City of Bethel

P.O. BOX 1388
Bethel, Alaska 99559
Phone: 907- 543-2047
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Regular City Council Meeting
November 26, 2013
6:30 P.M.
Council Chambers; Bethel, Alaska

City Council Meeting Agenda
Regularly Scheduled Meeting
November 26, 2013-6:30 pm
City Hall 300 State Highway, Bethel, AK
City of Bethel Council Chambers

Joseph Klejka
Mayor
Term Expires 2014
543-2984
jklejka@cityofbethel.net

Rick Robb
Vice Mayor
Term Expires 2013
543-1879
rrobb@cityofbethel.net

Mark Springer
Council Member
Term Expires 2013
545-1450
mspringer@cityofbethel.net

Eric Whitney
Council Member
Term Expires 2014
545-1309
ewhitney@cityofbethel.net

Sharon Sigmon
Council Member
Term Expires 2014
543-3452
ssigmon@cityofbethel.net

Heather Pike
Council Member
Term Expires 2015
444-7211
hpike@cityofbethel.net

Leif Albertson
Council Member
Term Expires 2015
543-2819
lalbertson@cityofbethel.net

Lee Foley
City Manager
543-2047
lfoley@cityofbethel.net

Lori Strickler
City Clerk
543-1384
lstrickler@cityofbethel.net

Patty Burley
City Attorney

Paul Richards
Lobbyist
pmrichards@gci.net

I. **CALL TO ORDER**
II. **PLEDGE OF ALLEGIANCE**
III. **ROLL CALL**
IV. **PEOPLE TO BE HEARD** – Five minutes per person
V. **APPROVAL OF CONSENT AGENDA AND REGULAR AGENDA**
VI. **APPROVAL OF MEETING MINUTES**
   a) **P3** *11-12-2013 Regular City Council Meeting
VII. **REPORTS OF STANDING COMMITTEES**
   a) Public Safety and Transportation Commission
   b) Port Commission
   c) Planning Commission
   d) Parks and Recreation Committee
   e) Finance Committee
   f) Public Works Committee
   g) Energy Committee
VIII. **UNFINISHED BUSINESS**
   a) **P13** *Introduction Of Ordinance 13-24: Approving The Lease Of City Property To Shaundy's Dog Grooming In Accordance With BMC 4.08.030, Acquisition And Disposal Of Land (City Manager Foley)
   b) **P17** AM 13-25: City of Bethel Water And Sewer Rate Increase Plan Of Action (Mayor Klejka)
IX. **NEW BUSINESS**
   a) **P151** *Resolution 13-19: City Of Bethel Records Retention Schedule Update (Mayor Klejka)
   b) **P205** *Resolution 13-20: Confirming Support To Kumarvik, A Place To Swim (Council Member Richard Robb)
X. **MAYOR'S REPORT**
XI. **MANAGER'S REPORT**
XII. **CLERK'S REPORT**
XIII. **COUNCIL MEMBER COMMENTS**
XIV. **ADJOURNMENT**

Agenda posted on November 22, 2013, at City Hall, AC Co., Swansons, and the Post Office.

Lori Strickler, City Clerk's Office
(Items on the agenda noted with an asterisk (*) are considered the consent agenda.
All Resolutions noted with an asterisk (*) will automatically be adopted on the consent agenda unless removed from the consent agenda by Council.
Ordinances introduced with an asterisk (*) on the consent agenda will automatically be introduced and set for **Public Hearing December 10, 2013**)

Approval of the Minutes

City Council Meeting
City of Bethel, Alaska
Regular Meeting
November12, 2013

I. CALL TO ORDER

A Regular Meeting of the Bethel City Council was held on November 12, 2013 at 6:30pm, in the council chambers, Bethel, Alaska.

Mayor Klejka, called the meeting to order at 6:30 pm.

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL

Comprising a quorum of the Council, the following members were present: Council Member Joseph Klejka, Council Member Rick Robb, Council Member Eric Whitney, Council Member Sharon Sigmon, Council Member Leif Albertson, Council Member Heather Pike, Council Member Mark Springer (arrived after roll call)

Also in attendance were the following:
City Clerk Lori Strickler, City Manager Lee Foley, City Attorney Patty Burley

IV. PEOPLE TO BE HEARD

No one present to be heard.

V. APPROVAL OF THE CONSENT AND REGULAR AGENDA

Main Motion:	To approve the Consent and Regular Agenda.
Moved by:	Sigmon
Seconded by:	Whitney
Action:	Motion carried unanimously by a vote of 6-0
In favor:	Klejka, Robb, Whitney, Sigmon, Albertson and Pike
Opposed:	None

Removal from Consent Agenda	Introduction of Ordinance 13-23 and Ordinance 13-24 from the consent agenda.
Moved by:	Robb

Primary Amendment #1:	Postpone AM 13-25 until the next regular meeting.
Moved by:	Robb
Seconded by:	Whitney
Action:	Motion carried unanimously by a vote of 6-0
In Favor:	Klejka, Robb, Whitney, Sigmon, Albertson and Pike
Opposed:	None

Primary Amendment #2:	Postpone Ordinance 13-34 until the next regular meeting.
Moved by:	Whitney
Seconded by:	Sigmon
Action:	Motion carried by a vote of 5-1
In Favor:	Klejka, Whitney, Sigmon, Albertson and Pike
Opposed:	Robb

VI. APPROVAL OF THE MEETING MINUTES

Item B- October 22, 2013 City Council Regular Meeting Minutes.
Passed on the Consent Agenda.

VII. REPORTS OF STANDING COMMITTEES

Item A- Port Commission –
Port Director, Pete Williams-
Meeting scheduled for coming Monday, definite grants status will be known in early December, Corps of Engineers willing to report to Council, watchmen and the boats parked at the Boat Harbor.

Item B- Planning Commission –
Council Representative, Heather Pike-
A meeting was not held.

Item C-Public Safety and Transportation Commission-
Council Representative Sharon Sigmon-
A meeting was not held.

Item D-Energy Committee –
Council Representative, Rick Robb-
A meeting was not held.

Item E-Public Works Committee-
Council Representative, Joseph Klejka-

Toured the pool, it is amazing.

Item F- Finance Committee-
Committee Representative, Leif Albertson -
Discussed some issues within the code and the possible solutions to modify the code for easier interpretation.
Need a few more members on the Committee.

Item G-Parks and Recreations Committee-
Committee Chair, Barb Mosier-
The Committee worked primarily on the Ordinance that is up for consideration tonight, discussed community activities, Bethel parks.

VIII. NEW BUSINESS

Item A - *Introduction Of Ordinance 13-23: Inserting Chapter 9.33 Title Silly String And Practical Joke Items Prohibited.

Main Motion:	Introduce Ordinance 13-23.
Moved by:	Whitney
Seconded by:	Sigmon
Action:	Motion does not carry with a vote of 2-5
In Favor:	Sigmon and Klejka
Opposed:	Whitney, Springer, Robb, Pike and Albertson

Subsidiary Motion:	Suspend the rules to hear from the Chair of the Parks and Recreation Committee.
Moved by:	Sigmon
Seconded by:	Pike
Action:	Motion carried unanimously by a vote of 6-0
In Favor:	Klejka, Robb, Whitney, Sigmon, Albertson and Pike
Opposed:	None

Item B- Introduction Of Ordinance 13-24: Approving The Lease Of City Property To Shaundy's Dog Grooming In Accordance With BMC 4.08.030, Acquisition And Disposal Of Land.
Item postponed until the next regular meeting.

Item C- AM 13-25: City of Bethel Water And Sewer Rate Increase Plan Of Action
Item postponed until the next regular meeting.

Item D- AM 13-26: Reappointment Of Frank Neitz To The Public Works Committee.

Item passed on the consent agenda.

Item E- AM 13-27: Reappointment Of John Guinn To The Planning Commission.

Item passed on the consent agenda.

Item F- AM 13-28: Reappointment Of Sharon Neth To the Energy Committee.

Item passed on the consent agenda.

Item G- AM 13-29 Confirming The Appointment Of Hansel Mathlaw at the City of Bethel, Finance Director.

Main Motion:	To approve Action Memorandum 13-29.
Moved by:	Robb
Seconded by:	Sigmon
Action:	Motion carried unanimously by a vote of 6-0
In favor:	Klejka, Robb, Whitney, Sigmon, Albertson and Pike
Opposed:	None

Item H- City Attorney Medical leave request: October 1 – 18, 2013.

Item passed on the consent agenda.

Item H- Training And Travel Request For City Attorney To Attend Alaska Municipal League Conference November 17-20.

Item passed on the consent agenda.

XII. MAYOR'S REPORT

XIII. MANAGERS REPORT

XIV. CITY CLERK'S REPORT

XV. COUNCIL MEMBER COMMENTS

Subsidiary Motion:	Take a ten minute break
Moved by:	Robb
Seconded by:	
Action:	Motion does not carry due to a lack of a second.
In favor:	

Opposed:	

Council Member Springer-
For those following along at home who were not able to hear the first part of the meeting; the Silly String Ordinance was not introduced and the City Council has approved the hiring of a new finance director.
We have not seen the last of the wet stormy weather.

Council Member Robb-
Thanked all of the veterans for the sacrifices they have made for our Country.
Trapping season has started, wished everyone the best of luck.
If anyone is interested the Bethel Sportsman's Club is hosting a Turkey Shoot this Saturday.

Council Member Sigmon-
This has been an interesting meeting, appreciate the cooperation between the council.
Encouraged members of the public to carry a flashlight or to put on reflectors when out walking at night.

Council Member Whitney-
Watch out for TSA, they will get you if you have a juice box in one of your carry-on.

Mayor Joseph Klejka-
Concurred with Council Member Springer, this is going to be a very different winter.

Council Member Pike-
Received many phone calls about areas in Bethel that need additional lighting, specifically Seventh Avenue. Be safe out there.

Council Member Albertson-
For those utility users on piped water, Public Works in not ready for you to turn on the glycol pumps.

XVI. ADJOURNMENT

Main Motion:	**Adjournment**
Moved by:	Springer
Seconded by:	Sigmon

Action:	Motion carried unanimously by a vote of 6-0
In favor:	Klejka, Robb, Whitney, Sigmon, Albertson and Pike
Opposed:	None

Joseph A. Klejka, Mayor

ATTEST:

Lori Strickler, City Clerk

Reports of Standing Committees

Unfinished Business

Introduced by: City Manager Foley
Date: November 12, 2013
November 26, 2013
Public Hearing:
Action:
Vote:

CITY OF BETHEL, ALASKA

Ordinance #13-24

AN ORDINANCE APPROVING THE LEASE OF CITY PROPERTY TO SHAUNDY'S DOG GROOMING IN ACCORDANCE WITH BMC 4.08.030 (ACQUISTION AND DISPOSAL OF LAND)

WHEREAS, the City may enter into land lease agreements to an entity providing a necessary public service pursuant to BMC 04.08.030;

WHEREAS, the City of Bethel owns the one animal shelter in Bethel where it houses animals collected through its use of animal control services administered by the Police Department;

WHEREAS, the animal shelter has two rooms, the kennel area where up to ten animals are kept and a vacant office area;

WHEREAS, there exists a public demand for dog grooming services in Bethel that is currently unmet by private business enterprises;

WHEREAS, Bethel resident Shaundy Davis is a State Certified Dog Groomer and willing to open and operate Shaundy's Dog Grooming as a dog grooming business in Bethel;

WHEREAS, minimal modifications to the vacant office can be made by City Property Maintenance personnel that would allow Shaundy's Dog Grooming to operate therefrom;

WHEREAS, Shaundy's Dog Grooming is interested in leasing the unused office space in the animal shelter after it has been modified to suit for a cost not to exceed $250 per month;

WHEREAS, Bethel City Council hereby agrees that lease of space at the City Animal Shelter to Shaundy's Dog Grooming constitutes a disposal of an interest in real property to an entity providing a necessary public service;

Introduced by: City Manager Foley
Date: November 12, 2013
November 26, 2013
Public Hearing:
Action:
Vote:

WHEREAS, due to the necessary public purpose to be provided by Shaundy's Dog Grooming at the City's animal shelter, Bethel City Council finds that it is in the best interest of the public and appropriate that the lease contain a cost per month less than fair market value be charged and be entered into without competitive bidding;

NOW, THEREFORE BE IT ORDAINED, the City, in consideration of the rents, covenants, and agreements mentioned herein, reserved, and contained on the part of Shaundy's Dog Grooming to be paid, kept, and performed, does hereby authorize Shaundy's to operate a dog grooming business at the City's Animal Shelter in accordance with the terms and conditions contained and referred to herein and to be spelled out in a formal lease to be developed upon approval of this ordinance.

1. **Premises**. The City agrees to allow the Shaundy's Dog Grooming exclusive use of space in the building in the Townsite of Bethel, State of Alaska, Fourth Judicial District, Bethel Recording District commonly known as the **Bethel Animal Shelter**, and more fully described as:

1225 Ridgecrest Drive, Bethel, AK.

Green single-story building on west side of Ridgecrest Drive between the City's Public Works building and the City's Recycle building.

NOW, THEREFORE BE IT FURTHER ORDAINED by the City Council of Bethel, Alaska, that:

SECTION 1. Classification. This ordinance is of a general nature and shall not become a part of the Bethel Municipal Code.

SECTION 2. Authorization. Pursuant to Bethel municipal Code 04.08.030 B., Disposal to Entity Providing Necessary Public Service, the City Manager is authorized to:

Execute the Lease Agreement between the City of Bethel and the Shaundy's Dog Grooming subject to the terms and conditions in the Lease.

A. Term. The term of this lease shall be from December 7, 2013, through and including December 6, 2014 unless terminated earlier in accordance with this Lease. This Lease is revocable at the will of the City or Shaundy's upon not less than one hundred twenty (120) days advanced written notice to Shaundy's or City. If the lessee wishes to renew the Lease, the lessee shall make written application to the City Clerk

for renewal of the Lease at least one-hundred eighty (180) days prior to expiration. The renewal request shall contain all terms proposed for the renewal of the Lease.

B. City Responsibility. The City of Bethel will modify its Animal Shelter building to suit the operational needs of a Shaundy's Dog Grooming, including making improvements to one or more of the following areas: water and sewer facilities, walls, doors, elecrtrical system, ventilation, and land;

C. Use. It is understood and agreed that the premises described shall be utilized by Shaundy's solely for the purposes of operating a dog grooming business that satisfies the provision of a necessary public service as determined by the passage of this ordinance.

D. Cost. The City Manager shall negotiate a monthly lease payment to be paid to the City by Shanudy's over the duration of the lease that may not exceed $250 per month.

SECTION 3.Effective Date. This ordinance shall become effective immediately upon passage by Bethel City Council.

SECTION 4. Expiration Date. Provided under the terms of Section 2, A.

BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF BETHEL ALASKA, THIS __DAY OF NOVEMBER 2013, BY A VOTE OF___ IN FAVOR AND ___ OPPOSED.

_____
Joseph A. Klejka, Mayor

ATTEST:

_____
Lori Strickler, City Clerk

City of Bethel Action Memorandum

Action memorandum No.	13-25		
Date action introduced:	11/12/2013	Introduced by:	Mayor Klejka
Date action taken:		☐ Approved	☐ Denied
Confirmed by:			

SUBJECT/ACTION:

Direct Administration to create ordinances for Council's consideration, implementing the following items related to the Water and Sewer Cost Allocation and Rate Study.

1. A cost of service rate structure for piped flat rate, metered and hauled water and sewer that sets rates at actual cost of service (COS) as provided in Exhibit 4-8 of the Rate Study. The Ordinance shall also include rates for commercial hauled and piped services and rate adjustments for each year through 2020. (See Exhibit 4-8)

2. Identify a two zoned hauled rate structure (with a map attachment for clear descriptions) in the above mentioned ordinance that will identify the areas of town on each of the zones. Zone two should include Kasayuli Subdivision, Larsen Subdivision, Tundra Ridge Subdivision and the hauled customers near the airport. Zone one, will include all other areas on the hauled system. This zoning should also include any commercial customers.

3. Increase the pumphouse water from $0.03 per gallon annually by 12 percent for two years (FY 2014/15), 8 percent in FY 2015/16, and 4 percent in FY 2016/17 through FY 2018/19.

4. Establish a renewal and replacement fund balance target of $500,000 annually. The City has the option of collecting renewal and replacement funds through the monthly subscription fee or through rates however when allocated in the City's accounting system, the repair and replacement funds should be separate from the monthly billing rates for water and sewer services; see Section 5 of the Study. A percentage of rates for the commercial customers must also be considered.

Route to:	Department/Individual:	Initials:	Remarks:
X	City Manager		
X	Finance Department		
X	Public Works Director		

Attachment(s): City of Bethel Water and Sewer Cost Allocation and Rate Study; Summary of Water and Sewer Cost Allocation and Rate Study provided by Kurt Playstead, CH2MHILL; Exhibit 4-8.

SUMMARY OF RATE STUDY

A summary of each Scenario was provided in the Study:

Scenario 1: This scenario assumes the water and sewer utility fund will continue to receive transfers from the General Fund to help offset operating losses. The amount of the transfer will be approximately $450,000 per year with $300,000 going towards the water utility and $150,000 towards the sewer utility.

Scenario 2: This scenario will phase out the annual transfers from the General Fund over three years and program the appropriate water and sewer rate increases required for the utility to achieve full cost recovery. This scenario also builds in an operating contingency of 30 days of operating expenses. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances. This scenario would phase out the transfers from the general fund by fiscal year 2015/16.

Scenario 3: Scenario 3 includes the same assumptions as Scenario 2. It also assumes piped water service will be extended to the Institutional Corridor. This adds about $320,000 in operating expenses, beginning in FY 2016. However, it also adds about $456,000 in revenues beginning in FY 2016. This scenario would phase out the transfers from the general fund by fiscal year 2015/16.

Renewal and Replacement Fund Balance Target

In addition to the rate increases, it was recommended to establish a renewal and replacement fund balance target and implement necessary adjustments to this charge to achieve the target over a period of five to seven years.

The annual depreciation expense is an estimate off the amount that the City would need to set aside annually if it wanted to fully fund the replacement of its existing facilities using this renewal and replacement account. There is no requirement that the City fully fund the replacement of its water and wastewater facilities using this account, but estimating this amount provides an upper limit for determining how much could be set aside for the purpose.

The estimated replacement costs, which includes a 15 percent contingency and a 25 percent allowance for administration and engineering, is approximately $121 million which is broken down to $4.3 million per year (Section 5, 4-1).

In the report annual depreciation expenses were allocated to customer classes based on their respective share of the system use. The City has the option to collect renewal and replacement funds through the monthly subscription fee or through rates. If $4.3 million per year (the full amount) is the goal, the monthly fee would increase from $5 per account to $116 per account. Another option would be to incorporate this charge

into the water and sewer volume rates which would be based on customer class. If this option is selected, the charges per thousand gallons would range from $11.75 for hauled sewer, to $27.55 per thousand gallons for piped sewer (the reason piped sewer has a larger relative share of depreciation expenses is because of limited asset sharing with the hauled sewer system and shorter life of assets (ES XVI). See Exhibit 5-4 from the Study, below.

EXHIBIT 5-4
Depreciation Cost per 1,000 gallons of Billable Units
City of Bethel Water and Sewer Rate Study

	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$900,000	$830,000	$1,790,000	$760,000
Less Current Contributions:				
Subscription Fees	$26,100	$62,220	$28,440	$67,500
Fleet Replacement	$0	$35,000	$0	$35,000
Subtotal	**$873,900**	**$732,780**	**$1,761,560**	**$657,500**
Billing Units (gallons)	32,409,741	45,646,250	63,941,924	55,946,850
Depreciation Cost/1000 gallons	**$26.96**	**$16.05**	**$27.55**	**$11.75**

The City could also consider establishing a renewal and replacement fund equal to the estimated replacement value of the critical system component or a reserve amount suggested by a funding agency (not provided in the Study).
The City could decrease the target from $4.3 million to $500,000 per year for renewal and replacement and recover that amount through rates. See Exhibit 5-5 from the Study below.

EXHIBIT 5-5
Depreciation Cost per 1,000 gallons of Billable Units: $500,000 annual target
City of Bethel Water and Sewer Rate Study

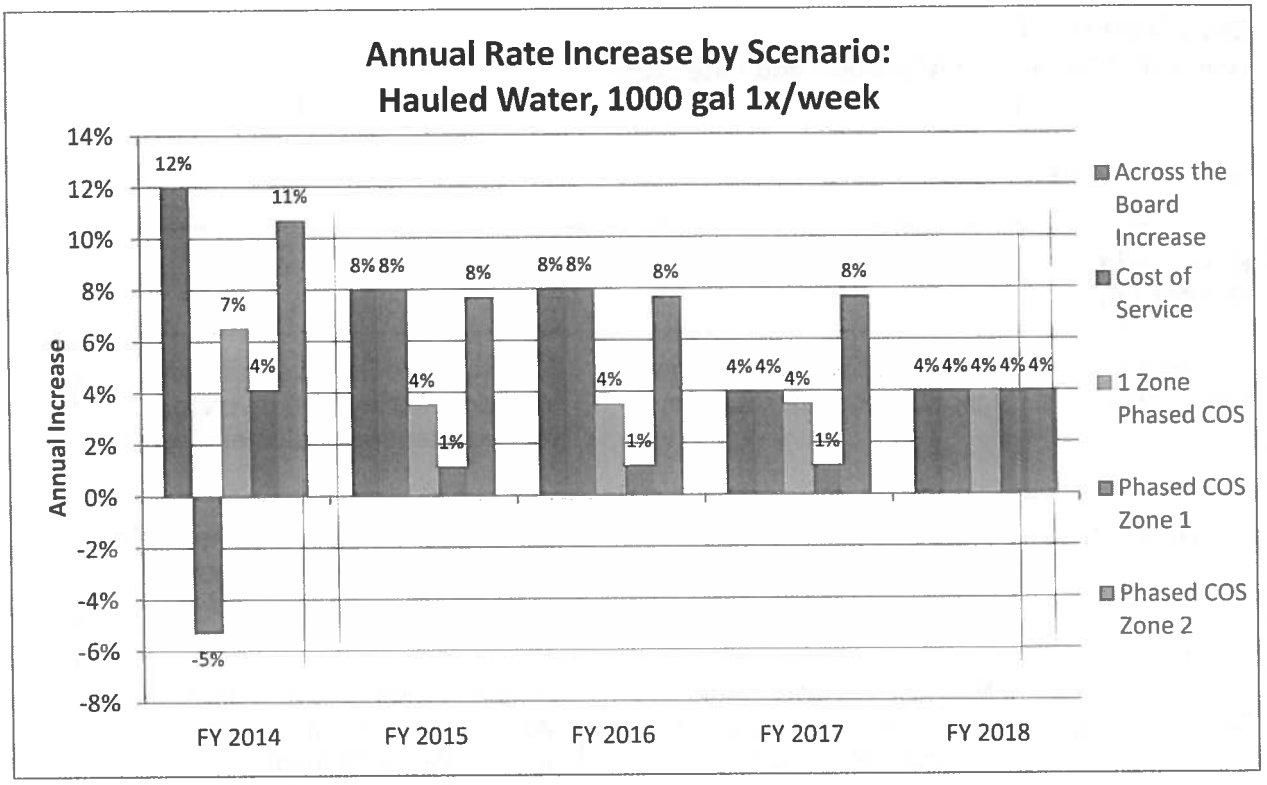
	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$106,000	$96,000	$209,000	$89,000
Billing Units (gallons)	32,409,741	45,646,250	63,941,924	55,946,850
Dep Cost/1000 gallons	$3.27	$2.10	$3.27	$1.59

Summary of Rate Design Options

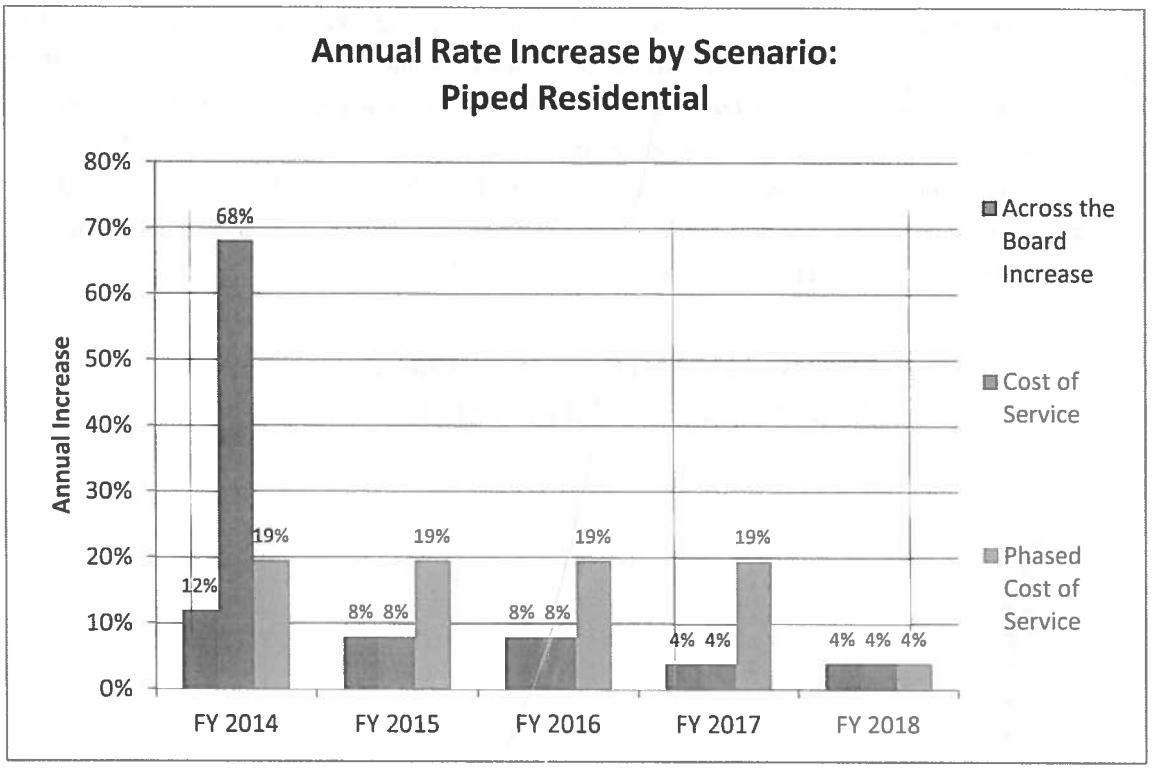
Rate Design Description	Advantage	Disadvantage
Across the board increases	Easy to implement/explain; greater revenue stability	Equity; cost of service analysis supports a change in revenue recovery among customer classes
Cost of service rates	Rate equity—recovers revenue in proportion to estimated system demands	Shifts revenue recovery; harder to explain; significant bill impacts to some users
Phased Cost of Service Rates	Maintains existing rate structure; more gradual shift towards COS rates;	Shifts revenue recovery gradually; More significant rate increases for piped water residential customers; moderate increases for piped sewer residential customers

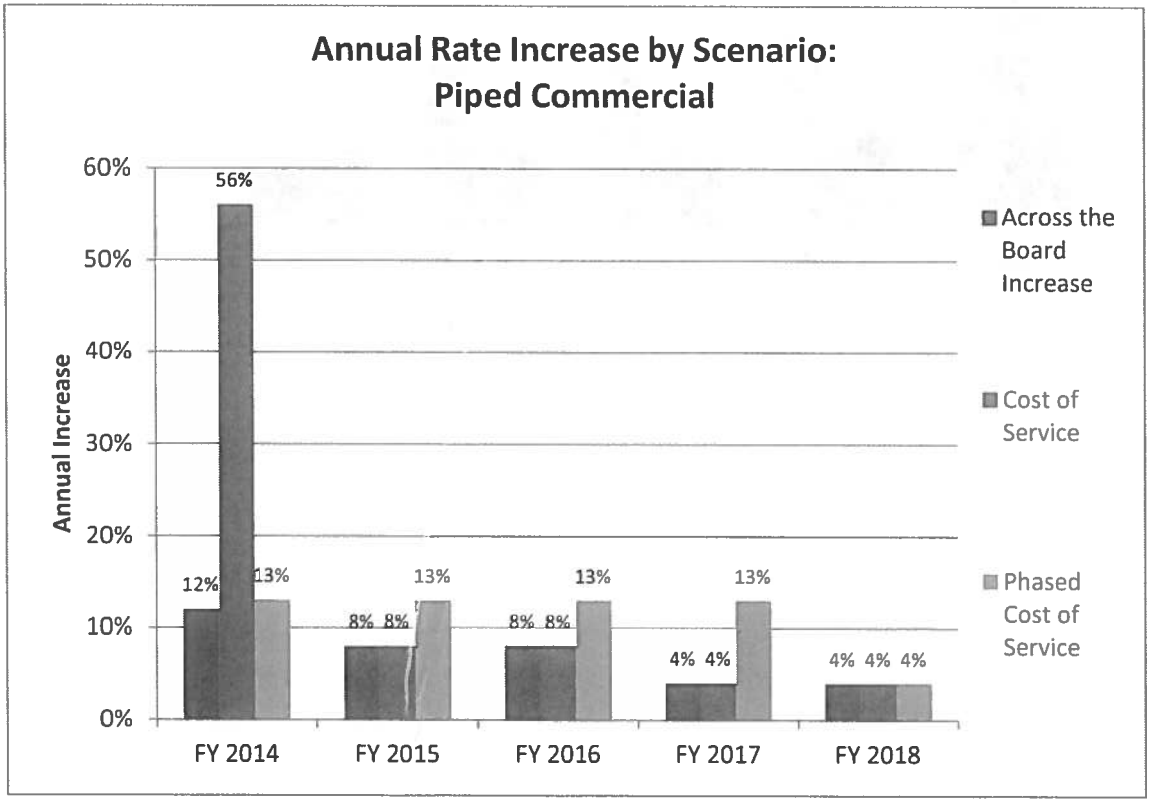
The following charts present the annual increases required for selected customer types for each of the rate design options. The rates presented were developed using revenue requirements under Scenario 2, which focused on reducing transfers from the General Fund over a three year period to zero. At the time the report was completed, the future connection of the Institutional Corridor was still uncertain, thus projected revenues and costs from Institutional Corridor customers are not reflected in the rate options. The assumptions and findings presented in the Institutional Corridor Feasibility Report (2010) prepared by Larsen Consulting may not reflect the current thoughts on the design of the system and the number of customers to be connected.

The figures for the Water customers were derived from Exhibit 4-8. The increases presented in the FY 2014 represent the increase from current rates. As shown, implementing cost of service rates in FY 2014 will result in very large increases for some customers. The Phased approach is an option that will move rates towards cost of service but will spread the large increase over a three to four year period. The Phased Cost of Service option is designed to achieve near cost of service rates by FY 2018. The cost allocation study suggests that cost recovery shifts from hauled customers to piped customers. Potential rate impacts are largest for piped residential customers (flat rate) and hauled customers with smaller tank capacity

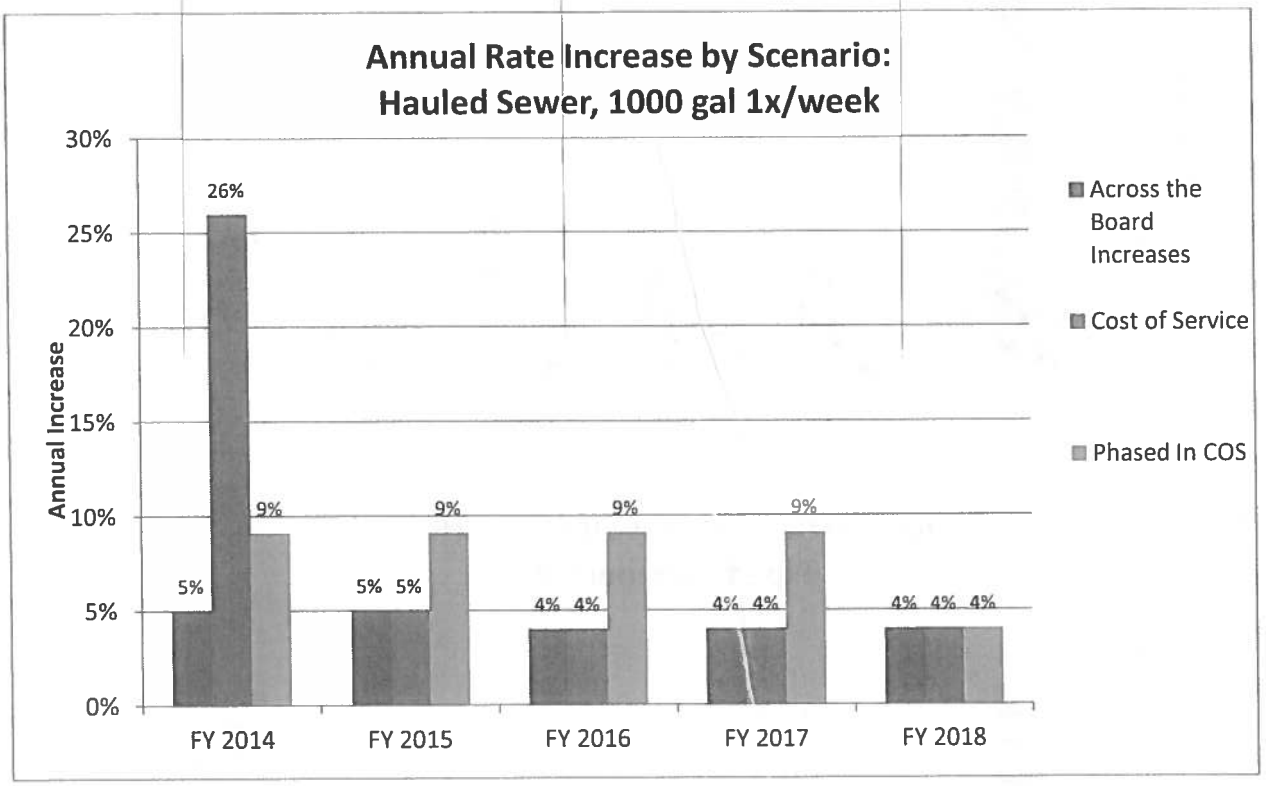


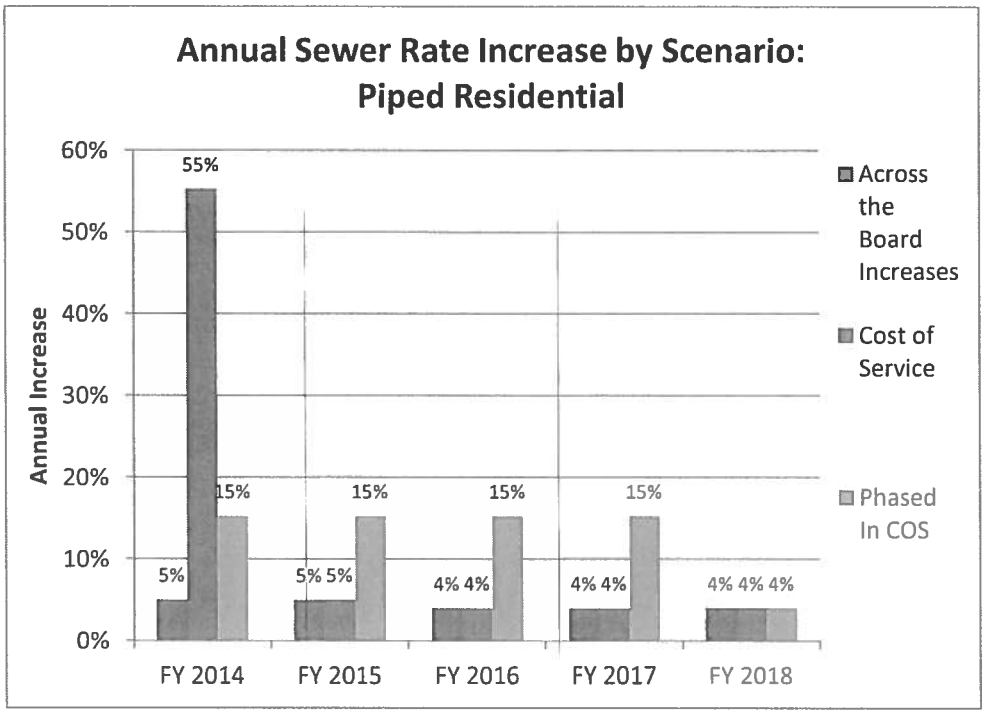
Note: For Hauled Water Customers, rate increases will vary depending on capacity of tank and the frequency of deliveries. See Appendix C in Report for complete Water Rate Schedule for hauled customers. In general, smaller tank sizes will experience greater annual increases than larger tanks.

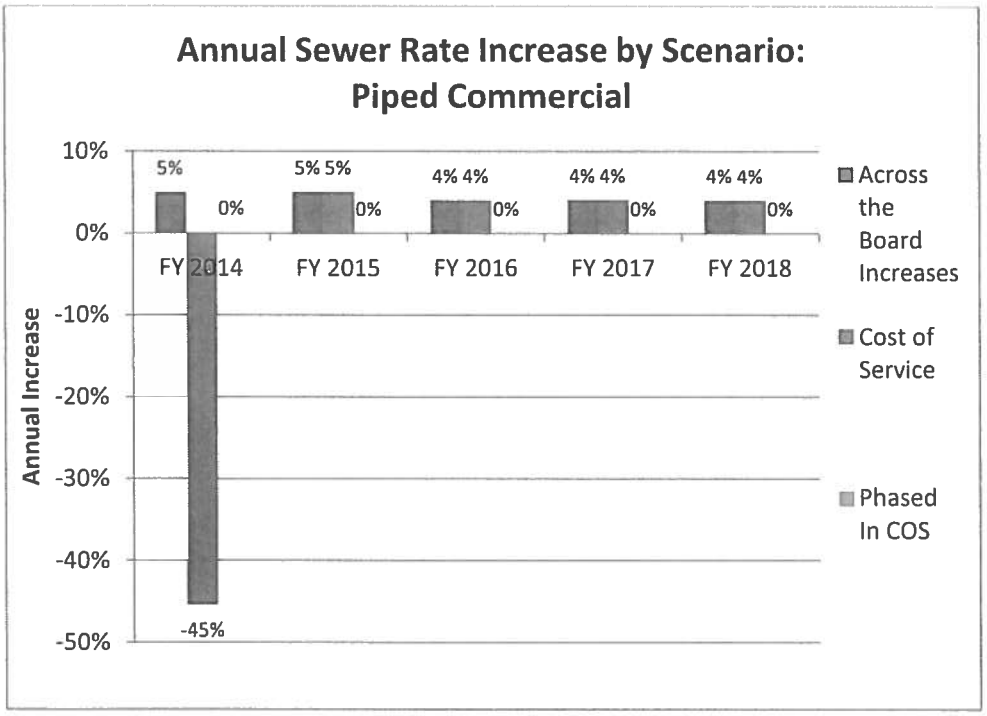

Annual Rate Increase by Scenario:
Piped Residential
80%
70%
60%
50%
40%
30%
20%
10%
0%
Annual Increase
68%
12%
19%
8% 8%
19%
8% 8%
19%
4% 4%
19%
4% 4% 4%
FY 2014
FY 2015
FY 2016
FY 2017
FY 2018
Across the Board Increase
Cost of Service
Phased Cost of Service


Annual Rate Increase by Scenario:
Piped Commercial
60%
50%
40%
30%
20%
10%
0%
Annual Increase
56%
12%
13%
8% 8%
13%
8% 8%
13%
4% 4%
13%
4% 4% 4%
FY 2014
FY 2015
FY 2016
FY 2017
FY 2018
Across the Board Increase
Cost of Service
Phased Cost of Service

The figures for the Sewer customers were derived from Exhibit 4-14. The increases presented in the FY 2014 represent the increase from current rates. As shown, implementing cost of service rates in FY 2014 will result in very large increases for some customers. The Phased approach is an option that will move rates towards cost of service but will spread the large increase over a three to four year period. The Phased Cost of Service option is designed to achieve near cost of service rates by FY 2018. The cost allocation study suggests that cost recovery for the sewer utility shifts from piped commercial to hauled customers (relatively small shift) and piped residential (larger shift).







Note: Commercial piped customers are currently above cost of service rates. Thus, their rates are not projected to increase through FY 2018.

EXHIBIT 4-8
Projected Water Rate Design Options
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Projected Rate Increase		12%	8%	8%	4%	4%	4%	4%	4%	4%	4%
Hauled Water, 1000 Gallons/1x per week											
Existing	$196.69	$220.29	$237.92	$256.95	$267.23	$277.92	$289.03	$300.59	$312.62	$325.12	$338.13
COS	$166.31	$186.27	$201.17	$217.26	$225.95	$234.99	$244.39	$254.17	$264.34	$274.91	$285.91
1 Zone Phased COS	$196.69	$209.53	$216.92	$224.58	$232.50	$241.80	$251.47	$261.53	$272.00	$282.87	$294.19
Phased COS Zone 1	$196.69	$204.83	$207.15	$209.51	$211.89	$220.36	$229.18	$238.34	$247.88	$257.79	$268.11
Phased COS Zone 2	$196.69	$217.73	$234.49	$252.53	$271.97	$282.85	$294.16	$305.93	$318.17	$330.89	$344.13
Hauled Water, 500 gallons/1x per week											
Existing	$107.52	$120.42	$130.06	$140.46	$146.08	$151.92	$158.00	$164.32	$170.89	$177.73	$184.84
COS	$114.38	$128.11	$138.36	$149.43	$155.40	$161.62	$168.08	$174.81	$181.80	$189.07	$196.63
1 Zone Phased COS	$110.95	$121.12	$132.80	$145.61	$159.65	$166.04	$172.68	$179.59	$186.77	$194.24	$202.01
2 Zone Phased COS Zone 1	$107.52	$117.09	$124.00	$131.31	$139.06	$144.62	$150.41	$156.43	$162.68	$169.19	$175.96
2 Zone Phased COS Zone 2	$107.52	$127.85	$148.18	$171.75	$199.07	$207.03	$215.31	$223.93	$232.88	$242.20	$251.89
Piped Residential Monthly Flat Rate ($/mo)											
Existing	$125.08	$140.09	$151.30	$163.40	$169.94	$176.73	$183.80	$191.16	$198.80	$206.75	$215.02
COS	$187.72	$210.24	$227.06	$245.23	$255.04	$265.24	$275.85	$286.88	$298.36	$310.29	$322.70
Phased COS	$125.08	$149.47	$178.61	$213.43	$255.04	$265.24	$275.85	$286.88	$298.36	$310.29	$322.70
Piped Commercial Rate ($/000 gallons)											
Existing	$26.50	$29.68	$32.05	$34.62	$36.00	$37.44	$38.94	$40.50	$42.12	$43.80	$45.56
COS	$36.92	$41.35	$44.66	$48.23	$50.16	$52.16	$54.25	$56.42	$58.68	$61.02	$63.46
Phased COS	$26.50	$29.95	$33.84	$38.24	$43.21	$44.94	$46.73	$48.60	$50.55	$52.57	$54.67

Note: The Phased In strategy includes different annual rate increases by customer class.

City of Bethel Water and Sewer Cost Allocation and Rate Study

Prepared for

City of Bethel

April 2013

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Introduction

In September 2012, the City of Bethel (the City) retained CH2M HILL to update its water and sewer rates and conduct a cost of service analysis of the water and sewer utility. The purpose of the update is to project the costs of operating each system through FY 2023, to establish rates to make each utility financially self-sufficient, and to estimate annual depreciation costs.

Financial Plan

The building blocks of the financial plan are the projections of costs that the City will incur during the 10-year planning period, fiscal year 2013/14 through fiscal year 2022/23, and the revenues, under existing rates, which the City expects to generate during the same period. The financial plan is based on a set of overall assumptions related to customer growth, inflation, and other factors.

For this analysis, the water and sewer utility were analyzed as separate enterprise funds, with each utility expected to generate sufficient revenues to cover its projected costs. For those revenues that are shared between the water and sewer utility (i.e. Miscellaneous Revenues), revenues were allocated based on each utility's share of total revenues. For expenditures that are shared between the utilities (i.e. Utility Billing), costs were allocated based on number of customers.

Revenue Requirements

The costs in the plan that are to be funded from annual revenues are referred to as 'revenue requirements' for rate-making purposes. The financial plan was developed using the cash-needs approach to projecting total revenue requirements for the utility. The basis of the cash-needs approach is that the revenues of the utility must be sufficient to cover all cash needs over the analysis period, including current or projected debt obligations. The cash-needs approach does not include depreciation expense, which is a non-cash item.

Total requirements are composed of:

- Operations and maintenance costs, including administrative and support services.
- Annual capital improvement projects funded directly from rate revenues and reserves.
- Debt service requirements for existing and projected debt issuances.
- Transfers to the City's general fund and other funds for indirect and direct services provided to the utility (i.e. Administrative and IT services). Interfund services are included in the utility's operating expenses.

In addition, annual requirements include operating contingencies equal to 30 days of annual O&M costs. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances.

The City does not have any existing debt service expenditures, and future capital outlays are all assumed to be 100% grant funded, thus there are not any capital improvement projects that will be funded from rate revenues, nor are there any future debt service costs.

The City currently collects, in addition to its water and sewer rates, a $5 monthly fee per customer to fund a renewal and replacement account. Funding of this account and the structure of this renewal and replacement charge is considered separately from the water and sewer rates.

Revenue requirements were projected based on data provided by the City, including actual revenues and expenditures for FY 2008/09 through FY 2010/11 and adopted budgets for FY 2011/12 and FY 2012/13.

Rate Impacts

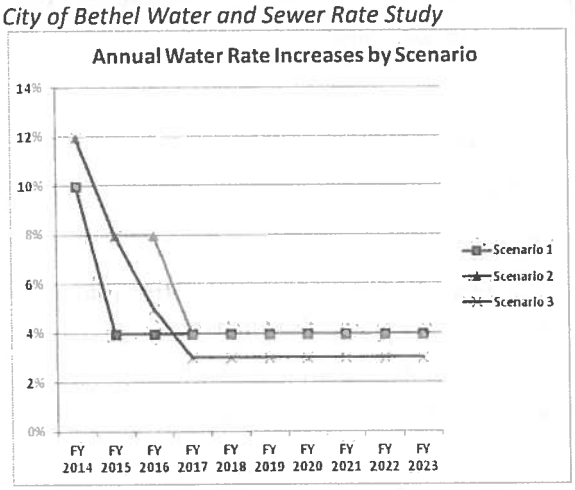
Currently, the water and sewer utility is not generating adequate revenues to cover operating expenses. In FY 2010/11, the Water and Sewer Utility fund received an interfund transfer from the General Fund in the amount of $667,000 to offset operating losses. In the next two budget cycles, the Water and Sewer Utility Fund is expected to require additional transfers from the General Fund to cover operating expenses, unless an offsetting rate revenue adjustment is made. Additional rate revenue is required to set the utility on a path towards financial stability.

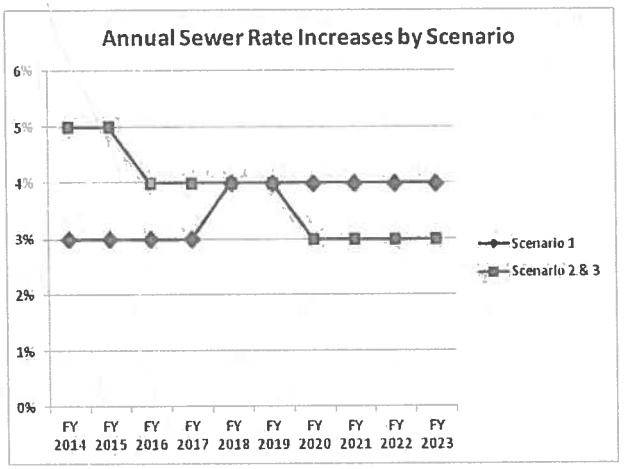
Three different scenarios were analyzed:

- Scenario 1: This scenario assumes the water and sewer utility fund will continue to receive transfers from the General Fund to help offset operating losses. The amount of the transfer will be approximately $450,000 per year with $300,000 going towards the water utility and $150,000 towards the sewer utility.
- Scenario 2: This scenario will phase out the annual transfers from the General Fund over three years and program the appropriate water and sewer rate increases required for the utility to achieve full cost recovery. This scenario also builds in an operating contingency of 30 days of operating expenses. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances.
- Scenario 3: Scenario 3 includes the same assumptions as Scenario 2. It also assumes piped water service will be extended to the Institutional Corridor. This adds about $320,000 in operating expenses, beginning in FY 2016. However, it also adds about $456,000 in revenues beginning in FY 2016.

Exhibit ES-1 presents the projected annual rate revenue adjustments under each scenario. Under Scenario 1, water rates would be increased by 10 percent increase in FY 2013/14 and 4 percent increases in each of the following years. The sewer utility increases will be three to four percent per year for the entire analysis period.

EXHIBIT ES-1
Annual Water and Sewer Rate Increases by Scenario
City of Bethel Water and Sewer Rate Study





When compared to Scenario 1, Scenario 2 projects a larger increase in revenue requirements because the transfer from the General Fund is phased out by FY 2015/16 and an operating contingency has been introduced. However, the larger increases also provide the utility with a growing ending balance that reaches approximately $1.2 million at the end of the analysis period.

Scenario 2 would implement a 12 percent increase in water rates in FY 2013/14, 8 percent in FY 2014/15 and FY 2015/16, and 4 percent increases each of the following years. The sewer utility would need to adopt 5 percent increases from FY 2013/14 through FY 2014/15, 4 percent increases from FY 2015/16 through FY 2108/19 and 3 percent increases the remaining years of the analysis.

Under Scenario 3, the additional revenues from the Institutional Corridor are expected to more than offset the additional costs of serving these customers, and thus result in slightly smaller rate increases when compared to Scenario 2. This scenario will also provide the utility with the largest ending balance that reaches approximately $1.3 million by the end of the analysis period.

Scenario 3 assumes the City would implement a 12 percent increase in water rates in FY 2013/14, an 8 percent increase in FY 2014/15, a 5 percent increase in FY 2015/16, and 3 percent increases in each of the following years. The sewer rates would experience the same rate increases as Scenario 2.

Financial Plan Summary

Based on the study findings summarized in previous sections, the City will need to consider increasing rates in future years to continue to meet the financial needs of the system under any of the scenarios analyzed. Scenario 1 will result in the smallest rate impact as the transfers from the General Fund will help offset operating losses. However this scenario is not a long-term, financially sustainable solution if the goal is to make the water and sewer utility self-sustaining. Both Scenarios 2 and 3 put the water and sewer fund on a stronger financial path and establish similar reserves by the end of the analysis. Scenario 2 requires slightly larger rate increases than Scenario 3 because it does not have the benefit of the additional revenues projected from the addition of the Institutional Corridor customers.

Subsequent analyses presented in this report utilized the revenue requirements developed for Scenario 2 as this scenario puts the water and sewer utility on a path towards financial sustainability.

The projected rate increases presented are based on the available data and assumptions developed by the City and CH2M HILL as of March 2013. The City should review the financial plan regularly to ensure actual revenues and expenditures are tracking with the projections developed in this analysis. The City should review the financial plan annually and adjust the rates as needed to reflect current conditions and assumptions.

Allocation of System Costs

Water System Cost Allocations

A cost of service analysis for the water system was conducted. This analysis allocated the system costs to system functions (water treatment, piped water distribution, hauled water distribution, etc.). The costs allocated to each system function were then allocated to users based on their use of those functions. Thus piped water system customers were allocated a portion of the water treatment costs based on their share of the total water treated, and all of the piped water costs.

Exhibit ES-2 presents a summary of the customer class service characteristics. Hauled water customers are charged based on the capacity of their water tank while metered piped customers are billed on consumption. It was assumed that provide service to customers in Zone 2 of a two zone system takes about twice as long to serve as customers located closer to town.

EXHIBIT ES-2
Water Service Characteristic Billing Units by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study

User Characteristics	Hauled	Piped	Total
No. of Customers	1,037	435	1,472
Plant Demand	31,057,646	46,263,490	77,321,136
% of Total Demand	40%	60%	
Estimated Billed Capacity/Usage	45,646,250	32,409,741	77,322,608
Residential Piped Usage Estimate		23,678,156	
Commercial Piped Usage Estimate		8,731,585	

EXHIBIT ES-2
Water Service Characteristic Billing Units by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study

User Characteristics	Hauled	Piped	Total
Single Zone Total Equivalent Deliveries	58,070		58,070
Two-Zone Total Equivalent Deliveries			
Zone 1	38,154		
Zone 2	39,832		

The unit costs are presented in **Exhibit ES-3**. Based on the unit costs calculated in **Exhibit ES-3** and the demands for service at the customer class level presented in **Exhibit ES-2**, the service characteristic costs associated with providing service to each customer class are calculated.

EXHIBIT ES-3
Development of Billing Unit Costs, FY 2013
City of Bethel Water and Sewer Rate Study

Unit Costs	Hauled	Piped	Unit
Billing	$4.32	$4.32	$/customer/month
O&M Treatment Plants	$9.91	$26.07	$/1000 gallons
Piped Water	NA	$10.61	$/1000 gallons
Hauled Water-pumping	$14.05	NA	$/1000 gallons
One Zone Hauled Water-logistics	$13.42	NA	$/delivery
Two Zone Hauled Water-logistics			
Zone 1	$9.99	NA	$/delivery
Zone 2	$19.98	NA	$/delivery

The summary of all service characteristic costs for a specific customer class is the estimated cost of service for that class and from a cost of service standpoint is the measure of rate revenue that under equitable conditions would be recovered from that class. These customer class costs for FY 2013 for the water system are presented in **Exhibit ES-4.** The cost per thousand gallons of water produced for the hauled and piped system is $62.04 and $26.18, respectively. Based on this metric, it cost over twice as much to produce and deliver water to the hauled system than the piped system. It should be noted that the production cost may differ from the billing rate as the billing units may differ from production units. For example, the hauled customers are billed based on tank capacity and not on actual usage.

EXHIBIT ES-4
Development of Estimated Customer Class Cost of Service, FY 2013
City of Bethel Water and Sewer Rate Study

Cost Center	Hauled	Piped	Total
Billing	$53,708	$22,510	$76,218
O&M Treatment Plants	$452,575	$845,051	$1,297,626
Piped Water	0	$343,742	$343,742
Hauled Water-pumping	$641,440	$0	$641,440

EXHIBIT ES-4
Development of Estimated Customer Class Cost of Service, FY 2013
City of Bethel Water and Sewer Rate Study

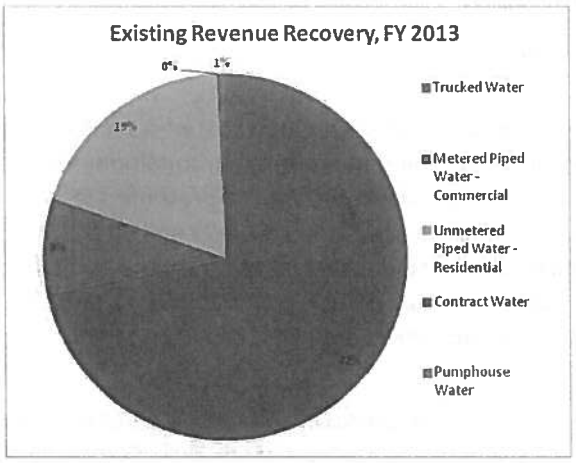
Cost Center	Hauled	Piped	Total
Hauled Water-logistics	$779,090	$0	$779,090
Total	$1,926,813	$1,211,304	$3,138,117
% of Total Cost	61%	39%	
Total Water Produced	31,057,646	46,263,490	77,321,136
$/000 gallons Produced	$62.04	$26.18	$40.59

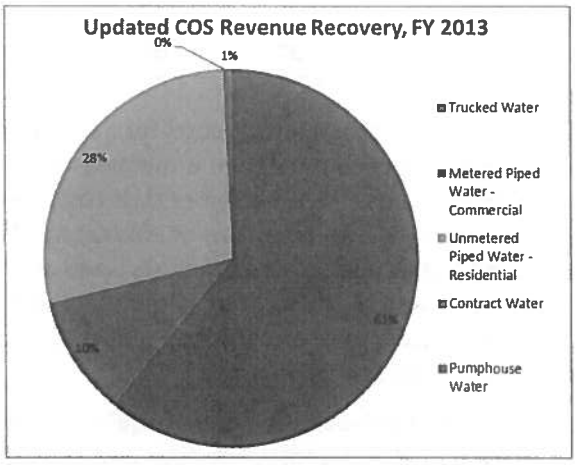
Providing service to the hauled water system requires 9 service trucks driving approximately 9,500 miles per year per truck, or nearly 86,000 miles total. The total cost of providing service to the hauled system, including water treatment, water supply, and pumping costs, was estimated to be nearly $1.9 million. The average cost per mile for providing service to the hauled water system is approximately $23.00 per mile.

For the piped system, there is approximately 66,000 linear feet of water pipe and service lines. The total cost of providing service to the piped system was estimated to be approximately $1.2 million. The average cost per linear foot of water pipe is approximately $18.00 per linear foot. It should be noted that it is not an equitable evaluation to compare the cost per mile for the hauled system to the cost per linear foot of the piped system.

Exhibit ES-5 presents a comparison of the current distribution of costs between the water system's customers and the results of the cost of service analysis. The results of the cost of service analysis show that hauled water customers are responsible for 61 percent of the total water system revenue requirements versus 72 percent under the water system's existing rates. Piped residential customers are responsible for 29 percent of total requirements under cost of service and 19 percent under existing rates. When compared to existing revenues, piped residential customers were allocated a larger share of revenue recovery responsibility based on the results of this cost of service analysis.

EXHIBIT ES-5
Water Cost of Service Revenue Recovery by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study





Sewer System Cost Allocation

A cost of service analysis was also prepared for the sewer system. The sewer system costs were allocated to system functions and then to users following a similar process to that used for the water system. **Exhibit ES-6**

presents a summary of the customer class service characteristics. Using the summary measures of the various service characteristic units developed in this table in conjunction with the revenue requirements allocated to the service characteristics, unit costs associated with each service characteristic can be calculated.

EXHIBIT ES-6
Sewer Service Characteristic Billing Units by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study

User Characteristics	Hauled	Piped	Total
No. of Customers	1,125	474	1,599
Total Effluent	27,951,881	63,941,924	91,893,806
% of Total	30%	70%	
Estimated Billed Capacity/Usage	55,946,850	63,941,924	
Commercial		42,631,584	
Residential		21,310,340	
Total Equivalent Deliveries	48,168		

The unit costs are presented in **Exhibit ES-7**. Based on the unit costs calculated in **Exhibit ES-7** and the demands for service at the customer class level presented in **Exhibit ES-6**, the service characteristic costs associated with providing service to each customer class are calculated.

EXHIBIT ES-7
Development of Billing Unit Costs, FY 2013
City of Bethel Water and Sewer Rate Study

Unit Costs	Hauled	Piped	Unit
Billing	$4.68	$4.68	$/customer/month
O&M Lagoon	$0.70	$1.41	$/1000 gallons
Piped Sewer	$1.49	$7.69	$/1000 gallons
Hauled Sewer-pumping	$15.87	NA	$/1000 gallons
Hauled Sewer-logistics	$14.87	NA	$/equivalent delivery

The summary of all service characteristic costs for a specific customer class is the estimated cost of service for that class and from a cost of service standpoint is the measure of rate revenue that under equitable conditions would be recovered from that class. These customer class costs for FY 2013 for the water system are presented in **Exhibit ES-8**. The cost per thousand gallons of effluent for the hauled and piped system is $64.05 and $9.52, respectively. Based on this metric, it cost over six times as much to collect and deliver sewage from the hauled system than the piped system. It should be noted that the production cost may differ from the billing rate as the billing units may differ from production units. For example, the hauled customers are billed based on tank capacity and not on actual sewage pumped.

Providing service to the hauled sewer system requires 7 service trucks driving approximately 9,500 miles per year per truck, or nearly 67,000 miles total. The total cost of providing service to the hauled system, including pumping costs, was estimated to be nearly $1.8 million. The average cost per mile for providing service to the hauled sewer system is approximately $27.00 per mile.

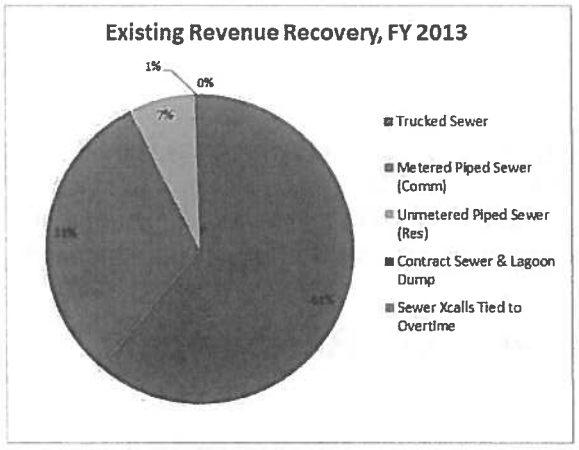
EXHIBIT ES-8
Development of Estimated Customer Class Cost of Service, FY 2013
City of Bethel Water and Sewer Rate Study

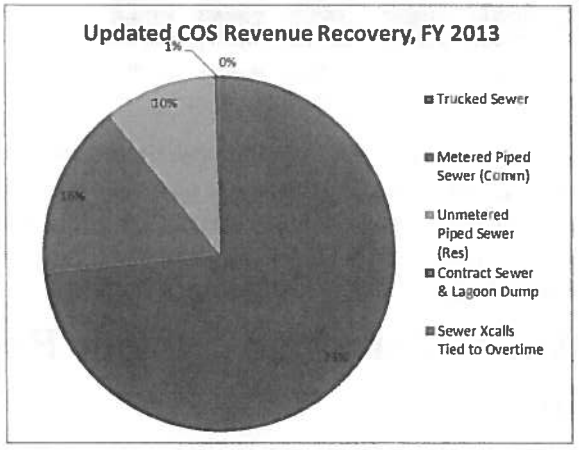
Cost Center	Hauled	Piped	Total
Billing	$63,167	$26,623	$89,791
O&M Lagoon	$39,373	$90,068	$129,441
Piped Sewer	$83,442	$491,747	$575,189
Hauled Sewer-pumping	$887,900	0	$887,900
Hauled Sewer-logistics	$716,409	0	$716,409
Total	$1,790,292	$608,439	$2,398,730
% of Total	75%	25%	
Total Effluent	27,951,881	63,941,924	91,893,806
$/000 gallons Effluent	$64.05	$9.52	$26.10

For the piped system, there is approximately 77,000 linear feet of sewer pipe and service lines. The total cost of providing service to the piped system was estimated to be approximately $608,000. The average cost per linear foot of sewer pipe is approximately $8.00 per linear foot. It should be noted that it is not an equitable evaluation to compare the cost per mile for the hauled system to the cost per linear foot of the piped system.

Exhibit ES-9 presents the revenue recovery by customer class based on the results of the cost of service analysis and the current cost recovery under the existing rates. Hauled sewer customers are allocated 73 percent of total requirements under cost of service, whereas these customers are paying approximately 61 percent of the system costs under the existing sewer rates. Piped commercial customers are allocated 16 percent of total requirements under cost of service while generating about 31 percent under the existing rates. Piped residential customers are allocated a larger share of costs under cost of service than under the existing sewer rates.

EXHIBIT ES-9
Sewer Cost of Service Revenue Recovery by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study





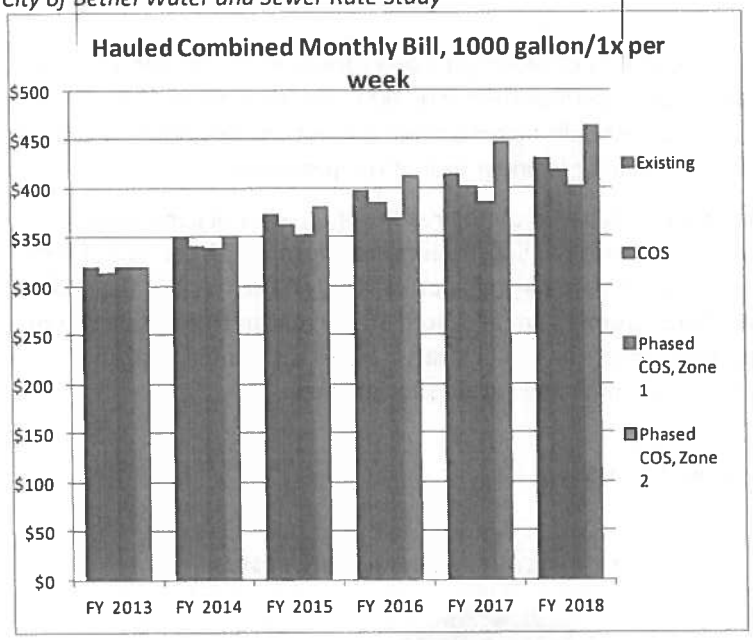
Water and Sewer Rate Design

The purpose of this section is to develop a schedule of rates that will recover system revenue requirements equitably from the customer classes based on their allocated cost of service. Cost allocations, as discussed in the previous section, determined the cost of providing service to each customer class. This section will use those cost

allocations to develop a set of proposed rates that are designed to recover the costs of serving each customer class from the users composing that class.

Sample bills under current rates, cost of service rates, and phased-in cost of service rates for hauled, flat rate residential, and piped commercial are shown in **Exhibits ES-10** through **Exhibit ES-12**. The sample bills reflect the changes in the design of the rates and include the first 5 years of proposed rate increases. The bills under existing rates represent customer bills under a uniform rate increase scenario where all existing rates would be increased by a uniform percentage and adjusted to recover the projected system costs. Under the cost of service option, bills for unmetered residential piped customers and metered commercial customers increase dramatically while a hauled customer with a 1,000 gallon tank that receives service once per week experiences a slight decrease. A customer in the proposed second zone of hauled service would experience a larger increase than under current rates as the rate reflects the higher cost to serve these customers. It should be noted that some hauled customers under cost of service rates may not experience the same percentage changes to their bills as the customer type used in this example. Under the phased cost of service approach, cost of service rates would be phased in over a four year period.

EXHIBIT ES-10
Combined Monthly Water and Sewer Bill, Hauled Customer 1000 gallon/1x per week
City of Bethel Water and Sewer Rate Study



For piped commercial customers, existing sewer rates are already above estimated COS rates. The Phased COS approach suggests not increasing the sewer rate over the next five years. Because sewer revenues for piped commercial will be generating revenues above COS levels, water rates for piped commercial under the Phased COS scenario were adjusted below the suggested COS rate. This approach will generate a combined water and sewer bill that by FY 2016/17 achieves estimated COS levels.

Allocation of Estimated System Renewal and Replacement Funding

The City currently collects a charge per customer per month that it is using to establish a renewal and replacement account for the water and sewer system. Funds in this account will be available to pay for renewal and replacement of system components as they wear out. This account is currently generating approximately $195,000 annually, but actual replacement needs are expected to be significantly greater. This section presents a high level, order of magnitude cost estimate to replace the major system components of the water and sewer system and will estimate the associated annual depreciation expense.

EXHIBIT ES-11
Combined Monthly Water and Sewer Bill, Flat Rate Piped Residential
City of Bethel Water and Sewer Rate Study

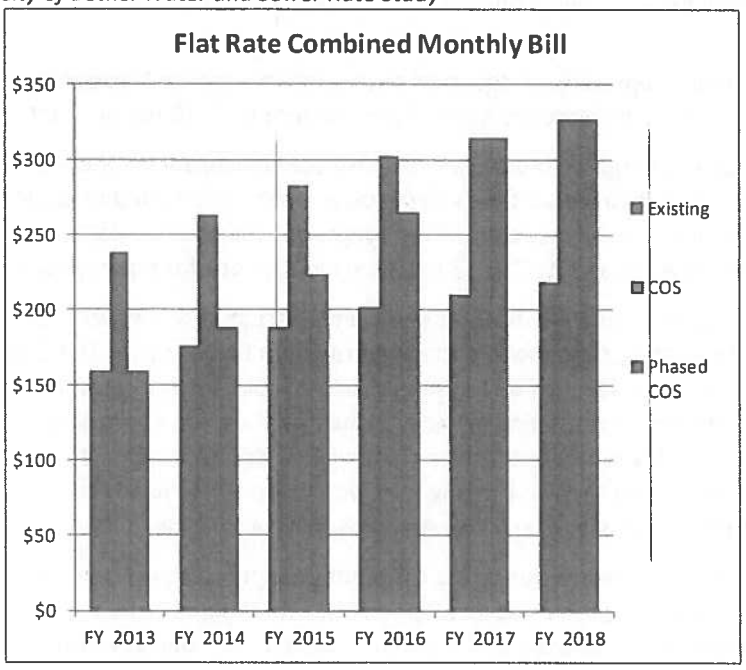
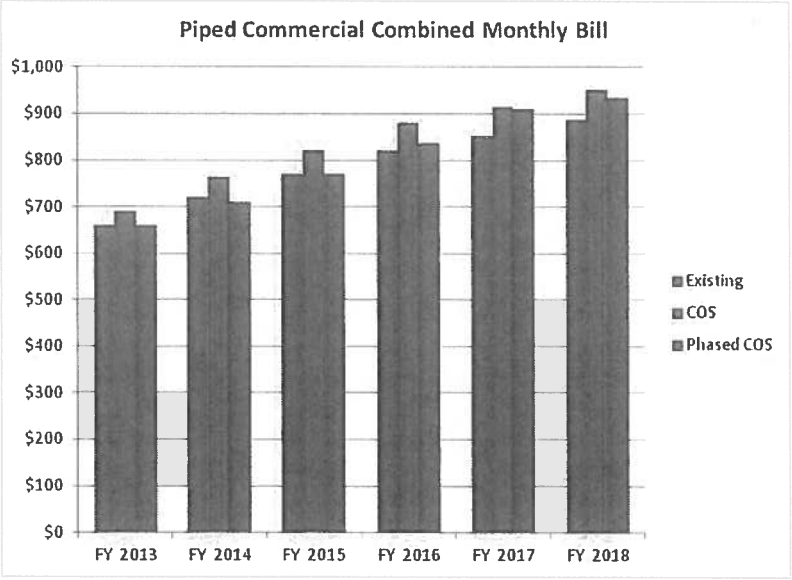


EXHIBIT ES-12
Combined Monthly Water and Sewer Bill, Piped Commercial
City of Bethel Water and Sewer Rate Study



The annual depreciation expense is an estimate of the amount that the City would need to set aside annually if it wanted to fully fund the replacement of its existing facilities using this renewal and replacement account. It should be noted that there is no requirement that the City fully fund the replacement of its water and wastewater facilities using this account, but estimating this amount provides an upper limit for determining how much could be set aside for this purpose. The estimated value of the system will be referred to as replacement cost new or RCN. It should be noted that these cost estimates were developed for the sole purpose of estimating the annual replacement cost new depreciation expense and should not be used for any other purpose beyond this report.

The estimated RCN for the water and sewer system, which includes a 15 percent contingency and a 25 percent allowance for administration and engineering, is approximately $121 million. The estimated replacement cost new depreciation expense, based on assumed design lives for each major system component was estimated at $4.3 million.

If the City were to recover the full $4.3 million in annual replacement cost new depreciation expense through its current monthly charge per customer, the monthly fee would increase from $5 per account to $116 per account.

Alternatively, instead of funding this account through a charge per customer, the City could incorporate this charge into the water and sewer volume rates. Based on their use of the system components, this would result in volume rates for the system customers that would vary by customer class. The charges per thousand gallons would range from $11.75 per thousand gallons for hauled sewer, to $27.55 per thousand gallons for piped sewer.

Fully funding the annual depreciation amount associated with the estimated replacement cost of the water and sewer system would have significant impacts on the existing customers in the form of much higher rates. The City could also consider establishing a renewal and replacement fund equal to the estimated replacement value of a critical system component or a reserve amount suggested by a funding agency. As indicated earlier, there is no requirement that the City fully fund the replacement of the water and sewer system using this renewal and replacement account. The City may want to consider a lower level of funding that would allow it to fund the replacement of system equipment, but not structures or infrastructure that generally have a long life.

Exhibit ES-13 presents the allocation of annual depreciation expenses to the different customer classes. Hauled water, piped water, and hauled sewer were each allocated approximately 20 percent of total depreciation expenses. Piped sewer received the largest allocation of approximately 40 percent. The reason piped sewer has a larger relative share of depreciation expenses is because of limited asset sharing with the hauled sewer system and shorter life of assets (i.e. lagoon and lift stations).

EXHIBIT ES-13
Allocation of Estimated Annual Depreciation Expense
City of Bethel Water and Sewer Rate Study

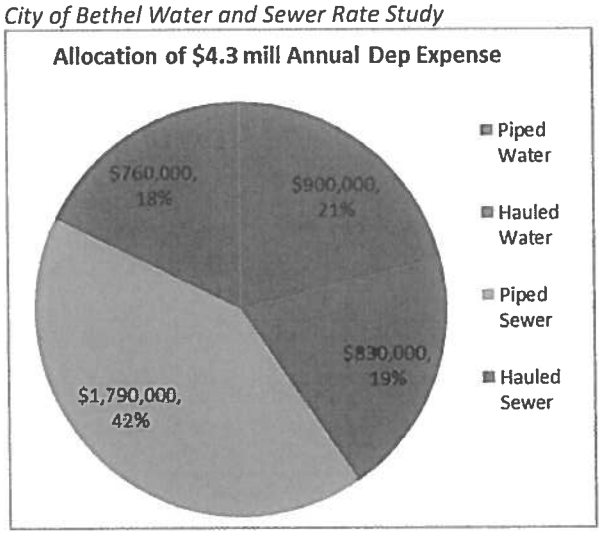


Exhibit ES-14 presents the depreciation cost per thousand gallons of billable units assuming the City funds the depreciation expense associated with full system replacement. In order to account for current contributions to capital and fleet and replacements, estimated subscription fee and fleet replacement revenues were subtracted from the estimated annual depreciation expense. It should be noted that billing units may differ from units of production. For example, hauled water and sewer customers are billed based on the capacity of the tank not on actual quantity of water used or sewage pumped. Therefore the billing units for the hauled system are higher than the production units, resulting in a lower charge per unit.

EXHIBIT ES-14
Depreciation Cost per 1,000 gallons of Billable Units
City of Bethel Water and Sewer Rate Study

	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$900,000	$830,000	$1,790,000	$760,000
Less Current Contributions:				
Subscription Fees	$26,100	$62,220	$28,440	$67,500
Fleet Replacement	$0	$35,000	$0	$35,000
Subtotal	$873,900	$732,780	$1,761,560	$657,500
Billing Units (gallons)	32,409,741	45,646,250	63,941,924	55,946,850
Depreciation Cost/000 gallons	$26.96	$16.05	$27.55	$11.75

The City could use the allocation percentages presented in **Exhibit ES-13** to distribute an annual targeted amount for funding renewal and replacements among the customer classes.

Recommendations

Based on the study findings summarized in previous sections, the following recommendations are presented for the City's consideration:

1. Implement phased cost of service sewer rates in the current fiscal year (FY2013/14).
2. Implement a two zone rate structure for the hauled water system.
3. Pumphouse water should be $0.03 per gallon and increased annually by 12 percent in FY 2013/14, 8 percent in FY 2014/15 and FY 2015/16, and 4 percent in FY 2015/16 through FY 2017/18.
4. Select a renewal and replacement fund balance target and implement necessary adjustments to this charge to achieve the target over a period of five to seven years.
5. Implement a data collection process to track data commonly used in financial and engineering studies. This would include developing a consistent tracking system for water production and demand at the water treatment plants that is tracked in both manual and electronic forms. It is also suggested that customer data such as number of accounts, usage, and meter size (commercial only) be summarized and tracked on an annual basis. Finally, conducting periodic studies of the hauled system that compares delivery times between delivery areas and tracks different functions (i.e. pumping, delivery) of the system would be beneficial.
6. Increase rates as needed in future years to meet the financial needs of the systems. The projected rate increases presented herein are based on available data and assumptions developed by the City and CH2M HILL as of March 2013. The City should review the financial plan annually and adjust the rates as needed to reflect current conditions and assumptions.

SECTION 1

Introduction

1.1 Overview

In September 2012, the City of Bethel (the City) retained CH2M HILL to update its water and sewer rates and conduct a cost of service analysis of the water and sewer utility. The purpose of the update is to determine the costs of operating each system, to establish rates to make each utility financially self-sufficient, and to determine if projected operation and maintenance expenses and capital improvement costs will require additional rate increases in the future.

1.2 Introduction

The City of Bethel Public Works Department operates and maintains the water and sewer utility for approximately 1,600 customers. The utility infrastructure consists of water wells, pipes, pump stations, water and sewer trucks, water treatment plants and truck filling stations, lift stations, and a sewage lagoon. Some customers in the Bethel Heights and City Subdivision neighborhoods receive piped service while other customers receive hauled water and/or sewer service. There are some households and businesses within the service area that operate private water wells.

Approximately 400 residential dwelling units and 40 commercial customers receive piped water service. There are approximately 1,200 customers on the hauled water system. The piped sewer system provides service to 400 residential customers and 33 commercial connections.

The City's water and sewer system operate as a consolidated enterprise unit but each utility is managed to be self-supporting. The City tracks utility personnel, materials/supplies/services, and capital expenditures under the following cost centers:

- 51-80: Utility Billing
- 51-81: Hauled Water
- 51-82: Piped Water
- 51-83: Bethel Heights Water Treatment Facility
- 51-84: City Sub Water Treatment Facility
- 51-85: Hauled Sewer
- 51-86: Piped Sewer
- 51-87: Sewer Lagoon

Recently, revenues have not been sufficient to cover the cost of providing water and sewer service. The Water and Sewer Fund has relied on transfers from the General Fund to cover annual shortfalls. In the FY 2012/13 budget, the transfer from the General Fund to the Water and Sewer Utility Fund was approximately $500,000.

1.3 Scope

The scope of the analysis consisted of the following major tasks:

- Collect information and review goals and assumptions with City staff
- Prepare rate model
- Determine system revenue requirements and user characteristics
- Project system revenues
- Conduct cost allocation study
- Allocate costs to water and sewer systems and to the users of the system
- Update water and sewer rates
- Estimate system replacement cost and annual depreciation expense
- Present Results

The City's operations are reported on a fiscal year (FY) basis, running from July 1 through June 30. The cost of service analysis was based on the utilities' FY 2013 budgeted costs. System revenue requirements for this study were developed for a 10-year projection period: FY 2013/14 through FY 2022/23. Water and sewer rates were designed to sufficiently recover the utility's costs for this period. The water and sewer rates will be reevaluated in the future to ensure that sufficient revenues are generated to cover their projected costs.

It should be noted that this study assumed that prospective capital projects for the water and sewer utility would be paid fully with state or federal grant funding. This study assumes that no debt service will be needed to fund the planned improvements. The study also considers anticipated system growth rates, assumptions regarding future cost increases, and additional operating costs that may be incurred due to new capital improvements.

SECTION 2

Financial Plan

This section summarizes the first step in the rate study and presents a 10-year financial plan for the water and sewer system. The memorandum begins with an introduction to the financial plan, including the planning assumptions. This is followed by a discussion of projected water and sewer system revenue requirements and revenues. The section ends with a discussion of rate impacts, based on the current rate structure.

2.1 Assumptions

The building blocks of the financial plan are the projections of costs that the City will incur during the 10-year planning period, fiscal year 2013/14 through fiscal year 2022/23, and the revenues, under existing rates, which the City expects to generate during the same period. The financial plan is based on a set of overall assumptions related to customer growth, inflation, and other factors, as well as the specific phasing of the City's CIP.

For this analysis, the water and sewer utility were analyzed as separate enterprise funds. For those revenues that are shared between the water and sewer utility (i.e. Miscellaneous Revenues), revenues were allocated based on each utility's share of total revenues. For expenditures that are shared between the utilities (i.e. Utility Billing), costs were allocated based on number of customers.

The following general assumptions were used in developing the plan:

- Customer growth will occur at the following annual rates:
  - Residential Growth: 1.0%
  - Commercial Growth: 1.0%
- Operation and maintenance costs –specific annual escalation factors used include:
  - Salaries and wages: 2.5%
  - Benefits: 8.0%
  - Operating expenses: 4.0%
  - Fuel: 10.0%
  - Electricity: 10.0%
- Annual operating contingency equal to 30 days of operating expenses will be phased in over time. The annual operating contingency will not be included in the projections until the utility is self-sufficient.
- Capital costs will increase at an annual rate of 4.0 percent to account for inflation.
- The City will continue to receive 100 percent grant funding for all major capital expenditures.
- Interest earned on investments: 1.0%.
- A targeted combined beginning fund balance of $1 million for the water and sewer utility, adjusted annually for inflation at 3 percent per year, by the end of the analysis period.

The financial plan for the water and sewer fund, in the form of projected sources and uses of funds for the water utility fund, is presented in Attachment 1. Each component of the financial plan is discussed in more detail below.

2.2 Revenue Requirements

The costs in the plan that are to be funded from annual revenues are referred to as 'revenue requirements' for rate-making purposes. The financial plan was developed using the cash-needs approach to projecting total revenue requirements for the utility. The basis of the cash-needs approach is that the revenues of the utility must be sufficient to cover all cash needs over the analysis period, including current or projected debt obligations. The cash-needs approach does not include depreciation expense, which is a non-cash item.

Total requirements are composed of:

- Operations and maintenance costs, including administrative and support services.
- Annual capital improvement projects funded directly from rate revenues and reserves.
- Debt service requirements for existing and projected debt issuances.
- Transfers to the City's general fund and other funds for indirect and direct services provided to the utility (i.e. Administrative and IT services). Interfund services appear as a line item in the utility's operating expenses.

In addition, annual requirements include operating contingencies equal to 30 days of annual O&M costs. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances.

As stated previously, the City does not have any existing debt service expenditures.

Revenue requirements were projected based on data provided by the City, including actual revenues and expenditures for FY 2008/09 through FY 2010/11 and adopted budgets for FY 2011/12 and FY 2012/13.

2.2.1 Operation and Maintenance Costs

Operation and maintenance costs include all costs associated with operating and maintaining the water and sewer system, including personnel and materials and services costs. The City of Bethel's water and sewer utility operates as an enterprise fund and is managed to be self supporting. The City of Bethel provided annual financial statements and budgets for the water system to CH2M HILL.

2.2.1.1 Water Utility O&M

Exhibit 2-1 shows historical O&M costs for water system for FY2009/10 through FY2010/11 and budgeted O&M costs for FY2011/12 and FY 2012/13. Because this analysis is being performed on a cash basis, depreciation expenses are not included. Total Water Utility O&M has ranged from $3.2 million in FY 2009/10 to nearly $3.6 million in FY 2012/13. The primary driver in the fluctuation in expenses has been the volatility in fuel prices, which impacts electricity and heating costs at the water treatment plants. Fuel costs also impact operating costs for the hauled water fund. Vehicle maintenance costs started being accounted for in the Hauled Water Fund in FY 2009/10, which largely accounts for the increase in transportation expenses for the utility.

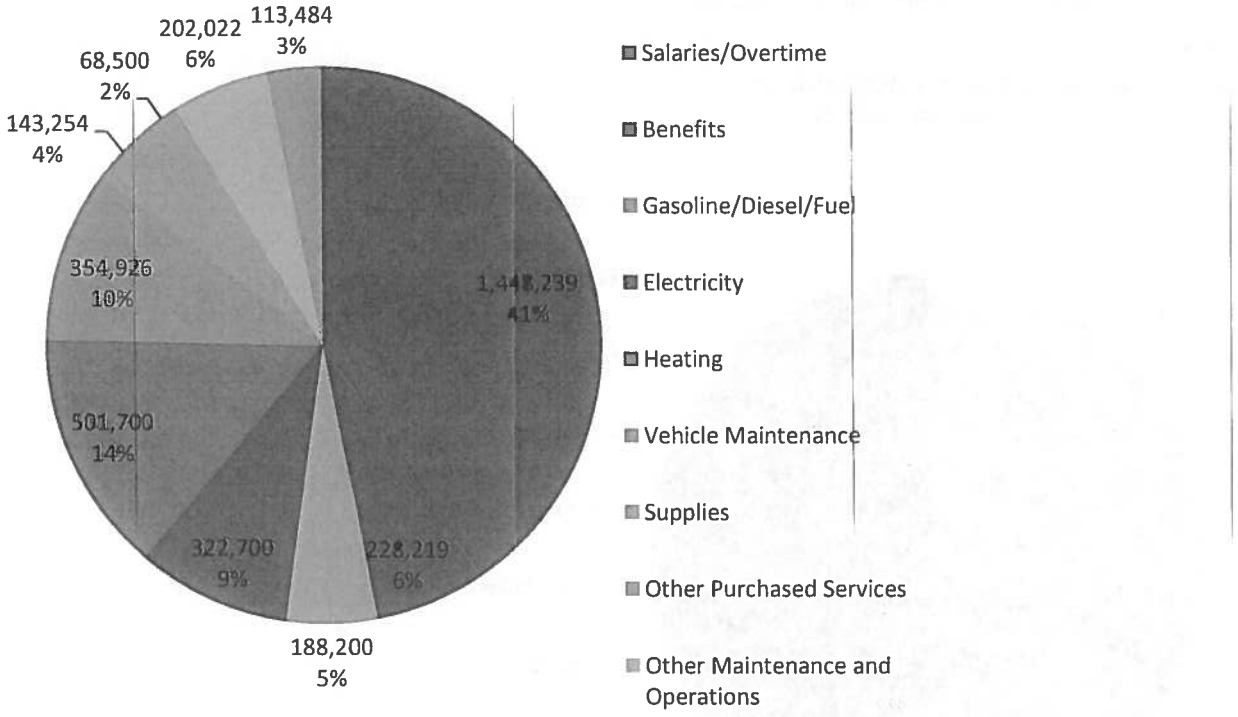
EXHIBIT 2-1
Historical and Budgeted O&M Costs
City of Bethel Water and Sewer Rate Analysis

	Actual FY 2010	Actual FY 2011	Budget FY 2012	Budget FY 2013
Hauled Water	1,383,315	1,548,640	1,540,328	1,605,284
Piped Water	368,968	392,578	381,934	399,819
Bethel Heights WT	725,282	767,382	736,632	737,107
City Sub WT	585,167	597,604	748,767	738,478
Billing-Water	108,741	75,495	76,550	90,557
Total Water Utility O&M	**3,171,473**	**3,381,699**	**3,484,211**	**3,571,245**

Source: City of Bethel, 2012/13 Budget

Exhibit 2-2 presents the total O&M budget for the Water Utility for FY 2012/13. Total budgeted O&M costs for FY 2012/13 are approximately $3.6 million. Approximately 47 percent of this total is personnel related (salaries and wages and benefits). Heating, vehicle maintenance, and electricity costs are the next largest individual line items in the budget and account for 33 percent of the budget.

EXHIBIT 2-2
FY 2012/13 Water Utility Budget, Cost Breakdown
City of Bethel Water and Sewer Rate Analysis



As shown in Attachments 1, O&M costs (including personnel services, materials and services, operating transfers, and operating contingency) are projected to increase to nearly $5.9 million by FY2022/23.

2.2.1.2 Sewer Utility O&M

Exhibit 2-3 shows historical O&M costs for sewer system for FY2009/10 through FY2010/11 and budgeted O&M costs for FY2011/12 and FY 2012/13. Total Sewer Utility O&M has ranged from $2.1 million in FY 2009/10 to $2.5 million in FY 2012/13. As with the water utility, the primary driver in the fluctuation in expenses has been the volatility in fuel prices, which impacts electricity and heating costs. Fuel costs also impact operating costs for the hauled sewer fund. The Hauled Sewer fund has also experienced an increase in personnel related costs, which have increased approximately 21 percent from FY 2009/10 to FY 2012/13. Vehicle maintenance costs started being accounted for in the Hauled Sewer Fund in FY 2009/10.

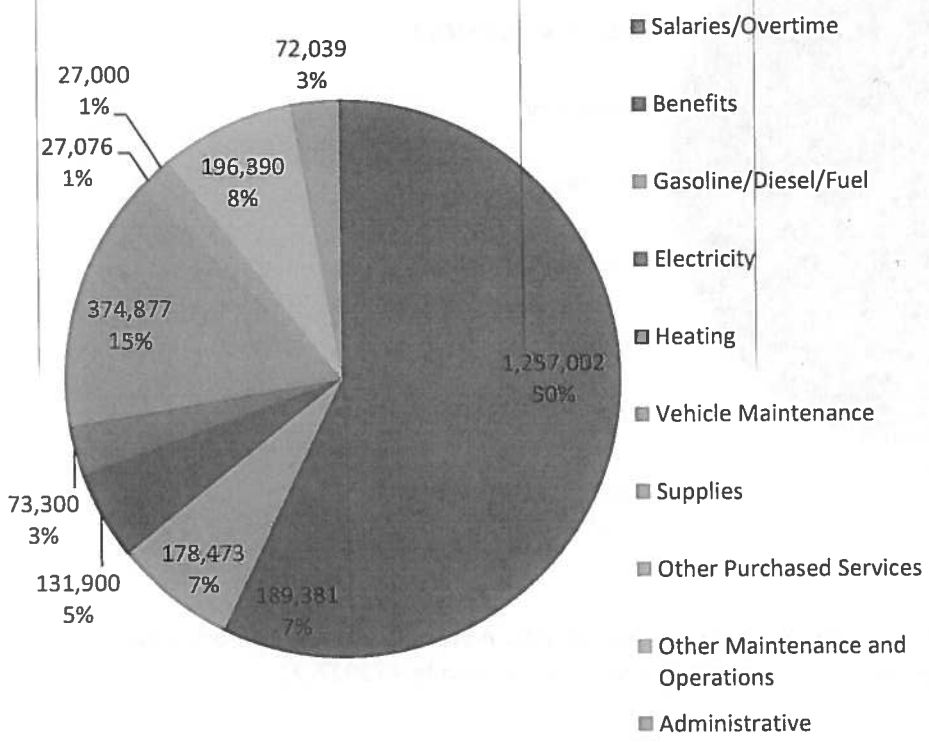
EXHIBIT 2-3
Historical and Budgeted O&M Costs
City of Bethel Water and Sewer Rate Analysis

	Actual FY 2009-10	Actual FY 2010-11	Budget FY 2011-12	Budget FY 2012-13
Hauled Sewer	1,372,457	1,568,193	1,645,644	1,681,330
Piped Sewer	536,753	531,093	545,597	611,072
Lagoon	121,667	100,008	117,194	138,829
Billing-Sewer	115,524	80,204	81,325	96,206
Total Sewer Utility O&M	**2,146,401**	**2,279,498**	**2,389,760**	**2,527,437**

Source: City of Bethel, 2012/13 Budget

Exhibit 2-4 presents the total O&M budget for the Water Utility for FY 2011/12. Total budgeted O&M costs for FY 2011/12 are approximately $2.5 million. Approximately 57 percent of this total is personnel related (salaries and wages and benefits). Vehicle maintenance and gasoline/diesel costs are the next largest individual line items in the budget and account for 22 percent of the budget.

EXHIBIT 2-4
FY 2011/12 Sewer Utility Budget, Cost Breakdown
City of Bethel Water and Sewer Rate Analysis



As shown in Attachments 1, O&M costs (including personnel services, materials and services, operating transfers, and operating contingency) are projected to increase to nearly $4.0 million by FY2022/23.

2.2.1.3 Debt Service Costs

Currently, the City's water utility does not have any existing debt service costs. For the sewer utility, the City retired bonds associated with improvements to the Lagoon in FY 2008/09 and has no additional outstanding debt.

2.2.1.4 Capital Costs

The City is currently undergoing an update to its water and sewer master plans. A detailed list of priority projects for each utility will be developed. For this analysis, it was assumed that the funding source for future capital expenditure would be grants from federal and state agencies. Thus, no contribution will be required from the City.

2.3 Revenues

With limited federal and state assistance available for operations, it was assumed the City would rely predominantly on water and sewer rates to fund the projected operating system costs over the next 10 years. Water sales revenues based on existing rates are projected to be approximately $2.0 million in FY2011/12. The rate schedules for the water and sewer utilities are presented below.

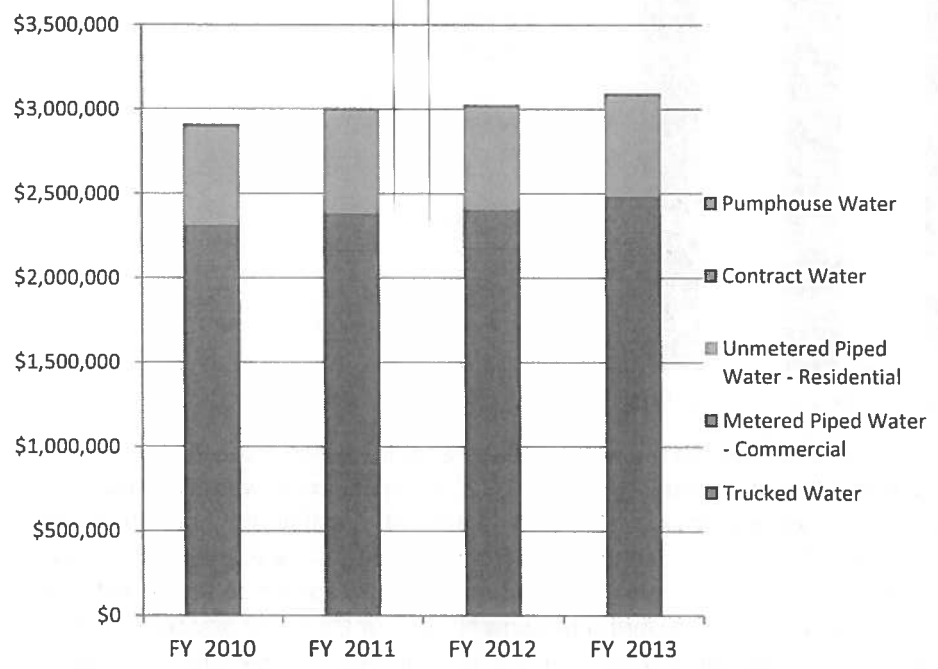
The City has approximately 1,600 water customers. The piped water system has approximately 400 residential customers and 40 commercial accounts. The hauled water system has approximately 1,200 customers. Currently,

the City has no industrial water customers. For this analysis, it was assumed that the number of customers would increase at 1.0 percent per year over the 10 year period, resulting in additional revenues associated with new residential or commercial growth.

2.3.1 Water Rate Revenues

Exhibit 2-5 presents the historical and budgeted water rate revenues for hauled and piped customers from FY 2009/10 through FY 2012/13. Water rate revenues have ranged from $2.9 million in FY 2009/10 and are budgeted to be $3.1 million in FY 2012/13. Revenues from Hauled Water service is expected to provide approximately 72 percent of total rate revenue for the utility.

EXHIBIT 2-5
Historical and Budgeted Water Rate Revenues
City of Bethel Water and Sewer Rate Study



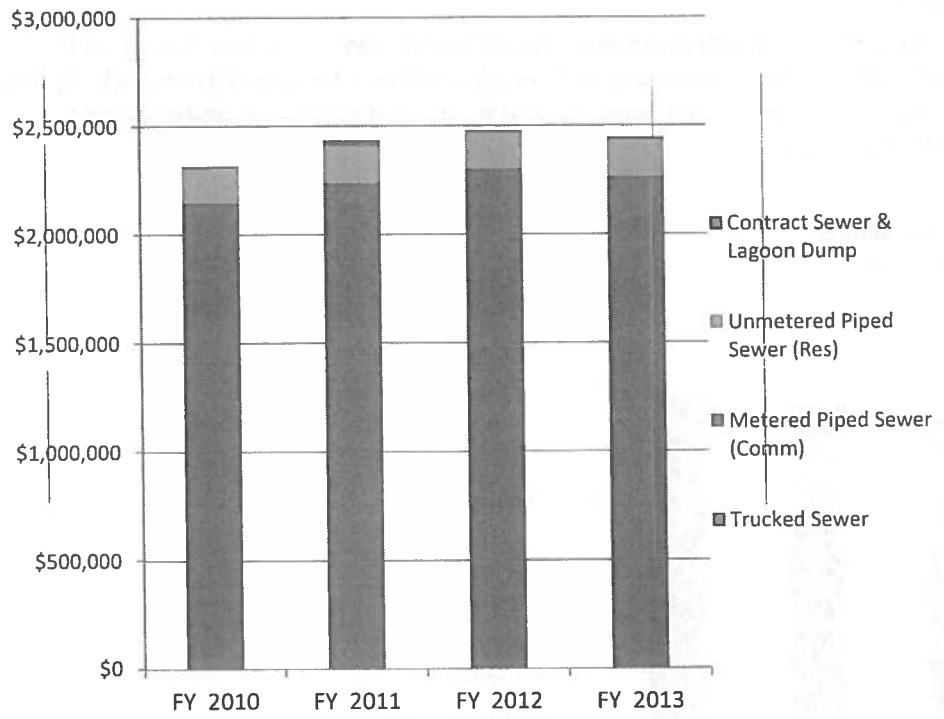
2.3.2 Sewer Rate Revenues

Exhibit 2-6 presents the historical and budgeted sewer rate revenues for hauled and piped customers from FY 2009/10 through FY 2012/13. Sewer rate revenues have ranged from $2.3 million in FY 2009/10 and are budgeted to be $2.5 million in FY 2011/12. Revenues from Trucked Sewer service is expected to provide approximately 61 percent of total rate revenue for the utility. Commercial piped customers provide approximately 31 percent of total sewer revenue. These customers comprise a larger share of sewer revenue when compared to water revenue because of a number of institutional customers that have piped sewer service but maintain and operate their own private water wells.

2.3.3 Non Rate Revenues

The City reports nonrate revenues such as revenue from penalty and interest reconnect fees, interest income, PERS on behalf of revenue, and other miscellaneous revenues. The City records the discount on the utility rate to qualifying low income customers as a credit to non-rate revenue.

EXHIBIT 2-6
Historical and Budgeted Water Rate Revenues
City of Bethel Water and Sewer Rate Study



For this analysis, non-rate revenues were split between the water and sewer utility based on each utility's percentage of total revenue. Based on projected revenues for FY 2011/12, the water utility was allocated 56 percent of non-rate revenues while the sewer utility was allocated 44 percent. A majority of non-rate revenue comes from PERS. The other main source of non-rate revenue comes from a recently initiated subscription fee of $5.00 per month per account for water customers. The same subscription fee is also applied to sewer customers. The subscription fee revenue is designated for a renewal and replacement fund for the water and sewer utility systems. For this analysis, the subscription fee revenues were excluded as a non-rate revenue source because the funds are designated for non-operating expenses.

Non-rate revenue was approximately $81,000 in FY 2010/11 for the water system.

The sewer system had non-rate revenue of approximately $64,000 in FY 2010/11 and is projected to average $164,000 over the analysis period.

2.4 Rate Impacts

Currently, the water and sewer utility is not generating adequate revenues to cover operating expenses. In FY 2010/11, the Water and Sewer Utility fund received an interfund transfer from the General Fund in the amount of $667,000 to offset operating losses. In the next two budget cycles, the Water and Sewer Utility Fund is expected to require additional transfers from the General Fund to cover operating expenses. Additional rate revenue is required to set the utility on a path towards financial stability.

In this section, projected rate revenue requirements and rate impacts for the water and sewer utility will be presented. Revenue requirements consist of operation and maintenance expenses (including transfers), pay-as-you-go capital expenses, and debt service. They also include additions to reserves. Non-rate revenue sources such as interest, fees, subscription fees, and transfers from the general fund, debt proceeds, and use of reserves are subtracted from the revenue requirements to project the amount of revenue required from water rates.

As stated earlier, it was assumed that the City would not need to issue any new debt to pay for capital projects as new capital expenditures would be funded through grants.

Three different scenarios will be presented:

- Scenario 1: This scenario assumes the water and sewer utility fund will continue to receive transfers from the General Fund to help offset operating losses. The amount of the transfer will be approximately $450,000 per year with $300,000 going towards the water utility and $150,000 towards the sewer utility. It is also assumed the City will continue to fund capital projects when 100 percent grant funding is available from state or federal agencies.
- Scenario 2: This scenario will phase out the annual transfers from the General Fund over three years and program the appropriate rate increases required for the utility to achieve cost recovery. Like Scenario 1, it assumed the city will continue to receive 100 percent grant funding for capital expenditures. This scenario also builds in an operating contingency of 60 days of operating expenses. However, 100 percent of annual contingencies are assumed to be unspent and roll forward to subsequent year beginning balances.
- Scenario 3: Scenario 3 includes the same assumptions as Scenario 2. It also assumes piped water service will be extended to the Institutional Corridor. Additional assumptions for this scenario will be discussed below.

2.4.1.1 Scenario 1

Exhibit 2-7 presents the revenue requirements for Scenario 1 for the water and sewer utility over the analysis period. As **Exhibit 2-7** illustrates, increased water and sewer revenues will be necessary to cover the revenue requirements associated with the increases to operating costs even with continued transfers from the General Fund. The water utility will require a larger portion of the transfer from the General Fund and larger increases than the sewer utility because its current revenue stream is not adequate to cover water system costs.

This analysis assumed the City would implement 10 percent increase in water rates in FY 2013/14 and 4 percent increases in each of the following years. The sewer utility increases will be three to four percent per year for the remainder of the analysis. Under this scenario, the projected increases are relatively smaller because of the continued transfer from the General Fund.

2.4.1.2 Scenario 2

Exhibit 2-8 presents the revenue requirements for Scenario 2 for the water and sewer utility over the analysis period. When compared to Scenario 1, this scenario projects a larger increase in revenue requirements because the transfer from the General Fund is phased out by FY 2015/16 and an operating contingency has been introduced. These two factors will result in larger rate increases when compared to Scenario 2. However, the larger increases also provide the utility with growing ending balance that reaches approximately $1.2 million at the end of the analysis.

This analysis assumed the City would need to implement a 12 percent increase in water rates in FY 2013/14, 8 percent in FY 2014/15 and FY 2015/16, and 4 percent increases each of the following years. The sewer rates would also need larger increases when compared to Scenario 1 but would still be smaller increase when compared to the water utility. The sewer utility would need to adopt 5 percent increases from FY 2013/14 through FY 2014/15, 4 percent increases from FY 2015/16 through FY 2108/19 and 4 percent increases the remaining years of the analysis.

2.4.1.3 Scenario 3

The City conducted a feasibility study to evaluate extending piped water service to multiple institutions along the Chief Eddie Hoffman Highway. By including the City's major institutions as customers of the piped water system, the City could gain additional water revenue while the institutions would eliminate the non-core business expenditures associated with maintaining on-site water systems. This section will estimate the impact on water utility revenues and expenditures of adding these institutions along the Institutional Corridor as customers and the subsequent impact on revenue requirements over the 10-year analysis period.

EXHIBIT 2-7
Scenario 1 Revenue Requirements
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Beginning Balance	0	3,953	136,818	252,155	344,117	404,928	454,343	485,105	488,611	454,739	371,651
Revenue Requirements											
Total Rev Requirement	6,168,682	6,444,588	6,738,160	7,050,848	7,384,240	7,740,067	8,120,222	8,526,777	8,961,994	9,428,350	9,928,554
Less: Non Rate Revenue	146,835	147,246	149,071	151,378	153,217	154,434	155,422	156,037	156,107	155,430	153,768
Use of Reserves	0	0	0	0	9,388	4,096	721	0	33,872	83,088	146,079
Transfer from General Fund	485,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000
Total Requirements from Rates	5,536,847	5,847,342	6,139,088	6,449,470	6,771,635	7,131,537	7,514,080	7,920,740	8,322,015	8,739,832	9,178,707
Water Rate Revenue	3,096,500	3,437,825	3,610,008	3,790,869	3,980,845	4,180,396	4,390,004	4,610,177	4,841,446	5,084,371	5,339,540
Sewer Rate Revenue	2,444,300	2,542,382	2,644,417	2,750,564	2,860,988	3,004,653	3,155,558	3,314,069	3,480,569	3,655,461	3,839,167
Total Rate Revenue	5,540,800	5,980,207	6,254,425	6,541,432	6,841,833	7,185,049	7,545,562	7,924,246	8,322,015	8,739,832	9,178,707
Projected Water Rate Increase	0%	10%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Projected Sewer Rate Increase	0%	3%	3%	3%	3%	4%	4%	4%	4%	4%	4%

EXHIBIT 2-8
Scenario 2 Revenue Requirements
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Beginning Balance	0	3,953	98,096	171,714	316,591	484,477	671,214	871,565	1,045,406	1,181,140	1,265,294
Revenue Requirements											
Total Rev Requirement	6,168,682	6,444,588	6,738,160	7,050,848	7,384,240	7,740,067	8,120,222	8,526,777	8,961,994	9,428,350	9,928,554
Less: Non Rate Revenue	146,835	147,246	148,297	149,769	152,667	156,025	159,759	163,766	167,243	169,958	171,641
Use of Reserves	0	0	0	0	0	0	0	0	0	0	34,726
Transfer from General Fund	485,000	300,000	100,000	0	0	0	0	0	0	0	0
Total Requirements from Rates	5,536,847	5,997,342	6,489,863	6,901,079	7,231,573	7,584,042	7,960,463	8,363,011	8,794,751	9,258,392	9,722,187
Water Rate Revenue	3,096,500	3,499,940	3,815,782	4,160,303	4,368,899	4,588,008	4,818,160	5,059,911	5,313,847	5,580,582	5,860,759
Sewer Rate Revenue	2,444,300	2,591,545	2,747,698	2,885,653	3,030,561	3,182,772	3,342,654	3,476,940	3,616,637	3,761,965	3,913,149
Total Rate Revenue	5,540,800	6,091,485	6,563,480	7,045,956	7,399,459	7,770,779	8,160,814	8,536,851	8,930,485	9,342,546	9,773,908
Projected Water Rate Increase	0%	12%	8%	8%	4%	4%	4%	4%	4%	4%	4%
Projected Sewer Rate Increase	0%	5%	5%	4%	4%	4%	4%	3%	3%	3%	3%

The main source of information regarding expenditures to serve these customers, their projected water consumption, and potential revenues is the "Institutional Corridor Water System Feasibility Study" completed by Larsen Consulting Group in March, 2010. The following assumptions were used to develop the revenue requirement projections under this scenario:

- Customers: YKHC facilities including the hospital, sobering center, housing, and other care facilities; Alaska DHHS; Alaska Fish and Wildlife; US Post Office; Alaska Public Health Services.
- Water Consumption: 17.5 million gallons per year for the 17 institutional corridor customers. The largest users are the YKHC Hospital (12.8 million gallons) and the Alaska DHHS Corrections facility (2.5 million gallons).
- Capital Expenditures: For this analysis, it was assumed Alternative 2 from the Feasibility Study would be constructed. This alternative includes a larger storage tank and larger booster station then Alternative 1. Capital expenditures were estimated at approximately $14.4 million (2010$). It is assumed these costs would be covered through state or federal agency grant funding and would not require a capital outlay from the City.
- Operating Expenditures: Annual O&M to maintain the additional pipe, storage tank, and booster station proposed in Alternative 2 were estimated at $163,000 per year (2010$).
- The extended water service will also increase annual operating costs at the City Subdivision Treatment Plant as more water will be produced to meet the increased demand. Based on discussion with city staff, no additional personnel will be needed at the treatment plant to service the institutional corridor. Electricity costs and supplies are expected to increase as more water is produced and treated. These costs were estimated by prorating the current expenses by the additional water consumed. Based on current budget data for the City Subdivision Treatment plant, it was assumed operating expenses would increase by approximately $100,000 per year.
- Year of Operation: FY 2015/16.
- Revenue Projections: Existing commercial water rates ($26.50/1,000 gallons) were applied to estimated water consumption. Water rate increases programmed before the first year of operation were applied. The revenue projections do not include additional development or service expansion beyond the customers along the institutional corridor.

The addition of the Institutional Corridor customers would have a positive impact on the financial performance of the water utility. The revenues generated by these customers would be greater than the estimated expense to provide them with service. According to the "Institutional Corridor Feasibility Study (Larson Consulting, March 2010)," construction Alternative 2 would also allow the city to extend piped service to additional customers beyond the institutions discussed in the study. While these additional revenues were not included in this analysis, they have the potential to provide additional water revenue to the City.

The expansion of the Institutional Corridor will impact the operations of the water utility. It is recommended that if the extension of service to this area is completed that the City closely monitors the consumption patterns of these commercial customers for approximately 12 months and use this information to estimate the impact on utility operations. This information could be used to develop updated cost of service rates for piped commercial customers.

Exhibit 2-9 presents the revenue requirements for Scenario 3 for the water and sewer utility over the analysis period. When compared to Scenario 1, this scenario projects a larger increase in revenue requirements because the transfer from the General Fund is phased out by FY 2015/16 and an operating contingency has been introduced. These two factors will result in larger rate increases when compared to Scenario 1. However, the additional revenues from the Institutional Corridor are expected to result in slightly smaller rate increases when compared to Scenario 2. This scenario will also provide the utility with the largest ending balance that reaches approximately $1.3 million at the end of the analysis.

This analysis assumed the City would need to implement a 12 percent increase in water rates in FY 2013/14, an 8 percent increase in FY 2014/15, a 5 percent increase in FY 2015/16, and 3 percent increases in each of the following years. The sewer rates would experience the same rate increases as Scenario 2.

2.4.1.4 Summary

Exhibit 2-10 presents a comparison of the three scenarios presented previously of total monthly combined bills for the piped water system. Scenario 2 results in the highest rate impact because the utility is no longer receiving a transfer from the General Fund to help offset operating expenses.

Exhibit 2-11 presents a comparison of the three scenarios presented previously of total monthly combined bills for the piped water system. As with the piped customers, Scenario 2 results in the highest rate impact for hauled customers because the utility is no longer receiving a transfer from the General Fund to help offset operating expenses. For this exhibit, it was assumed that the hauled water and sewer customer had a 1,000 gallon tank capacity with service four times per month.

2.5 Summary

Based on the study findings summarized in previous sections, the City will need to consider increasing rates in future years to continue to meet the financial needs of the system under any of the scenarios analyzed. Scenario 1 will result in the smallest rate impact as the transfers from the General Fund will help offset operating losses. However this scenario is not a long-term, financially sustainable solution if the goal is to make the water and sewer utility self-sustaining. Both Scenarios 2 and 3 put the water and sewer fund on a stronger financial path and establish similar reserves by the end of the analysis. Scenario 2 requires slightly larger rate increases than Scenario 3 because it does not have the benefit of the additional revenues projected from the addition of the Institutional Corridor customers.

Subsequent analyses presented in this report utilized the revenue requirements developed for Scenario 2 as this scenario puts the water and sewer utility on a path towards financial sustainability.

The projected rate increases presented are based on the best available data and assumptions developed by the City and CH2M HILL as of March 2013. The City should review the financial plan regularly to ensure actual revenues and expenditures are tracking with the projections developed in this analysis. The City should review the financial plan annually and adjust the rates as needed to reflect current conditions and assumptions.

EXHIBIT 2-9
Scenario 3 Revenue Requirements
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Beginning Balance	0	3,953	98,096	171,714	453,985	729,031	988,752	1,223,651	1,389,008	1,468,271	1,442,624
Revenue Requirements											
Total Rev Requirement	6,168,682	6,444,588	6,738,160	7,369,582	7,712,535	8,078,211	8,468,511	8,885,514	9,331,494	9,808,934	10,320,556
Less: Non Rate Revenue	146,835	147,246	148,297	149,769	155,415	160,916	166,110	170,808	174,115	175,700	175,187
Use of Reserves	0	0	0	0	0	0	0	0	0	32,840	151,884
Transfer from General Fund	485,000	300,000	100,000	0	0	0	0	0	0	0	0
Total Requirements from Rates	5,536,847	5,997,342	6,489,863	7,219,812	7,557,121	7,917,295	8,302,401	8,714,706	9,157,378	9,600,394	9,993,484
Water Rate Revenue	3,096,500	3,499,940	3,815,782	4,616,430	4,801,606	4,994,244	5,194,646	5,403,124	5,620,003	5,845,623	6,080,335
Sewer Rate Revenue	2,444,300	2,591,545	2,747,698	2,885,653	3,030,561	3,182,772	3,342,654	3,476,940	3,616,637	3,761,965	3,913,149
Total Rate Revenue	5,540,800	6,091,485	6,563,480	7,502,083	7,832,167	8,177,016	8,537,300	8,880,064	9,236,641	9,607,588	9,993,484
Projected Water Rate Increase	0%	12%	8%	5%	3%	3%	3%	3%	3%	3%	3%
Projected Sewer Rate Increase	0%	5%	5%	4%	4%	4%	4%	3%	3%	3%	3%

EXHIBIT 2-10

Comparison of Combined Average Monthly Residential Bill, Piped Residential Flat Rate

City of Bethel Water and Sewer Rate Study

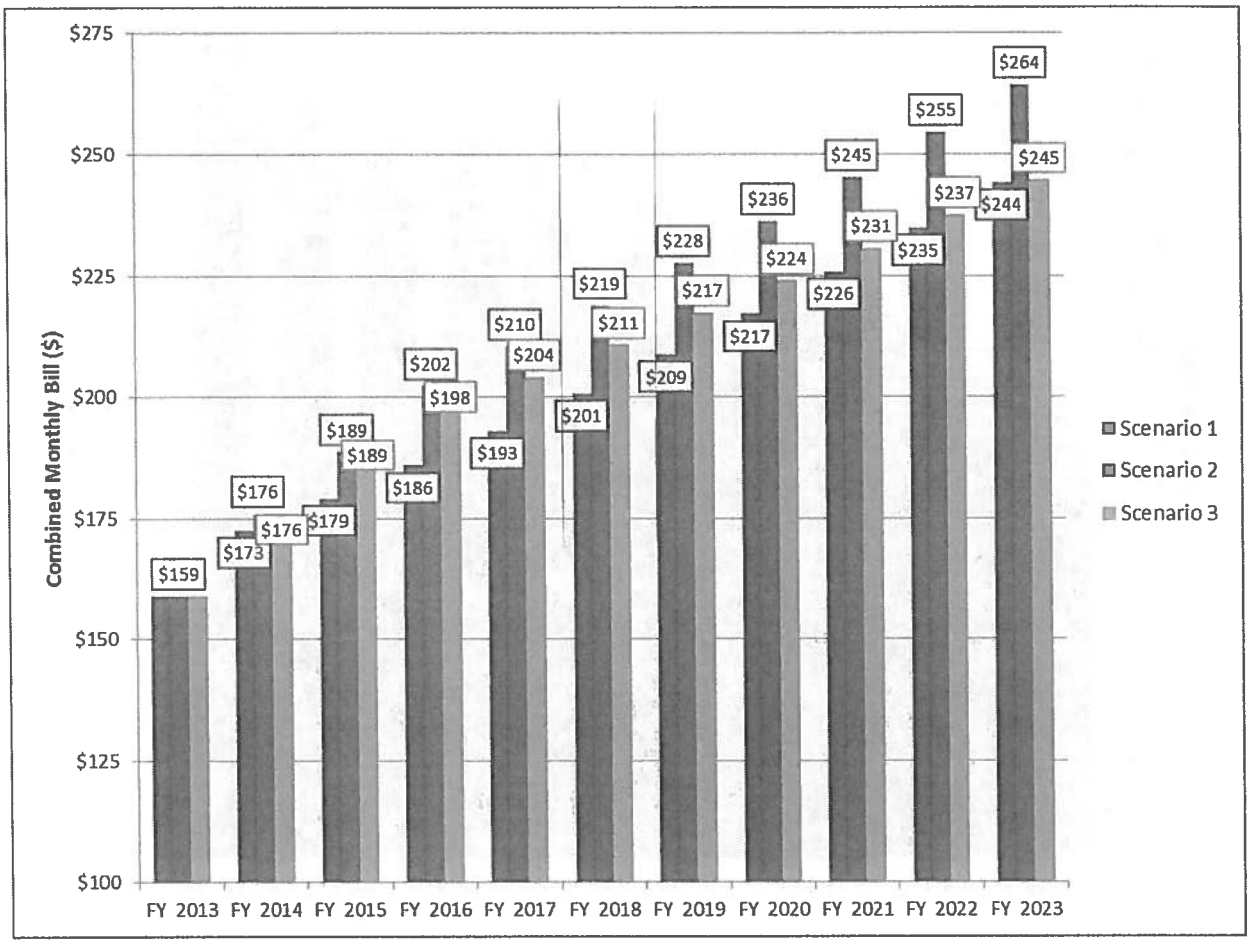
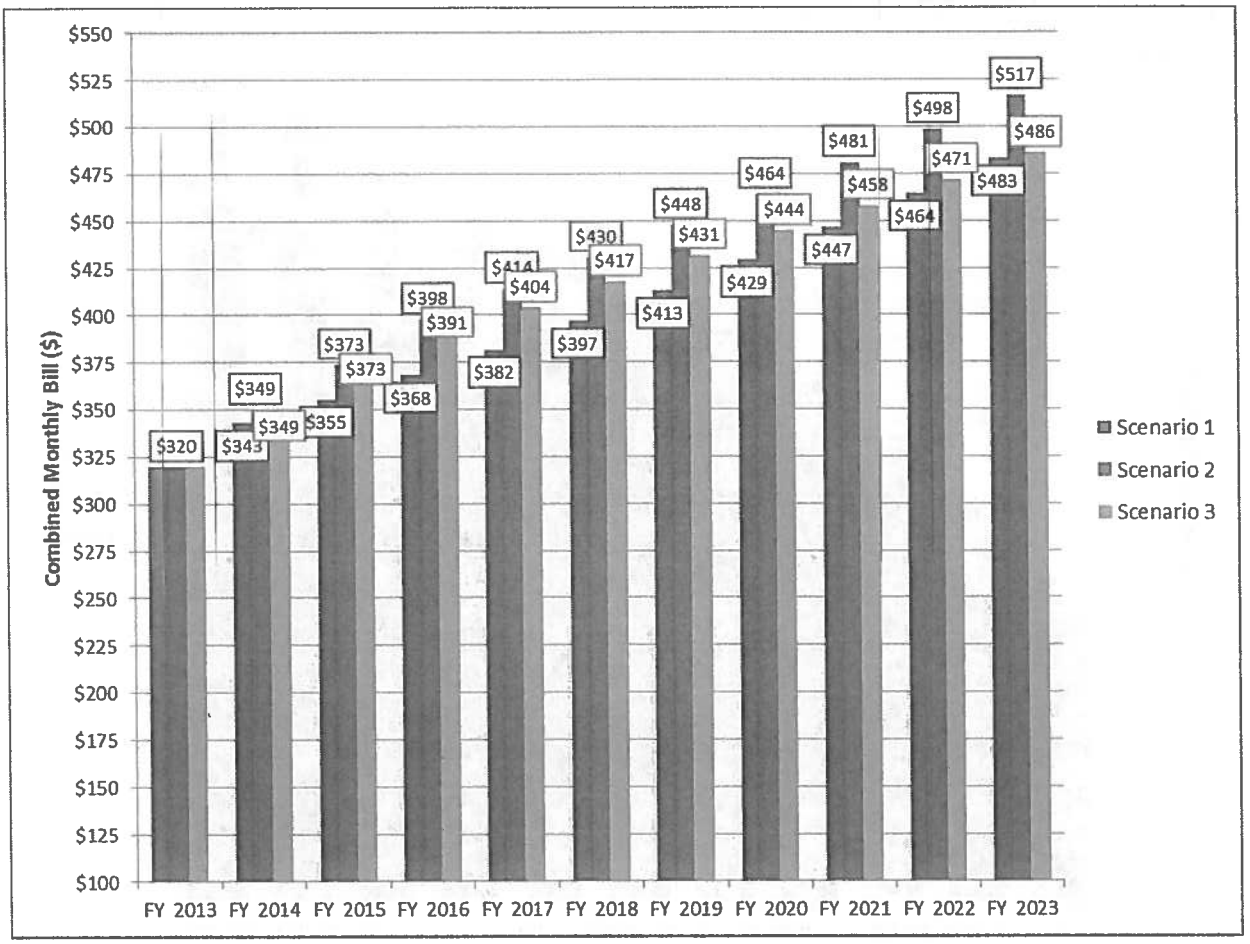


EXHIBIT 2-11

Comparison of Combined Average Monthly Residential Bill, Hauled Residential 1000 gallon/1x per week

City of Bethel Water and Sewer Rate Study



SECTION 3

Allocation of System Operating Costs

A fundamental principle for developing an equitable system of user charges is to ensure that all users pay (through user charges or other fees) for their share of the total costs imposed on the system. A financial plan is used to determine annual costs and associated funding sources for a particular planning horizon (e.g., 10 years). The process of then allocating utility system costs to customer classes based on service demands is referred to as a cost of service analysis.

This section summarizes the allocation of system costs to different system users. The section begins with an introduction to the cost allocation methodology and then presents the cost allocation process for the water utility. The discussion of allocating sewer system costs follows. Each section will present the rate revenue requirement, the methodology used to allocate system costs to different system functions, and the allocation of system costs to customer classes. Rate design alternatives will be presented in Section 3 after the completion of the cost of service analysis.

3.1 Cost Allocation Methodology Overview

Building on the revenue requirements developed in Section 2 for FY 2013, the water and sewer utilities were analyzed as individual cost centers. Shared costs, such as billing, were allocated to each utility based on number of accounts. The costs allocable to each utility are then allocated to the users of the utility in proportion to the demands that the users place on the system. Through a multi step allocation process, costs are first allocated to general service functions, such as water treatment, hauled water or sewer service, or wastewater collection. Once the cost components making up the rate revenue requirements have been allocated to service functions these functional costs are then allocated to service characteristics. Service characteristics are associated with quantifiable levels of service, such as hauled or piped water consumption, hauled sewer, or wastewater flows. Once costs have been allocated to service characteristics, service characteristic unit costs are developed by dividing the service characteristic costs by the total system service characteristic demands. The demands of each customer class for each service characteristic are multiplied by the respective unit costs for each of the service characteristics to determine each class's share of the costs for each service characteristic. The summation of the service characteristic costs allocated to each customer class are the customer class's cost of service.

Rates are then designed to recover the costs of providing service to each customer class from the users comprising the class. The customer class structure is designed such that each of the customer classes consists of users with similar user characteristics, while separating users with dissimilar characteristics. In this way, the resulting rates will then result in charges to users in each class that approximate the cost of providing service to that user. **Exhibit 3-1** graphically presents this cost allocation process.

3.2 Water System Cost Allocation

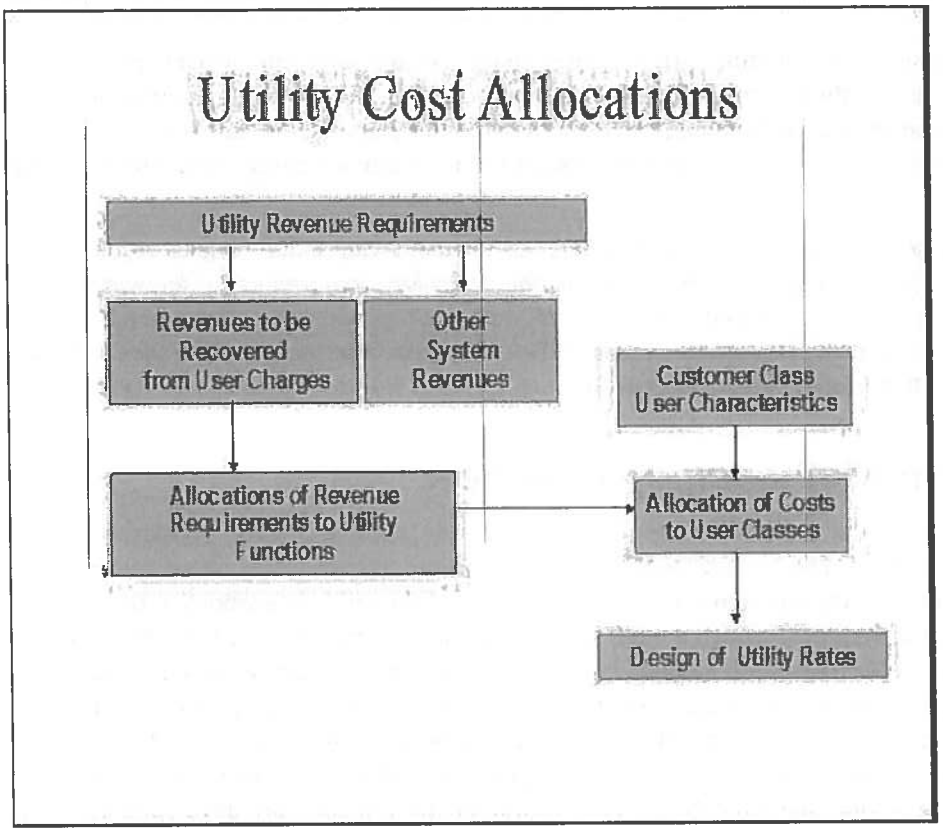
This section presents the allocation of the water system costs to the water system users, following a multi step cost allocation process by which the System revenue requirements are first allocated to wastewater system functions or services provided by the utility. The costs allocated to each function are then allocated to service characteristics that relate to the function, design, sizing, and operation of these facilities, and then to users in proportion to their use of those service characteristics.

3.2.1 Operating Costs

The water utility's budget is organized by functional department.

- 51-80: Utility Billing
- 51-81: Hauled Water
- 51-82: Piped Water

EXHIBIT 3-1
Cost Allocation Process
City of Bethel Water and Sewer Rate Study



- 51-83: Bethel Heights Water Treatment Facility
- 51-84: City Subdivision Water Treatment Facility

Exhibit 3-2 presents the projected water system revenue requirements for FY 2012/13 through FY 2022/23. Under this scenario, the transfers from the general fund will be phased out by FY 2015/16 and the utility will be generating enough revenues to be self-sufficient. To generate sufficient revenues to cover the water system's projected costs, an increase in water rate revenues of 12.0 percent in FY 2013/14, 8.0 percent in FY 2014/15 and FY 2015/16, and 4.0 percent per year through FY 2022/23 are projected.

The projected revenue requirements for the water system of $3.6 million in FY 2012/13 were used as the base year for the cost allocation. For this analysis, only operating expenses were included in revenue requirements as the City has no outstanding debt and it was assumed capital funding would be paid through state or federal grants.

To determine the net amount that must be recovered from user charges, revenues offsetting operations and maintenance cost were projected and subtracted from total operating costs. These revenues include interest earnings, public employee retirement system (PERS) revenues, and miscellaneous charges. As stated previously, revenues from subscription fees were not included in this analysis as the funds are transferred to a renewal and replacement account to fund future capital improvements. Transfers from the General Fund were also used to offset increases in revenue requirements and were subtracted from total operating expenses. After subtracting non-rate revenue from the revenue requirements, net rate revenue requirements are approximately $3.1 million. **Exhibit3-3** presents the rate revenue requirement for FY 2012/13.

EXHIBIT 3-2
Water System Revenue Requirement Projections
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Beginning Balance	0	-41,617	16,829	62,399	162,493	269,443	380,001	490,213	595,333	689,708	766,668
Revenue Requirements											
Hauled Water (51-81)	1,605,284	1,672,944	1,744,834	1,821,308	1,902,750	1,989,581	2,082,264	2,181,303	2,287,252	2,400,718	2,522,365
Piped Water (51-82)	399,819	414,697	430,372	446,903	464,357	482,803	502,318	522,988	544,903	568,164	592,881
Bethel Heights Treatment (51-83)	737,107	778,309	822,485	869,886	920,785	975,481	1,034,299	1,097,593	1,165,753	1,239,203	1,318,406
City Sub Water Treatment (51-84)	738,478	778,167	820,574	865,917	914,435	966,385	1,022,049	1,081,733	1,145,770	1,214,526	1,288,395
Utility Billing (51-80)	89,504	92,774	96,224	99,868	103,722	107,802	112,127	116,717	121,595	126,784	132,312
Fleet Replacement Fund	35,000	36,400	37,856	39,370	40,945	42,583	44,286	46,058	47,900	49,816	51,809
Debt Service	0	0	0	0	0	0	0	0	0	0	0
Total RevRequirement	3,605,192	3,773,290	3,952,344	4,143,253	4,346,993	4,564,635	4,797,343	5,046,392	5,313,174	5,599,211	5,906,167
Less: Non Rate Revenue	82,075	81,795	82,132	83,043	85,045	87,184	89,395	91,600	93,702	95,589	97,129
Use of Reserves/(Additions to)	0	0	0	0	0	0	0	0	0	0	0
Transfer from General Fund	385,000	250,000	100,000	0	0	0	0	0	0	0	0
Total Requirements from Rates	3,138,117	3,441,494	3,770,212	4,060,210	4,261,948	4,477,450	4,707,947	4,954,792	5,219,472	5,503,622	5,809,038

EXHIBIT 3-3
Water System Revenue Requirements, FY 2012/13
City of Bethel Water and Sewer Rate Study

Cost Center	FY 2012/13
Billing	$89,504
O&M Treatment Plants	$1,475,585
Piped Water	$399,819
Hauled Water	$1,640,284
Total Revenue Requirement	**$3,605,192**
Less:	
Non Rate Revenue	-4,751
Transfer from General Fund	385,000
PERS	86,826
Subtotal	467,075
Total Rate Revenue Requirement	**$3,138,117**

PERS revenues were allocated to personnel costs based on each cost center's share of personnel expenses. Other non-rate revenue and transfers from the General Fund were allocated to the different cost centers based on each cost centers share of total utility expenses. **Exhibit 3-4** presents the net rate revenue required from each cost center. These costs were then allocated to each customer class based on its respective demand on the system.

Exhibit 3-5 presents a summary of O&M cost centers and which customer classes the costs were allocated. O&M costs associated with utility billing were allocated between hauled and piped customers based on the number of customers receiving service from each system. Treatment plant O&M costs are shared by all customers as every gallon of water consumed is produced at the treatment facilities. Treatment plant O&M costs will be allocated to the piped and hauled systems based on their respective share of total water supplied.

EXHIBIT 3-4
Net Water System Rate Revenue Requirements, FY 2012/13
City of Bethel Water and Sewer Rate Study

Cost Center	FY 2012/13
Billing	76,218
O&M Treatment Plants	$1,297,626
Piped Water	$343,742
Hauled Water	$1,420,530
Total Revenue Requirement	**3,138,117**

EXHIBIT 3-5
O&M Cost Allocation to Customer
City of Bethel Water and Sewer Rate Study

O&M Cost Centers	Costs Allocated to following Customer Class:
51-80 Utility Billing	All customers
51-81 Hauled Water	Hauled Water customers only
51-82 Piped Water	Piped water customer only
51-83 Bethel Heights Water Treatment Facility	All customers
51-84 City Subdivision Water Treatment Facility	All customers

The approach to allocate FY 2012/13 budgeted Operating & Maintenance costs to service functions are presented in **Exhibit 3-6**. The allocations were based on discussions with city staff as well as a review of the activities undertaken by each budgeted cost center.

Exhibit 3-7 presents the water utility O&M cost allocation to different system characteristics by utility cost center.

Allocation of costs for the billing and O&M Piped water cost centers were described previously in **Exhibit 3-6**. Further discussion on the allocation process for O&M Water treatment and O&M Hauled Water are presented below:

- O&M Water Treatment: Operating expenses for the Bethel Heights and City Subdivision treatment plant were combined and treated as one cost center for this analysis. Based on discussions with city staff and CH2M HILL estimates, it was assumed that the costs to operate the treatment plants consisted of the following processes: water treatment and supply (65%), piped water demand (25%), and hauled water demand (10%).

  Water treatment and supply costs are considered shared costs between hauled and piped customers and were allocated between the piped and hauled system based on the water supplied to each system. Costs associated with supplying piped water were allocated 100% to the piped system while costs associated with supplying hauled water demand were allocated 100% to the hauled system.

  It was assumed that heating costs were primarily used to heat water during the treatment process, prevent water from freezing during the cooler months, and maintain the water temperature in the piped system. Based on discussions with city staff and CH2M HILL estimates, heating costs were allocated to water treatment and supply (80%) and the piped circulation loop (20%).

- O&M Hauled Water: Operating costs for the hauled system were allocated between two primary processes: Logistics and Pumping. Exhibit 3-8 presents the process of allocating driver personnel costs to the pumping function.

EXHIBIT 3-6
Water Utility O&M Cost Allocation Methodology
City of Bethel Water and Sewer Rate Study

Cost Center	System Functions	Notes	Basis for Allocation
• 51-80 Billing	• Customer service • Billing	• Costs allocated between hauled and piped customers	• Allocated based on Number of Accounts
• 51-81 O&M Hauled Water	• Distribution • Pumping	• Costs allocated between Logistics (i.e. driving, set-up, record keeping) and Pumping • Logistics charge is a flat rate per delivery • Consider charging different logistics charge for a two zone billing system • Pumping cost based on $/1000 gallon of tank capacity • Estimate % of labor spent on pumping based on 90 gpm pumping rate	• Allocate labor costs based on % of labor spent on pumping vs. logistics • Allocate materials and services using same allocation % • Pumping Cost allocated based on billed capacity • Remaining costs allocated to Logistics and allocated based on estimated number of deliveries
• 51-82 O&M Piped Water • 51-83/84 O&M Treatment Plants	• Distribution • Pumping • Supply • Treatment • Pumping	• All costs allocated to piped water • Treatment plant serves both piped and hauled water customers; • Every gallon of water used is heated and treated; • Electricity costs allocated to three pumps: well, circulating loop, and truck filling pump; • Heating costs are used for treatment and recirculation	• Allocate costs based on % of total water consumed between residential (estimate volume) and commercial • All Electricity and Heating Well/Treatment costs will be allocated to hauled and piped customers based on % of total water consumed • All Electricity recirculation costs will be allocated to Piped customers • All Electricity costs associated with truck filling allocated to hauled system • All other costs allocated based on % of total water delivered to piped and hauled system

EXHIBIT 3-7
Water Utility O&M Cost Allocation to System Functions
City of Bethel Water and Sewer Rate Study

Cost Center	Treatment/ Supply	Piped	Hauled/ Logistics	Hauled/ Pumping	Billing
Billing					
Personnel					100%
Other O&M					100%
Water Treatment					
Personnel Costs	65%	25%		10%	
Electricity	65%	25%		10%	
Heating	80%	20%			
Supplies	65%	25%		10%	
Other O&M Costs	65%	25%		10%	
O&M Piped Water					
Personnel		100%			
Other O&M costs		100%			
O&M Hauled Water					
Personnel Costs			55%	45%	
Gas/Diesel			55%	45%	
Vehicle Maintenance			55%	45%	
Other O&M			55%	45%	

Note: Water Treatment/Supply Costs are allocated based on the percent of total water supplied to hauled and piped customers.

EXHIBIT 3-8
Allocation of O&M Hauled Personnel Cost to Pumping
City of Bethel Water and Sewer Rate Study

Total O&M Hauled Personnel Costs (FY 2013)	$902,169
Total Driver Personnel Costs	$824,093
Driver Cost per Hour	$44.02
Driver Cost per Minute	$0.73
Pumping Rate (gallons/minute)	90
Total Hauled Billed Capacity	45,646,250
Personnel Cost Allocated to Pumping	$372,119
% of Total Driver Personnel Time	45%

Based on this estimate, 45 percent of driver time is spent on filling and servicing water tanks. The remaining 55 percent of the time is allocated to the logistics process. All O&M Hauled costs were allocated using these same percentages.

3.2.2 Cost Allocations to Service Characteristics

Exhibit 3-9 shows the allocation of Operation & Maintenance Costs to service characteristics.

EXHIBIT 3-9
Water Utility O&M Cost
City of Bethel Water and Sewer Rate Study

Cost Center	Treatment/ Piped	Treatment/ Hauled	Piped	Hauled/ Logistics	Hauled/ Pumped	Billing	Total
Billing							
Personnel						$62,534	$62,534
Other O&M						$13,684	$13,684
Treatment							
Personnel Costs	$141,203	$94,793	$90,768		$36,307		$363,071
Electricity	$107,117	$71,910	$68,856		$27,542		$275,425
Heating	$192,423	$129,178	$80,400				$402,001
Supplies	$43,428	$29,154	$27,916		$11,166		$111,664
Other O&M Costs	$56,574	$37,979	$36,366		$14,547		$145,465
O&M Piped Water							
Personnel			$226,160				$226,160
Other O&M costs			$117,583				$117,583
O&M Hauled Water							
Personnel Costs				$416,968	$343,298		$760,266
Gas/Diesel				$85,856	$70,687		$156,542
Vehicle Maintenance				$168,825	$138,997		$307,822
Other O&M				$107,441	$88,458		$195,900
Total	$540,744	$363,013	$648,049	$779,090	$731,002	$76,218	$3,138,117

Exhibit 3-10 presents a summary of the customer class service characteristics. Using the summary measures of the various service characteristic units developed in this table in conjunction with the revenue requirements allocated to the service characteristics, unit costs associated with each service characteristic can be calculated. Residential unmetered piped water usage was estimated based on 5,000 gallons per month per household. Hauled water customers are charged based on the capacity of their water tank while metered piped customers are billed on consumption. In order to estimate the number of deliveries made each year, total equivalent deliveries were estimated by applying a delivery factor of 1.0 to tanks of 3,500 gallons or less, a delivery factor of 2.0 to tanks larger than 3,500 gallons, and 5.0 for extra call deliveries. Customers located in Zone 2 of a two zone system were assigned an additional factor of 2.0 as it is estimated to take twice as long to provide service to these customers.

EXHIBIT 3-10
Water Service Characteristic Billing Units by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study

User Characteristics	Hauled	Piped	Total
No. of Customers	1,037	435	1,472
Plant Demand	31,057,646	46,263,490	77,321,136
% of Total Demand	40%	60%	
Estimated Billed Capacity/Usage	45,646,250	32,409,741	77,322,608
Residential Piped Usage Estimate		23,678,156	
Commercial Piped Usage Estimate		8,731,585	
Total Equivalent Deliveries, 1 Zone	58,070		58,070
Total Equivalent Deliveries, 2 Zone			
Zone 1	38,154		
Zone 2	39.832		

The unit costs are presented in **Exhibit 3-11**. Based on the unit costs calculated in **Exhibit 3-10** and the demands for service at the customer class level presented in **Exhibit 3-9**, the service characteristic costs associated with providing service to each customer class are calculated.

EXHIBIT 3-11
Development of Billing Unit Costs, FY 2013
City of Bethel Water and Sewer Rate Study

Unit Costs	Hauled	Piped	Unit
Billing	$4.32	$4.32	$/customer/month
O&M Treatment Plants	$9.91	$26.07	$/1000 gallons
Piped Water	NA	$10.61	$/1000 gallons
Hauled Water-pumping	$14.05	NA	$/1000 gallons
Hauled Water-logistics, 1 zone	$13.42	NA	$/equivalent delivery
Hauled Water-logistics, 2 zone	$9.99		$/equivalent delivery

The summary of all service characteristic costs for a specific customer class is the estimated cost of service for that class and from a cost of service standpoint is the measure of rate revenue that under equitable conditions would be recovered from that class. These customer class costs for FY 2013 for the water system are presented in **Exhibit 3-12**. The cost per thousand gallons of water produced for the hauled and piped system is $62.04 and $26.18, respectively. Based on this metric, it cost over twice as much to produce and deliver water to the hauled system than the piped system. It should be noted that the production cost may differ from the billing rate as the billing units may differ from production units. For example, the hauled customers are billed based on tank capacity and not on actual usage.

EXHIBIT 3-12
Development of Estimated Customer Class Cost of Service, FY 2013
City of Bethel Water and Sewer Rate Study

Cost Center	Hauled	Piped	Total
Billing	$53,708	$22,510	$76,218
O&M Treatment Plants	$452,575	$845,051	$1,297,626
Piped Water	0	$343,742	$343,742
Hauled Water-pumping	$641,440	$0	$641,440
Hauled Water-logistics	$779,090	$0	$779,090
Total	$1,926,813	$1,211,304	$3,138,117
% of Total Cost	61%	39%	
Total Water Produced	31,057,646	46,263,490	77,321,136
$/000 gallons Produced	$62.04	$26.18	$40.59

Providing service to the hauled water system requires 9 service trucks driving approximately 9,500 miles per year per truck, or nearly 86,000 miles total. The total cost of providing service to the hauled system, including water treatment, water supply, and pumping costs, was estimated to be nearly $1.9 million. The average cost per mile for providing service to the hauled water system is approximately $23.00 per mile.

For the piped system, there is approximately 66,000 linear feet of water pipe and service lines. The total cost of providing service to the piped system was estimated to be approximately $1.2 million. The average cost per linear foot of water pipe is approximately $18.00 per linear foot. It should be noted that it is not an equitable evaluation to compare the cost per mile for the hauled system to the cost per linear foot of the piped system.

Exhibit 3-13 presents the revenue recovery by customer class under calculated cost of service rates and existing rates. Hauled water customers are allocated 61 percent of total requirements under cost of service rates versus 72 percent under existing rates. Piped residential customers are allocated 29 percent of total requirements under cost of service rates and 19 percent under existing rates. When compared to existing revenues, piped residential customers were allocated a larger share of revenue recovery responsibility based on the results of this cost of service analysis.

3.3 Sewer System Cost Allocation

This section presents the allocation of the sewer system costs to the sewer system users, following a similar cost allocation process described in the Water System Cost Allocation Section.

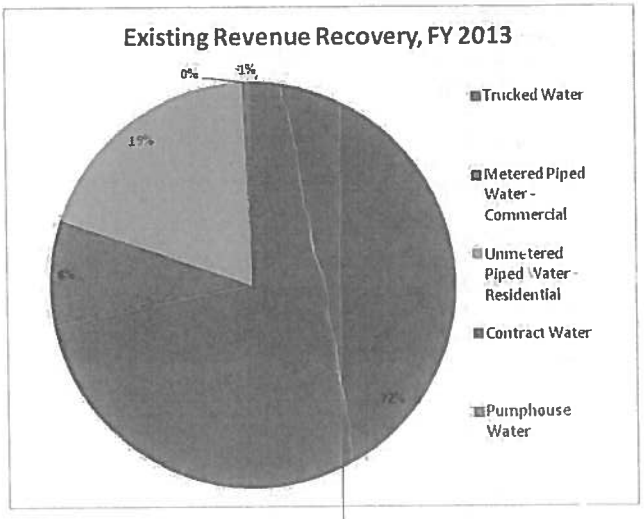
3.3.1 Operating Costs

The sewer utility's budget is organized by functional department.

- 51-80: Utility Billing
- 51-85: Hauled Sewer
- 51-86: Piped Sewer
- 51-87: Sewer Lagoon

Exhibit 3-14 presents the projected sewer system revenue requirements for FY 2012/13 through FY 2022/23. Under this scenario, the transfers from the general fund will be phased out by FY 2015/16 and the utility will be generating enough revenues to be self-sufficient. To generate sufficient revenues to cover the sewer system's projected costs, an increase in sewer rate revenues of 3.0 percent per year from FY 2013/14 through FY 2016/17, and 4.0 percent per year from FY 2017/18 through FY 2022/23 are projected.

EXHIBIT 3-13
Water Cost of Service Revenue Recovery by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study



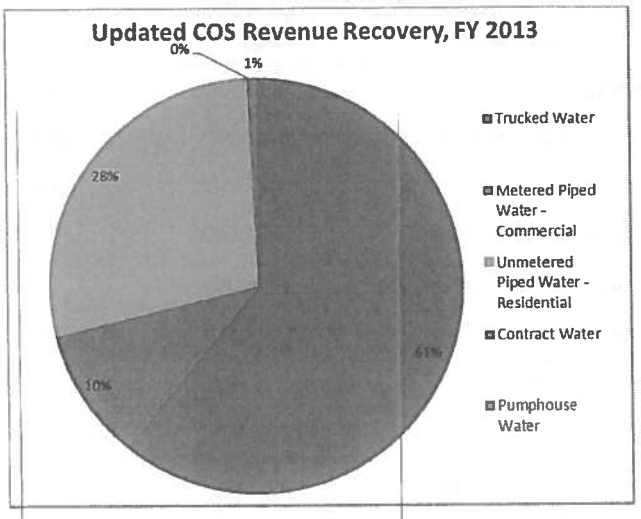


EXHIBIT 3-14
Sewer System Revenue Requirement Projections
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Beginning Balance	0	45,570	81,267	109,315	154,098	215,034	291,214	381,352	450,073	491,432	498,626
Revenue Requirements											
Hauled Sewer (51-85)	1,681,330	1,747,571	1,817,670	1,891,934	1,970,701	2,054,340	2,143,254	2,237,884	2,338,712	2,446,267	2,561,128
Piped Sewer (51-86)	611,072	642,034	675,228	710,849	749,112	790,254	834,531	882,228	933,653	989,147	1,049,083
Sewer Lagoon (51-87)	138,829	144,830	151,224	158,045	165,330	173,120	181,460	190,397	199,987	210,287	221,362
Utility Billing (51-80)	97,259	100,813	104,562	108,522	112,709	117,143	121,843	126,831	132,132	137,771	143,777
Fleet Replacement Fund	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667	47,037
Debt Service	0	0	0	0	0	0	0	0	0	0	0
Total Rev Requirement	2,563,490	2,671,299	2,785,815	2,907,596	3,037,246	3,175,432	3,322,880	3,480,385	3,648,820	3,829,139	4,022,387
Less: Non Rate Revenue	64,760	65,451	66,165	66,726	67,622	68,840	70,364	72,167	73,541	74,368	74,512
Use of Reserves/(Additions to)	0	0	0	0	0	0	0	0	0	0	34,726
Transfer from General Fund	100,000	50,000	0	0	0	0	0	0	0	0	0
Total Requirements from Rates	2,398,730	2,555,848	2,719,650	2,840,870	2,969,625	3,106,592	3,252,516	3,408,219	3,575,279	3,754,771	3,913,149

The projected revenue requirements for the sewer system of $2.6 million in FY 2012/13 were used as the base year for the cost allocation process. For this analysis, only operating expenses were included in revenue requirements as the City has no outstanding debt and it was assumed capital funding would be paid through state or federal grants.

To determine the net amount that must be recovered from user charges, revenues offsetting operations and maintenance cost were projected and subtracted from total operating costs. These revenues include interest earnings, subscription charges, PERS revenues, and miscellaneous charges. Transfers from the General Fund were also used to offset increases in revenue requirements and were subtracted from total operating expenses. After subtracting non-rate revenue from the revenue requirements, net rate revenue requirements are approximately $2.4 million. **Exhibit 3-15** presents the rate revenue requirement for FY 2012/13.

PERS revenues were allocated to personnel costs based on each cost center's share of personnel expenses. Other non-rate revenue and transfers from the General Fund were allocated to the cost centers based on each cost centers share of total utility expenses. **Exhibit 3-16** presents the net rate revenue required from each cost center. These costs were then allocated to each customer class based on its respective demand on the system.

EXHIBIT 3-15
Sewer System Revenue Requirements, FY 2012/13
City of Bethel Water and Sewer Rate Study

Cost Center	FY 2012/13
Billing	$97,259
O&M Lagoon	$138,829
Piped Sewer	$611,072
Hauled Sewer	$1,716,330
Total Revenue Requirement	$2,563,490
Less:	
Non Rate Revenue	-3,749
Transfer from General Fund	100,000
PERS	68,509
Subtotal	164,760
Total Rate Revenue Requirement	**$2,398,730**

EXHIBIT 3-16
Net Rate Revenue Requirements, FY 2012/13
City of Bethel Water and Sewer Rate Study

Cost Center	FY 2012/13
Billing	$89,791
O&M Lagoon	$129,441
Piped Sewer	$575,189
Hauled Sewer	$1,604,309
Total Revenue Requirement	$2,398,730

Exhibit 3-17 presents a summary of O&M cost centers and which customer class the costs were allocated to. O&M costs associated with utility billing were allocated between hauled and piped customers based on the number of customers receiving service from each system. Sewer Lagoon O&M costs are shared by all customers based on their respective contributions to total sewer flows.

EXHIBIT 3-17
O&M Cost Allocation to Customer
City of Bethel Water and Sewer Rate Study

O&M Cost Centers	Costs Allocated to following Customer Class:
51-80 Utility Billing	All customers
51-85 Hauled Sewer	Hauled Sewer customers only
51-86 Piped Sewer	Piped and hauled sewer customers
51-87 Sewer Lagoon	All customers

The approach to allocate FY 2012/13 budgeted Operating & Maintenance costs to service functions are presented in **Exhibit 3-18**. The allocations were based on discussions with city staff as well as a review of the activities undertaken by each budgeted cost center.

EXHIBIT 3-18
Sewer Utility O&M Cost Allocation Methodology
City of Bethel Water and Sewer Rate Study

Cost Center	System Functions	Notes	Basis for Allocation
• 51-80 Billing	• Customer service • Billing	• Cost shared between water and sewer customers	• Allocated based on Number of Accounts
• 51-85 O&M Hauled Sewer	• Collection • Pumping	• Costs allocated between Logistics (i.e. driving, set-up, record keeping) and Pumping • Logistics charge is a flat rate per delivery • Consider charging different logistics charge for a two zone billing system • Pumping cost based on $/100 gallon of tank capacity • Estimate % of labor spent on pumping based on 180 gpm pumping rate	• Allocate labor costs based on % of labor spent on pumping vs. logistics • Allocate materials and services using same allocation % • Pumping Cost allocated based on billed capacity • Remaining costs allocated to Logistics and allocated based on estimated number of deliveries
• 51-86 O&M Piped Sewer	• Collection • Pumping	• Most costs allocated to Piped customers • Some costs allocated to hauled system because of pumping into QFC2 lift station • Allocate these costs to hauled customers	• Allocate costs based on contribution to overall flow • Hauled sewer enters piped system via QFC 2 lift station; Approx. 35,000 gallons per day • Assume hauled flow = approx. 12% of total flow through piped sewer system
• 51-87 O&M Lagoon	• Settling pond	• All flows enter lagoon via piped system or from trucks	• Allocated based on percentage of total flow from piped and hauled customers

Exhibit 3-19 presents the sewer utility O&M cost allocation to different system characteristics by utility cost center.

EXHIBIT 3-19
Sewer Utility O&M Cost Allocation to System Functions
City of Bethel Water and Sewer Rate Study

Cost Center	Lagoon	Piped Sewer	Hauled/ Logistics	Hauled/ Pumped	Billing
Billing					
Personnel					100%
Other O&M					100%
O&M Lagoon					
Personnel Costs	100%				
Other O&M Costs	100%				
O&M Piped Sewer					
Personnel		85%		15%	
Other O&M costs		85%		15%	
O&M Hauled Sewer					
Personnel Costs			45%	55%	
Gas/Diesel			45%	55%	
Vehicle Maintenance			45%	55%	
Other O&M			45%	55%	

Allocation of costs for the billing, O&M Piped sewer, and O&M Sewer Lagoon cost centers were described previously in **Exhibit 3-18**. Further discussion on the allocation process for O&M Hauled Sewer is presented below:

- O&M Hauled Sewer: Operating costs for the hauled system were allocated between two primary processes: Logistics and Pumping. **Exhibit 3-20** presents the process of allocating driver personnel costs to the pumping function.

  Based on this estimate, 55 percent of driver time is spent on evacuating and servicing sewer tanks. This estimate also assumes that the pumping process occurs twice: once while servicing the tank and once while pumping into the QFC2 lift station or directly into the sewer lagoon. The remaining 45 percent of the time is allocated to the logistics process. All O&M Hauled costs were allocated using these same percentages.

EXHIBIT 3-20
Allocation of O&M Hauled Personnel Cost to Pumping
City of Bethel Water and Sewer Rate Study

Total O&M Hauled Personnel Costs (FY 2013)	$1,005,081
Total Driver Personnel Costs	$929,553
Driver Cost per Hour	$49.66
Driver Cost per Minute	$0.83
Pumping Rate (gallons/minute)	180
Total Hauled Billed Capacity	55,946,850
Personnel Cost Allocated to Pumping	$514,458
% of Total Driver Personnel Time	55%

3.3.2 Cost Allocations to Service Characteristics

Exhibit 3-21 shows the allocation of Operation & Maintenance Costs to service characteristics.

EXHIBIT 3-21
Sewer Utility O&M Cost
City of Bethel Water and Sewer Rate Study

Cost Center	Lagoon	Piped Sewer	Hauled/ Logistics	Hauled/ Pumped	Billing	Total
Billing						
Personnel					$73,791	$73,791
Other O&M					$15,999	$15,999
O&M Lagoon						
Personnel Costs	$80,713					$80,713
Other O&M Costs	$48,728					$48,728
O&M Piped Sewer						
Personnel		$315,305		$53,503		$368,807
Other O&M costs		$176,442		$29,940		$206,382
O&M Hauled Sewer						
Personnel Costs			$410,724	$509,042		$919,766
Gas/Diesel			$55,657	$68,980		$124,638

EXHIBIT 3-21
Sewer Utility O&M Cost
City of Bethel Water and Sewer Rate Study

Cost Center	Lagoon	Piped Sewer	Hauled/ Logistics	Hauled/ Pumped	Billing	Total
Vehicle Maintenance			$158,374	$196,285		$354,658
Other O&M			$91,654	$113,594		$205,248
Total	**$129,441**	**$491,747**	**$716,409**	**$971,342**	**$89,791**	**$2,398,730**

Exhibit 3-22 presents a summary of the customer class service characteristics. Using the summary measures of the various service characteristic units developed in this table in conjunction with the revenue requirements allocated to the service characteristics, unit costs associated with each service characteristic can be calculated.

EXHIBIT 3-22
Sewer Service Characteristic Billing Units by Customer Class, FY 2013
City of Bethel Water and Sewer Rate Study

User Characteristics	Hauled	Piped	Total
No. of Customers	1,125	474	1,599
Total Effluent	27,951,881	63,941,924	91,893,806
% of Total	30%	70%	
Estimated Billed Capacity/Usage	55,946,850	63,941,924	
Commercial		42,631,584	
Residential		21,310,340	
Total Equivalent Deliveries	48,168		

The unit costs are presented in **Exhibit 3-23**. Based on the unit costs calculated in **Exhibit 3-20** and the demands for service at the customer class level presented in **Exhibit 3-19**, the service characteristic costs associated with providing service to each customer class are calculated.

EXHIBIT 3-23
Development of Billing Unit Costs, FY 2013
City of Bethel Water and Sewer Rate Study

Unit Costs	Hauled	Piped	Unit
Billing	$4.68	$4.68	$/customer/month
O&M Lagoon	$0.70	$1.41	$/1000 gallons
Piped Sewer	$1.49	$7.69	$/1000 gallons
Hauled Sewer-pumping	$15.87	NA	$/1000 gallons
Hauled Sewer-logistics	$14.87	NA	$/equivalent delivery

The summary of all service characteristic costs for a specific customer class is the estimated cost of service for that class and from a cost of service standpoint is the measure of rate revenue that under equitable conditions would be recovered from that class. These customer class costs for FY 2013 for the water system are presented in **Exhibit 3-24**. The cost per thousand gallons of effluent for the hauled and piped system is $64.05 and $9.52,

respectively. Based on this metric, it cost over six times as much to collect and deliver sewage from the hauled system than the piped system. It should be noted that the production cost may differ from the billing rate as the billing units may differ from production units. For example, the hauled customers are billed based on tank capacity and not on actual sewage pumped.

EXHIBIT 3-24
Development of Estimated Customer Class Cost of Service, FY 2013
City of Bethel Water and Sewer Rate Study

Cost Center	Hauled	Piped	Total
Billing	$63,167	$26,623	$89,791
O&M Lagoon	$39,373	$90,068	$129,441
Piped Sewer	$83,442	$491,747	$575,189
Hauled Sewer-pumping	$887,900	0	$887,900
Hauled Sewer-logistics	$716,409	0	$716,409
Total	$1,790,292	$608,439	$2,398,730
% of Total	75%	25%	
Total Effluent	27,951,881	63,941,924	91,893,806
$/000 gallons Effluent	$64.05	$9.52	$26.10

Providing service to the hauled sewer system requires 7 service trucks driving approximately 9,500 miles per year per truck, or nearly 67,000 miles total. The total cost of providing service to the hauled system, including pumping costs, was estimated to be nearly $1.8 million. The average cost per mile for providing service to the hauled sewer system is approximately $27.00 per mile.

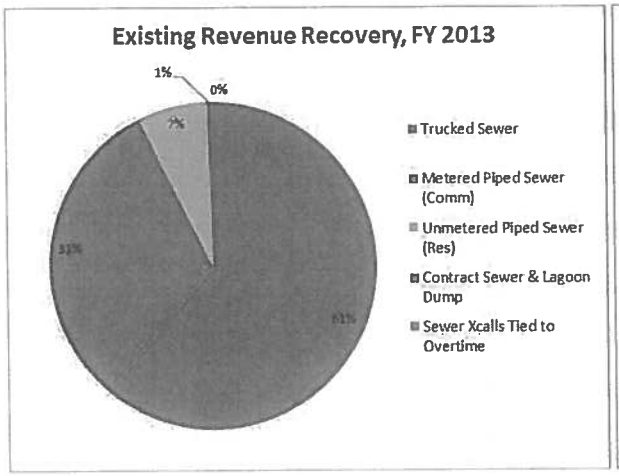
For the piped system, there is approximately 77,000 linear feet of sewer pipe and service lines. The total cost of providing service to the piped system was estimated to be approximately $608,000. The average cost per linear foot of sewer pipe is approximately $8.00 per linear foot. It should be noted that it is not an equitable evaluation to compare the cost per mile for the hauled system to the cost per linear foot of the piped system.

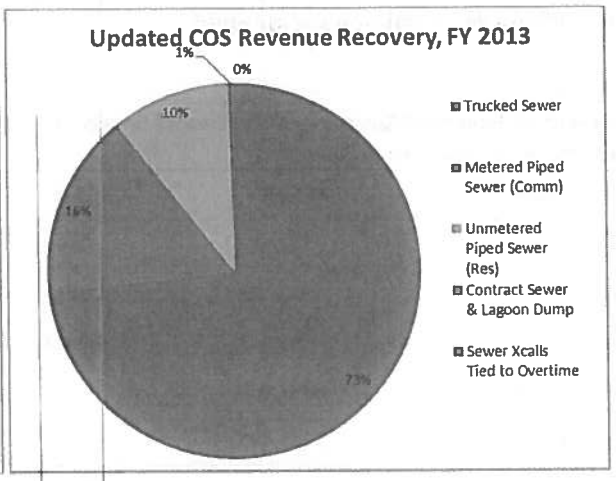
Exhibit 3-25 presidents the revenue recovery by customer class under calculated cost of service rates and existing rates. Hauled sewer customers are allocated 73 percent of total requirements under cost of service versus 61 percent under existing rates. Piped commercial customers are allocated 16 percent of total requirements under cost of service while accounting for 31 percent under existing rates. Piped residential customers are allocated a slightly larger share of revenue recovery under cost of service rates when compared to existing rates. When compared to existing revenues, hauled sewer customers were allocated a larger share of revenue recovery responsibility based on the results of this cost of service analysis.

EXHIBIT 3-25

Cost of Service Revenue Recovery by Customer Class, FY 2013

City of Bethel Water and Sewer Rate Study





SECTION 4

Water and Sewer Rate Design

The purpose of this section is to develop a schedule of rates that will recover system revenue requirements equitably from the customer classes based on their allocated cost of service. Cost allocations, as discussed in the previous section, determined the cost of providing service to each customer class. This section will use those cost allocations to develop a set of proposed rates that are designed to recover the costs of serving each customer class from the users composing that class.

The rates presented in this report assume that the annual increase in revenue requirements will be covered by rate increases. For hauled customers, a small sample of customer rates will be presented in this section. For a complete rate schedule, see Appendix C.

4.1 Water Rate Design

4.1.1 Existing Water Rate Schedule

Bethel charges its hauled water customers a rate based on the capacity of the water tank and the frequency of water delivery. For customers requiring additional delivery outside their normal delivery schedule, the City has an extra delivery schedule. **Exhibit 4-1** presents the current hauled water rate structure.

EXHIBIT 4-1
Current Hauled Water Rates, FY 2012/13
City of Bethel Water and Sewer Rate Study

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Call/Delivery
100	$11.83	$27.90	$40.27	$64.86	$74.73	$102.72	
150	$13.75	$28.04	$57.21	$116.66	$178.30	$242.25	
200	$15.89	$32.52	$66.49	$135.88	$208.18	$283.34	$71.43
250	$17.90	$36.67	$75.08	$153.67	$235.77	$321.37	$74.05
300	$19.74	$40.48	$82.97	$170.02	$261.11	$356.72	$76.67
350	$21.40	$43.94	$90.17	$184.90	$284.24	$388.16	$79.28
400	$22.91	$47.07	$96.66	$198.35	$305.12	$416.91	$81.90
450	$24.25	$49.87	$102.42	$210.36	$323.75	$442.61	$84.51
500	$25.41	$52.28	$107.52	$220.91	$340.14	$465.22	$87.13
550	$28.42	$58.53	$120.44	$247.61	$381.55	$522.21	$89.75
600	$29.38	$60.45	$124.35	$255.59	$393.73	$538.75	$92.37
650	$33.27	$68.57	$141.25	$290.68	$448.34	$614.18	$94.98
700	$34.36	$70.79	$145.79	$299.93	$406.58	$633.40	$97.59
750	$35.48	$73.08	$150.47	$309.48	$477.08	$653.21	$100.21
800	$40.81	$84.29	$173.79	$358.05	$552.79	$749.30	$102.83
850	$42.14	$86.99	$179.29	$369.29	$569.99	$781.39	$105.45
900	$43.50	$89.76	$184.94	$380.82	$587.63	$805.36	$108.07
1000	$46.32	$95.51	$196.69	$404.76	$624.22	$855.04	$113.29

EXHIBIT 4-1
Current Hauled Water Rates, FY 2012/13
City of Bethel Water and Sewer Rate Study

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Call/Delivery
1200	$55.45	$114.54	$236.29	$487.04	$751.42	$1,015.55	$123.77
1400	$64.58	$133.56	$275.89	$569.33	$878.63	$1,176.05	$134.23
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$139.46
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$247.58	$495.15	$990.31	$1,980.60	$2,970.91	$3,961.19	$383.59

For the piped water system, the City charges a flat residential fee for piped water service of $125.08 per dwelling unit. The current fee schedule also has meter and volume charges for piped water. However, at this time, all residential customers are charge the flat rate, regardless of whether they have a meter. Commercial customers are charged a volume rate of $26.50 per thousand gallons of water consumption. Commercial customers do not pay a monthly service charge. Customers can also purchase water from the Bethel Heights Treatment plant at a self-service site. The rate is approximately $0.03 per gallon. Piped water rates are presented in **Exhibit 4-2**.

EXHIBIT 4-2
Current Piped Water Rates, FY 2012/13
City of Bethel Water and Sewer Rate Study

Rate	Residential	Commercial
Flat Rate Residential ($/mo)	$125.08	NA
Meter Charge Residential ($/mo)	$64.00	NA
Volume Charge ($/000 gallons)	$26.00	$26.50
Pump House Water ($/gallon)	$0.03	

4.1.2 Cost of Service Water Rates

Exhibit 4-3 presents rates generated from the cost of service analysis. The cost of service rates are designed to recover system revenue requirements; however, the revenue responsibility may have shifted from one class to another based on the allocation of system costs and on user characteristics. The rates presented in the table are for FY 2013. Based on the future revenue requirements, additional rate increases will also be necessary.

EXHIBIT 4-3
Cost of Service Water Rates, FY 2013
City of Bethel Water and Sewer Rate Study

Customer Class	Rate
Hauled Water, 1000 Gallons/1x per week	$166.31
Hauled Water, 500 gallons/1x per week	$114.38
Residential Piped, Flat Rate ($/mo)	$187.72
Commercial Rate ($/1000 gal)	$36.92

Based on the cost of service analysis, revenue recovery shifted from hauled water service to piped water service. Most hauled water customers would see a reduction in their monthly rates while residential piped water customers would experience a significant increase in their flat monthly fee. Commercial rates experienced an increase when compared to existing rates, but not as significant as residential customers. Some hauled water customers with tanks sizes under 1000 gallons would experience a modest increase over existing rates. **Exhibit 4-4** presents a comparison of calculated cost of service rates to existing rates.

EXHIBIT 4-4
Monthly Bill Comparison
City of Bethel Water and Sewer Rate Study

		COS Rates	
Customer Class	Existing	Sample Bill	% Change over Existing
Hauled Water, 1000 Gallons/1x per week	$196.69	$166.31	-15%
Hauled Water, 500 gallons/1x per week	$107.52	$114.38	6%
Residential Piped, Flat Rate ($/mo)	$125.08	$187.72	50%
Commercial Rate ($/1000 gal)	$397.50	$553.76	39%

Notes:
[1] Metered commercial bill based on monthly water use of 15,000 gallons

4.1.3 Two Zone COS Water Rates

An alternative rate design strategy for hauled water customers would be to develop a separate set of rates to reflect the higher transportation costs associated with providing service to customers located farther from the water treatment facilities. For this analysis, the following areas of the water utility's service area were grouped to form a second delivery zone for the hauled water utility: Kasayuli subdivision, Larsen subdivision, Tundra Ridge subdivision, and hauled water customers located near the airport. **Exhibit 4-5** presents the customer characteristics for the two zone structure.

EXHIBIT 4-5
2 Zone User Characteristics, FY 2013
City of Bethel Water and Sewer Rate Study

	Zone 1	Zone 2
No. of Customers	739	411
Estimated Billed Capacity	27,405,050	18,241,200
Delivery Equivalents	38,154	39,832

The creation of a two zone structure would only impact the delivery component of the rate. The component of the rate that recovers the cost to produce and treat water at the treatment facilities is not affected by the two zone structure. A delivery surcharge would be applied to the customers in the second zone to recover the additional time and materials it takes to serve these customers. Based on discussion with city staff, it was estimated that it takes on average approximately twice as long to serve customers located in the second zone. It should be noted that the 2 zone system only impacts the rates for the hauled water customers. Rates for the piped water system would be the same as those presented in **Exhibit 4-3** in the COS Water Rate section.

Exhibit 4-6 presents the proposed cost of service rates for a sample of hauled water customers. Under this rate structure, a customer with a 1000 gallon tank that receives service once a week would experience a decrease in its water rate of 23 percent when compared to existing rates. The same customer in Zone 2 would experience a small increase of one percent. For a customer that has 500 gallon tank and service one time per week, the Zone 1 customer would experience a decrease of seven percent when compared to existing rates. However, the customer in zone 2 would experience an increase of 33 percent. The higher increase in cost for the small size tank reflects the impact of the delivery surcharge and the fact the delivery component comprises a larger percentage of the overall rate.

EXHIBIT 4-6
Two Zone Cost of Service Water Rates, FY 2013
City of Bethel Water and Sewer Rate Study

		COS Rates		% Change from Existing	
Customer Class	Existing	Zone1	Zone2	Zone 1	Zone 2
Hauled Water, 1000 Gallons/1x per week	$196.69	$151.46	$194.76	-23%	-1%
Hauled Water, 500 gallons/1x per week	$107.52	$99.54	$142.83	-7%	33%

4.1.4 Phased-In COS Water Rates

This strategy would phase in rates that closer align with the cost of service analysis over several years. The phased-in approach would not lower existing rates for any customer class. It would also apply different levels of rate increase to different customer classes to phase-in cost of service rates. Some customers would experience larger percentage increases when compared to other customers to reflect the shift in cost recovery from one class to another. There would also be some hauled water customers that experience a greater percentage rate increase than other hauled customers. This would be most noticeable for customers with tank sizes less than 500 gallons.

For piped commercial customers, water rates were set below the suggested COS rate to off-set sewer rates that are currently above COS levels. This approach will generate a combined water and sewer bill that by FY 2016/17 achieves estimated COS levels.

Exhibit 4-7 presents the projected phased in cost of service rates for a sample of customers over the analysis period. For a complete rate schedule for hauled water customers for FY 2013/14 through FY 2017/18 please see **Appendix C.**

4.1.5 Water Rate Revenue Adjustments

As discussed in the previously, in order to generate sufficient revenues to cover the water system's projected costs, an increase in water rate revenues of 12.0 percent in FY 2013/14, 8.0 percent in FY 2014/15 and FY 2015/16, and 4.0 percent per year through FY 2022/23 are projected. **Exhibit 4-8** presents the projected rates under the existing rate structure and proposed cost of service rate options.

EXHIBIT 4-7
Phased in Cost of Service Water Rates
City of Bethel Water and Sewer Rate Study

Sample Rates	Existing	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	~~FY 2019~~	~~FY 2020~~	~~FY 2021~~	FY 2022	FY 2023
Hauled, 1000 Gallons/1x per week	$196.69	$209.53	$216.92	$224.58	$232.50	$241.80	$251.47	$261.53	$272.00	$282.87	$294.19
2 Zone Hauled, 1000 Gallon/1x per week Zone 1	$196.69	$204.83	$207.15	$209.51	$211.89	$220.36	$229.18	$238.34	$247.88	$257.79	$268.11
2 Zone Hauled, 1000 Gallon/1x per week Zone 2	$196.69	$217.73	$234.49	$252.53	$271.97	$282.85	$294.16	$305.93	$318.17	$330.89	$344.13
Residential Flat Rate ($/month)	$125.08	$149.47	$178.61	$213.43	$255.04	$265.24	$275.85	$286.88	$298.36	$310.29	$322.70
Commercial Rate ($/000 gallon)	$26.50	$29.95	$33.84	$38.24	$43.21	$44.94	$46.73	$48.60	$50.55	$52.57	$54.67

EXHIBIT 4-8
Projected Water Rate Design Options
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Projected Rate Increase		12%	8%	8%	4%	4%	4%	4%	4%	4%	4%
Hauled Water, 1000 Gallons/1x per week											
Existing	$196.69	$220.29	$237.92	$256.95	$267.23	$277.92	$289.03	$300.59	$312.62	$325.12	$338.13
COS	$166.31	$186.27	$201.17	$217.26	$225.95	$234.99	$244.39	$254.17	$264.34	$274.91	$285.91
1 Zone Phased COS	$196.69	$209.53	$216.92	$224.58	$232.50	$241.80	$251.47	$261.53	$272.00	$282.87	$294.19
Phased COS Zone 1	$196.69	$204.83	$207.15	$209.51	$211.89	$220.36	$229.18	$238.34	$247.88	$257.79	$268.11
Phased COS Zone 2	$196.69	$217.73	$234.49	$252.53	$271.97	$282.85	$294.16	$305.93	$318.17	$330.89	$344.13
Hauled Water, 500 gallons/1x per week											
Existing	$107.52	$120.42	$130.06	$140.46	$146.08	$151.92	$158.00	$164.32	$170.89	$177.73	$184.84
COS	$114.38	$128.11	$138.36	$149.43	$155.40	$161.62	$168.08	$174.81	$181.80	$189.07	$196.63
1 Zone Phased COS	$110.95	$121.12	$132.80	$145.61	$159.65	$166.04	$172.68	$179.59	$186.77	$194.24	$202.01
2 Zone Phased COS Zone 1	$107.52	$117.09	$124.00	$131.31	$139.06	$144.62	$150.41	$156.43	$162.68	$169.19	$175.96
2 Zone Phased COS Zone 2	$107.52	$127.85	$148.18	$171.75	$199.07	$207.03	$215.31	$223.93	$232.88	$242.20	$251.89
Piped Residential Monthly Flat Rate ($/mo)											
Existing	$125.08	$140.09	$151.30	$163.40	$169.94	$176.73	$183.80	$191.16	$198.80	$206.75	$215.02
COS	$187.72	$210.24	$227.06	$245.23	$255.04	$265.24	$275.85	$286.88	$298.36	$310.29	$322.70
Phased COS	$125.08	$149.47	$178.61	$213.43	$255.04	$265.24	$275.85	$286.88	$298.36	$310.29	$322.70
Piped Commercial Rate ($/000 gallons)											
Existing	$26.50	$29.68	$32.05	$34.62	$36.00	$37.44	$38.94	$40.50	$42.12	$43.80	$45.56
COS	$36.92	$41.35	$44.66	$48.23	$50.16	$52.16	$54.25	$56.42	$58.68	$61.02	$63.46
Phased COS	$26.50	$29.95	$33.84	$38.24	$43.21	$44.94	$46.73	$48.60	$50.55	$52.57	$54.67

Note: The Phased In strategy includes different annual rate increases by customer class.

4.2 Sewer Rate Design

4.2.1 Existing Sewer Rate Schedule

Exhibit 4-9 presents the current hauled sewer rate structure. Like the water system, there is a separate schedule for extra calls outside the normal delivery schedule.

EXHIBIT 4-9
Current Hauled Sewer Rates, FY 2012/13
City of Bethel Water and Sewer Rate Study

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 times/week	3 Times/Week	4 Times/Week	Extra Call/Delivery
100	$10.70	$21.40	$42.79	$85.57	$128.35	$171.13	
150	$13.64	$27.27	$54.53	$109.06	$163.58	$218.11	
200	$14.64	$29.28	$58.56	$117.11	$175.67	$234.22	$65.95
250	$15.64	$31.27	$62.54	$125.08	$187.62	$250.16	$67.20
300	$16.65	$33.29	$66.57	$133.14	$199.71	$266.28	$68.45
350	$17.65	$35.30	$70.60	$141.20	$211.79	$282.39	$69.70
400	$18.66	$37.32	$74.63	$149.25	$223.88	$298.50	$70.95
450	$19.67	$39.33	$78.66	$157.31	$235.96	$314.61	$72.20
500	$20.67	$41.34	$82.68	$165.36	$248.04	$330.72	$73.45
550	$21.67	$43.34	$86.67	$173.34	$260.00	$346.67	$74.68
600	$22.68	$45.35	$90.70	$181.39	$272.09	$362.78	$75.94
650	$23.69	$47.37	$94.73	$189.45	$284.17	$378.89	$77.19
700	$24.69	$49.38	$98.75	$197.50	$296.25	$395.00	$78.43
750	$25.70	$51.39	$102.78	$205.56	$308.34	$411.12	$79.68
800	$26.70	$53.39	$106.77	$213.53	$320.29	$427.06	$80.93
850	$27.70	$55.40	$110.80	$221.59	$332.38	$443.17	$82.17
900	$28.71	$57.41	$114.82	$229.64	$344.46	$459.28	$83.42
1000	$30.72	$61.44	$122.88	$245.76	$368.63	$491.51	$85.92
1200	$34.74	$69.48	$138.95	$277.89	$416.84	$555.78	$90.91
1400	$38.76	$77.51	$155.02	$310.03	$465.05	$620.06	$95.90
1500	$40.77	$81.54	$163.08	$326.15	$489.22	$652.29	$98.40
1750	$45.80	$91.59	$183.17	$366.34	$549.51	$732.68	$104.63
2000	$50.82	$101.64	$203.27	$406.54	$609.80	$813.07	$110.88
2500	$60.87	$121.74	$243.47	$486.93	$730.39	$973.85	$123.35
3000	$70.92	$141.83	$283.66	$567.32	$850.97	$1,134.63	$135.83
3500	$80.97	$161.93	$323.86	$647.71	$971.56	$1,295.41	$147.40
4000	$101.64	$203.27	$406.54	$813.07	$1,219.60	$1,626.13	$220.85
5000	$121.74	$243.47	$486.94	$973.86	$1,460.78	$1,947.70	$245.80

Residential customers connected to the piped sewer system pay a flat fee of $33.92 per month. Commercial accounts pay a fee based on their metered water use of $17.49 per 1,000 gallons. Piped sewer rates are presented in **Exhibit 4-10**.

EXHIBIT 4-10
Current Piped Sewer Rates, FY 2012/13
City of Bethel Water and Sewer Rate Study

Rate	Residential	Commercial
Flat Rate Residential ($/mo)	$33.92	NA
Volume Charge ($/000 gallons)	NA	$17.49
Sewage Dump Fee ($/000 gallons)	$4.39	

4.2.2 Cost of Service Sewer Rates

Exhibit 4-11 presents rates generated from the cost of service analysis. The cost of service rates are designed to recover system revenue requirements; however, the revenue responsibility may have shifted from one class to another based on the allocation of system costs and on user characteristics. The rates presented in the table are for FY 2013. Based on the future revenue requirements, additional rate increases will also be necessary.

EXHIBIT 4-11
Cost of Service Sewer Rates, FY 2013
City of Bethel Water and Sewer Rate Study

Customer Class	Rate
Hauled Sewer, 1000 Gallons/1x per week	$147.41
Hauled Sewer, 500 gallons/1x per week	$108.27
Residential Piped, Flat Rate ($/mo)	$50.17
Commercial Rate ($/1000 gal)	$9.10

Based on the cost of service analysis, revenue recovery shifted primarily from piped commercial service to piped residential service. **Exhibit 4-12** presents a comparison of cost of service rates to existing rates. Most hauled sewer customers would also see an increase in their monthly rate. Some hauled water customers with tanks sizes under 1000 gallons would experience a larger percentage increase over existing rates primarily because of the delivery costs. Commercial customers would experience a decrease in their volume charge. The resulting bill, based on an average monthly water use of 15,000 gallons per month, would decrease about 48 percent under COS rates when compared to existing rates.

EXHIBIT 4-12
Monthly Bill Comparison
City of Bethel Water and Sewer Rate Study

		COS Rates	
Customer Class	Existing	Sample Bill	% Change over Existing
Hauled Water, 1000 Gallons/1x per week	$122.88	$147.41	20%
Hauled Water, 500 gallons/1x per week	$82.68	$108.27	31%
Residential Piped, Flat Rate ($/mo)	$33.92	$50.17	48%
Commercial Rate ($/1000 gal)	$262.35	$136.49	-48%

Notes:
[1] Metered commercial bill based on monthly water use of 15,000 gallons

4.2.3 Phased-In COS Sewer Rates

This strategy would phase in rates that closer align with the cost of service analysis over several years. The phased-in approach would not lower existing rates for any customer class. It would also apply different levels of rate increase to different customer classes to phase-in cost of service rates. Some customers would experience larger percentage increases when compared to other customers to reflect the shift in cost recovery from one class to another.

For piped commercial customers, existing sewer rates are already above estimated COS rates. The Phased COS approach suggests not increasing the sewer rate over the next five years. Because sewer revenues for piped commercial will be generating revenues above COS levels, water rates for piped commercial under the Phased COS scenario were adjusted below the suggested COS rate. This approach will generate a combined water and sewer bill that by FY 2016/17 achieves estimated COS levels.

Exhibit 4-13 presents the projected phased in cost of service rates over the analysis period.

4.2.4 Sewer Rate Revenue Adjustments

To generate sufficient revenues to cover the water system's projected costs, an increase in sewer rate revenues of 3.0 percent per year from FY 2013/14 through FY 2016/17, and 4.0 percent per year from FY 2017/18 through FY 2022/23 are projected. **Exhibit 4-14** presents the projected rates under the existing rate structure and proposed cost of service rate options.

4.3 Sample Combined Monthly Bills

Sample bills under current rates, cost of service rates, and phased-in cost of service rates for hauled, flat rate residential, and piped commercial are shown in **Exhibits 4-15** through **Exhibit 4-17**. The sample bills reflect the changes in the design of the rates and include the first 5 years of proposed rate increases. The bills under existing rates represent customer bills under a uniform rate increase scenario. Under the cost of service option, bills for unmetered residential piped customers and metered commercial customers increase dramatically while a hauled customer with a 1,000 gallon tank that receives service once per week experiences a slight decrease. A customer in the proposed second zone of hauled service would experience a larger increase than under current rates as the rate reflects the higher cost to serve these customers. It should be noted that some hauled customers may not experience the same percentage changes to their bills as the customer type used in this example. Under the phased cost of service approach, cost of service rates would be phased in over time.

EXHIBIT 4-13
Phased in Cost of Service Sewer Rates
City of Bethel Water and Sewer Rate Study

Sample Rates	Existing	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Hauled, 1000 Gallon/1x per week	$122.88	$134.07	$146.27	$159.58	$174.11	$181.08	$188.32	$193.97	$199.79	$205.78	$211.95
Residential Flat Rate ($/month)	$33.92	$39.09	$45.05	$51.92	$59.83	$62.22	$64.71	$66.66	$68.65	$70.71	$72.84
Commercial Rate ($/000 gallon)	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49

EXHIBIT 4-14
Projected Sewer Rate Design Options
City of Bethel Water and Sewer Rate Study

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Projected Rate Increase		5%	5%	4%	4%	4%	4%	3%	3%	3%	3%
Hauled Sewer, 1000 Gallons/1x per week											
Existing	$122.88	$129.02	$135.48	$140.89	$146.53	$152.39	$158.49	$163.24	$168.14	$173.18	$178.38
COS	$147.41	$154.78	$162.52	$169.02	$175.79	$182.82	$190.13	$195.83	$201.71	$207.76	$213.99
Phased In COS	$122.88	$134.07	$146.27	$159.58	$174.11	$181.08	$188.32	$193.97	$199.79	$205.78	$211.95
Hauled Sewer, 500 gallons/1x per week											
Existing	$82.68	$86.81	$91.15	$94.80	$98.59	$102.54	$106.64	$109.84	$113.13	$116.53	$120.02
COS	$108.27	$113.69	$119.37	$124.14	$129.11	$134.27	$139.65	$143.83	$148.15	$152.59	$157.17
Phased In COS	$82.68	$92.20	$102.83	$114.67	$127.88	$181.08	$188.32	$193.97	$199.79	$205.78	$211.95
Piped Residential Monthly Flat Rate ($/mo)											
Existing	$33.92	$35.62	$37.40	$38.89	$40.45	$42.07	$43.75	$45.06	$46.41	$47.81	$49.24
COS	$50.17	$52.68	$55.32	$57.53	$59.83	$62.22	$64.71	$66.66	$68.65	$70.71	$72.84
Phased In COS	$33.92	$39.09	$45.05	$51.92	$59.83	$62.22	$64.71	$66.66	$68.65	$70.71	$72.84
Piped Commercial Rate ($/000 gallons)											
Existing	$17.49	$18.36	$19.28	$20.05	$20.86	$21.69	$22.56	$23.23	$23.93	$24.65	$25.39
COS	$9.10	$9.55	$10.03	$10.43	$10.85	$11.28	$11.74	$12.09	$12.45	$12.82	$13.21
Phased In COS	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49	$17.49

Note: The Phased In strategy includes different annual rate increases by customer class.

EXHIBIT 4-15
Combined Monthly Water and Sewer Bill, Hauled Customer 1000 gallon/1x per week
City of Bethel Water and Sewer Rate Study

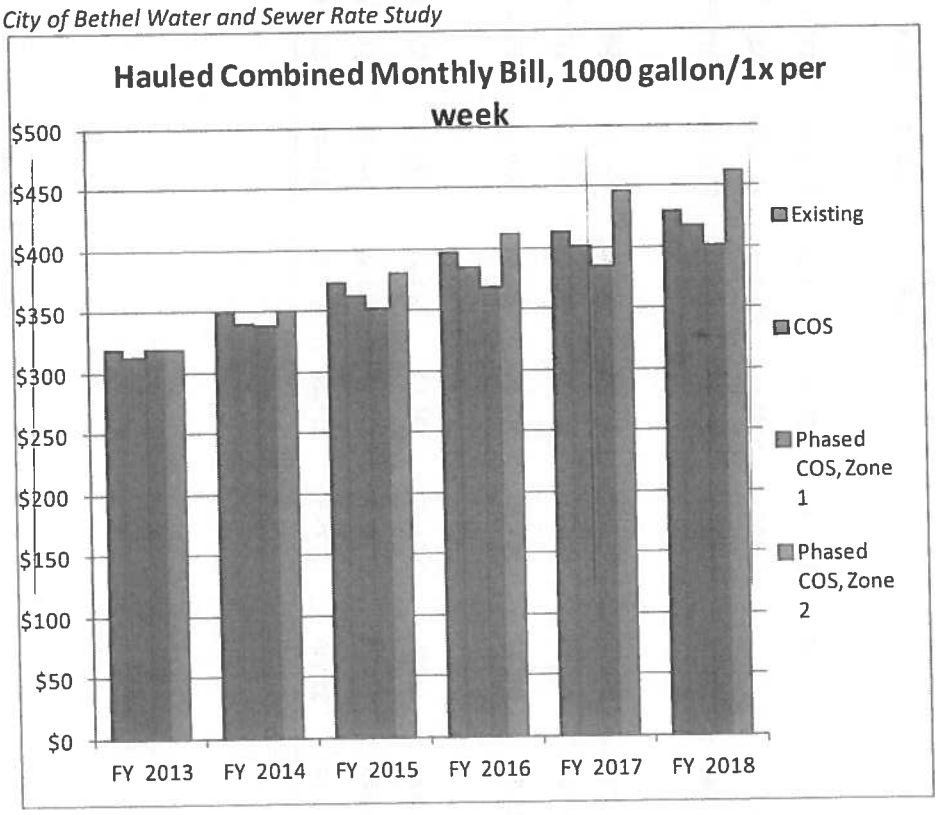


EXHIBIT 4-16
Combined Monthly Water and Sewer Bill, Flat Rate Piped Residential
City of Bethel Water and Sewer Rate Study

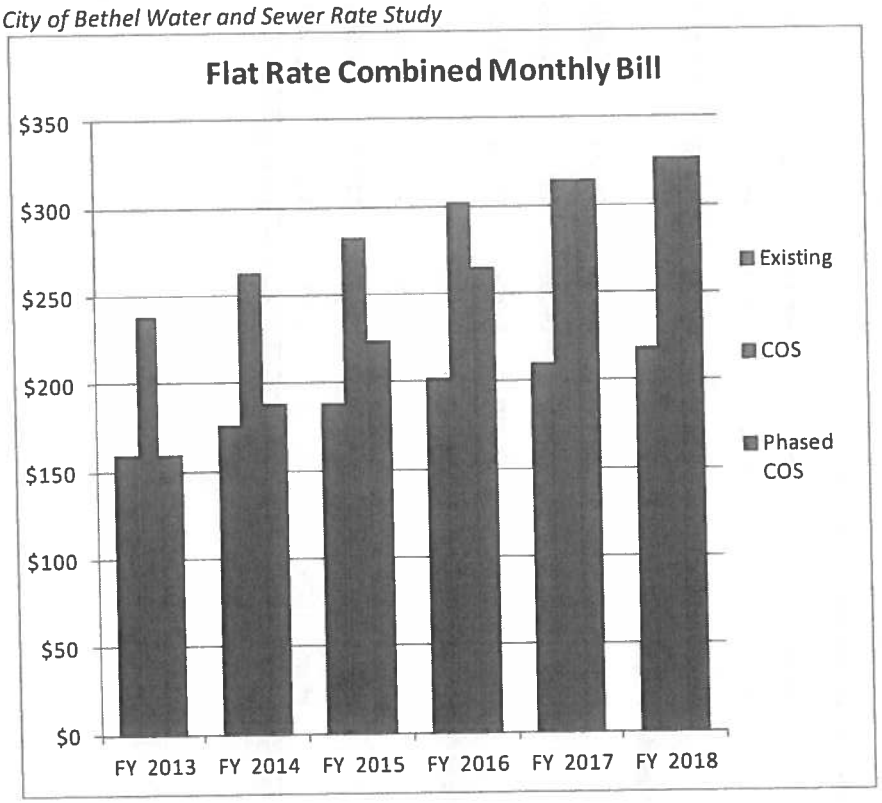
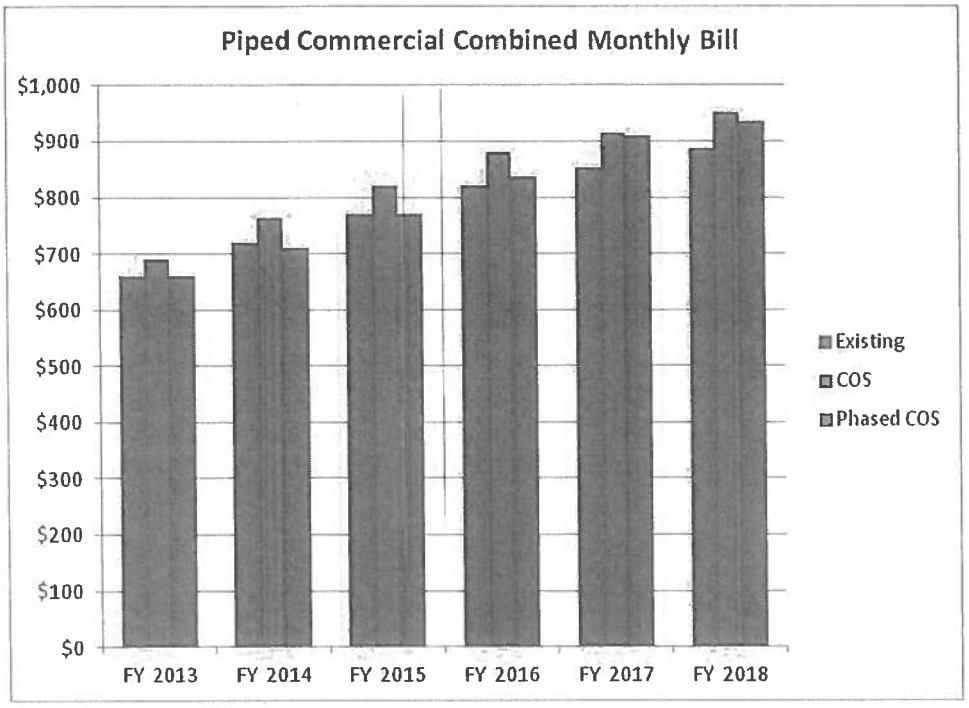


EXHIBIT 4-17
Combined Monthly Water and Sewer Bill, Piped Commercial
City of Bethel Water and Sewer Rate Study



SECTION 5

Allocation of Estimated System Replacement Costs

Historically, the City of Bethel has relied on grants from the USDA to pay for capital improvements to both its water and sewer system. This has included projects to replace existing infrastructure as well as install new system components. The City recognizes that future funding of capital projects will require some level of contributions from rate payers as the amount of available grant funding is becoming more difficult to obtain.

In 2012, the City established a Subscription Fee of $5.00 per month per account to begin setting money aside for renewal and replacements. The fee is applied to both water and sewer accounts and is expected to generate approximately $200,000 per year. In addition to the subscription fee, customers on the hauled water and sewer system have been contributing money towards fleet replacement through their rates. The annual amount contributed to fleet replacement has ranged from $35,000 to $75,000 per year. For budget year FY 2013, the contribution for both hauled water and sewer was $35,000.

5.1.1 Estimated System Replacement Costs

This section will present a high level, order of magnitude cost estimate to replace the major system components of the water and sewer system and will estimate the associated annual depreciation expense. The annual depreciation expense is an estimate of the amount that the City would need to set aside annually if it wanted to fully fund the replacement of its existing facilities using this renewal and replacement account. It should be noted that there is no requirement that the City fully fund the replacement of its water and wastewater facilities using this account, but estimating this amount provides an upper limit for determining how much could be set aside for this purpose.

The estimated value of the system will be referred to as replacement cost new or RCN. It should be noted that these cost estimates were developed for the sole purpose of estimating the annual replacement cost new depreciation expense and should not be used for any other purpose beyond this report.

In order to estimate the RCN of the system, a number of sources and strategies were used. The sources included:

- City of Bethel 2005 Water and Sewer Master plan
- Recent contract awards
- 2010 Institutional Corridor Feasibility Study
- Water/Sewer Utility Asset Report
- Discussion with City staff

These sources provided information such as linear feet of water and sewer pipe, replacement cost for certain assets, and estimated design life. However, cost estimates and quantities for some system items were not available. The estimated RCN for the major components of the water and sewer system are presented in **Exhibit 5-1**. The estimated RCN, which includes a 15 percent contingency and a 25 percent allowance for administration and engineering, is approximately $121 million.

To estimate annual depreciation expenses, the following design life for major system components was assumed:

- Water/Sewer HDPE Pipe: 50 years
- Lift Stations: 25 years
- Treatment Plant: 30 years
- Lagoon: 25 years
- Well: 30 years
- Storage tank: 40 years
- Water/Sewer Trucks and Service Trucks: 8 years

The annual depreciation expense to replace the system assets presented in **Exhibit 5-1** is $4.3 million.

EXHIBIT 5-1
Estimated System Replacement Cost and Annual Depreciation Expense
City of Bethel Water and Sewer Rate Study

Description	Quantity	Unit	Unit Cost	Total	Design Life	Annual Dep	Allocation				Water Depreciation		Sewer Depreciation	
							Water	Sewer	Piped	Hauled	Piped	Hauled	Piped	Hauled
City Subdivision														
Loop A														
Water Main	12,156	l.f.	$200	$2,431,200	50	$48,624	100%	0%	100%	0%	$48,624	$0	$0	$0
Sewer Main	8,607	l.f.	$200	$1,721,400	50	$34,428	0%	100%	100%	0%	$0	$0	$34,428	$0
Service Lines	4,596	l.f.	$200	$919,200	50	$18,384	50%	50%	100%	0%	$9,192	$0	$9,192	$0
Loop B														
Water Main	9,375	l.f.	$200	$1,875,000	50	$37,500	100%	0%	100%	0%	$37,500	$0	$0	$0
Sewer Main	6,740	l.f.	$200	$1,348,000	50	$26,960	0%	100%	100%	0%	$0	$0	$26,960	$0
Service Lines	7,400	l.f.	$200	$1,480,000	50	$29,600	50%	50%	100%	0%	$14,800	$0	$14,800	$0
Loop C														
Water Main	1,364	l.f.	$200	$272,800	50	$5,456	100%	0%	100%	0%	$5,456	$0	$0	$0
Sewer Main	1,367	l.f.	$200	$273,400	50	$5,468	0%	100%	100%	0%	$0	$0	$5,468	$0
Service Lines	2,481	l.f.	$200	$496,200	50	$9,924	50%	50%	100%	0%	$4,962	$0	$4,962	$0
Bethel Heights														
Loop A														
Water Main	18,650	l.f.	$200	$3,730,000	50	$74,600	100%	0%	100%	0%	$74,600	$0	$0	$0
Sewer Main	14,000	l.f.	$200	$2,800,000	50	$56,000	0%	100%	100%	0%	$0	$0	$56,000	$0
Loop B														
Water Main	9,650	l.f.	$200	$1,930,000	50	$38,600	100%	0%	100%	0%	$38,600	$0	$0	$0
Sewer Main	7,000	l.f.	$200	$1,400,000	50	$28,000	0%	100%	100%	0%	$0	$0	$28,000	$0
Sewer Main														

EXHIBIT 5-1

Estimated System Replacement Cost and Annual Depreciation Expense

City of Bethel Water and Sewer Rate Study

							Allocation				Water Depreciation		Sewer Depreciation	
Description	Quantity	Unit	Unit Cost	Total	Design Life	Annual Dep	Water	Sewer	Piped	Hauled	Piped	Hauled	Piped	Hauled
FAA LS to QFC2 LS	5,000	l.f.	$200	$1,000,000	50	$20,000	0%	100%	85%	15%	$0	$0	$17,000	$3,000
QFC2 LS to City Sub WTP	10,000	l.f.	$300	$3,000,000	50	$60,000	0%	100%	85%	15%	$0	$0	$51,000	$9,000
City Sub WTP to Lagoon	10,000	l.f.	$300	$3,000,000	50	$60,000	0%	100%	85%	15%	$0	$0	$51,000	$9,000
Service Lift Stations														
Residential	176	ea	$20,000	$3,520,000	25	$140,800	0%	100%	100%	0%	$0	$0	$140,800	$0
Commercial	10	ea	$50,000	$500,000	25	$20,000	0%	100%	100%	0%	$0	$0	$20,000	$0
Lift Stations														
Main (2004)	1	each	$2,300,000	$2,300,000	25	$92,000	0%	100%	85%	15%	$0	$0	$78,200	$13,800
QFC No. 2 (2011)	1	each	$3,000,000	$3,000,000	25	$120,000	0%	100%	85%	15%	$0	$0	$102,000	$18,000
Kilbuck (1979)	1	each	$1,200,000	$1,200,000	25	$48,000	0%	100%	100%	0%	$0	$0	$48,000	$0
FAA (1998)	1	each	$1,200,000	$1,200,000	25	$48,000	0%	100%	100%	0%	$0	$0	$48,000	$0
ASHA/Bethel Heights	1	each	$1,200,000	$1,200,000	25	$48,000	0%	100%	100%	0%	$0	$0	$48,000	$0
AVCP #1 and #2	2	each	$750,000	$1,500,000	25	$60,000	0%	100%	100%	0%	$0	$0	$60,000	$0
Public Works City Shop (50% share)	1	each	$8,000,000	$8,000,000	40	$200,000	50%	50%	30%	70%	$30,000	$70,000	$30,000	$70,000
Water Treatment Plants														
Bethel Heights	1	each	$7,000,000	$7,000,000	30	$233,333	100%	0%	60%	40%	$140,000	$93,333	$0	$0
Well	2	each	$400,000	$800,000	30	$26,667	100%	0%	60%	40%	$16,000	$10,667	$0	$0
Water Storage Tank	428,000	gallon	$2	$856,000	40	$21,400	100%	0%	60%	40%	$12,840	$8,560	$0	$0
City Subdivision (2000)	1	each	$7,000,000	$7,000,000	30	$233,333	100%	0%	60%	40%	$140,000	$93,333	$0	$0
Well	1	each	$400,000	$400,000	30	$13,333	100%	0%	60%	40%	$8,000	$5,333	$0	$0
Water Storage Tank	505,000	gallon	$2	$1,010,000	40	$25,250	100%	0%	60%	40%	$15,150	$10,100	$0	$0

EXHIBIT 5-1

Estimated System Replacement Cost and Annual Depreciation Expense

City of Bethel Water and Sewer Rate Study

							Allocation				Water Depreciation		Sewer Depreciation	
Description	Quantity	Unit	Unit Cost	Total	Design Life	Annual Dep	Water	Sewer	Piped	Hauled	Piped	Hauled	Piped	Hauled
Wastewater Treatment														
Lagoon	1	each	$12,000,000	$12,000,000	25	$480,000	0%	100%	70%	30%	$0	$0	$336,000	$144,000
Trucks														
Hauled Water	9	each	$250,000	$2,250,000	8	$281,250	100%	0%	0%	100%	$0	$281,250	$0	$0
Hauled Sewer	7	each	$300,000	$2,100,000	8	$262,500	0%	100%	0%	100%	$0	$0	$0	$262,500
Service Trucks	16	each	$30,000	$480,000	8	$60,000	50%	50%	100%	0%	$30,000	$0	$30,000	$0
Subtotal				$83,990,000		$2,970,000					$630,000	$570,000	$1,240,000	$530,000
Contingency	0.15			$12,600,000		$450,000					$90,000	$90,000	$190,000	$80,000
Engineering/Admin	0.25			$24,150,000		$860,000					$180,000	$170,000	$360,000	$150,000
Total				$120,740,000		$4,280,000					$900,000	$830,000	$1,790,000	$760,000

Annual depreciation expenses were allocated to customer classes based on their respective share of system use. Estimated depreciation expenses were allocated to the following customer types: hauled water, piped water, hauled sewer, and piped sewer. The process to allocate estimated depreciation expenses followed the same process to allocate system operating expenses described in Section 3. The allocation percentages used to distribute depreciation expenses to different customer classes are presented in **Exhibit 5-2**.

Exhibit 5-2 presents the allocation of annual depreciation expenses to the different customer classes. Hauled water, piped water, and hauled sewer were each allocated approximately 20 percent of total depreciation expenses. Piped sewer received the largest allocation of approximately 40 percent. The reason piped sewer has a larger relative share of depreciation expenses is because of limited asset sharing with the hauled sewer system and shorter life of assets (i.e. lagoon and lift stations).

EXHIBIT 5-2
Allocation of Estimated Annual Depreciation Expense
City of Bethel Water and Sewer Rate Study

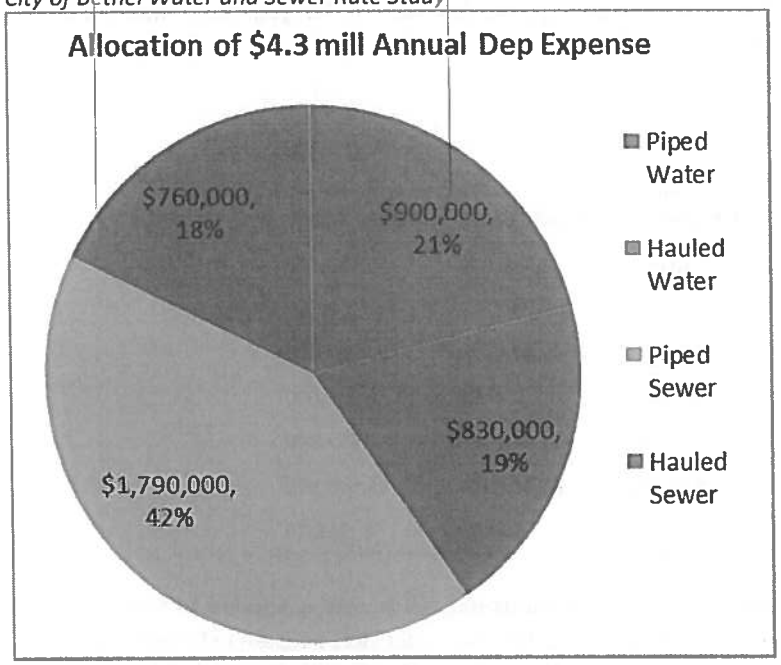


Exhibit 5-3 presents the estimated annual depreciation expense for each customer class per 1,000 gallons of water or sewer flow produced.

EXHIBIT 5-3
Annual Depreciation Expense per 1,000 gallons of Production
City of Bethel Water and Sewer Rate Study

	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$900,000	$830,000	$1,790,000	$760,000
Water or WW Flow Produced (gallons)	46,263,490	31,057,646	63,941,924	27,951,881
Depreciation Cost/000 gallons	$19.45	$26.72	$27.99	$27.19

5.1.2 Estimated Rate Impact

If the City makes the decision to increase annual contributions to a renewal and replacement fund, the contributions will impact customer's rates. The City has the option to collect renewal and replacement funds through the monthly subscription fee or through rates. If the City were to recover the full $4.3 million in annual

replacement cost new depreciation expense through its current monthly charge per customer, the monthly fee would increase from $5 per account to $116 per account.

Alternatively, instead of funding this account through a charge per customer, the City could incorporate this charge into the water and sewer volume rates. Based on their use of the system components, this would result in volume rates for the system customers that would vary by customer class. The charges per thousand gallons would range from $11.75 per thousand gallons for hauled sewer, to $27.55 per thousand gallons for piped sewer.

For this analysis, it was assumed the funds would be included as part of water and sewer rates.

Exhibit 5-4 presents the depreciation cost per thousand gallons of billable units assuming the City funds the depreciation expense associated with full system replacement. In order to account for current contributions to capital and fleet and replacements, estimated subscription fee and fleet replacement revenues were subtracted from the estimated annual depreciation expense. It should be noted that billing units may differ from units of production. For example, hauled water and sewer customers are billed based on the capacity of the tank not on actual quantity of water used or sewage pumped. Therefore the billing units for the hauled system are higher than the production units, resulting in a lower charge per unit.

EXHIBIT 5-4
Depreciation Cost per 1,000 gallons of Billable Units
City of Bethel Water and Sewer Rate Study

	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$900,000	$830,000	$1,790,000	$760,000
Less Current Contributions:				
Subscription Fees	$26,100	$62,220	$28,440	$67,500
Fleet Replacement	$0	$35,000	$0	$35,000
Subtotal	$873,900	$732,780	$1,761,560	$657,500
Billing Units (gallons)	32,409,741	45,646,250	63,941,924	55,946,850
Depreciation Cost/000 gallons	$26.96	$16.05	$27.55	$11.75

To estimate the impact on customer's bills, the depreciation cost per thousand gallon rate is applied to the customer's estimated usage. For example, an unmetered piped residential customer that uses an estimated 5,000 gallons of water per month would pay an additional $135 per month for water ($26.96*5000/1000=$134.82) and $138 per month for sewer ($27.55*5000/1000=$137.75). A customer on the hauled system that has a 1,000 gallon tank and receives service one time per week would pay approximately $64 for water service ($16.05*4000/1000=$64.20) and $47 for sewer service ($11.75*4000/1000=$47) per month for hauled service. These estimated monthly charges would be in addition to the rates presented in the previous section.

Fully funding the annual depreciation amount associated with the estimated replacement cost of the water and sewer system would have significant impacts on the existing customers in the form of much higher rates. The City could also consider establishing a renewal and replacement fund equal to the estimated replacement value of a critical system component or a reserve amount suggested by a funding agency. It may take the City multiple years to meet the targeted goal.

The City could use the allocation percentages presented in **Exhibit 5-5** to distribute the targeted funds reserved for renewal and replacements among the customer classes. **Exhibit 5-5** presents the estimated depreciation cost per 1000 gallons if the City set a target of $500,000 per year for renewal and replacement and recovered that amount through rates.

EXHIBIT 5-5
Depreciation Cost per 1,000 gallons of Billable Units: $500,000 annual target
City of Bethel Water and Sewer Rate Study

	Piped Water	Hauled Water	Piped Sewer	Hauled Sewer
Annual System Depreciation	$106,000	$96,000	$209,000	$89,000
Billing Units (gallons)	32,409,741	45,646,250	63,941,924	55,946,850
Dep Cost/000 gallons	$3.27	$2.10	$3.27	$1.59

Under this scenario, an unmetered piped residential customer that uses an estimated 5,000 gallons of water per month would pay approximately $16 each per month for water and sewer ($3.27*5000/1000=$16.35 each). A customer on the hauled system that has a 1,000 gallon tank and receives service one time per week would pay an additional $8.41 for water service ($2.10*4000/1000=$8.41) and $6.36 for sewer service ($1.59*4000/1000=$6.36) per month for hauled service. These estimated monthly charges would be in addition to the rates presented in the previous section.

The inclusion of additional renewal and replacement funding in the water and sewer rate at the same time as trying to make the utility self sufficient from an operating perspective will have a substantial effect on rate payers.

SECTION 6

Recommendations

Based on the study findings summarized in previous sections, the following recommendations are presented for the City's consideration:

1. Implement phased cost of service sewer rates in the current fiscal year (FY2013/14). The proposed cost of service rate schedule is presented in **Exhibit 3-10** for water and **Exhibit 3-18** for sewer. A full rate schedule can be found in Appendix X.
2. Implement a two zone rate structure for the hauled water system.
3. Pumphouse water should be $0.03 per gallon and increased annually by 12 percent in FY 2013/14, 8 percent in FY 2014/15 and FY 2015/16, and 4 percent in FY 2015/16 through FY 2017/18.
4. Select a reserve and replacement fund balance target and implement necessary water and sewer rate increases to achieve the target over a period of five to seven years.
5. Implement a data collection process to track data commonly used in financial and engineering studies. This would include developing a consistent tracking system for water production and demand at the water treatment plants that is tracked in both manual and electronic forms. It is also suggested that customer data such as number of accounts, usage, and meter size (commercial only) be summarized and tracked on an annual basis. Finally, conducting periodic studies of the hauled system that compares delivery times between delivery areas and tracks different functions (i.e. pumping, delivery) of the system would be beneficial.
6. Increase rates as needed in future years to meet the financial needs of the systems. The projected rate increases presented herein are based on the best available data and assumptions developed by the City and CH2M HILL as of March 2013. The City should review the financial plan annually and adjust the rates as needed to reflect current conditions and assumptions.

Appendices

APPENDIX A

Cash Flow, Scenario 2

EXHIBIT A-1

Projected Cash Flows, FY2012/13 through FY 2022/23, Scenario 2

City of Bethel Water and Sewer Rate Study

Description	Budget 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Beginning Balance	0	3,953	98,096	171,714	316,591	484,477	671,214	871,565	1,045,406	1,181,140	1,265,294
Trucked Sewer	1,497,500	1,588,099	1,684,179	1,769,061	1,858,222	1,951,876	2,050,251	2,132,876	2,218,831	2,308,250	2,401,272
Metered Piped Sewer (Comm)	766,500	812,873	862,052	905,500	951,137	999,074	1,049,427	1,091,719	1,135,716	1,181,485	1,229,099
Unmetered Piped Sewer (Res)	169,800	180,073	190,967	200,592	210,702	221,321	232,476	241,845	251,591	261,730	272,278
Contract Sewer & Lagoon Dump	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500
Sewer Xcalls Tied to Overtime	0	0	0	0	0	0	0	0	0	0	0
Trucked Water	2,225,000	2,516,920	2,745,456	2,994,744	3,145,679	3,304,221	3,470,754	3,645,680	3,829,422	4,022,425	4,225,155
Metered Piped Water - Commercial	260,000	294,112	320,817	349,948	367,585	386,111	405,571	426,012	447,483	470,036	493,726
Unmetered Piped Water - Residential	590,000	667,408	728,009	794,112	834,135	876,175	920,335	966,720	1,015,442	1,066,621	1,120,378
Contract Water	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
Pumphouse Water	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Other Revenues	146,835	147,246	148,297	149,769	152,667	156,025	159,759	163,766	167,243	169,958	171,641
Transfers from General Fund	485,000	300,000	100,000	0	0	0	0	0	0	0	0
Total Sources of Funds	**6,172,635**	**6,542,684**	**6,909,873**	**7,367,439**	**7,868,717**	**8,411,281**	**8,991,788**	**9,572,183**	**10,143,134**	**10,693,644**	**11,210,843**
Hauled Water (51-81)	1,605,284	1,672,944	1,744,834	1,821,308	1,902,750	1,989,581	2,082,264	2,181,303	2,287,252	2,400,718	2,522,365
Piped Water (51-82)	399,819	414,697	430,372	446,903	464,357	482,803	502,318	522,988	544,903	568,164	592,881
Bethel Heights Treatment (51-83)	737,107	778,309	822,485	869,886	920,785	975,481	1,034,299	1,097,593	1,165,753	1,239,203	1,318,406

EXHIBIT A-1

Projected Cash Flows, FY2012/13 through FY 2022/23, Scenario 2

City of Bethel Water and Sewer Rate Study

Description	Budget 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
City Sub Water Treatment (51-84)	738,478	778,167	820,574	865,917	914,435	966,385	1,022,049	1,081,733	1,145,770	1,214,526	1,288,395
Hauled Sewer (51-85)	1,681,330	1,747,571	1,817,670	1,891,934	1,970,701	2,054,340	2,143,254	2,237,884	2,338,712	2,446,267	2,561,128
Piped Sewer (51-86)	611,072	642,034	675,228	710,849	749,112	790,254	834,531	882,228	933,653	989,147	1,049,083
Sewer Lagoon (51-87)	138,829	144,830	151,224	158,045	165,330	173,120	181,460	190,397	199,987	210,287	221,362
Utility Billing (51-80)	186,763	193,587	200,786	208,390	216,431	224,945	233,970	243,548	253,726	264,555	276,089
Fleet Replacement Fund	70,000	72,450	74,988	77,616	80,338	83,157	86,078	89,103	92,237	95,483	98,846
Debt Service	0	0	0	0	0	0	0	0	0	0	0
Available Ending Fund Balance	3,953	98,096	171,714	-239,424	-98,055	60,368	230,455	371,916	472,973	519,953	497,060
Operating Contingency	0	0	0	556,014	582,532	610,846	641,110	673,490	708,167	745,341	785,229
Total Uses of Funds	**6,172,635**	**6,542,684**	**6,909,873**	**7,367,439**	**7,868,717**	**8,411,281**	**8,991,788**	**9,572,183**	**10,143,134**	**10,693,644**	**11,210,843**

APPENDIX B

Data

EXHIBIT B-1

Total Number of Hauled Water Customers

Capacity	1 time/month	2 times/month	1 times per week	2 times/week	3 times/week	4 times/week
100	0	0	0	0	0	0
150	0	0	0	0	0	0
200	1	0	2	0	0	0
250	0	1	1	0	0	0
300	10	49	39	11	0	0
350	2	6	9	0	0	0
400	2	11	11	2	1	0
450	2	5	13	0	1	0
500	16	57	82	24	1	0
550	1	3	9	2	0	1
600	5	29	39	7	0	0
650	1	7	8	0	0	0
700	1	6	7	1	0	0
750	9	43	31	3	0	0
800	2	17	21	7	1	0
850	0	4	8	0	0	0
900	4	20	21	4	0	0
1000	18	123	192	36	4	0
1200	0	16	8	1	0	0
1400	2	4	1	1	0	0
1500	5	19	17	6	1	0
1750	0	1	0	0	0	0
2000	0	2	6	4	2	0
2500	0	3	4	3	2	0
3000	0	0	0	2	1	0
3500	0	0	0	0	0	0
4000	0	0	0	0	0	0
5000	0	0	0	0	1	0
6000	0	0	0	0	0	0
7000	0	0	0	0	0	0
12000	0	0	0	0	0	0

EXHIBIT B-2

Number of Hauled Water Customers, Zone 2: Kaysauli, Larsen, Tundra Ridge and Airport

Capacity	1 time/month	2 times/month	1 times per week	2 times/week	3 times/week	4 times/week
100	0	0	0	0	0	0
150	0	0	0	0	0	0
200	0	0	1	0	0	0
250	0	0	0	0	0	0
300	0	0	6	2	0	0
350	0	1	2	0	0	0
400	0	0	3	0	1	0
450	0	2	1	0	0	0
500	8	11	30	8	0	0
550	0	2	4	0	0	0
600	3	10	10	4	0	0
650	0	2	3	0	0	0
700	1	1	4	2	0	0
750	0	11	10	2	0	0
800	1	6	6	3	0	0
850	0	2	2	0	0	0
900	2	9	14	2	0	0
1000	6	49	108	16	1	0
1200	0	11	5	1	0	0
1400	0	2	1	0	0	0
1500	0	7	3	2	0	0
1750	0	0	0	0	0	0
2000	0	0	0	1	0	0
2500	0	0	3	0	1	0
3000	0	0	0	0	1	0
3500	0	0	0	0	0	0
4000	0	0	0	0	0	0
5000	0	0	0	0	1	0
6000	0	0	0	0	0	0
7000	0	0	0	0	0	0
12000	0	0	0	0	0	0

EXHIBIT B-3
Number of Hauled Sewer Customers

Capacity	1 time/month	2 times/month	1 times per week	2 times/week	3 times/week	4 times/week
100	0	0	0	0	0	0
150	0	0	0	0	0	0
200	0	0	0	0	0	0
250	0	0	0	0	0	0
300	0	0	1	0	0	0
350	0	1	0	0	0	0
400	0	0	0	0	0	0
450	0	0	0	0	0	0
500	10	31	26	7	0	0
550	0	1	2	0	0	0
600	2	13	12	2	0	0
650	2	2	3	0	0	0
700	4	15	19	3	0	0
750	9	41	50	13	1	0
800	7	12	12	4	1	0
850	0	13	4	0	0	0
900	0	3	4	0	0	0
1000	18	111	127	17	2	1
1200	12	53	61	18	0	0
1400	2	24	16	4	0	0
1500	10	55	112	22	1	0
1750	3	11	16	2	0	0
2000	4	22	16	11	3	0
2500	2	5	6	2	2	0
3000	1	5	7	2	1	0
3500	0	0	1	1	2	0
4000	0	0	0	0	1	0
5000	0	0	2	0	1	0
6000	0	0	0	0	0	0
7000	0	0	0	0	0	0
12000	0	1	0	0	0	0

EXHIBIT B-4

Water Treatment Plant Production, City Subdivision WTP

FY 2011

Month	Influent	Effluent	Truck A	Truck B	Truck Total	Piped Demand
Jul-10	3,905,893	3,681,356	1,072,000	1,037,000	2,109,000	949,600
Aug-10	3,979,898	3,722,941	0	2,140,000	2,140,000	890,100
Sep-10	3,788,113	3,363,098	0	2,053,000	2,053,000	883,600
Oct-10	4,095,530	3,677,085	0	2,081,000	2,081,000	979,400
Nov-10	3,780,642	3,499,396	0	2,041,000	2,041,000	890,000
Dec-10	4,118,010	3,697,268	0	2,030,000	2,030,000	1,121,500
Jan-11	4,341,845	3,724,036	0	2,008,000	2,008,000	1,101,400
Feb-11	3,843,741	3,451,021	0	1,798,000	1,798,000	1,039,200
Mar-11	3,581,064	3,514,619	0	1,830,000	1,830,000	1,060,600
Apr-11	3,758,053	3,390,030	0	1,788,000	1,788,000	1,065,000
May-11	4,110,813	3,416,129	0	1,935,000	1,935,000	900,100
Jun-11	4,177,227	3,492,676	0	2,000,000	2,000,000	867,400
Total	47,480,829	42,629,655	1,072,000	22,741,000	23,813,000	11,747,900
Ratio of Inf/Eff for full month:			35,423,548	31,804,281	1.11	

FY 2012

Month	Influent	Effluent	Truck A	Truck B	Truck Total	Piped Demand
Jul-11	4,390,638	3,676,839	0	2,147,000	2,147,000	842,000
Aug-11	4,342,065	3,658,540	0	2,268,000	2,268,000	754,700
Sep-11	3,900,700	3,289,066	0	1,903,000	1,903,000	760,800
Oct-11	4,130,278	3,467,331	0	1,939,000	1,939,000	855,400
Nov-11	4,730,865	3,984,389	0	1,974,000	1,974,000	1,336,900
Dec-11	4,266,445	3,578,466	0	2,094,000	2,094,000	891,800
Jan-12	4,600,465	3,905,204	0	2,160,000	2,160,000	1,129,000
Feb-12	3,921,103	3,328,513	0	1,848,000	1,848,000	919,000
Mar-12	4,077,997	3,546,580	0	1,941,000	1,941,000	987,500
Apr-12	3,669,283	3,110,559	0	1,727,000	1,727,000	833,700
May-12	4,057,604	3,534,008	0	2,053,000	2,053,000	830,500
Jun-12	3,753,000	3,197,135	0	1,812,000	1,812,000	827,400
Total	49,840,443	42,276,630	0	23,866,000	23,866,000	10,968,700
Ratio of Inf/Eff for full month:			36,588,010	31,058,524	1.18	

Notes:

1. Leak caused piped demand in Nov 2011 to be higher than normal
2. Missed some records for INF for following: Oct 2011, Dec 2011, Feb 2011, Nov 2011, Jan 2012, Feb 2012; prorated influent by ratio of influent to effluent for months with full data set

EXHIBIT B-5

Water Treatment Plant Production, Bethel Heights WTP FY 2011

FY 2011

			Truck Gallons		
Month	**Effluent**	**Demand**	**FF**	**BF**	**Total**
Jul-10	2,689,182	2,676,333	270,625	33,750	634,375
Aug-10	2,685,076	2,806,171	894,040	274,557	1,168,597
Sep-10	2,588,224	2,798,885	539,700	245,600	785,300
Oct-10	2,841,558	3,033,298	161,700	251,200	412,900
Nov-10	2,430,632	2,574,237	26,100	204,200	330,300
Dec-10	3,006,608	3,189,372	91,000	320,600	411,600
Jan-11	2,748,244	3,137,593	145,100	169,600	314,700
Feb-11	2,638,697	2,783,718	218,600	161,600	380,200
Mar-11	3,049,282	2,991,533	389,300	234,500	623,800
Apr-11	2,924,108	2,757,002	341,600	295,300	636,900
May-11	3,010,857	3,604,260	318,600	270,400	589,000
Jun-11	4,189,564	2,552,788	568,600	229,900	798,500
Total	34,802,032	34,905,190	4,064,965	3,021,207	7,086,172

EXHIBT B-6

Bethel Heights Treatment Plant, FY 2012 Truck Usage

	Truck Filling Meter Reads			Truck Usage			
Month	**FF**	**BF**	**Total**	**FF**	**BF**	**Total**	**Gallons**
July 1 2011	7.9199	14.4181	22.338				
Oct 1 2011	9.8403	15.2791	25.1194	1.9204	0.861	2.7814	2,781,400
Nov 1 2011	10.1799	15.5818	25.7617	0.3396	0.3027	0.6423	642,300
Dec 1 2011	10.3528	15.8185	26.1713	0.1729	0.2367	0.4096	409,600
Jan 1 2011	10.6027	15.9804	26.5831	0.2499	0.1619	0.4118	411,800
Feb 1 2012	10.7271	16.084	26.8111	0.1244	0.1036	0.228	228,000
Mar 1 2012	10.9153	16.3537	27.269	0.1882	0.2697	0.4579	457,900
Apr 1 2012	11.1212	16.6687	27.7899	0.2059	0.315	0.5209	520,900
May 1 2012	11.2846	17.1785	28.4631	0.1634	0.5098	0.6732	673,200
Total							6,125,100
Average for 10 months							612,510
Estimated Usage for 12 months							7,350,120

EXHIBIT B-7

Summary of City Subdivision Metered Data

Month	Year	Total Consumption	Number of Meters Read	Average
December	2011	308,248	80	3,853
February	2012	576,951	115	5,017
March	2012	558,550	108	5,172
May	2012	478,200	111	4,308
July	2012	374,650	100	3,747
August	2012	487,898	102	4,783
Total		**2,784,497**	**616**	**4,520**

EXHIBIT B-8

Cost per Household in City Subdivision to Operate Circulation Pumps

Assumptions:

Amps	0.74	per Bill Arnold from electrician
Volts	110	per Bill Arnold
Hours per Day	24	per Bill Arnold
Days of Operation	240	per Bill Arnold
Number of Pumps	2	per Bill Arnold
Average $/kWh	$0.15	per Bill Arnold from utility
kW = Amps * Volts/1000	0.0814	kW
kWh/yr = kW * Hours per Day * # of Days/yr	468.864	kWh/yr
Annual Cost= kWh * $/kWh	$70.33	$/year

APPENDIX C

Water Rate Schedules

Across the Board Increases Monthly Rate Schedules FY 2014-18

Across the Board Increases, Hauled Water
FY2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$13.25	$31.25	$45.10	$72.64	$83.70	$115.05	
150	$15.40	$31.40	$64.08	$130.66	$199.70	$271.32	
200	$17.80	$36.42	$74.47	$152.19	$233.16	$317.34	$80.00
250	$20.05	$41.07	$84.09	$172.11	$264.06	$359.93	$82.94
300	$22.11	$45.34	$92.93	$190.42	$292.44	$399.53	$85.87
350	$23.97	$49.21	$100.99	$207.09	$318.35	$434.74	$88.79
400	$25.66	$52.72	$108.26	$222.15	$341.73	$466.94	$91.73
450	$27.16	$55.85	$114.71	$235.60	$362.60	$495.72	$94.65
500	$28.46	$58.55	$120.42	$247.42	$380.96	$521.05	$97.59
550	$31.83	$65.55	$134.89	$277.32	$427.34	$584.88	$100.52
600	$32.91	$67.70	$139.27	$286.26	$440.98	$603.40	$103.45
650	$37.26	$76.80	$158.20	$325.56	$502.14	$687.88	$106.38
700	$38.48	$79.28	$163.28	$335.92	$455.37	$709.41	$109.30
750	$39.74	$81.85	$168.53	$346.62	$534.33	$731.60	$112.24
800	$45.71	$94.40	$194.64	$401.02	$619.12	$839.22	$115.17
850	$47.20	$97.43	$200.80	$413.60	$638.39	$875.16	$118.10
900	$48.72	$100.53	$207.13	$426.52	$658.15	$902.00	$121.04
1000	$51.88	$106.97	$220.29	$453.33	$699.13	$957.64	$126.88
1200	$62.10	$128.28	$264.64	$545.48	$841.59	$1,137.42	$138.62
1400	$72.33	$149.59	$309.00	$637.65	$984.07	$1,317.18	$150.34
1500	$87.94	$175.88	$351.77	$703.53	$1,055.30	$1,407.06	$156.20
1750	$100.62	$201.23	$402.47	$804.93	$1,207.39	$1,609.85	$170.84
2000	$113.30	$226.59	$453.17	$906.34	$1,359.50	$1,812.65	$185.51
2500	$138.64	$277.29	$554.57	$1,109.14	$1,663.70	$2,218.26	$236.19
3000	$163.99	$327.99	$655.97	$1,311.95	$1,967.91	$2,623.87	$244.13
3500	$189.35	$378.68	$757.38	$1,514.74	$2,272.12	$3,029.48	$273.43
4000	$217.81	$437.24	$877.80	$1,762.16	$2,653.08	$3,550.52	$371.01
5000	$302.65	$605.27	$1,210.55	$2,421.08	$3,631.62	$4,842.13	$458.93
6000	$318.43	$638.47	$1,280.27	$2,567.10	$3,860.47	$5,160.38	$541.86
7000	$378.69	$757.37	$1,514.76	$3,029.49	$4,544.24	$6,058.95	$546.85

Across the Board Increases Monthly Rates, Hauled Water FY2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$14.31	$33.75	$48.71	$78.45	$90.39	$124.25	
150	$16.63	$33.92	$69.20	$141.11	$215.67	$293.03	
200	$19.22	$39.34	$80.43	$164.36	$251.81	$342.73	$86.40
250	$21.65	$44.36	$90.82	$185.88	$285.19	$388.73	$89.57
300	$23.88	$48.96	$100.36	$205.66	$315.84	$431.49	$92.74
350	$25.89	$53.15	$109.07	$223.66	$343.82	$469.52	$95.90
400	$27.71	$56.94	$116.92	$239.92	$369.07	$504.29	$99.07
450	$29.33	$60.32	$123.89	$254.45	$391.61	$535.38	$102.22
500	$30.74	$63.24	$130.06	$267.21	$411.43	$562.73	$105.39
550	$34.38	$70.80	$145.68	$299.51	$461.52	$631.67	$108.56
600	$35.54	$73.12	$150.41	$309.16	$476.26	$651.67	$111.73
650	$40.24	$82.94	$170.86	$351.61	$542.31	$742.91	$114.89
700	$41.56	$85.63	$176.35	$362.80	$491.80	$766.16	$118.04
750	$42.92	$88.40	$182.01	$374.35	$577.08	$790.12	$121.21
800	$49.36	$101.96	$210.22	$433.10	$668.65	$906.35	$124.38
850	$50.97	$105.22	$216.87	$446.69	$689.46	$945.17	$127.55
900	$52.62	$108.57	$223.70	$460.64	$710.80	$974.16	$130.72
1000	$56.03	$115.53	$237.92	$489.60	$755.06	$1,034.26	$137.04
1200	$67.07	$138.55	$285.82	$589.12	$908.92	$1,228.41	$149.71
1400	$78.12	$161.55	$333.72	$688.66	$1,062.79	$1,422.55	$162.36
1500	$94.98	$189.96	$379.91	$759.81	$1,139.72	$1,519.62	$168.69
1750	$108.67	$217.33	$434.67	$869.33	$1,303.99	$1,738.64	$184.51
2000	$122.36	$244.71	$489.43	$978.84	$1,468.26	$1,957.67	$200.35
2500	$149.74	$299.47	$598.93	$1,197.87	$1,796.80	$2,395.72	$255.08
3000	$177.11	$354.23	$708.45	$1,416.90	$2,125.34	$2,833.78	$263.66
3500	$204.49	$408.98	$817.97	$1,635.92	$2,453.89	$3,271.83	$295.30
4000	$235.23	$472.22	$948.02	$1,903.14	$2,865.32	$3,834.57	$400.69
5000	$326.86	$653.69	$1,307.40	$2,614.77	$3,922.15	$5,229.50	$495.65
6000	$343.90	$689.54	$1,382.69	$2,772.46	$4,169.31	$5,573.21	$585.20
7000	$408.99	$817.96	$1,635.94	$3,271.85	$4,907.78	$6,543.67	$590.60

Across the Board Increases Monthly Rates, Hauled Water FY2016

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$15.45	$36.45	$52.61	$84.73	$97.62	$134.19	
150	$17.96	$36.63	$74.74	$152.40	$232.93	$316.47	
200	$20.76	$42.48	$86.86	$177.51	$271.96	$370.15	$93.31
250	$23.38	$47.90	$98.08	$200.75	$308.00	$419.83	$96.74
300	$25.79	$52.88	$108.39	$222.11	$341.11	$466.01	$100.16
350	$27.96	$57.40	$117.80	$241.55	$371.32	$507.08	$103.57
400	$29.93	$61.49	$126.27	$259.12	$398.60	$544.64	$106.99
450	$31.68	$65.15	$133.80	$274.81	$422.94	$578.21	$110.40
500	$33.19	$68.30	$140.46	$288.59	$444.35	$607.75	$113.82
550	$37.13	$76.46	$157.34	$323.47	$498.44	$682.20	$117.25
600	$38.38	$78.97	$162.45	$333.89	$514.36	$703.81	$120.67
650	$43.46	$89.58	$184.52	$379.74	$585.70	$802.35	$124.08
700	$44.89	$92.48	$190.46	$391.82	$531.14	$827.45	$127.49
750	$46.35	$95.47	$196.57	$404.29	$623.24	$853.33	$130.91
800	$53.31	$110.11	$227.03	$467.75	$722.15	$978.86	$134.33
850	$55.05	$113.64	$234.22	$482.43	$744.62	$1,020.78	$137.76
900	$56.83	$117.26	$241.60	$497.49	$767.66	$1,052.10	$141.18
1000	$60.51	$124.77	$256.95	$528.77	$815.46	$1,117.00	$148.00
1200	$72.44	$149.63	$308.68	$636.25	$981.63	$1,326.68	$161.69
1400	$84.37	$174.48	$360.41	$743.75	$1,147.81	$1,536.35	$175.35
1500	$102.58	$205.15	$410.30	$820.60	$1,230.90	$1,641.19	$182.19
1750	$117.36	$234.72	$469.44	$938.87	$1,408.30	$1,877.73	$199.27
2000	$132.15	$264.29	$528.58	$1,057.15	$1,585.72	$2,114.28	$216.37
2500	$161.72	$323.43	$646.85	$1,293.70	$1,940.54	$2,587.38	$275.49
3000	$191.28	$382.57	$765.13	$1,530.25	$2,295.37	$3,060.48	$284.75
3500	$220.85	$441.70	$883.41	$1,766.80	$2,650.20	$3,533.58	$318.92
4000	$254.05	$509.99	$1,023.87	$2,055.39	$3,094.55	$4,141.33	$432.75
5000	$353.01	$705.99	$1,411.99	$2,823.95	$4,235.92	$5,647.86	$535.30
6000	$371.41	$744.71	$1,493.31	$2,994.26	$4,502.85	$6,019.06	$632.02
7000	$441.71	$883.39	$1,766.81	$3,533.59	$5,300.41	$7,067.16	$637.85

Across the Board Monthly Rates, Hauled Water
FY2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$16.07	$37.91	$54.71	$88.12	$101.53	$139.56	
150	$18.68	$38.10	$77.73	$158.50	$242.24	$329.13	
200	$21.59	$44.18	$90.33	$184.61	$282.84	$384.95	$97.05
250	$24.32	$49.82	$102.01	$208.78	$320.32	$436.62	$100.61
300	$26.82	$55.00	$112.72	$230.99	$354.75	$484.65	$104.17
350	$29.07	$59.70	$122.51	$251.21	$386.17	$527.36	$107.71
400	$31.13	$63.95	$131.32	$269.48	$414.54	$566.42	$111.27
450	$32.95	$67.75	$139.15	$285.80	$439.85	$601.34	$114.82
500	$34.52	$71.03	$146.08	$300.13	$462.12	$632.06	$118.38
550	$38.61	$79.52	$163.63	$336.41	$518.38	$709.49	$121.94
600	$39.92	$82.13	$168.94	$347.25	$534.93	$731.96	$125.50
650	$45.20	$93.16	$191.91	$394.92	$609.12	$834.44	$129.04
700	$46.68	$96.18	$198.07	$407.49	$552.39	$860.55	$132.59
750	$48.20	$99.29	$204.43	$420.47	$648.17	$887.47	$136.15
800	$55.45	$114.52	$236.12	$486.45	$751.03	$1,018.02	$139.71
850	$57.25	$118.19	$243.59	$501.73	$774.40	$1,061.61	$143.27
900	$59.10	$121.95	$251.26	$517.39	$798.37	$1,094.18	$146.83
1000	$62.93	$129.76	$267.23	$549.92	$848.08	$1,161.68	$153.92
1200	$75.34	$155.62	$321.03	$661.70	$1,020.90	$1,379.75	$168.16
1400	$87.74	$181.46	$374.83	$773.50	$1,193.73	$1,597.81	$182.37
1500	$106.68	$213.36	$426.72	$853.42	$1,280.14	$1,706.84	$189.47
1750	$122.06	$244.10	$488.22	$976.43	$1,464.64	$1,952.84	$207.24
2000	$137.44	$274.86	$549.73	$1,099.44	$1,649.15	$2,198.85	$225.03
2500	$168.18	$336.37	$672.72	$1,345.44	$2,018.17	$2,690.87	$286.51
3000	$198.93	$397.87	$795.73	$1,591.46	$2,387.18	$3,182.90	$296.14
3500	$229.69	$459.36	$918.74	$1,837.47	$2,756.21	$3,674.93	$331.68
4000	$264.21	$530.39	$1,064.82	$2,137.60	$3,218.33	$4,306.98	$450.06
5000	$367.13	$734.23	$1,468.47	$2,936.91	$4,405.36	$5,873.77	$556.71
6000	$386.27	$774.50	$1,553.04	$3,114.03	$4,682.97	$6,259.83	$657.30
7000	$459.38	$918.73	$1,837.48	$3,674.94	$5,512.42	$7,349.85	$663.36

Across the Board Monthly Rates, Hauled Water
FY2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$16.72	$39.42	$56.90	$91.65	$105.59	$145.14	
150	$19.43	$39.62	$80.84	$164.84	$251.93	$342.29	
200	$22.45	$45.95	$93.95	$191.99	$294.15	$400.35	$100.93
250	$25.29	$51.81	$106.09	$217.13	$333.14	$454.09	$104.63
300	$27.89	$57.20	$117.23	$240.23	$368.94	$504.03	$108.33
350	$30.24	$62.09	$127.41	$261.26	$401.62	$548.46	$112.02
400	$32.37	$66.51	$136.58	$280.26	$431.12	$589.08	$115.72
450	$34.26	$70.46	$144.72	$297.23	$457.45	$625.39	$119.41
500	$35.90	$73.87	$151.92	$312.14	$480.61	$657.34	$123.11
550	$40.16	$82.70	$170.18	$349.86	$539.12	$737.87	$126.81
600	$41.51	$85.41	$175.70	$361.14	$556.33	$761.24	$130.52
650	$47.01	$96.89	$199.58	$410.72	$633.49	$867.82	$134.20
700	$48.55	$100.02	$206.00	$423.79	$574.48	$894.97	$137.89
750	$50.13	$103.26	$212.61	$437.29	$674.10	$922.96	$141.59
800	$57.66	$119.10	$245.56	$505.91	$781.07	$1,058.74	$145.30
850	$59.54	$122.91	$253.33	$521.79	$805.38	$1,104.08	$149.00
900	$61.46	$126.83	$261.31	$538.09	$830.30	$1,137.95	$152.70
1000	$65.45	$134.95	$277.92	$571.91	$882.00	$1,208.14	$160.08
1200	$78.35	$161.84	$333.87	$688.17	$1,061.73	$1,434.94	$174.88
1400	$91.25	$188.72	$389.82	$804.44	$1,241.48	$1,661.72	$189.66
1500	$110.95	$221.89	$443.78	$887.56	$1,331.34	$1,775.11	$197.05
1750	$126.94	$253.87	$507.75	$1,015.49	$1,523.22	$2,030.96	$215.53
2000	$142.94	$285.86	$571.71	$1,143.42	$1,715.12	$2,286.80	$234.03
2500	$174.91	$349.82	$699.63	$1,399.26	$2,098.89	$2,798.51	$297.97
3000	$206.89	$413.79	$827.56	$1,655.12	$2,482.67	$3,310.22	$307.98
3500	$238.88	$477.74	$955.49	$1,910.97	$2,866.46	$3,821.92	$344.95
4000	$274.78	$551.61	$1,107.41	$2,223.11	$3,347.07	$4,479.26	$468.06
5000	$381.81	$763.60	$1,527.21	$3,054.38	$4,581.58	$6,108.73	$578.98
6000	$401.72	$805.48	$1,615.16	$3,238.59	$4,870.29	$6,510.22	$683.59
7000	$477.75	$955.48	$1,910.98	$3,821.94	$5,732.92	$7,643.84	$689.90

Single Zone Phased Cost of Service Rate Schedules FY 2014-18

Phased COS Monthly Rates, Hauled Water
FY2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$14.94	$32.93	$51.63	$87.03	$106.69	$145.38	
150	$16.98	$33.58	$68.47	$138.01	$209.48	$282.98	
200	$19.20	$38.12	$77.92	$157.40	$239.39	$323.84	$79.38
250	$21.27	$42.33	$86.69	$175.39	$267.07	$361.71	$81.90
300	$23.18	$46.22	$94.81	$192.04	$292.68	$397.11	$84.42
350	$24.93	$49.80	$102.31	$207.40	$316.35	$429.11	$86.92
400	$26.53	$53.09	$109.18	$221.52	$338.09	$458.82	$89.43
450	$27.99	$56.09	$115.43	$234.41	$357.94	$485.98	$91.93
500	$29.29	$58.76	$121.12	$246.08	$375.90	$510.56	$94.43
550	$32.19	$64.67	$133.41	$271.24	$414.61	$563.44	$96.92
600	$33.31	$66.93	$138.10	$280.77	$429.11	$583.06	$99.41
650	$36.93	$74.34	$153.59	$312.62	$478.27	$650.44	$101.89
700	$38.17	$76.85	$158.82	$323.23	$448.50	$672.32	$104.37
750	$39.43	$79.43	$164.16	$334.09	$510.96	$694.66	$106.85
800	$44.19	$89.24	$184.70	$376.43	$576.41	$777.72	$109.33
850	$45.63	$92.16	$190.73	$388.69	$595.08	$809.83	$111.81
900	$47.09	$95.12	$196.88	$401.18	$614.10	$835.56	$114.28
1000	$50.10	$101.23	$209.53	$426.85	$653.17	$888.38	$119.21
1200	$58.95	$119.43	$247.73	$505.47	$751.42	$1,015.55	$129.06
1400	$67.76	$133.56	$285.78	$569.33	$878.63	$1,176.05	$138.88
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$143.77
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Monthly Rates, Hauled Water
FY2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$18.42	$37.87	$64.64	$114.16	$149.11	$201.38	
150	$20.46	$39.20	$79.88	$159.12	$239.83	$322.07	
200	$22.61	$43.54	$88.99	$177.61	$268.10	$360.41	$85.84
250	$24.64	$47.59	$97.50	$194.91	$294.51	$396.27	$88.13
300	$26.53	$51.39	$105.49	$211.16	$319.29	$430.16	$90.42
350	$28.29	$54.94	$113.01	$226.41	$342.60	$461.52	$92.70
400	$29.94	$58.28	$120.05	$240.75	$364.49	$491.19	$94.97
450	$31.47	$61.40	$126.63	$254.19	$384.99	$519.01	$97.24
500	$32.89	$64.28	$132.80	$266.73	$404.15	$544.99	$99.50
550	$35.49	$69.51	$143.77	$288.98	$438.10	$591.03	$101.76
600	$36.78	$72.10	$149.22	$300.00	$454.80	$613.52	$104.01
650	$39.88	$78.36	$162.41	$326.84	$495.85	$669.33	$106.25
700	$41.25	$81.13	$168.25	$338.65	$481.28	$693.46	$108.49
750	$42.64	$83.94	$174.17	$350.64	$531.92	$717.91	$110.73
800	$46.52	$91.81	$190.76	$384.46	$583.75	$783.88	$112.96
850	$48.04	$94.86	$197.18	$397.45	$603.43	$815.01	$115.19
900	$49.57	$97.96	$203.68	$410.59	$623.34	$841.82	$117.42
1000	$52.69	$104.25	$216.92	$437.34	$663.87	$896.38	$121.86
1200	$60.90	$120.95	$252.29	$509.43	$751.42	$1,015.55	$130.71
1400	$69.06	$133.56	$287.45	$569.33	$878.63	$1,176.05	$139.52
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$143.91
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Monthly Rates, Hauled Water
FY2016

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$22.72	$43.56	$80.93	$149.76	$208.41	$278.97	
150	$24.65	$45.76	$93.20	$183.47	$274.57	$366.56	
200	$26.64	$49.73	$101.62	$200.41	$300.25	$401.11	$92.81
250	$28.55	$53.51	$109.66	$216.61	$324.77	$434.12	$94.84
300	$30.36	$57.14	$117.38	$232.17	$348.32	$465.96	$96.85
350	$32.10	$60.62	$124.83	$247.17	$371.03	$496.37	$98.85
400	$33.77	$63.98	$132.01	$261.65	$392.94	$525.83	$100.86
450	$35.38	$67.22	$138.92	$275.63	$414.10	$554.29	$102.85
500	$36.92	$70.33	$145.61	$289.12	$434.51	$581.76	$104.85
550	$39.13	$74.72	$154.94	$307.89	$462.92	$619.97	$106.83
600	$40.60	$77.66	$161.23	$320.56	$482.02	$645.57	$108.82
650	$43.07	$82.59	$171.72	$341.70	$514.07	$688.76	$110.80
700	$44.58	$85.64	$178.24	$354.81	$516.46	$715.26	$112.77
750	$46.11	$88.71	$184.80	$368.00	$553.74	$741.93	$114.74
800	$48.98	$94.45	$197.02	$392.67	$591.18	$790.10	$116.71
850	$50.57	$97.65	$203.84	$406.40	$611.89	$820.22	$118.68
900	$52.18	$100.87	$210.71	$420.22	$632.72	$848.14	$120.65
1000	$55.41	$107.37	$224.58	$448.09	$674.75	$904.44	$124.56
1200	$62.92	$122.48	$256.93	$513.42	$751.42	$1,015.55	$132.38
1400	$70.38	$133.56	$289.13	$569.33	$878.63	$1,176.05	$140.16
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$144.04
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Monthly Rates, Hauled Water
FY2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$28.01	$50.11	$101.33	$196.45	$291.28	$386.45	
150	$29.70	$53.43	$108.74	$211.53	$314.35	$417.19	
200	$31.38	$56.80	$116.04	$226.14	$336.26	$446.41	$100.36
250	$33.07	$60.16	$123.33	$240.72	$358.14	$475.59	$102.05
300	$34.75	$63.53	$130.61	$255.28	$379.99	$504.74	$103.73
350	$36.43	$66.88	$137.88	$269.83	$401.82	$533.85	$105.42
400	$38.10	$70.24	$145.15	$284.36	$423.62	$562.92	$107.11
450	$39.78	$73.59	$152.40	$298.88	$445.40	$591.97	$108.79
500	$41.45	$76.94	$159.65	$313.38	$467.16	$621.00	$110.48
550	$43.14	$80.32	$166.98	$328.04	$489.15	$650.32	$112.16
600	$44.81	$83.66	$174.22	$342.52	$510.88	$679.29	$113.85
650	$46.51	$87.06	$181.58	$357.24	$532.97	$708.76	$115.54
700	$48.19	$90.41	$188.82	$371.73	$554.22	$737.76	$117.22
750	$49.86	$93.75	$196.07	$386.23	$576.46	$766.75	$118.91
800	$51.57	$97.17	$203.48	$401.05	$598.70	$796.36	$120.59
850	$53.24	$100.52	$210.73	$415.56	$620.47	$825.46	$122.28
900	$54.92	$103.87	$217.99	$430.07	$642.24	$854.50	$123.96
1000	$58.27	$110.57	$232.50	$459.11	$685.80	$912.58	$127.33
1200	$65.00	$124.04	$261.66	$517.45	$751.42	$1,015.55	$134.07
1400	$71.73	$133.56	$290.82	$569.33	$878.63	$1,176.05	$140.81
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$144.18
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Monthly Rates, Hauled Water
FY2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$29.13	$52.11	$105.39	$204.31	$302.93	$401.90	
150	$30.89	$55.56	$113.09	$220.00	$326.92	$433.88	
200	$32.64	$59.07	$120.68	$235.18	$349.71	$464.27	$104.38
250	$34.39	$62.57	$128.26	$250.35	$372.46	$494.62	$106.13
300	$36.14	$66.07	$135.84	$265.49	$395.19	$524.93	$107.88
350	$37.88	$69.56	$143.40	$280.62	$417.89	$555.20	$109.64
400	$39.63	$73.05	$150.95	$295.73	$440.56	$585.44	$111.39
450	$41.37	$76.53	$158.50	$310.83	$463.22	$615.65	$113.14
500	$43.11	$80.01	$166.04	$325.92	$485.85	$645.84	$114.90
550	$44.87	$83.53	$173.66	$341.16	$508.72	$676.34	$116.65
600	$46.61	$87.01	$181.19	$356.22	$531.31	$706.46	$118.40
650	$48.37	$90.54	$188.84	$371.53	$554.29	$737.11	$120.16
700	$50.11	$94.02	$196.38	$386.60	$576.38	$767.27	$121.91
750	$51.85	$97.50	$203.91	$401.68	$599.51	$797.42	$123.66
800	$53.63	$101.06	$211.62	$417.09	$622.65	$828.22	$125.42
850	$55.37	$104.54	$219.16	$432.18	$645.29	$858.48	$127.17
900	$57.12	$108.03	$226.71	$447.28	$667.93	$888.68	$128.92
1000	$60.60	$115.00	$241.80	$477.47	$713.23	$949.08	$132.43
1200	$67.60	$129.00	$272.13	$538.14	$781.48	$1,056.17	$139.43
1400	$74.60	$138.90	$302.45	$592.10	$913.78	$1,223.09	$146.44
1500	$81.66	$163.32	$326.64	$653.28	$979.92	$1,306.55	$149.95
1750	$93.43	$186.86	$373.72	$747.44	$1,121.15	$1,494.86	$158.64
2000	$105.21	$210.40	$420.80	$841.60	$1,262.39	$1,683.18	$172.26
2500	$128.74	$257.48	$514.96	$1,029.91	$1,544.87	$2,059.81	$219.32
3000	$152.28	$304.56	$609.12	$1,218.24	$1,827.34	$2,436.45	$226.69
3500	$175.82	$351.63	$703.28	$1,406.55	$2,109.83	$2,813.09	$253.90
4000	$202.25	$406.01	$815.10	$1,636.29	$2,463.57	$3,296.91	$344.51
5000	$281.03	$562.04	$1,124.08	$2,248.15	$3,372.22	$4,496.26	$426.15
6000	$295.68	$592.86	$1,188.82	$2,383.73	$3,584.72	$4,791.78	$503.15
7000	$351.64	$703.27	$1,406.56	$2,813.10	$4,219.65	$5,626.17	$507.79

2 Zone Phased COS Rate Schedules, Zone 1: FY 2014-18

Zone 1 Phased COS Rate Schedule, FY 2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$14.28	$31.27	$48.84	$82.16	$100.64	$137.09	
150	$16.27	$32.00	$65.04	$130.88	$198.55	$268.14	
200	$18.44	$36.45	$74.28	$149.84	$227.78	$308.06	$75.68
250	$20.48	$40.58	$82.90	$167.51	$254.97	$345.25	$78.15
300	$22.36	$44.42	$90.91	$183.94	$280.24	$380.16	$80.62
350	$24.09	$47.96	$98.33	$199.15	$303.68	$411.86	$83.08
400	$25.68	$51.23	$105.17	$213.19	$325.29	$441.39	$85.54
450	$27.13	$54.22	$111.40	$226.06	$345.08	$468.47	$88.00
500	$28.43	$56.89	$117.09	$237.73	$363.07	$493.07	$90.45
550	$31.28	$62.71	$129.18	$262.47	$401.13	$545.06	$92.91
600	$32.41	$64.98	$133.91	$272.10	$415.78	$564.89	$95.36
650	$35.97	$72.26	$149.13	$303.38	$464.05	$614.18	$94.98
700	$37.21	$74.79	$154.39	$314.07	$435.70	$653.11	$97.59
750	$38.48	$77.37	$159.76	$324.99	$496.97	$675.60	$100.21
800	$43.16	$87.02	$179.94	$358.05	$552.79	$749.30	$102.83
850	$44.60	$89.94	$185.99	$369.29	$569.99	$781.39	$105.45
900	$46.06	$92.91	$192.15	$380.82	$587.63	$805.36	$108.07
1000	$49.07	$99.02	$204.83	$417.14	$624.22	$855.04	$113.29
1200	$57.86	$114.54	$236.29	$487.04	$751.42	$1,015.55	$123.77
1400	$66.63	$133.56	$275.89	$569.33	$878.63	$1,176.05	$134.23
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$139.46
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Zone 1, FY 2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$16.80	$34.12	$57.76	$101.60	$132.52	$178.85	
150	$18.76	$35.57	$71.98	$142.91	$215.15	$288.76	
200	$20.84	$39.76	$80.76	$160.74	$242.40	$325.70	$77.91
250	$22.82	$43.70	$89.05	$177.57	$268.08	$360.55	$80.14
300	$24.66	$47.42	$96.88	$193.49	$292.36	$393.73	$82.36
350	$26.39	$50.92	$104.29	$208.53	$315.34	$424.65	$84.57
400	$28.02	$54.22	$111.27	$222.75	$337.04	$454.06	$86.78
450	$29.54	$57.33	$117.83	$236.14	$357.47	$481.78	$88.99
500	$30.96	$60.21	$124.00	$248.70	$376.65	$507.80	$91.19
550	$33.49	$65.30	$134.68	$270.35	$409.68	$552.56	$93.40
600	$34.78	$67.91	$140.18	$281.51	$426.59	$575.35	$95.59
650	$37.80	$73.98	$152.98	$307.53	$466.40	$614.18	$94.98
700	$39.18	$76.77	$158.87	$319.46	$453.84	$653.83	$97.59
750	$40.57	$79.60	$164.83	$331.53	$502.78	$678.48	$100.21
800	$44.34	$87.23	$180.91	$358.05	$552.79	$749.30	$102.83
850	$45.86	$90.30	$187.35	$369.29	$569.99	$781.39	$105.45
900	$47.39	$93.39	$193.87	$380.82	$587.63	$805.36	$108.07
1000	$50.51	$99.70	$207.15	$417.38	$624.22	$855.04	$113.29
1200	$58.65	$114.54	$236.29	$487.04	$751.42	$1,015.55	$123.77
1400	$66.74	$133.56	$275.89	$569.33	$878.63	$1,176.05	$134.23
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$139.46
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS, FY 2016 Zone 1

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$19.77	$37.22	$68.31	$125.65	$174.49	$233.33	
150	$21.64	$39.53	$79.67	$156.04	$233.13	$310.96	
200	$23.56	$43.36	$87.81	$172.43	$257.95	$344.34	$80.21
250	$25.42	$47.05	$95.65	$188.23	$281.86	$376.53	$82.18
300	$27.20	$50.61	$103.24	$203.53	$305.01	$407.78	$84.14
350	$28.91	$54.05	$110.60	$218.35	$327.45	$437.84	$86.09
400	$30.57	$57.38	$117.73	$232.73	$349.21	$467.10	$88.04
450	$32.17	$60.61	$124.62	$246.68	$370.30	$495.47	$89.99
500	$33.71	$63.72	$131.31	$260.18	$390.74	$522.96	$91.94
550	$35.86	$68.00	$140.41	$278.47	$418.41	$560.17	$93.88
600	$37.33	$70.96	$146.75	$291.24	$437.68	$586.00	$95.83
650	$39.73	$75.74	$156.92	$311.75	$468.75	$614.18	$94.98
700	$41.25	$78.81	$163.48	$324.94	$472.73	$654.56	$97.59
750	$42.78	$81.89	$170.07	$338.20	$508.67	$681.38	$100.21
800	$45.56	$87.44	$181.88	$358.05	$552.79	$749.30	$102.83
850	$47.16	$90.65	$188.73	$369.29	$569.99	$781.39	$105.45
900	$48.76	$93.87	$195.62	$380.82	$587.63	$805.36	$108.07
1000	$51.99	$100.38	$209.51	$417.62	$624.22	$855.04	$113.29
1200	$59.44	$114.54	$236.29	$487.04	$751.42	$1,015.55	$123.77
1400	$66.86	$133.56	$275.89	$569.33	$878.63	$1,176.05	$134.23
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$139.46
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Zone 1, FY 2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$23.27	$40.61	$80.79	$155.40	$229.76	$304.41	
150	$24.95	$43.93	$88.17	$170.38	$252.61	$334.86	
200	$26.64	$47.30	$95.46	$184.97	$274.50	$364.05	$82.58
250	$28.32	$50.66	$102.75	$199.54	$296.36	$393.21	$84.26
300	$30.00	$54.02	$110.02	$214.09	$318.20	$422.34	$85.95
350	$31.68	$57.38	$117.29	$228.64	$340.02	$451.44	$87.63
400	$33.35	$60.73	$124.56	$243.17	$361.82	$480.51	$89.32
450	$35.03	$64.08	$131.81	$257.68	$383.60	$509.56	$91.00
500	$36.70	$67.43	$139.06	$272.19	$405.36	$538.58	$92.69
550	$38.39	$70.81	$146.38	$286.83	$427.33	$567.88	$94.37
600	$40.06	$74.15	$153.62	$301.31	$449.05	$596.85	$96.06
650	$41.76	$77.55	$160.97	$316.01	$471.12	$614.18	$94.98
700	$43.43	$80.89	$168.22	$330.51	$492.41	$655.28	$97.59
750	$45.11	$84.24	$175.47	$345.01	$514.61	$684.29	$100.21
800	$46.81	$87.66	$182.86	$358.05	$552.79	$749.30	$102.83
850	$48.49	$91.01	$190.12	$369.29	$569.99	$781.39	$105.45
900	$50.16	$94.36	$197.37	$380.82	$587.63	$805.36	$108.07
1000	$53.51	$101.06	$211.89	$417.87	$624.22	$855.04	$113.29
1200	$60.24	$114.54	$236.29	$487.04	$751.42	$1,015.55	$123.77
1400	$66.97	$133.56	$275.89	$569.33	$878.63	$1,176.05	$134.23
1500	$78.52	$157.04	$314.08	$628.15	$942.23	$1,256.30	$139.46
1750	$89.84	$179.67	$359.35	$718.69	$1,078.03	$1,437.37	$152.54
2000	$101.16	$202.31	$404.62	$809.23	$1,213.84	$1,618.44	$165.63
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$210.88
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$217.97
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$244.13
4000	$194.47	$390.39	$783.75	$1,573.36	$2,368.82	$3,170.11	$331.26
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$409.76
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$488.26

Phased COS Zone 1, FY 2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$24.20	$42.23	$84.02	$161.61	$238.95	$316.59	
150	$25.95	$45.69	$91.70	$177.20	$262.72	$348.26	
200	$27.70	$49.19	$99.28	$192.37	$285.48	$378.62	$85.88
250	$29.45	$52.69	$106.86	$207.52	$308.21	$408.94	$87.63
300	$31.20	$56.18	$114.42	$222.66	$330.93	$439.23	$89.39
350	$32.94	$59.68	$121.98	$237.78	$353.62	$469.49	$91.14
400	$34.69	$63.16	$129.54	$252.89	$376.29	$499.73	$92.89
450	$36.43	$66.65	$137.08	$267.99	$398.94	$529.94	$94.64
500	$38.17	$70.13	$144.62	$283.07	$421.57	$560.12	$96.39
550	$39.93	$73.64	$152.24	$298.30	$444.42	$590.59	$98.15
600	$41.67	$77.12	$159.77	$313.36	$467.02	$620.73	$99.90
650	$43.43	$80.65	$167.41	$328.65	$489.96	$638.75	$98.78
700	$45.17	$84.13	$174.95	$343.73	$512.11	$681.49	$101.49
750	$46.91	$87.61	$182.48	$358.81	$535.20	$711.66	$104.22
800	$48.69	$91.16	$190.18	$372.37	$574.90	$779.27	$106.94
850	$50.43	$94.65	$197.72	$384.06	$592.79	$812.65	$109.67
900	$52.17	$98.13	$205.27	$396.05	$611.14	$837.57	$112.39
1000	$55.66	$105.10	$220.36	$434.58	$649.19	$889.24	$117.82
1200	$62.65	$119.12	$245.74	$506.52	$781.48	$1,056.17	$128.72
1400	$69.65	$138.90	$286.93	$592.10	$913.78	$1,223.09	$139.60
1500	$81.66	$163.32	$326.64	$653.28	$979.92	$1,306.55	$145.04
1750	$93.43	$186.86	$373.72	$747.44	$1,121.15	$1,494.86	$158.64
2000	$105.21	$210.40	$420.80	$841.60	$1,262.39	$1,683.18	$172.26
2500	$128.74	$257.48	$514.96	$1,029.91	$1,544.87	$2,059.81	$219.32
3000	$152.28	$304.56	$609.12	$1,218.24	$1,827.34	$2,436.45	$226.69
3500	$175.82	$351.63	$703.28	$1,406.55	$2,109.83	$2,813.09	$253.90
4000	$202.25	$406.01	$815.10	$1,636.29	$2,463.57	$3,296.91	$344.51
5000	$281.03	$562.04	$1,124.08	$2,248.15	$3,372.22	$4,496.26	$426.15
6000	$295.68	$592.86	$1,188.82	$2,383.73	$3,584.72	$4,791.78	$503.15
7000	$351.64	$703.27	$1,406.56	$2,813.10	$4,219.65	$5,626.17	$507.79

2 Zone Phased COS Rate Schedules, Zone 2: FY 2014-18

Phased COS Zone 2, FY 2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$16.01	$35.53	$55.96	$94.54	$115.99	$158.10	
150	$18.13	$36.08	$73.86	$149.15	$226.53	$306.11	
200	$20.43	$40.81	$83.71	$169.37	$257.74	$348.76	$87.86
250	$22.58	$45.16	$92.79	$188.00	$286.41	$388.01	$90.52
300	$24.54	$49.16	$101.14	$205.14	$312.78	$424.47	$93.18
350	$26.33	$52.82	$108.81	$220.85	$337.00	$457.21	$95.82
400	$27.96	$56.17	$115.81	$235.21	$359.12	$487.45	$98.46
450	$29.44	$59.21	$122.13	$248.26	$379.20	$514.93	$101.08
500	$30.75	$61.90	$127.85	$259.99	$397.28	$539.67	$103.70
550	$33.73	$67.99	$140.52	$285.94	$437.21	$594.23	$106.32
600	$34.86	$70.24	$145.17	$295.39	$451.57	$613.66	$108.93
650	$38.58	$77.87	$161.17	$328.28	$502.34	$683.26	$111.52
700	$39.82	$80.38	$166.37	$338.84	$470.27	$705.00	$114.11
750	$41.08	$82.95	$171.70	$349.65	$534.87	$727.24	$116.70
800	$45.99	$93.08	$192.89	$393.36	$602.44	$812.92	$119.28
850	$47.43	$95.99	$198.91	$405.59	$621.07	$845.27	$121.86
900	$48.90	$98.96	$205.06	$418.07	$640.07	$870.96	$124.43
1000	$51.91	$105.08	$217.73	$443.75	$679.14	$923.77	$129.55
1200	$60.87	$123.50	$256.40	$523.34	$801.27	$1,078.92	$139.76
1400	$69.77	$141.80	$294.82	$602.44	$922.64	$1,233.34	$149.89
1500	$81.70	$161.95	$328.64	$655.88	$983.11	$1,310.34	$154.94
1750	$92.57	$179.67	$372.87	$744.29	$1,115.71	$1,487.13	$167.51
2000	$101.16	$202.31	$417.03	$809.23	$1,213.84	$1,618.44	$180.03
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$220.17
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$229.65
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$254.26
4000	$194.47	$390.39	$812.65	$1,628.47	$2,448.85	$3,273.79	$358.82
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$429.44
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$507.10

Phased COS Zone 2, FY 2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$21.18	$44.17	$76.08	$134.95	$176.54	$238.60	
150	$23.36	$45.34	$93.14	$186.22	$281.02	$377.63	
200	$25.66	$49.98	$102.89	$206.04	$311.37	$418.82	$105.43
250	$27.80	$54.26	$111.90	$224.35	$339.34	$456.82	$107.95
300	$29.78	$58.24	$120.26	$241.35	$365.29	$492.35	$110.45
350	$31.60	$61.92	$128.04	$257.15	$389.44	$524.83	$112.93
400	$33.29	$65.34	$135.27	$271.86	$411.91	$555.30	$115.41
450	$34.86	$68.53	$141.96	$285.53	$432.77	$583.62	$117.87
500	$36.29	$71.43	$148.18	$298.18	$452.09	$609.84	$120.32
550	$39.03	$76.94	$159.74	$321.62	$487.87	$658.36	$122.76
600	$40.31	$79.50	$165.13	$332.53	$504.37	$680.57	$125.18
650	$43.58	$86.10	$179.06	$360.89	$547.78	$739.61	$127.59
700	$44.95	$88.87	$184.87	$372.62	$529.82	$763.54	$129.99
750	$46.34	$91.67	$190.77	$384.55	$583.61	$787.84	$132.39
800	$50.44	$99.99	$208.31	$420.34	$638.48	$857.55	$134.78
850	$51.96	$103.04	$214.72	$433.30	$658.10	$889.02	$137.16
900	$53.49	$106.14	$221.22	$446.42	$677.99	$915.78	$139.54
1000	$56.63	$112.45	$234.49	$473.19	$718.51	$970.30	$144.25
1200	$65.00	$129.46	$270.52	$546.65	$830.38	$1,113.87	$153.62
1400	$73.28	$146.30	$306.21	$619.41	$941.18	$1,256.41	$162.88
1500	$82.55	$162.16	$334.02	$665.15	$996.28	$1,327.40	$167.49
1750	$92.61	$179.67	$375.71	$748.48	$1,121.24	$1,494.00	$178.93
2000	$101.16	$202.31	$417.31	$809.23	$1,213.84	$1,618.44	$190.29
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$223.27
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$235.07
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$257.19
4000	$194.47	$390.39	$818.25	$1,636.65	$2,458.12	$3,282.66	$377.91
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$437.19
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$511.46

Phased COS, FY 2016 Zone 2

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$28.03	$54.92	$103.44	$192.65	$268.71	$360.08	
150	$30.10	$56.97	$117.45	$232.49	$348.61	$465.86	
200	$32.22	$61.21	$126.45	$250.64	$376.16	$502.96	$126.51
250	$34.23	$65.20	$134.94	$267.74	$402.05	$537.84	$128.72
300	$36.13	$68.98	$142.99	$283.96	$426.61	$571.09	$130.92
350	$37.92	$72.58	$150.66	$299.43	$450.04	$602.45	$133.11
400	$39.64	$76.01	$158.00	$314.23	$472.45	$632.59	$135.28
450	$41.27	$79.30	$165.02	$328.41	$493.91	$661.47	$137.44
500	$42.83	$82.43	$171.75	$341.99	$514.47	$689.13	$139.59
550	$45.15	$87.06	$181.58	$361.76	$544.40	$729.41	$141.73
600	$46.62	$89.99	$187.83	$374.33	$563.34	$754.78	$143.87
650	$49.23	$95.20	$198.94	$396.74	$597.32	$800.60	$145.98
700	$50.75	$98.24	$205.43	$409.78	$596.92	$826.95	$148.09
750	$52.27	$101.31	$211.97	$422.92	$636.80	$853.49	$150.20
800	$55.32	$107.41	$224.96	$449.18	$676.67	$904.64	$152.30
850	$56.92	$110.61	$231.78	$462.89	$697.34	$935.02	$154.39
900	$58.52	$113.83	$238.65	$476.70	$718.15	$962.90	$156.48
1000	$61.77	$120.35	$252.53	$504.58	$760.17	$1,019.19	$160.62
1200	$69.40	$135.71	$285.42	$571.00	$860.55	$1,149.96	$168.85
1400	$76.97	$150.94	$318.03	$636.85	$960.09	$1,279.92	$177.00
1500	$83.41	$162.36	$339.49	$674.56	$1,009.62	$1,344.69	$181.06
1750	$92.65	$179.67	$378.57	$752.68	$1,126.79	$1,500.90	$191.13
2000	$101.16	$202.31	$417.59	$809.23	$1,213.84	$1,618.44	$201.13
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$226.41
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$240.62
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$260.15
4000	$194.47	$390.39	$823.87	$1,644.87	$2,467.43	$3,291.54	$398.01
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$445.07
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$515.85

Phased COS Zone 2, FY 2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$37.09	$68.28	$140.64	$275.01	$408.99	$543.42	
150	$38.78	$71.59	$148.10	$290.27	$432.47	$574.69	
200	$40.47	$74.97	$155.42	$304.91	$454.43	$603.99	$151.81
250	$42.15	$78.34	$162.72	$319.51	$476.35	$633.23	$153.50
300	$43.84	$81.71	$170.01	$334.10	$498.23	$662.41	$155.19
350	$45.52	$85.07	$177.29	$348.66	$520.08	$691.55	$156.88
400	$47.19	$88.43	$184.56	$363.20	$541.89	$720.65	$158.57
450	$48.87	$91.78	$191.82	$377.72	$563.69	$749.71	$160.26
500	$50.54	$95.13	$199.07	$392.23	$585.45	$778.74	$161.96
550	$52.24	$98.52	$206.41	$406.91	$607.48	$808.12	$163.65
600	$53.91	$101.86	$213.65	$421.39	$629.20	$837.08	$165.34
650	$55.61	$105.27	$221.02	$436.15	$651.35	$866.63	$167.03
700	$57.29	$108.61	$228.27	$450.64	$672.52	$895.62	$168.71
750	$58.96	$111.96	$235.51	$465.13	$694.83	$924.61	$170.40
800	$60.67	$115.39	$242.94	$480.00	$717.15	$954.31	$172.09
850	$62.35	$118.74	$250.20	$494.51	$738.92	$983.41	$173.78
900	$64.02	$122.09	$257.45	$509.02	$760.69	$1,012.45	$175.47
1000	$67.38	$128.79	$271.97	$538.06	$804.25	$1,070.53	$178.85
1200	$74.11	$142.26	$301.15	$596.43	$891.82	$1,187.21	$185.60
1400	$80.84	$155.73	$330.31	$654.78	$979.37	$1,303.87	$192.35
1500	$84.28	$162.57	$345.04	$684.09	$1,023.14	$1,362.19	$195.72
1750	$92.69	$179.67	$381.46	$756.92	$1,132.38	$1,507.84	$204.15
2000	$101.16	$202.31	$417.87	$809.23	$1,213.84	$1,618.44	$212.58
2500	$123.79	$247.58	$495.15	$990.30	$1,485.45	$1,980.59	$229.60
3000	$146.42	$292.85	$585.69	$1,171.38	$1,757.06	$2,342.74	$246.29
3500	$169.06	$338.11	$676.23	$1,352.45	$2,028.68	$2,704.89	$263.14
4000	$194.47	$390.39	$829.54	$1,653.14	$2,476.77	$3,300.45	$419.18
5000	$270.22	$540.42	$1,080.85	$2,161.68	$3,242.52	$4,323.33	$453.10
6000	$284.31	$570.06	$1,143.10	$2,292.05	$3,446.85	$4,607.48	$483.80
7000	$338.12	$676.22	$1,352.46	$2,704.90	$4,057.36	$5,409.78	$520.29

Phased COS Zone 2, FY 2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$38.57	$71.01	$146.27	$286.01	$425.35	$565.16	
150	$40.33	$74.46	$154.03	$301.88	$449.76	$597.68	
200	$42.08	$77.97	$161.64	$317.10	$472.61	$628.15	$157.88
250	$43.84	$81.48	$169.23	$332.29	$495.40	$658.56	$159.64
300	$45.59	$84.98	$176.81	$347.46	$518.16	$688.91	$161.40
350	$47.34	$88.47	$184.38	$362.60	$540.88	$719.21	$163.16
400	$49.08	$91.97	$191.94	$377.73	$563.57	$749.47	$164.92
450	$50.82	$95.45	$199.49	$392.83	$586.23	$779.70	$166.68
500	$52.57	$98.93	$207.03	$407.92	$608.87	$809.88	$168.43
550	$54.33	$102.46	$214.67	$423.19	$631.78	$840.45	$170.19
600	$56.07	$105.93	$222.19	$438.24	$654.37	$870.57	$171.95
650	$57.84	$109.48	$229.86	$453.59	$677.40	$901.29	$173.71
700	$59.58	$112.96	$237.40	$468.66	$699.42	$931.44	$175.46
750	$61.32	$116.44	$244.94	$483.74	$722.63	$961.60	$177.22
800	$63.10	$120.01	$252.66	$499.20	$745.83	$992.48	$178.98
850	$64.84	$123.49	$260.21	$514.29	$768.47	$1,022.75	$180.73
900	$66.59	$126.97	$267.75	$529.38	$791.12	$1,052.95	$182.49
1000	$70.07	$133.94	$282.85	$559.58	$836.42	$1,113.35	$186.00
1200	$77.07	$147.95	$313.19	$620.28	$927.49	$1,234.70	$193.02
1400	$84.08	$161.96	$343.53	$680.97	$1,018.55	$1,356.02	$200.04
1500	$87.65	$169.07	$358.85	$711.46	$1,064.07	$1,416.68	$203.55
1750	$96.40	$186.86	$396.71	$787.19	$1,177.67	$1,568.15	$212.32
2000	$105.21	$210.40	$434.58	$841.60	$1,262.39	$1,683.18	$221.09
2500	$128.74	$257.48	$514.96	$1,029.91	$1,544.87	$2,059.81	$238.78
3000	$152.28	$304.56	$609.12	$1,218.24	$1,827.34	$2,436.45	$256.14
3500	$175.82	$351.63	$703.28	$1,406.55	$2,109.83	$2,813.09	$273.67
4000	$202.25	$406.01	$862.72	$1,719.26	$2,575.84	$3,432.47	$435.95
5000	$281.03	$562.04	$1,124.08	$2,248.15	$3,372.22	$4,496.26	$471.23
6000	$295.68	$592.86	$1,188.82	$2,383.73	$3,584.72	$4,791.78	$503.15
7000	$351.64	$703.27	$1,406.56	$2,813.10	$4,219.65	$5,626.17	$541.10

APPENDIX D

Sewer Rate Schedules

Hauled Across the Board Increases Sewer Rate Schedules FY 2014-18

Monthly Rates, Hauled Sewer FY2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$11.24	$22.47	$44.50	$88.99	$133.48	$171.13	
150	$14.32	$28.63	$56.71	$113.42	$170.12	$218.11	
200	$15.37	$30.74	$60.90	$121.79	$182.70	$234.22	$65.95
250	$16.42	$32.83	$65.04	$130.08	$195.12	$250.16	$67.20
300	$17.48	$34.95	$69.23	$138.47	$207.70	$266.28	$68.45
350	$18.53	$37.07	$73.42	$146.85	$220.26	$282.39	$69.70
400	$19.59	$39.19	$77.62	$155.22	$232.84	$298.50	$70.95
450	$20.65	$41.30	$81.81	$163.60	$245.40	$314.61	$72.20
500	$21.70	$43.41	$85.99	$171.97	$257.96	$330.72	$73.45
550	$22.75	$45.51	$90.14	$180.27	$270.40	$346.67	$74.68
600	$23.81	$47.62	$94.33	$188.65	$282.97	$362.78	$75.94
650	$24.87	$49.74	$98.52	$197.03	$295.54	$378.89	$77.19
700	$25.92	$51.85	$102.70	$205.40	$308.10	$395.00	$78.43
750	$26.99	$53.96	$106.89	$213.78	$320.67	$411.12	$79.68
800	$28.04	$56.06	$111.04	$222.07	$333.10	$427.06	$80.93
850	$29.09	$58.17	$115.23	$230.45	$345.68	$443.17	$82.17
900	$30.15	$60.28	$119.41	$238.83	$358.24	$459.28	$83.42
1000	$32.26	$64.51	$127.80	$255.59	$383.38	$491.51	$85.92
1200	$36.48	$72.95	$144.51	$289.01	$433.51	$555.78	$90.91
1400	$40.70	$81.39	$161.22	$322.43	$483.65	$620.06	$95.90
1500	$42.81	$85.62	$169.60	$339.20	$508.79	$652.29	$98.40
1750	$48.09	$96.17	$190.50	$380.99	$571.49	$732.68	$104.63
2000	$53.36	$106.72	$211.40	$422.80	$634.19	$813.07	$110.88
2500	$63.91	$127.83	$253.21	$506.41	$759.61	$973.85	$123.35
3000	$74.47	$148.92	$295.01	$590.01	$885.01	$1,134.63	$135.83
3500	$85.02	$170.03	$336.81	$673.62	$1,010.42	$1,295.41	$147.40
4000	$106.72	$213.43	$422.80	$845.59	$1,268.38	$1,626.13	$220.85
5000	$127.83	$255.64	$506.42	$1,012.81	$1,519.21	$1,947.70	$245.80
6000	$148.93	$297.85	$590.02	$1,180.03	$1,770.03	$2,269.26	$270.75
7000	$170.04	$340.05	$673.63	$1,347.24	$2,020.84	$2,590.82	$294.80

Monthly Rates, Hauled Sewer FY2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$11.80	$23.59	$46.73	$93.44	$140.16	$179.69	
150	$15.04	$30.07	$59.55	$119.09	$178.63	$229.02	
200	$16.14	$32.28	$63.95	$127.88	$191.83	$245.93	$69.25
250	$17.24	$34.48	$68.29	$136.59	$204.88	$262.67	$70.56
300	$18.36	$36.70	$72.69	$145.39	$218.08	$279.59	$71.87
350	$19.46	$38.92	$77.10	$154.19	$231.27	$296.51	$73.19
400	$20.57	$41.15	$81.50	$162.98	$244.48	$313.43	$74.50
450	$21.69	$43.36	$85.90	$171.78	$257.67	$330.34	$75.81
500	$22.79	$45.58	$90.29	$180.57	$270.86	$347.26	$77.12
550	$23.89	$47.78	$94.64	$189.29	$283.92	$364.00	$78.41
600	$25.00	$50.00	$99.04	$198.08	$297.12	$380.92	$79.74
650	$26.12	$52.23	$103.45	$206.88	$310.31	$397.83	$81.05
700	$27.22	$54.44	$107.84	$215.67	$323.51	$414.75	$82.35
750	$28.33	$56.66	$112.24	$224.47	$336.71	$431.68	$83.66
800	$29.44	$58.86	$116.59	$233.17	$349.76	$448.41	$84.98
850	$30.54	$61.08	$120.99	$241.98	$362.96	$465.33	$86.28
900	$31.65	$63.29	$125.38	$250.77	$376.15	$482.24	$87.59
1000	$33.87	$67.74	$134.18	$268.37	$402.54	$516.09	$90.22
1200	$38.30	$76.60	$151.73	$303.46	$455.19	$583.57	$95.46
1400	$42.73	$85.45	$169.28	$338.55	$507.83	$651.06	$100.70
1500	$44.95	$89.90	$178.08	$356.16	$534.23	$684.90	$103.32
1750	$50.49	$100.98	$200.02	$400.04	$600.06	$769.31	$109.86
2000	$56.03	$112.06	$221.97	$443.94	$665.90	$853.72	$116.42
2500	$67.11	$134.22	$265.87	$531.73	$797.59	$1,022.54	$129.52
3000	$78.19	$156.37	$309.76	$619.51	$929.26	$1,191.36	$142.62
3500	$89.27	$178.53	$353.66	$707.30	$1,060.94	$1,360.18	$154.77
4000	$112.06	$224.11	$443.94	$887.87	$1,331.80	$1,707.44	$231.89
5000	$134.22	$268.43	$531.74	$1,063.46	$1,595.17	$2,045.09	$258.09
6000	$156.38	$312.75	$619.52	$1,239.03	$1,858.53	$2,382.72	$284.29
7000	$178.54	$357.06	$707.31	$1,414.60	$2,121.89	$2,720.36	$309.54

Monthly Rates, Hauled Sewer FY2016

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$12.27	$24.54	$48.60	$97.18	$145.76	$186.87	
150	$15.64	$31.27	$61.93	$123.86	$185.77	$238.18	
200	$16.79	$33.57	$66.51	$133.00	$199.50	$255.77	$72.02
250	$17.93	$35.85	$71.03	$142.05	$213.08	$273.17	$73.38
300	$19.09	$38.17	$75.60	$151.20	$226.81	$290.78	$74.75
350	$20.24	$40.47	$80.18	$160.36	$240.53	$308.37	$76.11
400	$21.40	$42.79	$84.76	$169.50	$254.26	$325.96	$77.48
450	$22.55	$45.10	$89.33	$178.65	$267.98	$343.55	$78.84
500	$23.70	$47.40	$93.90	$187.80	$281.69	$361.15	$80.21
550	$24.85	$49.69	$98.43	$196.86	$295.28	$378.56	$81.55
600	$26.00	$52.00	$103.01	$206.00	$309.01	$396.16	$82.93
650	$27.16	$54.31	$107.58	$215.15	$322.73	$413.75	$84.29
700	$28.31	$56.62	$112.15	$224.30	$336.45	$431.34	$85.65
750	$29.47	$58.92	$116.73	$233.45	$350.18	$448.94	$87.01
800	$30.61	$61.22	$121.26	$242.50	$363.75	$466.35	$88.38
850	$31.76	$63.52	$125.83	$251.66	$377.48	$483.94	$89.73
900	$32.92	$65.83	$130.40	$260.80	$391.20	$501.53	$91.09
1000	$35.22	$70.45	$139.55	$279.10	$418.65	$536.73	$93.82
1200	$39.83	$79.67	$157.80	$315.59	$473.40	$606.91	$99.27
1400	$44.44	$88.87	$176.05	$352.09	$528.15	$677.11	$104.72
1500	$46.75	$93.49	$185.21	$370.40	$555.60	$712.30	$107.45
1750	$52.51	$105.02	$208.02	$416.05	$624.07	$800.09	$114.26
2000	$58.27	$116.54	$230.85	$461.70	$692.54	$887.87	$121.08
2500	$69.79	$139.59	$276.50	$553.00	$829.49	$1,063.44	$134.70
3000	$81.32	$162.62	$322.15	$644.29	$966.43	$1,239.02	$148.33
3500	$92.84	$185.67	$367.80	$735.59	$1,103.38	$1,414.59	$160.96
4000	$116.54	$233.07	$461.70	$923.39	$1,385.08	$1,775.73	$241.17
5000	$139.59	$279.16	$553.01	$1,105.99	$1,658.98	$2,126.89	$268.41
6000	$162.63	$325.26	$644.31	$1,288.59	$1,932.87	$2,478.03	$295.66
7000	$185.68	$371.34	$735.60	$1,471.18	$2,206.76	$2,829.18	$321.92

Monthly Rates, Hauled Sewer FY2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$12.76	$25.52	$48.60	$97.18	$145.76	$186.87	
150	$16.27	$32.52	$61.93	$123.86	$185.77	$238.18	
200	$17.46	$34.92	$66.51	$133.00	$199.50	$255.77	$72.02
250	$18.65	$37.29	$71.03	$142.05	$213.08	$273.17	$73.38
300	$19.85	$39.70	$75.60	$151.20	$226.81	$290.78	$74.75
350	$21.05	$42.09	$80.18	$160.36	$240.53	$308.37	$76.11
400	$22.25	$44.50	$84.76	$169.50	$254.26	$325.96	$77.48
450	$23.46	$46.90	$89.33	$178.65	$267.98	$343.55	$78.84
500	$24.65	$49.30	$93.90	$187.80	$281.69	$361.15	$80.21
550	$25.84	$51.68	$98.43	$196.86	$295.28	$378.56	$81.55
600	$27.05	$54.08	$103.01	$206.00	$309.01	$396.16	$82.93
650	$28.25	$56.49	$107.58	$215.15	$322.73	$413.75	$84.29
700	$29.44	$58.88	$112.15	$224.30	$336.45	$431.34	$85.65
750	$30.65	$61.28	$116.73	$233.45	$350.18	$448.94	$87.01
800	$31.84	$63.67	$121.26	$242.50	$363.75	$466.35	$88.38
850	$33.03	$66.06	$125.83	$251.66	$377.48	$483.94	$89.73
900	$34.24	$68.46	$130.40	$260.80	$391.20	$501.53	$91.09
1000	$36.63	$73.26	$139.55	$279.10	$418.65	$536.73	$93.82
1200	$41.43	$82.85	$157.80	$315.59	$473.40	$606.91	$99.27
1400	$46.22	$92.43	$176.05	$352.09	$528.15	$677.11	$104.72
1500	$48.62	$97.23	$185.21	$370.40	$555.60	$712.30	$107.45
1750	$54.61	$109.22	$208.02	$416.05	$624.07	$800.09	$114.26
2000	$60.60	$121.20	$230.85	$461.70	$692.54	$887.87	$121.08
2500	$72.59	$145.17	$276.50	$553.00	$829.49	$1,063.44	$134.70
3000	$84.57	$169.13	$322.15	$644.29	$966.43	$1,239.02	$148.33
3500	$96.55	$193.10	$367.80	$735.59	$1,103.38	$1,414.59	$160.96
4000	$121.20	$242.39	$461.70	$923.39	$1,385.08	$1,775.73	$241.17
5000	$145.17	$290.33	$553.01	$1,105.99	$1,658.98	$2,126.89	$268.41
6000	$169.14	$338.27	$644.31	$1,288.59	$1,932.87	$2,478.03	$295.66
7000	$193.11	$386.19	$735.60	$1,471.18	$2,206.76	$2,829.18	$321.92

Monthly Rates, Hauled Sewer FY2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$13.27	$26.54	$50.54	$101.07	$151.60	$194.35	
150	$16.92	$33.82	$64.41	$128.81	$193.21	$247.70	
200	$18.16	$36.31	$69.17	$138.32	$207.49	$266.00	$74.90
250	$19.40	$38.78	$73.87	$147.73	$221.60	$284.10	$76.32
300	$20.65	$41.29	$78.63	$157.25	$235.88	$302.41	$77.74
350	$21.89	$43.78	$83.39	$166.77	$250.15	$320.70	$79.16
400	$23.14	$46.28	$88.15	$176.28	$264.43	$339.00	$80.58
450	$24.39	$48.78	$92.91	$185.80	$278.69	$357.30	$82.00
500	$25.63	$51.27	$97.65	$195.31	$292.96	$375.59	$83.42
550	$26.87	$53.75	$102.37	$204.73	$307.09	$393.71	$84.81
600	$28.13	$56.24	$107.13	$214.24	$321.37	$412.00	$86.24
650	$29.38	$58.75	$111.89	$223.76	$335.64	$430.30	$87.66
700	$30.62	$61.24	$116.63	$233.27	$349.90	$448.59	$89.07
750	$31.87	$63.73	$121.39	$242.79	$364.18	$466.90	$90.49
800	$33.11	$66.21	$126.11	$252.20	$378.30	$485.00	$91.91
850	$34.35	$68.71	$130.87	$261.72	$392.58	$503.30	$93.32
900	$35.61	$71.20	$135.61	$271.23	$406.84	$521.60	$94.74
1000	$38.10	$76.20	$145.13	$290.27	$435.39	$558.20	$97.58
1200	$43.08	$86.17	$164.11	$328.22	$492.33	$631.19	$103.24
1400	$48.07	$96.13	$183.10	$366.18	$549.27	$704.19	$108.91
1500	$50.56	$101.12	$192.61	$385.22	$577.82	$740.79	$111.75
1750	$56.80	$113.59	$216.34	$432.69	$649.03	$832.09	$118.83
2000	$63.03	$126.05	$240.08	$480.17	$720.24	$923.39	$125.92
2500	$75.49	$150.98	$287.56	$575.12	$862.67	$1,105.98	$140.09
3000	$87.95	$175.89	$335.03	$670.07	$1,005.09	$1,288.58	$154.26
3500	$100.42	$200.82	$382.51	$765.01	$1,147.52	$1,471.17	$167.40
4000	$126.05	$252.09	$480.17	$960.32	$1,440.48	$1,846.76	$250.81
5000	$150.98	$301.94	$575.13	$1,150.23	$1,725.34	$2,211.96	$279.15
6000	$175.90	$351.80	$670.08	$1,340.13	$2,010.19	$2,577.15	$307.49
7000	$200.83	$401.64	$765.03	$1,530.03	$2,295.03	$2,942.34	$334.80

Hauled Sewer Rate Cost of Service Rate Schedules FY 2014-18

COS Monthly Rates, Hauled Sewer FY2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$22.43	$39.94	$80.04	$155.21	$230.38	$293.79	
150	$23.38	$41.84	$84.11	$163.35	$242.59	$309.45	
200	$24.32	$43.73	$88.18	$171.49	$254.80	$325.11	$63.11
250	$25.27	$45.63	$92.25	$179.63	$267.01	$340.76	$64.01
300	$26.22	$47.53	$96.32	$187.77	$279.23	$356.42	$64.91
350	$27.17	$49.42	$100.39	$195.91	$291.44	$372.08	$65.82
400	$28.12	$51.32	$104.46	$204.06	$303.65	$387.74	$66.72
450	$29.07	$53.22	$108.53	$212.20	$315.86	$403.39	$67.62
500	$30.01	$55.12	$112.60	$220.34	$328.07	$419.05	$68.53
550	$30.96	$57.01	$116.67	$228.48	$340.29	$434.71	$69.43
600	$31.91	$58.91	$120.74	$236.62	$352.50	$450.36	$70.33
650	$32.86	$60.81	$124.81	$244.76	$364.71	$466.02	$71.24
700	$33.81	$62.70	$128.89	$252.90	$376.92	$481.68	$72.14
750	$34.76	$64.60	$132.96	$261.05	$389.14	$497.33	$73.04
800	$35.70	$66.50	$137.03	$269.19	$401.35	$512.99	$73.95
850	$36.65	$68.39	$141.10	$277.33	$413.56	$528.65	$74.85
900	$37.60	$70.29	$145.17	$285.47	$425.77	$544.30	$75.75
1000	$39.50	$74.08	$153.31	$301.75	$450.20	$575.62	$77.56
1200	$43.29	$81.67	$169.59	$334.32	$499.05	$638.25	$81.17
1400	$47.09	$89.26	$185.88	$366.89	$547.90	$700.87	$84.78
1500	$48.98	$93.05	$194.02	$383.17	$572.32	$732.19	$86.59
1750	$53.73	$102.54	$214.37	$423.88	$633.38	$810.47	$91.11
2000	$58.47	$112.02	$234.73	$464.59	$694.45	$888.76	$95.62
2500	$67.95	$130.99	$275.43	$546.00	$816.57	$1,045.32	$104.66
3000	$77.44	$149.96	$316.14	$627.42	$938.69	$1,201.89	$113.69
3500	$86.92	$168.93	$356.85	$708.83	$1,060.82	$1,358.46	$122.72
4000	$112.02	$219.13	$464.59	$924.31	$1,384.03	$1,772.83	$191.25
5000	$130.99	$257.07	$546.00	$1,087.14	$1,628.27	$2,085.97	$209.31
6000	$149.96	$295.01	$627.42	$1,249.97	$1,872.52	$2,399.11	$227.38
7000	$168.93	$332.94	$708.83	$1,412.80	$2,116.77	$2,712.24	$245.44

COS Monthly Rates, Hauled Sewer FY2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$23.55	$41.94	$84.04	$162.97	$241.89	$308.48	$0.00
150	$24.54	$43.93	$88.31	$171.51	$254.72	$324.92	$0.00
200	$25.54	$45.92	$92.59	$180.06	$267.54	$341.36	$66.26
250	$26.54	$47.91	$96.86	$188.61	$280.36	$357.80	$67.21
300	$27.53	$49.90	$101.14	$197.16	$293.19	$374.24	$68.16
350	$28.53	$51.90	$105.41	$205.71	$306.01	$390.68	$69.11
400	$29.52	$53.89	$109.68	$214.26	$318.83	$407.12	$70.05
450	$30.52	$55.88	$113.96	$222.81	$331.66	$423.56	$71.00
500	$31.51	$57.87	$118.23	$231.36	$344.48	$440.00	$71.95
550	$32.51	$59.86	$122.51	$239.90	$357.30	$456.44	$72.90
600	$33.51	$61.85	$126.78	$248.45	$370.12	$472.88	$73.85
650	$34.50	$63.85	$131.06	$257.00	$382.95	$489.32	$74.80
700	$35.50	$65.84	$135.33	$265.55	$395.77	$505.76	$75.75
750	$36.49	$67.83	$139.60	$274.10	$408.59	$522.20	$76.69
800	$37.49	$69.82	$143.88	$282.65	$421.42	$538.64	$77.64
850	$38.49	$71.81	$148.15	$291.20	$434.24	$555.08	$78.59
900	$39.48	$73.81	$152.43	$299.74	$447.06	$571.52	$79.54
1000	$41.47	$77.79	$160.98	$316.84	$472.71	$604.40	$81.44
1200	$45.46	$85.76	$178.07	$351.04	$524.00	$670.16	$85.23
1400	$49.44	$93.72	$195.17	$385.23	$575.29	$735.92	$89.02
1500	$51.43	$97.71	$203.72	$402.33	$600.94	$768.80	$90.92
1750	$56.41	$107.66	$225.09	$445.07	$665.05	$850.99	$95.66
2000	$61.39	$117.62	$246.46	$487.82	$729.17	$933.19	$100.40
2500	$71.35	$137.54	$289.21	$573.30	$857.40	$1,097.59	$109.89
3000	$81.31	$157.46	$331.95	$658.79	$985.63	$1,261.99	$119.37
3500	$91.27	$177.38	$374.69	$744.27	$1,113.86	$1,426.38	$128.86
4000	$117.62	$230.09	$487.82	$970.52	$1,453.23	$1,861.47	$200.81
5000	$137.54	$269.92	$573.30	$1,141.49	$1,709.69	$2,190.27	$219.78
6000	$157.46	$309.76	$658.79	$1,312.47	$1,966.15	$2,519.06	$238.75
7000	$177.38	$349.59	$744.27	$1,483.44	$2,222.61	$2,847.86	$257.72

COS Monthly Rates, Hauled Sewer FY2016

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$24.49	$43.61	$87.40	$169.48	$251.57	$320.82	$0.00
150	$25.53	$45.69	$91.84	$178.38	$264.91	$337.92	$0.00
200	$26.56	$47.76	$96.29	$187.27	$278.24	$355.02	$68.91
250	$27.60	$49.83	$100.74	$196.16	$291.58	$372.11	$69.90
300	$28.63	$51.90	$105.18	$205.05	$304.91	$389.21	$70.88
350	$29.67	$53.97	$109.63	$213.94	$318.25	$406.31	$71.87
400	$30.70	$56.04	$114.07	$222.83	$331.59	$423.41	$72.86
450	$31.74	$58.11	$118.52	$231.72	$344.92	$440.50	$73.84
500	$32.78	$60.19	$122.96	$240.61	$358.26	$457.60	$74.83
550	$33.81	$62.26	$127.41	$249.50	$371.59	$474.70	$75.82
600	$34.85	$64.33	$131.85	$258.39	$384.93	$491.80	$76.80
650	$35.88	$66.40	$136.30	$267.28	$398.27	$508.89	$77.79
700	$36.92	$68.47	$140.74	$276.17	$411.60	$525.99	$78.78
750	$37.95	$70.54	$145.19	$285.06	$424.94	$543.09	$79.76
800	$38.99	$72.61	$149.63	$293.95	$438.27	$560.19	$80.75
850	$40.03	$74.69	$154.08	$302.84	$451.61	$577.28	$81.73
900	$41.06	$76.76	$158.52	$311.73	$464.94	$594.38	$82.72
1000	$43.13	$80.90	$167.41	$329.52	$491.62	$628.57	$84.69
1200	$47.28	$89.19	$185.20	$365.08	$544.96	$696.96	$88.64
1400	$51.42	$97.47	$202.98	$400.64	$598.30	$765.35	$92.58
1500	$53.49	$101.61	$211.87	$418.42	$624.98	$799.55	$94.56
1750	$58.67	$111.97	$234.09	$462.87	$691.66	$885.03	$99.49
2000	$63.85	$122.33	$256.32	$507.33	$758.33	$970.52	$104.42
2500	$74.20	$143.04	$300.77	$596.23	$891.69	$1,141.49	$114.29
3000	$84.56	$163.76	$345.23	$685.14	$1,025.05	$1,312.47	$124.15
3500	$94.92	$184.47	$389.68	$774.05	$1,158.41	$1,483.44	$134.01
4000	$122.33	$239.29	$507.33	$1,009.34	$1,511.36	$1,935.93	$208.84
5000	$143.04	$280.72	$596.23	$1,187.15	$1,778.07	$2,277.88	$228.57
6000	$163.76	$322.15	$685.14	$1,364.97	$2,044.79	$2,619.82	$248.30
7000	$184.47	$363.58	$774.05	$1,542.78	$2,311.51	$2,961.77	$268.03

COS Monthly Rates, Hauled Sewer FY2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$25.47	$45.36	$90.90	$176.26	$261.63	$333.66	$0.00
150	$26.55	$47.51	$95.52	$185.51	$275.50	$351.44	$0.00
200	$27.62	$49.67	$100.14	$194.76	$289.37	$369.22	$71.67
250	$28.70	$51.82	$104.76	$204.00	$303.24	$387.00	$72.69
300	$29.78	$53.98	$109.39	$213.25	$317.11	$404.78	$73.72
350	$30.86	$56.13	$114.01	$222.50	$330.98	$422.56	$74.75
400	$31.93	$58.29	$118.63	$231.74	$344.85	$440.34	$75.77
450	$33.01	$60.44	$123.26	$240.99	$358.72	$458.12	$76.80
500	$34.09	$62.59	$127.88	$250.23	$372.59	$475.91	$77.82
550	$35.16	$64.75	$132.50	$259.48	$386.46	$493.69	$78.85
600	$36.24	$66.90	$137.13	$268.73	$400.33	$511.47	$79.87
650	$37.32	$69.06	$141.75	$277.97	$414.20	$529.25	$80.90
700	$38.40	$71.21	$146.37	$287.22	$428.07	$547.03	$81.93
750	$39.47	$73.36	$151.00	$296.47	$441.93	$564.81	$82.95
800	$40.55	$75.52	$155.62	$305.71	$455.80	$582.59	$83.98
850	$41.63	$77.67	$160.24	$314.96	$469.67	$600.37	$85.00
900	$42.70	$79.83	$164.87	$324.20	$483.54	$618.16	$86.03
1000	$44.86	$84.14	$174.11	$342.70	$511.28	$653.72	$88.08
1200	$49.17	$92.75	$192.60	$379.68	$566.76	$724.84	$92.18
1400	$53.47	$101.37	$211.10	$416.67	$622.24	$795.97	$96.29
1500	$55.63	$105.68	$220.34	$435.16	$649.97	$831.53	$98.34
1750	$61.01	$116.45	$243.46	$481.39	$719.32	$920.44	$103.47
2000	$66.40	$127.22	$266.57	$527.62	$788.67	$1,009.34	$108.60
2500	$77.17	$148.76	$312.80	$620.08	$927.36	$1,187.15	$118.86
3000	$87.94	$170.31	$359.04	$712.55	$1,066.05	$1,364.97	$129.11
3500	$98.71	$191.85	$405.27	$805.01	$1,204.75	$1,542.78	$139.37
4000	$127.22	$248.86	$527.62	$1,049.72	$1,571.81	$2,013.37	$217.20
5000	$148.76	$291.95	$620.08	$1,234.64	$1,849.20	$2,368.99	$237.71
6000	$170.31	$335.03	$712.55	$1,419.56	$2,126.58	$2,724.62	$258.23
7000	$191.85	$378.12	$805.01	$1,604.49	$2,403.97	$3,080.24	$278.75

COS Monthly Rates, Hauled Sewer FY2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$26.49	$47.17	$94.53	$183.31	$272.10	$347.00	$0.00
150	$27.61	$49.41	$99.34	$192.93	$286.52	$365.49	$0.00
200	$28.73	$51.65	$104.15	$202.55	$300.95	$383.99	$74.53
250	$29.85	$53.90	$108.96	$212.16	$315.37	$402.48	$75.60
300	$30.97	$56.14	$113.76	$221.78	$329.79	$420.97	$76.67
350	$32.09	$58.38	$118.57	$231.40	$344.22	$439.46	$77.74
400	$33.21	$60.62	$123.38	$241.01	$358.64	$457.96	$78.80
450	$34.33	$62.86	$128.19	$250.63	$373.07	$476.45	$79.87
500	$35.45	$65.10	$133.00	$260.24	$387.49	$494.94	$80.94
550	$36.57	$67.34	$137.80	$269.86	$401.92	$513.43	$82.00
600	$37.69	$69.58	$142.61	$279.48	$416.34	$531.93	$83.07
650	$38.81	$71.82	$147.42	$289.09	$430.76	$550.42	$84.14
700	$39.93	$74.06	$152.23	$298.71	$445.19	$568.91	$85.20
750	$41.05	$76.30	$157.04	$308.32	$459.61	$587.40	$86.27
800	$42.17	$78.54	$161.84	$317.94	$474.04	$605.90	$87.34
850	$43.29	$80.78	$166.65	$327.56	$488.46	$624.39	$88.40
900	$44.41	$83.02	$171.46	$337.17	$502.88	$642.88	$89.47
1000	$46.65	$87.50	$181.08	$356.40	$531.73	$679.87	$91.60
1200	$51.13	$96.46	$200.31	$394.87	$589.43	$753.84	$95.87
1400	$55.61	$105.43	$219.54	$433.33	$647.13	$827.81	$100.14
1500	$57.85	$109.91	$229.16	$452.56	$675.97	$864.79	$102.27
1750	$63.46	$121.11	$253.20	$500.65	$748.09	$957.25	$107.61
2000	$69.06	$132.31	$277.24	$548.73	$820.21	$1,049.72	$112.94
2500	$80.26	$154.71	$325.32	$644.89	$964.46	$1,234.64	$123.61
3000	$91.46	$177.12	$373.40	$741.05	$1,108.70	$1,419.56	$134.28
3500	$102.66	$199.52	$421.48	$837.21	$1,252.94	$1,604.49	$144.95
4000	$132.31	$258.82	$548.73	$1,091.70	$1,634.68	$2,093.90	$225.88
5000	$154.71	$303.63	$644.89	$1,284.03	$1,923.16	$2,463.75	$247.22
6000	$177.12	$348.44	$741.05	$1,476.35	$2,211.65	$2,833.60	$268.56
7000	$199.52	$393.24	$837.21	$1,668.67	$2,500.13	$3,203.45	$289.90

Hauled Sewer Rates: Phased Cost of Service Rate Schedules FY 2014-2018

Phased COS, FY 2014

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$13.29	$25.82	$51.66	$102.51	$153.36	$202.22	
150	$16.11	$31.33	$62.73	$124.55	$186.35	$245.74	
200	$17.16	$33.42	$66.97	$132.99	$199.02	$262.45	$67.34
250	$18.20	$35.48	$71.15	$141.35	$211.55	$278.99	$68.53
300	$19.25	$37.57	$75.37	$149.78	$224.18	$295.67	$69.73
350	$20.30	$39.64	$79.59	$158.20	$236.80	$312.33	$70.93
400	$21.34	$41.72	$83.80	$166.60	$249.41	$328.97	$72.13
450	$22.39	$43.79	$88.01	$175.01	$262.01	$345.60	$73.32
500	$23.42	$45.86	$92.20	$183.40	$274.60	$362.22	$74.52
550	$24.46	$47.92	$96.37	$191.73	$287.08	$378.70	$75.70
600	$25.50	$49.98	$100.57	$200.12	$299.67	$395.31	$76.91
650	$26.54	$52.05	$104.77	$208.51	$312.24	$411.91	$78.10
700	$27.57	$54.11	$108.96	$216.88	$324.80	$428.50	$79.29
750	$28.61	$56.17	$113.15	$225.27	$337.37	$445.09	$80.49
800	$29.64	$58.22	$117.31	$233.57	$349.83	$461.54	$81.68
850	$30.67	$60.28	$121.51	$241.95	$362.39	$478.12	$82.87
900	$31.71	$62.34	$125.69	$250.32	$374.94	$494.69	$84.06
1000	$33.77	$66.46	$134.07	$267.06	$400.04	$527.83	$86.46
1200	$37.89	$74.68	$150.77	$300.44	$450.12	$593.93	$91.23
1400	$42.01	$82.89	$167.46	$333.81	$500.17	$660.01	$96.00
1500	$44.06	$87.00	$175.82	$350.53	$525.23	$693.11	$98.40
1750	$49.20	$97.26	$196.67	$392.23	$587.78	$775.68	$104.63
2000	$54.33	$107.51	$217.53	$433.92	$650.30	$858.23	$110.88
2500	$64.59	$128.00	$259.21	$517.26	$775.32	$1,023.28	$123.35
3000	$74.84	$148.47	$300.87	$600.58	$900.29	$1,188.29	$135.83
3500	$85.08	$168.94	$342.53	$683.89	$1,025.24	$1,353.26	$147.40
4000	$107.51	$213.82	$433.92	$866.69	$1,299.46	$1,715.33	$220.85
5000	$128.00	$254.78	$517.27	$1,033.37	$1,549.47	$2,045.42	$245.80
6000	$148.48	$295.72	$600.59	$1,200.00	$1,799.41	$2,375.42	$270.75
7000	$168.95	$336.65	$683.90	$1,366.60	$2,049.31	$2,705.35	$294.80

Phased COS, FY 2015

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$16.51	$31.16	$62.37	$122.81	$183.25	$238.95	
150	$19.03	$36.00	$72.17	$142.24	$212.29	$276.86	
200	$20.11	$38.14	$76.58	$151.02	$225.46	$294.07	$68.75
250	$21.19	$40.26	$80.94	$159.74	$238.52	$311.15	$69.89
300	$22.27	$42.39	$85.33	$168.50	$251.65	$328.31	$71.04
350	$23.34	$44.51	$89.72	$177.25	$264.76	$345.44	$72.18
400	$24.41	$46.64	$94.09	$185.98	$277.86	$362.55	$73.32
450	$25.48	$48.76	$98.47	$194.70	$290.94	$379.65	$74.46
500	$26.54	$50.87	$102.83	$203.42	$304.00	$396.73	$75.60
550	$27.60	$52.97	$107.16	$212.08	$316.98	$413.70	$76.74
600	$28.67	$55.08	$111.52	$220.78	$330.04	$430.76	$77.88
650	$29.73	$57.19	$115.88	$229.48	$343.08	$447.80	$79.02
700	$30.79	$59.30	$120.23	$238.17	$356.11	$464.84	$80.16
750	$31.85	$61.40	$124.58	$246.86	$369.14	$481.88	$81.30
800	$32.90	$63.50	$128.90	$255.50	$382.09	$498.80	$82.44
850	$33.96	$65.60	$133.25	$264.18	$395.11	$515.82	$83.57
900	$35.01	$67.70	$137.59	$272.86	$408.12	$532.83	$84.71
1000	$37.12	$71.90	$146.27	$290.21	$434.14	$566.84	$86.99
1200	$41.33	$80.28	$163.59	$324.82	$486.05	$634.71	$91.55
1400	$45.53	$88.64	$180.90	$359.41	$537.93	$702.53	$96.09
1500	$47.62	$92.83	$189.56	$376.73	$563.90	$736.48	$98.40
1750	$52.86	$103.27	$211.17	$419.94	$628.71	$821.21	$104.63
2000	$58.09	$113.71	$232.78	$463.14	$693.49	$905.91	$110.88
2500	$68.54	$134.58	$275.97	$549.49	$823.00	$1,075.23	$123.35
3000	$78.97	$155.42	$319.13	$635.80	$952.46	$1,244.48	$135.83
3500	$89.40	$176.26	$362.28	$722.09	$1,081.89	$1,413.69	$147.40
4000	$113.71	$224.91	$463.14	$923.85	$1,384.55	$1,809.42	$220.85
5000	$134.58	$266.61	$549.49	$1,096.52	$1,643.55	$2,148.04	$245.80
6000	$155.42	$308.28	$635.81	$1,269.13	$1,902.46	$2,486.54	$270.75
7000	$176.26	$349.94	$722.09	$1,441.70	$2,161.30	$2,824.95	$294.80

Phased COS, FY 2016

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$20.51	$37.59	$75.29	$147.13	$218.96	$282.36	
150	$22.48	$41.36	$83.03	$162.44	$241.84	$311.93	
200	$23.57	$43.52	$87.57	$171.50	$255.43	$329.51	$70.19
250	$24.66	$45.67	$92.09	$180.52	$268.94	$347.01	$71.28
300	$25.75	$47.83	$96.62	$189.56	$282.49	$364.54	$72.37
350	$26.83	$49.99	$101.14	$198.59	$296.02	$382.06	$73.45
400	$27.92	$52.14	$105.65	$207.60	$309.55	$399.56	$74.54
450	$29.00	$54.28	$110.17	$216.61	$323.05	$417.04	$75.62
500	$30.08	$56.43	$114.67	$225.61	$336.55	$434.52	$76.71
550	$31.16	$58.57	$119.16	$234.59	$350.00	$451.93	$77.79
600	$32.23	$60.70	$123.66	$243.58	$363.49	$469.38	$78.87
650	$33.31	$62.85	$128.16	$252.57	$376.96	$486.83	$79.96
700	$34.38	$64.98	$132.66	$261.55	$390.43	$504.26	$81.04
750	$35.46	$67.12	$137.15	$270.53	$403.90	$521.70	$82.12
800	$36.53	$69.25	$141.63	$279.48	$417.32	$539.07	$83.21
850	$37.60	$71.38	$146.12	$288.45	$430.78	$556.49	$84.29
900	$38.67	$73.51	$150.61	$297.42	$444.23	$573.91	$85.37
1000	$40.81	$77.78	$159.58	$315.36	$471.13	$608.73	$87.54
1200	$45.08	$86.29	$177.51	$351.18	$524.86	$678.28	$91.86
1400	$49.34	$94.79	$195.41	$386.98	$578.55	$747.79	$96.19
1500	$51.47	$99.05	$204.37	$404.89	$605.41	$782.56	$98.40
1750	$56.79	$109.66	$226.74	$449.62	$672.49	$869.41	$104.63
2000	$62.11	$120.28	$249.10	$494.33	$739.55	$956.23	$110.88
2500	$72.73	$141.49	$293.81	$583.72	$873.63	$1,129.80	$123.35
3000	$83.34	$162.69	$338.50	$673.08	$1,007.66	$1,303.33	$135.83
3500	$93.94	$183.89	$383.17	$762.42	$1,141.67	$1,476.83	$147.40
4000	$120.28	$236.59	$494.33	$984.77	$1,475.21	$1,908.67	$220.85
5000	$141.49	$278.99	$583.72	$1,163.53	$1,743.35	$2,255.81	$245.80
6000	$162.69	$321.38	$673.08	$1,342.24	$2,011.40	$2,602.86	$270.75
7000	$183.89	$363.76	$762.42	$1,520.92	$2,279.41	$2,949.84	$294.80

Phased COS, FY 2017

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$25.47	$45.36	$90.90	$176.26	$261.63	$333.66	
150	$26.55	$47.51	$95.52	$185.51	$275.50	$351.44	
200	$27.62	$49.67	$100.14	$194.76	$289.37	$369.22	$71.67
250	$28.70	$51.82	$104.76	$204.00	$303.24	$387.00	$72.69
300	$29.78	$53.98	$109.39	$213.25	$317.11	$404.78	$73.72
350	$30.86	$56.13	$114.01	$222.50	$330.98	$422.56	$74.75
400	$31.93	$58.29	$118.63	$231.74	$344.85	$440.34	$75.77
450	$33.01	$60.44	$123.26	$240.99	$358.72	$458.12	$76.80
500	$34.09	$62.59	$127.88	$250.23	$372.59	$475.91	$77.82
550	$35.16	$64.75	$132.50	$259.48	$386.46	$493.69	$78.85
600	$36.24	$66.90	$137.13	$268.73	$400.33	$511.47	$79.87
650	$37.32	$69.06	$141.75	$277.97	$414.20	$529.25	$80.90
700	$38.40	$71.21	$146.37	$287.22	$428.07	$547.03	$81.93
750	$39.47	$73.36	$151.00	$296.47	$441.93	$564.81	$82.95
800	$40.55	$75.52	$155.62	$305.71	$455.80	$582.59	$83.98
850	$41.63	$77.67	$160.24	$314.96	$469.67	$600.37	$85.00
900	$42.70	$79.83	$164.87	$324.20	$483.54	$618.16	$86.03
1000	$44.86	$84.14	$174.11	$342.70	$511.28	$653.72	$88.08
1200	$49.17	$92.75	$192.60	$379.68	$566.76	$724.84	$92.18
1400	$53.47	$101.37	$211.10	$416.67	$622.24	$795.97	$96.29
1500	$55.63	$105.68	$220.34	$435.16	$649.97	$831.53	$98.40
1750	$61.01	$116.45	$243.46	$481.39	$719.32	$920.44	$104.63
2000	$66.40	$127.22	$266.57	$527.62	$788.67	$1,009.34	$110.88
2500	$77.17	$148.76	$312.80	$620.08	$927.36	$1,187.15	$123.35
3000	$87.94	$170.31	$359.04	$712.55	$1,066.05	$1,364.97	$135.83
3500	$98.71	$191.85	$405.27	$805.01	$1,204.75	$1,542.78	$147.40
4000	$127.22	$248.86	$527.62	$1,049.72	$1,571.81	$2,013.37	$220.85
5000	$148.76	$291.95	$620.08	$1,234.64	$1,849.20	$2,368.99	$245.80
6000	$170.31	$335.03	$712.55	$1,419.56	$2,126.58	$2,724.62	$270.75
7000	$191.85	$378.12	$805.01	$1,604.49	$2,403.97	$3,080.24	$294.80

Phased COS, FY 2018

Capacity	1 time/month	2 times/month	1 time/week	2 times/week	3 times/week	4 times/week	Extra Haul
100	$26.49	$47.17	$94.53	$183.31	$272.10	$347.00	
150	$27.61	$49.41	$99.34	$192.93	$286.52	$365.49	
200	$28.73	$51.65	$104.15	$202.55	$300.95	$383.99	$74.53
250	$29.85	$53.90	$108.96	$212.16	$315.37	$402.48	$75.60
300	$30.97	$56.14	$113.76	$221.78	$329.79	$420.97	$76.67
350	$32.09	$58.38	$118.57	$231.40	$344.22	$439.46	$77.74
400	$33.21	$60.62	$123.38	$241.01	$358.64	$457.96	$78.80
450	$34.33	$62.86	$128.19	$250.63	$373.07	$476.45	$79.87
500	$35.45	$65.10	$133.00	$260.24	$387.49	$494.94	$80.94
550	$36.57	$67.34	$137.80	$269.86	$401.92	$513.43	$82.00
600	$37.69	$69.58	$142.61	$279.48	$416.34	$531.93	$83.07
650	$38.81	$71.82	$147.42	$289.09	$430.76	$550.42	$84.14
700	$39.93	$74.06	$152.23	$298.71	$445.19	$568.91	$85.20
750	$41.05	$76.30	$157.04	$308.32	$459.61	$587.40	$86.27
800	$42.17	$78.54	$161.84	$317.94	$474.04	$605.90	$87.34
850	$43.29	$80.78	$166.65	$327.56	$488.46	$624.39	$88.40
900	$44.41	$83.02	$171.46	$337.17	$502.88	$642.88	$89.47
1000	$46.65	$87.50	$181.08	$356.40	$531.73	$679.87	$91.60
1200	$51.13	$96.46	$200.31	$394.87	$589.43	$753.84	$95.87
1400	$55.61	$105.43	$219.54	$433.33	$647.13	$827.81	$100.14
1500	$57.85	$109.91	$229.16	$452.56	$675.97	$864.79	$102.34
1750	$63.46	$121.11	$253.20	$500.65	$748.09	$957.25	$108.82
2000	$69.06	$132.31	$277.24	$548.73	$820.21	$1,049.72	$115.32
2500	$80.26	$154.71	$325.32	$644.89	$964.46	$1,234.64	$128.28
3000	$91.46	$177.12	$373.40	$741.05	$1,108.70	$1,419.56	$141.26
3500	$102.66	$199.52	$421.48	$837.21	$1,252.94	$1,604.49	$153.30
4000	$132.31	$258.82	$548.73	$1,091.70	$1,634.68	$2,093.90	$229.68
5000	$154.71	$303.63	$644.89	$1,284.03	$1,923.16	$2,463.75	$255.63
6000	$177.12	$348.44	$741.05	$1,476.35	$2,211.65	$2,833.60	$281.58
7000	$199.52	$393.24	$837.21	$1,668.67	$2,500.13	$3,203.45	$306.59

New Business

Introduced by: Mayor Klejka
Introduction Date: November 26, 2013
Action:
Vote:

CITY OF BETHEL, ALASKA

Resolution #13-19

A RESOLUTION BY THE BETHEL CITY COUNCIL AMENDING REGULATIONS TO EFFECTUATE A COMPREHENSIVE SYSTEM FOR THE CREATION, ACQUISITION, PRESERVATION AND RETENTION OF CITY INFORMAITION CONTAINED IN ANY RECORD MEDIUM

WHEREAS, the city clerk shall serve as the city records manager and shall have the primary responsibility for the development, maintenance and operation of the City's records management system;

WHEREAS, the city council shall adopt by resolution a records retention schedule and any changes to that retention schedule setting forth time schedules for the retention of particular series of records;

WHEREAS, each department shall establish and maintain a file system in the most organized and efficient manner possible and in compliance with any records management regulars approve by city council;

WHEREAS, the State of Alaska, through Title 29 and the State of Alaska Local Government General Records Retention Schedule provide authority and guidelines for city's retention;

NOW, THEREFORE, BE IT RESOLVED that the Bethel City Council formally adopts the required retention schedule and approves its immediate use.

ENACTED THIS 26th DAY OF NOVEMBER 2013, BY A VOTE OF _ IN FAVOR AND _ OPPOSED.

ATTEST:

_____
Joseph Klejka, Mayor

_____
Lori Strickler, City Clerk

Department General Administration-ALL		Schedule No. 1						Page 1 of 2
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
1.1	**General Correspondence** Original incoming and copes of outgoing letters and memoranda related to the general administration and operation of the City.	3Y	*	-	-	3Y	General	*Maintain in original media
1.2	**Policies & Procedures** Routine agency issued policies, procedures, directives, decision, rules, organizational charts, and manuals that address internal functions and operating procedures.	C+3Y	E	-	-	C+3Y	General	
1.3	**Reports**							
1.3.1	**Annual, Audit**	P	PP	-	-	P	Finance	
1.3.2	**All Others** All Others includes monthly, statistical, performance, safety, monitoring etc.	3Y	E	-	-	3Y	General	
1.4	**Employee Leave Requests**	3Y	PP	-	-	3Y	General	
1.5	**Administrative Studies/Special Projects** Includes final reports and backup data regarding major administrative studies and special management projects.	3Y	PP	P	PP	P	General	
1.6	**Accounts Payable Submission** Local copies of documents submitted for payments i.e. purchase orders, limited purchase orders check requests.	1Y	PP	-	-	1Y	General	
1.7	**Memorandum of Agreements/Understanding** Agreements between City and other entities.	T+2Y	PP	3Y	E	T+5Y	City Clerk	
1.8	**Committee or Commission** Copies of minutes, packets, agendas, public hearings etc.	3Y	E	-	-	3Y	General	
1.9	**Fixed Assets** Fixed assets, inventory, disposition forms, tags, etc.	1Y		-	-	1Y	General	

1.10	**Grant** Award letters and signed applications.	3Y	PP	-	-	3Y	General	
1.11	**Working Grant administration files.** Working files including copies of application, award letters, reports, etc.	*+6Y		-		*+6Y	General	*= Closing of the grant.
1.12	**Hazard Communication & Material Safety Data Sheets** Lists of hazardous chemicals present in the workplace and copies of material safety data sheets received with incoming shipments of chemicals and posted in the workplace.	2Y	PP	3Y	PP	5Y	General	Record copy retained by receiving department. Authority: 20 CFR 1910.1200;
1.13	**Legal Opinions** Opinions from city attorney	P	PP	-	-	P	Legal	
1.14	**Equipment Records** Warranty information, instruction/operating manuals, repair/maintenance history.	*	*	-	-	*	General	*=Retain for life of equipment in the original form.
1.15	**Property Control Files** Agency copies of controlled property management reports, property tag register, excess property reports, property transfer documents and related correspondence to include public auction reports.	5Y	E	-	-	5Y	General	
1.16	**Copies of memorandum of Understandings/Agreements/Contracts Leases** Agreements between the City and other entities.	T+2Y	E	3Y	E	T+ 5Y	City Clerk	
1.17	**Working Grant Administration Files** Working Files includes copes of application, award letters, and reports.	T	PP	-	-	T	General	*Upon closing of the grant, transfer the files to the finance director's office.*

Department Administration - Human Resources		Schedule No. 2						Page 1 of 3
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office	**Storage**			**Total**		
2.1	**Job Descriptions** Descriptions of specific duties for each position.	C+1Y	E	-	-	C+1Y	Admin.	
2.2	**Job Classifications** Minimum qualifications required for each job classification or position.	C+1Y	E	-	-	C+1Y	Admin.	29 CFR 1627.3 (b)(2)
2.3	**Individual Personnel Files** Original applications, employment history, Personnel Action Request, policy sign-off sheets, performance evaluations-commendations or reprimands, W-4, insurance and benefits backup, change of address and updated information forms.	T*+2Y	PP	48Y	PP	T*+50Y	Admin.	*=Unless Litigated. 29 CFR 1602.14
2.4	**Employee Medical Records** On-the-job accident or illness/medical reports, lost time documentation, records used to monitor exposure, correspondence, etc.	T+2Y	PP	28Y	PP	T+30Y	Admin.	29 CFR 1602.14, 29 CFR 825.500, 29 CFR 382.401
2.5	**Recruitment, Selection and Appointment Records** Job applications, transcripts, recruitment notices, examinations, test answers sheets.	*+2Y	PP	*+2Y	PP	*+2Y	Admin.	*=Date of hire, unless Litigated 2 AAC 07.113 & 6 AAC 30.840
2.6	**Background Checks.** Background check form from the State of Alaska for employees who are required to work with children.	T+2Y	PP	-	-	T+2Y	Admin.	
2.7	**Applicant Background Investigations:**							
2.7.1	Applicants employed	T+4Y	PP	-	-	T+4Y	Admin.	
2.7.2	Applicant not employed	1Y	PP	-	-	1Y	Admin.	
2.8	**Job Applications (Unsolicited)**	1Y*	PP	1Y*	PP	1Y*	Admin.	*=Unless Litigated
2.9	**Drug/Alcohol Testing.** Pre-employment drug testing. Work-safe results of pre-	5Y*	PP	-	PP	5Y*		*=Unless Litigated

	employment drug testing for all new CDL drivers. Post accident drug and alcohol testing for CDL driver and City employees. Random drug & alcohol testing.							
	Competed Drug Test Waivers	T+1Y	PP	-	-	T+1Y	Admin	
2.10	**Organization Charts**	C	E	C	E	C	Admin.	
2.11	**Salary Schedules**	C	E	C	E	C	Admin.	
2.12	**Master Examination Files** Samples of each tester examination used in the selection and rating process of prospective employees, to include answer keys.	C	O	-	-	C	Admin	
2.13	**Immigration Reform & Control Act** (1986) I-9 Forms Employment Eligibility Verification forms retained by the Employer. All employees, citizens and noncitizens hired after November 6, 1986 complete Section 1; Employers complete Section 2.	*+3Y Or T+1Y**	PP	-	-	*+3Y Or T+1Y**	Admin.	*= Date of hire. **Retain Records for the longer period.
2.14	**Alaska Human Rights Act Records** Records of the age, race, and sex of all applicants for employment and all employees.	2Y	PP	-	-	2Y	Admin.	AS 18.18
2.15	**Grievance Case Files** Files by employees against departments. Consists of forms, investigative notes, reports, correspondence and related backup.	*+1Y	PP	4Y	PP	*=5Y	Admin.	*=Resolution and execution of any stipulations. Relates to "For -Cause" employees rather than "At Will" employees. AS 39.25.080/29 CFR 1602.14
2.16	**Collective Bargaining Negotiation Files** Letters of understanding, tentatively approved articles, proposals and counter proposals.	*+1Y	PP	9Y	PP	*+10Y	Admin.	*=Until collective bargaining agreement is approved. Relates to "For -Cause" employees rather than "At Will" employees.
2.17	**EEO Administration Records** Includes quarterly utilization, compliance and annual reports; affirmative action plans; complaint case files; Departmental actions and employment statistics	*+1Y	PP	-	-	*+1Y	Admin.	*= Termination or resolution of complaint. Contains information that is confidential per AS 18.80.115.

	EEO Complaint Case Files Consists of records regarding discrimination charges, including documentation of the party making the charge and other employees/ applicants in the same or similar positions; and Departmental actions. Discrimination charges may be on the basis of race, color, religion, national origin, gender, etc.	*+1Y	PP	-	-	*+1Y		*= Termination or resolution of complaint. 29 CFR 1602.14
2.18	**Unfair Labor Practices Case Files** Complaint, correspondence, notice of hearing, hearing transcriptions and exhibits, witness lists, audio and-or video tapes, and a copy of the final decision and order. Also includes cases dismissed, withdrawn or settled.	*	PP	*	PP	*	Admin.	*=Life of the bargaining unit contract.
2.19	**Risk Management Claim Files** Includes correspondence to/from claims adjusters, private attorneys, accident reports, (Property damage and personal injury) summary reports, payment orders/verifications, pleading/deposits and individual claim records.	*+2Y	PP	5Y	PP	*+7Y	Admin.	*=Until claim is settled and all legal aspects are resolved.
2.20	**Workers' Compensation Claims** May include death, permanent total disability, time loss and no time loss cases. Documents include reports of injury/illness, medical reports, correspondence, legal filings.	*+2Y	PP	38Y	PP	*+40Y	Admin.	*= Until case is inactive.
2.21	**OSHA 200 Reports.** Accident reports that have occurred in the workplace.	7Y	PP	-	-	7Y	Admin.	
2.22	**Senior Exemption Card Information.** Filled out applications for senior exemption cards.	2Y	PP	-	-	2Y	Admin.	
2.23	**Injury and Accident Records** Includes incident/accident reports, medical evaluations, public safety officer reports, time loss documentation and other data relating to on the job injuries and accidents.	*+ 6 Years	PP	*+6 Years	PP	*+6 Years	Admin.	*= Resolution of accident.
2.24	**Officials' Bonds**	*+6 Years	PP	*+6 Years	PP	*+6 Years	Admin.	*= Expiration provided an audit has been conducted.
2.25	**Job Advertisements** Description of job position for purposes of advertising and posting/recruitment.	3Y	E	-	-	3Y	Admin.	

2.26	**Department Head Leave Requests**	3Y	PP	-	-	3Y		
2.27	**Personnel Procedures & Samples for New Hires** Procedures on filling out new hire packets, insurance sign up and workman compensation.	C+1	PP	-	-	C+1		

Department City Clerk		Schedule No. 3						Page 1 of 3
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
3.1	**Meeting Files**							
3.1.1	**Official Minutes** The official minutes constitutes the official accounts of the proceedings and actions of the governing body, boards, commissions and committees.	P	PP	-	-	P	City Clerk	
3.1.2	**Backups** May include notices of meeting, agendas, packets, correspondence and reports	1Y	PP	3Y	E	4Y	City Clerk	
3.2	**Public Hearing Files** Includes documentation related to public hearings: notices of meetings, speaker signup sheets.	1Y	PP	3Y	E	4Y	City Clerk	
3.3	**Petitions** For initiative, referenda and recall filed by private citizens or groups requesting governing body action.	6Y	PP	-	-	6Y	City Clerk	AS 29.26
3.4	**Proclamations**	P	PP	-	-	P	City Clerk	
3.5	**Code, Ordinances and Resolutions**						City Clerk	
3.5.1	**Adopted** May include amendments, code supplements, lists of all ordinances/resolutions and record of vote.	P	PP	-	-	P		
3.5.2	**Not Adopted** May include lists of all proposed ordinances/resolutions, the proposer, ordinance number and record of vote.	1Y	PP	3Y	E	4Y		
3.6	**Oaths of Office and Appointments** Consists of oaths for boards, commissions, committees, and	P	PP	-	-	P	City Clerk	

	council.							
3.7	**Conflict of Interest Statements** Statements for elected/appointed municipal officers and employees.	6Y	E	-	-	6Y	City Clerk	
3.8	**Declarations of Candidacy** Declarations executed under oath including name, mailing address, residency length etc.	1Y	PP	3Y	E	4Y	City Clerk	
3.9	**Incorporation Files** May include information related to municipal logo and official municipal seal.	P	O	-	-	P	City Clerk	AS 29.05
3.10	**Cemetery Master File** Includes diagrams, maps and indices of burial plots, record of lot sales, burial permits,	P	PP	-	-	P	City Clerk	
3.11	**Records and Information Management Files** Includes written request for public record. Log includes date of request, name of requester and other related information.	1Y	PP	-	-	1Y	City Clerk	
3.12	**Election Boundary Descriptions**	P	PP	-	-	P	City Clerk	
3.13	**Voting Ballots** (Completed Challenged, Rejected, Absentee and Special Needs)	*+30 Days	PP	-	-	*+30 Days	City Clerk	*=Until certification of Election. Unless Litigated/Contested. AS 15-15.470.
3.14	**Certification of Election Returns** Consists of individual machine numbers; polling place designation; dates of election; total votes registered by machine, candidate or referenda; and signatures of election judges as well as the approved certification of election adopted by the council.	*+30 Days	PP	P	PP	P	City Clerk	*=Until certification of Election. Unless Litigated/Contested. AS 15-15.470.
3.15	**Certificates of Election** Copies of election certificates presented to candidates upon verification of election.	1Y	PP	3Y	E	4Y	City Clerk	
3.16	**Candidates List** Lists of candidates. Data includes; name and address of candidate, order in which they will appear on the ballot and term of office.	1Y	PP	3y	E	4Y	City Clerk	

3.17	**Election Registers and Tally Books** Consists of Precinct, final voting, questions voter, special needs voting and absentee voter.	4Y	PP	-	-	4Y	City Clerk	
3.18	**Department of Justice Preclearance Records**	P	PP	-	-	P	City Clerk	
3.19	**Recount Applications** Requests for recount of individual machine or paper ballot tallies.	4Y	E	-	-	4Y	City Clerk	
3.20	**Election Officials' Records** May consist of recruitment materials, interest letters, training notes, acceptance forms, oaths and mileage reimbursement requests and time sheets.	4Y	E	-	-	4Y	City Clerk	
3.21	**Bethel Municipal Code**	4Y	PP	P	E	P	City Clerk	Updated: 1 copy of prior updates
3.22	**City Contracts**	T+2Y	PP	5Y	E	T+7Y	City Clerk	
3.23	**Public Records Log and Request for Public Information** Includes written request for public records received. Log includes date of request, name of requester and other related information.	1Y	PP	-	-	1Y	City Clerk	
3.24	**Records and Information Management Files** File plans and records retention schedules Records disposition certificates Records Transfer Lists	P	PP	P	PP	P	City Clerk	

Department Finance Accounts Payable		Schedule No. 4						Page 1 of 4
Record Title	Records Description	Retention Period Office		Storage		Total	Office of Record	Remarks
4.1	**General Accounting records** May include work papers, spreadsheets, summaries, receipts and other data documenting Department accounting practices. Includes financial data regarding accounts payable/receivable, grants/contract administration, assessment of fines, payment of license fees, etc. copies of checks, invoices, packing slips , purchase order/limited purchase orders, check request; documentation relating to payment for commodities or services fines, fees and permits. Consists of financial transaction registers, vouchers, delivery orders, logs, supply requisitions, advertising orders, invoices, postage meter receipts.	3Y	E	-	-	3Y	Finance	
4.2	**City Leases**	T+2Y	PP	8Y	~~E~~	~~T+10Y~~	~~Finance~~	
4.3	**Contract Files** Official documentation of selection of contractor and issuance of the contract. May include requests for proposals with affidavits of publication, evaluation of responses, notices of award, contract negotiations, correspondence and payment records.	T+2Y	PP	5Y	~~E~~	~~T+7Y~~	~~Finance~~	
4.4	**Annual Final Operating And Capital Budget** Official plan and policy for the expenditure of funds approved by the governing body.	P	PP	-	-	P	Finance	
4.5 4.5.1	**Budget Work Files** Work Papers Includes all drafts, instructions, worksheets, preliminary budgets, and department or agency request.	1Y	P	2Y	E	3Y	Finance	

4.5.2	Final Approved Budget	P	PP	P	PP	P		
4.6	**Audit Financial Reports** Prepared by auditors annually.	P	PP	-	-	P	Finance	
4.7	**Financial and Accounting Reports**						Finance	
4.7.1	Annual	P	PP	-	-	P		
4.7.2	Other Includes Annual Reports prepared by the finance director summarizing financial condition, activity and balances; and, routine balancing status reports output on a regular or ad hoc basis documenting agency expenditures and financial activity.	CFY +3Y	PP	-	-	CFY +3Y		
4.8	**Ledgers and Journals** General , Revenue and Expenditure	3Y	PP	P	PP	P	Finance	
4.9	**Vendor Files** Documentation relating to payments for commodities or services, fines, fees and permits. Consists of financial transaction registers, vouchers, delivery orders, purchase orders, logs, supply requisitions, advertising orders, invoices, postage meter receipts, etc.	CFY +2Y	PP	1Y	E	CFY +3Y	Finance	
4.10	**Safe Communities' Revenue Sharing/Municipal Assistance** Documentation of resolutions and letters requesting payment to city of safe community municipal assistance funds Copies of checks received.	3Y	PP	-	-	3Y	Finance	
4.11	**Bond Records** Includes cancelled/redeemed bonds/coupons documenting proof of issuance and payments to individual bondholders.	3Y	PP	3Y	E	6Y	Finance	
4.12	**Bond Registers**	3Y	PP	20Y	E	23Y	Finance	
4.13	**Bills of Sale**	*+7Y	PP	7Y	E	*14Y	Finance	*=Date of Sale
4.14	**Investment Records** Purchase and sale confirmations, correspondence, letters	*+2Y	PP	-	-	*+2Y	Finance	*=Life of Investment.

	requesting withdrawals and transfers.							
4.15	**Distribution of Insurance Costs.** Record of distribution cost related to general liability, property, works comp insurance, etc.	3Y	PP	-	-	3Y	Finance	
4.16	**Check Registry** Checks that have been returned, voided, cancelled.	CFY +3Y*	E	-	-	CFY +3Y*	Finance	*Provided an audit or other annual financial statement has been certified.
4.17	**Cash Books and Cash Journals** Ledgers showing details of daily receipts and expenditures, including running balances for each fund.	CFY +3Y*	P	3Y	E	CFY +6Y*	Finance	*Provided an audit or other annual financial statement has been certified.
4.18	**Batch –Pertaining to Check.** Record of transaction and or distribution of "run" containing edit register, journals, check register, etc.	1Y	PP	2Y	E	3Y	Finance	
4.19	**Banking Records** Bank statements and reconciliation including notices of correction, wire transfers, EFT debts, cancelled check, etc.	CFY +3Y*	E	-	-	CFY +3Y*	Finance	*Provided an audit or other annual financial statement has been certified.
4.20	**Investment Records**	*+2Y	E	-	-	*+2Y	Finance	*=Life of investment.
4.21	**Distribution of Insurance Costs**	3Y	E	-	-	3Y	Finance	
4.22	**Sales Tax Audit** Sales tax audit findings from auditors, collection policy, agreement with audits on procedures for audits.	3Y*	PP	3Y*	PP	3Y*	Finance	*= Or until back taxes are paid or until lien is released.
4.23	**Insurance Policies and Endorsements** Record copies of City liability and other types of insurance policies held by the City.	C	PP	C	PP	C	Finance	
4.24	**Debt Service Payment and Leasing Schedules** Schedules of debt service payment for CAT Grader, CAT Wheel loader, bond issues, leases, purchases, etc.	T+1Y	PP	-	-	T+1Y	Finance	
4.25	**Month-end-Closing Financial Reports** Monthly financial reports for City Council.	1Y	E	-	-	1Y	Finance	
4.26	**Real Property** Disposal and acquisition, quit claim deeds, bill of sales, etc for easements, right of ways, other properties etc.	P	PP	-	-	P	Finance	

4.27	**Depreciation of Fixed Assets** For utilities, port, leased properties	*	O	-	-	*	Finance	*=Life of asset.
4.28	**Form 1099** Calendar year-end expenditures for vendors.	1Y	PP	3Y	E	4Y	Finance	
4.29	**Vehicle Files** Files set documents each vehicle owned and serviced by the local governing body. May include title; registration; damage/accident reports.	*	O	-	-	*	Finance	*=Life of asset.
4.30	**Fixed Assets** Inventory, disposition Documents.	*	O	-	-	*	Finance	*=Life of asset.
4.31	**Revenue Sharing/Safe Communities Files**	3Y	PP	3Y	E	6Y	Finance	
4.32	**Census Bureau Finance Reports**	C	PP	-	-	C	Finance	
4.33	**Grant Award Letters and Signed Applications** All original award letters and signed grant applications.	P	E	P	E	P	Finance	
4.34	**Insurance Policies and Endorsements** Includes insurance proposals, policies and endorsements, bonds, riders, correspondence, financial coding vouchers and billing information.	T+2Y	PP	48Y	E	T+50Y	Finance	
4.35	**Bid/quotes.** Vendor bids/proposals, evaluation sheet, bid abstract, and contract.	5Y	PP	-	-	5Y	Finance	
4.36	**Travel authorization and expense reports.** Completed travel authorization and expense reports.	3Y	E	-	-	3Y	Finance	

Department Finance Payroll		Schedule No. 5						Page 1 of 2
Record Title	Records Description	Retention Period Office		Storage		Total	Office of Record	Remarks
5.1	**W-2 Form** Federal withholding tax statement.	2Y	PP	2Y	E	4Y	Finance	
5.2	**W-4 Form** Employee withholding exemptions.	2Y	PP	2Y	E	4Y	Finance	
5.3	**Timesheets** Daily, weekly or monthly record of hours works.	7Y	E	-	E	7Y	Finance	
5.4	**Garnishment and Payroll Deduction, Court Orders** Includes small claims garnishments; child support withholding orders.	50Y	PP	-	-	50Y	Finance	
5.5	**Employee Pay Record** List of check number, employee name, net amount and financial coding, gross earning, deductions and notification of pay step increases.	50Y	E	-	E	50Y	Finance	
5.6	**General Ledger Distribution Report**	7Y	E	-	-	7Y	Finance	
5.7	**Direct Deposit Slip**	1Y	PP	2Y	E	3Y	Finance	
5.8	**Employee Deduction/Benefit Report**	2Y	PP	5Y	E	7Y	Finance	
5.9	**Payroll Report** May include the following reports: Federal Insurance Contribution Act, unemployment insurance, summary/special detailed queries, stopped/reissued warrants, overtime and retirement. Y	2Y	PP	2Y	E	4Y	Finance	
5.10	**Electronic Federal Tax Payment (EFTPS) Documentation** This series documents tax deposits transmitted to the federal government. Includes spreadsheets and other backup.	4Y	E	-	-	4Y	Finance	
5.11	**Internal Revenue Service Reports and Reconciliations** May consist of the following IRS reports: 1099R and related reports, and 945. May include reconciliations (work papers)	*+7Y	E	-	-	*+7Y	Finance	*=Until due date of appropriate tax return period or date tax is paid, whichever is later.

	regarding tax liability for retirees and their beneficiaries.							26 CFR 31.6001-1.
5.12	**IRS Levy**	*	PP			*	Finance	*=Until paid.
5.13	**Savings Bond and 401K Accounting Records**	50Y	E	-	-	50Y	Finance	
5.14	**Accident Incident Reports:** Property damage and personal injury.	L+2Y	PP	2Y	E	L+4Y	Finance	
5.15	**ESC Reports** **Unemployment Insurance Information.**	2Y	E	-	-	2Y	Finance	
5.16	**941 Quarterly Reports to IRS**	7Y	E	-	-	7Y	Finance	
5.17	**Deferred Compensation Claims**	7Y	E	-	-	7Y	Finance	
5.18	**Deferred Compensation Application**	2Y	E	-	-	2Y	Finance	
5.19	**Contracts with Non-Union Employees**	T+1Y	E	-	-	T+1Y	Finance	
5.20	**Electronic Federal Tax Payment**	4Y	E	-	-	4Y	Finance	
5.21	**Deferred Compensation Quarterly Reports** ICMA/Union/Pebsco.	7Y	E	-	-	7Y	Finance	
5.22	**TPSC Enrollment Form.** Health insurance applications.	T+2Y	PP	-	-	T+2Y	Finance	
5.23	**PERS Enrollment Application**	T+1Y	PP	-	-	T+1Y	Finance	
5.24	**PERS Reports**	7Y	E	-	-	7Y	Finance	
5.25	**Payroll Advance Request Form**	2Y	PP	-	-	2Y	Finance	
5.26	**Vehicle Files**	*+2Y	PP	-	-	*+2Y	Finance	*= Life of Vehicle
5.27	**TPSC Claims** Weekly register and monthly statement. Claims paid. Copies of statements from Trustees Plans Services Corporation indicating amount of claims paid and check received from City. Journal vouchers recording claims paid.	2Y	E	-	-	2Y	Finance	
5.28	**Vacation and Sick Leave Records**	1Y	PP	2Y	E	3Y	Finance	

Department Finance Sales Tax		Schedule No. 6						Page 1 of 1
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office		**Storage**		**Total**		
6.1	**Business license/sales tax.** Files of monthly sales tax and quarterly longing tax. **Business licenses not issued.**	3Y 1Y	PP PP	- -	- -	3Y 1Y	Finance	
6.2	**Bed Tax records** Record of quarterly bed/lodging tax payments.	3Y	E	-	-	3Y	Finance	
6.3	**Land Lease payment documentation.**	T+2Y	PP	P	E	P	Finance	
6.4	**Protective custody charges.**	3Y	E	-	-	3Y	Finance	
6.5	**Dock Charges**	3Y*	PP	-	-	3Y*	Finance	*= or until balance paid on collections.
6.6	**Ambulance claim pay.** Charges for ambulance calls.	T	PP	-	-	T	Finance	
6.7	**Licenses and Permits (non Business)**	1Y	PP	-	-	1Y	Finance	
6.8	**Permits Register**	-	-	30Y	E	30Y	Finance	
6.9	**Sales Tax Registration and Reports**	3Y	PP	-	-	3Y	Finance	

Department Finance Utilities		Schedule No. 7						Page 1 of 1
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office	**Storage**			**Total**		
7.1	**Physical address files.** Files by street address which contain water and sewer service applications and agreements, changes of service, disconnect, sewer set-up, disconnect/reconnect forms, ect.	*+3Y	E	-	-	*+3Y	Finance	*= End of service.
7.2	**Inspection forms.** City inspections of water and sewer tanks.	P	E	-	-	P	Finance	
7.3	**Pump House Files.** Record of quarters received from pump house weekly.	3Y	E	-	-	3Y	Finance	

Department Procurement, Contracts and Grants		Schedule No. 8						Page 1 of 1
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
8.1	**Procurement Records** This series includes documents related to purchases of goods and services and may include: bid specifications, requests for proposal, vendor solicitations, price quotations, bid abstracts, purchase orders/requisitions, contracts/leases, delivery orders, correspondence and tracking logs.	-	-	-	-	CFY + 3Y	Finance	
8.2	**Contract Administration** Consists of notification of award, original contract, and amendments or renewals, special conditions, fiscal reports, payment logs, progress reports and correspondence. Includes contracts for leased space, contract insurance and bonds.	-	-	-	-	*+6 Years	Finance	*=Life of Contract. Per AS 09.10.053 Statute of Limitations is three years for causes of action which accrued after August 7, 1997.
8.3	**Grant Administration Files**						Finance	
8.3.1	State	-	-	-	-	6Y		Per As 09.10.053, Statute of limitation is three years.
8.3.2	Federal This serried documents receipt of State or federal monies and consists of applications, copy of notifications of grant ward, agreement, special conditions, financial reports, closeout documents, reports (audit, status, progress and compliance) and correspondence.	-	-	-	-	*		*=Until federal audit is completed or three years after grant closeout whichever is later.
8.4	**Grant Applications (Not Awarded)** Applications that were not approved or funded.	1Y	E	-	-	1Y	Finance	

Department	Schedule No.
Public Safety - Police	9

Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
9.1	**Police Reports/Complaints**						Police	
	Police Reports Records complaint, reports and follow-up for the following: felonies (which may include property records; arrest, court, processing, disposition and consent to search documents, witness/Miranda rights statements), motor vehicle accidents with injuries, missing person (unsolved), misdemeanors, abandoned vehicles/structures, breathalyzer use, domestic violence, accidental/unexplained death, escapes.							
	Complaints Record of complaints to police/public safety officer. Includes data relating to reporting party, locations and nature of incident, time and dispatch information and disposition.							
9.1.1	Noncriminal	2Y	E	-	-	2Y		
9.1.2	Criminal	*	E	-	-	*		*=Until statutes of limitations has expired.
9.1.3	Motor Vehicle	3Y	E	-	-	3Y		
9.1.4	Accidental, unexplained death	P	E	-	-	P		
9.1.5	Unsolved Missing Persons	P	E	-	-	P		
9.2	**Police Reports (Major and Minor)** Records complaint, reports and follow-up for the following: felonies (which may include property records; arrest, court,	1Y	E	-	-	1Y	Police	

	processing, disposition and consent to search documents, witness/Miranda rights statements), motor vehicle accidents with injuries, mission person (unsolved), misdemeanors, abandoned vehicles/structures, breathalyzer use, domestic violence, accidental/unexplained death, escapes.							
9.3	**Filed Interrogation Information** Name and identifying data regarding persons questioned in the field, location, comments and disposition. May include vehicle, NCIC checks and information used for analytical purposes.	5Y	E	-	-	5Y	Police	
9.4	**Investigation Case Information** Detectives' working papers of cases under investigation. Contains polygraph, surveillance and crime lab reports; latent fingerprints; photographs and other media; and copies from Police Reports.						Police	
	Unsolved	P	E	-	-	P		
	Solved	*+1Y	E	-	-	*+1Y		*= Closing of the case.
9.5	**Arrest Records** Cumulative information for each adult arrested including booking documentation (name, arrest booking/AST number, address, date of birth, sex, occupation, physical description, offense, complaint report and disposition of case), finger print cards, photographs, processing reports, copies from Police Report files, investigation reports, witness statements, signed Miranda rights, evidence examination requests, property records, rap sheets, court process and disposition documents.	T or 10 Years *	E	-	-	T or 10 Years *	Police	*=Retain records for the longer period.
9.6	**Outstanding Warrants** Lists of outstanding arrest warrants. May include name, date of birth, address, offense code, case number, warrant date, status, charging section.	C	E	-	-	C	Police	

9.7	**Use of Force Investigations** Investigations on the application of physical or deadly force. May include copies from complaint report file, inquiry and findings.	7Y	E	-	-	7Y	Police	
9.8	**Internal Affairs Investigations** Investigations of complaint of alleged officer misconduct. May include reports, correspondence, statements, investigation documentation, findings and disposition.	7Y	E	-	-	7Y	Police	
9.9	**Confidential Informant Files** Information recorded may include number assigned to informant, informant and case officer names, reference to origins of the contact reports of information supplied by informant, and expenditure/payment records.	*+ 7Y	E	-	-	*+7Y	Police	*= Until informant is no longer active.
9.10	**Logs/Indices** May include the following type of logs/indices: radio/dispatch, tapes control, patrol, officer, detective, arrest booking, missing person, Grand Jury, NCIC inquiry, evidence, juvenile arrest, administrative (documenting time in court, educational activities, assisting another officer) overtime, weather, staffing/daily roster, daily assignment, unit, property recovery, radar, weapon, animal report, accident and towed vehicle.	5Y	E	-	-	5Y	Police	
9.11	**Property Records** Individual record of property/evidence taken into custody. May include date, names addresses, signatures, description, serial numbers, condition, location, complaint report number, comments and disposition.	C+3Y	O	-	-	C+3Y	Police	
9.12	**Stolen Property Lists** Received and internally produced lists and printouts of lost, stolen, found, pledged or pawned property.	C	E	-	-	C	Police	
9.13	**Criminal Background Checks** Criminal background checks done as a consequence of requests from employers or local government requirement.	1Y	E	-	-	1Y	Police	

	May include polygraph tests, FBI checks, interviewer notes, etc. Examples include school, day care or nursing home employees.							
9.14	**Sex Offenders Information** Data relative to sex offenders that may include name, address, photograph, place of employment, date of birth, crime for which convicted, date of conviction, and court of conviction.	C	E	-	-	C	Police	Per AS 18.65.087 the Alaska Department of Public Safety maintains a central registry of sex offenders required to register under AS 12.63.010.
9.15	**Juvenile Arrest Files** Cumulative information file on each juvenile arrested. May include processing report, cover and face sheet, copies from complaint report files, investigation reports, property records, witness statements, signed Miranda rights, Family Court petitions, court process and disposition documents.	C+6Y	E	-	-	C+6Y	Police	
9.16	**Abuse/Neglected Child Notification** Reports from the DFYS or the ACS of suspected cases of child abuse endangerment or neglect. May include cover letter, investigative worker's observations/recommendations, and investigation summary.	3Y	E	-	-	3Y	Police	DFYS=Division of Family and Youth Services. ACS= Alaska Court System.
9.17	**Traffic Records** Includes summons books, citations, and tickets, notices for court appearances, etc.	1Y	E	-	-	1Y	Police	
9.18	**Radar Reports** May include certification of calibration, routine radar check reports, and certification of accuracy for tuning forks.	*+2Y	E	-	-	*+2y	Police	*= Life of asset.
9.19	**Crime Statistics** Statistical compilations of crimes committed within the local jurisdiction.	P	E	-	-	P	Police	
9.20	**Animal Control Files** May consist of the following: licenses, animal complaint notifications/citations, description of animal, notification to owner, certification of ownership, owner claims, release of animal data, dog bit reports and statistical reports. Also spay/neuter euthanasia, vaccination, patrol, and	3Y	O	-	-	3Y	Police	

	abuse/cruelty information.							
9.21	**Dog Licensing**	C	E	-	-	C	Police	
9.22	**Towed Vehicle Logs** Property information, location, time, date, disposition information.	*+2Y	E	-	-	*+2Y	Police	*=Disposal of property.
9.23	**Regulated Vehicle Permits**	T+2Y	E	-	-	T+2Y	Police	
9.24	**Chauffer Permit**	2Y	E	-	-	2Y	Police	

Department Fire		Schedule No. 10						Page 1 of 2
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office	**Storage**			**Total**		
10.1	**Fire Investigation Files** Record of fire department investigations of suspicious or incendiary fires. May include reports (fire, rescue, investigators, State Fire marshal, police, casualty, insurance), video evidence, memoranda, diagrams, or other documentation relating to investigation.	*+30Y	E	-	-	*+30Y	Fire	*= Until investigation is closed.
10.2	**EMS Incident Reports** Reports of any incident that involved Emergency Medical Services.	10Y	E	-	-	10Y	Fire	
10.3	**Permits/Licenses Issued** Applications and permits issued by local fire authority. May include open burn permits, permits relating to fireworks, storage/handling of flammable liquid or hazardous substances or selling of fire detection equipment.	*+3Y	PP	-	-	*+3Y	Fire	*= Until permit expires.
10.4	**Fire and Rescue Response Dispatch Tapes** Multimedia materials used in fire prevention education including brochures, films, cd's, posters, pamphlets and other program resources.	C	PP	-	-	C	Fire	
10.5	**Fire and Rescue Response Circuit/Radio Box Records**						Fire	*=Life of system.
10.5.1	Test Logs	1Y	PP	-	-	1Y		
10.5.2	Alarms Records Record of alarm response tests conducted on all circuit, radio and location alarm boxes to ensure proper alarm signals are being received. May also include maintenance records and inspection/testing records for individual alarm	*	PP	-	-	*		

	systems							
10.6	**Equipment Inspection Records** Records of inspections for vehicles, mechanical systems, hoses, ladders, and mask service information.	3Y	PP	-	-	3Y	Fire	
10.7	**Apparatus Accident Files** Department record of accidents involving municipal fire/rescue vehicles. May include police reports, witness statements, memoranda, diagrams, photographs and related documentation.	3Y*	PP	-	-	3Y*	Fire	*=Retain longer if involved in litigation. Consult with legal counsel prior to disposition.
10.8	**Hazardous Materials/Substances Right to Know Files Annual Updates** Consists of detailed product/chemical identification listings supplied annually by individual employers that hold, use, or sell products considered hazardous by the USDOL, DOSH.	3Y	PP	-	-	3Y	Fire	
10.9	**Hazard Communication & Material Safety Data Sheets** Lists of hazardous chemicals present in the workplace and copies of material safety data sheets received with incoming shipments of chemicals and posted in the workplace.	2Y	PP	3Y	PP	5Y	Fire	Record copy retained by receiving department. Authority: 20 CFR 1910.1200;
10.10	**Contingency and Emergency Services Plans**	P	PP	-	-	P	Fire	

Department Parks and Recreation		Schedule No. 11						Page 1 of 1
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
11.1	**Recreation Program Records** Records relating to programs and activities sponsored or developed by the Parks and Recreation Depart. Included are sports programs, arts, charitable events, and day camps.	3Y	PP	-	-	3Y	Parks	
11.2	**Maps, Plans and Drawings** This series documents topographic features, drainage, structures, proposed enhancements, etc. for parks.	C	PP	-	-	C	Parks	
11.3	**Park Files** Documentation on all City Parks: park improvements, installations, park maintenance, park assessments, signs, site plan permits, park safety, park equipment.	P	PP	-	-	P	Parks	
11.4	**Log Cabin Rental** Signed rental agreements, calendar	T+1Y	PP	-	-	T+1Y	Parks	
11.5	**Weight Room** Consists of completed juvenile release forms, user agreements/contracts with other agencies.	T+3	PP				Parks	
11.6	**4-H Files** Consists of correspondence, audio, insurance activities, enrollment, scholarships, clubs, projects, volunteer applications, etc.	*	-	-	-	*	Parks	*=According to 4-H guidelines.
11.7	**Incident logs.** Legal files: child incident reports, reprimands, Community Service Works, etc.	P	PP	-	-	P	Parks	

Department Planning		Schedule No. 12						Page 1 of 3
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
12.1	**Planning Commission Files**						Planning	
12.1.1	Approved and Wavered Proposals	P	PP	-	-	P		
12.1.2	Denied and Withdrawn Proposals This series documents official actions of the Planning Commission. May include correspondence, master, preliminary, and final plans, amendments, written comments from federal, state or other municipal agencies, permits and agreements with state and federal reviewing agencies, approved master and preliminary plans, site and impact analyses.	3Y	PP	-	-	3Y		
12.2	**Planning and Zoning Enforcement Case Files** Documents complaints and actions taken regarding the enforcement of planning and zoning regulations.	C+2Y	PP	4Y	E	C+6Y	Planning	*= Until resolution of the case.
12.3	**Land Classification Case Files** Documents actions to classify lands within the jurisdiction of the local government. May relate to acquisitions, sales, leases management agreements, letters of entry, timber sales, resource sales, etc.	*+2Y	PP	8Y	E	*+10Y	Planning	*= Until resolution of the case. If case files subject to potential litigation, retain until file no longer has legal value.
12.4	**Land Management Case Files** Documents management of lands. Files may relate to acquisitions, sales, leases, management agreements, and letters of entry.	*+2Y	PP	8Y	E	*+10Y	Planning	*= Until resolution of the case. If case files subject to potential litigation, retain until file no longer has legal value.
12.5	**Conditional and Temporary Use Permits**	*+1Y	PP	-	-	*+1Y	Planning	*=Life of permit.
12.6	**Site Selection Files** Documents site selection for proposed facilities including	P	PP	-	-	P	Planning	

	fire service, libraries, parks, police, schools, utilities, water and sewer.							
12.7	**Coastal Management Consistency Reviews** State, federal and local reviews for conformance with Coastal management reviews and plans.	C+6Y	PP	-	-	C+6Y	Planning	
12.8	**Flood Control Program Files.** Includes erosion control studies, flood plain data, correspondence, maps and drawings documenting flood/erosion areas and specific problem parcels.	C	PP	-	-	C	Planning	
12.9	**Geographic Names files** Consists of applications and backup data relating to the naming of mountains, lakes, streams and other geographic features.	P	PP	-	-	P	Planning	
12.10	**Road Name Changes** Includes information regarding road name changes and copies of affidavit of publication.	P	PP	-	-	P	Planning	
12.11	**Right of Way and Easement Files** Grant of easement records for legal permission to conduct work on private property, including, but not limited to, laying, constructing, maintaining, operating, repairing and servicing water and sewage pipes, mains, drains, signs and utilities. Also vacations, descriptions of easement areas, diagrams, plans agreement, memoranda correspondence and property disposition.	5Y	PP	P	PP	P	Planning	
12.12	**Plans, Maps and Drawings** Plans, drawings, maps and as-builts including, but not limited to, municipal buildings, streets, survey/plat, lot plans, layout/grade, zoning, easements, landfills, subdivisions, traffic control, water and fire lanes.	P	PP	-	-	P	Planning	
12.13	**Subdivision and Land Development Project Files**						Planning	
12.13.1	Approved	P	PP	-	-	P		
12.13.2	Denied Applications	C	PP	-	-	C		

	Records documenting property subdivisions. May include applications, site plan review, check lists, inspections, diagrams, plans, plats, drawings, specifications, covenants, subsurface soils investigations, boundary surveys, memoranda and other analyses.							
12.14	**Permit Application Files** Permits include: Construction, Building, and Utility. May consist of applications, copy of permit, maps, site plans/plats, specifications, drawings, engineer/architect's certification, as-builts, inspection reports, accounting data, etc.	T+2Y	PP	4Y	E	T+6Y	Planning	

Department Public Works		Schedule No. 13						Page 1 of 3
Record Title	Records Description	Retention Period Office		Storage		Total	Office of Record	Remarks
13.1	**Construction Project Files** Consists of specifications, contracts, plans, bids, evaluations, performance bonds and correspondence documenting solicitation, selection, award/administration of contracts and professional service agreements. May include field reports, job accounting information contract modifications, data relative to utilities and project close-out information.	*+2Y	PP	4Y	E	*+6Y	Public Works	*=Until project is completed.
13.2	**Regulatory Compliance Files** Records documenting compliance with state/federal requirements such as coastal resources management and freshwater wetlands. May include copies of applications for authorization to perform work, request for preliminary determinations, wetlands determinations complaints, notices of violations, plans/maps, notices of public hearings, correspondence and memoranda.	*+3Y	PP	-	-	*+3Y	Public Works	*= Until project is completed.
13.3	**Work/Repair Requests and Complaints** Request for work or repairs initiated by citizen complaint or internally. Data may include name and number of complainant or requestor, location and type of work to be performed, dates and times of receipt/response. This series would include any maintenance on vehicles or buildings.	3Y	PP	-	-	3Y	Public Works	
13.4	**Facility Maintenance Files** Includes all documents, files and data relating to operation of facility, including permits, utilities correspondence, bids, reports, proposals, accounting, problems and enabling legislation.	* or C	PP	-	-	* or C	Public Works	*=For the life of facility.
13.5	**Sanitation Files** Records relating to sanitation functions, truck routes and	1Y*	PP	-	-	1Y*	Public	*=If records may be subject to potential litigation, retain

	activity. May include vehicle scale/ tonnage reports, maps, routes correspondence, newspaper clippings of public notices, manifests, logs and crew lists.						Works	permanently.
13.6	**Landfill Records** Records relating to municipal landfill operations. May include certificates of insurance; ground water samples/analysis; EPA screening site inspection; preliminary assessments; state field test reports; methane gas analyses/results; engineering, operating, contingency, sedimentation and erosion control plans; hydro geological reports; monitoring logs; CERCLIS documentation; site access agreements; and, closure/post closure records.	P	PP	-	-	P	Public Works	
13.7	**Geologic Data** Documents relating to slides, borings/drainage, and other subsurface conditions including piling records.	P	PP	-	-	P	Public Works	
13.8	**Water and Sewer Connection Records** Records detailing sewer connections for individual properties and or municipal systems. Includes location, diagram and address. May include system specifications, request for location of connections, surveys, sketches, inspection and work reports and dye test request and reports.	P	PP	-	-	P	Public Works	
13.9	**Water and sewer System Monitoring Charts and Logs** Graphs monitoring water distribution system including flow rates, pressure and elevation. Logs documenting water readings at individual pumps/meter stations including date, time, reading, number of gallons per minutes, reader's name and remarks.	3Y	PP	-	-	3Y	Public Works	
13.10	**Well Information** Including well boring and well logs.	3Y	PP	-	-	3Y	Public Works	
13.11	**Water Testing Records** Record of water testing and analysis conducted on water system. Records may include but are not limited to,						Public Works	*=Until last action taken with respect to the applicable violation.

	laboratory certificates of analysis; microbiological, samples analysis and other result reports; water supply summary sheet; monthly water quality logs; chain of custody forms; and, lead/copper/nitrate results.							
13.11.1	Lead & copper analyses, corrosion control sampling and source water treatment records.	4Y	PP	8Y	E	12Y		18 AAC 70
13.11.2	Chemical, organic/inorganic chemical, radiological and turbidity analyses, and sanitary system survey data.	4Y	PP	6Y	E	10Y		18 AAC 72
13.11.3	Records of action taken to correct violations of primary drinking water regulations.	*+3Y	PP	-	-	*+3Y		18 AAC 80
13.12	**Water Management Plans** Plans mandated by Alaska Statues and regulated through the Alaska Statute and regulated through the Alaska Administrative Code. Plans include but are not limited to, Water Supply management, Water Quality Protection and Wellhead Protection.	C	PP	-	-	C	Public Works	
13.13	**Meter Reading Books and Cards** Record of water usage for customers. Includes date of reading, reading figures, water consumed, meter number, size, manufacturer, owner, address and service number.	2Y	PP	4Y	E	6Y	Public Works	
13.14	**Recycling and Hazardous Waste Records** Record of materials (metals, oil, antifreeze, break/power steering fluid, asbestos, paint, Freon, Other waste) transported to the municipal recycling center/landfill. Data may include disposal authorizations/certifications, name of resident, address, date, materials delivered and vehicle registration number.	3Y	PP	-	-	3Y	Public Works	
13.15	**CDL Compliance Information** Licensing, accident/incident reports.	3Y	PP	-	-	3Y	Public Works	

Department City Dock/Port Department		Schedule No. 14						Page 1 of 1
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office		**Storage**		**Total**		
14.1	**Invoices** Customer invoices, charges for services and extra calls.	2Y	PP	1Y	PP	3Y	Port	
14.2	**Permits** Permits to operate at Port of Bethel; welding, moorage, storage, stevedoring.	2Y	PP	-	-	2Y	Port	
14.3	**Port Improvements and Correspondence** Port development, seawall, dock, small boat harbor, all Army Corp of Engineers records and correspondence.	P	PP	P	PP	P	Port	
14.4	**Harbor Master Files** Includes hours worked, number of warning and citations issued remarks, and comments, Mooring permits issued, inspections conducted, USCG certifications and proofs of insurance.	1Y	PP	2Y	PP	3Y	Port	
14.5	**Impound/Abandoned Property and Information**	*+2Y	PP	-	-	*+2Y	Port	*= Termination of impound.
14.6	**Hydro-Surveys**	2Y	PP	P	PP	P	Port	
14.7	**Log Books** Includes daily records of what is done.	3Y	PP	P	E	P	Port	
14.8	**Time Cards** Employment time records.	1Y	PP	-	-	1Y	Port	

Department Human Resources		Schedule No. 14						Page 1 of 3
Record Title	Records Description	Retention Period Office	Storage			Total	Office of Record	Remarks
14.1	**Individual Personnel Files** Official employment history including applications; resume; personnel actions regarding hire, termination and promotion; performance appraisals; results from employment tests; insurance and benefits backup; family and medical leave act documentation; letters of commendation/ reprimand; training certificates/history; driving records; drug/alcohol tests.	T	PP	T+4Y	E	T+4Y	HR	Certain information is confidential.
14.2	**Recruitment, Selection & Appointment Records** Consists of recruitment notices, examinations, test answer sheets, score sheets, results, affidavits of publication and correspondence.	*+2Y	PP	-	-	*+2Y		*= Date of hire.
14.3	**Job Applications** (Unsolicited)	1Y	E	-	-	1Y	HR	
14.4	**Master Examination Files** Samples of each test or examination used in the selection and rating process of prospective employees, including answer keys.	C	O	-	-	C		
14.5	**Organization Charts**	C+1Y	E	-	-	C+1Y		
14.6	**Salary Schedules**	C+4Y	E	-	-	C+4Y		
14.7	**Job Descriptions** Description of specific job duties.	C+1Y	E	-	-	C+1Y		
14.8	**Job Classification** Minimum qualifications (knowledge, skills and abilities) required for each job classification or position. May list necessary education/certifications, examples of duties, salary, category of position and distinguishing characteristics.	C+1Y	PP	-	-	C+1Y		

14.9	**Grievance Case Files** Documents grievances filed by employees against Departments. Consists of grievance forms, investigative notes, reports, correspondence and related backup.	*+2Y	PP	-	-	*+2Y		*= Resolution and execution of any stipulations.
14.10	**Collective Bargaining Negotiation Files** File set consists of letters of understanding, tentatively approved articles, proposals and counter proposals. File set provides an historical overview of collective bargaining.	*+6Y	E	-	-	*+6Y		*=Until collective bargaining agreement is approved.
14.11	**Union Contract Legal Interpretation and Arbitration Decisions** Includes exhibits, briefs and arbitrations relating to contract interpretation.	4Y	PP	P	E	P		
14.12	**Unfair Labor Practices Case Files** Complaint, correspondence, notice of hearing, hearing transcripts and exhibits, witness lists, audio and/or video tapes and a copy of the final decision and order. Also includes cases dismissed, withdrawn or settled.	*+2Y	PP	-	-	*+2Y		*=Life of the bargaining unit contract. Review prior to destruction for cases that may have historical significance.
14.13	**EEO Administration Records** Includes quarterly utilization, compliance and annual reports; affirmative action plans; complaint case files; Departmental actions and employment statistics	*+1Y	PP	-	-	Y+1Y		T= Termination or resolution of complaint. Contains information that is confidential per AS 18.80.115.
14.14	**EEO Complaint Case Files** Consists of records regarding discrimination charges, including documentation of the party making the charge and other employees/ applicants in the same or similar positions; and Departmental actions. Discrimination charges may be on the basis of race, color, religion, national origin, gender, etc.	*+1Y	PP	-	-	*+1Y		*= Termination or resolution of complaint. 29 CFR 1602.14
14.15	**Employee Medical Records** Consists of on-the-job accident or illness/medical reports, lost time documentation, records used to monitor exposure, correspondence, etc. Includes employees exposed to blood-borne pathogens, formaldehyde, asbestos, mercury or other hazardous substances	T+3Y	PP	-	-	T+3Y		Confidential per AS 40.25.120 Authority: 29 CFR 1910.1001

14.16	**Immigration Reform & Control Act** (1986) I-9 Forms Employment Eligibility Verification forms retained by the Employer. All employees, citizens and noncitizens hired after November 6, 1986 complete Section 1; Employers complete Section 2.	*+3Y Or T+1Y**	PP	-	-	*+3Y Or T+1Y**		*= Date of hire. **Retain Records for the longer period.
14.17	**Drug and Alcohol Testing** Pre Employment ; Work-safe results of pre-employment drug testing; Post Accident; Random	5Y	PP	-	-	5Y		(Unless litigated)
14.18	**Completed Drug Testing Waivers**	T+1Y	PP	-	-	T+1Y		
14.19	**Background Checks** Backgrounds check form from the State of Alaska for employees who are required to work with children and seniors.	T+1Y	PP	-	-	T+1Y		
14.20	**Applicant Background Investigations:** Applicants employed Applicant not employed	 T+4Y 1Y	 PP PP	 - -	 - -	 T+4Y 1Y		
14.21	**Department Head Leave Requests**	3Y	PP	-	-	3Y		
14.22	**Personnel Procedures & Samples for New Hires** Procedures on filling out new hire packets, insurance sign up and workman compensation.	C+1	PP	-	-	C+1		
14.23	**OSHA 200 Report** Accident reports that have occurred in the workplace.	7Y	PP	-	-	7Y		
14.24	**Senior Exemption Information Cards** Filled-out applications for senior exemption cards.	2Y	PP	-	-	2Y		

Department City Dock/Port Department		Schedule No. 15						Page 1 of 1
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office		**Storage**		**Total**		
15.1	**Invoices** Customer invoices, charges for services and extra calls.	2Y	PP	1Y	PP	3Y	Port	
15.2	**Permits** Permits to operate at Port of Bethel; welding, moorage, storage, stevedoring.	2Y	PP	-	-	2Y	Port	
15.3	**Port Improvements and Correspondents** Port development, seawall, dock, small boat harbor, all Army Corp of Engineers records and correspondence.	P	PP	P	PP	P	Port	
15.4	**Harbor Master Files** Includes Hours worked, number of warning and citations issued remarks, and comments, Mooring permits issued, inspections conducted, USCG certifications and proofs of insurance.	1Y	PP	2Y	PP	3Y	Port	
15.5	**Impound/Abandoned Property and Information**	*+2Y	PP	-	-	*+2Y	Port	*= Termination of impound.
15.6	**Hydro-Surveys**	2Y	PP	P	PP	P	Port	
15.7	**Log Books** Includes daily records of what is done.	3Y	PP	P	E	P	Port	
15.8	**Time Cards** Employment time records.	1Y	PP	-	-	1Y	Port	

Department Legal	Schedule No. 16	Page 1 of 1

Record Title	Records Description	Retention Period Office		Storage		Total	Office of Record	Remarks
16.1	**Litigation Case Files** Documents of local government action in civil and criminal cases. Includes briefs, pleadings, investigative materials, court proceedings, transcripts, correspondence, exhibits, photographs and other media.	P	E	-	-	P	Legal	
16.2	**Legal Opinions** Consists of official and informal positions regarding legal issues affecting departments or the local governing body. May include information/action memoranda regarding ordinances and resolutions.	2Y	PP	P	E	P	Legal	
16.3	**Litigation:** Action for Recovery of Real Property. Actions for Trespass or Waste on Real Property.	*+2Y	PP	5Y	E	7Y	Legal	*=End of Litigation.
16.4	**Investigation and Matters Files** This series documents investigations that are not prosecuted. Includes work papers, analyses, evidence, final reports, request for legal opinions, research notes, correspondence, photographs and other media.	*+6Y	E	-	-	*+6Y	Legal	*=Until investigation concludes.
16.5	**Notice to comply and/or Violation Reports**	3Y	E	-	-	3Y	Legal	

Department Information Technology		Schedule No. 17						Page 1 of 1
Record Title	**Records Description**	**Retention Period**					**Office of Record**	**Remarks**
		Office	**Storage**			**Total**		
17.1	**Computer System Files**							*= Tapes are rotated according to established IT procedures.
17.1.1	Backup Tapes	*	-	-	-	-	IT	Backup tapes are stored offsite for security.
17.1.2	Documentation File Documentation File may include: program/system documentation, wiring records, (specifications/drawings of buildings cables or computer hardware connections) application software licenses/agreements, data systems and file specifications, security information (access requests/authorizations/logs, passwords), disaster recovery procedures, user guides, usage/inventory reports, backup procedures.	C	-	-	-	C	IT	
17.2	**IT Service Requests** Request for service from department. Documents requestor, type of service requested and IT Action.	3Y	E	-	-	3Y	IT	

Introduced by: City Manager Foley
Introduction Date November 26, 2013
Action:
Vote:

CITY OF BETHEL, ALASKA

Resolution 13-20

A RESOLUTION BY THE BETHEL CITY COUNCIL PROVIDING SUPPORT FOR KUIMARVIK, A PLACE TO SWIM

WHEREAS, Kuimarvik—"A Place to Swim" is a Bethel grassroots organization formed to ensure construction and sustainable long-term operation and maintenance of a community pool for the Yukon Kuskowkim Delta;

WHEREAS, Kuimarvik is composed of lead administrators from nine major Bethel stakeholder organizations, who collectively represent a significant pool of knowledge, resources, and expertise;

WHEREAS, the City of Bethel is a founding partner in Kuimarvik and is represented at meetings by one or more City officials;

WHEREAS, the City of Bethel received a FY 2012 State of Alaska Designated Legislative grant in the amount of $23,075,000 to pay for the construction of the Yukon Kuskokwim Regional Aquatic Health and Safety Center in Bethel;

WHEREAS, construction of the Aquatic Center is under way and is expected to be completed and ready to open by November 1, 2014;

WHEREAS, the City of Bethel hereby pledges to remain a Kuimarvik partner, participate in meetings, and fully supports Kuimarvik's mission, goals, objectives, and longevity as a viable non-profit corporation;

NOW, THEREFORE BE IT RESOLVED that the Bethel City Council promises its continued support for the Yukon Kuskokwim Regional Aquatic Health and Safety Center and to that end, fully supports the formation of Kiumarvik-A Place to Swim as a bonafide non-profit corporation and its work to ensure aquatic center sustainability;

Introduced by: City Manager Foley
Introduction Date November 26, 2013
Action:
Vote:

ENACTED THIS 26th DAY OF November, 2013, BY A VOTE OF ___ IN FAVOR AND ___ OPPOSED.

ATTEST:

_____
Lori Strickler, City Clerk

_____
Joseph Klejka, Mayor

Mayor's Report

November 7, 2013

Mayor Joseph Klejka
City of Bethel
City Clerk's Office
P.O. Box 1388
Bethel, AK 99559-1388

Dear Mr. Klejka,

The Yukon-Kuskokwim Correctional Officers believe that a dire situation exists at the Correctional Center in Bethel (YKCC). Alaskans who pass through, visit, and work in that facility, are constantly exposed to unacceptable conditions and dangers. YKCC is seriously overcrowded and understaffed, disproportionate to other institutions statewide that hold predominantly Caucasian inmates. YKCC residents and employees are forced to live and work in circumstances that place their health and safety at risk. It is now no longer a matter of if, but when, something terrible will happen.

The YKCC was built in 1984 to house 92 inmates. Currently, over 200 inmates are housed there (September's monthly average). The facility's square footage has not changed, although the interior has been altered to house more inmates to include housing inmates in the gym. In reality there are over 100 more inmates being housed in a space with no personal space and no exercise area. The overcrowded facility does a disservice to those being housed and working there and will result in more inmate and staff assaults. Not everyone in jail is guilty and not everyone who is guilty is guilty of a serious crime. First time offenders, persons charged with minor crimes, and persons who will be released without conviction are crowded in with felons, sexual predators, and persons experienced in prison survival. It is beyond our comprehension that the Department of Corrections (DOC) Management would consider such conditions to be acceptable.

Other DOC facilities about the same size as YKCC have only a third of the monthly average inmate count and the same number of Officers. All of these factors, in combination with the large number of inmates being housed in such limited space, foretell of a serious incident just waiting to happen.

The DOC has been unresponsive to the serious overcrowding and staffing issues. Unlike other facilities statewide, most of the inmate and staff population is Native. We that work at YKCC have expressed our concerns over safety and prejudice. We often feel forgotten, out of sight and out of mind of the DOC. The Commissioner had no acceptable answers when Legislators confronted him for not taking action on the 2010 Legislative Audit findings and for not taking action to expand the YKCC facility. The Commissioner has actively disregarded the warnings and has crowded more inmates into the facility by housing them in the gym, raising the allowed capacity, and allowing that maximum capacity to be regularly exceeded. Without a public outcry, YKCC's deplorable conditions will continue.

Please let the Department of Corrections know you find this to be unacceptable. Let your Legislators know that you support their continuing efforts to hold the DOC accountable to manage and plan effectively. This situation is critical.

Thank you for your assistance.

Sincerely,

Yukon-Kuskokwim Correctional Officers

Manager's Report

Clerk's Report

City of Bethel, Alaska

City Clerk's Office

To: City Council
From: Lori Strickler
Subject: Clerk's Report

Upcoming Council Events:
November 26, 2013 Special City Council Meeting
November 26, 2013 Regular City Council Meeting
December 10, 2013 Special City Council Meeting
December 10, 2013 Regular City Council Meeting
The December 24, 2013 Regular City Council Meeting was previously cancelled due to the holiday.

Records Retention –

Laserfiche
The departments have been on hold with their uploading of documents due to the speed of the system. The IT Department is working on repairing the server which will allow this system as well as a few others within the City's network, operate much faster.

Document Restoration
As with previous years, the City Clerk's Office has another group of Ordinance books to Browns River for document restoration. These should be the final three books for Ordinances which means next year; the City Clerk's Office will begin binding the Resolutions.

Miscellaneous

Elections
The City Clerk along with the State's Division of Elections is considering moving Precinct #1 from the Long House Hotel to an alternate location. The City Clerk will be preparing a Resolution for Council's consideration as well as for public comment to determine if the community would be in favor of housing both Precinct #1 and Precinct #1 at the Cultural Center. If, after the public comment, the community is not is support of this alternative, the City Clerk's Office will be searching for other precinct options.

Committee/Commission
The City Clerk's Office has received applications for reappointment from some of the member's whose terms will expire in December. When received, the applications are provided to the Mayor for approval then placed on the Council's agenda for final appointment.

As with previous years, the City Clerk's Office will hold the committee and commission training in February and March of 2014.

Much time has been spent reviewing the City's Water and Sewer Rate Study provided by CH2MHILL. The AM prepared for the agenda provides a brief summary of the study as well as recommendations selected by the Mayor.

As a member of three committees for the Alaska Association of Municipal Clerks, the City Clerk's Office has been preparing for the committees a number of forms and electronic certificates for the upcoming AML Conference.

Executive Session

Additional Information