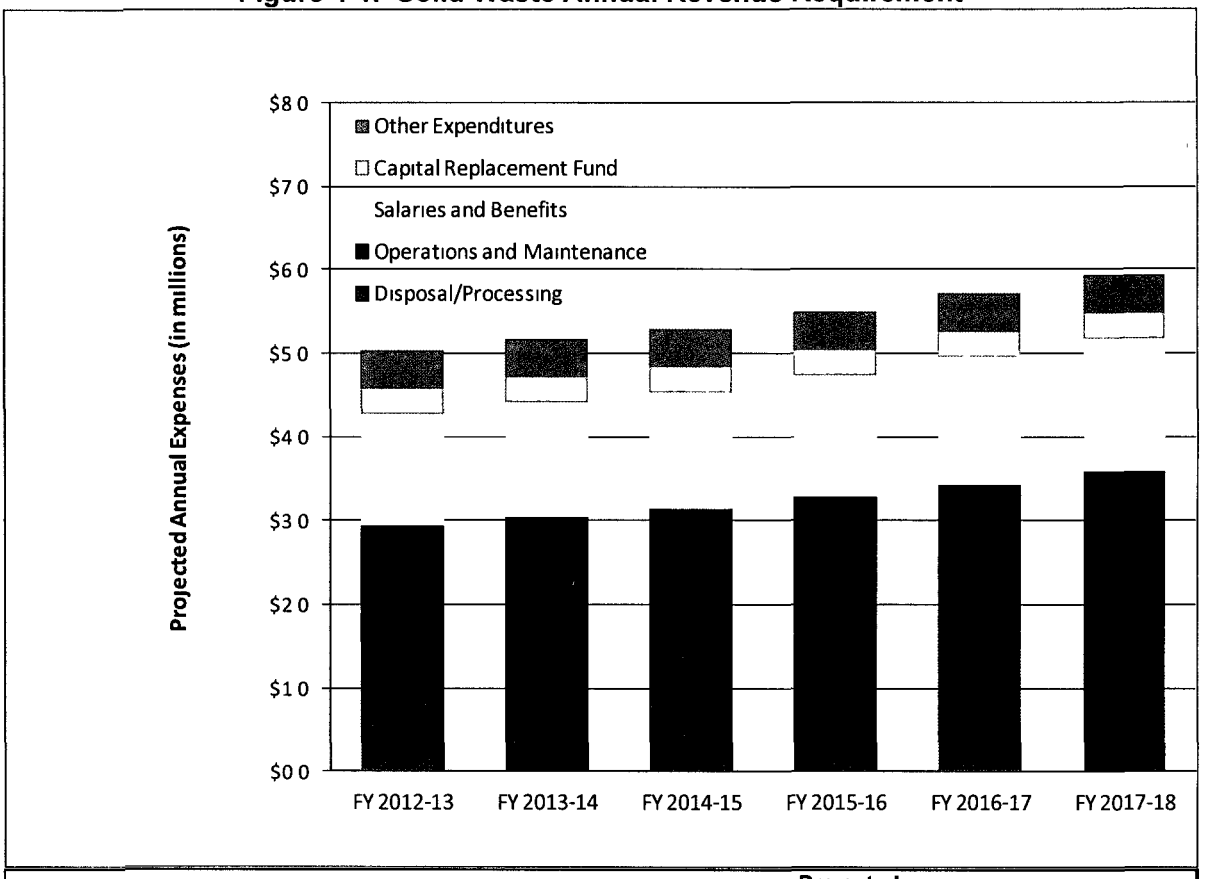
Capital Replacement Fund

The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for collection vehicles. The City plans to fund future vehicle and collection container purchases on a PAYGo basis using a portion of annual rate revenue and available reserves.

Other Expenditures

The other expenditures are comprised of the Solid Waste enterprise's share of the corp yard bond payment, annual OPEB obligations, and annual landfill maintenance expenses related to the City's old landfill located on Virginiatown Road.

Figure 4-1. Solid Waste Annual Revenue Requirement



		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Disposal/Processing	$ 1,555,000	$ 1,587,907	$ 1,621,452	$ 1,655,646	$ 1,690,501	$ 1,726,029
Operations and Maintenance	1,388,022	1,453,466	1,522,846	1,622,597	1,730,781	1,848,161
Salaries and Benefits	1,325,037	1,353,763	1,384,688	1,451,123	1,521,787	1,597,009
Capital Replacement Fund	307,521	194,046	188,213	120,378	39,640	(52,407)
Other Expenditures	462,548	500,268	545,477	599,707	664,806	743,000
Total Revenue Requirment	$ 5,038,128	$ 5,089,450	$ 5,262,675	$ 5,449,451	$ 5,647,516	$ 5,861,792

Figure 4-2 summarizes the projected revenue requirements, revenue from current rates (i.e., without any rate increases), annual surpluses and deficits, and the fund balance before rate increases. **Figure 4-2** also shows the projected revenue increases to offset future deficits so that the solid waste reserves are maintained at an adequate level (see Section 4 3 for discussion on the adequate level of reserves). The rate increases that are projected would become effective July 1 of each year, with the exception of the FY 2013-14 increase which would become effective January 1, 2014 (six months into the fiscal year).

Figure 4-2. Solid Waste Revenue Increases

		Projected				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Revenue Requirement	$5,038,128	$5,089,450	$5,262,675	$5,449,451	$5,647,516	$5,861,792
Revenue from Current Rates	$4,757,964	$4,786,851	$4,815,738	$4,844,625	$4,873,512	$4,902,399
Surplus/(Deficit)	($280,164)	($302,599)	($446,937)	($604,827)	($774,004)	($959,393)
Fund Balance (before increases)	$1,681,814	$797,424	$13,718	($726,432)	($2,016,398)	($3,297,844)
Revenue Increase	0.0%	6.0%	6.0%	5.0%	5.0%	5.0%
Revenue from Increase	$0	$143,606	$595,225	$870,967	$1,163,644	$1,474,188
Fund Balance (after increases)	$1,681,814	$941,389	$753,676	$886,068	$763,215	$959,263

To generate the necessary revenue to maintain the reserve fund balance noted in **Figure 4-2** above, the percent increases noted can be applied across-the-board to all current residential and commercial solid waste service rates. However, it may be necessary to increase residential rates by a different percentage than commercial rates if the City's current rate structure is not designed so that each customer class is paying its proportionate share of the total revenue requirement calculated above. Section 4.3 of this report summarizes the cost of service analysis conducted to apportion the revenue requirement to each customer class (e.g., residential and commercial) and the resulting rate increases.

Operating and Capital Reserve Funds

The revenue increases indicated in **Figure 4-2** are required to offset the City's increased costs and to maintain adequate reserves. Rates must be set so that the fund balance achieves the target balances for the reserve funds. It is the City's practice to maintain two reserve funds for solid waste operations: an operating reserve and a capital replacement reserve.

- **Minimum Balance.** The Minimum Balance is based on the amount of revenue that is needed to provide working capital for month-to-month O&M expenditures. With sufficient working capital, the City can operate without cash flow constraints and without borrowing from the General Fund. At a minimum, we recommend an operating reserve that is based on how frequently customers are billed. This frequency establishes the lag between when the City incurs expenses and when it receives revenue from billings. The City bills its customers monthly. We recommend that, at a minimum, the Operating Reserve equal 1.5 times the bill frequency (or six weeks in the City's case), which is the equivalent of 12.5% of one year's O&M expenditures, which is currently about $300,000. The City's Operating Reserve should never drop below this minimum balance.

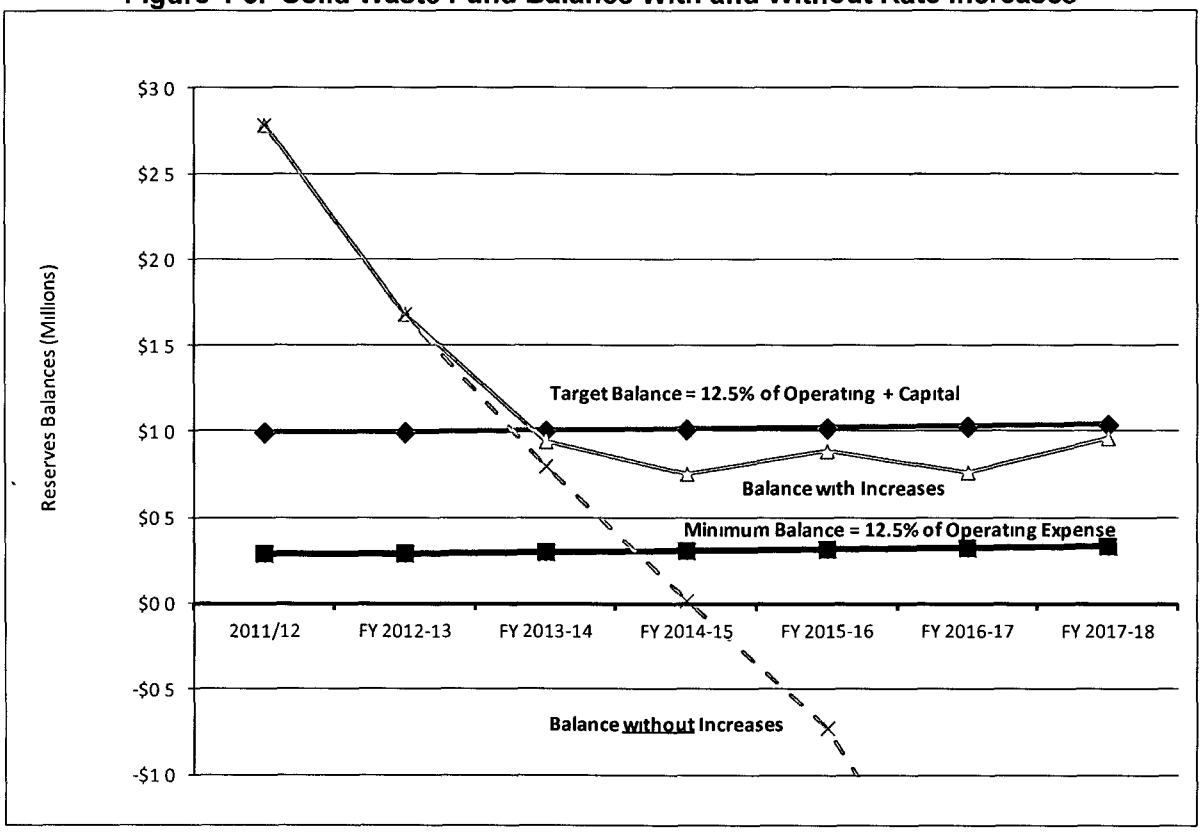
- **Target Balance.** The Target Balance is the Minimum Balance plus an additional cash margin for working capital to purchase collection vehicles and collection containers used by the residents and businesses. The fund balance needs to be sufficient to purchase collection vehicles without delays caused by cash flow limitations, thereby eliminating financing costs. In the City's case, the capital component of the Target Balance is set to 1.25 times the average annual PayGo expenditure, which is about $700,000. This will provide adequate cash flow for the purchase of two or three collection vehicles per year during the planning period (which reflects replacing vehicles after 8-10 year in use, which is the typical useful life of a collection vehicle) and $15,000 per year for container purchases. Therefore, the Target Balance is currently about $1,000,000.

Figure 4-3 shows the combined fund balance for the operating and capital replacement reserves compared with the target balances. The line labeled "Minimum Balance" represents the operating reserve target balance. The line labeled "Target Balance" (diamond symbols) is the sum of the target balances for the operating reserve in the capital replacement reserve.

Figure 4-3 indicates that the fund balance is above the target in FY 2011-12. The combined fund balance drops considerably by FY 2013-14 due to one-time payments to fund accumulating unfunded liabilities (the solid waste enterprises' proportionate share of unfunded other post-employment benefits (OPEB) and corporation yard construction expenses. The reserves had previously been accumulated to accommodate these one-time payments.

With the projected revenue increases, the fund balance will drop to its lowest point in FY 2014-15, approximately 25% below the target balance (but still significantly above the minimum balance) and will be just below the target balance by the end of the planning period, FY 2017-18. In this way, a combination of revenue increases and the use of the current reserve funds cover the increased operating and capital costs that are projected.

Figure 4-3. Solid Waste Fund Balance With and Without Rate Increases



4.3 COST OF SERVICE ANALYSIS

The City's current solid waste rates determine how much of the total revenue requirement is paid by each customer class (e.g., residential and commercial customers). A cost of service analysis determines how much each class should pay based on its respective share of the route labor costs, route vehicle costs, administrative costs, and disposal/processing costs at the WPWMA MRF.

A cost-of-service analysis is a rate-making methodology that apportions the cost of service to the classes of customers in proportion to the benefits received. The methodology first requires the identification of costs by service or function provided (i.e., collection, disposal/processing, billing, etc.). The units of service associated with each function are then determined. Each class is then allocated its share of the services based on the percentage of that service/expense that it requires. This cost-of-service methodology was used in allocating the City's cost of service to its residential and commercial customers.

Figure 4-4 summarizes the proportionate costs and revenues at current rates for each of the City's customer classes (residential and commercial). The overall revenue shortfall for FY 2013-14, based current rates and current customer service levels, is 7.0% (before the recommended 6.0% rate increase and use of reserve funds). Our cost of service

analysis found both customer classes are generating the same 7.0% shortfall; therefore, the City's current rate structure properly apportions the cost of service to each customer class for the benefits received.

Figure 4-4. Solid Waste Cost of Service Analysis

	Budgeted FY 2013-14	Allocation Method	Allocation Percentages Residential	Allocation Percentages Commercial	Allocated Expenses Residential	Allocated Expenses Commercial	Total
Salaries and Benefits - Operations	$1,011,011	Route Labor	71 2%	28 8%	$719,656	$291,355	$1,011,011
Salaries and Benefits - Administrative	$342,752	Accounts	98 1%	1 9%	$336,231	$6,521	$342,752
Operating Costs							
50101 Office Expense	674	Accounts	98 1%	1 9%	$661	$13	674
50111 Insurance	21,267	Routes	82 4%	17 6%	$17,529	$3,739	21,267
50140 Materials / Supplies	71,572	Routes	82 4%	17 6%	$58,990	$12,582	71,572
50150 Fuel & Oil	192,080	Routes	82 4%	17 6%	$158,314	$33,766	192,080
50190 Clothing	9,570	Routes	82 4%	17 6%	$7,887	$1,682	9,570
50220 Advertising	15,150	Accounts	98 1%	1 9%	$14,862	$288	15,150
50250 Communications	6,606	Routes	82 4%	17 6%	$5,445	$1,161	6,606
50270 Equipment Maintenance	51,500	Routes	82 4%	17 6%	$42,447	$9,053	51,500
50320 Taxes	103	Routes	82 4%	17 6%	$85	$18	103
50350 Lease Expense	100,000	Accounts	98 1%	1 9%	$98,097	$1,903	100,000
50400 Professional Services	236,008	Accounts	98 1%	1 9%	$231,518	$4,490	236,008
50500 Membership / Dues	657	Accounts	98 1%	1 9%	$644	$12	657
50540 Training	4,893	Routes	82 4%	17 6%	$4,032	$860	4,893
50710 Regulatory Fees	22,454	Routes	82 4%	17 6%	$18,507	$3,947	22,454
57305 Disposal Fees	1,587,907	Tonnage	76 0%	24 0%	$1,207,372	$380,535	1,587,907
60000 Depreciation	33,987	Routes	82 4%	17 6%	$28,012	$5,975	33,987
80050 Equipment	5,150	Routes	82 4%	17 6%	$4,245	$905	5,150
Subtotal, Operating Costs	$2,359,577				$1,898,648	$460,929	$2,359,577
Non-Operating Costs							
65100 Cost Allocation - General Fund	430,814	Accounts	98 1%	1 9%	$422,617	$8,197	430,814
65610 Cost Allocation - Fleet	250,983	Routes	82 4%	17 6%	$206,862	$44,120	250,983
Subtotal, Non-Operating	$681,796				$629,479	$52,317	$681,796
Total Op and Non-Op Expens	**$4,395,136**				**$3,584,014**	**$811,122**	**$4,395,136**
Transfers To/(From) Reserves							
Capital Replacement Fund (721)	194,046	Routes	82 4%	17 6%	$159,935	$34,111	194,046
Corp Yard/City Hall Bond Pmt	159,713	Accounts	98 1%	1 9%	$156,674	$3,039	159,713
OPEB Fund	214,376	Route Labor	71 2%	28 8%	$152,596	$61,779	214,376
Landfill Maintenance Costs	126,179	Tonnage	76 0%	24 0%	$95,941	$30,238	126,179
Total Transfers	**694,314**				**565,146**	**$129,167**	**694,314**
Net Revenue Requirement	**$5,089,450**		**Allocated Expenses**		**$4,149,161**	**$940,290**	**$5,089,450**
			Annual Revenue at Current Rates		$3,898,899	$882,974	
			Less Bad Debt		($19,494)	($4,415)	
			Net Revenue		**$3,879,405**	**$878,559**	**$4,757,964**
			$ Surplus/(Shortfall)		**($269,756)**	**($61,730)**	**($331,486)**
			% Surplus/(Shortfall)		-7 0%	-7 0%	-7 0%

4.4 RATE DESIGN AND PROJECTED RATE INCREASES

The rate design derives rates that will generate the appropriate amount of revenue (i.e., each customer classes' proportionate share of the revenue requirement) for each customer class. As shown in Section 4.3, the City's current rate structure is consistent with industry standards and satisfies the legal rate-making objectives; therefore, the

City should apply the following recommended rate increases across-the-board, without rate structure changes, to all existing solid waste rates:

- FY 2013-14 (effective 1/1/14): 6.0%
- FY 2014-15 (effective 7/1/15): 6.0%
- FY 2015-16 (effective 7/1/15): 5.0%
- FY 2016-17 (effective 7/1/15): 5.0%
- FY 2017-18 (effective 7/1/15): 5.0%

With these increases, rates should cover ongoing contractual and operating cost increases and to maintain adequate reserves through FY2017-18. Each year, prior to implementing the rate increases, City staff should confirm the need for the rate increase. The City can implement a lower rate increase, if conditions warrant, without going through the Proposition 218 notification process. If higher rate increases are needed that exceed the adopted rates, the City will need to initiate a new Proposition 218 proceeding.

The recommended annual increases and corresponding residential and commercial solid waste rates are summarized in **Figure 4-5.**

Figure 4-5. Solid Waste Monthly Rates - Current and Projected

Customer Class	Current	Planning Period FY 2013-14 eff 1/1/14	FY 2014-15 eff 7/1/14	FY 2015-16 eff 7/1/15	FY 2016-17 eff 7/1/16	FY 2017-18 eff 7/1/17
Rate Increase		6 0%	6 0%	5.0%	5 0%	5 0%
Residential[1]	$19 98	$21 18	$22 45	$23 57	$24 75	$26 00
Commercial[2]						
90 gal Can, 1x/wk	$24 01	$25 45	$26 98	$28 33	$29 74	$31 23
90 gal Can, 2x/wk	$46 26	$49 04	$51 98	$54 52	$57 31	$60 17
90 gal Can, 3x/wk	$68 51	$72 62	$76 98	$80 83	$84 87	$89 11
90 gal Can, 4x/wk	$90 76	$96 21	$101 98	$107 08	$112 43	$118 05
3-yard Bin Pickup[3]	$26 17	$27 74	$29 40	$30 87	$32 42	$34 04
4-yard Bin Pickup[3]	$34 17	$36 22	$38 39	$40 31	$42 33	$44 45
5-yard Bin Pickup[3]	$42 17	$44 70	$47 38	$49 75	$52 24	$54 85
3-yard Bin Monthly Lease	$21 17	$22 44	$23 79	$24 98	$26 22	$27 54
4-yard Bin Monthly Lease	$27 19	$28 82	$30 55	$32 08	$33 68	$35 37
5-yard Bin Monthly Lease	$34 17	$36 22	$38 39	$40 31	$42 33	$44 45

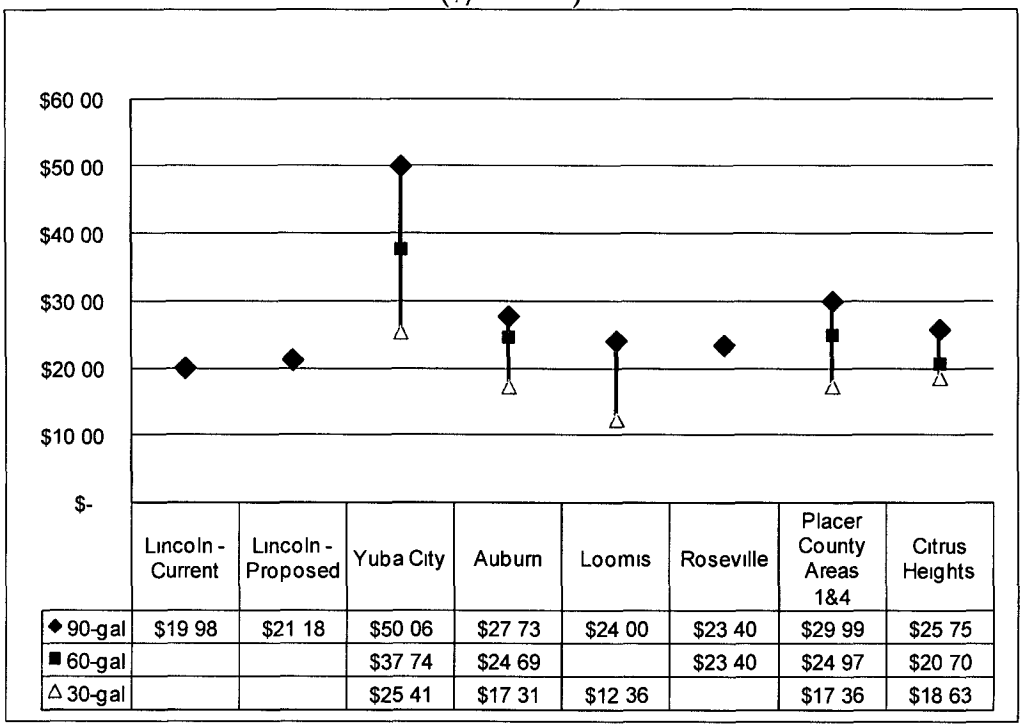
[1]Rate provides for weekly collection of one 90-gal solid waste container and one green waste container
[2]Rate provides for solid waste collection, commercial rate also applies to multi-family complexes sharing containers
[3]Rate provides for collection one-time per week, Rate for multiple collections per week is the stated rate times the number of regularly scheduled collections per week

4.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figure 4-6 compares the current and proposed rate for the City's residential customers to some of the City's neighboring agencies. As shown in the figure, some agencies have multiple residential rates based on the size of collection container (e.g., 90-gallon, 60-

gallon). The City's proposed rate, effective 1/1/14, remains the lowest for 90-gallon service when compared to the neighboring agencies. **Note:** Figure 4-5 reflects other agencies' current rates. These rates may change during the forthcoming year.

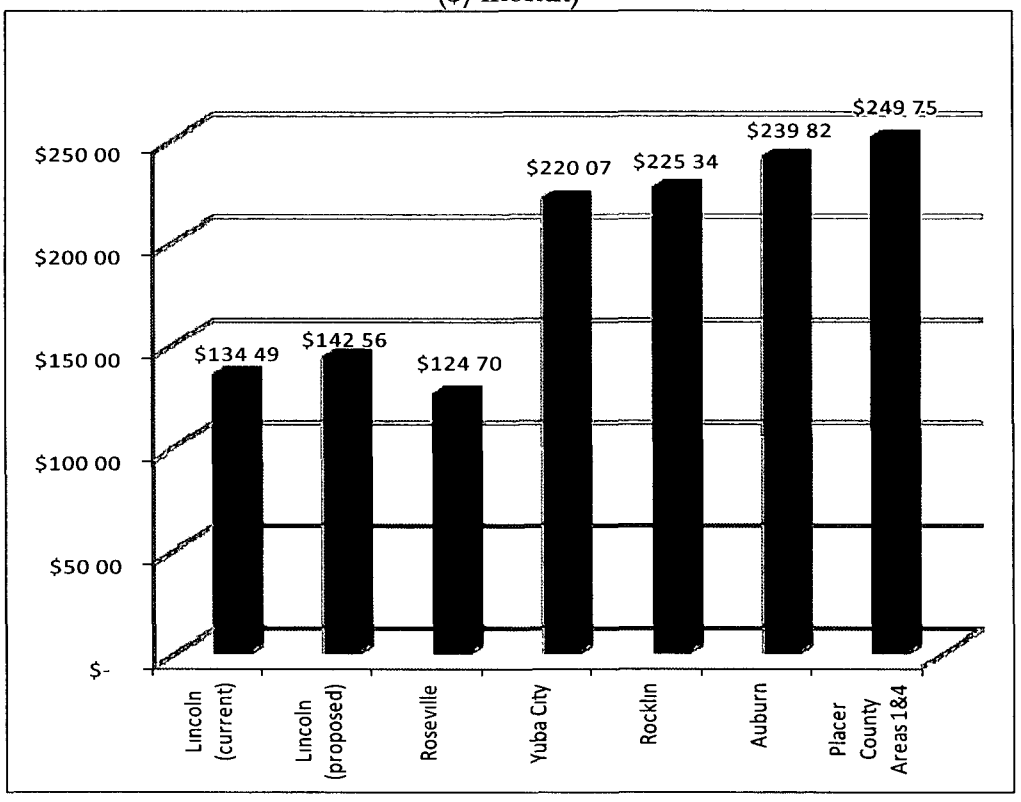
Figure 4-6. Solid Waste Residential Rate Comparison
($/month)



	Lincoln - Current	Lincoln - Proposed	Yuba City	Auburn	Loomis	Roseville	Placer County Areas 1&4	Citrus Heights
◆ 90-gal	$19 98	$21 18	$50 06	$27 73	$24 00	$23 40	$29 99	$25 75
■ 60-gal			$37 74	$24 69		$23 40	$24 97	$20 70
△ 30-gal			$25 41	$17 31	$12 36		$17 36	$18 63

Figure 4-7 compares the City's current and proposed commercial rate (for the most common commercial service level, 3 cubic yards - 1x/week) to some of the City's neighboring agencies. The City's proposed rate remains much less than most of the neighboring agencies and is slightly higher than the rate changed in Roseville. **Note:** Figure 4-6 reflects other agencies' current rates. These rates may change during the forthcoming year.

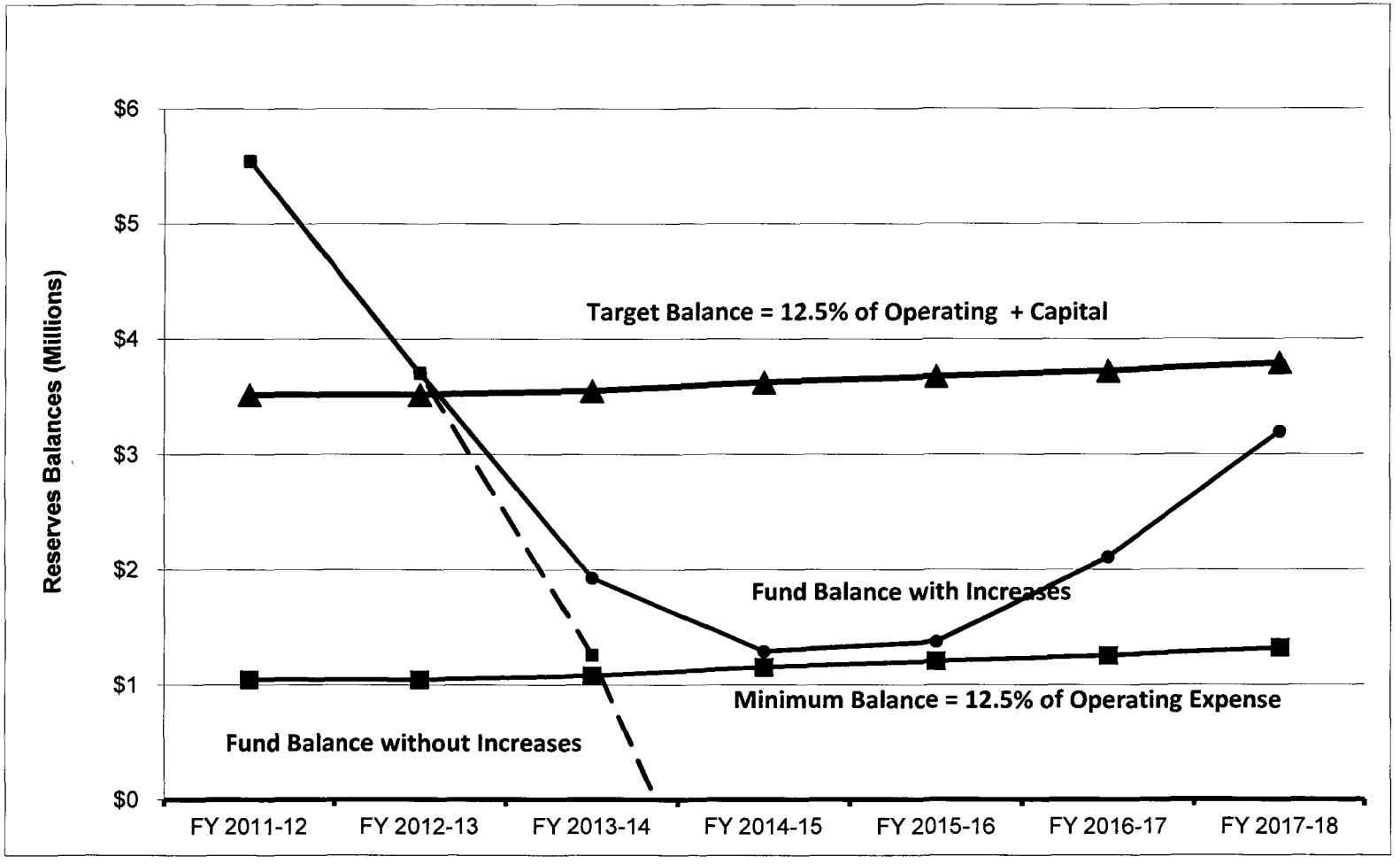
Figure 4-7. Solid Waste Commercial Rate Comparison (3 CY – 1x/wk)
($/month)

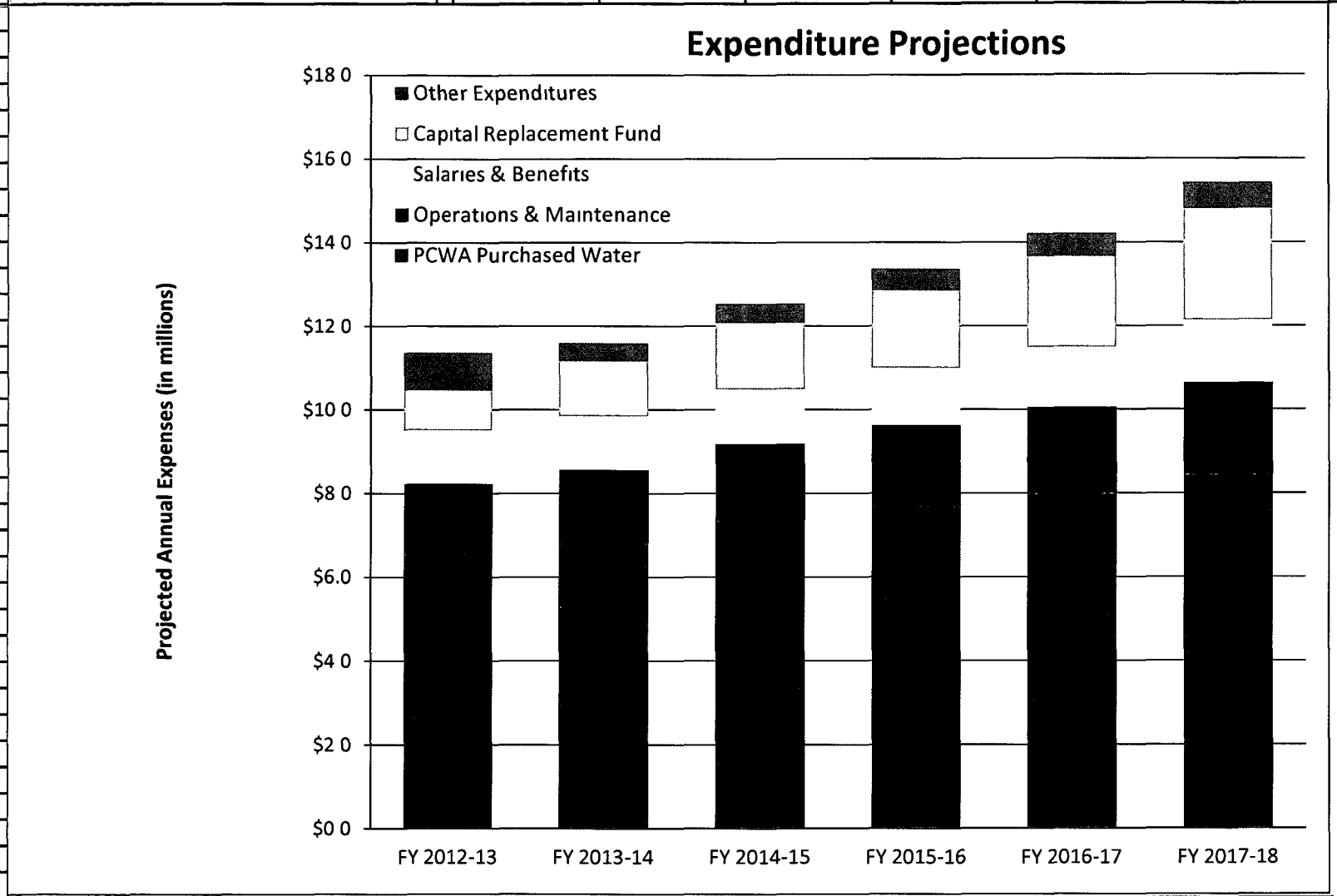


APPENDIX A. WATER RATE MODEL

City of Lincoln
Water Rate Study
Table 1A. Summary

		Projected					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
Increase in Revenue from rates	0%	15%	15%	15%	11%	11%	To Tables 3, 4





		Projected					
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
PCWA Purchased Water	$ 6,564,093	$ 6,824,255	$ 7,362,733	$ 7,698,535	$ 8,004,677	$ 8,454,006
Operations & Maintenance	1,671,241	1,741,954	1,816,292	1,928,473	2,050,049	2,181,894
Salaries & Benefits	1,278,924	1,286,826	1,313,415	1,374,412	1,439,165	1,507,959
Capital Replacement Fund	947,369	1,307,627	1,575,314	1,839,760	2,163,028	2,656,819
Other Expenditures	905,532	431,451	470,491	523,925	560,061	625,067
Total Revenue Requirment	$11,367,158	$11,592,113	$12,538,245	$13,365,105	$14,216,978	$15,425,745

	A	B	C	D	E	F	G	H	I
94									
95				Projected					
96	**Expenditures**		**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	
97	Revenue Requirement		$11,367,158	$11,592,113	$12,538,245	$13,365,105	$14,216,978	$15,425,745	From Table 2
98	Revenue from Current Rates		$8,863,547	$8,910,134	$8,956,722	$9,003,310	$9,049,898	$9,096,485	From Table 3
99									
100	Surplus/(Deficit)		($2,503,611)	($2,681,979)	($3,581,523)	($4,361,795)	($5,167,081)	($6,329,260)	From Table 3
101									
102	Fund Balance (before increase)		$3,706,053	$1,258,439	($2,141,160)	($6,611,166)	($12,118,926)	($18,855,856)	From Table 4
103									
104	Revenue Increase		**0.0%**	**15.0%**	**15.0%**	**15.0%**	**11.0%**	**11.0%**	From Above
105	Revenue from Increases		$0	$668,260	$2,759,790	$4,553,268	$6,237,935	$7,817,644	From Table 3
106									
107	Fund Balance (after increase)		$3,706,053	$1,928,370	$1,289,366	$1,373,914	$2,108,055	$3,196,465	From Table 4
108									

City of Lincoln
Water Rate Study
Table 1B General

			Projected						
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Source	Note
a	Interest on Fund Balance	0 25%	0 25%	0 25%	0 50%	1 00%	1 00%	Estimate	To Table 4
b	General inflation	Per Budget	3 00%	3 00%	3 00%	3 00%	3 00%	Per Public Works 5 Year Projections	To Table 2
c	Labor/Benefit Increases	PW Budget	0 62%	2 07%	4 64%	4 71%	4 78%	Per Public Works 5 Year Projections	To Table 2
d	Increase in PCWA Commodity Rates- Tier 1	Provided	0 0%	6 0%	2 8%	3 0%	3 0%	New PCWA Rates effective 3/1/14 and 3/1/15, incr estimated after	From Table 6
e	Increase in PCWA Commodity Rates- Tier 2	Provided	0 0%	0 0%	0 0%	0 0%	0 0%		From Table 6
f	Increase in PCWA Service Charge	Provided	0 0%	11 3%	4 4%	3 0%	3 0%	New PCWA Rates effective 3/1/14 and 3/1/15, incr estimated after	From Table 6
g	Increase in PCWA Replace/Renewal	Provided	0 0%	13 5%	5 0%	3 0%	3 0%	New PCWA Rates effective 3/1/14 and 3/1/15, incr estimated after	From Table 6
h	Growth in EDU - During Year	100	100	100	100	100	100	Estimate - Per City	To Table 6
i	Total EDU's (End of year)	19,026	19,126	19,226	19,326	19,426	19,526	Based upon June 2012 data	To Table 6
j	% Growth in EDU's	1%	1%	1%	1%	1%	1%	Calculated	To Table 6
k	Water Loss	10%	10%	10%	10%	10%	10%	Per Public Works Dept	To Table 6
l	Construction Water	3%	3%	3%	3%	3%	3%	Per Public Works Dept	To Table 6
m	Groundwater Prodcution	10%	10%	10%	10%	10%	10%	Per Public Works Dept	To Table 6
n	Recycled Water - % of total supply	4%	4%	4%	4%	4%	4%	Per Public Works Dept	To Table 7
o	Construction Cost Inflation	Per Budget	2 55%	2 55%	2 55%	2 55%	2 55%	ENR Construction Cost Index, SF, 5-yr average	To Table 5
p	Bad Debt Expense	1%	1%	1%	1%	1%	1%	Estimate - Per City	To Table 3
q	Incr in Utilities (due to GW Production)	Per Budget	0%	0%	0%	0%	0%	Estimate - Per City	To Table 2

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City of Lincoln
Water Rate Study
Table 2. Revenue Requirements

		Table 1b Factors	Budgeted FY 2012-13	Projected FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
Purchased Water									
50221	Placer County Water Agency		$ 6,288,227	$ 6,505,338	$ 6,994,056	$ 7,272,345	$ 7,529,152	$ 7,923,449	*From Table 6*
50221	Recycled Water		275,865	318,917	368,677	426,190	475,525	530,557	*From Table 6*
	Subtotal, Purchased Water		$ 6,564,093	$ 6,824,255	$ 7,362,733	$ 7,698,535	$ 8,004,677	$ 8,454,006	
Salaries and Benefits									
40000	Full Time		$ 776,581	$ 776,581	$ 776,581	$ 799,878	$ 823,874	$ 848,591	
40500	On-Call		21,525	21,525	21,525	22,171	22,836	23,521	
43000	Part-Time		8,053	8,053	8,053	8,295	8,544	8,800	
44000	Overtime		26,650	26,650	26,650	27,450	28,273	29,121	
45000	Compensated Absenses		-	-	-	-	-	-	
48050	Retirement		131,490	131,906	141,140	155,254	170,779	187,857	
48060	Workers' Comp		34,773	34,599	34,599	35,637	36,706	37,807	
48070	Medical / Dental / Life Ins		200,978	216,949	234,305	253,049	273,293	295,156	
48080	SUI		7,575	7,445	7,445	7,669	7,899	8,136	
48085	SDI Employer		5,573	-	-	-	-	-	
48090	FICA		65,726	63,118	63,118	65,011	66,961	68,970	
48095	Deferred Compensation		-	-	-	-	-	-	
	Subtotal, Salaries and Benefits	c	$ 1,278,924	$ 1,286,826	$ 1,313,415	$ 1,374,412	$ 1,439,165	$ 1,507,959	
Operating Costs									
50101	Office Expense		$ 917	$ 926	$ 935	$ 945	$ 954	$ 964	
50150	Fuel & Oil		25,200	27,468	29,940	32,635	35,572	38,773	
50310	Utilities		218,082	224,624	231,363	238,304	245,453	252,817	*Includes Increase in GW Production*
50190	Clothing		4,550	4,596	4,641	4,688	4,735	4,782	
50220	Advertising		1,000	1,010	1,020	1,030	1,041	1,051	
80050	Equipment		-	-	-	-	-	-	
80060	Vehicles		-	-	-	-	-	-	
50270	Equipment Maintenance		2,000	2,060	2,122	2,185	2,251	2,319	
50280	Building Maintenance		7,500	7,725	7,957	8,195	8,441	8,695	
50140	Materials and Supplies		249,250	256,728	264,429	272,362	280,533	288,949	
50250	Communications		3,444	3,547	3,654	3,763	3,876	3,993	
	Subtotal, Operations		$ 511,943	$ 528,684	$ 546,062	$ 564,108	$ 582,856	$ 602,342	
	Total O&M Expenses		*$ 8,354,959*	*$ 8,639,764*	*$ 9,222,210*	*$ 9,637,056*	*$ 10,026,698*	*$ 10,564,306*	
Debt Service									
	Debt Service		$ 61,674	$ 50,174	$ 44,124	$ 43,224	$ 13,888	$ -	*From Table 7*
Non-Operating Expenses									
50710	Regulatory fees		$ 14,652	$ 15,092	$ 15,544	$ 16,011	$ 16,491	$ 16,986	
50500	Membership Dues		51,000	51,510	52,025	52,545	53,071	53,602	
50350	Lease Expense		100,000	100,000	100,000	100,000	100,000	100,000	
50400	Professional Services		296,947	305,855	315,031	324,482	334,216	344,243	
50111	Insurance		15,994	17,114	18,312	19,593	20,965	22,432	
50530	Travel/Conf/Mtg		-	-	-	-	-	-	
50540	Training		3,000	3,090	3,183	3,278	3,377	3,478	
65100	Cost Allocation - General Fund		690,384	731,807	775,715	853,287	938,616	1,032,477	
65610	Cost Allocation - Fleet		90,342	94,859	99,602	107,570	116,176	125,470	
	Total Non-Operating O&M Expenses		$ 1,262,319	$ 1,319,327	$ 1,379,412	$ 1,476,767	$ 1,582,911	$ 1,698,688	

	A	B	C	E	F	G	H	I	J	K
1	**City of Lincoln**									
2	**Water Rate Study**									
3	**Table 2 Revenue Requirements**									
4										
5			**Table 1b**	**Budgeted**			**Projected**			
6			**Factors**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
52	**Non-Operating Revenues**									
53	35020	Account Processing Fees	b	(24,934)	(25,682)	(26,452)	(27,246)	(28,063)	(28,905)	
54	38100	Reconnection Charges	b	(56,329)	(58,019)	(59,759)	(61,552)	(63,399)	(65,301)	
55	35012	Prepaid WCC Standby Charges	b	0	0	0	0	0	0	
56	39000	Miscellaneous Revenue	b	(1,849)	(1,849)	(1,849)	(1,849)	(1,849)	(1,849)	
57	35015	Construction Water Sales	I	(12,503)	(12,878)	(13,264)	(13,662)	(14,072)	(14,494)	
58	35035	Const Water - Minimum	b	(1,812)	(1,866)	(1,922)	(1,980)	(2,039)	(2,101)	
59	35040	Const Water - Meter Rental	b	(5,594)	(5,762)	(5,935)	(6,113)	(6,296)	(6,485)	
60		Total Non- Operating Revenues		($103,021)	($106,056)	($109,182)	($112,402)	($115,719)	($119,135)	
61	**Transfers To/(From) Reserves**									
62	Transfer Out			500,000	-	-	-	-	-	*From Budget - One Time expense per City*
63	Corp Yard/City Hall Bond Pmt (#915 & #970)			161,324	161,324	161,324	161,324	161,324	161,324	*From Budget - Water's share of lease exp*
64	Operating Fund 710			-	-	-	-	-	-	*From Table 4*
65	Capital Improvement Fund 711			947,369	1,307,627	1,575,314	1,839,760	2,163,028	2,656,819	*From Table 4*
66	OPEB Fund			182,533	219,953	265,043	319,377	384,849	463,743	*From Table 4*
67		Total Transfers		$ 1,791,226	$ 1,688,904	$ 2,001,681	$ 2,320,461	$ 2,709,201	$ 3,281,886	
68	**Revenue Requirements**			**$ 11,367,158**	**$ 11,592,113**	**$ 12,538,245**	**$ 13,365,105**	**$ 14,216,978**	**$ 15,425,745**	***To Table 3***
69		Annual Percentage Change		***28%***	***2%***	***8%***	***7%***	***6%***	***9%***	
70		Cummulative Increase		***0%***	***2%***	***10%***	***16%***	***21%***	***29%***	
71		Percent of S&B to total Rev Req't		27%	27%	25%	24%	23%	22%	
72										
73	Source City of Lincoln Public Works 5 year Budget Projection Water Operations (FILE Utilities GL with HFH Summary - 8 xls)									
74										

	A	B	C	D	E	F	G	H	I	J	K
1	**City of Lincoln**										
2	**Water Rate Study**										
3	**Table 3 Revenue Increases**										
4											
5			# Mos	Table 1B				Projected			
6			in 1st FY	Factor	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
7											
8	**Without Rate Increases**										
9	Revenue from Current Rates			1	$8,953,077	$9,000,136	$9,047,194	$9,094,252	$9,141,311	$9,188,369	From Table 8
10	Bad Debt Expense				($89,531)	($90,001)	($90,472)	($90,943)	($91,413)	($91,884)	Assumption p , table 1B
11	Net Rate Revenue				$8,863,547	$8,910,134	$8,956,722	$9,003,310	$9,049,898	$9,096,485	
12	Net Revenue Requirements				($11,367,158)	($11,592,113)	($12,538,245)	($13,365,105)	($14,216,978)	($15,425,745)	From Table 2
13	**Surplus/(Deficit) before rate increase**				**($2,503,611)**	**($2,681,979)**	**($3,581,523)**	**($4,361,795)**	**($5,167,081)**	**($6,329,260)**	
14											
15	***With Rate Increase***										
16	**Increase in Revenue from rates**				**0.0%**	**15.0%**	**15.0%**	**15.0%**	**11.0%**	**11.0%**	From Table 1A
17	*Cummulative Increase*					*7.5%*	*29.5%*	*49.1%*	*67.2%*	*84.1%*	
18											
19	**Net Rate Revenue (from current rates)**				$8,863,547	$8,910,134	$8,956,722	$9,003,310	$9,049,898	$9,096,485	From Above
20	**Revenue from Rate Increases**										
21		FY 12-13 (effective 7/1/12)	11		$0	$0	$0	$0	$0	$0	
22		FY 13-14 (effective 1/1/14)	6			$668,260	$1,343,508	$1,350,496	$1,357,485	$1,364,473	
23		FY 14-15 (effective 7/1/14)	11				$1,416,282	$1,553,071	$1,561,107	$1,569,144	
24		FY 15-16 (effective 7/1/15)	11					$1,649,700	$1,795,273	$1,804,515	
25		FY 16-17 (effective 7/1/16)	11						$1,524,069	$1,521,808	
26		FY 17-18 (effective 7/1/17)	11							$1,557,704	
27	Subtotal - Revenue from Rate Increases				$ -	$ 668,260	$ 2,759,790	$ 4,553,268	$ 6,237,935	$ 7,817,644	
28	**Total Rate Revenue**				$8,863,547	$9,578,394	$11,716,512	$13,556,577	$15,287,832	$16,914,129	
29	Net Revenue Requirements				($11,367,158)	($11,592,113)	($12,538,245)	($13,365,105)	($14,216,978)	($15,425,745)	
30	**Transfer to/(from) Operating Fund**				**($2,503,611)**	**($2,013,719)**	**($821,733)**	**$191,472**	**$1,070,854**	**$1,488,384**	To Table 4
31											
32											

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Water Rate Study**									
3	**Table 4. Reserve Funds**									
4										
5		**Table 1b**					**Projected**			
6		**factor**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
7										
8	**Water Operations Fund (710)**									
9	**Revenue Increases**			**0%**	**15%**	**15%**	**15%**	**11%**	**11%**	From Table 1A
10	*Cummulative Increase*			*0%*	*7%*	*30%*	*49%*	*67%*	*84%*	*From Table 3*
11										
12	Beginning Balance			$ 3,407,166	$ 905,813	$ 693,825	$ 322,897	$ 515,656	$ 1,590,476	
13	Surplus/(Deficit)			(2,503,611)	(2,013,719)	(821,733)	191,472	1,070,854	1,488,384	From Table 3
14	***Transfers (To)/From:***									
15	Revenue Requirements									To Table 2
16	Capital Improvement (711)			-	2,200,000	450,000	-	-	-	From Below
17	OPEB Reserve				($400,000)					To Below
18	Subtotal			$ 903,555	$ 692,095	$ 322,092	$ 514,370	$ 1,586,509	$ 3,078,860	
19	Estimated interest earnings	a		2,259	1,730	805	1,286	3,966	7,697	
20	**Ending Balance**		$3,407,166	**$905,813**	**$693,825**	**$322,897**	**$515,656**	**$1,590,476**	**$3,086,557**	
21	*Minimum Target Balance (6 5 Weeks of Revenue Requirement)*			*$ 1,044,370*	*$ 1,079,971*	*$ 1,152,776*	*$ 1,204,632*	*$ 1,253,337*	*$ 1,320,538*	
22										
23										
24	**Water Capital Replacement Fund (711)**									
25	Beginning Balance			$ 2,138,887	$ 2,800,239	$ 1,234,545	$ 966,469	$ 858,258	$ 517,579	
26	***Expenditures***									
27	Water Well Improvements			(125,000)	(125,000)	(125,000)	(125,000)	(125,000)	(125,000)	
28	Materials / Supplies			(148,000)	-	(148,000)	(152,440)	(157,013)	(161,724)	
29	Professional Services			(20,000)	-	(20,000)	(20,600)	(21,218)	(21,855)	
30	Annual Depreciation			-	(551,400)	(1,102,800)	(1,654,200)	(2,205,600)	(2,757,000)	
31	Subtotal, Expenditures			(293,000)	(676,400)	(1,395,800)	(1,952,240)	(2,508,831)	(3,065,578)	
32	***Transfers (To)/From:***									
33	Revenue Requirements			947,369	1,307,627	1,575,314	1,839,760	2,163,028	2,656,819	To Table 2
34	Operations Fund 710			-	(2,200,000)	(450,000)	-	-	-	To Above
35	Subtotal, Transfers			947,369	(892,373)	1,125,314	1,839,760	2,163,028	2,656,819	
36	Fund Subtotal			2,793,256	1,231,466	964,059	853,988	512,455	108,820	
37	Estimated interest earnings	a		6,983	3,079	2,410	4,270	5,125	1,088	
38	**Ending Balance**		$2,138,887	**$2,800,239**	**$1,234,545**	**$966,469**	**$858,258**	**$517,579**	**$109,908**	
39	*Target Balance (2 X Average Annual CIP budget)*			*$ 2,472,962*	*$ 2,472,962*	*$ 2,472,962*	*$ 2,472,962*	*$ 2,472,962*	*$ 2,472,962*	
40										
41	**OPEB Trust**									
42	Beginning Balance			$ -	$ 182,990	$ 804,950	$ 1,072,668	$ 1,395,525	$ 1,784,825	
43	***Transfers (To)/From:***									
44	Operations Fund 710			$ -	$ 400,000	$ -	$ -	$ -	$ -	From Above
45	Revenue Requirements			182,533	219,953	265,043	319,377	384,849	463,743	To Table 2
46	Subtotal			$ 182,533	$ 802,942	$ 1,069,993	$ 1,392,045	$ 1,780,374	$ 2,248,568	
47	Estimated interest earnings			456	2,007	2,675	3,480	4,451	5,621	
48	**Ending Balance**		$0	**$ 182,990**	**$ 804,950**	**$ 1,072,668**	**$ 1,395,525**	**$ 1,784,825**	**$ 2,254,190**	
49	*Target Balance (Based on Cumulative Projected Liabilities)*			*$ 570,970*	*$ 790,923*	*$ 1,055,966*	*$ 1,375,343*	*$ 1,760,192*	*$ 2,223,935*	

City of Lincoln

Water Rate Study

Table 5. Capital Improvement Program

			Projected						
Water Capital Replacement (711)	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Total**	
131 New Water Wells	$0	$0	$0	$0	$0	$0	$0	
134 Backflow Prevention Devices	$0	$0	$0	$0	$0	$0	$0	
135 Water Main Replacement	$0	$0	$345,000	$345,000	$345,000	$345,000	$1,380,000	
137 Water Valve Replacement	$0	$0	$0	$0	$0	$0	$0	
138 Fire Hydrant Replacement	$0	$0	$0	$0	$0	$0	$0	
140 Water Meter Replacement - Residential	$0	$0	$0	$0	$0	$0	$0	
147 Water Well Improvements	$125,000	$128,750	$0	$0	$0	$0	$253,750	
205 Water Service Line Replacement	$0	$0	$0	$0	$0	$0	$0	
306 Water Meter Replacement - Non-Residential	$0	$0	$0	$0	$0	$0	$0	
309 N Street Project	$0	$0	$0	$0	$0	$0	$0	
Annual Depreciation	$0						$0	
Corporation Yard/City Hall Allocation							$0	
Other Projects	$0	$0	$0	$0	$0	$0	$0	
Total (711) - cash funded	$125,000	$128,750	$345,000	$345,000	$345,000	$345,000	$1,633,750	
Construction Cost Inflation		2 6%	5 2%	7 8%	10 6%	13 4%		Table 1B, Factor z
Inflated Total	**$125,000**	**$132,033**	**$362,819**	**$372,071**	**$381,559**	**$391,289**	**$1,764,772**	To Table 4

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Water Rate Study**							
3	**Table 6 - Pass-Through Expenses (Water Purchases)**			*Conversion Factor (Gal/AF)*		325 851 43		
4				Conversion Factor (Gal/HCF)		748 05		
5								
6		Estimated			Projected			
7		**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
8	**EDU**							
9	Demand/EDU (#gals/day)	393 17	393 17	393 17	393 17	393 17	393 17	*From Table 10 EDU w/consumption in 2011-12*
10	Projected Increase in EDU	100	100	100	100	100	100	From Table 1B Assumption **m**
11	Total Projected EDU	19 026	19 126	19 226	19 326	19,426	19 526	From Table 1B Assumption **n**
12	Average EDU during year	18 976	19 076	19 176	19 276	19 376	19 476	Projected EDU less 50% of annual growth
13								
14	**Demand**							
15	Gallons	2 723 145 501	2,737,496 351	2 751 847 200	2,766,198 050	2 780 548,900	2 794 899 750	*Row 9 * Row 12 * 365*
16	Acre-Feet	8 357	8 401	8,445	8 489	8,533	8 577	
17	HCF	3,640,316	3 659,500	3 678 684	3,697,869	3 717 053	3 736 237	
18	*(Annual change - %)*		*0 5%*	*0 5%*	*0 5%*	*0 5%*	*0 5%*	
19	(Annual change - HCF)		19 184	19 184	19 184	19,184	19 184	
20								
21	Construction Water	3 0%	3 0%	3 0%	3 0%	3 0%	3 0%	To Table 1B, *Assumption* **q**
22	Gallons	93 901 569	93 901 569	93,901 569	93 901 569	93 901 569	93 901,569	
23	Acre-Feet	288	290	291	293	294	296	
24	HCF	125 528	126 190	126 851	127,513	128,174	128 836	
25	*(Annual change - %)*		*0 0%*	*0 0%*	*0 0%*	*0 0%*	*0 0%*	
26	Gallons/EDU under construction	939 016						Basis for Construction Water Gallons projection
27								
28								
29	Water Losses	10 0%	10 0%	10 0%	10 0%	10 0%	10 0%	From Table 1B Assumption **p**
30	Gallons	313 005 230	314,599,769	316 194 308	317 788 847	319,383 385	320 977 924	
31	Acre-Feet	961	966	971	976	981	986	
32	HCF	418 427	420 632	422,837	425 042	427 247	429 453	
33	*(Annual change - %)*		*0 5%*	*0 5%*	*0 5%*	*0 5%*	*0 5%*	
34								
35	**Total Water Requirement (GAL)**	**3,130,052,300**	**3,145,997,689**	**3,161,943,077**	**3,177,888,466**	**3,193,833,854**	**3,209,779,243**	
36	**Total Water Requirement (AF)**	**9,606**	**9,656**	**9,707**	**9,758**	**9,808**	**9,859**	
37	**Total Water Requirement (HCF)**	**4,184,271**	**4,206,322**	**4,228,373**	**4,250,424**	**4,272,475**	**4,294,526**	
38	***(Annual change - %)***		***0 5%***	***0 5%***	***0 5%***	***0 5%***	***0 5%***	
39	**(Annual change - HCF)**		**22,051**	**22,051**	**22,051**	**22,051**	**22,051**	
40								
41	**Supply**							
42	PCWA Wholesale Purchase							
43	Gallons	2 691 844 978	2,705 558,012	2 719 271 046	2 732 984 081	2 746,697 115	2 760 410 149	
44	Acre-Feet	8 261	8 304	8 348	8,392	8 435	8 479	
45	HCF	3 598 473	3 617 437	3,636 401	3 655 364	3 674 328	3,693,292	To Below
46	*(Annual change - %)*		*0 5%*	*0 5%*	*0 5%*	*0 5%*	*0 5%*	
47								
48	Groundwater Production - % of Total	10 0%	10 0%	10 0%	10 0%	10 0%	10 0%	From Table 1B Assumption **r**
49	Gallons	313 005,230	314 599 769	316 194,308	317 788 847	319 383 385	320,977 924	
50	Acre-Feet	961	966	971	976	981	986	
51	HCF	418 427	420,632	422 837	425 042	427 247	429 453	To Table 2
52	*(Annual change - %)*		*0 5%*	*0 5%*	*0 5%*	*0 5%*	*0 5%*	
53								
54	Recycled Water - % of Total	4 0%	4 0%	4 0%	4 0%	4 0%	4 0%	From Table 1B Assumption **s**
55	Gallons	125 202 092	125,839 908	126 477 723	127 115 539	127 753 354	128 391 170	
56	Acre-Feet	384	386	388	390	392	394	
57	HCF	167,371	168 253	169,135	170 017	170 899	171 781	
58	*(Annual change - %)*				*0 5%*	*0 5%*	*0 5%*	
59	**Total Supply**	**3,130,052,300**	**3,145,997,689**	**3,161,943,077**	**3,177,888,466**	**3,193,833,854**	**3,209,779,243**	
60	*Check*	*0*	*0*	*0*	*0*	*0*	*0*	
61								
62	**Costs**							
63	**PCWA Rates/Unit (FY Average Rate)**	*1 Unit = 1 HCF*						
64	First 500 Units/month	$1 11	$1 13	$1 19	$1 22	$1 26	$1 32	Calculated from CY Rates below
65			*2 00%*	*4 90%*	*2 89%*	*3 00%*	*4 70%*	
66	Each Additional Unit/month	$1 34	$1 34	$1 34	$1 34	$1 34	$1 38	Calculated from CY Rates below
67			*0 00%*	*0 00%*	*0 00%*	*0 00%*	*2 67%*	
68	***Purchased Water - PCWA***							
69	*HCF Purchased*	3 598 473	3 617 437	3 636 401	3,655 364	3 674,328	3 693 292	From Above
70	FY Annual Cost							
71	First 4 25M HCF/month	$3 994 305	$4 095 662	$4 319 074	$4 467 221	$4 625 108	$4,867 466	
72	Remaining Units/month	$0	$0	$0	$0	$0	$0	
73	Total	$3 994 305	$4 095,662	$4 319 074	$4 467 221	$4 625 108	$4 867 466	
74	*% change*		*2 5%*	*5 5%*	*3 4%*	*3 5%*	*5 2%*	

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Water Rate Study**							
3	**Table 6 - Pass-Through Expenses (Water Purchases)**			Conversion Factor (Gal/AF)		325,851 43		
4				Conversion Factor (Gal/HCF)		748 05		
5								
6		Estimated			Projected			
7		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
75								
76	PCWA Water Available (no of EDUs)	18,926	19 025	19 124	19 224	19,323	19,423	# of EDUs' worth of capacity Assumption o
77	Gal/Month/EDU	35 000	35,000	35 000	35 000	35 000	35 000	From City of Lincoln
78	Maximum PCWA Water Purchase/Year	7,948,710 000	7,990 489 244	8 032 268 487	8 074 047,731	8 115 826,975	8 157,606 218	
79	Excess Capacity	5,256,865 022	5,284 931 232	5 312 997,441	5 341 063 650	5 369,129 860	5 397,196 069	
80	Excess Capacity as % of PCWA Purchase	195 29%	195 34%	195 38%	195 43%	195 48%	195 52%	
81								
82	*Monthly Service Charge (8" + 18")*							
83	FY Rate/Month	$2 473	$2 566	$2,793	$2 902	$2,989	$3,130	
84	Annual Cost	$29 675	$30 793	$33 513	$34 827	$35 871	$37 557	
85	*% rate increase*		*3 77%*	*8 83%*	*3 92%*	*3 00%*	*4 70%*	
86								
87	*Renewal and Replacement Surcharge*							
88	Rate/EDU/FY- Total	$119 64	$125 04	$138 12	$144 11	$148 43	$155 41	
89	Annual Cost	$2 264 247	$2 378,883	$2 641 469	$2 770,298	$2 868 172	$3,018 425	
90	*% rate increase*		*4 5%*	*10 5%*	*4 3%*	*3 0%*	*4 7%*	
91								
92	**Average Monthly fixed rate costs/EDU**	$10 10	$10 55	$11 66	$12 16	$12 52	$13 11	
93	*% of total PCWA costs*	*36 48%*	*37 04%*	*38 25%*	*38 57%*	*38 57%*	*38 57%*	
94	Average Rate PCWA rate increase/base rate customer		4 50%	10 43%	4 32%	2 99%	4 69%	
95								
96	**Average Monthly variable rate costs/EDU**	$17 59	$17 94	$18 82	$19 36	$19 95	$20 88	
97	*% of total PCWA costs*	*63 52%*	*62 96%*	*61 75%*	*61 43%*	*61 43%*	*61 43%*	2008-09 To Table 2
98	Average Rate PCWA rate increase/base rate customer		2 00%	4 91%	2 89%	3 00%	4 70%	
99								
100	***Average Monthly total rate costs/EDU***	$27 69	$28 49	$30 48	$31 52	$32 47	$34 00	
101	Average Rate PCWA rate increase/base rate customer		2 91%	6 95%	3 44%	3 00%	4 70%	
102								
103	Total FY Payment to PCWA	$6,288 227	$6,505 338	$6 994 056	$7,272 345	$7 529,152	$7 923 449	To Below
104	*% change*		*3 45%*	*7 51%*	*3 98%*	*3 53%*	*5 24%*	
105	Cost/HCF	$1 75	$1 80	$1 92	$1 99	$2 05	$2 15	
106	Cost/Gallon	$0 0023	$0 0024	$0 0026	$0 0027	$0 0027	$0 0029	
107	*% change*		*2 91%*	*6 95%*	*3 44%*	*3 00%*	*4 70%*	
108								
109	***Purchased Water - Recycled***							
110	Average Unit Cost (50% Potable Rate)	$1 65	$1 90	$2 18	$2 51	$2 78	$3 09	From Table 8 increased by rate increase %
111	*% change*		*15 00%*	*15 00%*	*15 00%*	*11 00%*	*11 00%*	
112	HCF Purchased	167 371	168 253	169 135	170 017	170 899	171 781	
113	Recycled water revenue in wastewater	$275 865	$318 917	$368 677	$426 190	$475,525	$530 557	
114								
115	**Cost Summary**							
116	Purchased Water - PCWA	$6 288 227	$6 505,338	$6 994 056	$7,272,345	$7 529 152	$7,923 449	From Above
117	Purchased Water - Recycled	$275 865	$318,917	$368 677	$426 190	$475 525	$530 557	
118	**Total Cost of Purchased Water**	**$6,564,093**	**$6,824,255**	**$7,362,733**	**$7,698,535**	**$8,004,677**	**$8,454,006**	**2012-13 onward To Table 2 - Water Purchases**
119			3 96%	7 89%	4 56%	3 98%	5 61%	
120								
121	**PCWA Rate Conversion to Lincoln FY from PCWA Rate Year**							
122		*Effective March 1 of Calendar Year*						
123	**Usage Charge**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
124	First 4 25M Units/month	$1 11	$1 11	$1 18	$1 21	$1 25	$1 28	PCWA Rates effective through 3/1/15
125	*% rate increase*		*0 0%*	*6 0%*	*2 8%*	*3 0%*	*3 0%*	*Projected % from Table 1B, Assumption t.*
126	Each Additional Unit/month	$1 34	$1 34	$1 34	$1 34	$1 34	$1 34	PCWA Rates effective 3/1/2012
127	*% rate increase*		*0 0%*	*0 0%*	*0 0%*	*0 0%*	*0 0%*	*Projected % from Table 1B, Assumption u*
128								
129	**Monthly Service Charge (8" + 18")**							
130	8 " line	$688 66	$688 66	$766 48	$800 20	$824 21	$848 93	PCWA Rates effective through 3/1/15
131	18 ' line	$1,784 28	$1,784 28	$1,985 91	$2 073 27	$2 135 47	$2 199 54	PCWA Rates effective through 3/1/15
132	Total	$2 472 94	$2 472 94	$2 752 39	$2,873 47	$2,959 68	$3 048 47	
133	*% Rate Increase*		*0 00%*	*11 30%*	*4 40%*	*3 00%*	*3 00%*	*Projected % from Table 1B, Assumption w*
134								
135	**Renewal and Replacement Surcharge**							
136	Rate/EDU/month- Total R&R Surcharge	$9 97	$9 97	$11 32	$11 89	$12 25	$12 61	PCWA Rates effective through 3/1/15
137	Rate/EDU/Cal Yr Total R&R Surcharge	$119 64	$119 64	$135 84	$142 68	$146 96	$151 37	
138	*% Rate Increase*		*0 00%*	*13 54%*	*5 04%*	*3 00%*	*3 00%*	*Projected % from Table 1B, Assumption y*
139								

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Water Rate Study**									
3	**Table 7. Debt Service**									
4										
5							**Projected**			
6			**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
7	**Revenue Refunding Bond**									
8	**Series 2000 - Water**									
9		Principal	$40,000	$30,000	$20,000	$15,000	$15,000			
10		Interest	$6,000	$3,900	$2,400	$1,350	$450			
11			$46,000	$33,900	$22,400	$16,350	$15,450	$0	$0	
12										
13	**Safe Drinking Water (Series 1993 A & B)**									
14		Principal	$19,233	$20,629	$22,125	$23,730	$25,451	$13,410		
15		Interest	$6,326	$7,145	$5,649	$4,044	$2,323	$478		
16			$25,559	$27,774	$27,774	$27,774	$27,774	$13,888	$0	
17										
18										
19	**Total Debt Service**		$71,559	$61,674	$50,174	$44,124	$43,224	$13,888	$0	To Table 2
20										
21										
22	*Source City of Lincoln debt service schedules provided by Steve Ambrose*									

City of Lincoln
Water Rate Study
Table 8 - Current Rate Revenue FY 2011-12

Customer Class	6/30/2012 Accounts[1]	Total Gallons[4]	Base Rate Mo. Rate	Annual Rev.	% Revenue	% Tier Allocation[5]	Gallons 10,000
			Accounts x Rate				
Single-Family	16,270	2,246,112,672	$22 90	$4,470,996	97 1%	65 53%	1,471,977,928
Multi-Family	72	92,120,037	$22 90	$19,786	0 4%	11 50%	10,591,000
Commercial	310	164,439,367	$22 90	$85,188	1 9%	14 98%	24,636,000
Industrial	8	68,501,000	$22 90	$2,198	0 0%	1 03%	705,000
Irrigation	87	141,283,000	$22 90	$23,908	0 5%	6 05%	8,549,000
Outside City[6]	6	2,750,000	$34 35	$2,473	0 1%	22 87%	629,000
Irrigation - City	81	764,000	$0 00	$0	0 0%	25 65%	196,000
TOTALS	**16,834**	**2,715,970,076**	**$22.79**	**$4,604,549**	**100 0%**	**55 87%**	**1,517,283,928**

1 - From Table 10
4 - From Table 9
5 - Tier allocation percentages based on consumption data from Table 9 The percentage shown is the percentage of water in each tier for each account class
6 - By Ordinance No 801b Outside City rates are 150% of in-city rates

Customer Class	Step 1 % Tier Allocation[5]	Gallons 11,000 20,000	Rate/1,000 Gal	Revenue	Step 2 % Tier Allocation[5]	Gallons 21,000 60,000	Rate/1,000 Gal	Revenue
Single-Family	22 37%	502,343,800	$3 53	$1,773,274	10 45%	234,652,944	$3 63	$851,790
Multi-Family	10 18%	9,375,000	$3 53	$33,094	21 43%	19,745,920	$3 63	$71,678
Commercial	9 35%	15,382,000	$3 53	$54,298	21 36%	35,120,303	$3 63	$127,487
Industrial	0 86%	589,000	$3 53	$2,079	2 18%	1,495,000	$3 63	$5,427
Irrigation	5 20%	7,342,000	$3 53	$25,917	16 07%	22,705,000	$3 63	$82,419
Outside City[6]	15 71%	432,000	$5 30	$2,287	31 53%	867,000	$5 45	$4,721
Irrigation - City	14 40%	110,000	$0 00	$0	35 99%	275,000	$0 00	$0
TOTALS		**535,573,800**	**$3 53**	**$1,890,950**		**314,861,167**	**$3 63**	**$1,143,521**

	A	B	C	D	E	F	G	H	I	J	K
1	**City of Lincoln**										
2	**Water Rate Study**										
3	**Table 8 - Current Rate Revenue FY 2011-12**										
4											
39											
40		**Step 3**				**Step 4**					
41	**Customer Class**	**%**	**Gallons**	**Rate/1,000 Gal**	**Revenue**	**%**	**Gallons**	**Rate/1,000 Gal**	**Revenue**		
42	**Low volume Break**	**Tier**	**61,000**			**Tier**	**351,000**				
43	***High Volume Break***	**Allocation[5]**	**350,000**			**Allocation[5]**					
44											
45	Single-Family	1 31%	29,334,000	$3 73	$109,416	0 35%	7,804,000	$3 83	$29,889		
46	Multi-Family	41 35%	38,091,361	$3 73	$142,081	15 54%	14,316,756	$3 83	$54,833		
47	Commercial	38 64%	63,534,764	$3 73	$236,985	15 67%	25,766,300	$3 83	$98,685		
48	Industrial	8 81%	6,032,000	$3 73	$22,499	87 12%	59,680,000	$3 83	$228,574		
49	Irrigation	48 10%	67,952,000	$3 73	$253,461	24 59%	34,735,000	$3 83	$133,035		
50	Outside City[6]	29 89%	822,000	$5 60	$4,599	0 00%	-	$5 75	$0		
51	Irrigation - City	23 95%	183,000	$0 00	$0	0 00%	-	$0 00	$0		
52	**TOTALS**		**205,949,125**	**$3 73**	**$769,041**	**5.24%**	**142,302,056**	**$3 83**	**$545,017**		
53											
54											
55	**Customer Class**	**# Customers**	**Total Consumption**		**Revenue**						**Avg Cost**
56			**Gallons**	**% of Total Gal**	**Base Rate $**	**% of Class Rev.**	**Consumption $**	**% of Class Rev**	**Class Revenue**	**% Total Rev**	**per 1,000**
57	Single-Family	16,270	2,246,112,672	82 700%	$4,470,996	61 794%	$2,764,369	38 206%	$7,235,365	80 814%	$3 22
58	Multi-Family	72	92,120,037	3 392%	$19,786	6 155%	$301,685	93 845%	$321,471	3 591%	$3 49
59	Commercial	310	164,439,367	6 055%	$85,188	14 136%	$517,455	85 864%	$602,643	6 731%	$3 66
60	Industrial	8	68,501,000	2 522%	$2,198	0 843%	$258,580	99 157%	$260,778	2 913%	$3 81
61	Irrigation	87	141,283,000	5 202%	$23,908	4 609%	$494,832	95 391%	$518,740	5 794%	$3 67
62	Outside City[6]	6	2,750,000	0 101%	$2,473	17 565%	$11,607	82 435%	$14,081	0 157%	$5 12
63	Irrigation - City	81	764,000	0 028%	$0	#DIV/0!	$0	#DIV/0!	$0	0 000%	$0 00
64	**Total**	16,834	2,715,970,076	100 000%	$4,604,549	51 430%	$4,348,529	48 570%	**$ 8,953,077**	100 000%	$3 30
65									**To Table 3**		
66								12-13 Budgeted	$ 9,199,588		
67								Difference ($)	$246,511		
68								Difference (%)	2 75%		

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Water Rate Study**							
3	**Table 9 - Summary of Customer Consumption by Classification /Tier**							
4								
5								
6		**Base**	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Total**	**Notes**
7	**Residential Gallons**							
8	*May-11*	114,219,966	20,140,968	5,087,000	514,000	-	139,961,934	
9	*Jun-11*	133,993,000	43,129,952	13,244,000	1,786,000	-	192,152,952	
10	*Jul-11*	141,605,000	58,447,960	20,971,000	1,945,000	8,000	222,976,960	
11	*Aug-11*	149,117,000	90,667,456	53,859,000	10,889,000	6,133,000	310,665,456	
12	*Sep-11*	149,920,000	91,434,464	52,264,000	5,506,000	41,000	299,165,464	
13	*Oct-11*	152,000,000	98,603,000	58,923,944	4,995,000	1,622,000	316,143,944	
14	*Nov-11*	127,902,496	32,557,000	9,710,000	637,000	-	170,806,496	
15	*Dec-11*	119,374,496	25,505,000	8,336,000	971,000	-	154,186,496	
16	*Jan-12*	94,900,992	10,677,000	3,174,000	369,000	-	109,120,992	
17	*Feb-12*	104,826,740	13,479,000	3,875,000	656,000	-	122,836,740	
18	*Mar-12*	88,287,244	7,664,000	2,158,000	489,000	-	98,598,244	
19	*Apr-12*	95,830,994	10,038,000	3,051,000	577,000	-	109,496,994	
20		1,471,977,928	502,343,800	234,652,944	29,334,000	7,804,000	2,246,112,672	
21		*65 53%*	*22 37%*	*10 45%*	*1 31%*	*0 35%*	*100 00%*	To Table 8
22	**Multi-Family Gallons**							
23	*May-11*	887,000	777,000	1,774,684	3,330,000	250,000	7,018,684	
24	*Jun-11*	906,000	800,000	1,659,188	3,551,000	1,045,000	7,961,188	
25	*Jul-11*	917,000	855,000	1,811,432	3,808,000	1,935,000	9,326,432	
26	*Aug-11*	904,000	796,000	1,656,684	4,054,000	2,247,000	9,657,684	
27	*Sep-11*	906,000	827,000	1,641,944	3,981,000	3,651,000	11,006,944	
28	*Oct-11*	901,000	849,000	1,888,188	4,590,000	4,074,000	12,302,188	
29	*Nov-11*	878,000	777,000	1,533,000	2,824,720	314,000	6,326,720	
30	*Dec-11*	881,000	766,000	1,738,000	2,901,600	370,000	6,656,600	
31	*Jan-12*	859,000	725,000	1,494,000	3,125,000	126,756	6,329,756	
32	*Feb-12*	875,000	769,000	1,707,676	2,422,000	112,000	5,885,676	
33	*Mar-12*	827,000	692,000	1,360,196	1,801,000	-	4,680,196	
34	*Apr-12*	850,000	742,000	1,480,928	1,703,041	192,000	4,967,969	
35		10,591,000	9,375,000	19,745,920	38,091,361	14,316,756	92,120,037	
36		*11 50%*	*10 18%*	*21 43%*	*41 35%*	*15 54%*	*100 00%*	To Table 8
37	**Commercial Gallons**							
38	*May-11*	1,901,000	1,128,000	2,557,000	3,810,036	586,552	9,982,588	
39	*Jun-11*	2,036,000	1,292,000	3,155,000	6,147,192	2,313,608	14,943,800	
40	*Jul-11*	2,127,000	1,374,000	3,454,000	7,052,844	3,146,824	17,154,668	
41	*Aug-11*	2,468,000	1,693,000	3,269,000	7,503,664	4,285,884	19,219,548	
42	*Sep-11*	2,191,000	1,496,000	3,948,000	9,763,640	5,107,268	22,505,908	
43	*Oct-11*	2,239,000	1,597,000	4,150,000	10,879,240	5,932,344	24,797,584	
44	*Nov-11*	2,137,000	1,331,000	3,134,000	4,388,060	1,445,820	12,435,880	
45	*Dec-11*	2,076,000	1,261,000	2,801,675	3,487,732	1,305,000	10,931,407	
46	*Jan-12*	1,790,000	958,000	1,931,604	1,977,256	204,000	6,860,860	
47	*Feb-12*	1,964,000	1,140,000	2,471,000	2,909,100	610,000	9,094,100	
48	*Mar-12*	1,800,000	978,000	1,823,516	2,489,000	471,000	7,561,516	
49	*Apr-12*	1,907,000	1,134,000	2,425,508	3,127,000	358,000	8,951,508	
50		24,636,000	15,382,000	35,120,303	63,534,764	25,766,300	164,439,367	
51		*14 98%*	*9 35%*	*21 36%*	*38 64%*	*15 67%*	*100 00%*	To Table 8

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Water Rate Study**							
3	**Table 9 - Summary of Customer Consumption by Classification /Tier**							
4								
5								
6		**Base**	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Total**	**Notes**
52	**Industrial Gallons**							
53	*May-11*	59,000	50,000	146,000	532,000	6,575,000	7,362,000	
54	*Jun-11*	57,000	50,000	125,000	518,000	3,125,000	3,875,000	
55	*Jul-11*	61,000	50,000	145,000	593,000	5,045,000	5,894,000	
56	*Aug-11*	63,000	54,000	108,000	473,000	4,920,000	5,618,000	
57	*Sep-11*	61,000	60,000	163,000	556,000	5,985,000	6,825,000	
58	*Oct-11*	62,000	60,000	184,000	689,000	5,930,000	6,925,000	
59	*Nov-11*	63,000	44,000	119,000	402,000	3,675,000	4,303,000	
60	*Dec-11*	64,000	51,000	135,000	429,000	5,605,000	6,284,000	
61	*Jan-12*	54,000	40,000	82,000	415,000	4,650,000	5,241,000	
62	*Feb-12*	59,000	50,000	94,000	470,000	5,185,000	5,858,000	
63	*Mar-12*	53,000	40,000	96,000	455,000	4,465,000	5,109,000	
64	*Apr-12*	49,000	40,000	98,000	500,000	4,520,000	5,207,000	
65		705,000	589,000	1,495,000	6,032,000	59,680,000	68,501,000	
66		*1 03%*	*0 86%*	*2 18%*	*8 81%*	*87 12%*	*100 00%*	To Table 8
67	**Irrigation Gallons**							
68	*May-11*	692,000	579,000	1,575,000	2,844,000	181,000	5,871,000	
69	*Jun-11*	770,000	695,000	2,375,000	8,121,000	2,865,000	14,826,000	
70	*Jul-11*	801,000	736,000	2,456,000	8,838,000	3,558,000	16,389,000	
71	*Aug-11*	820,000	652,000	1,816,000	6,166,000	3,895,000	13,349,000	
72	*Sep-11*	814,000	773,000	2,698,000	11,499,000	9,608,000	25,392,000	
73	*Oct-11*	811,000	774,000	2,762,000	11,452,143	10,329,000	26,128,143	
74	*Nov-11*	797,000	720,000	2,358,000	6,878,857	2,058,000	12,811,857	
75	*Dec-11*	737,000	618,000	1,955,000	4,773,000	1,253,000	9,336,000	
76	*Jan-12*	545,000	422,000	1,177,000	2,127,000	116,000	4,387,000	
77	*Feb-12*	636,000	495,000	1,350,000	2,055,000	173,000	4,709,000	
78	*Mar-12*	489,000	379,000	914,000	1,284,000	524,000	3,590,000	
79	*Apr-12*	637,000	499,000	1,269,000	1,914,000	175,000	4,494,000	
80		8,549,000	7,342,000	22,705,000	67,952,000	34,735,000	141,283,000	
81		*6 05%*	*5 20%*	*16 07%*	*48 10%*	*24 59%*	*100 00%*	To Table 8
82	**Outside City Gallons**							
83	*May-11*	49,000	25,000	20,000	-	-	94,000	
84	*Jun-11*	55,000	28,000	40,000	109,000	-	232,000	
85	*Jul-11*	52,000	50,000	105,000	13,000	-	220,000	
86	*Aug-11*	57,000	50,000	123,000	116,000	-	346,000	
87	*Sep-11*	55,000	48,000	104,000	200,000	-	407,000	
88	*Oct-11*	59,000	50,000	145,000	261,000	-	515,000	
89	*Nov-11*	50,000	40,000	73,000	19,000	-	182,000	
90	*Dec-11*	49,000	30,000	70,000	21,000	-	170,000	
91	*Jan-12*	48,000	21,000	52,000	52,000	-	173,000	
92	*Feb-12*	54,000	36,000	85,000	31,000	-	206,000	
93	*Mar-12*	51,000	30,000	25,000	-	-	106,000	
94	*Apr-12*	50,000	24,000	25,000	-	-	99,000	
95		629,000	432,000	867,000	822,000	-	2,750,000	
96		*22 87%*	*15 71%*	*31 53%*	*29 89%*	*0 00%*	*100 00%*	To Table 8

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Water Rate Study**							
3	**Table 9 - Summary of Customer Consumption by Classification /Tier**							
4								
5								
6		**Base**	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Total**	**Notes**
97	**Irrigation - City**							
98	*May-11*	29,000	20,000	50,000	28,000	-	127,000	
99	*Jun-11*	31,000	30,000	87,000	104,000	-	252,000	
100	*Jul-11*	27,000	20,000	60,000	51,000	-	158,000	
101	*Aug-11*	32,000	13,000	26,000	-	-	71,000	
102	*Sep-11*	20,000	10,000	26,000	-	-	56,000	
103	*Oct-11*	20,000	11,000	26,000	-	-	57,000	
104	*Nov-11*	15,000	6,000	-	-	-	21,000	
105	*Dec-11*	7,000	-	-	-	-	7,000	
106	*Jan-12*	5,000	-	-	-	-	5,000	
107	*Feb-12*	2,000	-	-	-	-	2,000	
108	*Mar-12*	4,000	-	-	-	-	4,000	
109	*Apr-12*	4,000	-	-	-	-	4,000	
110		196,000	110,000	275,000	183,000	-	764,000	
111		*25 65%*	*14 40%*	*35 99%*	*23 95%*	*0 00%*	*100 00%*	To Table 8
112	**Total**	**1,517,283,928**	**535,573,800**	**314,861,167**	**205,949,125**	**142,302,056**	**2,715,970,076**	
113		***55.87%***	***19.72%***	***11.59%***	***7.58%***	***5.24%***	***100.00%***	
114	***Summary***							
115	**Consumption (1,000 gal)**							**% of Total**
116	Single-Family	1,471,978	502,344	234,653	29,334	7,804	2,246,113	82 7%
117	Multi-Family	10,591	9,375	19,746	38,091	14,317	92,120	3 4%
118	Commercial	24,636	15,382	35,120	63,535	25,766	164,439	6 1%
119	Industrial	705	589	1,495	6,032	59,680	68,501	2 5%
120	Irrigation	8,549	7,342	22,705	67,952	34,735	141,283	5 2%
121	Outside City	629	432	867	822	-	2,750	0 1%
122	Other	196	110	275	183	-	764	0 0%
123	**Total**	1,517,284	535,574	314,861	205,949	142,302	2,715,970	100 0%
124	**Percent of Total by Class**							
125	Single-Family	65 5%	22 4%	10 4%	1 3%	0 3%	100 0%	
126	Multi-Family	11 5%	10 2%	21 4%	41 3%	15 5%	100 0%	
127	Commercial	15 0%	9 4%	21 4%	38 6%	15 7%	100 0%	
128	Industrial	1 0%	0 9%	2 2%	8 8%	87 1%	100 0%	
129	Irrigation	6 1%	5 2%	16 1%	48 1%	24 6%	100 0%	
130	Outside City	22 9%	15 7%	31 5%	29 9%	0 0%	100 0%	
131	Other	25 7%	14 4%	36 0%	24 0%	0 0%	100 0%	
132	**Total**	55 9%	19 7%	11 6%	7 6%	5 2%	100 0%	
133								
134	*Source City of Lincoln May 2011 - April 2012 Water Billing Data*							

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Water Rate Study**		Conversion Factor (Gal/AF)		325,851					
3	**Table 10 - Water Consumption - 2012**		Conversion Factor (Gal/HCF)		748 05					
4										
5										
6		**Residential**	**Multi-family**	**Commerical**	**Industrial**	**Irrigation**	**Outside Limits**	**Irrigation-City**	**Total**	**Notes**
7	**Volume in Gallons**									From Table 9
8	*May-11*	139,961,934	7,018,684	9,982,588	7,362,000	5,871,000	94,000	127,000	170,417,206	
9	*Jun-11*	192,152,952	7,961,188	14,943,800	3,875,000	14,826,000	232,000	252,000	234,242,940	
10	*Jul-11*	222,976,960	9,326,432	17,154,668	5,894,000	16,389,000	220,000	158,000	272,119,060	
11	*Aug-11*	310,665,456	9,657,684	19,219,548	5,618,000	13,349,000	346,000	71,000	358,926,688	
12	*Sep-11*	299,165,464	11,006,944	22,505,908	6,825,000	25,392,000	407,000	56,000	365,358,316	
13	*Oct-11*	316,143,944	12,302,188	24,797,584	6,925,000	26,128,143	515,000	57,000	386,868,859	
14	*Nov-11*	170,806,496	6,326,720	12,435,880	4,303,000	12,811,857	182,000	21,000	206,886,953	
15	*Dec-11*	154,186,496	6,656,600	10,931,407	6,284,000	9,336,000	170,000	7,000	187,571,503	
16	*Jan-12*	109,120,992	6,329,756	6,860,860	5,241,000	4,387,000	173,000	5,000	132,117,608	
17	*Feb-12*	122,836,740	5,885,676	9,094,100	5,858,000	4,709,000	206,000	2,000	148,591,516	
18	*Mar-12*	98,598,244	4,680,196	7,561,516	5,109,000	3,590,000	106,000	4,000	119,648,956	
19	*Apr-12*	109,496,994	4,967,969	8,951,508	5,207,000	4,494,000	99,000	4,000	133,220,471	
20		2,246,112,672	92,120,037	164,439,367	68,501,000	141,283,000	2,750,000	764,000	2,715,970,076	
21										
22	Water Accts w/consumption in 2012	16,270	72	310	8	87	6	81	**16,834**	To Table 8
23	Consumption/Account	138,052	1,279,445	530,450	8,562,625	1,623,943	458,333	9,432	161,338	
24	Consumption/Account/Day	378	3,505	1,453	23,459	4,449	1,256	26	442	
25										
26										
27	Water EDUs w/consumption in 2012	16,449	617	1,447	7	396	6	4	**18,926**	To Table 8, 1B
28	Consumption/EDU	136,554	149,303	113,642	9,785,857	356,775	458,333	191,000	143,508	
29	Consumption/EDU/Day	374 12	409 05	311 35	26,810 57	977 47	1,255 71	523 29	393 17	To Tables 7, 8
30										
31										
32	**Customer Class**	**# Customers**	**Total**	**% of Total**						
33			(tgal)							
34	Single-Family	16,270	2,246,113	71 8%						
35	Multi-Family	72	92,120	2 9%						
36	Commercial	310	164,439	5 3%						
37	Industrial	8	68,501	2 2%						
38	Irrigation	87	141,283	4 5%						
39	Outside City[6]	6	2,750	0 1%						
40	Other	81	764	0 0%						
41	Subtotal	16,834	2,715,970	86 8%						
42	Water loss		414,082	13 2%						
43	Total Purchased and Pumped	16,834	3,130,052	100 0%	Col C from Table 7					
44										
45										
46	*Source City of Lincoln 12-months ended April 30, 2012 Water Billing Data, Meter counts as of 6-30-2012*									

City of Lincoln
Water Rate Study
Table 11 - Service Charge Transition

Service Charge Adjustment

Meter Size	Total Active Accounts[1]	FY12-13 Monthly Service Charge[2]	FY12-13 Total Serv Chg Revenue	EMU Multiplier[3]	Total EMUs	FY12-13 Monthly Service Charge	FY12-13 Total Serv Chg Revenue	Notes
5/8"	15	**$22 90**	$4,122	1	15	**$20 33**	$3,660	
3/4"	16,325	**$22 90**	$4,486,110	1	16,325	**$20 33**	$3,983,386	
1"	220	**$22 90**	$60,456	1 5	330	**$30 50**	$80,522	
1 1/2"	95	**$22 90**	$26,106	5	475	**$101 67**	$115,903	
2"	61	**$22 90**	$16,763	8	488	**$162 67**	$119,075	
3"	22	**$22 90**	$6,046	16	352	**$325 34**	$85,890	
4"	6	**$22 90**	$1,649	25	150	**$508 34**	$36,601	
6"	1	**$22 90**	$275	40	40	**$813 35**	$9,760	
8"	2	**$22 90**	$550	71 11	142	**$1,445 93**	$34,702	
	16,747		**$4,602,076**		18,317	**$4,469,498**	**$4,469,498**	

[1] Excludes Outside City and Irrigation - City Meters
[2] Currrent Base Charge per Ordinance 801B
[3] Source for Meters 4" and less "Water Rates - Structure Calcs" provided by City, 6" and 8" is estimate from City of Ceres

Customer Class	# Customers	Total Gallons	
Single-Family	16,270	2,246,112,672	
Multi-Family	72	92,120,037	
Commercial	310	164,439,367	
Industrial	8	68,501,000	
Irrigation	87	141,283,000	
Outside City[6]	6	2,750,000	HF&H Ignored as part of calculation
Irrigation - City	81	764,000	HF&H Ignored as part of calculation
Total	16,834	2,715,970,076	

Outside City	(6)
Irrigation - City	(81)
Missing	(3)
	16,744

	A	B	C	D	E	F	G	H	I
1	**City of Lincoln**								
2	**Water Rate Study**								
3	**Table 11 - Service Charge Transition**								
41									
48	***Meter Counts, Adjusted Annual Revenue by Customer Class***								
49									
50	Residential				Commercial		Monthly SC	Annual Revenue	
51	5/8"	0	$20 33	$0 00	5/8"	15	$20 33	$3,660 08	
52	3/4"	16180	$20 33	$3,948,005 48	3/4"	111	$20 33	$27,084 59	
53	1"	89	$30 50	$32,574 71	1"	61	$30 50	$22,326 48	
54	1 5"	0	$101 67	$0 00	1 5"	69	$101 67	$84,181 82	
55	2"	1	$162 67	$1,952 04	2"	37	$162 67	$72,225 56	
56	3"	0	$325 34	$0 00	3"	9	$325 34	$35,136 76	
57	2" - 3"	0	$325 34	$0 00	2" - 3"	4	$325 34	$15,616 34	Treat as 3" per S Ambrose
58	4"	0	$813 35	$0 00	4"	4	$508 34	$24,400 53	
59	8"	0	$1,445 93	$0 00	8"	0	$1,445 93	$0 00	
60		16270		$3,982,532		310		$284,632 16	To Table 12
61									
62	Irrigation				Industrial				
63	5/8"	0	$20 33	$0 00	5/8"	0	$20 33	$0 00	
64	3/4"	20	$20 33	$4,880 11	3/4"	2	$20 33	$488 01	
65	1"	23	$30 50	$8,418 18	1"	0	$30 50	$0 00	
66	1 5"	26	$101 67	$31,720 69	1 5"	0	$101 67	$0 00	
67	2"	10	$162 67	$19,520 42	2"	3	$162 67	$5,856 13	
68	3"	6	$325 34	$23,424 51	3"	1	$325 34	$3,904 08	
69	4"	1	$508 34	$6,100 13	4"	1	$508 34	$6,100 13	
70	6"	0	$813 35	$0 00	6"	0	$813 35	$0 00	
71	8"	1	$1,445 93	$17,351 22	8"	1	$1,445 93	$17,351 22	
72		87		$111,415 25		8		$33,699 57	To Table 12
73									
74	Multi Family								
75	5/8"	0	$20 33	$0 00					
76	3/4"	12	$20 33	$2,928 06					
77	1"	47	$30 50	$17,202 37					
78	1 5"	0	$101 67	$0 00					
79	2"	10	$162 67	$19,520 42					
80	3"	2	$325 34	$7,808 17					
81	4"	0	$508 34	$0 00					
82	6"	1	$813 35	$9,760 21					
83	8"	0	$1,445 93	$0 00					
84		72		$57,219					To Table 12
85									
86	Source Non-Residential meter count from 'Water - Non Residential Meter List from UB 2', Multi Family from Steve Ambrose, email dated 7/16/2013								
87									

City of Lincoln
Water Rate Study
Table 12 - Cost of Service Analysis

Customer Class	FY 12-13 Revenue (Current Allocation)						Notes
	Base Rate $	% of Class Rev.	Consumption $	% of Class Rev	Class Revenue	% Total Rev.	
Single-Family	$4,470,996	61 794%	$2,764,369	38 206%	$7,235,365	80 9%	$3,179,024 28
Multi-Family	$19,786	6 155%	$301,685	93 845%	$321,471	3 6%	$346,938 20
Commercial	$85,188	14 136%	$517,455	85 864%	$602,643	6 7%	$595,072 97
Industrial	$2,198	0 843%	$258,580	99 157%	$260,778	2 9%	$297,366 75
Irrigation	$23,908	4 609%	$494,832	95 391%	$518,740	5 8%	$569,057 28
Total	$4,602,076	51 483%	$4,336,921	48 517%	**$ 8,938,997**	100 0%	**$ 4,987,459**

Customer Class	FY 12-13 Revenue (Cost of Service Reallocation)						
	Base Rate $	% of Class Rev.	Consumption $	% of Class Rev	Class Revenue	% Total Rev.	
Single-Family	$3,982,532	52 056%	$3,667,883	47 944%	$7,650,415	85 6%	To Rate Design Analysis
Multi-Family	$140,547	47 022%	$158,349	52 978%	$298,896	3 3%	
Commercial	$284,632	50 174%	$282,661	49 826%	$567,293	6 3%	
Industrial	$33,700	22 251%	$117,749	77 749%	$151,449	1 7%	
Irrigation	$111,415	31 449%	$242,857	68 551%	$354,272	4 0%	
Total	$4,469,498	50 000%	$ 4,469,498	50 000%	**$ 8,938,997**	100 0%	

Total Residential Water	2,246,112,672	
Total Non Residential Water	466,343,404	From Table 8,10
Total Water Sales	2,712,456,076	
Avg Cost of Water (before conservation)	$1 65	To Rate Design Analysis
Conservation (residential only)	5%	
Total Water Sales (after conservation)	2,600,150,442	
Avg Cost of Water (with conservation)	$1 72	To Rate Design Analysis

Customer Class	FY 12-13 Revenue (Current Allocation minus Reallocation)					
	Base Rate $	% of Class Rev.	Consumption $	% of Class Rev	Class Revenue	% Total Rev.
Single-Family	($488,464)		$903,514		$415,050	
Multi-Family	$120,761		($143,337)		($22,575)	
Commercial	$199,444		($234,794)		($35,349)	
Industrial	$31,501		($140,831)		($109,330)	
Irrigation	$87,508		($251,976)		($164,468)	
Total	($49,249)	0 000%	$ 132,577	100 000%	**$ 83,328**	100 000%

City of Lincoln
Water Rate Study
Table 12 - Cost of Service Analysis

Customer Class	FY 12-13 Revenue (Current Allocation minus Reallocation Percent Change) Base Rate	% of Class Rev.	Consumption	% of Class Rev	Class Revenue	% Total Rev.
Single-Family	-11%		33%		6%	
Multi-Family	610%		-48%		-7%	
Commercial	234%		-45%		-6%	
Industrial	1433%		-54%		-42%	
Irrigation	366%		-51%		-32%	
Total	-1%		$ (2)		**-81%**	

Customer Class	FY 12-13 Revenue (Current Allocation minus Reallocation) Current Allocation	% of Class Rev.	COS Allocation	% of Class Rev	Difference	% Total Rev.
Single-Family	$7,235,365		$7,650,415		$415,050	5 7%
Multi-Family	$321,471		$298,896		($22,575)	-7 0%
Commercial	$602,643		$567,293		($35,349)	-5 9%
Industrial	$260,778		$151,449		($109,330)	-41 9%
Irrigation	$518,740		$354,272		($164,468)	-31 7%
Total	$8,938,997	0 000%	$ 9,022,325	100 000%	$ 83,328	

FY12-13 Total Revenue Requirement	$ 8,938,997	
Service Charge Revenue - 50%	4,469,498	
Consumption Charge Revenue	$ 4,469,498	a

May 2011 - April 2012 Water Sales (in Tgals)		
Single-Family (with 5% reduction)	2,133,807	
Multi-Family	92,120	
Commercial	164,439	
Industrial	68,501	
Irrigation	141,283	
	2,600,150	b

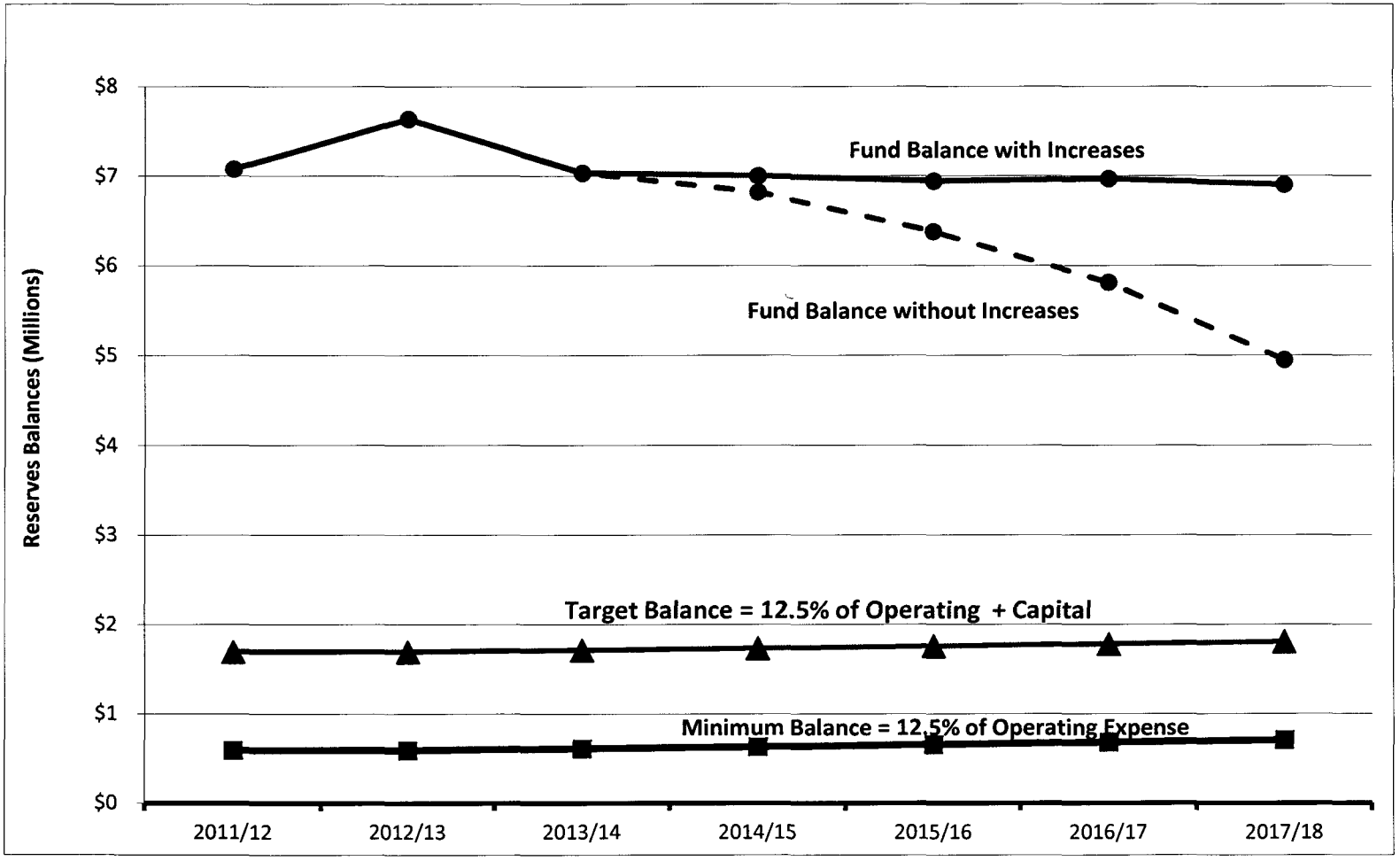
FY 12-13 Cost of Service ($/Tgal) $1 72 a/b

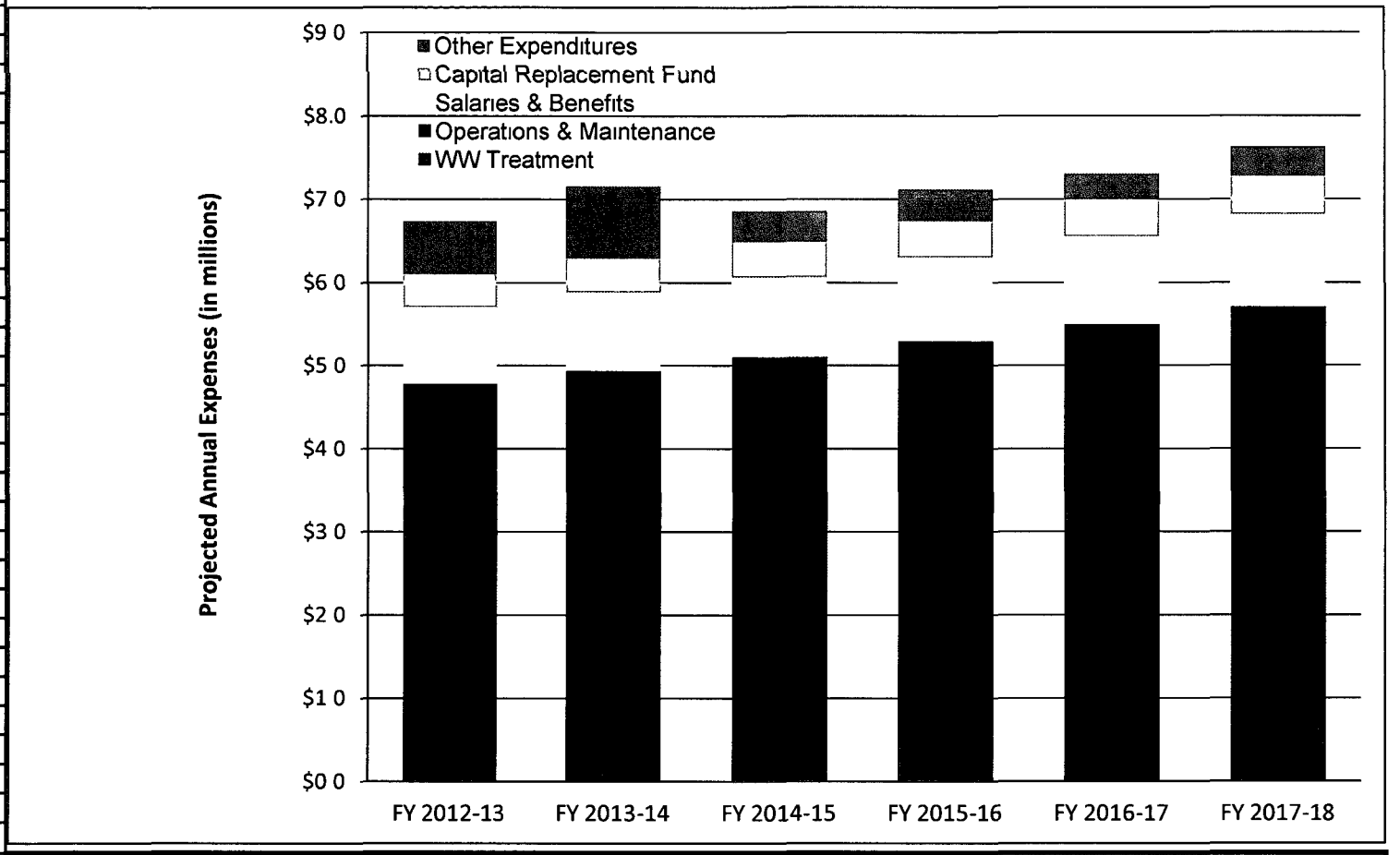
Cost of Service Reallocation	Consumption $	Base Rate $	Class Revenue
Single-Family	$ 3,667,883	$ 3,982,532	$ 7,650,415
Multi-Family	158,349	140,547	298,896
Commercial	282,661	284,632	567,293
Industrial	117,749	33,700	151,449
Irrigation	242,857	111,415	354,272
	$ 4,469,498	$ 4,552,826	$ 9,022,325

APPENDIX B. WASTEWATER RATE MODEL

City of Lincoln
Wastewater Rate Study
Table 1A. Summary

		Projected					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
Revenue Increases	0.0%	0.0%	2.8%	2.7%	2.6%	2.5%	To Tables 3, 4





			Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Wastewater Treatment	$ 2,954,200	$ 3,042,826	$ 3,134,111	$ 3,228,134	$ 3,324,978	$ 3,424,727
Operations and Maintenance	1,824,974	1,893,693	1,965,527	2,062,759	2,166,888	2,278,508
Salaries and Benefits	926,794	945,944	966,570	1,011,765	1,059,746	1,110,725
Capital Replacement Fund	393,380	405,181	417,337	429,857	442,753	456,035
Other Expenditures	635,528	867,477	374,427	387,328	310,679	355,370
Total Revenue Requirment	$ 6,734,876	$ 7,155,121	$ 6,857,972	$ 7,119,843	$ 7,305,044	$ 7,625,366

	A	C	D	E	F	G	H	I
81			Projected					
82		**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	
83	Revenue Requirement	$6,734,876	$7,155,121	$6,857,972	$7,119,843	$7,305,044	$7,625,366	
84	Revenue from Current Rates	$7,061,404	$7,098,519	$7,135,633	$7,172,748	$7,209,862	$7,246,977	
85								
86	Surplus/(Deficit)	$326,528	($56,603)	$277,662	$52,905	($95,182)	($378,389)	
87								
88	Fund Balance (before increases)	$7,634,029	$7,032,294	$6,818,845	$6,378,466	$5,813,219	$4,950,050	
89								
90	Revenue Increase	**0.0%**	**0.0%**	**2.8%**	**2.7%**	**2.6%**	**2.5%**	
91	Revenue from Increase	$0	$0	$181,057	$379,601	$579,167	$779,750	
92								
93	Fund Balance (after increases)	$7,634,029	$7,032,294	$7,000,355	$6,942,382	$6,967,733	$6,903,656	
94								

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Wastewater Rate Study**									
3	**Table 1B. General**									
4				**Projected**						
5			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**Source**	**Note**
6										
7	a	Interest on Fund Balance	0 25%	0 25%	0 25%	0 50%	1 00%	1 00%	Estimate	To Table 4
8	b	General inflation	Per Budget	3 00%	3 00%	3 00%	3 00%	3 00%	Per Public Works 5 Year Projections	To Table 2
9	c	Labor/Benefit Increases	PW Budget	1 54%	2 07%	4 59%	4 66%	4 73%	Per Public Works 5 Year Projections	To Table 2
10	d	Growth in EDU - During Year	100	100	100	100	100	100	Estimate - Per City	To Table 6
11	e	Total EDU's (End of year)	19,026	19,126	19,226	19,326	19,426	19,526	From City of Lincoln Water Model	To Table 6
12	f	% Growth of Total EDU's	Per City	0 5%	0 5%	0 5%	0 5%	0 5%	Calculated	To Table 6
13	g	Construction Cost Inflation	Per Budget	2 55%	2 55%	2 55%	2 55%	2 55%	ENR Construction Cost Index, SF, 5-yr average	To Table 5
14	h	Bad Debt Expense	1%	1%	1%	1%	1%	1%	Estimate	To Table 3
15	i	Volume Reclaimed Water (HCF)	-	-	181,909	196,604	207,998	219,339	PW Estimate of 4% of reclaimed water	To Table 4
16										
17	**Model Table Index**									
18	Table 1A Summary									
19	Table 1B General									
20	Table 2 Revenue Requirement									
21	Table 3 Projected Revenue Increases									
22	Table 4 Reserves									
23	Table 5 Capital Improvements									
24	Table 6 Current Revenue									
25	Table 7 Capital Improvement Debt Service									
26										

	A	B	C	D	E	F	G	H	I	J	K
1	City of Lincoln										
2	Wastewater Rate Study										
3	Table 2. Revenue Requirement										
4				Table 1B		Projected					
5				Factors	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Notes
6	Operating Expenses (6860)										
7	Salaries and Benefits										
8		40000	Full Time	c	568,097	568,097	568,097	585,140	602,694	620,775	
9		44000	Overtime	c	17,425	17,425	17,425	17,948	18,486	19,041	
10		40500	On-call	c	17,958	17,958	17,958	18,497	19,052	19,623	
11		40550	Safety	c	$0	$0	$0	$0	$0	$0	
12		48050	Retirement	c	79,888	85,480	91,464	100,610	110,672	121,739	
13		48060	Workers Comp	c	21,280	21,280	21,280	21,918	22,576	23,253	
14		48070	Medical / Dental / Life Ins	c	169,475	183,033	197,675	213,489	230,568	249,014	
15		48070	SUI	c	4,098	4,098	4,098	4,221	4,347	4,478	
16		48085	SDI Employer	c	2,962	2,962	2,962	2,962	2,962	2,962	
17		48090	FICA	c	45,611	45,611	45,611	46,980	48,389	49,841	
18		48095	Def Comp	c	-	-	-	-	-	-	
19			Subtotal, Salaries and Benefits		$926,794	$945,944	$966,570	$1,011,765	$1,059,746	$1,110,725	
20	Operating Costs										
21		41000	Contract Personnel	b	5,523	5,689	5,859	6,035	6,216	6,403	
22		50101	Office Expenses	b	967	977	986	996	1,006	1,016	
23		50140	Material/Supplies	b	25,750	26,523	27,318	28,138	28,982	29,851	
24		50150	Fuel and Oil	b	33,000	35,970	39,207	42,736	46,582	50,775	
25		50190	Uniforms and Clothing	b	4,550	4,596	4,641	4,688	4,735	4,782	
26		50250	Communications	b	8,376	8,627	8,886	9,153	9,427	9,710	
27		50220	Advertising	b	7,000	7,070	7,141	7,212	7,284	7,357	
28		50270	Equipment Maintenance	b	30,000	30,900	31,827	32,782	33,765	34,778	
29		50280	Building Maintenance	b	-	-	-	-	-	-	
30		50310	Utilities	b	794,688	818,529	843,084	868,377	894,428	921,261	
31		50350	Lease Expense	b	100,000	100,000	100,000	100,000	100,000	100,000	
32		50400	Professional Services	b	200,101	206,104	212,287	218,656	225,215	231,972	
33		50400	Professional Services - Treatment	b	2,954,200	3,042,826	3,134,111	3,228,134	3,324,978	3,424,727	WWTP Ops
34		80050	Equipment	b	50,000	51,500	53,045	54,636	56,275	57,964	
35		80060	Vehicles	b	-	-	-	-	-	-	
36		50320	Taxes	b	6,400	6,400	6,400	6,400	6,400	6,400	
37		65100	Cost Allocation - General Fund	b	425,736	451,280	478,357	526,193	578,812	636,693	
38		65610	Cost Allocation - Fleet		90,372	94,891	99,635	107,606	116,214	125,512	
39			Subtotal, Operating Costs		4,736,663	4,891,880	5,052,786	5,241,741	5,440,322	5,649,201	
40	Debt Service										
41			RRB 2000 Sewer System Sublease		$169,455	$150,207	$131,615	$113,737	$0	$0	From Table 7

	A	B	C	D	E	F	G	H	I	J	K
1	**City of Lincoln**										
2	**Wastewater Rate Study**										
3	**Table 2 Revenue Requirement**										
4				Table 1B		Projected					
5				Factors	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Notes
42	**Non-Operating Costs**										
43		50111	Insurance	b	7,325	7,838	8,386	8,973	9,602	10,274	
44		50500	Membership/Dues/Subscriptions	b	500	505	510	515	520	526	
45		50530	Travel/Conf/Mfg	b	-	-	-	-	-	-	
46		50540	Training	b	5,000	5,150	5,305	5,464	5,628	5,796	
47		50710	Regulatory Fees	b	103,831	106,946	110,154	113,459	116,863	120,369	
48			Subtotal, Non-Operating		116,656	120,439	124,355	128,411	132,612	136,964	
49			*Total Op and Non-Op Expenses*		*$5,949,568*	*$6,108,470*	*$6,275,326*	*$6,495,654*	*$6,632,680*	*$6,896,890*	
50						3%	3%	4%	2%	4%	
51	**Non-Operating Revenue**										
52			FOG Program	b	(200)	(206)	(212)	(219)	(225)	(232)	
53			Interfund Loan Interest	b	(18,990)	(18,990)	(18,990)	(18,990)	(18,990)	(18,990)	
54			Rents	b	(52,655)	(54,235)	(55,862)	(57,538)	(59,264)	(61,042)	
55			Misc Revenue	b	(2,300)	(2,369)	(2,440)	(2,513)	(2,589)	(2,666)	
56					($74,145)	($75,800)	($77,504)	($79,259)	($81,067)	($82,930)	
57	**Transfers To/(From) Reserves**										
58			Operations (720)		-	-	-	-	-	-	From Table 4
59			Capital Replacement Fund (721)		393,380	405,181	417,337	429,857	442,753	456,035	From Table 4
60			Corp Yard/City Hall Bond Pmt (#915 & #970)		92,673	92,673	92,673	92,673	92,673	92,673	From Budget - Sewer's share of lease exp
61			Transfer Out		270,000	500,000	-	-	-	-	From Budget - One Time expense per City
62			Annual Depreciation		$0	$0	$0	$0	$0	$0	From Table 4
63			OPEB Fund		103,400	124,597	150,139	180,918	218,006	262,697	From Table 4
64			Subtotal, Transfers		859,453	1,122,451	660,149	703,448	753,431	811,405	
65											
66	**Net Revenue Requirement**				**$6,734,876**	**$7,155,121**	**$6,857,972**	**$7,119,843**	**$7,305,044**	**$7,625,366**	To Table 3
67			Annual Increases			6%	-4%	4%	3%	4%	

City of Lincoln
Wastewater Rate Study
Table 3. Projected Revenue Increases

	# Mos in 1st FY	Table 1B Factors	2012/13	Projected 2013/14	2014/15	2015/16	2016/17	2017/18	Notes
Revenue from Current Rates		f	$7,132,731	$7,170,221	$7,207,710	$7,245,200	$7,282,689	$7,320,178	12/13 from Table 6
Bad Debt Expense		h	($71,327)	($71,702)	($72,077)	($72,452)	($72,827)	($73,202)	
Net Rate Revenue			$7,061,404	$7,098,519	$7,135,633	$7,172,748	$7,209,862	$7,246,977	
Net Revenue Requirements			($6,734,876)	($7,155,121)	($6,857,972)	($7,119,843)	($7,305,044)	($7,625,366)	From Table 2
Surplus/(Deficit) before rate increase			$326,528	($56,603)	$277,662	$52,905	($95,182)	($378,389)	
With Rate Increase									
Increase in Revenue from rates			0 0%	0 0%	2 8%	2 7%	2 6%	2 5%	From Table 1a
Cummulative Increase			*0 0%*	*0 5%*	*3 6%*	*7 0%*	*10 3%*	*13 7%*	To Table 1a
Net Rate Revenue (from current rates)			$7,061,404	$7,098,519	$7,135,633	$7,172,748	$7,209,862	$7,246,977	
Revenue from Rate Increases									
FY 12-13 (effective 7/1/12)	11		$0	$0	$0	$0	$0	$0	
FY 13-14 (effective 1/1/14)	5			$0	$0	$0	$0	$0	
FY 14-15 (effective 7/1/14)	11				$181,057	$198,544	$199,571	$200,599	
FY 15-16 (effective 7/1/15)	11					$181,057	$198,539	$199,561	
FY 16-17 (effective 7/1/16)	11						$181,057	$198,533	
FY 17-18 (effective 7/1/17)	11							$181,057	
Subtotal - Revenue from Rate Increases			$0	$0	$181,057	$379,601	$579,167	$779,750	
Total Rate Revenue			$7,061,404	$7,098,519	$7,316,690	$7,552,349	$7,789,029	$8,026,727	
Net Revenue Requirements			($6,734,876)	($7,155,121)	($6,857,972)	($7,119,843)	($7,305,044)	($7,625,366)	From Above
Transfer to/(from) Operating Fund			$326,528	($56,603)	$458,719	$432,506	$483,985	$401,361	

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Wastewater Rate Study**									
3	**Table 4 Reserves**									
4										
5		**Table 1B**				**Projected**				
6		**Factors**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**Notes**
7	**Wastewater Operations Fund (720)**									
8										
9	**Revenue Increases**			**0 0%**	**0 0%**	**2 8%**	**2 7%**	**2 6%**	**2 5%**	From Table 1a
10	*Cummulative Increase*			*0 0%*	*0 5%*	*3 6%*	*7 0%*	*10 3%*	*13 7%*	From Table 3
11										
12	Beginning Balance			$5,712,999	$6,054,626	$5,762,394	$6,236,665	$6,702,517	$7,258,367	2011/12 estimate from City
13	Surplus/(Deficit)			$326,528	($56,603)	$458,719	$432,506	$483,985	$401,361	From Table 3
14	***Revenue***									
15	Reclaimed Water Revenue @ 50% avg water rate			$0	$0	$0	$0	$0	$0	
16	***Transfer to/(from)***									
17	Revenue Requirement									To Table 2
18	Capital replacement (721)									
19	OPEB Trust				(250,000)					To below
20	Subtotal			$6,039,527	$5,748,024	$6,221,112	$6,669,171	$7,186,502	$7,659,728	
21	Estimated Interest Earnings	a		$15,099	$14,370	$15,553	$33,346	$71,865	$76,597	
22	**Ending Balance**		$5,712,999	**$6,054,626**	**$5,762,394**	**$6,236,665**	**$6,702,517**	**$7,258,367**	**$7,736,325**	
23	*Minimum Balance (6 5 Weeks of Revenue Req)*			*$592,083*	*$611,485*	*$631,598*	*$655,218*	*$680,040*	*$706,150*	
24										
25	**Wastewater Capital Replacement Fund (721)**									
26	Beginning Balance			$1,362,084	$1,579,403	$1,269,901	$763,690	$239,865	($290,634)	
27	***Revenue***									
28	Connection Fee Revenue			-	-	-	-	-	-	
29	Annual Depreciation			-	-	-	-	-	-	To Table 2
30	***Expenditures***									
31	Capital Projects			($180,000)	($717,850)	($925,452)	($954,875)	($973,252)	($998,070)	From Table 5
32	***Transfer (to)/from***									
33	Revenue Requirement			393,380	405,181	417,337	429,857	442,753	456,035	To Table 2
34	Operations (720)			-	-	-	-	-	-	From above
35	Subtotal			$1,575,464	$1,266,734	$761,786	$238,672	($290,634)	($832,669)	
36	Estimated Interest Earnings	a		$3,939	$3,167	$1,904	$1,193	$0	$0	
37	**Ending Balance**		$1,362,084	**$1,579,403**	**$1,269,901**	**$763,690**	**$239,865**	**($290,634)**	**($832,669)**	**FY12-13 from Utilites GL - 8**
38	*Target Balance (1 5 X Average Annual CIP budget)*			*$1,101,350*	*$1,101,350*	*$1,101,350*	*$1,101,350*	*$1,101,350*	*$1,101,350*	
39										
40	**OPEB Trust**									
41	Beginning Balance			$ -	$ 103,658	$ 479,451	$ 631,164	$ 814,112	$ 1,034,698	
42	***Transfers (To)/From:***									
43	Operations Fund 710			$ -	$ 250,000	$ -	$ -	$ -	$ -	From Above
44	Revenue Requirements			103,400	124,597	150,139	180,918	218,006	262,697	To Table 2
45	Subtotal			$ 103,400	$ 478,255	$ 629,590	$ 812,082	$ 1,032,118	$ 1,297,395	
46	Estimated interest earnings			258	1,196	1,574	2,030	2,580	3,243	
47	**Ending Balance**		$0	**$ 103,658**	**$ 479,451**	**$ 631,164**	**$ 814,112**	**$ 1,034,698**	**$ 1,300,638**	
48	*Target Balance (Based on Cumulative Projected Liab)*			*$ 317,606*	*$ 442,203*	*$ 592,342*	*$ 773,260*	*$ 991,265*	*$ 1,253,962*	

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Wastewater Rate Study**									
3	**Table 5. Capital Improvements**									
4										
5				**Projected**						
6		**Project**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**Total**	**Notes**
7	**Wastewater Non-ops Fund (725)**									
8	Wastewater Main Extensions/Oversizing	149							$0	
9	New WWTRF Oversizing	159							$0	
10	Wastewater Interceptor lines	184							$0	
11	Pump Station Upgrade	303	60,000	-	60,000	61,800	60,000	60,000	$301,800	From 5-Yr Budget
12	Existing System Repairs	302	120,000	-	120,000	123,600	120,000	120,000	$603,600	From 5-Yr Budget
13	Annual Depreciation			700,000	700,000	700,000	700,000	700,000	$3,500,000	Estimate
14	Subtotal		$180,000	$700,000	$880,000	$885,400	$880,000	$880,000	$4,405,400	
15										
16				2 6%	5 2%	7 8%	10 6%	13 4%		From Table 1b
17	**Total Inflated Cost**		**$180,000**	**$717,850**	**$925,452**	**$954,875**	**$973,252**	**$998,070**	**$4,749,499**	To Table 4
18										
19	Source City of Lincoln - Capital Improvement Projects Budget Detail									
20										
21										
22										

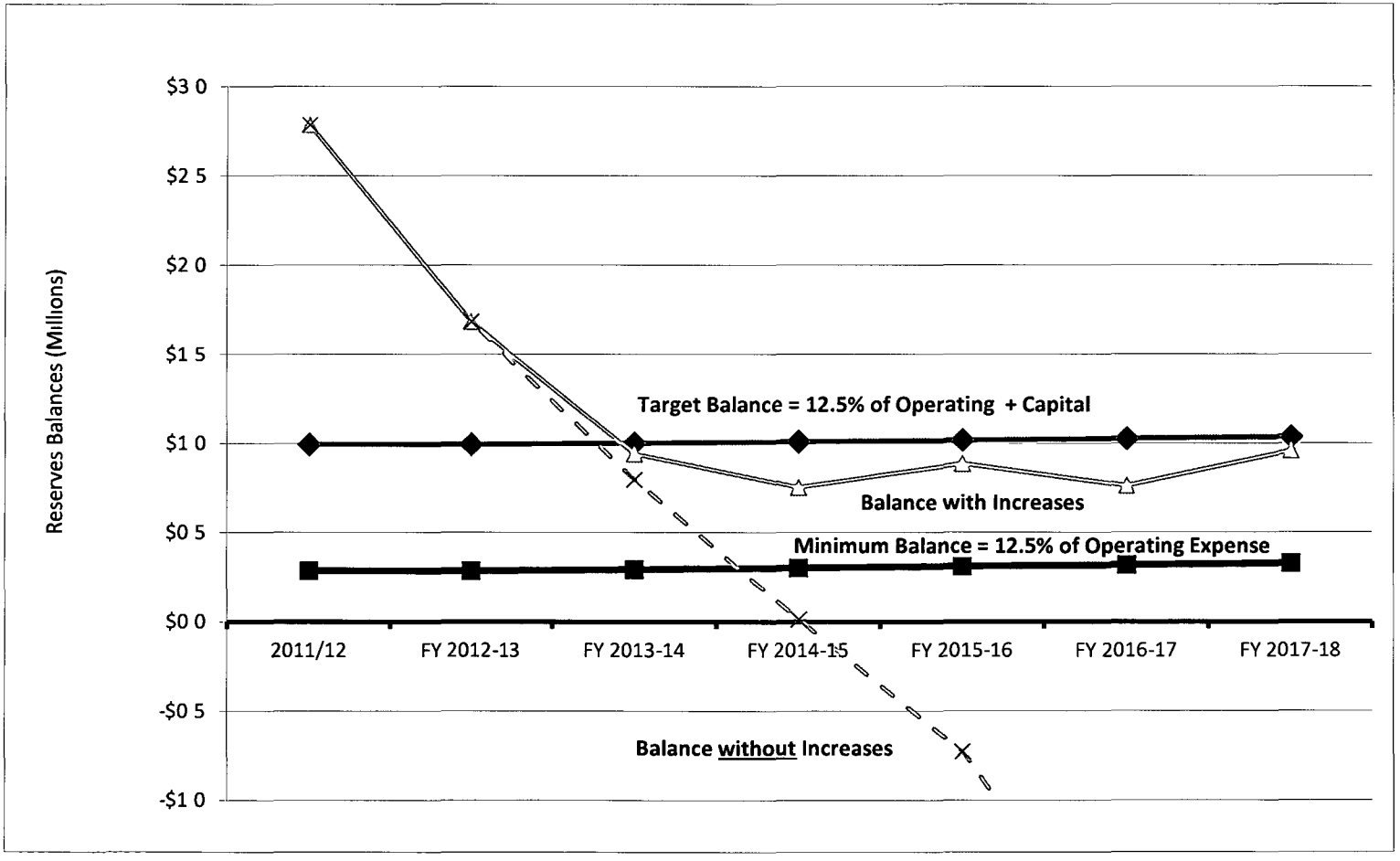
	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Wastewater Rate Study**									
3	**Table 6. Current Revenue**									
4										
5	**Monthly Sewer Rate**						Restructured Rate			
6					Service		Total	Total		
7	By Classification	# of Customers	# EDU	# New EDU	Unit Multiplier	Total Service Units	Mo Rate/Unit	Monthly Revenue	Annual Revenue	Notes
8										
9	Residential	16,270	16,449		1	16,449	$ 32 08	$ 527,668	$ 6,332,015	
10	Multi-Family	92	617		1	617	$ 32 08	$ 19,793	$ 237,520	
11	Commercial and Industrial	275	1,454		1	1,454	$ 32 08	$ 46,644	$ 559,732	
12	Out of City Limits	6	6		1	6	$ 48 12	$ 289	$ 3,465	
13	Total	16,643	18,526			18,526	$ 32 08	$ 594,298	$ 7,132,731	
14									7,111,091	Budgeted 12-13
15					Current Rate Revenue		$32 08		21,640	Difference
16										

	A	B	C	D	E	F	G	H	I
1	**City of Lincoln**								
2	**Sewer Rate Study**								
3	**Table 7. Capital Improvement Debt Service**								
4									
5									
6									
7	**Revenue Bond - 2000**				**Projected**				
8			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**Notes**
9									
10		Interest	$140,000	$130,000	$120,000	$110,000	$0	$0	
11		Principal	$29,455	$20,207	$11,615	$3,737	$0	$0	
12		Payment	$169,455	$150,207	$131,615	$113,737	$0	$0	To Table 2
13									
14									

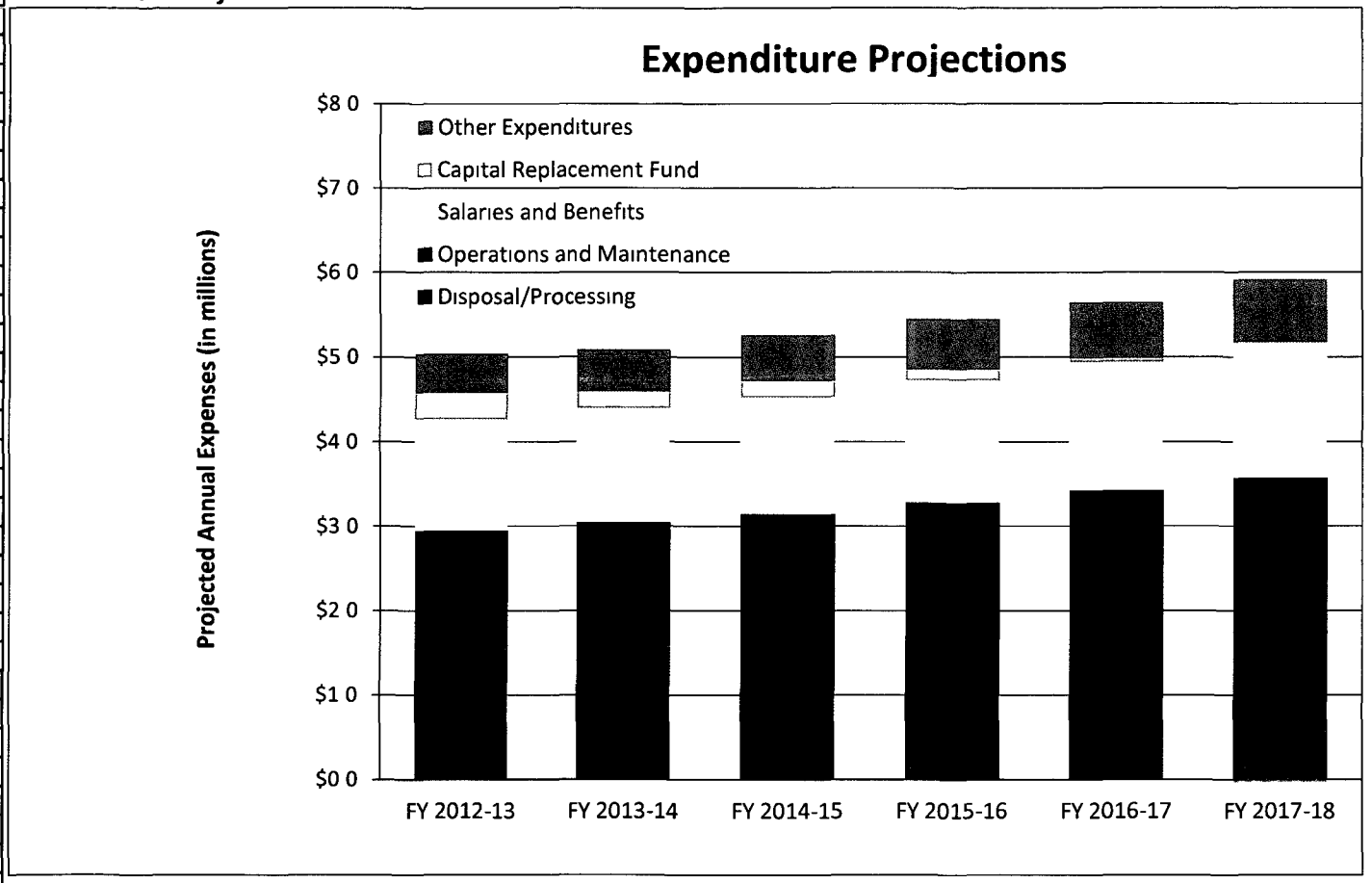
APPENDIX C. SOLID WASTE RATE MODEL

City of Lincoln
Solid Waste Rate Study
Table 1A. Summary

		Projected					
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
Rate Increases	0 0%	6 0%	6 0%	5 0%	5 0%	5 0%	To Tables 3, 4
Cumulative Increase		*6 0%*	*12 4%*	*18 0%*	*23 9%*	*30 1%*	



City of Lincoln
Solid Waste Rate Study
Table 1A. Summary



			Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Disposal/Processing	$ 1,555,000	$ 1,587,907	$ 1,621,452	$ 1,655,646	$ 1,690,501	$ 1,726,029
Operations and Maintenance	1,388,022	1,453,466	1,522,846	1,622,597	1,730,781	1,848,161
Salaries and Benefits	1,325,037	1,353,763	1,384,688	1,451,123	1,521,787	1,597,009
Capital Replacement Fund	307,521	194,046	188,213	120,378	39,640	(52,407)
Other Expenditures	462,548	500,268	545,477	599,707	664,806	743,000
Total Revenue Requirment	$ 5,038,128	$ 5,089,450	$ 5,262,675	$ 5,449,451	$ 5,647,516	$ 5,861,792

	A	C	D	E	F	G	H	I
1	**City of Lincoln**							
2	**Solid Waste Rate Study**							
3	**Table 1A. Summary**							
82								
83					**Projected**			
84		**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	
85	**Revenue Requirement**	$5,038,128	$5,089,450	$5,262,675	$5,449,451	$5,647,516	$5,861,792	From Table 2
86	**Revenue from Current Rates**	$4,757,964	$4,786,851	$4,815,738	$4,844,625	$4,873,512	$4,902,399	From Table 3
87								
88	**Surplus/(Deficit)**	($280,164)	($302,599)	($446,937)	($604,827)	($774,004)	($959,393)	From Table 3
89								
90	**Fund Balance (before increases)**	$1,681,814	$797,424	$13,718	($726,432)	($2,016,398)	($3,297,844)	From Table 4
91								
92	**Revenue Increase**	**0.0%**	**6.0%**	**6.0%**	**5.0%**	**5.0%**	**5.0%**	From Above
93	**Revenue from Increase**	$0	$143,606	$595,225	$870,967	$1,163,644	$1,474,188	From Table 3
94								
95	**Fund Balance (after increases)**	$1,681,814	$941,389	$753,676	$886,068	$763,215	$959,263	From Table 4
96								

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Solid Waste Rate Study**									
3	**Table 1B. General**									
4				**Projected**						
5			**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Source**	**Note**
6										
7	a	Interest on Fund Balance	0 25%	0 25%	0 25%	0 50%	1 00%	1 00%	Estimate	To Table 4
8	b	General inflation	PW Budget	3 0%	3 0%	3 0%	3 0%	3 0%	Per Public Works 5 Year Projections	To Table 2
9	c	Labor/Benefit Increases	PW Budget	2 2%	2 3%	4 8%	4 9%	4 9%	Per Public Works 5 Year Projections	To Table 2
10	d	Growth in Customers	100	100	100	100	100	100	Estimate - Per City	To Table 6
11	e	Total Customers (End of year)	16,471	16,571	16,671	16,771	16,871	16,971	From City's Billing System	To Table 6
12	f	% Growth of Customers		0 6%	0 6%	0 6%	0 6%	0 6%	Calculated	To Table 6
13	g	Bad Debt Expense	0 5%	0 5%	0 5%	0 5%	0 5%	0 5%	Estimate	To Table 3
14										
15	**Model Table Index**									
16	Table 1A Summary									
17	Table 1B General									
18	Table 2 Revenue Requirement									
19	Table 3 Projected Revenue Increases									
20	Table 4 Reserves									
21	Table 5 Capital Purchases									
22	Table 6 Cost of Service Analysis									
23										
24										

	A	B	C	D	E	F	G	H	I	J	K
1	City of Lincoln										
2	Solid Waste Rate Study										
3	Table 2 Revenue Requirement										
4				Table 1b		Projected					
5				Factors	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	Notes
6	Operating Expenses (6865)										
7	Salaries and Benefits - Operations										
8		40000	Full Time	c	589,539	589,539	589,539	607,225	625,442	644,205	
9		44000	Overtime	c	37,925	37,925	37,925	39,063	40,235	41,442	
10		43000	Part Time	c	22,661	22,661	22,661	23,341	24,041	24,762	
11		40500	On-call	c	2,563	2,563	2,563	2,639	2,719	2,800	
12		40550	Safety	c	-	-	-	-	-	-	
13		48050	Retirement	c	111,490	119,294	127,645	140,410	154,451	169,896	
14		48060	Workers Comp	c	35,014	35,014	35,014	36,065	37,147	38,261	
15		48070	Medical / Dental / Life Ins	c	131,941	142,497	153,897	166,208	179,505	193,865	
16		48070	SUI	c	5,957	5,957	5,957	6,135	6,319	6,509	
17		48085	SDI Employer	c	5,222	5,222	5,222	5,222	5,222	5,222	
18		48090	FICA	c	50,340	50,340	50,340	51,850	53,406	55,008	
19		48095	Def Comp	c	-	-	-	-	-	-	
20			Subtotal, Salaries and Benefits		$992,652	$1,011,011	$1,030,762	$1,078,158	$1,128,485	$1,181,970	
21						*2%*	*2%*	*5%*	*5%*	*5%*	
22	Salaries and Benefits - Administrative										
23		40000	Full Time	c	181,224	181,224	181,224	186,661	192,261	198,028	
24		44000	Overtime	c	1,025	1,025	1,025	1,056	1,087	1,120	
25		43000	Part Time	c	-	-	-	-	-	-	
26		40500	On-call	c	-	-	-	-	-	-	
27		40550	Safety	c	-	-	-	-	-	-	
28		48050	Retirement	c	31,110	33,287	35,618	39,179	43,097	47,407	
29		48060	Workers Comp	c	777	777	777	800	824	849	
30		48070	Medical / Dental / Life Ins	c	102,359	110,548	119,392	128,943	139,258	150,399	
31		48070	SUI	c	1,354	1,354	1,354	1,395	1,436	1,480	
32		48085	SDI Employer	c	1,384	1,384	1,384	1,384	1,384	1,384	
33		48090	FICA	c	13,153	13,153	13,153	13,547	13,954	14,372	
34		48095	Def Comp	c	-	-	-	-	-	-	
35			Subtotal, Salaries and Benefits		$332,386	$342,752	$353,926	$372,965	$393,302	$415,039	
36						*3%*	*3%*	*5%*	*5%*	*6%*	
37	Operating Costs										
38		50101	Office Expense	b	667	674	680	687	694	701	
39		50111	Insurance	b	19,876	21,267	22,756	24,349	26,053	27,877	
40		50140	Materials / Supplies	b	69,487	71,572	73,719	75,930	78,208	80,554	
41		50150	Fuel & Oil	b	176,220	192,080	209,367	228,210	248,749	271,136	
42		50190	Clothing	b	9,475	9,570	9,665	9,762	9,860	9,958	
43		50220	Advertising	b	15,000	15,150	15,302	15,455	15,609	15,765	
44		50250	Communications	b	6,414	6,606	6,805	7,009	7,219	7,436	
45		50270	Equipment Maintenance	b	50,000	51,500	53,045	54,636	56,275	57,964	
46		50280	Building Maintenance	b	-	-	-	-	-	-	
47		50310	Utilities	b	-	-	-	-	-	-	
48		50320	Taxes	b	103	103	103	103	103	103	
49		50350	Lease Expense	b	100,000	100,000	100,000	100,000	100,000	100,000	

1	**City of Lincoln**									
2	**Solid Waste Rate Study**									
3	**Table 2 Revenue Requirement**									
4			**Table 1b**			**Projected**				
5			**Factors**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
50	50400	Professional Services	b	229,134	236,008	243,088	250,381	257,892	265,629	
51	50500	Membership / Dues	b	650	657	663	670	676	683	
52	50530	Travel	b	-	-	-	-	-	-	
53	50540	Training	b	4,750	4,893	5,039	5,190	5,346	5,507	
54	50710	Regulatory Fees	b	21,800	22,454	23,128	23,821	24,536	25,272	
55	57305	WPWMA MRF Fees	b	1,555,000	1,587,907	1,621,452	1,655,646	1,690,501	1,726,029	
56	57315	AB 939 Compliance	b	-	-	-	-	-	-	
57	60000	Depreciation	b	33,987	33,987	33,987	33,987	33,987	33,987	
58	80050	Equipment	b	5,000	5,150	5,305	5,464	5,628	5,796	
59		Subtotal, Operating Costs		2,297,563	2,359,577	2,424,103	2,491,300	2,561,337	2,634,398	
60					*3%*	*3%*	*3%*	*3%*	*3%*	
62	**Non-Operating Costs**									
63	65100	Cost Allocation - General Fund		406,428	430,814	456,663	502,329	552,562	607,818	
64	65610	Cost Allocation - Fleet		239,031	250,983	263,532	284,614	307,383	331,974	
65		Subtotal, Non-Operating		645,459	681,796	720,194	786,943	859,945	939,792	
66					*6%*	*6%*	*9%*	*9%*	*9%*	
67		*Total Op and Non-Op Expenses*		*$4,268,059*	*$4,395,136*	*$4,528,985*	*$4,729,366*	*$4,943,070*	*$5,171,199*	
68					*3%*	*3%*	*4%*	*5%*	*5%*	
69	**Transfers To/(From) Reserves**									
70		Operations (720)		-	-	-	-	-	-	From Table 4
71		Capital Replacement Fund (721) - Budget		307,521	194,046	188,213	120,378	39,640	(52,407)	City's Budget
72		Corp Yard/City Hall Bond Pmt		159,713	159,713	159,713	159,713	159,713	159,713	From Budget - Solid Waste's share of lease exp
73		OPEB Fund		177,905	214,376	258,323	311,279	375,091	451,984	From Table 4
74		Landfill Maintenance Costs		124,930	126,179	127,441	128,716	130,003	131,303	City's Budget
75		Unfunded Landfill Closure		-	-	-	-	-	-	City's Budget
76		Subtotal, Transfers		770,069	694,314	733,690	720,085	704,446	690,593	
77										
78	**Net Revenue Requirement**			**$5,038,128**	**$5,089,450**	**$5,262,675**	**$5,449,451**	**$5,647,516**	**$5,861,792**	To Table 3
79		Annual Increases			*1%*	*3%*	*4%*	*4%*	*4%*	
80										

	A	B	C	D	E	F	G	H	I	J	K
1	**City of Lincoln**										
2	**Solid Waste Rate Study**										
3	**Table 3. Projected Revenue Increases**										
4											
5				**Table 1B**				**Projected**			
6				**Factors**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
7											
8	Revenue from Current Rates			f	$4,781,873	$4,810,905	$4,839,938	$4,868,970	$4,898,002	$4,927,034	FY 2012/13 actual revenue, remaining years adjusted for growth
9	Bad Debt Expense			g	($23,909)	($24,055)	($24,200)	($24,345)	($24,490)	($24,635)	
10	Net Rate Revenue				$4,757,964	$4,786,851	$4,815,738	$4,844,625	$4,873,512	$4,902,399	
11	Net Revenue Requirements				($5,038,128)	($5,089,450)	($5,262,675)	($5,449,451)	($5,647,516)	($5,861,792)	From Table 2
12	**Surplus/(Deficit) before rate increase**				($280,164)	($302,599)	($446,937)	($604,827)	($774,004)	($959,393)	
13											
14	***With Rate Increase***										
15	**Increase in Revenue from rates**				0 0%	6 0%	6 0%	5 0%	5 0%	5 0%	
16	*Cummulative Increase*				*0 0%*	*3 6%*	*13 7%*	*20 1%*	*26 9%*	*34 0%*	
17											
18	**Net Rate Revenue (from current rates)**		**# Mos**		$4,757,964	$4,786,851	$4,815,738	$4,844,625	$4,873,512	$4,902,399	
19	**Revenue from Rate Increases**		**in 1st FY**								
21	FY 13-14 (effective 1/1/14)		6			$143,606	$288,944	$290,677	$292,411	$294,144	
22	FY 14-15 (effective 7/1/14)		12				$306,281	$308,118	$309,955	$311,793	
23	FY 15-16 (effective 7/1/15)		12					$272,171	$273,794	$275,417	
24	FY 16-17 (effective 7/1/16)		12						$287,484	$289,188	
25	FY 17-18 (effective 7/1/17)		12							$303,647	
26	Subtotal - Revenue from Rate Increases				$0	$143,606	$595,225	$870,967	$1,163,644	$1,474,188	
27	**Total Rate Revenue**				$4,757,964	$4,930,456	$5,410,963	$5,715,591	$6,037,155	$6,376,586	
28	Net Revenue Requirements				($5,038,128)	($5,089,450)	($5,262,675)	($5,449,451)	($5,647,516)	($5,861,792)	From Table 2
29	**Transfer to/(from) Operating Fund**				($280,164)	($158,994)	$148,288	$266,140	$389,639	$514,794	

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Solid Waste Rate Study**									
3	**Table 4 Reserves**									
4										
5		**Table 1b**					**Projected**			
6		**Factors**	**2011/12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
7	**Solid Waste Operations Fund (730)**									
8										
9	**Revenue Increases**			**0 0%**	**6 0%**	**6 0%**	**5 0%**	**5 0%**	**5 0%**	
10	*Cummulative Increase*			*0 0%*	*3 6%*	*13 7%*	*20 1%*	*26 9%*	*34 0%*	
11										
12	Beginning Balance			$1,652,756	$1,036,324	$318,700	$308,332	$316,622	$350,305	2011/12 estimate from City
13	Surplus/(Deficit)			($280,164)	($158,994)	$148,288	$266,140	$389,639	$514,794	From Table 3
14										
15	***Revenue***									
16	Waste Haulers Franchise Fees			39,192	39,192	39,192	39,192	39,192	39,192	
17	Misc Revenue			1,383	1,383	1,383	1,383	1,383	1,383	
18	Subtotal			$40,575	$40,575	$40,575	$40,575	$40,575	$40,575	
19										
20	***Transfer (to)/from***									
21	Revenue Requirement									To Table 2
22	Capital replacement (731)				(600,000)	(200,000)	(300,000)	(400,000)	(575,000)	(to)/from below
23	OPEB Trust			(379,427)						(to)/from below
24	Subtotal			$1,033,740	$317,905	$307,563	$315,047	$346,836	$330,674	
25	Estimated Interest Earnings	a		$2,584	$795	$769	$1,575	$3,468	$3,307	
26	**Ending Balance**		$1,652,756	**$1,036,324**	**$318,700**	**$308,332**	**$316,622**	**$350,305**	**$333,981**	
27	*Minimum Balance (6 5 Weeks of Revenue Req)*			*$287,195*	*$294,947*	*$303,013*	*$311,413*	*$320,167*	*$329,300*	
28										
29	**Solid Waste Capital Replacement Fund (731)**									
30	Beginning Balance			$1,131,359	$645,490	$622,689	$445,344	$569,446	$412,910	
31	***Revenue***									
32				$0	$0	$0	$0	$0	$0	
33										
34	***Expenditures***									
35	Capital Projects - Vehicle Purchases			($795,000)	($818,400)	($566,668)	($299,109)	($600,265)	($316,411)	From Table 5
36	***Transfer (to)/from***									
37	Revenue Requirement - Per City Budget			307,521	194,046	188,213	120,378	39,640	(52,407)	To Table 2
38	Operations (730)			-	600,000	200,000	300,000	400,000	575,000	From above
39	Subtotal			$643,880	$621,136	$444,234	$566,613	$408,822	$619,092	
40	Estimated Interest Earnings	a		$1,610	$1,553	$1,111	$2,833	$4,088	$6,191	
41	**Ending Balance**		$1,131,359	**$645,490**	**$622,689**	**$445,344**	**$569,446**	**$412,910**	**$625,282**	
42	*Target Balance (1 25 X Avg Annual Purchases)*			*$707,469*	*$707,469*	*$707,469*	*$707,469*	*$707,469*	*$707,469*	
43										
44	**OPEB Trust**									
45	Beginning Balance			$ -	$ 558,725	$ 775,034	$ 1,035,939	$ 1,350,586	$ 1,729,991	
46	***Transfer (to)/from***									
47	Operations Fund 730			$ 379,427	$ -	$ -	$ -	$ -	$ -	From Above
48	Revenue Requirements			177,905	214,376	258,323	311,279	375,091	451,984	To Table 2
49	Subtotal			$ 557,332	$ 773,101	$ 1,033,356	$ 1,347,218	$ 1,725,677	$ 2,181,975	
50	Estimated interest earnings	a		1,393	1,933	2,583	3,368	4,314	5,455	
51	**Ending Balance**		$0	**$ 558,725**	**$ 775,034**	**$ 1,035,939**	**$ 1,350,586**	**$ 1,729,991**	**$ 2,187,430**	
52	*Target Balance (Based on Cumulative Proj Liab)*			*$ 557,332*	*$ 771,708*	*$ 1,030,030*	*$ 1,341,309*	*$ 1,716,399*	*$ 2,168,384*	

	A	B	C	D	E	F	G	H
1	**City of Lincoln**							
2	**Solid Waste Rate Study**							
3	**Table 5 Capital Purchases**							
4								
5			Projected					
6		**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**Notes**
7	**Collection Vehicles**							
8	Residential Sideloader - Veh #720	$260,000						
9	Residential Sideloader - Veh #726	$260,000						
10	Residential Sideloader - Veh #727		$267,800					
11	Residential Sideloader - Veh #728		$267,800					
12	Residential Sideloader - Veh #729			$275,834				
13	Residential Sideloader - Veh #730			$275,834				
14	Residential Sideloader - Veh #731				$284,109			
15	Residential Sideloader - Veh #732					$292,632		
16	Residential Sideloader - Veh #734					$292,632		
17	Residential Sideloader - Veh #735						$301,411	
18	Commercial Front-end Loader - Veh #722	$260,000						
19	Commercial Front-end Loader - Veh #724		$267,800					
20								
21	**Containers**							
22	Carts	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	
23	Bins	-	-	-	-	-	-	
24								
28	Subtotal	$795,000	$818,400	$566,668	$299,109	$600,265	$316,411	To Table 4
29								
30								
31	Source City of Lincoln - Capital Replacement Budget							
32								
33								
34								

	A	B	C	D	E	F	G	H	I	J
1	**City of Lincoln**									
2	**Solid Waste Rate Study**									
3	**Table 6. Cost of Service Analysis**									
4				**Budgeted**	**Allocation**	**Allocation Percentages**		**Allocated Expenses**		
5				**FY 2013-14**	**Method**	Residential	Commercial	Residential	Commercial	**Total**
6	**Operating Expenses (6865)**									
7	**Salaries and Benefits - Operations**									
8		40000	Full Time	589,539	Route Labor	71 2%	28 8%	$419,644	$169,894	$589,539
9		44000	Overtime	37,925	Route Labor	71 2%	28 8%	$26,996	$10,929	37,925
10		43000	Part Time	22,661	Route Labor	71 2%	28 8%	$16,130	$6,530	22,661
11		40500	On-call	2,563	Route Labor	71 2%	28 8%	$1,824	$738	2,563
12		48050	Retirement	119,294	Route Labor	71 2%	28 8%	$84,916	$34,378	119,294
13		48060	Workers Comp	35,014	Route Labor	71 2%	28 8%	$24,924	$10,091	35,014
14		48070	Medical / Dental / Life Ins	142,497	Route Labor	71 2%	28 8%	$101,432	$41,065	142,497
15		48070	SUI	5,957	Route Labor	71 2%	28 8%	$4,240	$1,717	5,957
16		48085	SDI Employer	5,222	Route Labor	71 2%	28 8%	$3,717	$1,505	5,222
17		48090	FICA	50,340	Route Labor	71 2%	28 8%	$35,833	$14,507	50,340
18			Subtotal, Salaries and Benefits - Ops	$1,011,011				$719,656	$291,355	$1,011,011
19										
20	**Salaries and Benefits - Administrative**									
21		40000	Full Time	181,224	Accounts	98 1%	1 9%	$177,776	$3,448	181,224
22		44000	Overtime	1,025	Accounts	98 1%	1 9%	$1,005	$20	1,025
23		48050	Retirement	33,287	Accounts	98 1%	1 9%	$32,654	$633	33,287
24		48060	Workers Comp	777	Accounts	98 1%	1 9%	$762	$15	777
25		48070	Medical / Dental / Life Ins	110,548	Accounts	98 1%	1 9%	$108,444	$2,103	110,548
26		48070	SUI	1,354	Accounts	98 1%	1 9%	$1,328	$26	1,354
27		48085	SDI Employer	1,384	Accounts	98 1%	1 9%	$1,358	$26	1,384
28		48090	FICA	13,153	Accounts	98 1%	1 9%	$12,903	$250	13,153
29		48095	Def Comp	-	Accounts	98 1%	1 9%	$0	$0	-
30			Subtotal, Salaries and Benefits - Admin	$342,752				$336,231	$6,521	$342,752
31										
32	**Operating Costs**									
33		50101	Office Expense	674	Accounts	98 1%	1 9%	$661	$13	674
34		50111	Insurance	21,267	Routes	82 4%	17 6%	$17,529	$3,739	21,267
35		50140	Materials / Supplies	71,572	Routes	82 4%	17 6%	$58,990	$12,582	71,572
36		50150	Fuel & Oil	192,080	Routes	82 4%	17 6%	$158,314	$33,766	192,080
37		50190	Clothing	9,570	Routes	82 4%	17 6%	$7,887	$1,682	9,570
38		50220	Advertising	15,150	Accounts	98 1%	1 9%	$14,862	$288	15,150

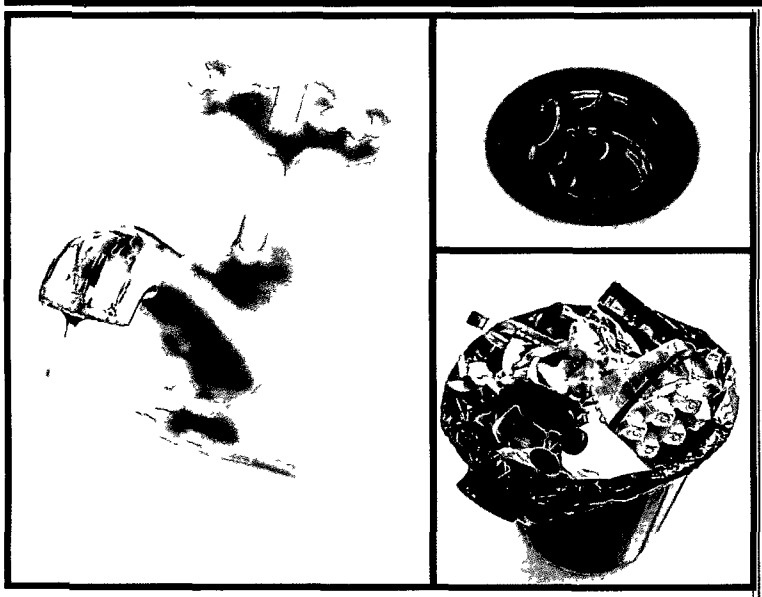
	A	B	C	D	E	F	G	H	I	J
39		50250	Communications	6,606	Routes	82 4%	17 6%	$5,445	$1,161	6,606
40		50270	Equipment Maintenance	51,500	Routes	82 4%	17 6%	$42,447	$9,053	51,500
41		50320	Taxes	103	Routes	82 4%	17 6%	$85	$18	103
42		50350	Lease Expense	100,000	Accounts	98 1%	1 9%	$98,097	$1,903	100,000
43		50400	Professional Services	236,008	Accounts	98 1%	1 9%	$231,518	$4,490	236,008
44		50500	Membership / Dues	657	Accounts	98 1%	1 9%	$644	$12	657
45		50540	Training	4,893	Routes	82 4%	17 6%	$4,032	$860	4,893
46		50710	Regulatory Fees	22,454	Routes	82 4%	17 6%	$18,507	$3,947	22,454
47		57305	Disposal Fees	1,587,907	Tonnage	76 0%	24 0%	$1,207,372	$380,535	1,587,907
48		60000	Depreciation	33,987	Routes	82 4%	17 6%	$28,012	$5,975	33,987
49		80050	Equipment	5,150	Routes	82 4%	17 6%	$4,245	$905	5,150
50			Subtotal, Operating Costs	$2,359,577				$1,898,648	$460,929	$2,359,577
53		**Non-Operating Costs**								
54		65100	Cost Allocation - *General Fund*	430,814	Accounts	98 1%	1 9%	$422,617	$8,197	430,814
55		65610	Cost Allocation - Fleet	250,983	Routes	82 4%	17 6%	$206,862	$44,120	250,983
56			Subtotal, Non-Operating	$681,796				$629,479	$52,317	$681,796
57										
58			**Total Op and Non-Op Expenses**	**$4,395,136**				**$3,584,014**	**$811,122**	**$4,395,136**
59										
60		**Transfers To/(From) Reserves**								
61			Capital Replacement Fund (721)	194,046	Routes	82 4%	17 6%	$159,935	$34,111	194,046
62			Corp Yard/City Hall Bond Pmt	159,713	Accounts	98 1%	1 9%	$156,674	$3,039	159,713
63			OPEB Fund	214,376	Route Labor	71 2%	28 8%	$152,596	$61,779	214,376
64			Landfill Maintenance Costs	126,179	Tonnage	76 0%	24 0%	$95,941	$30,238	126,179
65			***Total Transfers***	**694,314**				**565,146**	**$129,167**	**694,314**
66										
67		**Net Revenue Requirement**		**$5,089,450**			**Allocated Expenses**	**$4,149,161**	**$940,290**	**$5,089,450**
68										
69							Annual Revenue at Current Rates	$3,898,899	$882,974	
70							Less Bad Debt	($19,494)	($4,415)	
71							**Net Revenue**	**$3,879,405**	**$878,559**	**$4,757,964**
72										
73							**$ Surplus/(Shortfall)**	**($269,756)**	**($61,730)**	**($331,486)**
74							% Surplus/(Shortfall)	**-7.0%**	**-7.0%**	**-7.0%**

ATTACHMENT 2

City of Lincoln

CITY OF LINCOLN

WATER, WASTEWATER, AND SOLID WASTE RATE STUDY



October 14, 2013

HF&H Consultants, LLC

City of Lincoln

CITY OF LINCOLN
600 6TH STREET
LINCOLN, CA 95648

WATER, WASTEWATER, AND SOLID WASTE RATE STUDY
PUBLIC HEARING FINAL REPORT

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August 5

October 14, 2013

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October 14, 2013

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Mr Steve Ambrose
Financial Analyst
City of Lincoln
600 Sixth Street
Lincoln, CA 95648

Subject: Water, Wastewater, and Solid Waste Rate Study – Revised Draft

Dear Mr Ambrose

HF&H Consultants, LLC, is pleased to submit this report that documents the updates to the City's water, wastewater, and solid waste rates The report was revised to address public comments received at the October 8, 2013 City Council meeting We specifically provided more information concerning transfers, capital improvements, and rate structure proportionality with the aim of explaining how rate payer money is being spent to support each of these three enterprises

It has been a pleasure working with you and City Staff on this challenging project

Very truly yours,

HF&H CONSULTANTS, LLC

John W Farnkopf, P E , Senior Vice President
Rick Simonson, C M C , Vice President
Sima Mostafaei, Senior Associate

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ACRONYMS

BOD	Biochemical Oxygen Demand, an organic component of wastewater strength
CIP	Capital Improvement Plan
COS	Cost of service
DU	Dwelling unit
EDU	Equivalent Dwelling Unit, an average single-family residential customer
EMU	Equivalent meter unit
EPA	Environmental Protection Agency
FY	Fiscal Year
GCD	Gallons per Capita per Day
GPD	Gallons Per Day
HCF or CCF	Hundred (100) Cubic Feet of metered water, 748 gallons, a cube of water 4 6 feet on edge
I&I	Inflow and Infiltration, stormwater runoff that enters collection systems as inflow through surface openings or as infiltration through subsurface cracks or other openings
Mg/l	Milligrams per Liter
MRF	Material Recovery Facility
O&M	Operations and Maintenance
PAYGo	Pay-As-You-Go financing, as opposed to debt financing
PCWA	Placer County Water Agency
TGAL	Thousand Gallons
TSS	Total Suspended Solids, an inorganic component of wastewater strength
WPWMA	Western Placer Waste Management Authority

ACKNOWLEDGEMENTS

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Stan Nader (Mayor)
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Paul Joiner (Councilmember)
Spencer Short (Councilmember, Finance Committee)

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Steve Ambrose, Public Services Financial Analyst

HF&H Consultants, LLC
John Farnkopf, Sr Vice President
Rick Simonson, Vice President
Sima Mostafaei, Senior Associate

1. EXECUTIVE SUMMARY

The City of Lincoln (City) provides water, wastewater, and solid waste services to residents and businesses primarily located inside the city limits The last rate studies were completed in 2006 for water and wastewater and in 2005 for solid waste The purpose of this report is to document the rate study HF&H Consultants (HF&H) conducted in 2012 and 2013

The process of updating the City's water, wastewater, and solid waste rates began in February 2012 with meetings with Staff to discuss rate-making objectives, recent developments that should be reflected in the analysis, data collection, and model development Preliminary results were presented to City Staff for review and revision in late 2012 Presentations were made to the City's Finance Committee on March 15, April 19, May 6, and June 4, 2013, based on comments and direction received from the Finance Committee members Final revisions were made and presented to the City Council at a workshop on August 5, 2013

1.1 STUDY PURPOSE AND OBJECTIVES

The purpose of this study is to conduct a comprehensive analysis of the City's utility rates, including documentation of the analysis, underlying assumptions, and the rationale for the recommended rates This study has several key objectives

- Determine how much revenue is required to meet the City's requirements, including O&M, capital improvement, and reserve funds
- Determine the cost of service for each customer class
- Evaluate alternative rate structures that will ensure that customers within each class are paying their proportionate shares of the revenue requirements
- Compare the City's rates and customer bills with those of its neighboring agencies

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These objectives should be met by applying industry standards so that all applicable laws are complied with

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1.2 METHODOLOGY

This rate study included three analytic stages for each utility

- **Revenue Requirement Projections.** The City's expenses and revenues are projected based on expected cost escalation factors and growth rates The

difference between expenses and revenues must be offset by annual revenue increases

- **Cost of Service Analysis.** The revenue requirement for the coming rate year is allocated to each customer class based on the cost of service attributable to each class

- **Rate Design and Bill Comparison.** Rates are designed for each customer class to recover its share of the cost of service The reasonableness of the rate design is evaluated by comparing bills between customer classes to ensure that proportionality is maintained

1.3 RATE-MAKING OBJECTIVES

The City has several rate-making objectives that the recommended rates are designed to achieve

- **Revenue Sufficiency.** Rates need to generate sufficient revenue to fund operating and capital costs and maintain adequate reserves

- **Revenue Stability.** Rates are designed to balance revenue from fixed and variable charges to stabilize revenue

- **Conservation Signal** Rates are designed to reward customers for efficiency and to discourage waste

- **Administrative Ease** Rates are designed to enable easy implementation and ongoing administration, including monitoring and updating

- **Affordability.** Rates need to be as affordable as possible while maintaining the City's sound financial position and credit rating

- **Customer Acceptance** Rates are designed to be as simple as possible to facilitate customer understanding and acceptance

- **Fairness.** Rates are designed so that each customer class pays its proportionate share of the required revenue in compliance with legal rate-making requirements

1.4 FINDINGS AND RECOMMMENDATIONS

Revenue Requirement Projections

Figure 1-1 summarizes the annual increases in revenue requirements that rates must be set to fund for each enterprise The comparatively high increase in water revenue

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requirements is driven by the need to increase the amount of capital improvement that are needed in water infrastructure and by projected increases in the cost of purchased water from PCWA The comparatively low increases in sewer and solid waste revenue requirements are driven primarily by inflation

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Figure 1-1 Revenue Requirement Projections

		Proposed				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Water	$11,367,370	$11,592,358	$12,538,528	$13,365,432	$14,217,343	$15,426,152
Wastewater	$ 6,734,876	$ 7,155,121	$ 6,857,972	$ 7,119,843	$ 7,305,044	$ 7,625,366
Solid Waste	$ 5,038,128	$ 5,089,450	$ 5,262,675	$ 5,449,451	$ 5,647,516	$ 5,861,792

Figures 1-2, 1-3, and 1-3 show the relative distribution of the major components of the revenue requirements for each enterprise in FY 2013-14 These figures generally indicate how rate payer revenue is spent

Figure 1-2. FY 2013-14 Water Revenue Requirements

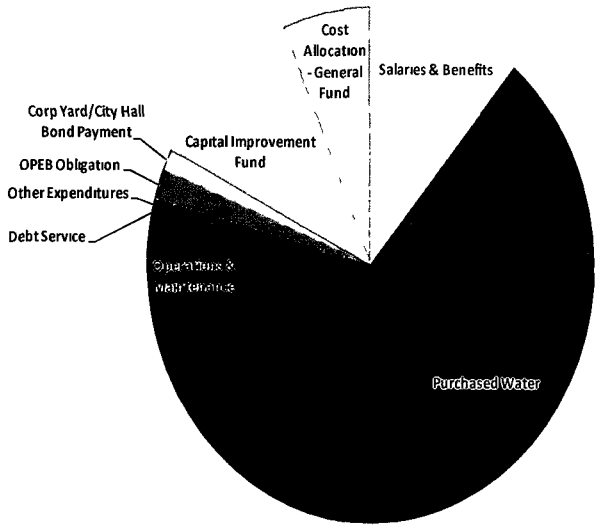


Figure 1-3. FY 2013-14 Sewer Revenue Requirements

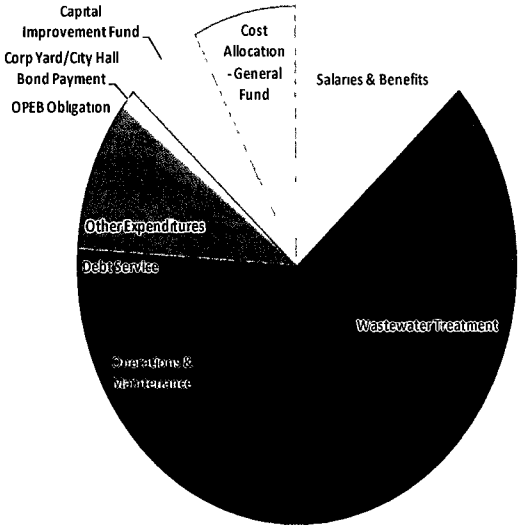
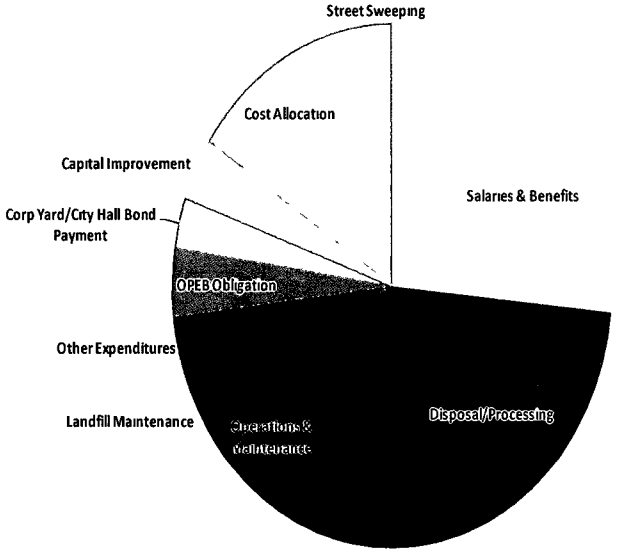


Figure 1-4. FY 2013-14 Solid Waste Revenue Requirements



Cost of Service Analysis

The cost of service analysis for water indicated that the current rates generate less than the cost of serving single family residential customers Water rates were set to align the resulting revenue from each class with the cost of service for each class beginning in FY 2013-14

The cost of service analysis for sewer indicated that the current rates generate less than the cost of serving non-residential customers Sewer rates were set to align the resulting revenue from each class with the cost of service for each class by FY 2017-18

The cost of service analysis for solid waste indicated that the current rates are closely aligned with the cost of serving each class, no adjustments in the rate structure are recommended

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Rate Design

The water rate structure was modified as follows

- Convert the current base charge, which is a flat rate per account for all customers, to a service charge, which varies in proportion to the size of the customer's meter By doing so, customers will pay for their proportionate shares of the capacity that they require in the water system This recommendation complies with industry standards
- Convert the service charges over a five-year period This will reduce the immediate impact on the customers with larger services
- Create different quantity charges for single family, multi family, and non-residential customers with tiers sized specifically for the levels of demand for each class By doing so, each rate structure can be designed to provide a price signal that is appropriate to each class
- Charge for all water including the water in Tier 1, which currently amounts to over 50% of total water use in the City By doing so, customers will only pay for water they use This recommendation complies with industry standards.

The sewer rate structure was modified as follows

- Convert the non-residential customers from charges per EDU to charges based on a flat charge per account (equal to the residential charge) plus a volumetric component based on the estimated volume and strength of wastewater discharged

- A five-year transition toward the cost of service is recommended because of the need to gradually implement the new non-residential rate structure, which is based on flow, rather than on EDUs

There were no rate structure modifications in solid waste rates

The result of the foregoing revenue increases, cost of service adjustments, and rate restructuring can be found in the body of this report

Customer Bills

Figure 1-5 summarizes the average monthly customer bills for single family water, sewer, and solid waste customers. Figure 1-6 plots the combined bills for each service through FY 2017-18. After the increases in FY 2013-14, the subsequent increases are comparatively gradual The current $74 96 averag increases in FY 2013-14 to $87 45 per month, an increase of $12.49 per month In subsequent years, the average increase is $6 67 per month

Figure 1-7 compares the City of Lincoln's current and proposed average single-family residential bills for FY 2013-14 with its neighboring agencies The City's residential bills are low compared to its neighbors

Each year, prior to implementing the rate increases, City staff should confirm the need for the rate increase The City can implement a lower rate increase, if conditions warrant, without going through the Proposition 218 notification process If higher rate increases are needed that exceed the adopted rates, the City will need to initiate a new Proposition 218 proceeding, which includes mailing notices to affected rate payers and property owners

Figure 1-5 Summary of Projected Monthly Bills – Single Family Customers

	Current	Proposed				
		FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Water						
Average Monthly Water Bill*	$ 22 90	$ 34 19	$ 39 31	$ 45 20	$ 50 18	$ 55 68
Incremental Increase		*$ 11 29*	*$ 5 12*	*$ 5 89*	*$ 4 98*	*$ 5 50*
Wastewater						
Monthly Wastewater Bill	$ 32 08	$ 32 08	$ 32 08	$ 32 08	$ 32 08	$ 32 08
Incremental Increase		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Solid Waste						
Monthly Solid Waste Bill	$ 19 98	$ 21 18	$ 22 45	$ 23 57	$ 24 75	$ 26 00
Incremental Increase		*$ 1 20*	*$ 1 27*	*$ 1 12*	*$ 1 18*	*$ 1 25*
Combined						
Average Monthly Bill	$ 74 96	$ 87 45	$ 93 84	$ 100 85	$ 107 01	$ 113 76
Incremental Increase		*$ 12 49*	*$ 6 39*	*$ 7 01*	*$ 6 16*	*$ 6 75*

** Reflects monthly bill for 8,000 gallons which was the median single-family usage from May 2011 - April 2012*

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In subsequent years, the average increase is about $6 67 per month

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Figure 1-6. Projected Average Monthly Single-Family Bills – All Services

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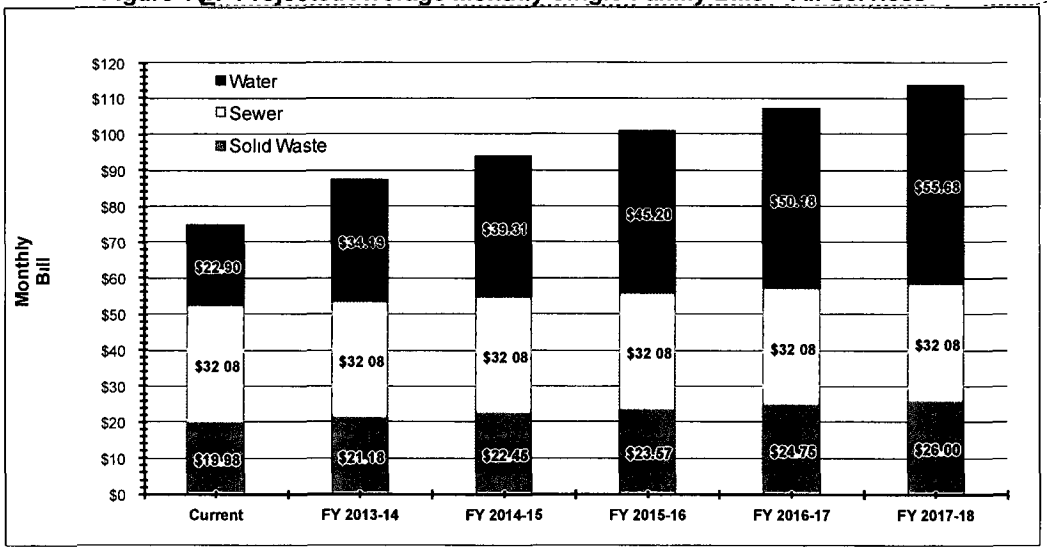

Figure 1-7. Comparison of Average Monthly Single-Family Bills
(With neighboring agencies)

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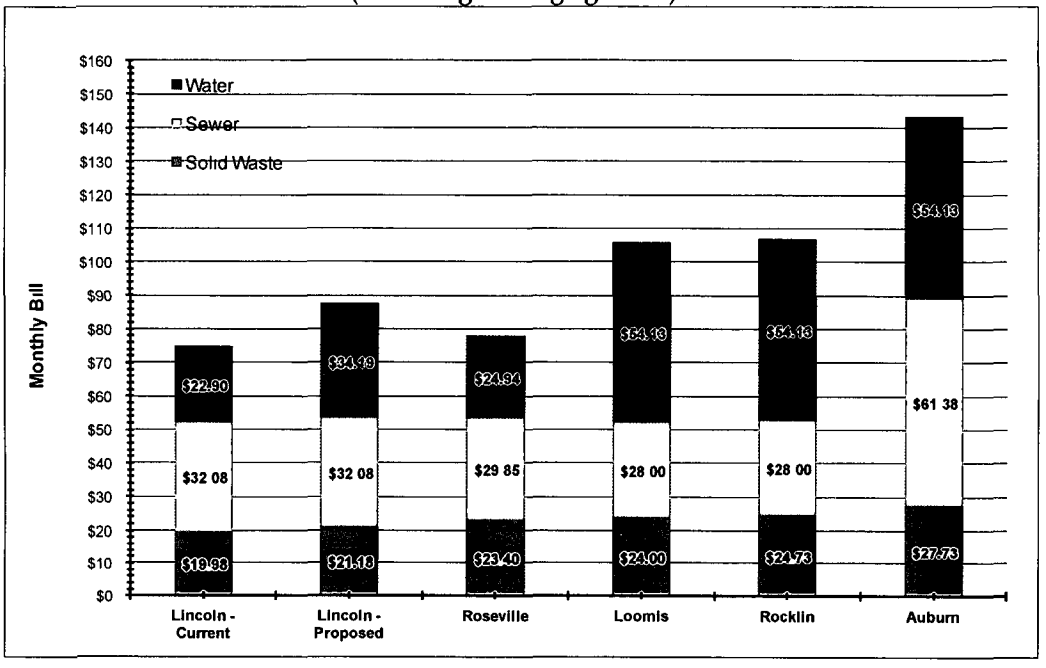

2. WATER RATES

2.1 BACKGROUND

The City provides water service to more than 16,000 accounts through a system of wells, reservoirs, booster pumps, and distribution pipelines, all of the customers are metered The City currently charges customers monthly bills that are the sum of a base charge plus a volumetric charge The current base charge is $22 90 per month per Equivalent Dwelling Unit (EDU), and includes up to 10,000 gallons of water per month at no additional charge The volumetric charges per 1,000 gallons applies to water use over 10,000 gallons per month Because the median residential demand is about 8,000 per month, much of the water used is included in the minimum charge

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2.2 REVENUE REQUIREMENT PROJECTIONS

Rate analysis begins by determining the revenue requirements that must be met by rates For purposes of this study, a five-year rate projection period was developed using a spreadsheet model With this model, revenue requirements were projected for FY 2013-14 through FY 2017-18 by using the FY 2012-13 budget as the starting point **Figure 2-1** summarizes the major categories comprising the revenue requirements

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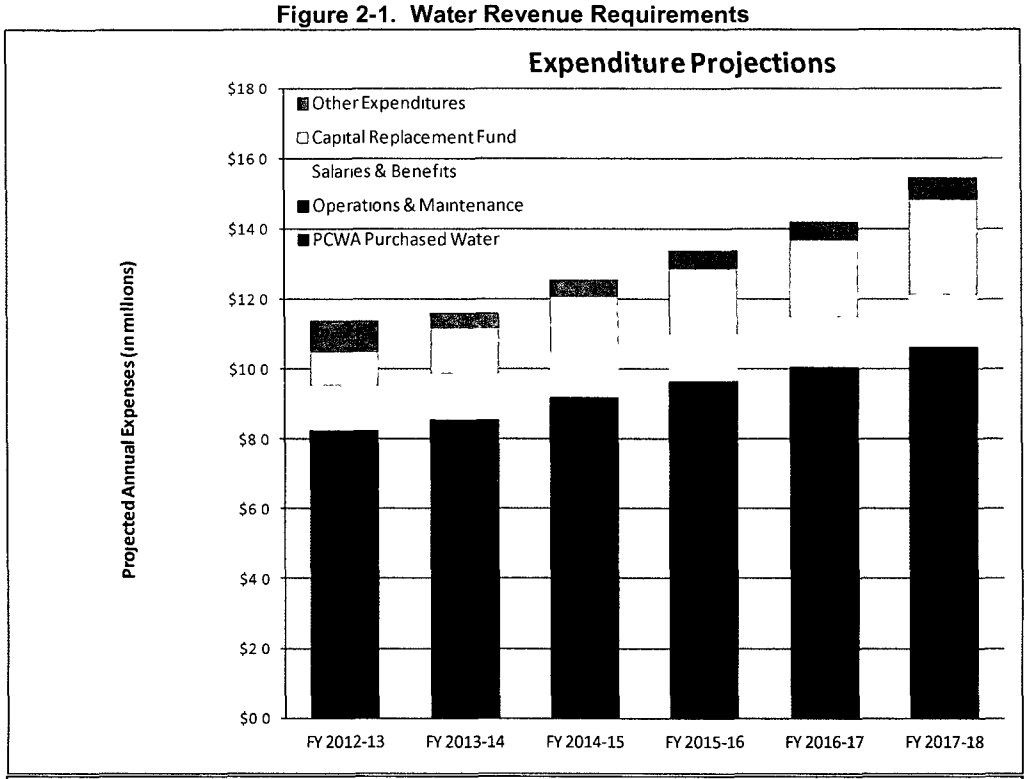
Figure 2-1. Water Revenue Requirements



			Projected			
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
PCWA Purchased Water	$ 6,564,304	$ 6,824,500	$ 7,363,016	$ 7,698,862	$ 8,005,042	$ 8,454,413
Operations & Maintenance	1,671,241	1,741,954	1,816,292	1,928,473	2,050,049	2,181,894
Salaries & Benefits	1,278,924	1,286,826	1,313,415	1,374,412	1,439,165	1,507,959
Capital Replacement Fund	947,369	1,307,627	1,575,314	1,839,760	2,163,028	2,656,819
Other Expenditures	905,532	431,451	470,491	523,925	560,061	625,067
Total Revenue Requirment	$ 11,367,370	$ 11,592,358	$ 12,538,528	$ 13,365,432	$ 14,217,343	$ 15,426,152

Key Assumptions

PCWA Purchased Water Expense

The largest operating expense is the cost to purchase water from PCWA The City's budget for FY 2012-13 served as the starting point for projecting PCWA purchased water expenses FY 2013-14 and FY 2014-15 values reflect the latest PCWA rate projections and inflationary increase of 3 0% per year, thereafter The cost of PCWA water is set by PCWA and is passed through to customers at cost.

Salaries and Benefits Expense

The City's budget for existing personnel as of FY 2012-13 served as the starting point for projecting operating and administrative wage and benefit expenses It should be noted that the City's FY 2012-13 budget includes the proposed addition of two new water

technicians and an allocation of 35% and 45% of an Environmental Services Manager and a Senior Engineer, respectively For FY 2013-14 through FY 2017-18, the salaries and benefits for the existing and proposed staff were assumed to increase due to increases in health care premiums, workers' compensation insurance rates, and wage rates

Operations and Maintenance Expense

The City's operations and maintenance (O&M) expenses (excluding salaries, benefits, and purchased water costs) budget for FY 2012-13 served as the starting point for projecting operations and maintenance expenses. Generally, these expenses were increased by 3 0% per year to approximate assumed inflationary increases

Transfers to the General Fund are included in O&M These transfers reimburse the General Fund for services provided to the water enterprise The City conducts annual analyses to allocate governmental overhead to each of the enterprises to ensure that each enterprise provides full reimbursement for services received

Capital Replacement Fund

The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for capital improvement projects The City plans to fund future capital improvements of existing infrastructure on a PAYGo basis using a portion of annual rate revenue and available reserves. Capital improvements are projected to increase over the five-year period from $1 0 million to $2 7 million

PAYGo funding is less expensive because it avoids financing costs It is also appropriate for the type of capital improvements, which are on-going renewals and replacements that are needed to keep pace with depreciation Larger, periodic capital projects such as major new facilities are more appropriate candidates for debt financing Existing debt service is minimal and will be retired in FY 2016-17, there are no plans to issue additional debt for water capital projects

Other Expenditures

The other expenditures are comprised of the Water enterprise's share of the corp yard bond payment, debt service, annual OPEB obligation, and a one-time transfer of $500,000 in FY 2012-13 for infrastructure improvements

Projected Revenue Increases

The amount by which revenue needs to be increased to cover the revenue requirements is determined by comparing the revenue requirements with the revenue from current rates Annual surpluses or deficits are credited or debited to reserves It can be seen that a deficit occurred in FY 2012-13 and that future deficits are projected unless rates are increased (or the projected cost increases are eliminated, which would mean

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Deleted Debt Service¶
Existing debt service is retired in FY 2016-17 and there are no plans to issue additional debt for water capital projects

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Transfers ¶
Transfers are made to other funds (e g , operations reserve fund, capital replacement reserve fund, other post-retirement benefits fund) that vary from year-to-year and range from $1,708,000 in FY 2013-14 to $3,326,000 in FY 2017/18 based on projected needs The largest component of transfers funds capital improvements, which are

significantly reducing the planned capital improvements) Figure 2-2 shows the annual revenue increases that are required

Figure 2-2. Water Revenue Increases

		Projected				
Expenditures	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Revenue Requirement	$ 11,367,370	$11 592,358	$12,538,528	$13,365,432	$14,217,343	$15,426,152
Revenue from Current Rates	$8,870,348	$8,916,971	$8,963,595	$9,010,218	$9,056,842	$9,103,465
Surplus/(Deficit)	($2,497,022)	($2,675,386)	($3,574,933)	($4,355,214)	($5,160,501)	($6,322,687)
Fund Balance (before increase)	$3,712,659	$1,271,671	($2,121,339)	($6,584,763)	($12,085,943)	($18,816,301)
Revenue Increase	0 0%	15 0%	15 0%	15 0%	11 0%	11 0%
Revenue from Increases	$0	$668,773	$2,761,908	$4,556,762	$6,242,721	$7,823,643
Fund Balance (after increase)	$3 712,659	$1,942,115	$1,311,875	$1,406,580	$2,152,197	$3,253,321

Revenue is increased not only to cover projected expenditures but also to maintain operating and capital reserves at adequate levels It is the City's practice to maintain two reserve funds for water operations an operating reserve and a capital replacement reserve For purposes of rate setting, the following reserve target balances were established

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- **Minimum Balance** The Minimum Balance is based on the amount of revenue that is needed to provide month-to-month cash flow for O&M expenses By maintaining this minimum reserve, the enterprise is able to meet its cash flow without borrowing from the General Fund The fund balance should never drop below the Minimum Balance, which is currently about $1 0 million The Minimum Balance is based on the bill frequency For utilities that bill monthly, a minimum of approximately six weeks of O&M expenses is recommended

- **Target Balance** The Target Balance is the Minimum Balance plus an additional cash margin for capital improvements so that sufficient funds are available to pay for ongoing PAYGo projects without cash flow constraints The capital component is set to two times the average annual PAYGo expenditures, which is about $2 5 million

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Deleted. or unusually low revenues caused by water shortages or the loss of customers during economic downturns In effect,

The Target Balance does not provide additional reserves for emergencies, complying with regulatory uncertainty, and other unforeseeable contingencies. For that reason, the Target Balance should be regarded as a minimal reserve It is desirable to maintain reserves above the Target Balance to provide a prudent margin to stabilize rates.

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The preceding modeling assumptions lead to the projected fund balances shown in **Figure 2-3** The need for the series of revenue increases in **Figure 2-2** is demonstrated by the resulting fund balances Larger revenue increases are required initially to avert

the declining fund balance Subsequent revenue increases are required as capital improvements are ramped up to the required level

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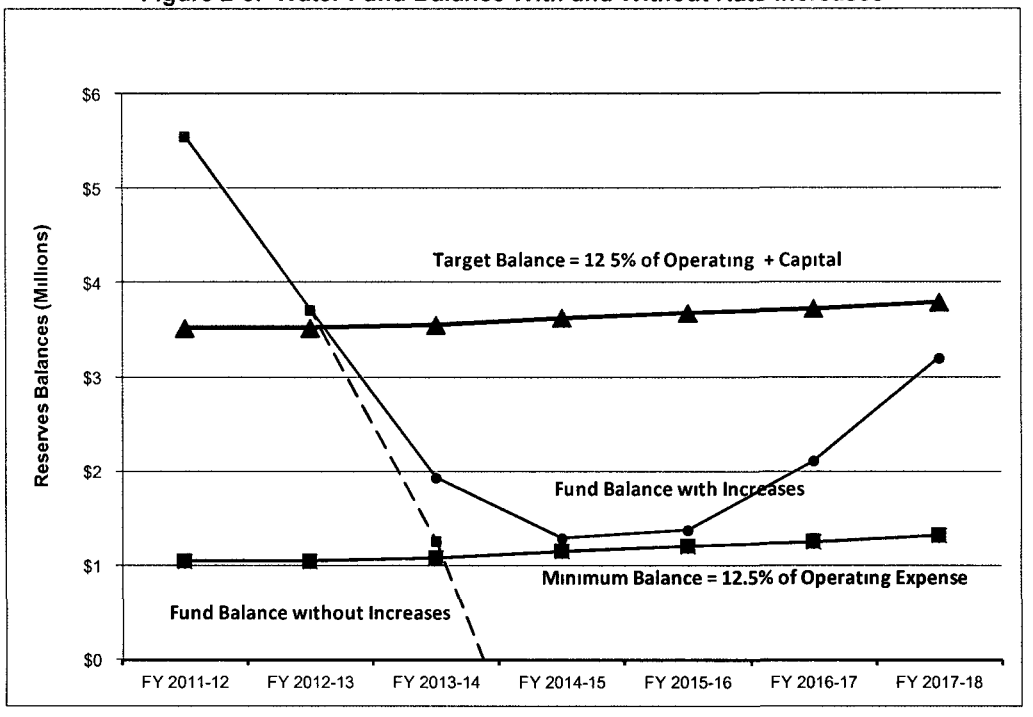
Figure 2-3. Water Fund Balance With and Without Rate Increases



2.3 COST OF SERVICE ANALYSIS

Cost of service analysis determines each customer class' proportionate share of the revenue requirement Rates are then designed to ensure that each class is paying its proportionate share of the revenue requirements The cost of service is determined in three steps

- Revenue requirements are categorized into functions or services
- The unit cost of service is calculated by dividing the cost for each service by its respective units of service.
- The revenue requirements are allocated to each class by multiplying the unit costs times the units of service used by each class

Allocation of Costs to Functions

Water supply systems provide capacity to meet demands For purposes of this rate study, the revenue requirements are accordingly apportioned into two categories

corresponding to capacity and demand functions The capacity function is defined as those operating and capital costs that are primarily fixed in nature, Fixed costs are commensurate with capacity, which is also static, as opposed to demand costs, which vary with demand Capacity costs are recovered through a fixed charge that is proportionate to the customer's proportionate share of capacity in the system as measured by the size of the service connection Much of the water system's costs are fixed and do not vary in proportion to flow, such as capital and personnel costs In FY 2012-13, approximately 43% of the revenue requirement is fixed, by FY 2017-18, the fixed component is projected to increase to 45% as additional capital funding occurs

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The City's existing base rate, which is a fixed charge, generates 52% of total rate revenue At 52%, the base charges recover close to the amount of fixed costs During meetings with the Finance Committee, it was concluded that the rates should continue to generate a similar portion of fixed revenue to provide revenue stability at a time when significant rate restructuring is occurring

Deleted: Figure 2-4 shows the allocation of revenue between capacity and demand charges based on the current rates and on the Finance Committee's 50%/50% allocation These costs represent the FY 2013-14 revenue requirement in Figure 2-2 increased by 15%

Figure 2-4 shows the allocation of revenue between capacity and demand charges, which serves as the basis for the cost-of-service allocations The $10,287,747 revenue is based on the FY 2012-13 revenue in Figure 2-2 increased by 15% (ignoring bad debt and sales outside the City, which together are minimal)

Figure 2-4. Allocation of FY 2013-14 Revenue to Water Functions

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	Capacity Costs	Demand Costs	Total
Current	$5,300,287	$4,987,459	$10,287,747
	52%	48%	100%
Cost of Service	$5,143,873	$5,143,873	$10,287,747
	50%	50%	100%

The capacity costs serve as the basis for allocating costs in proportion to water meter size These allocations are independent of customer class The demand costs serve as the basis for allocating costs to each customer class in proportion to demand

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Unit Costs of Service

There are units of service for the capacity and demand functions. For capacity related costs, equivalent meter units (EMUs) are used For demand costs, the units of service are thousand gallons (TGALs)

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Capacity Units of Service

EMUs are determined based on the capacity that larger meters provide compared to the smallest meters, which for purposes of this study are considered to be 5/8" and 3/4" meters **Figure 2-5** shows the multipliers that were used to establish the number of EMUs When the EMU multipliers are multiplied by the number of meters of each size,

the total number of EMUs is derived The unit cost of capacity is derived by dividing the capacity costs by the number of EMUs

Figure 2-5. Equivalent Meter Units

EMU Multipliers		Meters	EMUs
5/8"	1 00	15	15
3/4"	1 00	16,325	16,325
1"	1 50	220	330
1 1/2"	5 00	95	475
2"	8 00	61	488
3"	16 00	22	352
4"	25 00	6	150
6"	40 00	1	40
8"	71 11	2	142
		Total EMUs	18,317
		Capacity costs	$5,143,873
		Annual unit cost	$280 82
		Monthly unit cost	$23 40

Demand Units of Service

The demand units of service are derived by dividing the demand costs by the projected demand ($5,143,873 divided by 2,600,150 TGAL), which yields $1 978 per TGAL We note that the projected single family demand is reduced by 5% in anticipation of conservation by customers Factoring conservation is prudent and will reduce the revenue shortfall that would occur when sales revenue drops because of conservation Even with conservation, most costs remain and need to be recovered

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Revenue Requirement Allocations to Customer Classes

The allocation of revenue requirements to the capacity function is independent of customer class and hence no further allocation step is needed The resulting unit costs are used in the next section for calculating service charges

The allocation of revenue requirements to the demand function is dependent on customer classes and is discussed in this section The allocation is shown in **Figure 2-6.** The $1 978/TGAL unit cost is applied to the projected units of demand for each class to determine each class' share of the demand function By applying the same unit cost to all customer classes, a common measure of proportionality is maintained and no class is disproportionately impacted The resulting allocations were used in the next section to derive the quantity charges for each class

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Figure 2-6. FY 2013-14 Cost of Service Comparison – Water

	Projected Demand (tgal)	Unit Cost of Service	Cost of Service Allocation	Existing Allocation	COS Minus Existing
Single-Family	2,133,807	$1 978	$4,221,307	$3,179,024	$1,042,283
Multi-Family	92,120	$1 978	$182,241	$346,938	($164,697)
Commercial	164,439	$1 978	$325,310	$595,073	($269,763)
Industrial	68,501	$1 978	$135,515	$297,367	($161,851)
Irrigation	141,283	$1 978	$279,500	$569,057	($289,557)
Subtotal	374,223		$740,325	$1,461,497	($721,172)
	2,600,150		$5,143,873	$4,987,459	$156,414

Figure 2-6 indicates that the revenue from existing rates differs from each class' share of the cost of service Single family rates need to increase to bring them in line with the cost of serving this class

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2.4 RATE DESIGN

Service charges are designed to recover the capacity costs in **Figure 2-5** and quantity charges are designed to recover the demand costs in **Figure 2-6.**

Service Charges

The service charge for each meter size is derived by multiplying the $23 40 unit cost of service per EMU times the number of EMU multipliers for each meter The resulting charges for FY 2013-14 are shown in **Figure 2-7.**

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Figure 2-7. Monthly Service Charges (FY 2013-14)

EMU Multipliers		Unit Cost	Monthly Service Charge
5/8"	1 00	$23 40	$23 40
3/4"	1 00	$23 40	$23 40
1"	1 50	$23 40	$35 10
1 1/2"	5 00	$23 40	$117 01
2"	8 00	$23 40	$187 21
3"	16 00	$23 40	$374 43
4"	25 00	$23 40	$585 05
6"	40 00	$23 40	$936 07
8"	71 11	$23 40	$1,664 10

When the annual revenue increases are applied in subsequent years, the projected service charges are shown in **Figure 2-8.** The proposed charges for larger meters are significantly greater than the existing base charges (which also include the first 10,000 gallons of monthly demand) This differences demonstrates how little of the fixed costs

of capacity are recovered by the current base charges The cost of capacity includes more than just the cost of the meter, which is a small component of the overall costs of capacity The cost of capacity includes capacity in all of the transmission and distribution pipelines, wells, reservoirs, and booster pump stations The current base charges fail to recover these costs in proportion to the capacity that is needed by customers with larger sized meters By increasing the service charges in proportion to the capacity of the meter, the customers with larger sized meters pay their proportionate share of capacity

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Figure 2-8. Monthly Service Charges (FY 2013-14 to FY 2017-18)

Meter Size	Current Charge	Proposed Monthly Service Charges 1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
5/8"	$22 90	$ 23 40	$ 26 91	$ 30 95	$ 34 35	$ 38 13
3/4"	$22 90	$ 23 40	$ 26 91	$ 30 95	$ 34 35	$ 38 13
1"	$22 90	$ 35 10	$ 40 37	$ 46 42	$ 51 53	$ 57 20
1 1/2"	$22 90	$ 117 01	$ 134 56	$ 154 75	$ 171 77	$ 190 66
2"	$22 90	$ 187 21	$ 215 30	$ 247 60	$ 274 83	$ 305 06
3"	$22 90	$ 374 43	$ 430 59	$ 495 18	$ 549 65	$ 610 12
4"	$22 90	$ 585 05	$ 672 80	$ 773 72	$ 858 83	$ 953 30
6"	$22 90	$ 936 07	$1,076 48	$1,237 96	$1,374 13	$1,525 29
8"	$22 90	$1,664 10	$1,913 72	$2,200 78	$2,442 87	$2,711 58

Quantity Charges

The derivation of the quantity charges was a collaborative process between City staff and HF&H HF&H conducted the core analysis with City staff making adjustments to recover the additional costs of capacity charged by PCWA when customers exceed their purchased capacity

Current Quantity Charges

The City's current quantity charges are shown in **Figure 2-9.** This is a tiered structure that applies to all customer class in which the rates increase as demand exceeds various levels In Tier 1, customers receive the first 10,000 gallons at no charge (the cost is included the $22 90 based charge) The price increments between the subsequent tiers are very slight compared to the actual costs of providing for higher demands

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Figure 2-9 Current Quantity Charges

Current Monthly Charges - Per 1,000 Gallons		
	Gallons per Month	Rate
Tier 1	0-10,000 gals	$0 00
Tier 2	10,001-20,000 gals	$3 53
Tier 3	20,001-60,000 gals	$3 63
Tier 4	60,001-350,000 gals	$3 73
Tier 5	Over 350,000 gals	$3 83

In meetings with the Finance Committee, the following changes were made to the current rate structure

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- Create different quantity charges for single family, multi family, and non-residential customers with tiers sized appropriately for the levels of demand for each class By doing so, each rate structure can be designed to provide a price signal that is specific to each class

- Charge for all water including the water in Tier 1, which currently amounts to over 50% of total water use in the City By doing so, customers will only pay for water they use

- Price water for each tier that is more closely aligned with the cost of service by charging less than the average unit cost for below-average use (because it is less expensive to serve low demand) and by charging above the average cost for above-average use, which burdens the system with the expense of providing for high peak demands

The detailed derivations of the rate calculations performed by HF&H are provided in the appendix to this report, additional documentation for the City's refinements are available from the City For purposes of illustrating the methodology, the calculations for single family customers are presented below

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Residential Quantity Charges

The analysis was performed using one recent year of residential customer billing data (i e , all of the residential bills from the prior year) The billing data was sorted from smallest to largest and plotted in **Figure 2-10** and **Figure 2-11.** Note that the median[1] use is 8 tgals, which is less than the current 10 tgal Tier 1 breakpoint This means that more than half of the bills do not exceed Tier 1 where there is no charge for water. In effect, the City is making limited use of its water meters, which, as an industry practice in California, are typically used for billing for all water use In this way, customers

[1] The median is a statistical parameter indicating that half of the total values are less than the median and half is greater

receive a benefit from using as little water as possible at all times, which is an appropriate conservation signal in a semi-arid state

Figure 2-10 Water Bill Distribution Curve

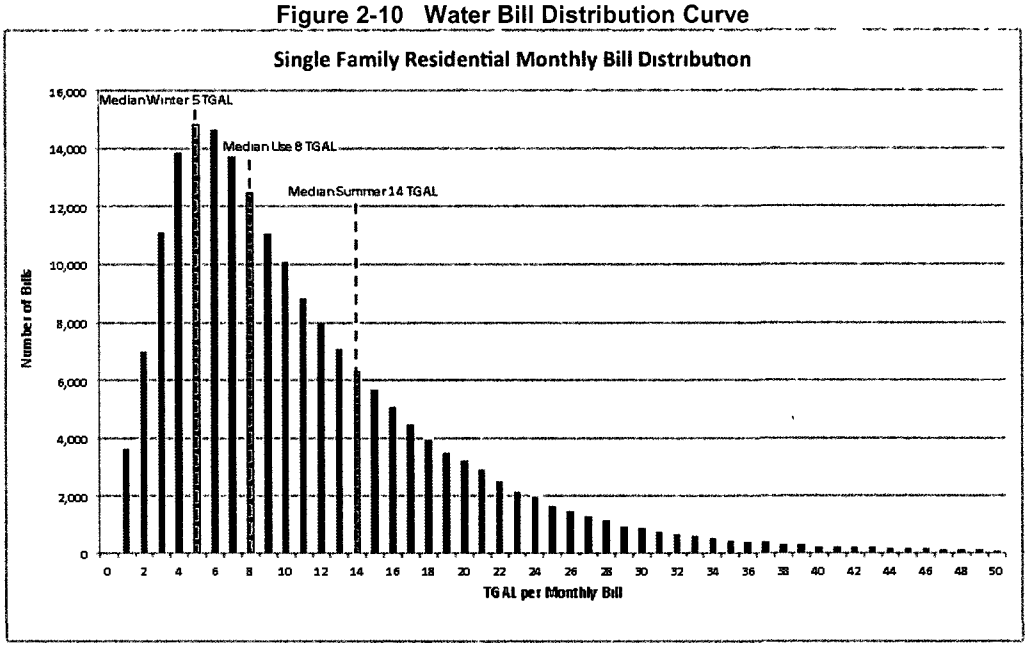

Figure 2-11. Cumulative Bill Distribution Curve

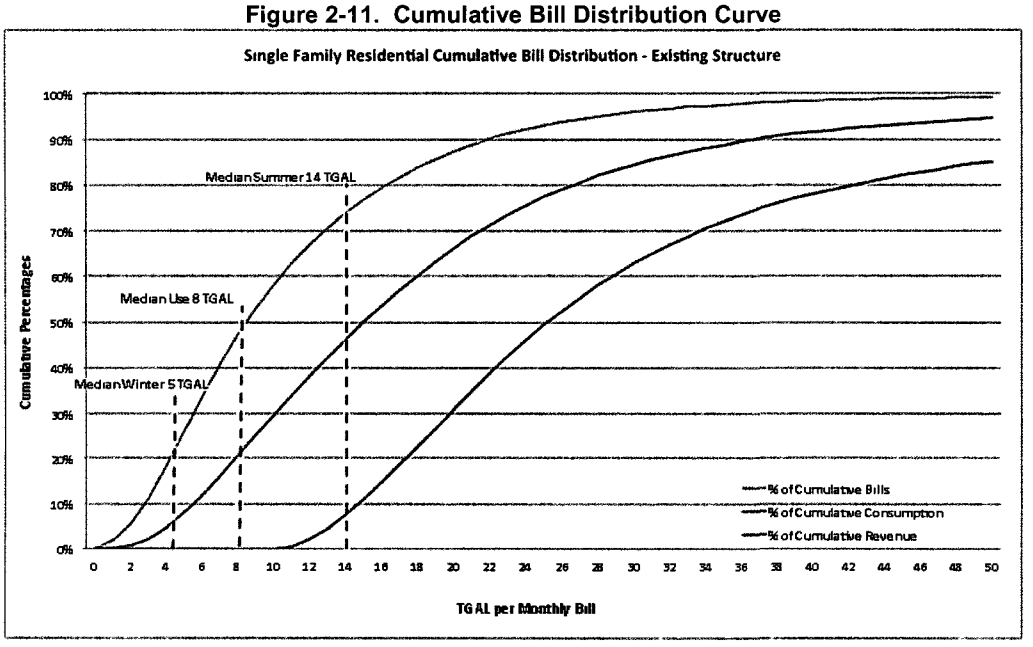

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Figure 2-11 indicates that 60% of single family bills fall within the current 10 tgal allowance As a result, only 40% of the bills include billed consumption, which amounts to 70% of the total single family consumption

Figure 2-12 illustrates the tier structures for the existing and proposed rates and compares them with the average cost The breakpoints and prices for the proposed rates were developed working with the City's Finance Committee to ensure that the rate structure achieved the City's rate-making objectives

The rationale for determining the location of each breakpoint is as follows

- **Tier1/Tier 2 breakpoint.** 5 tgals is the winter median demand, which represents the most efficient demand with the least irrigation and attendant peaking on the system
- **Tier 2/Tier 3 breakpoint.** 14 tgals is the summer median demand Demand at this level falls within the design capacity of the system and imposes no excessive peak demand on the system.
- **Tier 3/Tier 4 breakpoint.** 21 tgals is 50% greater than summer median demand and includes 90% of the bills, leaving the last 10% of bills for the highest tiers
- **Tier 4/Tier 5 breakpoint.** 35 tgals represents the demand for one EDU of capacity purchased from PCWA Demand in excess of this amount imposes an additional charge for capacity from PCWA on the City, which is recovered in the highest tier
- **Tier 5 breakpoint.** Above 35 tgals is a small set of customers with demand that exceeds their purchased capacity from PCWA

The rationale for setting the rates for each tier is as follows

- **Tier 1 rate.** Tier 1 use is the most efficient and the least expensive to serve. A cost equal to 55% of the average cost recognizes the lower cost of service as well as provides are reward for efficiency, which also serves to encourage continued conservation
- **Tier 2 rate.** Tier 2 use includes indoor use as well as a moderate amount for outdoor use Use at this level does not burden the system and is priced at close to the average cost
- **Tier 3 rate.** Tier 3 use exceeds moderate use If all customer use were at this level, the average cost would be greater than it currently is For that reason, Tier 3 is priced at 150% of the average cost
- **Tier 4 rate.** Tier 4 use comprises use that is as high as 35 tgals This unusually high use is comparable to the indoor water use for 21 people based on 55 gallons per day (using State guidelines) Such high use is priced at 275% of the average cost

- **Tier 5 rate.** Tier 5 use includes the highest 4% of excessively high bills. Demand at this level burdens the system with providing for expensive peaking that is well above moderate needs. Because this demand exceeds the 35 tgals provided for in purchasing one EDU of capacity, the City incurs additional costs for additional capacity needed from PCWA. To cover this cost, $2.61 is added to this rate based on the City's amortized cost of this capacity. Such excessive use is priced at 400% of the average cost to provide a strong deterrent to discourage waste.

Figure 2-12. Single Family Residential Quantity Charge Structure

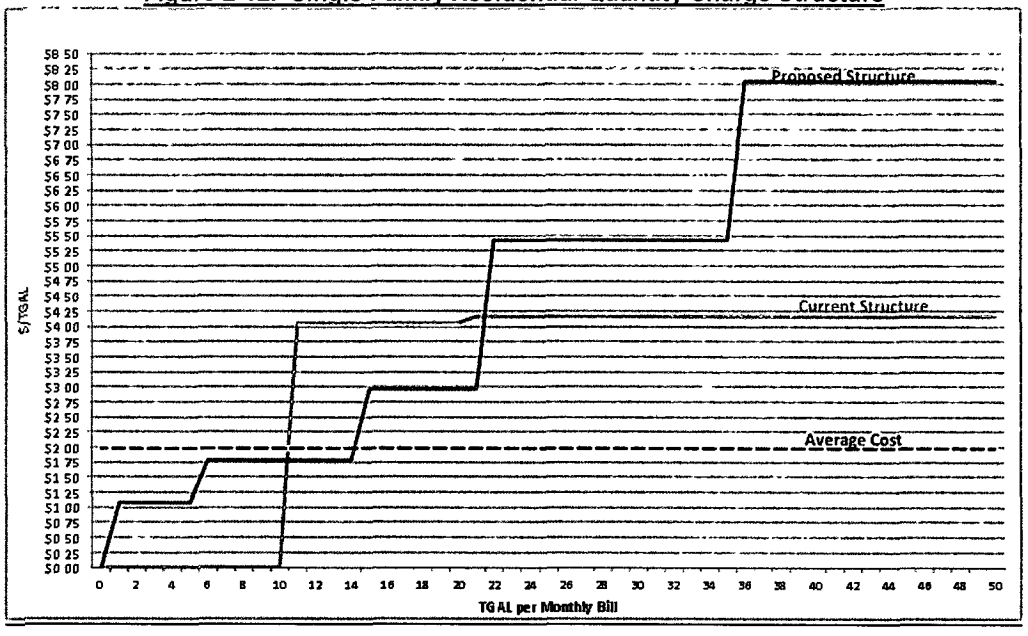

Figure 2-13 summarizes the results of the analysis, which shows the location of the proposed breakpoints and the distribution of water among tiers. The distribution shows that only a small amount of the water is billed at the highest rates. The rates per tier are shown, indicating how much the rate is in each tier compared to the average cost. The distribution of revenue is also shown. Note that the total revenue generated from these quantity charges includes $216,000 for the cost of additional capacity from PCWA for use in excess of 35,000 gallons.

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Figure 2-13 FY 2013-14 Monthly Quantity Charges

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Total
Breakpoints (tgal/mo)	5	14	21	35	35+	
Water billed in tier (tgal)	885,180	808,056	228,143	134,837	77,591	2,133,805
Percent of total water	41%	38%	11%	6%	4%	100%
Rate per tier ($/tgal)	**$1.088**	**$1.780**	**$2.967**	**$5 440**	**$8 050**	**$1.978**
Rate compared to avg cost	55%	90%	150%	275%	400%	
Revenue produced per tier	$ 963,132	$1,438,718	$ 677,001	$ 733,554	$ 624,608	4,437,013
Percent of total revenue	22%	32%	15%	17%	14%	100%

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Figure 2-14 compares bills (the sum of a service charge for a 3/4" meter and the quantity charge) across a range of consumption. The bills based on a uniform rate are bills in which the quantity charge is the same amount for all consumption, as opposed to the tiered structures for the current and proposed bills.

Deleted: Figure 2-13 illustrates the tier structures for the existing and proposed rates and compares them with the average cost

Figure 2-14. SFR Monthly Bill Comparison with Rate Increase

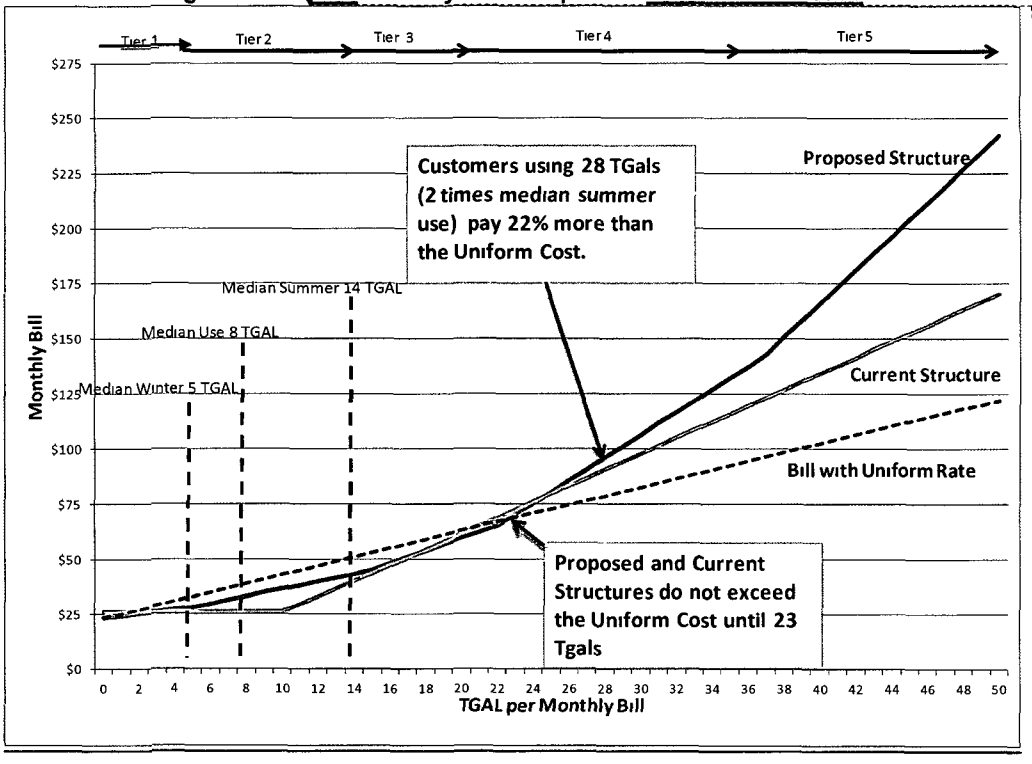

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Figure 2-13 Single Family Residential Quantity Charge Structure¶

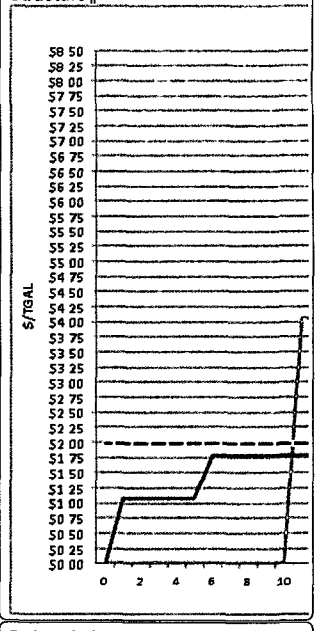

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Figure 2-14 shows that customers pay less than the average cost until demand exceeds 23,000 gallons, which is well above median summer demand For the proposed rates, this occurs because the rates for Tiers 1 and 2 are below the average cost The cumulative benefit they initially receive is not offset until their demand moves well beyond Tier 2

We note that the line representing bills under the current rate structure is based on the current rates simply increased 15% As such, the current rates will generate the required revenue but will not generate all of the revenue from single family customers that is equal to their share of the cost of service, as is the case with the proposed rates

Figure 2-15 shows the projected rates for the single family customers It is noted that City staff increased the size of the breakpoint for Tier 4 for areas of the City in which the customers had paid for more PCWA capacity In those areas, the larger breakpoints allow customers to purchase more water before they pay the higher rates in Tiers 4 and 5, which have been increased over the amounts shown in Figure 2-13 to cover the additional cost of capacity that the City will be subject to because of excessive water demand

Figure 2-15. Single Family Quantity Charges (FY 2013-14 to FY 2017-18)

	Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-5,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001-14,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001-21,000 gals	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4 (SFR-1)	21,001-35,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (SFR-2)	21,001-53,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (SFR-3)	21,001-88,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5 (All SFR)	Flow over Tier 4	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Multi Family Quantity Charges

A similar modeling methodology was used for calculating rates for the multi family customer class **Figure 2-16** shows the projected rates The breakpoints for Tiers 4 and 5 reflect the same adjustment for additional capacity as was made for the single family customers, in this case, however, by meter size, rather than by location

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Deleted the amount of capacity that the majority of customers purchase from PCWA At low levels of use, customers pay more than the average cost because the average cost curve does not account for the fact that there is a minimum amount of fixed costs that need to be recovered from all accounts **Figure 2-14** shows that, with
Deleted customers using more than 35,000 gallons begin to pay more than the average cost of water at a greater rate than
Deleted: rates, which reflects the Finance Committee's interest in providing a stronger price signal to customers who place the greatest burden
Deleted: system Even so,
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Deleted burden At three times median summer use (42 tgals), customers pay only 15% more than
Deleted average cost
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Figure 2-16. Multi Family Quantity Charges (FY 2013-14 to FY 2017-18)

	Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-5,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	5,001-14,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	14,001-21,000 gals	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4 (MFR-1)	21,001-35,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-2)	21,001-88,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-3)	21,001-175,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-4)	21,001-280,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-5)	21,001-560,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-6)	21,001-875,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 4 (MFR-7)	21,001-1,750,000 gals	$ 5 44	$ 6 26	$ 7 19	$ 7 99	$ 8 86
Tier 5 (All MFR)	Flow over Tier 4	$ 8 05	$ 9 00	$ 10 07	$ 11 01	$ 12 04

Non-Residential Quantity Charges

A similar modeling methodology was used for calculating rates for the non-residential customers **Figure 2-17** shows the projected rates The breakpoints for Tiers 4 and 5 reflect the same adjustment for additional capacity as was made for the single family customers, in this case, however, by meter size, rather than by location

Figure 2-17. Non-Residential Quantity Charges (FY 2013-14 to FY 2017-18)

	3/4" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 4 39	$ 4 79	$ 5 23	$ 5 63	$ 6 07
Tier 3	88,001-175,000 gals	$ 5 58	$ 6 16	$ 6 81	$ 7 38	$ 8 01
Tier 4	Over 175,000 gals	$ 6 69	$ 7 43	$ 8 28	$ 9 01	$ 9 82
	1" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001-175,000 gals	$ 5 58	$ 6 16	$ 6 81	$ 7 38	$ 8 01
Tier 4	Over 175,000 gals	$ 6.69	$ 7 43	$ 8 28	$ 9 01	$ 9 82
	1 1/2" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001-175,000 gals	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4	Over 175,000 gals	$ 6.69	$ 7 43	$ 8 27	$ 9 01	$ 9 82
	2" through 8" Proposed Monthly Charges - Per 1,000 Gallons					
	Gallons per Month	1/1/2014	7/1/2014	7/1/2015	7/1/2016	7/1/2017
Tier 1	0-35,000 gals	$ 1 09	$ 1 25	$ 1 44	$ 1 60	$ 1 78
Tier 2	35,001-88,000 gals	$ 1 78	$ 2 05	$ 2 35	$ 2 61	$ 2 90
Tier 3	88,001-175,000 gals	$ 2 97	$ 3 42	$ 3 93	$ 4 36	$ 4 84
Tier 4 (NR-4)	175,001-280,000 gals	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 4 (NR-5)	175,001-560,000 gals	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 4 (NR-6)	175,001-875,000 gals	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 4 (NR-7)	175,001-1,750,000 gals	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 4 (NR-8)	175,001-2,485,000 gals	$ 4 08	$ 4 69	$ 5 40	$ 5 99	$ 6 65
Tier 5	Flow over Tier 4	$ 6 69	$ 7 43	$ 8 27	$ 9 01	$ 9 82

2.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figures 2-18 and 2-19 compare the City's proposed FY 2013-14 bills (including the City's proposed rate change effective January 1, 2014)

Figure 2-18. Residential Bill Comparison

	Current Bill	Current (with Incr)	Proposed Bill	Rocklin (PCWA)[1]	Roseville[2]	Folsom[1]	San Juan WD[1]
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(5 Tgal/mo - Winter Median)*	0 00	0 00	5 44	9 05	3 08	7 56	3 14
Total Bill	$22 90	$26 34	$28 84	$48 64	$23 18	$22 56	$38 33
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(14 Tgal/mo - Summer Median)*	14 12	16 24	21 46	26 06	11 30	20 52	8 53
Total Bill	$37 02	$42 57	$44 87	$65 65	$31 40	$35 52	$43 72
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$15 00	$35 19
Volumetric Charge *(35 Tgal/mo - PCWA Contract Limit)*	89 75	103 21	119 61	70 05	37 58	58 80	28 96
Total Bill	$112 65	$129 55	$143 01	$109 64	$57 68	$73 80	$64 15

[1] Rate effective January 1, 2013

[2] Rate effective July 1, 2013

Figure 2-19. Non-Residential Bill Comparison

	Current Bill	Current (with Incr)	Proposed Bill	Rocklin (PCWA)[1]	Roseville[2]	Folsom[1]	San Juan WD[1]
Service Charge *(3/4" Service)*	$22 90	$26 34	$23 40	$39 59	$20 10	$16 62	$35 19
Volumetric Charge *(11 Tgal/mo)*	3 53	4 06	11 99	19 20	12 9	16 8	9 64
Total Bill	$26 43	$30 39	$35 39	$58 79	$33 00	$33 42	$44 83
Service Charge *(2" Service)*	$22 90	$26 34	$187 21	$181 28	$98 65	$84 29	$149 94
Volumetric Charge *(76 Tgal/mo)*	240 18	276 21	111 13	132 12	87 72	114 24	65 55
Total Bill	$263 08	$302 54	$298 34	$313 40	$186 37	$198 53	$215 49
Service Charge *(4" Service)*	$22 90	$26 34	$585 05	$525 06	$305 10	$259 82	$455 70
Volumetric Charge *(300 Tgal/mo)*	1262 20	1451 53	900 88	523 81	344 86	449 12	252 63
Total Bill	$1,285 10	$1,477 87	$1,485 93	$1,048 87	$649 96	$708 94	$708 33

[1] Rate effective January 1, 2013

[2] Rate effective July 1, 2013

3. WASTEWATER RATES

3.1 BACKGROUND

The City provides wastewater conveyance and treatment services to the City's 16,000 accounts through a system of pipelines and pump stations that transport their wastewater to the City's treatment facilities The City currently charges customers $32 08 per equivalent dwelling unit (EDU) per month An EDU is defined as a single-family residential unit Therefore, single-family residential accounts pay $32 08 per month and multi-family residential accounts pay $32 08 per month for each dwelling unit within the multi-family complex Non-residential customers are charged the per EDU rate of $32 08 based on the number of EDU's determined by City staff using various criteria (e g , square footage, number of fixtures)

3.2 REVENUE REQUIREMENT PROJECTIONS

To determine whether additional rate revenue is required, projected operating and capital expenses are compared with projected revenue from current rates Rates are then increased so that expenses are covered and operating and capital reserves are maintained

Key Assumptions

The City's FY 2012-13 budget served as the basis for determining the revenue requirement projections for the five-year planning period from FY 2013-14 through FY 2017-18 **Figure 3-1** summarizes the projected expenditure trends, which are noteworthy in the following respects

Wastewater Treatment Expense

The largest operating expense covered by the wastewater rate is the cost to treat the wastewater at the City's Wastewater Treatment and Reclamation Facility (WWTRF) The majority of the $3 million annual expense for wastewater treatment is for unpredictable utility and chemical expenses which are beyond the control of the City Wastewater treatment expenses were assumed to increase at an inflationary rate of 3 0% per year during the 5-year projection period

Salaries and Benefits Expense

The City's budget for existing personnel as of FY 2012-13 served as the starting point for projecting operating and administrative wage and benefit expenses. It should be noted that the City's FY 2012-13 budget includes the proposed addition of three new wastewater technicians and an allocation of 35% and 45% of an Environmental Services Manager and a Senior Engineer, respectively For FY 2013-14 through FY 2017-18, the salaries and benefits for the existing and proposed staff were assumed to increase 1 54%

- 4 73% per year due to increases in health care premiums, workers' compensation insurance rates, and wage rates

Operations and Maintenance Expense

The City's operations and maintenance expenses (excluding salaries, benefits, and treatment costs) budget for FY 2012-13 served as the starting point for projecting operations and maintenance expenses (O&M) Generally, on-going maintenance and operations expenses were generally increased by 3 0% per year to approximate inflationary increases

Debt Service

Existing debt service is paid off in FY 2015-16 and there are no plans to issue additional debt for wastewater capital projects The City plans to fund future capital improvements of existing infrastructure on a pay-as-you-go (PayGo) basis using a portion of annual rate revenue and available reserves

Capital Replacement Fund

The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for capital improvement projects The City plans to fund future capital improvements of existing infrastructure on a PAYGo basis using a portion of annual rate revenue and available reserves Capital improvements are projected on average to total $430,000 annually over the five-year period

PAYGo funding is less expensive because it avoids financing costs It is also appropriate for the type of capital improvements, which are on-going renewals and replacements that are needed to keep pace with depreciation Larger, periodic capital projects such as major new facilities are more appropriate candidates for debt financing Existing debt service is minimal and will be retired in FY 2015-16, there are no plans to issue additional debt for sewer capital projects

Deleted: Transfers (including contributions to reserves) **Transfers include payments from**

Deleted: wastewater operations enterprise to other wastewater funds/liabilities (e g , operations reserve fund,

Deleted: reserve

Deleted , other post-retirement benefits fund) Transfers vary from year-to-year

Deleted: range from $703,000

Deleted $1,122

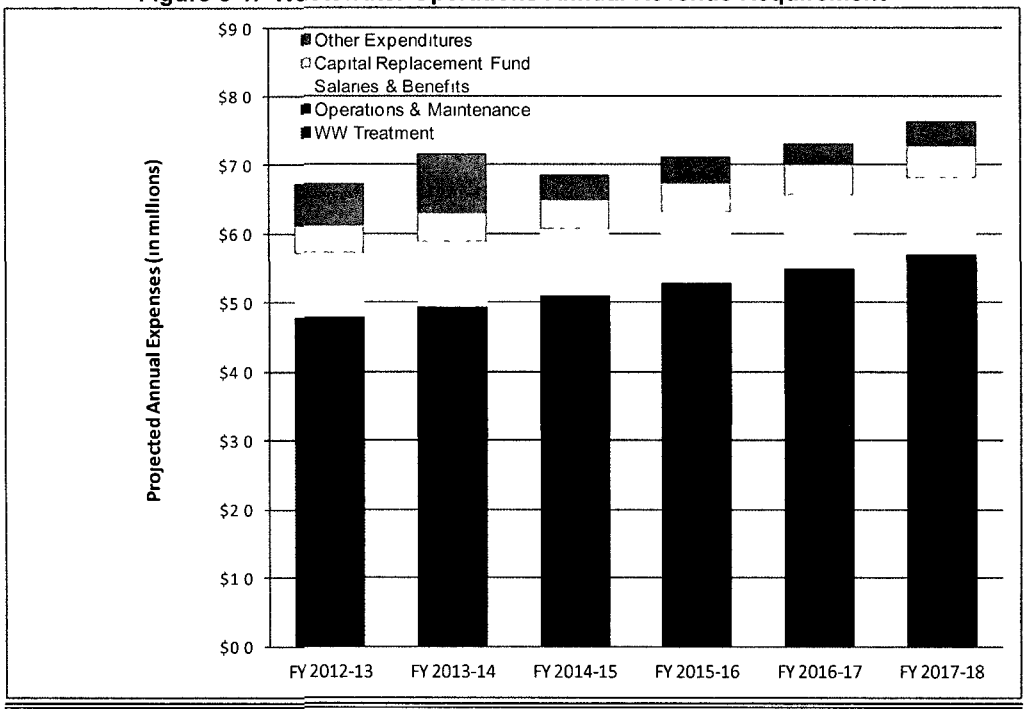
Other Expenditures

The other expenditures are comprised of the Wastewater enterprise's share of the corp yard bond payment, debt service, annual OPEB obligation, and a transfer of $270,000 FY 2012-13 and $500,000 in FY2013-14 for infrastructure improvements

Deleted. FY 2013/

Deleted. based on projected needs

Figure 3-1. Wastewater Operations Annual Revenue Requirement



		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Wastewater Treatment	$ 2,954,200	$ 3,042,826	$ 3,134,111	$ 3,228,134	$ 3,324,978	$ 3,424,727
Operations and Maintenance	1,824,974	1,893,693	1,965,527	2,062,759	2,166,888	2,278,508
Salaries and Benefits	926,794	945,944	966,570	1,011,765	1,059,746	1,110,725
Capital Replacement Fund	393,380	405,181	417,337	429,857	442,753	456,035
Other Expenditures	635,528	867,477	374,427	387,328	310,679	355,370
Total Revenue Requirment	$ 6,734,876	$ 7,155,121	$ 6,857,972	$ 7,119,843	$ 7,305,044	$ 7,625,366

Figure 3-2 summarizes the projected revenue requirements, revenue from current rates (i e , without any rate increases), annual surpluses and deficits, and the fund balance before rate increases **Figure 3-2** also shows the projected revenue increases to offset future deficits so that the wastewater reserves are maintained at an adequate level (see discussion on the adequate level of reserves) The rate adjustments that are projected would become effective July 1 of each year

Figure 3-2. Wastewater Revenue Increases

		Projected				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Revenue Requirement	$6,734,876	$7,155,121	$6,857,972	$7,119,843	$7,305,044	$7,625,366
Revenue from Current Rates	$7,061,404	$7,098,519	$7,135,633	$7,172,748	$7,209,862	$7,246,977
Surplus/(Deficit)	$326,528	($56,603)	$277,662	$52,905	($95,182)	($378,389)
Fund Balance (before increases)	$7,634,029	$7,032,294	$6,818,845	$6,378,466	$5,813,219	$4,950,050
Revenue Increase	0 0%	0 0%	2 8%	2 7%	2 6%	2 5%
Revenue from Increase	$0	$0	$181,057	$379,601	$579,167	$779,750
Fund Balance (after increases)	$7,634,029	$7,032,294	$7,000,355	$6,942,382	$6,967,733	$6,903,656

The revenue increases would ordinarily be applied across-the-board to the current residential and non-residential service charges However, based on the results of the cost of service analysis conducted (and summarized in Section 3 4), only the non-residential rate shall be adjusted to generate the revenue increases necessary In this way, by FY 2017-18, each customer class will pay its proportionate share of the costs

Operating and Capital Reserve Funds

The revenue increases indicated in **Figure 3-2** are required to offset the City's increased costs and to maintain adequate reserves It is the City's practice to maintain two reserve funds for wastewater operations an operating reserve and a capital replacement reserve For purposes of rate setting, the following combined reserve target balances were established

- **Minimum Balance.** The Minimum Balance is based on the amount of revenue that is needed to provide month-to-month cash flow for O&M expenses By maintaining this minimum reserve, the enterprise is able to meet its cash flow without borrowing from the General Fund The fund balance should never drop below the Minimum Balance, which is currently about $600,000 The Minimum Balance is based on the bill frequency For utilities that bill monthly, a minimum of approximately six weeks of O&M expenses is recommended

- **Target Balance.** The Target Balance is the Minimum Balance plus an additional cash margin for capital improvements so that sufficient funds are available to pay for ongoing PAYGo projects without cash flow constraints The capital component is set to 1 5 times the average annual PAYGo expenditures, which is about $1 1 million, therefore, the Target Balance is currently about $1,700,000

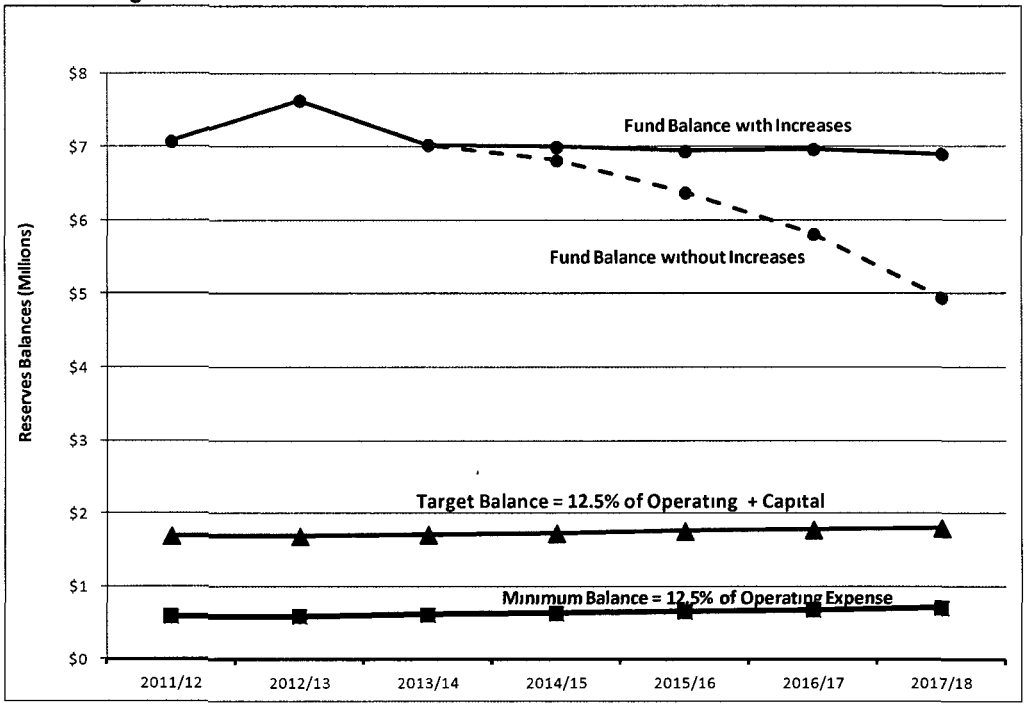
Figure 3-3 shows the combined fund balance for the operating and capital improvement reserves compared with the target balances The line labeled "Minimum Balance" represents the operating reserve target balance The line labeled "Target Balance"

Deleted <#>Contingency Balance The Contingency Balance provides additional funding for unforeseen capital requirements such as emergencies or regulatory uncertainty or unusually low revenues caused by the loss of customers during economic downturns In effect, the Contingency Balance provides a level of self-insurance that stabilizes rates so that rate increases can be mitigated ¶

(diamond symbols) is the sum of the target balances for the Operating Reserve in the Capital Improvement Reserve

Figure 3-3 indicates that the fund balance is currently, and will remain, above the target balance In this way, the increased operating and capital costs that are projected will be covered throughout the planning period As described in Section 3 4 below, the additional revenue throughout the planning period is the result of growth and increases to non-residential rates

Figure 3-3. Wastewater Fund Balance With and Without Rate Increases



3.3 COST OF SERVICE ANALYSIS

The City's current wastewater rates determine how much of the total revenue requirement is paid by each customer class (e g , single-family residents, multi-family residents, commercial accounts, industrial accounts) A cost of service analysis determines how much each class should pay based on its respective share of flow and wastewater strength (i e , biochemical oxygen demand and total suspended solids, the standard measures of wastewater strength) A cost of service analysis should be conducted periodically to account for any material changes in the loadings

Allocation of Costs to Functions

The cost of service analysis is a process by which expenses (i e , the City's FY 2013-14 revenue requirement) are allocated to the four functions that represent the services the City provides to customers Three of the functions are related to the "loading" on the collection system and treatment facility produced by the volume and strength of wastewater, the fourth function is related to customer accounts The revenue requirement is allocated to functional categories that represent the functions performed by the City's facilities customer accounts (i e , customer service activities, which includes billing), flow, biochemical oxygen demand (BOD), and total suspended solids (TSS), as shown in **Figure 3-4**

When each of these functionalized costs is divided by the associated units of service, the unit costs of service are derived For example, the unit cost per parcel to service accounts is $12 07 per year, the unit cost per thousand gallons of flow is $3 55, as shown in **Figure 3-4** The unit costs are independent of customer class In other words, the unit cost to treat flow is the same regardless of customer class because it represents the average for all customers The unit costs are not rates, however Unit costs are used to determine each class' share of the revenue requirement based on each class' required services. The rate design determines how the revenue requirement is paid for by each customer depending on which class of service it belongs

Deleted: hundred cubic feet

Figure 3-4. Wastewater Allocation of FY 2013-14 Costs to Functions

	FY 2013-14 Rev Req	Alloc Type	Allocation Factors					Allocated Costs				
			Accounts	Flow	BOD	TSS	Total	Accounts	Flow	BOD	TSS	Total
Direct Expense Allocations												
Treatment Plant												
Professional Services	$ 3,042,826	1	0%	40 0%	30 0%	30 0%	100%	$ -	$ 1 217,130	$ 912,848	$ 912 848	$ 3,042,826
Debt Service	150,208	1	0%	40 0%	30 0%	30 0%	100%	-	60,083	45,062	45,062	150,208
Subtotal - Treatment Plant	**3,193,034**							-	1,277,214	957,910	957,910	3,193,034
Customer Accounts												
Admin Services - Utility Billing	160,582	3	100%	0 0%	0 0%	0 0%	100%	160,582		-	-	160,582
Subtotal - Customer Accounts	**160,582**							160,582	-	-	-	160,582
Collection System												
Public Services Operations	1,929,403	2	0%	90 0%	5 0%	5 0%	100%	-	1,736,463	96,470	96,470	1,929,403
Transfer to Capital Proj Reserve	405,181	2	0%	90 0%	5 0%	5 0%	100%		364,663	20,259	20,259	405,181
Subtotal - Collection System	**2,334,584**							-	2,101,126	116,729	116,729	2,334,584
Total Direct Expenses	**$ 5,688,201**							$ 160,582	$ 3,378,340	$ 1,074,639	$ 1,074,639	$ 5,688,201
			% of Total Direct Expenses					2 8%	59 4%	18 9%	18 9%	100 0%
Composite Expense/(Revenue) Allocations												
Public Services - Engineering	$ 133,581	4	3%	59%	19%	19%	100%	$ 3,771	$ 79,336	$ 25,237	$ 25,237	$ 133,581
Public Services - Administration	90,330	4	3%	59%	19%	19%	100%	2,550	53,649	17,065	17,065	90,330
City Attorney	24,720	4	3%	59%	19%	19%	100%	698	14,682	4,670	4,670	24,720
Finance Retiree Health Benefits	30,650	4	3%	59%	19%	19%	100%	865	18,204	5,791	5,791	30,650
OPEB Expense	121,270	4	3%	59%	19%	19%	100%	3,424	72,025	22,911	22,911	121,270
Allocated Costs - General Fund	451,280	4	3%	59%	19%	19%	100%	12,740	268,025	85,258	85,258	451,280
Transfer to Fund #915 & 970	92,673	4	3%	59%	19%	19%	100%	2,616	55,040	17,508	17,508	92,673
Transfer out	500,000	4	3%	59%	19%	19%	100%	14,115	296,960	94,462	94,462	500,000
Transfer to/(from) Operating Reserves	(3,246)	4	3%	59%	19%	19%	100%	(92)	(1,928)	(613)	(613)	(3,246)
Total Composite Expenses	**1,441,258**							**40,688**	**855,993**	**272,289**	**272,289**	**1,441,258**
			% of Total Net Revenue Requirement					2 8%	59 4%	18 9%	18 9%	100 0%
Total Direct and Composite Expenses	**$ 7,129,459**						***A***	**$ 201,270**	**$ 4,234,332**	**$ 1,346,928**	**$ 1,346,928**	**$ 7,129,459**

Allocation Types.
1 - Treatment Plant
2 - Direct attribution with HF&H estimate of flow, BOD, and TSS
3 Customer Account Allocations - Direct attribution
4 - Composite Expense Allocation Composite of 1, 2, 3

Unit Cost Calculations					
Units of Service	***B***	16,682	1,193,050	2,541,612	2,419,009
Unit Type		Accounts	Tgals	Pounds	Pounds
Unit Costs *(A ÷ B)*		**$12 07**	**$3 55**	**$0 53**	**$0 56**
		$/Account	$/Tgals	$/lb	$/lb

Customer Class Loadings

Wastewater flows from individual customers are not metered, therefore winter water use data for residential customers is the closest representation of flows that customers discharge to the City's system for conveyance and treatment The assumption is that residents use minimal outside or irrigated water during the winter period A full twelve months of actual water flows were used for non-residential customers HF&H obtained the metered water data from City and summarized the data by customer class The respective flow data was then multiplied by the strength concentrations stipulated by the State Water Resources Control Board's *Guidelines*[2] to determine the total loadings on the system for each customer class, **Figure 3-5** presents the results of this calculation

[2] State Water Resources Control Board *Revenue Program Guidelines* Appendix G 1979

Figure 3-5. Wastewater Customer Class Loadings

Customer Class	Accounts	Flow	Mass Balance BOD	TSS	Total BOD	Total TSS
	Accounts	Tgals	mg/l	mg/l	lbs	lbs
Residential						
SFR	16,270					
MFR	92					
Total Residential	16,362	960,110	260	240	2,083,150	1,922,908
Non-Residential						
Average Strength	276	202,582	200	200	338,110	338,110
High Strength	44	30,358	475	624	120,352	157,991
Total Non-Residential	320	232,940	236	1426	458,462	496,101
Total	16,682	1,193,050	255	243	2,541,612	2,419,009

Revenue Requirement Allocation

In a cost of service analysis, all customer classes are treated equally through the application of the same unit costs, which is the fundamental purpose of cost of service analysis A cost of service analysis fairly distributes the revenue requirement to each customer class, after which rates can be designed to generate the revenue required of each class **Figure 3-6** presents the results of the revenue requirement allocation, which is calculated for each customer class by multiplying the per unit costs by customer class loadings from **Figure 3-5** above

Figure 3-6 Wastewater Revenue Requirement Allocations to Customer Classes

	FY 12-13 Cost-of-Service per Unit				Total Cost
	Accounts	Flow	BOD	TSS	of Service
	per account	per Tgals	per lb	per lb	
Cost of Service per Unit *(from Figure 4-2)*	**$12 07**	**$3.55**	**$0 53**	**$0 56**	
Residential	**$ 197,409**	**$3,407,588**	**$ 1,103,966**	**$ 1,070,694**	**$5,779,658**
Non-Residential					
Average Strength	3,330	718,998	179,181	188,263	1,089,773
High Strength	531	107,746	63,781	87,971	260,028
Total Non-Residential	**3,861**	**826,744**	**242,962**	**276,234**	**1,349,801**
Total Revenue Requirement	$ 201,270	$4,234,332	$ 1,346,928	$ 1,346,928	$7,129,459

Figure 3-7 compares the cost of service allocations (from **Figure 3-6**) with the projected revenue for FY 2013-14 under the existing rate structure The difference indicates whether a class is paying more or less than its share of the cost of service The analysis indicates that the non-residential customers are paying less than their share of the cost of service

Figure 3-7. Wastewater FY 2013-14 Cost of Service Comparison

Customer Class	Current EDUs	Current Rate	Current Revenue	Cost of Service	$ Variance	% Variance
		per EDU		*(from Figure 4-4)*		
Residential	17,066	$ 32 08	$ 6,569,727	$ 5,779,658	$ (790,069)	-12%
Non-Residential	1,454	$ 32 08	$ 559,732	$ 1,349,801	$ 790,069	141%
Total Revenue Requirement			$ 7,129,459	$ 7,129,459		

3.4 RATE DESIGN/RATE INCREASES

After each class' share of the revenue requirement was determined by the cost of service analysis (see **Figure 3-6**), rates can be designed to ensure that each class' rates generate its respective share of the cost of service

Residential

The current per EDU rate for residential customers is sufficient to cover the cost of service calculated in **Figure 3-6** for residential customers during the five-year projection period, therefore, no change to the rate design or per EDU rate is recommended during the five-year projection period

Non-Residential

As shown in **Figure 3-7**, current non-residential rate revenue is not sufficient to cover the cost to provide such service to non-residential customers Therefore, we are recommending the following modifications to the rate design and recommending the phasing in of rate increases over the five-year projection period to generate sufficient revenue to cover the cost of service by FY 2017-18

The common rate design objectives are rate payer equity, financial stability, legal compliance, administrative simplicity, and customer understanding Of these five objectives, balancing rate payer equity with financial stability requires the greatest discretion Rate payer equity can be improved through the flow charge, which reflects differences in flow among customers However, the more revenue that is associated with flow, the less stable the revenue will be from year to year In addition, if the fixed charge is too low, customers with very low flow will pay bills that are far below the baseline fixed cost of service

In the City's case, we recommended a fixed charge per account (rather than per EDU) for non-residential accounts which will remain the same, at $32 08 per account, during the five-year projection period In addition, we recommend implementing flow-based charges for non-residential customers based on the strength of the discharge being transported and processed The increases in the flow-based charges are being phased-in over the planning period

Figure 3-8 summarizes the recommended residential and non-residential monthly charges for the five-year projection period and the projected revenue generated As shown in Figure 3-8, the proposed monthly charges are projected to generate sufficient non-residential revenue ($1,371,005 by FY 2017-18) to cover the non-residential cost of service of $1,349,901 (as shown in Figure 3-7)

Figure 3-8. Wastewater Proposed Monthly Charges

Customer Class	Current Monthly Charge	Proposed Monthly Charges FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Residential						
Single Family (per EDU)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Multi Family (per EDU)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Non-Residential						
Fixed Charge (per Account)	$32 08	$32 08	$32 08	$32 08	$32 08	$32 08
Flow Charge						
Average Strength (per Tgal)	$0 00	$1 46	$2 33	$3 19	$4 05	$4 92
High Strength (per Tgal)	$0 00	$4 62	$5 48	$6 35	$7 21	$8 07
Revenue from Rates						
Residential		$ 6,569,727	$ 6,602,576	$ 6,635,589	$ 6,668,767	$ 6,702,111
Non-Residential		559,732	761,035	963,345	1,166,667	1,371,005
		$ 7,129,459	$ 7,363,611	$ 7,598,934	$ 7,835,434	$ 8,073,116

Note Projected residential revenue reflects growth in accounts, Projected non-residential revenue reflects growth in accounts, as well as the recommended rate increase

3.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figure 3-9 compares the City's proposed FY 2013-14 rates (with the City's proposed rate change effective January 1, 2014) for all residents and typical average- and high-strength non-residential customers

Figure 3-9 Wastewater Monthly Customer Bill Comparison (FY 2013-14)

Customer Class	Average Monthly Flow (Tgals)	Lincoln (current)	Lincoln (proposed)	Auburn	Loomis[1]	Rocklin[1]	Roseville[1,2]
Residential							
Single Family		$32 08	$32 08	$61 38	$28 00	$28 00	$29 85
Multi Family		$32 08	$32 08	$61 38	$28 00	$28 00	$29 85
Non-Residential							
Church	5	$32 08	$39 15	not available	$28 00	$28 00	$29 85
Large Retailer	165	$32 08	$273 02	not available	$28 00	$28 00	$658 13
Small Grocery Store*	4	$64 16	$50 16	not available	$56 00	$56 00	$59 70
Restaurant*	93	$417 04	$461 34	not available	$364 00	$364 00	$729 88
Large Grocery Store*	176	$433 08	$845 60	not available	$378 00	$378 00	$1,077 55

[1]Rate effective 7/1/2013
[2]Customers served by the City of Roseville
[3]Flow charge applies to water use in excess of 10 Hundred Cubic Feet per month for metered commercial customers
*Denotes high strength customer

Note Non-residential charge based on May 2011 through April 2012 average monthly flows

4. SOLID WASTE RATES

4.1 BACKGROUND

The City provides residential and commercial solid waste and residential yard waste collection to the City's 16,000 accounts The City currently charges its residents $19 98 per month for once-a-week servicing of 90-gallon solid waste container and a 64- or 90-gallon yard waste container The solid waste container is delivered to the Western Placer Waste Management Authority (WPWMA) material recovery facility (MRF) on Athens Road, where it is sorted and recyclable materials are separated and recycled Non-residential customers are charged a monthly rate based on their subscription level (e g , 1 cubic yard bin, serviced 1 time per week, 3 cubic yard bin, serviced 3 times per week)

4.2 REVENUE REQUIREMENT PROJECTIONS

To determine whether additional rate revenue is required, projected operating and capital expenses are compared with projected revenue from current rates Rates are then increased so that the expenses are covered and operating and capital reserves are maintained

Key Assumptions

The City's FY 2012-13 budget served as the basis for determining the revenue requirement projections for the five-year planning period from FY 2013-14 through FY 2017-18 **Figure 4-1** summarizes the projected expenditure trends, which are noteworthy in the following respects

Disposal and Processing

Disposal and processing costs increase 2 1% annually based on 1) planned per-ton tip fee increases at the WPWMA MRF, and, 2) projected increases in volume of materials collected and processed

Salaries and Benefits

The City's FY 2012-13 budget includes the proposed addition of an Environmental Services Manager and a Senior Engineer which shall be shared with the water and wastewater utilities The solid waste enterprise has been allocated 30% of the Environmental Services Manager and 10% of the Senior Engineer (approximately $78,000 per year) Salaries and benefits for the existing and proposed staff were assumed to increase an average of 1 8% - 4 7% per year due to the projected increases in health care premiums, workers' compensation insurance rates, and wage rates

Operations and Maintenance Expense

The majority of the City's operations and maintenance expenses (excluding salaries and benefits) are projected to gradually increase during the planning period at the projected rate of inflation Cost increases greater than inflation include an additional 640 hours of leaf collection per year (annual average of $38,000), and, additional landfill maintenance expenses (annual average of $128,000)

Debt Service

The solid waste enterprise does not currently have any debt service, nor are there plans to incur debt to finance collection vehicle purchases during the planning period

Capital Replacement Fund

The majority of the capital replacement fund expense comprises pay-as-you-go (PAYGo) funding for collection vehicles The City plans to fund future vehicle and collection container purchases on a PAYGo basis using a portion of annual rate revenue and available reserves

Other Expenditures

The other expenditures are comprised of the Solid Waste enterprise's share of the corp yard bond payment, annual OPEB obligations, and annual landfill maintenance expenses related to the City's old landfill located on Virginiatown Road

Deleted Transfers (including contributions to reserves) Transfers include payments from

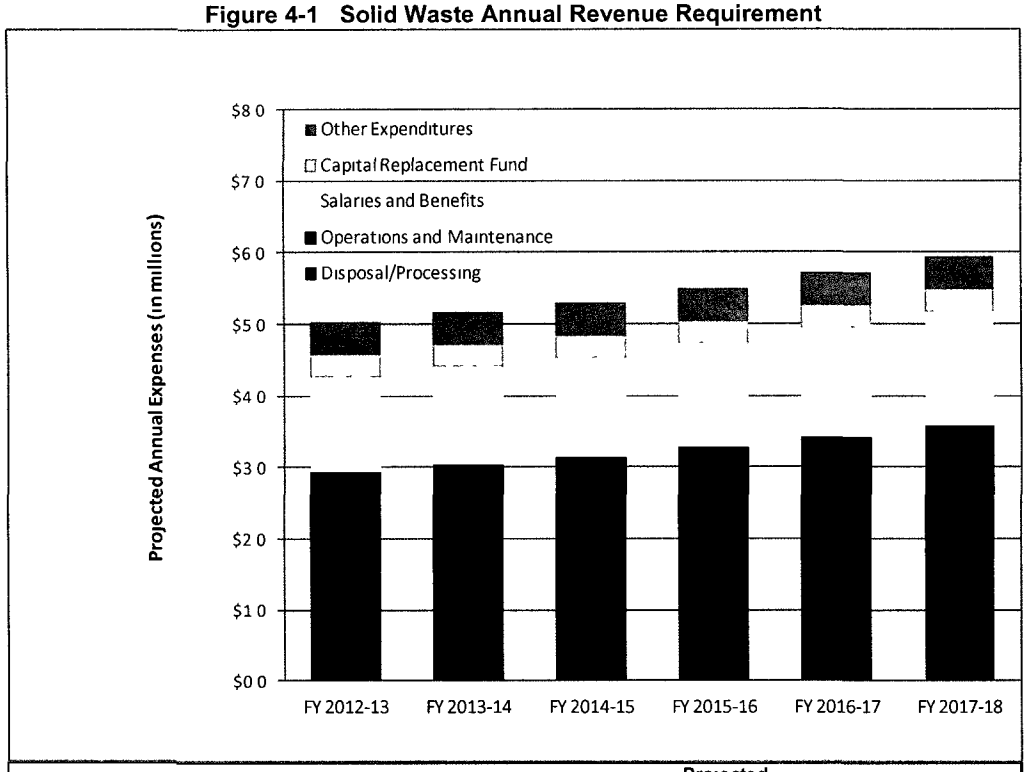
Deleted. solid waste enterprise fund to other solid waste funds/liabilities (e g , operations reserve fund,

Deleted· reserve fund, other post-employment benefits fund) Annual transfers vary from year-to-year

Deleted: range from $691,000 in FY 2017-18 to $734,000 in FY 2013/14 based

Deleted: projected needs

Figure 4-1 Solid Waste Annual Revenue Requirement



		Projected				
Expenditures	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
Disposal/Processing	$ 1,555,000	$ 1,587,907	$ 1,621,452	$ 1,655,646	$ 1,690,501	$ 1,726,029
Operations and Maintenance	1,388,022	1,453,466	1,522,846	1,622,597	1,730,781	1,848,161
Salaries and Benefits	1,325,037	1,353,763	1,384,688	1,451,123	1,521,787	1,597,009
Capital Replacement Fund	307,521	194,046	188,213	120,378	39,640	(52,407)
Other Expenditures	462,548	500,268	545,477	599,707	664,806	743,000
Total Revenue Requirment	$ 5,038,128	$ 5,089,450	$ 5,262,675	$ 5,449,451	$ 5,647,516	$ 5,861,792

Figure 4-2 summarizes the projected revenue requirements, revenue from current rates (i e , without any rate increases), annual surpluses and deficits, and the fund balance before rate increases **Figure 4-2** also shows the projected revenue increases to offset future deficits so that the solid waste reserves are maintained at an adequate level (see Section 4 3 for discussion on the adequate level of reserves) The rate increases that are projected would become effective July 1 of each year, with the exception of the FY 2013-14 increase which would become effective January 1, 2014 (six months into the fiscal year)

Figure 4-2. Solid Waste Revenue Increases

		Projected				
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Revenue Requirement	$5,038,128	$5,089,450	$5,262,675	$5,449,451	$5,647,516	$5,861,792
Revenue from Current Rates	$4,757,964	$4,786,851	$4,815,738	$4,844,625	$4,873,512	$4,902,399
Surplus/(Deficit)	($280,164)	($302,599)	($446,937)	($604,827)	($774,004)	($959,393)
Fund Balance (before increases)	$1,681,814	$797,424	$13,718	($726,432)	($2,016,398)	($3,297,844)
Revenue Increase	0 0%	6 0%	6 0%	5 0%	5 0%	5 0%
Revenue from Increase	$0	$143,606	$595,225	$870,967	$1,163,644	$1,474,188
Fund Balance (after increases)	$1,681,814	$941,389	$753,676	$886,068	$763,215	$959,263

To generate the necessary revenue to maintain the reserve fund balance noted in **Figure 4-2** above, the percent increases noted can be applied across-the-board to all current residential and commercial solid waste service rates However, it may be necessary to increase residential rates by a different percentage than commercial rates if the City's current rate structure is not designed so that each customer class is paying its proportionate share of the total revenue requirement calculated above Section 4 3 of this report summarizes the cost of service analysis conducted to apportion the revenue requirement to each customer class (e g , residential and commercial) and the resulting rate increases

Operating and Capital Reserve Funds

The revenue increases indicated in **Figure 4-2** are required to offset the City's increased costs and to maintain adequate reserves Rates must be set so that the fund balance achieves the target balances for the reserve funds It is the City's practice to maintain two reserve funds for solid waste operations an operating reserve and a capital replacement reserve

- **Minimum Balance.** The Minimum Balance is based on the amount of revenue that is needed to provide working capital for month-to-month O&M expenditures With sufficient working capital, the City can operate without cash flow constraints and without borrowing from the General Fund At a minimum, we recommend an operating reserve that is based on how frequently customers are billed This frequency establishes the lag between when the City incurs expenses and when it receives revenue from billings The City bills its customers monthly We recommend that, at a minimum, the Operating Reserve equal 1 5 times the bill frequency (or six weeks in the City's case), which is the equivalent of 12 5% of one year's O&M expenditures, which is currently about $300,000 The City's Operating Reserve should never drop below this minimum balance

- **Target Balance.** The Target Balance is the Minimum Balance plus an additional cash margin for working capital to purchase collection vehicles and collection containers used by the residents and businesses The fund balance needs to be sufficient to purchase collection vehicles without delays caused by cash flow limitations, thereby eliminating financing costs In the City's case, the capital component of the Target Balance is set to 1 25 times the average annual PayGo expenditure, which is about $700,000 This will provide adequate cash flow for the purchase of two or three collection vehicles per year during the planning period (which reflects replacing vehicles after 8-10 year in use, which is the typical useful life of a collection vehicle) and $15,000 per year for container purchases Therefore, the Target Balance is currently about $1,000,000

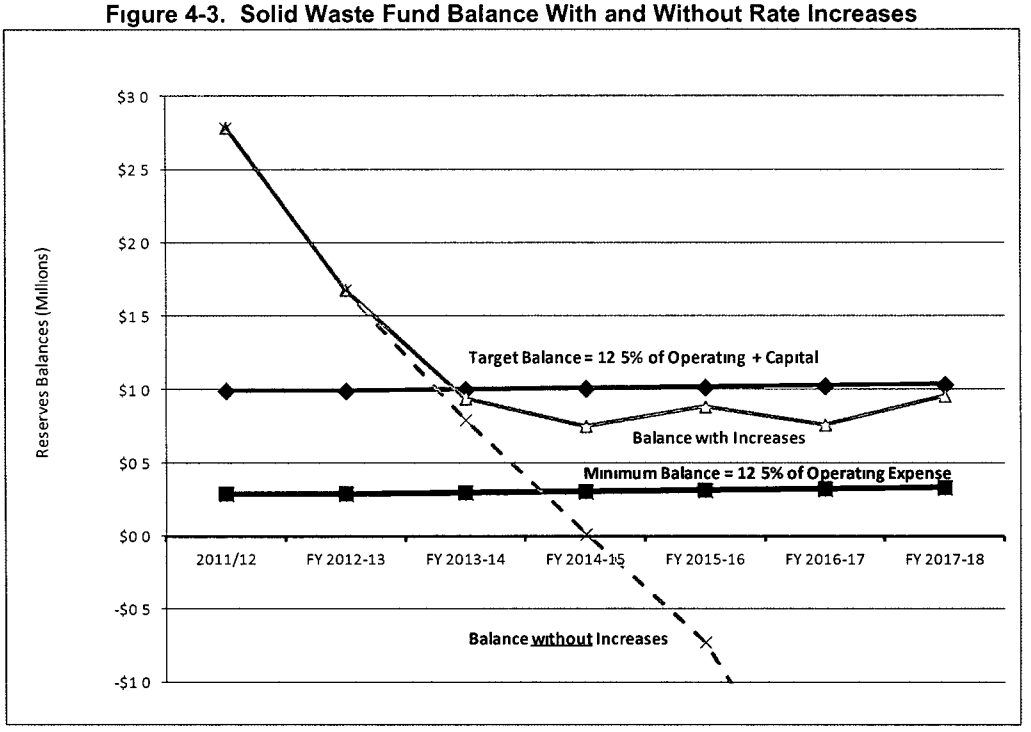
Figure 4-3 shows the combined fund balance for the operating and capital replacement reserves compared with the target balances The line labeled "Minimum Balance" represents the operating reserve target balance The line labeled "Target Balance" (diamond symbols) is the sum of the target balances for the operating reserve in the capital replacement reserve

Deleted <#>Contingency Balance The Contingency Balance provides additional funding for unforeseen capital requirements such as emergencies or regulatory uncertainty or unusually low revenues caused by loss of customers during economic downturns In effect, the Contingency Balance provides a level of self-insurance that stabilizes rates so that rate increases can be mitigated ¶
¶

Figure 4-3 indicates that the fund balance is above the target in FY 2011-12 The combined fund balance drops considerably by FY 2013-14 due to one-time payments to fund accumulating unfunded liabilities (the solid waste enterprises' proportionate share of unfunded other post-employment benefits (OPEB) and corporation yard construction expenses The reserves had previously been accumulated to accommodate these one-time payments

With the projected revenue increases, the fund balance will drop to its lowest point in FY 2014-15, approximately 25% below the target balance (but still significantly above the minimum balance) and will be just below the target balance by the end of the planning period, FY 2017-18 In this way, a combination of revenue increases and the use of the current reserve funds cover the increased operating and capital costs that are projected

Figure 4-3. Solid Waste Fund Balance With and Without Rate Increases



4.3 COST OF SERVICE ANALYSIS

The City's current solid waste rates determine how much of the total revenue requirement is paid by each customer class (e g , residential and commercial customers) A cost of service analysis determines how much each class should pay based on its respective share of the route labor costs, route vehicle costs, administrative costs, and disposal/processing costs at the WPWMA MRF

A cost-of-service analysis is a rate-making methodology that apportions the cost of service to the classes of customers in proportion to the benefits received The methodology first requires the identification of costs by service or function provided (i e , collection, disposal/processing, billing, etc) The units of service associated with each function are then determined Each class is then allocated its share of the services based on the percentage of that service/expense that it requires This cost-of-service methodology was used in allocating the City's cost of service to its residential and commercial customers

Figure 4-4 summarizes the proportionate costs and revenues at current rates for each of the City's customer classes (residential and commercial) The overall revenue shortfall for FY 2013-14, based current rates and current customer service levels, is 7 0% (before the recommended 6 0% rate increase and use of reserve funds) Our cost of service

analysis found both customer classes are generating the same 7 0% shortfall, therefore, the City's current rate structure properly apportions the cost of service to each customer class for the benefits received

Figure 4-4. Solid Waste Cost of Service Analysis

	Budgeted FY 2013-14	Allocation Method	Allocation Percentages Residential	Allocation Percentages Commercial	Allocated Expenses Residential	Allocated Expenses Commercial	Total
Salaries and Benefits - Operations	$1,011,011	Route Labor	71 2%	28 8%	$719,656	$291,355	$1,011,011
Salaries and Benefits - Administrative	$342,752	Accounts	98 1%	1 9%	$336,231	$6,521	$342,752
Operating Costs							
50101 Office Expense	674	Accounts	98 1%	1 9%	$661	$13	674
50111 Insurance	21,267	Routes	82 4%	17 6%	$17,529	$3,739	21,267
50140 Materials / Supplies	71,572	Routes	82 4%	17 6%	$58,990	$12,582	71,572
50150 Fuel & Oil	192,080	Routes	82 4%	17 6%	$158,314	$33,766	192,080
50190 Clothing	9,570	Routes	82 4%	17 6%	$7,887	$1,682	9,570
50220 Advertising	15,150	Accounts	98 1%	1 9%	$14,862	$288	15,150
50250 Communications	6,606	Routes	82 4%	17 6%	$5,445	$1,161	6,606
50270 Equipment Maintenance	51,500	Routes	82 4%	17 6%	$42,447	$9,053	51,500
50320 Taxes	103	Routes	82 4%	17 6%	$85	$18	103
50350 Lease Expense	100,000	Accounts	98 1%	1 9%	$98,097	$1,903	100,000
50400 Professional Services	236,008	Accounts	98 1%	1 9%	$231,518	$4,490	236,008
50500 Membership / Dues	657	Accounts	98 1%	1 9%	$644	$12	657
50540 Training	4,893	Routes	82 4%	17 6%	$4,032	$860	4,893
50710 Regulatory Fees	22,454	Routes	82 4%	17 6%	$18,507	$3,947	22,454
57305 Disposal Fees	1,587,907	Tonnage	76 0%	24 0%	$1,207,372	$380,535	1,587,907
60000 Depreciation	33,987	Routes	82 4%	17 6%	$28,012	$5,975	33,987
80050 Equipment	5,150	Routes	82 4%	17 6%	$4,245	$905	5,150
Subtotal, Operating Costs	$2,359,577				$1,898,648	$460,929	$2,359,577
Non-Operating Costs							
65100 Cost Allocation - General Fund	430,814	Accounts	98 1%	1 9%	$422,617	$8,197	430,814
65610 Cost Allocation - Fleet	250,983	Routes	82 4%	17 6%	$206,862	$44,120	250,983
Subtotal, Non-Operating	$681,796				$629,479	$52,317	$681,796
Total Op and Non-Op Expens	**$4,395,136**				**$3,584,014**	**$811,122**	**$4,395,136**
Transfers To/(From) Reserves							
Capital Replacement Fund (721)	194,046	Routes	82 4%	17 6%	$159,935	$34,111	194,046
Corp Yard/City Hall Bond Pmt	159,713	Accounts	98 1%	1 9%	$156,674	$3,039	159,713
OPEB Fund	214,376	Route Labor	71 2%	28 8%	$152,596	$61,779	214,376
Landfill Maintenance Costs	126,179	Tonnage	76 0%	24 0%	$95,941	$30,238	126,179
Total Transfers	**694,314**				**565,146**	**$129,167**	**694,314**
Net Revenue Requirement	**$5,089,450**			**Allocated Expenses**	**$4,149,161**	**$940,290**	**$5,089,450**
				Annual Revenue at Current Rates	$3,898,899	$882,974	
				Less Bad Debt	($19,494)	($4,415)	
				Net Revenue	**$3,879,405**	**$878,559**	**$4,757,964**
				$ Surplus/(Shortfall)	**($269,756)**	**($61,730)**	**($331,486)**
				% Surplus/(Shortfall)	**-7 0%**	**-7 0%**	**-7 0%**

4.4 RATE DESIGN AND PROJECTED RATE INCREASES

The rate design derives rates that will generate the appropriate amount of revenue (i e , each customer classes' proportionate share of the revenue requirement) for each customer class As shown in Section 4 3, the City's current rate structure is consistent with industry standards and satisfies the legal rate-making objectives, therefore, the

City should apply the following recommended rate increases across-the-board, without rate structure changes, to all existing solid waste rates

- FY 2013-14 (effective 1/1/14) 6 0%
- FY 2014-15 (effective 7/1/15) 6 0%
- FY 2015-16 (effective 7/1/15) 5 0%
- FY 2016-17 (effective 7/1/15). 5 0%
- FY 2017-18 (effective 7/1/15) 5 0%

With these increases, rates should cover ongoing contractual and operating cost increases and to maintain adequate reserves through FY2017-18 Each year, prior to implementing the rate increases, City staff should confirm the need for the rate increase The City can implement a lower rate increase, if conditions warrant, without going through the Proposition 218 notification process If higher rate increases are needed that exceed the adopted rates, the City will need to initiate a new Proposition 218 proceeding

The recommended annual increases and corresponding residential and commercial solid waste rates are summarized in **Figure 4-5.**

Figure 4-5. Solid Waste Monthly Rates - Current and Projected

Customer Class	Current	Planning Period FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
		eff 1/1/14	eff 7/1/14	eff 7/1/15	eff 7/1/16	eff 7/1/17
Rate Increase		**6 0%**	**6 0%**	**5 0%**	**5 0%**	**5 0%**
Residential[1]	$19 98	$21 18	$22 45	$23 57	$24 75	$26 00
Commercial[2]						
90 gal Can, 1x/wk	$24 01	$25 45	$26 98	$28 33	$29 74	$31 23
90 gal Can, 2x/wk	$46 26	$49 04	$51 98	$54 52	$57 31	$60 17
90 gal Can, 3x/wk	$68 51	$72 62	$76 98	$80 83	$84 87	$89 11
90 gal Can, 4x/wk	$90 76	$96 21	$101 98	$107 08	$112 43	$118 05
3-yard Bin Pickup[3]	$26 17	$27 74	$29 40	$30 87	$32 42	$34 04
4-yard Bin Pickup[3]	$34 17	$36 22	$38 39	$40 31	$42 33	$44 45
5-yard Bin Pickup[3]	$42 17	$44 70	$47 38	$49 75	$52 24	$54 85
3-yard Bin Monthly Lease	$21 17	$22 44	$23 79	$24 98	$26 22	$27 54
4-yard Bin Monthly Lease	$27 19	$28 82	$30 55	$32 08	$33 68	$35 37
5-yard Bin Monthly Lease	$34 17	$36 22	$38 39	$40 31	$42 33	$44 45

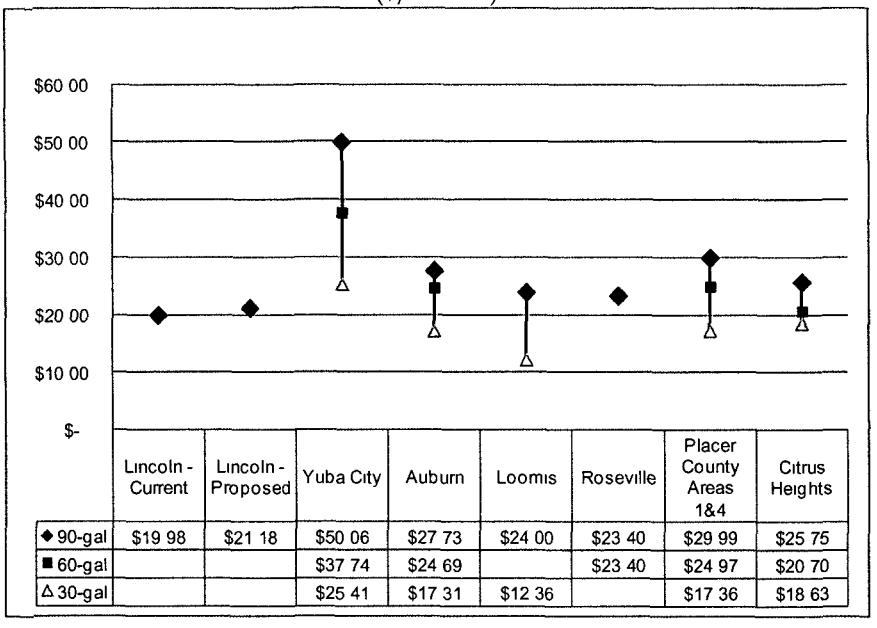
[1]Rate provides for weekly collection of one 90-gal solid waste container and one green waste container
[2]Rate provides for solid waste collection, commercial rate also applies to multi-family complexes sharing containers
[3]Rate provides for collection one-time per week, Rate for multiple collections per week is the stated rate times the number of regularly scheduled collections per week

4.5 COMPARISON OF PROPOSED CHARGES WITH NEIGHBORING AGENCIES

Figure 4-6 compares the current and proposed rate for the City's residential customers to some of the City's neighboring agencies As shown in the figure, some agencies have multiple residential rates based on the size of collection container (e g , 90-gallon, 60-

gallon) The City's proposed rate, effective 1/1/14, remains the lowest for 90-gallon service when compared to the neighboring agencies **Note:** Figure 4-5 reflects other agencies' current rates These rates may change during the forthcoming year.

Figure 4-6 Solid Waste Residential Rate Comparison
($/month)

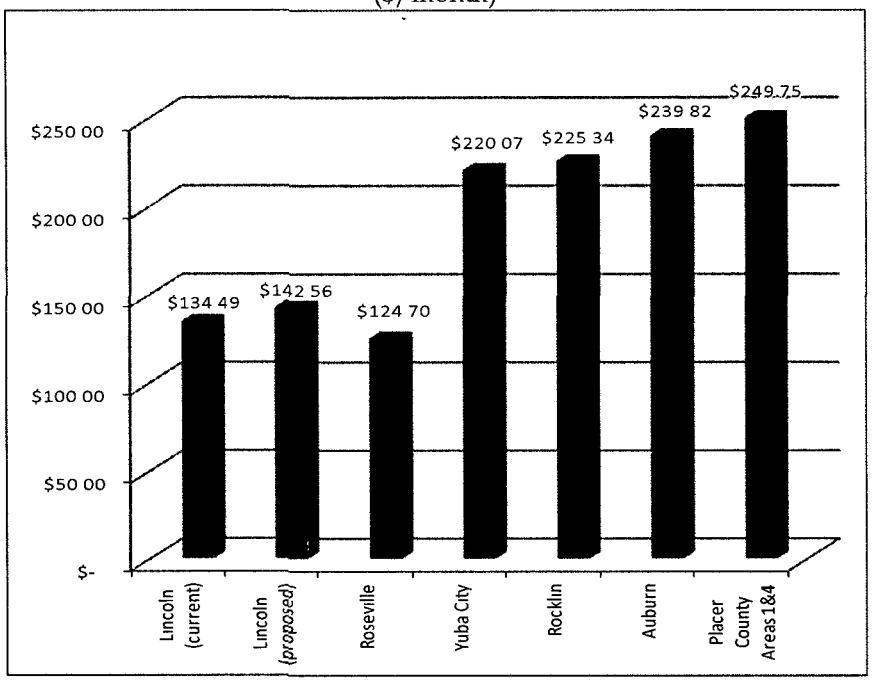


	Lincoln - Current	Lincoln - Proposed	Yuba City	Auburn	Loomis	Roseville	Placer County Areas 1&4	Citrus Heights
◆ 90-gal	$19 98	$21 18	$50 06	$27 73	$24 00	$23 40	$29 99	$25 75
■ 60-gal			$37 74	$24 69		$23 40	$24 97	$20 70
Δ 30-gal			$25 41	$17 31	$12 36		$17 36	$18 63

Figure 4-7 compares the City's current and proposed commercial rate (for the most common commercial service level, 3 cubic yards - 1x/week) to some of the City's neighboring agencies The City's proposed rate remains much less than most of the neighboring agencies and is slightly higher than the rate changed in Roseville **Note:** Figure 4-6 reflects other agencies' current rates These rates may change during the forthcoming year

Figure 4-7. Solid Waste Commercial Rate Comparison (3 CY – 1x/wk)

($/month)



ATTACHMENT 3

City of Lincoln - Water Rate Information

In response to the comments received during the public hearing at the October 8th City Council meeting, the City is providing additional information in regards to the proposed water rates The consultants prepared a rate study that was made available to all property owners and customers The detailed analysis can be technical in nature and could potentially lead to inaccurate assessments The additional information, although still summary in nature, attempts to provide an explanation of what the costs are to operate the City's water system These types of costs are typical of water agencies and other cities that provide a water service

The first graph, "*Water Fund Balance With and Without Rate Increases*", which is in the rate study document and also presented at the workshops and at the public hearing, indicates what happens to the water fund with or without the proposed rate increases The table below the graph summarizes the projected revenues and expenditures for the water fund by fiscal year The following summary reflects the projected activity for the five fiscal years beginning in 2013 that are included in the rate study

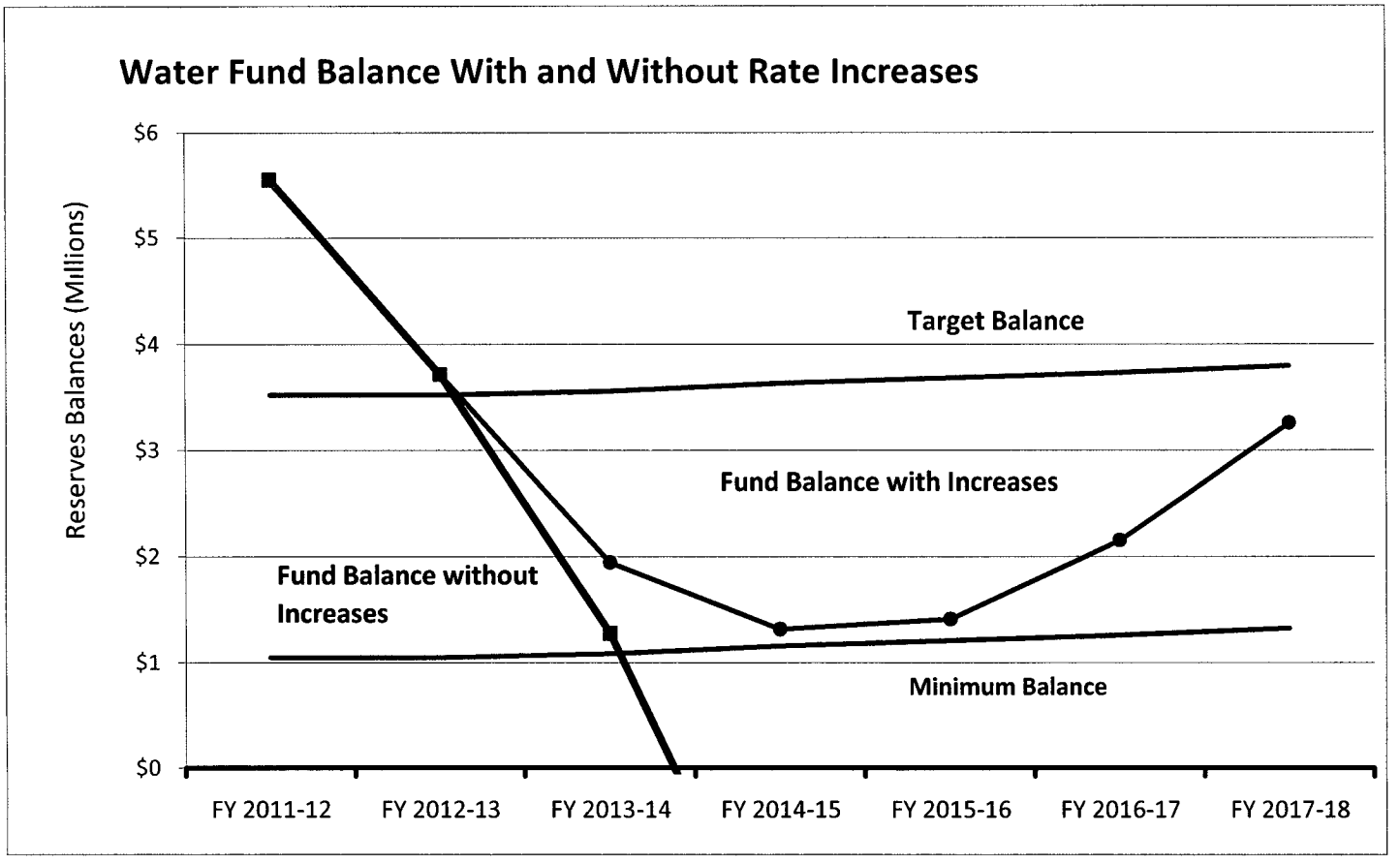
Beginning Fund Balance - FY 2013-14	**$ 3,712,658**
Rate Revenues	$ 67,104,898
Interest Earnings	$ 31,880
Expenditures - Operations	$ (67,539,815)
Capital R&R Activity	$ (56,302)
Ending Fund Balance - 2017-18	**$ 3,253,319**

The proposed rates begin the funding to establish an adequate reserve fund to repair and replace the existing water infrastructure, which is included in the Expenditure - Operations An independent study of the City's water infrastructure determined that the annual replacement cost over the life of the assets is $2.7 million The proposed rates phase-in the capital replacement funding over the five-year period The projected balances of the replacement fund are shown in the second graph, "*Capital Replacement Fund*", and indicates a balance of $7 7 million by the end of the 2017-18 fiscal year, which is 4% of the cost ($188 million) of the water infrastructure The Capital Replacement Fund will provide funds to repair and replace the existing infrastructure as it becomes necessary to continue the efficient delivery of water to customers

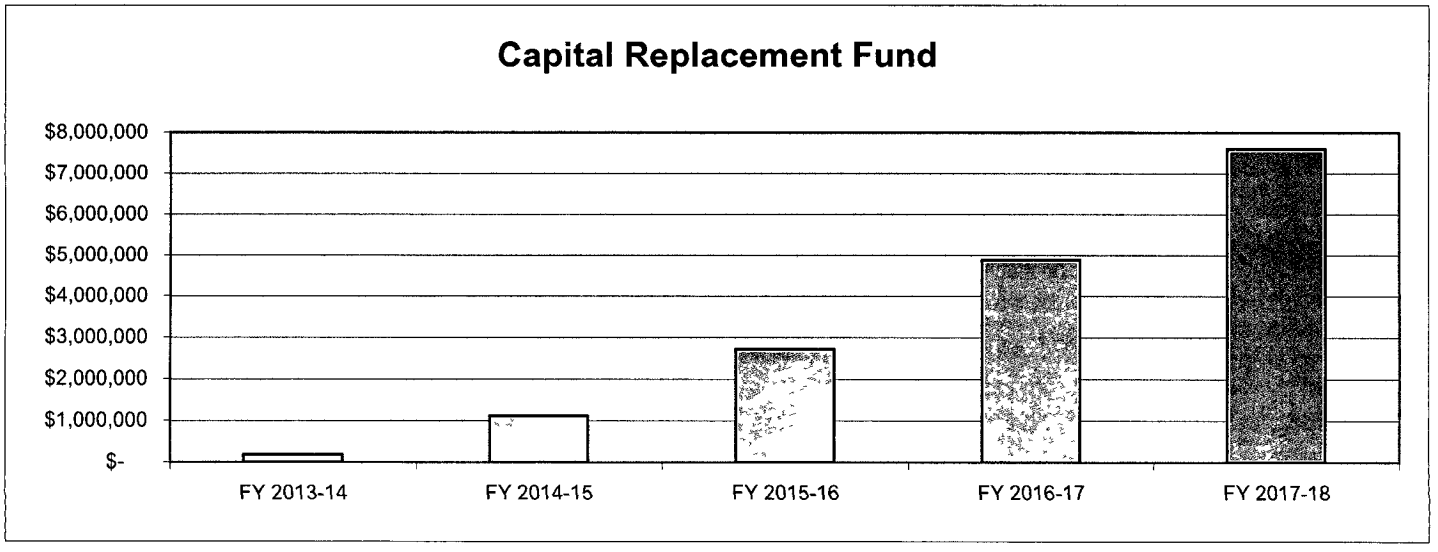
The third graph, "*Water Revenue Requirements*", shows the expenditures by category for the water operations A summary of the category expenditures are shown in the table below the graph in matching colors As reported in the past, the two primary increases are the purchased water from PCWA and the funding for the capital replacement fund It should be noted that the adopted 5-year CIP budget for FY's 2013-2018 presented unfunded projects in excess of $12 million

The expenditure category for Salaries and Benefits is based on the FY 2012-13 staffing levels and the filling of positions that were eliminated over the past 6 years The positions funded directly from the Water fund include staffing for supervision, water distribution technicians, engineering, utility billing, maintenance workers and administration The total Full-Time Equivalents (FTE) are 13.41.

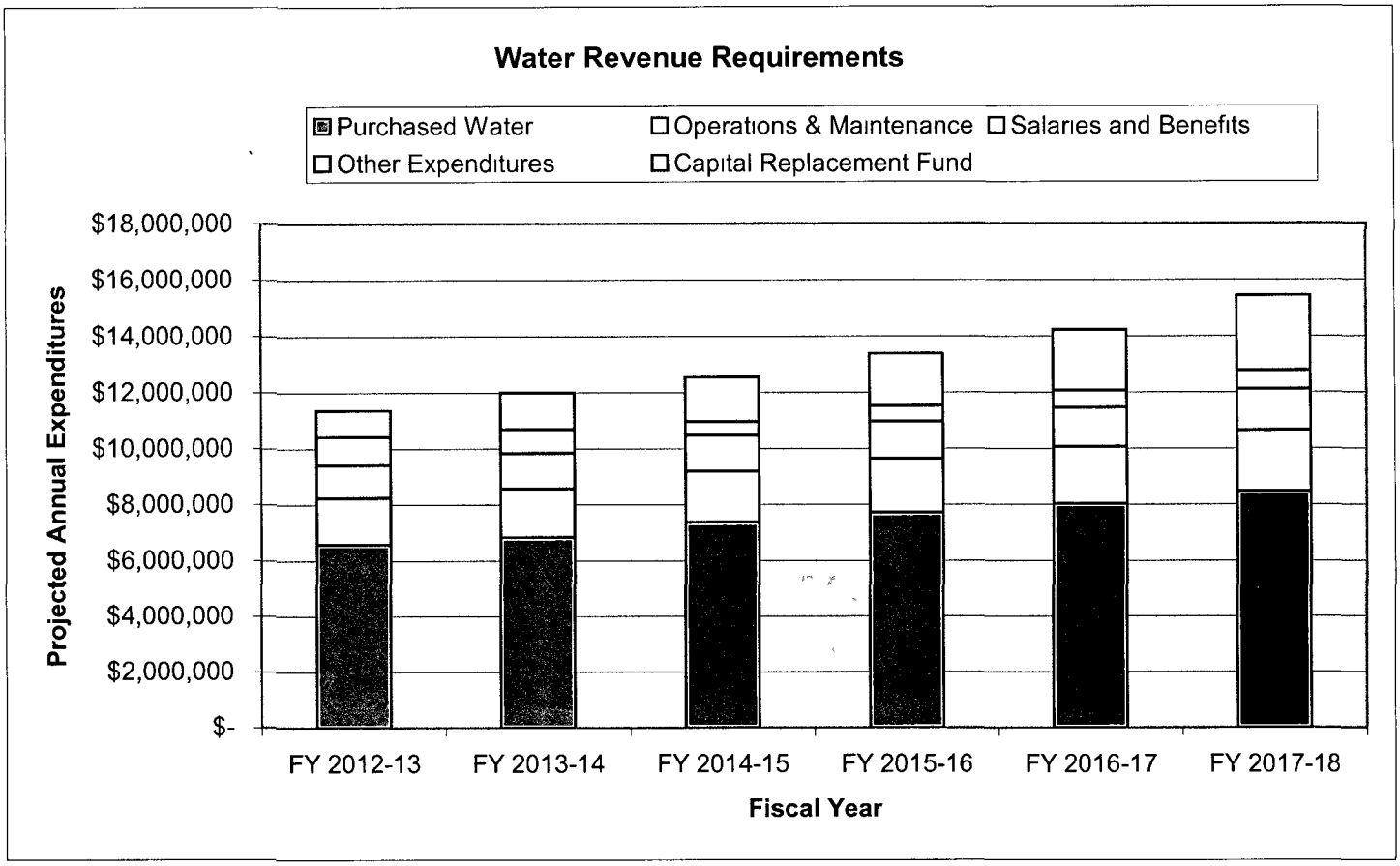
The category for Other Transfers for Water includes $500,000 in FY 2012-13 for infrastructure improvements included in the CIP #300 - reclamation water and $400,000 in FY 2013-14 for the past obligations of Other Post Employee Benefits (OPEB).



	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Beginning Fund Balance	**$ 5,546,053**	**$ 3,712,658**	**$ 1,942,116**	**$ 1,311,876**	**$ 1,406,580**	**$ 2,152,197**
Rate Revenues	$ 8,870,348	$ 9,585,744	$ 11,725,503	$ 13,566,980	$ 15,299,563	$ 16,927,108
Interest Earnings	$ 9,258	$ 4,844	$ 3,271	$ 5,637	$ 9,201	$ 8,927
Expenditures - Operations	$(11,367,370)	$(11,992,358)	$(12,538,528)	$(13,365,432)	$(14,217,345)	$(15,426,152)
Capital R&R Activity	$ 654,369	$ 631,227	$ 179,514	$ (112,480)	$ (345,803)	$ (408,760)
Ending Fund Balance	**$ 3,712,658**	**$ 1,942,116**	**$ 1,311,876**	**$ 1,406,580**	**$ 2,152,197**	**$ 3,253,321**



CAPITAL REPLACEMENT FUND	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Transfers to Reserve Fund	$ 551,400	$ 1,102,800	$ 1,654,200	$ 2,205,600	$ 2,757,000
Capital Expenditures in FY 2013-14 Budget	$ (370,000)	$ (177,000)	$ (46,960)	$ (41,769)	$ (36,421)
Net Annual Funding to Reserve Fund	$ 181,400	$ 925,800	$ 1,607,240	$ 2,163,831	$ 2,720,579



	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Capital Replacement Fund	$ 947,369	$ 1,307,627	$ 1,575,314	$ 1,839,760	$ 2,163,028	$ 2,656,819
Other Expenditures						
Debt Service	$ 61,674	$ 50,174	$ 44,124	$ 43,224	$ 13,888	$ -
Corp Yard / City Hall Allocation	$ 161,324	$ 161,324	$ 161,324	$ 161,324	$ 161,324	$ 161,324
OPEB	$ 182,533	$ 219,953	$ 265,043	$ 319,377	$ 384,849	$ 463,743
Other Transfers for Water	$ 605,631	$ 419,463	$ 26,589	$ 37,700	$ 40,756	$ 44,078
	$ 1,011,162	$ 850,914	$ 497,080	$ 561,625	$ 600,817	$ 669,145
Salaries & Benefits						
Full Time Salaries	$ 776,581	$ 776,581	$ 776,581	$ 799,878	$ 823,874	$ 848,591
Insurance - Medical/Dental/Life	$ 200,978	$ 216,949	$ 234,305	$ 253,049	$ 273,293	$ 295,156
Other Salaries & Benefits	$ 195,734	$ 273,833	$ 275,940	$ 283,785	$ 301,242	$ 320,134
	$ 1,173,293	$ 1,267,363	$ 1,286,826	$ 1,336,712	$ 1,398,409	$ 1,463,881
Operations & Maintenance						
Utilities	$ 218,082	$ 224,624	$ 231,363	$ 238,304	$ 245,453	$ 252,817
Materials & Supplies	$ 249,250	$ 256,728	$ 264,429	$ 272,362	$ 280,533	$ 288,949
Professional Services	$ 296,947	$ 305,855	$ 315,031	$ 324,482	$ 334,216	$ 344,243
Cost Allocation - General Fund	$ 690,384	$ 731,807	$ 775,715	$ 853,287	$ 938,616	$ 1,032,477
Cost Allocation - Fleet	$ 90,342	$ 94,859	$ 99,602	$ 107,570	$ 116,176	$ 125,470
Other Expenditures	$ 126,236	$ 128,081	$ 130,152	$ 132,468	$ 135,055	$ 137,938
	$ 1,671,241	$ 1,741,954	$ 1,816,292	$ 1,928,473	$ 2,050,049	$ 2,181,894
Purchased Water	$ 6,564,305	$ 6,824,500	$ 7,363,016	$ 7,698,862	$ 8,005,042	$ 8,454,413
TOTAL EXPENDITURES	**$ 11,367,370**	**$ 11,992,358**	**$ 12,538,528**	**$ 13,365,432**	**$ 14,217,345**	**$ 15,426,152**

For the expenditure line item titled Cost Allocation - General Fund, the City actually uses an Internal Service Fund (Fund #600), but the allocation principle is the same The City of Lincoln, which is typical with almost any public agency or private entity, provides administrative services (overhead costs) to other departments and divisions of the organization For example, in the City some of these administrative services are the City Manager's office, City Attorney, Finance, IT, Central Services, Human Resources, Facilities and others The City uses a cost allocation process to allocate overhead costs from department/divisions that provide the administrative services to the departments/divisions that benefit from the services The allocated overhead costs include staff salaries, benefits, operating expenses and allocated costs The basis for the allocation differs based on the service, for example, the IT allocation is partially based on the number of computers users and Human Resources allocation is partially based on the number of employees

As mentioned in the public hearing, the City is currently in the process of completing an updated cost allocation plan to reflect the current organizational structure of the City.

The City's three utilities have been allocated their share of the overhead costs The first table is a summary of the departments / divisions that receive the benefits of the overhead services and their allocation for the FY 2013-14 The second table identifies the departments / divisions that are providing the overhead services and the allocated cost share to the Water Fund for the FY 2013-14

Department / Division Receiving Benefit	FY 13-14 Allocated Amount
Water Operations	$ 731,807
Wastewater Operations	$ 451,280
Solid Waste Operations	$ 430,814
General Fund (Police, Fire, Library & Recreation)	$ 1,534,352
Community Development	$ 212,001
Streets	$ 134,292
L&L Districts	$ 222,572
Transit Operations	$ 114,873
Airport Operations	$ 147,161
TOTAL ALLOCATED COSTS - City-wide	$ 3,979,152

Department / Division Providing Services	FY 13-14 Allocated Amount
City Attorney	$ 4,742
City Manager's Office	$ 97,235
Human Resources	$ 14,749
Public Information Officer	$ 22,030
Administrative Services (CFO / analysts)	$ 201,321
Information Technology	$ 48,691
Central Services	$ 18,191
Finance (accounting / payroll / accounts payable)	$ 197,865
Utility Billing	$ 12,379
Public Services Administration	$ 6,674
Facilities	$ 107,930
TOTAL ALLOCATED COSTS - Water Fund	$ 731,807

ATTACHMENT 4

Summary of Ordinance amending Title 13 of the Municipal Code

13 04 010 Purpose and intent (D) – amended to read that the intent is to provide for the ongoing implementation of a metered rate system

13 04 015 Definitions – added section to include definitions

13 04.030 Supply source, quality, continuity – amended to read that all customers shall be required to accept such conditions of pressure and service as are provided by the distribution system at their point of connection and the city shall not be liable for any damage arising from high or low pressures

13 04 040 Classes of service – amended to define the two customer classes as residential and non-residential

13 04.065 Ground wire attachments – added section to state that the city is not responsible for providing an electrical ground through the water service equipment Customers shall not attach any ground wiring to plumbing which is or may be connected to city service equipment.

13.04.080 Application for water agency annexation – identifies September 30, 1979 as the applicable date of the referenced ordinance

13 04 150 Meter installation required (A) & (B) – identifies September 30, 1979 as the applicable date for the referenced ordinance

13.04 150 Meter installation required (C) – states that the City reserves the right to review the anticipated water demands based upon type of service, number of fixtures, irrigation, and all other factors affecting water use, and the right to require larger service connection or meter if anticipated demands exceed the capacity of the meter size requested

13 04.152 Meter Size Change – added section that defines the process for a customer to increase or reduce the water meter size. To increase the meter size the applicant shall pay the applicable fee for the new larger meter and if the change necessitates, in the City's judgment, a larger service connection, the applicant shall pay all costs associated with the installation of the new service connection. To reduce the meter size the applicant shall provide the City with documentation as deemed necessary by the City to recognize the permanent relinquishment of water capacity to the City. The City shall not be obligated to reimburse the applicant for any water connection fees related to the relinquishment of the water capacity The relinquishment shall permanently transfer the water capacity to the City and the City shall be allowed to sell such capacity to other water customers The proceeds of such sale of water capacity in the form of water connection fees shall be used by the City at its sole discretion.

13.04.155 Meter accessibility – added section that states that it is the customer's responsibility to ensure accessibility to the meter at all times. When a meter cannot be read because of an obstruction, the customer will be notified and shall correct the condition(s). Failure to remove the obstruction within 30 days after notification shall result in the disconnection of service. All fees

applicable to the disconnection shall be applied to the customer's account This is the customer's responsibility

13 04 158 Tampering charge – added section stating that facility tampering includes, but is not limited to, interference with a meter, meter box, or locking mechanism; or unauthorized reconnection of a meter, or unauthorized use of water or damage to a fire hydrant Additionally, any City facilities that have been damaged or altered will be billed for time and materials The tampering charge shall be two hundred and fifty dollars ($250 00) per occurrence, and upon the third occurrence the City may remove the meter and lock the service

13.04 200 Rate classifications – amended to read that the city will operate and maintain its water systems in an efficient and economical manner to distribute and supply water as fairly and equitably as possible. The charges to be made for service will be set at rates no higher than necessary to enable the city to recover all costs of distributing and supplying water and shall include any costs for: 1 Purchasing, pumping, transmitting, and distributing water, 2 Customer Service; 3 Administration, 4 Overhead, 5 Debt Service; and 6 Renewal and replacements of facilities.

13 04 202 Flat water use rates – added section indicating the monthly charge for flat rate water users which are equivalent to the 8,000 gallons per month for residential customers and 13,000 gallons per month for non-residential customers

13 04 205 Metered water use rates- amended per the Proposition 218 notice

13 04.207 Water use rates for construction water – amended to read that the charge for each one-thousand gallons of construction water use shall be twice the amount of the highest tier for non-residential water customers within the city

13 04 209 Water use rates – amended to read that the monthly charge for water use outside the city shall be one hundred fifty percent (150%) of the rates for the same steps for customers by class and meter size within the city.

13 04 360 Established--Apportionment—Purpose – amended to read that (A) the water connection fees shall include the City's water connection charge pursuant to Section 13 04 160 and either the Placer County Water Agency Water Connection Charge (PCWA WCC) or the Nevada Irrigation District Water Connection Charge (NID WCC), as determined by the City, in effect at the time of payment, and (B) the connection fees for every service connection to the city water system are established for the purpose of providing funds for the payment of the costs for design and construction of the city's water system and to make the required service connection payments to the Placer County Water Agency and in order that such costs be shared by those receiving the benefits.

13.04.362 Indoor Fire Sprinkler Requirement – added section that states the water connection fees for customers required to install indoor fire sprinklers shall be based upon the size meter that would otherwise be used to serve the customer but for the requirement of a larger meter for the sprinklers.

13.04.370 Use of revenues – amended to read that amounts collected shall be set aside in separate funds and used for the purposes enumerated in Section 13 04.360.

13 04 400 Temporary-connection charges (C) & (D) – amended to read that monthly charges for water usage shall be assessed in accordance with the water use rates for construction water as provided in Section 13 04 207 and that temporary connections shall be one-inch metered connections unless otherwise approved by the city

13 04.430 Irrigation hours – amended to read that the City reserves the right to limit irrigation hours in the case of water shortages or emergencies.

In addition to the aforementioned changes, the following sections have been amended to recognize the current organizational structure and titles, 13 04 075, 13.04 110, 13.04 130, 13.04.150, 13 04 450, 13 04 470, and 13.04 540

13 08.315 Continued use of private sewer system – amended to state that property owners using private sewer systems that are in compliance with applicable codes and regulations may continue to use the private system when new public sewer systems are constructed within two hundred feet or less from the building or drainage facility The construction or installation of a public sewer system will not cause property owners to abandon their private sewer systems

13 12 110 Basic monthly sewer service charge – amended per Proposition 218 notice

13.12 130 Lift station surcharge – amended to state that no additional monthly charge will be required to cover the costs of lift station operations, maintenance or replacement