



City of Bakersfield

Water Rate Study Report

Draft Report
July 19, 2017





Mr. Nelson Smith
Finance Director
City of Bakersfield
1600 Truxtun Avenue.
Bakersfield, CA 93301

July 19, 2017

Subject: Water Rate Study Report

Dear Mr. Smith,

Stantec Consulting is pleased to present this Water Rate Study Report that we performed for the City of Bakersfield (City). We appreciate the fine assistance provided by you, the members of the City staff, and the consultants from the firm of Fieldman, Rolapp & Associates, Inc. who participated in the development of the Report.

This Report primarily addresses financial planning for the domestic water fund in response to capital investments and operational changes needed for 1,2,3-trichloropropane treatment from the City's groundwater supply. Our efforts were completed using standard rate setting principles established by the American Water Works Association.

If you or others at the City have any questions, please do not hesitate to call me at (510) 316-0621 or email me at mark.hildebrand@stantec.com. We appreciate the opportunity to be of service to the City, and look forward to the possibility of doing so again in the near future.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Hildebrand".

Mark Hildebrand
Principal Consultant

Enclosure

Executive Summary

The City of Bakersfield (City) engaged Stantec Consulting to study the finances of the City's Domestic Water Fund and develop recommendations for updating the Domestic Water Rates. The complete Water Rate Study Report (Report) is primarily a long-range financial plan with recommended rate revenue adjustments, and also includes recommendations regarding cost of service, rate design, and financial policies for the Domestic Water Fund. The rates recommended in this Report reflect the City's cost of providing water services to its customers.

In early March 2017, the State Water Resources Control Board Division of Drinking Water (DDW) issued a Notice of Proposed Rulemaking for a new maximum contaminant level for the synthetic organic chemical 1,2,3-trichloropropane (TCP). The anticipated implementation schedule for the new regulation requires utilities to begin sampling for TCP in drinking water as early as the first quarter of 2018. It is expected that the City will begin treatment at 41 wells for a capital cost of approximately \$55 million (the majority of which will be financed with two Water Revenue Bonds) and an estimated additional \$5 million in annual operating costs.

Purpose - The purpose of this Report is to assess the Domestic Water Fund's finances and recommend Domestic Water service rate adjustments that will generate the rate revenue needed to meet the current and projected costs of providing water service.

Financial Plan - In order to evaluate the long-term financial sustainability of the Domestic Water Fund, the project team evaluated the revenues and expenses in a five-year financial plan. In addition to accounting for operating costs, capital spending, and projected debt service, the financial plan also accounts for non-rate revenue, reserve targets, and financial performance metrics (specifically, the debt service coverage ratio). This report recommends that the City adopt the following Water Service rate increases:

October 2017	16% increase
July 2018	13% Increase
July 2019	7.6% increase

The following table provides the schedule of Domestic Water Service rates for inside-city customers for the planning period.

General Metered Service Within City Limits	Proposed Rates		
	<u>October 1, 2017</u>	<u>July 1, 2018</u>	<u>July 1, 2019</u>
	16% increase	13% increase	7.6% increase

Quantity Rate (per 100 cubic ft.)				
	\$0.94	\$1.09	\$1.23	\$1.32

Readiness-To-Serve Charge (per month):				
5/8" x 3/4" Services	\$9.88	\$11.46	\$12.95	\$13.93
1" Services	\$15.06	\$17.47	\$19.74	\$21.24
1-1/2" Services	\$22.98	\$26.66	\$30.13	\$32.42
2" Service	\$31.28	\$36.28	\$41.00	\$44.12
3" Services	\$57.80	\$67.05	\$75.77	\$81.53
4" Service	\$84.02	\$97.46	\$110.13	\$118.50
6" Service	\$151.00	\$175.16	\$197.93	\$212.97
8" Service	\$232.12	\$269.26	\$304.26	\$327.38
10" Service	\$319.95	\$371.14	\$419.39	\$451.26

Private Fire Protection Service Charge (per month):				
1-1/2" Connection	\$9.33	\$10.82	\$12.23	\$13.16
2" Connection	\$12.44	\$14.43	\$16.31	\$17.55
3" Connection	\$18.66	\$21.65	\$24.46	\$26.32
4" Connection	\$24.87	\$28.85	\$32.60	\$35.08
6" Connection	\$37.30	\$43.27	\$48.90	\$52.62
8" Connection	\$49.74	\$57.70	\$65.20	\$70.16
10" Connection	\$62.17	\$72.12	\$81.50	\$87.69
12" Connection	\$74.61	\$86.55	\$97.80	\$105.23

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Section 1. INTRODUCTION

The City of Bakersfield (City) engaged Stantec Consulting to study the finances of the City's Domestic Water Fund and develop recommendations for updating the Domestic Water Rates. This Water Rate Study Report (Report) is primarily a long-range financial plan with recommended rate revenue adjustments, and also includes recommendations regarding cost of service, rate design, and financial policies for the Domestic Water Fund. The rates recommended in this Report reflect the City's cost of providing water services to customers.

1.1 SYSTEM OVERVIEW

The City is the county seat and the principal metropolitan city of Kern County. The City operates under a council-manager form of government, with the City's Water Board recommending, administering and implementing domestic water and Kern River water policies set by the City Council. The City's Domestic Water system provides drinking water to over 143,000 residents and local businesses in Bakersfield. The City operates the Domestic Water Fund as an enterprise fund.

The City's Domestic Water System is a local water purveyor that serves retail customers within its service area. California Water Service (Cal Water) is under contract to operate and maintain the City's Domestic Water System. Outside of the Domestic Water System, the City wholesales a portion of its Kern River water to various water entities. A portion of the urban water demand within the City limits is satisfied through the City's Kern River deliveries to water treatment plants owned and operated by Cal Water and the Kern County Water Agency.

1.2 PROJECT BACKGROUND

In early March 2017, the State Water Resources Control Board Division of Drinking Water (DDW) issued a Notice of Proposed Rulemaking for a new maximum contaminant level (MCL) for the synthetic organic chemical 1,2,3-trichloropropane (TCP). The anticipated implementation schedule for the new regulation requires utilities to begin sampling for TCP in drinking water as early

as the first quarter of 2018. DDW will require that the City comply with the new regulation within the City's Domestic Water System service area.

Of the City's 64 groundwater wells, 41 currently exceed the proposed standard for TCP. The City has divided the TCP treatment project between 27 wells with the most immediate need and 14 remaining wells. The treatment of those wells (the "TCP Treatment" project) is estimated to result in a cost of approximately \$55 million (\$35 million in the first year (FY 2017-18¹) and \$20 million in the second year. The City anticipates that it will apply approximately \$12.6 million of cash on hand to the initial costs of treatment. The remainder of the costs (\$42.4 million) will be financed with two Water Revenue Bond issuances, the first anticipated in October 2017 and the second in FY 2018-19.

1.3 PURPOSE OF THE REPORT

The purpose of this Report is to assess the Domestic Water Fund's finances and recommend Domestic Water service rate adjustments that will generate the rate revenue needed to meet the current and projected costs of provided water service. While this report also makes recommendations regarding best practices for cost of service, rate design and utility financial policies, the focus of the report are the water rates that will enable the City to immediately address the health and regulatory priorities of the City.

The City is committed to serving its customers with reliable, economical, and high-quality water service. The financial planning associated with this Report furthers these goals by developing rates that support the City's financial goals and policies.

¹ Fiscal years begin on July 1 and end on June 30. For example, FY 2017-18 runs from July 1, 2017 to June 30, 2018.

1.4 PROJECT METHODOLOGY

The financial plan presented herein compares the overall revenues of the Domestic Water Fund to its operating, capital, and debt costs in order to determine the rate adjustments that will result in strong fiscal health over the planning period. This study follows industry-accepted financial planning principles, including those promulgated by the American Water Works Association’s M1 Manual. This study incorporates the best available projections for operating costs, capital expenditures, debt service, and customer base growth.

1.5 ACRONYMS AND ABBREVIATIONS

AWWA	American Water Works Association
CIP	Capital Improvement Program
City	City of Bakersfield
DSCR	debt service coverage ratio
DDW	State Water Resources Control Board Division of Drinking Water
FY	fiscal year (which begins on July 1)
HCF	hundred cubic feet
MCL	maximum contaminant level
R&R	repair and rehabilitation
Report	Water Rate Study Report
TCP	1,2,3-trichloropropane

Section 2. **FINANCIAL PLAN**

In order to evaluate the long-term financial sustainability of the Domestic Water Fund, the project team evaluated the revenues and expenses in a five-year financial plan. In addition to accounting for operating costs, capital spending, and debt service, the financial plan also accounts for non-rate revenue, reserve targets and financial performance metrics (specifically, the debt service coverage ratio).

2.1 **CAPITAL FINANCING POLICIES**

City's Domestic Water Fund has not historically issued external debt to finance its capital expenses, and as such does not have a credit rating, nor a formal policy for debt service coverage ratio (DSCR), which is the ratio of revenues net of all operating and maintenance expenses relative to the annual debt service². The City's Sewer Fund has recently issued debt, achieving an "AA" credit rating. Based on the guidance of the City's Financial Advisor (Fieldman, Rolapp & Associates, Inc. - Fieldman), the City's Domestic Water Fund is targeting the same "AA" credit rating for the two Water Revenue Bonds it anticipates issuing for financing of the capital costs of the TCP treatment project. A DSCR target of 1.60 was used in these projections, based on the DSCR target used by the City's Sewer utility.

2.2 **RESERVE POLICIES**

Similar to maintaining a strong DSCR, adhering to robust reserve policies will strengthen the Domestic Water Fund's credit rating. Target reserve policies are

² DSCR is calculated as net revenue (excluding connection fee revenues) divided by projected debt service. The City's existing debt obligation, the Kern County Water Lease, is included in this calculation as an operating expense rather than as existing debt, per the terms of that debt agreement.

designed to establish sound formal fiscal guidelines to ensure strong fiscal management that guide future City decisions.

For purposes of this Study, we have assumed a 6-month Operating Reserve policy, which means that 180 days of operating costs are kept available in cash reserves. This reserve ensures continuity of service regardless of short-term changes in cash flow or sudden increases in operating costs. Since this reserve target is set relative to the Domestic Water Fund's operating budget, the target will change as the budget changes (see Section 2.4.2). As detailed in Schedule 3 and Schedule 4, the Operating Reserve target will range from approximately \$11.1 million in FY 2017-18 to \$15.2 million in FY 2021-22.

Going forward, the City may wish to consider adopting more comprehensive reserve policies that may include components such as:

- ▶ A "Rate Stabilization" reserve designed to smooth rate volatility during short to mid-term rate revenue loss.
- ▶ A "Capital Improvement Program" reserve designated for funding capital assets and designed to stabilize funding for capital by accumulating "pay as you go" reserves.

2.3 MODELING ASSUMPTIONS

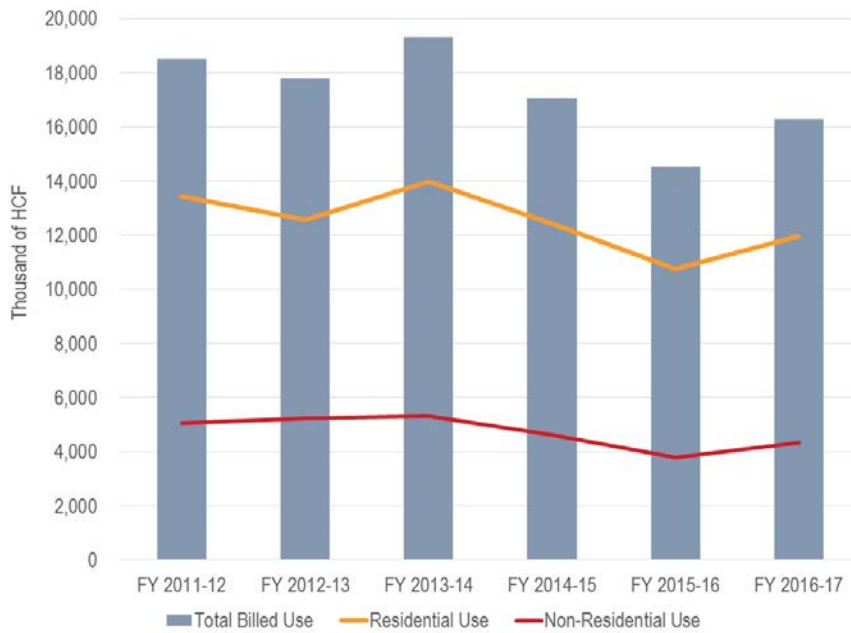
This financial plan was developed using Stantec's proprietary financial planning model (FAMS XL®), which was loaded with the Domestic Water Fund's most recent audited financial information and adopted budgets for the study period. City staff and Fieldman were consulted during the process of developing the following financial assumptions.

2.3.1 GROWTH ASSUMPTIONS

Customer growth was assumed to be 1.8% per year based on the City's 2015 Urban Water Management Plan (dated June 2017). Per-capita water usage was projected to remain at the level of water usage in FY 2016-17. As represented in Figure 1, starting point for water usage is 12% higher than the (recent) historical low of FY 2015-16, and 5.9% lower than the five-year average. Total water usage

is assumed to increase at the rate of customer growth over the five-year projection period.

Figure 1 – Domestic Customers Historical Water Usage



2.3.2

ESCALATION ASSUMPTIONS

A general escalation assumption of 2.3 percent³ per year was assumed for projecting future operating costs. Future capital project costs were inflated at a rate of 3.0 percent⁴ per year. For variable costs that change in proportion to water usage (e.g. pumping costs & purchased water), the escalation factor was based on the system growth assumption of 1.8% compounded with the general escalation assumption above, for a combined 4.1%.

³ Source: Second Quarter 2017 Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia, 10-year inflation forecast.

⁴ Source: Staff estimate, based on historical construction escalation.

2.4 RATE REVENUE REQUIREMENTS

The Domestic Water Fund's rate revenue requirements are calculated by measuring all revenue sources (rate and non-rate revenue) against all expenses (operating costs and capital costs, both cash and debt service) while accounting for cash reserve and debt service coverage targets (as described in Section 2.1 and Section 2.2). The Domestic Water Fund's revenues and expenses are described in detail below. Note that all budget values in this report were provided by City staff, as documented in detail in the financial model developed by Stantec ("Bakersfield FY 18 FAMS_Final").

2.4.1 BEGINNING FUND BALANCES

The Domestic Water Fund is comprised of a single fund, which had an unencumbered cash balance of approximately \$31,800,000 at the beginning of FY 2017-18^{5,6}.

2.4.2 REVENUE REQUIREMENTS

Revenue requirements are organized into Operating Costs, Capital Spending, and Debt Service, as detailed below.

Operating Costs - The financial plan model was populated with Domestic Water's adopted operating budget for FY 2017-18. Operating budgets were forecasted using the escalation assumptions described in Section 2.3.2.

⁵ Source: City Finance Director during July 5, 2017 workshop.

⁶ Refer to Section 2.4.4 regarding a separate Connection Fee fund that the City will utilize going forward.

In addition to the escalation of existing operating costs, the TCP treatment will add new operating costs of an estimated \$5 million per year⁷ for activities such as water sampling, additional reporting, and filter media replacement.

The operating budget projections for the next five years are summarized in Table 1. A more detailed list is provided as Schedule 1.

Table 1 – Forecasted Operating Expenses

Operating Expense ¹	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Salaries and Benefits	\$ 1,510,000	1,552,000	1,596,000	1,641,000	1,689,000
Other Outside Services ²	7,445,000	7,754,000	8,075,000	8,409,000	8,757,000
Phase 1 TCP Treatment	-	3,000,000	3,124,000	3,254,000	3,388,000
Phase 2 TCP Treatment	-	-	2,083,000	2,169,000	2,259,000
Water	4,158,000	4,254,000	4,352,000	4,452,000	4,554,000
Electricity	3,932,000	4,022,000	4,115,000	4,210,000	4,306,000
Taxes	620,000	634,000	649,000	664,000	679,000
Repair & Maintenance	1,560,000	1,460,000	1,494,000	1,528,000	1,563,000
KCWA Water Rights Lease	1,385,000	1,348,000	1,350,000	1,349,000	1,348,000
Other	1,722,000	1,760,000	1,801,000	1,840,000	1,881,000
Total	\$ 22,332,000	25,784,000	28,639,000	29,516,000	30,424,000
	Percent change:	15.5%	11.1%	3.1%	3.1%

¹ Values have been rounded

² Predominantly the Cal Water operating contract

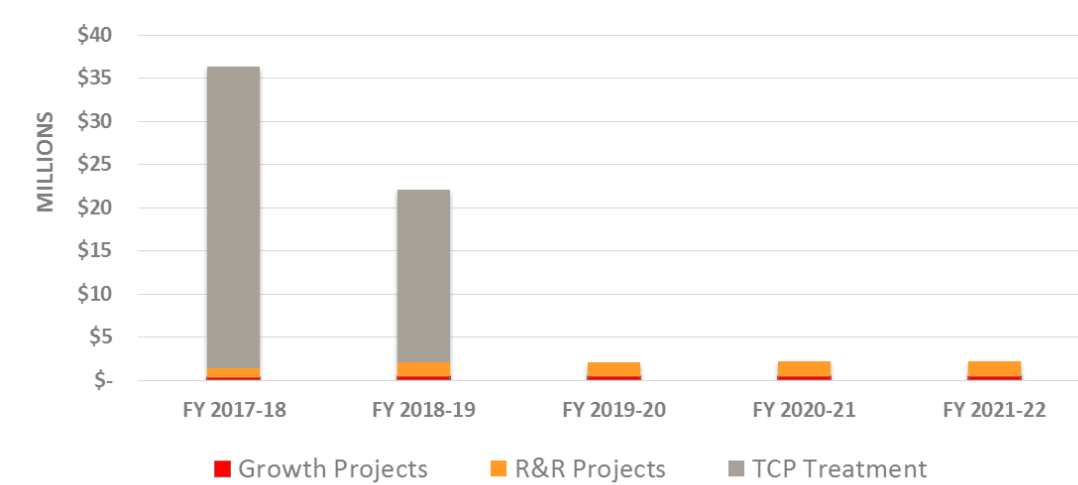
Capital Costs - The capital spending projections in the financial plan model are based on Domestic Water System's Capital Improvement Program (CIP). Detailed capital spending has been projected through FY 2021-22.

Capital projects are separated into two categories: repair and rehabilitation (R&R) projects which are *always* funded through the operating fund, and growth projects which are generally paid for with revenue from Connection Fees, when such funds are available.

A detailed summary of the projected capital spending has been provided in Schedule 2. Figure 2 provides a summary of the projected capital spending. Amounts shown are in nominal dollars (after escalation).

⁷ Approximately \$3 million for Phase I operation starting in FY 2018-19 and additional \$2 million for Phase II operation starting in FY 2019-20.

Figure 2 – Capital Spending Summary



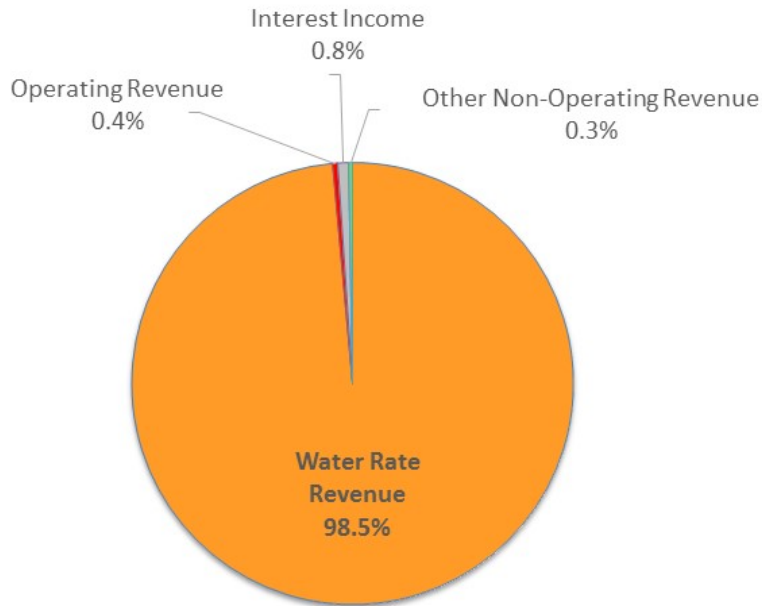
2.4.3 DEBT SERVICE

The TCP project will cost \$55 million, of which \$12.6 million will be paid from existing cash reserves, and the remainder (\$42.4 million) will be financed with Water Revenue Bonds. The anticipated debt service payments for the Water Revenue Bonds, based on the schedules provided by the Fieldman, Rolapp & Associates, are included in Schedule 4 and Schedule 5.

2.4.4 EXISTING REVENUE

As shown in Figure 3, the unrestricted revenues received by the Domestic System Fund are predominately from rates (98.5%) but it also receives some non-rate revenue that financially supports its operations. Schedule 4 shows a summary of the projected revenues through FY 2021-22 assuming no rate adjustments. The City also collects Connection Fees, however the use of Connection Fee revenue is restricted to growth-related projects.

Figure 3 – Revenue Sources in FY 2017-18



The Report assumed interest earnings on the cash balance at a rate of 1.1%⁸ for the duration of the study period.

2.4.5 RESTRICTED FUNDS

As previously mentioned, the Domestic Water Fund assesses a Connection Fee⁹ on new connections and upgrades to existing connections to the water system. These funds are restricted for the construction of facilities that provide additional capacity to the Domestic Water System. Going forward, to more easily track the use of these funds, the City will deposit this revenue in a restricted fund.

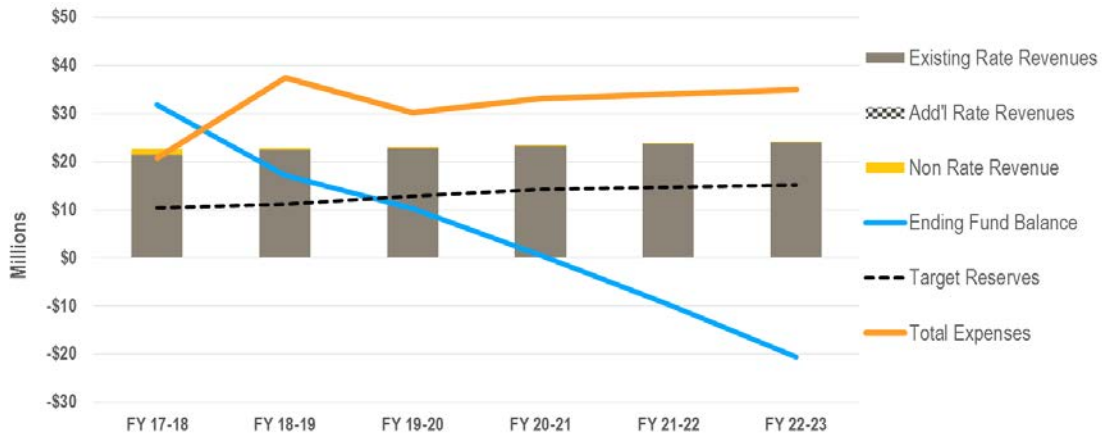
⁸ Per the City Treasurer via Randy McKeegan email on June 26, 2017.

⁹ Connection Fees in this case are synonymous with developer impact fees or capacity charges (as used in California law).

2.5 FORECAST WITH NO RATE ADJUSTMENTS

Figure 4 below shows a five-year cash flow projection based on a scenario in which the City proceeds with issuing the Water Revenue Bonds to finance the TCP Treatment project, but makes no adjustment to water rates. The figure illustrates that the fund balance (blue line) will drop below zero within four years as a result of expenses (orange line) consistently exceeding revenues (bars). This is considered a non-viable scenario presented for informational purposes only.

Figure 4 – Domestic Fund Cash Flow Analysis – No Rate Increases



The pro forma provided in Schedule 4 shows the detailed numerical results of the same scenario. The details in Schedule 4 also shows that the Domestic Water Fund’s projected DSCR would have a negative value, which would result in the City not qualifying for Water Revenue Bonds.

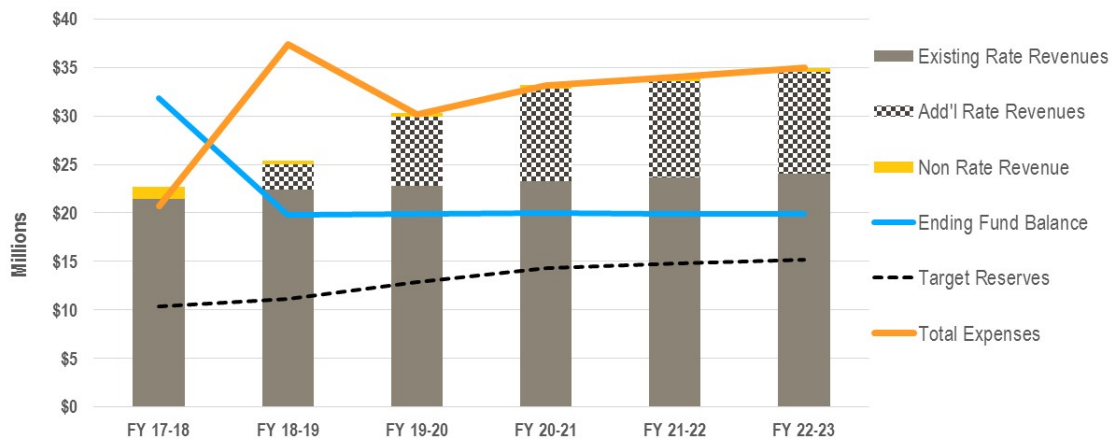
2.6 RECOMMENDED RATE ADJUSTMENTS

This report recommends that the City adopt the following Water Service rate increases:

October 2017	16% increase
July 2018	13% Increase
July 2019	7.6% increase

Figure 5 below shows the five-year cash flow projection given these rate increases. The figure illustrates that the fund balance (blue line) stays above the reserve target (dashed black line). The fact that the reserve levels do not drop to the reserve target is a result of the fact that the DSCR remains at, or above, 1.6 (see pro forma in Schedule 5) and the Domestic Water System has very little capital spending needs after FY 2019-20 (which means that the extrarate revenue generated in meeting debt service coverage is not spent on capital projects).

Figure 5 – Domestic Fund Cash Flow Analysis – Recommended Rate Increases



The pro forma in Schedule 5 shows the detailed numerical results of this scenario.

Schedule 6 provides the proposed schedule of rates for Inside-City customers for the planning period.

Section 3. CONCLUSION

This Report uses methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable law, including Proposition 218. The proposed adjustments to the rates will provide revenue stability and continue to equitably and proportionately recover costs from the appropriate customers.

In general the structure of the Domestic Water rates are consistent with common industry practices. Stantec recommends that the City conduct regular cost-of-service analyses as a standard practice in order to ensure compliance with all applicable regulations.

It is worth noting that the rates that are adopted by City Council do not necessarily need to be fully implemented if the financial condition of the Domestic Water Fund improves in the coming years (whether by higher than forecasted revenue or lower than forecasted expenses).

DISCLAIMER

This document was produced by Stantec Consulting Services, Inc. (“Stantec”) for the City of Bakersfield (City) and is based on a specific scope agreed upon by both parties. In preparing this report, Stantec utilized information and data obtained from the City or public and/or industry sources. Stantec has relied on the information and data without independent verification, except only to the extent such verification is expressly described in this document. Any projections of future conditions presented in the document are not intended as predictions, as there may be differences between forecasted and actual results, and those differences may be material.

Additionally, the purpose of this document is to summarize Stantec’s analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliances on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by the City should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.

Schedule 1 – Detailed Operating Budget and Forecast¹⁰

	<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>
1 <u>Personal Services:</u>					
2 Regular Pay	\$ 914,000	935,000	957,000	979,000	1,001,000
3 Temporary Pay	34,000	35,000	35,000	36,000	37,000
4 Overtime Pay	5,000	5,000	5,000	5,000	5,000
5 Accrued Leaves Payoff	40,000	41,000	42,000	43,000	44,000
6 Longevity Pay	1,000	1,000	2,000	2,000	2,000
8 Speciality Pay	1,000	1,000	1,000	1,000	1,000
9 Auto Allowance	6,000	6,000	6,000	6,000	7,000
12 Sick Leave Conversion Pay	6,000	6,000	6,000	6,000	6,000
13 Life Insurance	1,000	1,000	1,000	1,000	1,000
14 Medicare Insurance	13,000	13,000	13,000	13,000	14,000
15 Medical Insurance-Active	127,000	130,000	133,000	136,000	139,000
16 Medical Insurance-Retiree	44,000	45,000	46,000	47,000	48,000
17 Workers Comp Ins Alloc	19,000	19,000	20,000	20,000	21,000
18 Pers - Miscellaneous	297,000	312,000	327,000	344,000	361,000
19 City 1% Match - Rhs Plan	2,000	2,000	2,000	2,000	2,000
20 <u>Water Operations</u>					
21 Administrative Allocation	\$ 375,000	384,000	392,000	401,000	411,000
22 Direct Allocation	11,000	11,000	11,000	11,000	11,000
23 Legal	400,000	409,000	419,000	428,000	438,000
24 Other Professional	400,000	409,000	419,000	428,000	438,000
25 Internal Vehicles	69,000	70,000	72,000	73,000	75,000
26 Internal Comm Equip	1,000	1,000	1,000	1,000	1,000
27 Internal Telephone Equip	3,000	3,000	3,000	4,000	4,000
28 Repair & Maintenance	1,560,000	1,460,000	1,494,000	1,528,000	1,563,000
29 Liability Ins Allocation	4,000	4,000	4,000	4,000	4,000
30 Property Ins Allocation	-	-	-	-	-
31 Telephone-Cell Phone Chg	6,000	6,000	7,000	7,000	7,000
32 Advertising	1,000	1,000	1,000	1,000	1,000
33 Printing And Binding	7,000	7,000	7,000	7,000	7,000
34 Internal Duplication	1,000	1,000	1,000	1,000	1,000
35 Internal Garbage	3,000	3,000	3,000	3,000	3,000
36 Internal Sewer	3,000	3,000	3,000	3,000	3,000
37 Reimbursable Expense	7,000	7,000	7,000	7,000	7,000
38 Other Outside Services	7,445,000	7,754,000	8,075,000	8,409,000	8,757,000
39 Water	4,158,000	4,254,000	4,352,000	4,452,000	4,554,000
40 Natural Gas	2,000	2,000	2,000	2,000	2,000
41 Electricity	3,932,000	4,022,000	4,115,000	4,210,000	4,306,000
42 Office Supplies	4,000	4,000	4,000	4,000	4,000
43 Maintenance	140,000	143,000	147,000	150,000	153,000
44 Uniforms & Accessories	1,000	1,000	1,000	1,000	1,000
45 Computer Supplies	3,000	3,000	3,000	3,000	3,000
46 Equipment Parts	3,000	3,000	3,000	3,000	3,000
47 Other Materials/Supplies	207,000	212,000	217,000	222,000	227,000
48 Furniture & Equip (Minor)	4,000	4,000	4,000	4,000	4,000
49 Taxes	620,000	634,000	649,000	664,000	679,000
50 Other Equipment	67,000	69,000	70,000	72,000	73,000
51 Administrative Allocation	-	-	-	-	-
52 Direct Allocation	-	-	-	-	-
53 Land & Improvements	-	-	-	-	-
54 Other Equipment	-	-	-	-	-
55 Kcwa Water Rights Lease	1,385,000	1,348,000	1,350,000	1,349,000	1,348,000
56 <u>TCP Remediation Expense</u>					
57 Phase I Cost	-	3,000,000	3,124,000	3,254,000	3,388,000
58 Phase II Cost	-	-	2,083,000	2,169,000	2,259,000
59 Total Operating Expense	\$ 22,332,000	\$ 25,784,000	\$ 28,639,000	\$ 29,516,000	\$ 30,424,000

¹⁰ Actual budget amounts have been rounded

Schedule 2 – Capital Improvement Program¹¹

<u>Project</u>	<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>
Wellhead Facility Upgrades	\$ 400,000	400,000	412,000	424,000	437,000
Service Connection Replacement Program	600,000	800,000	824,000	849,000	874,000
Build Exp 1000 Buena Vista (DWF)	350,000	-	-	-	-
Pump Station Upgrades	-	400,000	412,000	424,000	437,000
Water Main Extensions	-	450,000	464,000	477,000	492,000
TCP Treatment Project	35,000,000	20,000,000	-	-	-
Total Projects Paid	\$ 36,350,000	\$ 22,050,000	\$ 2,112,000	\$ 2,174,000	\$ 2,240,000

¹¹ Actual budget amounts have been rounded

Schedule 3 – Sources of Revenue (No Rate Adjustment)¹²

	<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>
1 <u>Rate Revenue Growth Assumptions:</u>					
2 Growth in Water Accounts	1.80%	1.80%	1.80%	1.80%	1.80%
3 Growth in Total Billed Water Use	1.80%	1.80%	1.80%	1.80%	1.80%
4 Assumed Water Rate Increase	0.00%	0.00%	0.00%	0.00%	0.00%
5 <u>Rate Revenue:</u>					
6 Water Rate Revenue	\$ 22,431,000	22,835,000	23,246,000	23,664,000	24,090,000
7 <u>Other Operating Revenue:</u>					
8 Plan Checking Fees	\$ 18,000	18,000	19,000	19,000	19,000
9 Safety Review/Inspection	10,000	10,000	10,000	11,000	11,000
10 Fire Hydrants Sales	60,000	61,000	62,000	63,000	64,000
11 Fire Hydrant Testing	7,000	7,000	7,000	7,000	7,000
12 Rents and Royalties	1,000	1,000	1,000	1,000	1,000
13 Total Other Operating Revenue	\$ 96,000	97,000	99,000	101,000	102,000
14 <u>Non-Operating Revenue:</u>					
15 Pr. Yr. Reimbursements	\$ 50,000	51,000	\$ 52,000	\$ 53,000	\$ 54,000
16 Wtr/Swr Line Ext Refunds	5,000	5,000	5,000	5,000	5,000
17 Insurance Commissions	5,000	5,000	5,000	5,000	5,000
18 Sale-Scrap & Supply	7,000	7,000	7,000	7,000	8,000
19 Other Revenue	5,000	5,000	5,000	5,000	5,000
20 Interest Income	200,000	151,000	59,000	(50,000)	(167,000)
21 Total Non-Operating Revenue	\$ 272,000	224,000	133,000	25,000	(90,000)
22 Total Revenue	\$ 22,799,000	23,156,000	23,478,000	23,790,000	24,102,000

¹² Actual budget amounts have been rounded

Schedule 4 –Forecast with No Recommended Rate Adjustment (Non-Viable Scenario)¹³

	<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>
1 Rate Revenue Increase	0.00%	0.00%	0.00%	0.00%	0.00%
2 Revenues					
3 Rate Revenue Before Adjustments	\$ 22,431,000	22,431,000	22,835,000	23,246,000	23,664,000
4 Additional Rate Revenue From Growth	-	404,000	411,000	418,000	426,000
5 Additional Rate Revenue From Rate Adjustment	-	-	-	-	-
6 Other Operating Revenues	96,000	97,000	99,000	101,000	103,000
7 Interest Income	200,000	151,000	59,000	(50,000)	(167,000)
8 Connection Fees	1,300,000	1,330,000	1,360,000	1,392,000	1,424,000
9 Other Non-Operating Revenue	72,000	73,000	75,000	76,000	77,000
10 Total Revenues	\$ 24,099,000	24,486,000	24,839,000	25,183,000	25,527,000
11 Operating Expenses					
12 Salaries and Benefits	\$ 1,510,000	1,552,000	1,596,000	1,641,000	1,689,000
13 Other Outside Services ¹	7,445,000	7,754,000	8,075,000	8,409,000	8,757,000
14 Phase 1 TCP Treatment	-	3,000,000	3,124,000	3,254,000	3,388,000
15 Phase 2 TCP Treatment	-	-	2,083,000	2,169,000	2,259,000
16 Water	4,158,000	4,254,000	4,352,000	4,452,000	4,554,000
17 Electricity	3,932,000	4,022,000	4,115,000	4,210,000	4,306,000
18 Taxes	620,000	634,000	649,000	664,000	679,000
19 Repair & Maintenance	1,560,000	1,460,000	1,494,000	1,528,000	1,563,000
20 KCWA Water Rights Lease	1,385,000	1,348,000	1,350,000	1,349,000	1,348,000
21 Other	1,722,000	1,760,000	1,801,000	1,840,000	1,881,000
22 Total Operating Expenses	\$ 22,332,000	25,784,000	28,639,000	29,516,000	30,424,000
23 Net Revenues	\$ 1,767,000	(1,298,000)	(3,800,000)	(4,333,000)	(4,897,000)
24 Cumulative New Debt Service	\$ 1,414,825	2,821,625	2,814,625	2,816,625	2,816,625
25 Projects Paid with Connection Fees	350,000	450,000	463,500	477,405	491,727
26 Transfer to Connection Fee Fund	950,000	880,000	896,500	914,595	932,273
27 Projects Paid with Cash	13,640,000	1,600,000	1,648,000	1,698,000	1,748,000
28 Total Revenue Requirement	\$ 38,687,000	31,536,000	34,462,000	35,423,000	36,413,000
29 Revenues Over (Under) Expenses	\$ (14,588,000)	(7,050,000)	(9,623,000)	(10,240,000)	(10,886,000)
30 Operating Fund - Beginning Balance	\$ 31,800,000	17,214,000	10,164,000	543,000	(9,698,000)
31 Operating Fund - Ending Balance	17,212,000	10,164,000	541,000	(9,697,000)	(20,584,000)
32 Operating Fund - Target Reserves	\$ 11,165,000	10,164,000	543,000	(9,698,000)	(20,587,000)
33 Debt Service Coverage (1.6 Req.)	0.33	(neg.)	(neg.)	(neg.)	(neg.)

(1) The majority of this line item is the current Cal Water contract.

¹³ Actual budget amounts have been rounded

Schedule 5 – Financial Forecast with Recommended Rate Adjustment¹⁴

	<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>
1 Rate Revenue Increase	16.00%	13.00%	7.60%	0.75%	0.88%
2 Revenues					
3 Rate Revenue Before Adjustments	\$ 22,431,000	24,978,000	29,932,000	32,786,000	33,627,000
4 Additional Rate Revenue From Growth	-	468,000	539,000	590,000	605,000
5 Additional Rate Revenue From Rate Adjustment	2,547,000	4,485,000	2,316,000	251,000	303,000
6 Other Operating Revenues	96,000	97,000	99,000	101,000	103,000
7 Interest Income	200,000	218,000	219,000	219,000	219,000
8 Connection Fees	1,300,000	1,330,000	1,360,000	1,392,000	1,424,000
9 Other Non-Operating Revenue	72,000	73,000	75,000	76,000	77,000
10 Total Revenues	\$ 26,646,000	31,649,000	34,540,000	35,415,000	36,358,000
11 Operating Expenses					
12 Salaries and Benefits	\$ 1,510,000	1,552,000	1,596,000	1,641,000	1,689,000
13 Other Outside Services ¹	7,445,000	7,754,000	8,075,000	8,409,000	8,757,000
14 Phase 1 TCP Treatment	-	3,000,000	3,124,000	3,254,000	3,388,000
15 Phase 2 TCP Treatment	-	-	2,083,000	2,169,000	2,259,000
16 Water	4,158,000	4,254,000	4,352,000	4,452,000	4,554,000
17 Electricity	3,932,000	4,022,000	4,115,000	4,210,000	4,306,000
18 Taxes	620,000	634,000	649,000	664,000	679,000
19 Repair & Maintenance	1,560,000	1,460,000	1,494,000	1,528,000	1,563,000
20 KCWA Water Rights Lease	1,385,000	1,348,000	1,350,000	1,349,000	1,348,000
21 Other	1,722,000	1,760,000	1,801,000	1,840,000	1,881,000
22 Total Operating Expenses	\$ 22,332,000	25,784,000	28,639,000	29,516,000	30,424,000
23 Net Revenues	\$ 4,314,000	5,865,000	5,901,000	5,899,000	5,934,000
24 Cumulative New Debt Service	\$ 1,414,825	2,821,625	2,814,625	2,816,625	2,816,625
25 Projects Paid with Connection Fees	350,000	450,000	463,500	477,405	491,727
26 Transfer to Connection Fee Fund	950,000	880,000	896,500	914,595	932,273
27 Projects Paid with Cash	13,640,000	1,600,000	1,648,000	1,697,000	1,748,000
28 Total Revenue Requirement	\$ 38,687,000	31,536,000	34,462,000	35,422,000	36,413,000
29 Revenues Over (Under) Expenses	\$ (12,041,000)	113,000	78,000	(7,000)	(55,000)
30 Operating Fund - Beginning Balance	\$ 31,800,000	19,760,000	19,875,000	19,954,000	19,947,000
31 Operating Fund - Ending Balance	19,759,000	19,873,000	19,953,000	19,947,000	19,892,000
32 Operating Fund - Target Reserves	\$ 11,165,000	12,892,000	14,319,000	14,759,000	15,214,000
33 Debt Service Coverage (1.6 Req.)	2.13	1.61	1.61	1.60	1.60

(1) The majority of this line item is the current Cal Water contract.

¹⁴ Actual budget amounts have been rounded

Schedule 6 – Proposed Rate Schedule

General Metered Service Within City Limits	Proposed Rates		
	October 1, 2017	July 1, 2018	July 1, 2019
	16% increase	13% increase	7.6% increase

Quantity Rate (per 100 cubic ft.)				
	\$0.94	\$1.09	\$1.23	\$1.32

Readiness-To-Serve Charge (per month):				
5/8" x 3/4" Services	\$9.88	\$11.46	\$12.95	\$13.93
1" Services	\$15.06	\$17.47	\$19.74	\$21.24
1-1/2" Services	\$22.98	\$26.66	\$30.13	\$32.42
2" Service	\$31.28	\$36.28	\$41.00	\$44.12
3" Services	\$57.80	\$67.05	\$75.77	\$81.53
4" Service	\$84.02	\$97.46	\$110.13	\$118.50
6" Service	\$151.00	\$175.16	\$197.93	\$212.97
8" Service	\$232.12	\$269.26	\$304.26	\$327.38
10" Service	\$319.95	\$371.14	\$419.39	\$451.26

Private Fire Protection Service Charge (per month):				
1-1/2" Connection	\$9.33	\$10.82	\$12.23	\$13.16
2" Connection	\$12.44	\$14.43	\$16.31	\$17.55
3" Connection	\$18.66	\$21.65	\$24.46	\$26.32
4" Connection	\$24.87	\$28.85	\$32.60	\$35.08
6" Connection	\$37.30	\$43.27	\$48.90	\$52.62
8" Connection	\$49.74	\$57.70	\$65.20	\$70.16
10" Connection	\$62.17	\$72.12	\$81.50	\$87.69
12" Connection	\$74.61	\$86.55	\$97.80	\$105.23