



Office of the City Manager

WORKSESSION
March 16, 2021

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: Rama Murty, Acting Budget Manager

Subject: Unfunded Liability Obligations and Unfunded Infrastructure Needs

INTRODUCTION

On May 29, 2012, the City Council adopted Resolution No. 65,748 N.S. “Requiring that the City Manager Develop and Publish a Biennial Report of Current City Liabilities and Projections of Future Liabilities.”¹ The purpose of this report is to provide a thorough overview of the City’s long-term expenditure obligations in a format that is easily understandable in a single report.

This report includes the following information set forth in that Resolution:

1. Employee and retiree benefit costs over a 10-year horizon
2. Costs for current active employees including:
 - a. total payroll costs for active employees during the current year;
 - b. projected payroll costs for the same number of employees for the next 10-year period with costs increases based on MOU’s with bargaining units.
3. A summary of all current City obligations including:
 - a. general obligation bonds;
 - b. certificates of participation;
 - c. loans;
 - d. all other current long-term obligations.

¹ http://www.cityofberkeley.info/Clerk/City_Council/2012/05May/City_Council_05-29-2012_%e2%80%93_Regular_Meeting_Annotated_Agenda.aspx (Item #39)

4. Summary of all capital assets and infrastructure including:
 - a. Appraisal of Public Buildings valued at \$5 million or more
 - b. Condition of Streets and Roads using the “Street Saver” information projecting costs to bring streets and roads condition to an average Pavement Condition Index (PCI) of 75 within 5 years.
 - c. Sewers: updated asset management plan for public sewers including projected costs for succeeding 5 years and projected revenue from sewer fees for the succeeding 5 years.

This report is required to be published every two years, in the second year of the biennial budget, in advance of the Council’s consideration of the upcoming biennial budget. The City is implementing a one-year budget for FY 2022 and then implement a biennial budget process for FY 2023 & FY 2024.

The projections in this report were developed by staff in the City Manager’s Budget Division and the Finance Department, with the assistance of several financial advisors including the City’s sales tax consultant and actuaries. Revenues are, of course, sensitive to normal business cycles as well as unanticipated economic volatility. Thus, it is important that the City continue its fiscally prudent planning to balance expenditures against projected revenues while addressing employee compensation as well as historically underfunded infrastructure needs.

SUMMARY

The following is a summary of key points that will be explained in detail in this report:

- Due to projected increases in expenses, primarily pension and medical, the City currently projects a General Fund structural deficit.
- The City has a significant pension liability that is anticipated to grow due to recent financial losses experienced by CalPERS. Also, of note, the City’s pension contributions for all City employees are anticipated to increase more than \$40 million over the next ten years putting a strain on resources and services.
- The City’s retiree health plans are significantly underfunded with the funded status of the City’s plans ranging from a low of 6.16% to a high of 43.79%.
- Due to the age of the City’s infrastructure and limited resources allocated to infrastructure, the City’s unfunded needs tied to infrastructure have increased over the years and is anticipated to range around \$1.1 billion from FY 2022 to FY 2026. Of note, the City’s street infrastructure is likely to further deteriorate without a significant infusion of new resources.

- Despite the recent adoption of Measure T1 and Measure O, the City has an aggregate bond tax rate for FY 2020 of 0.0540% (which represents \$54 for each \$100,000 in assessed value (“A.V”), which is below the historical peak of approximately \$95 (per \$100,000 in A.V) in tax year 1999-2000.
- The City’s ability to borrow is negatively impacted by its unfunded liabilities and the City needs to perform additional analysis to determine the extent to which the City’s unfunded liabilities will constrain future bond initiatives.
- Due to significant decreases in revenue and rising expenses, the Marina Fund is on the brink of insolvency and requires additional resources to meet current obligations.

CURRENT SITUATION AND ITS EFFECTS

1. Employee and Retiree Benefit costs over a 10-year horizon

a. CalPERS Retirement Benefits

The City provides retirement benefits for employees through its participation in the California Public Employees’ Retirement System (CalPERS). This is a defined benefit pension plan funded by a combination of employee contributions that are set by statute and employer contributions that fluctuate from year to year based on an annual actuarial valuation performed by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Benefits are based on years of credit service, equal to one year of full-time employment. Members with five years of total service are eligible to retire at age 50 with statutorily reduced benefits.

On January 1, 2013, the Public Employee Pension Reform Act (PEPRA) went into effect. The State law applies to employees hired after January 1, 2013, who are new to CalPERS. These employees are termed PEPRA members and employees that were enrolled in CalPERS (without significant separation) prior to January 1, 2013, are now referred to as “classic” members.²

The City contributes to three plans in the CalPERS system: Police Safety Plan, Fire Safety Plan, and Miscellaneous Employee Plan. Each plan has a different rate for the City’s annual employer contribution which is generally based on the demographics of the plan participants and the value of investment returns of the City’s assets in the CalPERS system. In addition, employees’ contributions vary by plan based on negotiated Memorandum of Understandings (MOU).

² PEPRA miscellaneous members are enrolled in a 2% at 62 plan and PEPRA safety members (Fire and Police) are enrolled in a 2.7% at 57 plan. PEPRA members are required to pay half the normal cost of their plans.

In 2013, the CalPERS Board voted to change the actuarial model for the pension plans along with certain actuarial assumptions upon which rates are based. First, the model anticipated that the plans would be 100 percent funded in a fixed 30-year time period. Second, the time period to “smooth out” the impacts of CalPERS’ investment losses due to the recession was reduced from 15 years to 5 years. Finally, the rates were structured in such a way that the first five years were considered to be a “ramp up” period to improve the plans funded percentage. That meant that FY 2016, 2017, 2018, 2019, and 2020 were expected to have higher rates, and the years following were projected to plateau for some time before decreasing in the last five years of the 30-year funding period.

In February 2014, the CalPERS Board voted to retain its current long-term assumed rate of return of 7.5 percent but adopted new mortality assumptions due to the fact that retirees are living longer. As a result of the new assumptions, the cost of employer contributions increased, again.

In December 2016, the CalPERS Board lowered the discount rate from 7.50 percent to 7.00 percent using a three-year phase in beginning with the June 30, 2016, actuarial valuation³. The employer contribution for FY 2020 was calculated using a discount rate of 7.25 percent. CalPERS reduced the return rate to 7.25 percent in July 2018 and will reduce it further to 7.0 percent this year. CalPERS lowered the discount rate because they determined that achieving a 7.5 percent rate of return was now far less likely. The result of this lowered discount rate is that liabilities have grown and the City’s pension contributions have significantly increased.

Currently, changes to the Unfunded Actuarial Liability (UAL) due to actuarial gains or losses as well as changes in actuarial assumptions or methods are amortized using a 5-year ramp up. This method phases in the impact of changes in UAL over a 5-year period and attempts to minimize employer cost volatility from year to year. As a result, however, required contributions can change gradually but significantly over the next five years.

Effective with the June 30, 2019, actuarial valuation, the CalPERS Board adopted a new amortization policy. The new policy shortens the period over which actuarial gains or losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the 5-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains or losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

³ https://www.calpers.ca.gov/page/newsroom/for-the-record/2017/action-prudent-smart-decision?utm_source=newsroom&utm_medium=banner&utm_campaign=FTR-Discount-Rate

For FY 2020, CalPERS reported a 4.7 percent return on investments. This is obviously below CalPERS assumed 7 percent discount rate. As a result, the City's pension contributions will likely increase beyond what is projected in this report as CalPERS seeks to recoup its losses commencing in FY 2023.

With respect to future liabilities for the costs of these plans, the City has regularly retained an outside actuary to review the CalPERS' estimates and provide independent actuary estimates that the City can use in budget planning. The chart below provides CalPERS payment amounts for FY 2021 and FY 2022 as provided to the city by CalPERS. The outside actuary provided estimated payment amounts for FY 2023 through FY 2031.

Future Payments to California Public Employees Retirement System All Plans (dollars in millions)											
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Misc.	35.87	39.19	41.94	44.26	47.51	48.61	51.41	53.35	55.15	57.78	60.68
Police	16.67	17.99	19.13	20.15	21.36	22.48	23.55	24.46	25.26	26.37	27.52
Fire	9.47	10.06	10.80	11.36	12.15	12.81	13.48	14.00	14.43	15.11	15.85
Total	62.00	67.24	71.87	75.77	81.02	83.90	88.44	91.81	94.84	99.26	104.05
FY 2021 and FY 2022 are based on amounts provided by CalPERS.											
FY 2023 through FY 2031 amounts are based on actuary's projections.											
Rates used reflect current MOU agreements: Miscellaneous includes the 8% employee share paid by the City on behalf of the employee as well as the negotiated employee's contribution to the employer rate.											

There are a couple of important points about the chart. The first is that over the next 10 years there is close to an estimated \$42 million dollar increase in pension costs to the City. The next point is that regardless of the City's financial position the payments will have to be made to CalPERS. This financial challenge will require us to be fiscally prudent over this period of time.

The changes made by CalPERS in the last few years are planned to achieve 100% funding for all plans within a 30-year time period. This means that there will be sufficient funds held in each plan to pay obligations for all inactive participants (including retirees) and benefits as a result of prior service for actives.

The funded status of a pension plan is defined as the ratio of assets to a plans accrued liabilities. Based on the CalPERS' actuarial valuations as of June 30, 2019, the City's plans are currently funded as follows: Miscellaneous 70.0%; Police Safety 61.1%; and Fire Safety 71.0%.

California Public Employees Retirement System Funded Status						
Fund Name	Valuation Date	Actuarial Source	Estimated Liability	Plan Assets	Unfunded Liability	% Funded
Miscellaneous	6/30/2019	CalPERS	\$ 1,095.0	\$ 766.8	\$ 328.20	70.0%
Police	6/30/2019	CalPERS	\$ 438.9	\$ 268.0	\$ 170.90	61.1%
Fire	6/30/2019	CalPERS	\$ 286.5	\$ 203.5	\$ 83.00	71.0%

On June 26, 2018, Council authorized the City Manager to establish an IRS Section 115 Pension Trust Fund. The fund can act as a rate stabilization fund and can be used to ease budgetary pressures resulting from unanticipated spikes in employer contribution rates⁴. On May 14, 2019, Council authorized the City Manager to execute a contract with Keenan Financial Services to establish, maintain, and invest the pension Section 115 Trust⁵. The Section 115 Trust currently has a balance of \$10,628,125.22.

On February 27, 2020 the Budget & Finance Policy Committee discussed ongoing funding into the 115 Pension Trust. The following was recommended:

1. Raise the Property Transfer Tax baseline from \$12.5 million to \$15 million. The additional \$2.5M will be allocated to the Trust
2. Property Transfer Tax in excess of \$15 million would be used to fund the City's capital infrastructure need. However, revenue generated from Measure P is excluded from this transfer.
3. Savings generate by prefunding CalPERS will be contributed to the 115 Pension Trust. On an annual basis, staff will analyze the impact of prefunding CalPERS. If the analysis determines that pre-funding CalPERS will result in budgetary savings, the net savings will be contributed to the Trust.

Staff requested Council to delay adopting these policies because the City was facing the financial impacts of the pandemic.

b. Retiree Medical Plans

The City provides post-retirement health insurance benefits in accordance with the Memoranda Agreements between the City and the various collective bargaining units (and to unrepresented employees via Council adopted resolutions). The City has individual trusts for each bargaining unit that fund the medical plans, as well as the closed plan for Police that provides a cash benefit. In 2012 the City and the Berkeley Police Association agreed to a new Retiree Medical plan that provides health insurance premium payments, rather than the pre-existing cash payments, to retirees. The original plan is now a "closed" plan meaning that employees who retire after September 2012

⁴ https://www.cityofberkeley.info/Clerk/City_Council/2018/06_June/Documents/2018-06-26_Item_19_Authorization_to_Establish_IRS.aspx

⁵ https://www.cityofberkeley.info/Clerk/City_Council/2019/05_May/City_Council_05-14-2019_-_Regular_Meeting_Agenda.aspx (Item #5)

will receive benefits from the new plan. However, the original plan must still make benefit payments to existing retirees and thus must continue to be funded until those payment obligations cease.

The City obtains actuarial reports for each of these plans at least every two years and the City is responsible for investing the assets in these plans. The results of that investment activity are provided to the City Council in the regular Investment Report.

In some cases, the City's actual contribution to each plan on an annual basis is based on the actuarially established "Annual Required Contribution" or as a percent of payroll. However, some of the plans are funded on a "pay-as-you-go" basis. Funding on a pay-as-you-go basis is sufficient to cover the annual benefit payments made from the plan assets but impacts the ability to achieve the long-term funding targets.

On April 24, 2017, the City actuary presented various options that would reduce the City's unfunded liabilities tied to post-employee benefits to meet the long-term funding targets. Recommended for Council's consideration were fully prefunding annual actuarially determined contributions, investment reallocations to increase returns, and establishing an irrevocable supplemental trust⁶. Council has already taken action on some of these recommendations.

The following retiree medical plans are discussed in detailed below:

- Police Retiree Income Benefit Plan (closed plan)
- Police Retiree Health Premium Assistance Plan
- Fire Employees Retiree Health Plan
- Retiree Health Premium Assistance Plan (Non-safety Members)

Police Retiree Income Benefit Plan (closed plan)

The City provides a Retiree Income Benefit Plan for prior Police retirees. To be eligible for benefits, Police employees must retire from the City on or after July 1, 1989 and before September 19, 2012, be vested in a CalPERS pension, have ten years of service with the Berkeley Police department, and retire from the City on or after age 50 or with a disability benefit. Benefits commence 10 years after retirement for retirements before July 6, 1997, 5 years after retirement for retirements before July 1, 2007, and 2 years after retirement for retirements on or after July 1, 2007.

Benefits are payable for the retiree's lifetime and continue for the life of the surviving spouse. For employees retiring before September 19, 2012, the City pays a monthly income benefit equal to the City's Active 2-party Kaiser premium regardless of marital status. In 2020, the City's monthly payment per participant for this benefit ranged from

⁶ https://www.cityofberkeley.info/Clerk/City_Council/2017/04_Apr/City_Council_04-04-2017_-_Special_Meeting_Agenda.aspx

\$398.27 to \$1,559.93, depending on the retirees' years of service at retirement. The monthly benefit is pro-rated based on years of service.

As of June 30, 2020, the most recent actuarial valuation date, the plan was 7.29% funded. The actuarial accrued liability for benefits in this plan was \$79.95 million, and the actuarial value of assets was \$5.83 million, resulting in an unfunded accrued liability of \$74.12 million. Since the implementation of GASB 67 and 68, the Annual Required Contribution (ARC) is no longer provided. In addition, the Police Retiree Income benefit Plan is a closed plan and therefore no "Actuarially Determined Contribution" is provided due to no new members and no payroll information.

Police Retiree Health Premium Assistance Plan

Effective September 19, 2012, the City replaced the "Berkeley Police Retirement Income benefit Plan" with the "Retiree Health Premium Assistance Coverage Plan" for any police employees hired on or after that date, as well as any current employees who retire on or after such date. Under the newly established retiree health premium assistance plan, benefits will be paid by the City directly to the provider who is providing retiree health coverage to the retiree or his or her surviving spouse. The maximum amount will be equal in value to the City sponsored health plan.

To be eligible for benefits, Police employees must retire from the City on or after September 19, 2012, be vested in a CalPERS pension, have ten years of service with the Berkeley Police department, and retire from the City on or after age 50. Benefits commence immediately upon retirement, but may also be deferred for a period during which the member is covered under another health insurance plan.

Benefits are payable for the retiree's lifetime. In 2019 the City paid for employees retiring on or after September 19, 2012, a maximum of \$762.80/month toward the cost of single-party coverage and up to \$1,525.60/month toward the cost of two-party coverage for retirees under age 65 enrolled in the City's Retiree Health Plan. For retirees over age 65 the City's share of single/two-party coverage is a maximum of \$436.14/\$872.28 per month and retirees must pay the difference of the actual premium cost. The City's share will increase by either the amount Kaiser increases the retiree medical premium for that year or 6%, whichever is less. The monthly benefit is pro-rated based on years of service. The City pays this benefit plan on a pay-as-you-go basis.

As of July 1, 2019, the most recent actuarial valuation date, the Actuarially Determined Contribution (ADC) was \$4.43 million and the plan was 6.16% funded. The actuarial accrued liability for benefits was \$40.43 million, and the actuarial value of assets was \$2.49 million, resulting in an unfunded accrued liability of \$37.94 million

Fire Employees Retiree Health Plan

The City sponsors a retiree health benefit plan for its Fire employees. To be eligible for benefits, Fire employees must retire from the City on or after July 1, 1997, be vested in a CalPERS pension, and retire from the City on or after age 50. Retirees can select

from among any of the health plans offered to active employees. Benefits commence immediately upon retirement, but may also be deferred for a period during which the member is covered under another health insurance plan.

Benefits are payable for the retiree's lifetime and continue for his or her covered spouse's/domestic partner's lifetime. The City makes a contribution toward the medical premium depending on whether the retiree has dependent coverage, and date of retirement. The City's contribution increases by 4.5% per year regardless of the amount of increase in the underlying premium rate. The City's contribution is prorated based on years of service. In 2019, the City's monthly premium cost per participant for this benefit was a maximum of \$606.99 for single party and \$1,210.91 for two-party

As of June 30, 2019, the most recent actuarial valuation date, the plan was 43.79% funded. The actuarial accrued liability for benefits was \$25.83 million, and the actuarial value of assets was \$11.31 million, resulting in an unfunded accrued liability of \$14.52 million.

Retiree Health Premium Assistance Plan (Non-safety Members)

Effective June 28, 1998, the City adopted the City of Berkeley Retiree Health Premium Assistance Plan (for Non-Safety Members). Employees who retire from the City are eligible for retiree health benefits beginning on or after age 55 if they terminate employment with the City on or after age 50 with at least 8 years of service. Retirees can select a non-City sponsored health plan or enroll in any of the health plans offered to active employees. A retiree living outside the coverage area of the City's health plans can select an out-of-area health plan.

Benefits are payable for the retiree's lifetime and continue for his or her covered spouse's/domestic partner's lifetime. The City pays the monthly cost of the monthly premiums up to a Participant's applicable percentage of the Base Dollar Amount and subject to annual 4.5% increases as specified in the Retiree Health Premium Assistance Plan document. In 2018, the City's monthly premium cost per participant for this benefit was a maximum of \$513.17 for single party and \$886.14 for two-party. A Participant's applicable percentage is based on years of service with the City. The City funds the plan based on the MOU. Contribution amounts are negotiated and vary by bargaining unit.

As of July 1, 2019, the most recent actuarial valuation date, the plan was 40.62% funded. The actuarial accrued liability for benefits was \$68.46 million, and the actuarial value of assets was \$27.81 million, resulting in an unfunded accrued liability of \$40.65 million.

Safety Members Pension Fund (closed plan)

The City also maintains the Safety Members Pension Fund (SMPF). This plan is a single-employer defined benefit pension plan for fire and police officers that retired before March 1973. In March 1973 all active fire and police officers were transferred

from SMPF to CalPERS. Service and disability retirement benefits from the SMPF are based on a percentage of salary at retirement, multiplied by years of service. Benefits are adjusted annually by either:

- Current active salary increases (based on the same rank at retirement) or
- The income in the California Consumer Price Index (with a 1% minimum and a 3% cap). SMPF also provides surviving spouse benefits.

The City pays SMPF benefits on a pay-as-you-go basis. In February 1989, the Berkeley Civic Improvement Corporation purchased, on behalf of the City, a Guaranteed Income Contract (GIC) from Mass Mutual. This contract provides annual payments through 2018 and an annual guaranteed 9.68% rate of return (net of expenses).

The City was paying the difference between the total SMPF benefits and the amount received from the Massachusetts Mutual Guaranteed Income Contract (GIC). The City will receive declining amounts from the GIC through FY 2019. At June 30, 2020, the unfunded accrued liability was \$1.76 million. There were 8 participants remaining in the plan with the average age at 96.7 years.

Retiree Medical Plan Actuarial Data								
<i>(dollars in millions)</i>								
Plan	Measurement Date	Actuarial Estimated Liabilities	Plan Assets	Net Pension Liability	Actuarially Determined Contribution (ADC)	Actual Contribution *	% Funded	Total Plan Members
Police Employee Retiree Income Benefit Plan (closed)	6/30/2020	\$ 79.95	\$ 5.83	\$ 74.12	\$ -	\$ 2.05	7.29%	149
Police Employees Retiree Health Premium Assistance Plan (new)	7/1/2019	\$ 40.43	\$ 2.49	\$ 37.94	\$ 4.43	\$ 0.40	6.16%	189
Fire Employees Retiree Health Plan	7/1/2019	\$ 25.83	\$ 11.31	\$ 14.52	\$ 2.16	\$ 0.76	43.79%	220
Retiree Health Premium Assistance Plans (Non-Safety Members) *	7/1/2019	\$ 68.46	\$ 27.81	\$ 40.65	\$ 5.53	\$ 2.00	40.62%	1656
Safety Members Pension Fund	6/30/2020	\$ 1.86	\$ 0.10	\$ 1.76	\$ -	\$ 0.57	5.38%	8
		\$ 216.53	\$ 47.54	\$ 168.99	\$ 12.12	\$ 5.78	21.96%	2222
*Actual contribution does not include interest income								

Since the implementation of GASB 67 and 68 the Annual Required Contribution (ARC) is no longer provided. In addition, it is a closed plan and therefore no "Actuarially Determined Contribution" is provided due to no new members and no payroll information.

Supplemental Retirement Income Plan (SRIP) I (closed plan)

On January 1, 1983, Ordinance No. 5450-N.S., which was codified in the Berkeley Municipal Code under Chapter 4.36.101 et seq., established SRIP I. The SRIP I plan consists of two components: 1) a defined contribution money purchase pension plan adopted in accordance with Sections 401(a) and 501(a) of the internal revenue code and 2) an employer paid disability benefit.

The City's administrators of the money purchase pension plan are Hartford Life Insurance and Prudential Retirement Services. The plan is a defined contribution plan whereby the City contributes 5.7% of salary up to a salary of \$32,400 into a tax-deferred and self-directed investment account and 1% of salary up to a salary of \$32,400 into a disability reserve account for each permanent City employee. The total assets of SRIP I available for benefits at June 30, 2018, was \$7,992,258, which was comprised of participant accounts. These assets are the property of the individual account holders and not the property of the City. These assets cannot be used to pay disability benefits.

The disability benefit is for employees hired after January 1, 1983 but prior to July 22, 1988, who became disabled and are entitled to receive a disability income benefit equal to 60% of their highest compensation, reduced by any disability payments they receive from Social Security, State Disability Insurance, or Worker's Compensation. Employees hired after July 21, 1988, are not eligible for benefits under this plan which was closed to new enrollees.

Benefits are payable for the disabled participant's lifetime or until recovery from disability. The third-party administrator is Cigna. Currently, the City pays the cost of the monthly disability benefits on a pay-as-you-go basis. As of July 1, 2020, there were a total of 62 closed group participants, 8 active employees and 54 disabled participants receiving benefits. The unfunded liability for SRIP I at July 1, 2020, the date of the last actuarial study, was \$13,364,000.

Workers' Compensation Program

The City of Berkeley began its self-insured workers' compensation program on March 1, 1975. The City's self-insured retention (SIR) has varied between \$100,000 and \$1,000,000 prior to 2004/05 and is currently unlimited. Every two years, the City has an actuarial review of the program conducted to determine the outstanding liabilities and determine the rates to use for budgeting and payroll purposes to fund the program annually.

The recent actuarial study by Bickmore Actuarial showed the City's estimated outstanding liabilities as of June 30, 2021 at an 80 percent confidence level is \$42,384,000 for the workers' compensation program. The City's Workers' Compensation Fund ended FY 2020 with a fund balance of \$41,495,756. This means that the City is not quite able to fund its estimated liabilities in its Workers' Compensation Program.

2. Current Costs for Active Employees

As of June 30, 2020, the City budgeted for 1,637 full-time equivalents (FTE). At any given time, the number of employees on the payroll is generally less than the budgeted number of FTE due to retirements and employment separations for other reasons. For purposes of this report, the analysis of the projected payroll costs for the next 10 years is based on the number of authorized budgeted FTE. That number was then projected based on the negotiated cost of living adjustments established in collective bargaining agreements. Other increases were also assumed for medical costs, dental costs, cash in lieu, shoes and tools allowance, commuter checks, and other benefits. Based on these assumptions, total payroll costs for all funds would grow from \$278.9 million in FY 2021 to \$391.0 million in FY 2031. The FY 2021 Adopted Fringe Benefits Budget included almost \$15.7 million in personnel budget deferrals to help balance the budget. Taking that into account and with Zero COLAs applied in future years, the entire increase of \$96.4 million is due to the increase in the costs of benefits.

Citywide Total Personnel Costs and Fringe Rate Over Time with Zero COLAS											
Zero COLA	FY 2021 Adopted	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Total Payroll	\$ 174.6	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9	\$ 174.9
Total Benefits	\$ 104.3	\$ 130.3	\$ 141.8	\$ 149.1	\$ 158.1	\$ 165.2	\$ 174.5	\$ 183.2	\$ 192.4	\$ 203.7	\$ 216.1
Fringe Rate	60%	74%	81%	85%	90%	94%	100%	105%	110%	116%	124%
Total Personnel Costs	\$ 278.9	\$ 305.2	\$ 316.7	\$ 324.0	\$ 333.0	\$ 340.1	\$ 349.4	\$ 358.1	\$ 367.3	\$ 378.6	\$ 391.0

A couple of significant factors driving the increase in benefit costs are the following items:

- Health care premiums for active employees (meaning exclusive of retiree medical contributions). The cost of premiums for medical alone is estimated to grow from \$25.6 million in FY 2021 to almost \$79.6 million in FY 2031 assuming annual increases of 12 percent as has been assumed in developing our budgets for many years now.
- Employer Paid Portion of PERS Costs is expected to rise from \$64 million in FY 2021 to \$87 million in FY 2031. This does not take into account any contributions made by employees towards overall City PERS costs that will be paid to PERS annually as shown in a previous chart.

3. Summary of all current City Obligations (GO bonds, COPs, etc.)

The City's debt includes General Obligation Bonds, Certificates of Participation and Revenue Bonds. Attachment 2 includes the detailed debt service payment schedules for each of these debt issuances.

The City currently has five outstanding general obligation (GO) bond authorizations (each with multiple series of bonds) related to public safety, libraries, senior centers, animal shelter, street and integrated watershed improvements, infrastructure and facilities improvement, and affordable housing. The oldest of these authorizations dates back to 1992. The City has an aggregate bond tax rate for FY 2020 of 0.0540 (which represents \$54 for each \$100,000 in assessed value ("A.V"). This rate has dropped from a historical peak of approximately \$95 (per \$100,000 in A.V) in the tax year 1999-2000. Based on projected annual increases in A.V and decreasing aggregate annual debt service over time, the tax rate will drop with the final tax collected in FY 2051 based on the current outstanding debt (Measure O is the latest bond authorization).

<u>Bond Authorization</u>	<u>Authorization Year</u>	<u>Authorization Amount</u>	<u>Bond issued Amount</u>	<u>Unissued Amount</u>	<u>Outstanding Principle Balance as of 6-30-2020</u>	<u>Final Maturity</u>	<u>FY 2020 BONDS TAX Rate</u>
Measure FF	2008	\$26,000,000	\$26,000,000	\$0	\$19,480,000	2040	0.0070%
2015 GO Refunding Bonds (Refunding Measure G, S, I Consolidated)	2015	88,700,000	88,700,000	0	25,960,000	2038	0.0140%
Measure M	2015	30,000,000	30,000,000	0	27,630,000	2045	0.0080%
Measure T1	2016	100,000,000	35,000,000	65,000,000	31,835,000	2047	0.0160%
Measure O	2018	135,000,000	38,000,000	97,000,000	38,000,000	2051	0.0090%
TOTAL		\$379,700,000	\$217,700,000	\$162,000,000	\$142,905,000		0.0540%

It has been the City's debt policy to issue each series of bonds with level amortization and terms of either 25 or 30 years. Many of the series have been refinanced for lower interest rates over time. Given the fixed term for each bond series, the aggregate annual debt service for all outstanding bonds decreases over time as each bond reaches its final maturity. Further information about the City's current and future debt capacity is included in a later section of this report discussing options to address long term costs.

4. Summary of All Capital Assets and Infrastructure

The City has an extensive portfolio of capital assets and infrastructure, which includes 95 public buildings, 254 miles of public sanitary sewer mains and 130 miles of public sewer laterals, 52 parks, 2 pools, 3 camps, and 42 different facilities served by the City's IT systems. Maintaining these assets is a costly and time-consuming enterprise that requires significant resources and constant attention. Additionally, Berkeley is an aging city and thus its infrastructure faces challenges that other younger cities do not.

Several recent actions by the voters have provided an important boost to the resources available for meeting these challenges:

- In November 2016, Berkeley voters passed [Measure T1](#),⁷ authorizing the City to sell \$100 million of General Obligation Bonds to repair, renovate, replace, or reconstruct the City's aging infrastructure and facilities, including sidewalks, storm drains, parks, streets, senior and recreation centers, and other important City facilities and buildings. Council approved 45 projects to be completed in Phase 1, spanning 2017 to 2021. [The majority of these projects are now complete](#), with the balance to be completed in 2021.⁸ On December 15, 2020, Council approved more than 30 additional projects to be completed in Phase 2, between 2021 and 2026. With these allocations, the full \$100 million of Measure T1 funds will be expended by 2026, if not sooner.
- The November 2014 voter approval of Measure F (a Citywide special parks parcel tax) provided an additional \$750,000 per year for major maintenance projects, raising annual funding for parks capital and major maintenance projects from the prior \$250,000 to \$1 million.
- In November 2012, Berkeley voters approved Measure M (a general obligation bond), to provide an additional \$30 million towards improving the condition of city streets and where appropriate, install Green Infrastructure projects as defined in the Watershed Master Plan. The funds raised with this bond have been fully expended and the City invested these resources to accomplish the following:
 - It would be great to get a summary from public works of the improvements from these bonds - not all the detail but X miles of roads slurry sealed, reconstructed, any green infrastructure projects of note and sidewalk work.

⁷ See <https://www.cityofberkeley.info/MeasureT1/>.

⁸ See <https://www.cityofberkeley.info/MeasureT1Updates.aspx>.

- In November 2014, Alameda County voters approved Measure BB (assessment 0.5% sales tax), increasing funding for local transportation enhancements. Berkeley's allocation is approximately \$2.6 million annually and is applied to improving the pavement condition and specific street/transportation improvement projects.

Despite these measures, City facilities and infrastructure needs continue to exceed available funds. The minimum unfunded needs in parks, pools and camps exceed \$103 million. The amount of recurring funding to address these needs has been bolstered by the passage of Measure F, but is still only \$1.4 million per year. The unfunded needs at the Waterfront exceed \$113 million. There is \$350,000/year planned for capital in the Marina Fund, which is insufficient to address the unfunded needs at the Waterfront of \$113 million. Even this level of funding exceeds the Fund's resources: the Marina Fund is projected to need \$650,000 in the next budget year just to maintain baseline Waterfront operations. Capital needs at the Waterfront are otherwise dependent on external funding and grants. The City has begun the Berkeley Marina Area Specific Plan (BMAASP), which is expected to develop alternative approaches to address the structural deficit, exhausted reserves, and declining operating revenue that makes it impossible for the Marina Fund to reinvest in its facilities.

The unfunded needs in streets, sidewalks, storm drain/watershed, sewer, transportation and buildings/facilities exceeds \$990 million. The amount of recurring funding to address these needs is \$31.5 million.

These costs will continue to increase through typical wear and tear on our City infrastructure in the coming years, plus the pressures of long-deferred maintenance. As needed improvements continue to be deferred, operating and maintenance costs rise and rehabilitation and replacement costs increase substantially. The figures in Attachment 3 do not account for these additional cost escalators.

a. Parks, Waterfront, Pools, and Camps

The Parks, Recreation & Waterfront Department (PRW) operates, maintains and manages 52 parks, 4 community centers, 2 clubhouses, 2 pools, 3 resident camps, 15 sports fields, 49 sports courts, 63 play areas, 36 picnic areas, 35,000 street trees and park trees, 152 landscaped street medians and triangles, 263 street irrigation systems, and 30 restrooms and out-buildings. In addition, PRW operates and maintains the Berkeley Waterfront and its related facilities, including the docks, pilings, channel, streets, pathways, parking lots, buildings, trails, Adventure Playground, and 1,000 boat and berth rentals.

Recurring funding available for capital and major maintenance of these facilities is \$1.4M, (see table below).

Annual Funding for Parks, Waterfront, Pools & Camps Capital & Major Maintenance Needs

Funding Source	Annual Funding
Parks Tax Fund	\$1,000,000
Capital Improvement Fund	\$400,000
Marina Fund	\$350,000
Camps Fund ⁹	\$0
Total Funding Available	\$1,750,000

Unfunded needs in these facilities are summarized in the table below, and available in detail at

http://www.cityofberkeley.info/Parks_Rec_Waterfront/Home/Unfunded_Capital_Projects_List.aspx.

Unfunded Needs in Parks, Waterfront, Pools & Camps Facilities and Infrastructure

Needed Improvements	Cost Estimate
Resident Camps	\$5,910,000
Waterfront	\$113,167,000
Pools	\$11,750,000
Park Buildings/Facilities	\$32,960,000
Parks (General)	\$9,900,000
Parks (Specific)	\$38,902,000
Park Restrooms	\$4,450,000
Total	\$217,039,000

The majority of these unfunded needs are at the Waterfront, where many of the docks, pilings, buildings, parking lots and streets have reached the end of their useful life and are starting to fail. As documented in multiple reports over the last several years¹⁰, there

⁹ Due to the loss of Berkeley Tuolumne Camp, the Camps Fund does not have sufficient funds at this time to cover any annual investment in capital or major maintenance.

¹⁰ See November 10, 2020 Marina Fund presentation to Council Budget & Finance Policy Committee (https://www.cityofberkeley.info/uploadedFiles/Clerk/2020-11-12_Item_2c_Budget.pdf); December 13, 2018 Off-Agenda Memo (https://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_General/Marina%20Fund%20Update%20121318.pdf); November 15, 2018 Worksession Report (https://www.cityofberkeley.info/Clerk/City_Council/2018/11_Nov/Documents/2018-11-15_WS_Item_02_Parks_Recreation_Waterfront_pdf.aspx); July 1, 2018 Off-Agenda Report ([https://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_General/CM%20Update%20-%20Waterfront%20-%20Hs%20%20Lordships%20\(w%20attachments\).pdf](https://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_General/CM%20Update%20-%20Waterfront%20-%20Hs%20%20Lordships%20(w%20attachments).pdf)); May 8, 2018 Worksession Report (https://www.cityofberkeley.info/Clerk/City_Council/2018/05_May/Documents/2018-05-08_WS_Item_03_Parks_Recreation_Waterfront.aspx); May 8, 2018 Proposed Budget Update (https://www.cityofberkeley.info/Clerk/City_Council/2018/05_May/Documents/2018-05-08_WS_Item_01_FY_2019_Proposed_Budget_Update.aspx); April 12, 2018 Off-Agenda Report (https://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_General/Marina%20Fund%20Update%20041218.pdf); and November 7, 2017 Worksession Report (https://www.cityofberkeley.info/Clerk/City_Council/2017/11_Nov/Documents/2017-11-07_WS_Item_02_Parks_Recreation_and_Waterfront_CIP.aspx).

is a diminishing ability to pay for the pressing capital needs in the Waterfront. The Marina Fund, which is the City's mechanism for managing all Waterfront revenues and expenditures, is projected to be insolvent in FY 2022. Revenues have declined by 20% in the last five years, from \$6.4 million in FY 2016 to an estimated \$5.1 million in FY 2021 as a result of safety and security concerns and failing infrastructure, and most recently due to the COVID-19 pandemic, which has hit our restaurant, hotel and commercial office tenants particularly hard. The combination of falling revenue and increasing expenditures have strained the relatively small Marina Fund to a breaking point.

The City has begun a long-term planning effort – the Berkeley Marina Area Specific Plan – to establish the community's vision for the Waterfront and a plan for the Marina to achieve financial viability. There is still a need to address an estimated \$113 million in infrastructure repairs to finger docks, pilings, electrical systems and restrooms. The City is finalizing a \$5.5 million loan from the State to replace D&E docks, which are failing and in urgent need of replacement. If these and additional investments are not made, facilities and infrastructure will either require more costly emergency funding or be closed as in the case of the Berkeley Pier. Waterfront customers will continue to leave the Berkeley Marina, continuing the downward spiral of revenue loss and blight.

b. Public Buildings

The City is responsible for maintenance of 95 facilities, not including Library facilities and facilities leased to other entities, which were not part of this analysis. These 95 facilities include: 39 facilities in the Parks Recreation and Waterfront inventory and 56 facilities in the Public Works inventory.

The City regularly performs assessments and provides updated condition reports and cost estimates for the City's facility inventory. The most recent assessment for city facility needs estimates the cost of improvements at approximately \$282 million, while the programmed baseline budget allocation to Public Works over the next five years for this work is a cumulative \$4 million allocation from the Capital Improvement Fund. In addition to utilizing one-time sources of project funding, such as the T1 bond, the department is evaluating the establishment of an internal service fund methodology for major facility capital replacement similar to the established internal service fund for maintenance of city owned facilities.

c. Streets & Roads

Berkeley has 216 centerline miles (450 lane miles) of public streets within the City limit, which is comprised of 22 miles of arterials, 37 miles of collectors, and 156 miles of residential streets. The current citywide Pavement Condition Index (PCI) rating for those streets is 57 (out of 100), putting Berkeley streets collectively in the "At-Risk" category. This is well below the 2012 City Council approved City Auditor recommendation to achieve a PCI rating goal of 75.

The City currently allocates about \$7.3 million in recurring funding to Street paving from local and state sources, including Measure BB, Vehicle Registration Fees (VRF), State Transportation Tax/SB1 and the City's Capital Improvement Fund. This funding for street paving projects is not only spent on paving, but is also spent on complete streets project elements: traffic calming; signal maintenance and improvements; transit area improvements; sidewalk maintenance and capital improvements; and storm drainage and green infrastructure improvements. The City has used bond funding to supplement its recurring sources of funding, including the 2012 approved Measure M, and the 2016 T1 Infrastructure Bond, in which \$8.5 million was programmed to Streets in Phase 1 and \$6.8 million is planned in Phase 2.

According to the City's Street Saver system software and detailed analysis and projections provide by a Streets Engineering consultant, the streets network has approximately \$250 million in deferred maintenance needs. The City would need to allocate \$17.3 million a year to paving just to maintain its current PCI, and increase its annual paving funding to \$27.3 million a year to increase PCI by 5 points. In order to merely maintain the City's PCI after one-time bond funds are expended, it will be necessary to identify additional annual funding for the pavement management program. To significantly improve Berkeley's pavement condition, a substantial investment and influx of funding will have to be made.

d. Sidewalks

The City manages sidewalk repair programs to keep the City's sidewalks safe and provide for safe pedestrian passage, including make-safe repairs, annual proactive and responsive repair programs, and the City's 50/50 replacement cost share program in which the City shares the liability and costs for broken sidewalks with property owners. Approximately \$700,000 is available in annual funding towards sidewalks maintenance and repair construction from baseline allocations from the Capital Improvement Fund and 50/50 Program contributions from residents. Over time, the backlog of sidewalk repairs identified to be addressed through the 50/50 program has grown significantly beyond the funding capacity to make the needed repairs. Staff estimates that it would require \$6 million to close the remaining 50/50 program funding gap to address the backlog within the next 5-year CIP cycle, with about \$5 million in other sidewalk infrastructure repairs needed over that same period. A one-time allocation of \$500,000 in Excess Equity revenue was added to the FY 2020 Sidewalks CIP budget, but a second \$500,000 allocation programmed for FY 2021 was deferred due to citywide budget balancing needs. Any reallocation to sidewalks from local streets and roads funds such as gas tax would impact the streets paving program.

e. Sewers

In 2014, the City (along with EBMUD and all agencies conveying flows to EBMUD) concluded negotiations with the Environmental Protection Agency and the Department of Justice for violation of the Clean Water Act and agreed to a stipulated settlement known as the final [Consent Decree](#)¹¹. To comply with the Consent Decree, the City is required to rehabilitate an average of 4.2 miles of sewer pipeline annually based on a three-year rolling average. Effectively, this mandated significant additional maintenance activities and capital improvements results in increased costs of managing the City's existing sewer system. After a sewer rate study was completed, a [series of rate adjustments were adopted](#)¹² beginning in FY 2016 to support the added financial load of the Consent Decree requirements.

The City is currently on track to meet rehabilitation mileage targets with revenues generated from sanitary sewer fees, however the costs per mile for sewer construction have increased since the rate study was completed. These costs will have to be closely monitored going forward over the duration of the Consent Decree, in case funding supplementation from additional sources or future rate adjustments are needed to fund the cost of the required capital improvements. Public Works is currently underway with development of a Sanitary Sewer Master Plan, which will identify areas of high inflow and infiltration and capacity deficiency in the sanitary sewer system, provide prioritization of capital improvements, develop 5-year and 15-year capital improvement plans, and analyze the City's current sanitary sewer rate structure's ability to fund future improvements. Based on the results of this master plan, a better assessment of future liability will be presented in the next Unfunded Liabilities Report.

f. Storm Drains – Clean Stormwater Program

The City's engineered storm drains include approximately 78 miles of underground pipes, manholes, catch basins and cross-drains, and 30 green infrastructure installations. Much of the stormwater infrastructure is over 80 years old and needs substantial rehabilitation. The backlog of projects includes: rehabilitation of pipeline reaches; conveying dry weather flows; replacement of deteriorated drain inlets and piping; major cleaning of the primary storm collectors in the lower Berkeley drainage watersheds; and replacement of street cross drains. The City desires to address these issues while forwarding its policies to improve the environment by pursuing Green Infrastructure and Low Impact Development (LID) methods.

¹¹ See http://www.cityofberkeley.info/Clerk/City_Council/2014/09_Sep/Documents/2014-09-09_Item_62_EPA_Litigation.aspx for EPA litigation settlement report

¹² See http://www.cityofberkeley.info/Clerk/City_Council/2015/06_Jun/Documents/2015-06-30_Item_21_Setting_New_Sustainable.aspx for Sanitary Sewer Rate increases and Proposition 218 information.

In 2012, City Council adopted the City's [Watershed Management Plan \(WMP\)](#)¹³. The WMP uses LID methods to develop an integrated and sustainable strategy for managing stormwater resources that addresses water quality, flooding, and the preservation of local creek habitats and the San Francisco Bay. According to the 2012 Watershed Management Plan, the total unfunded need of the stormwater system is a present-day-projected \$208 million. Staff estimates an additional need of \$38 million over the next five years towards unfunded maintenance of storm water infrastructure as well as storm drain and Green Infrastructure Plan capital improvement projects. Set to begin in 2021 are updates to the Watershed Management Plan and development of a Storm Drain Master Plan, which will assist with the planning for rehabilitation and replacement of aging infrastructure and how to address future water runoff flows. The City has two Clean Stormwater Fee sources assessed to owners of real property that contribute to stormwater runoff and use the City's storm drain for collection and conveyance. The first Clean Stormwater Fee was established in the early 1990's and generated enough revenue to cover only baseline stormwater maintenance operations and emergency storm drain response efforts. In FY 2018, the City passed a second Clean Stormwater Fee through voter approval of a majority of responding property owners. In addition to increasing revenue for maintenance and operations, the new fee has added an additional \$1.1 million in annual revenue available for capital projects.

g. Traffic Signals & Parking Infrastructure

The City currently has 142 traffic signals and 20 Rectangular Rapid Flashing Beacons (RRFBs) maintained by the Public Works Department. To support this network, Public Works has a baseline budget of \$300,000 in capital maintenance for signals and other traffic calming devices, and \$100,000 toward new traffic calming requests. These funding levels are insufficient to bring all of the signals up to date. As a result, there are deficiencies at many intersections throughout the city, including lack of detection devices, lack of pedestrian push buttons, and lack of battery backup for signal controllers in case of power outage. Any reallocation to traffic signals from street and transportation funds such as gas tax and Measure B & BB would impact the street paving program or other transportations projects.

Parking capital infrastructure is newly added to the Future Liability needs report in FY 2021. COVID driven impacts to both on-street and off-street parking revenue have depleted parking fund reserves earmarked for major capital improvements to the City's parking infrastructure. The Telegraph Channing Garage Elevator Replacement Project, scheduled to begin in FY 2021 but deferred to a future fiscal year, has an estimated full project cost of approximately \$1.0M. The Citywide Parking Meter Upgrade/Replacement project is estimated to cost \$6.0M and is scheduled for FY 2023, to align with cell network carrier technology upgrades. Public Works has programmed an annual contribution to the On-Street Parking Fund balance at a rate of \$1.0M/year through FY

¹³ See http://www.cityofberkeley.info/Clerk/City_Council/2012/10Oct/Documents/2012-10-30_Item_20_Watershed_Management_Plan.aspx

2023 to fund the project. By FY 2023, those fund balances will have been completely drained to cover parking program operations. Funding for these major projects is uncertain until the parking funds can restore revenues.

Attachment 3 contains the budget and projected funding needs for both the Public Works and Parks, Recreation and Waterfront department facilities and assets described above.

h. Information Technology Infrastructure

Technology infrastructure presents unique challenges with respect to forecasting long term requirements because technology evolves quickly compared to other types of infrastructure. The City's needs in terms of network bandwidth, data storage, and wireless devices may be dramatically different in the future than they are today. Additionally, unlike traditional infrastructure replacement projects which can be done incrementally, some technology tools require a large upfront investment to implement but cost significantly less to upgrade as the technology becomes more common. City staff currently use and maintain a vast technology infrastructure to provide services to the community each day. Current information technology infrastructure will expand as the City uses more technology tools to gain efficiencies.

Summary

Currently, the City's asset inventory comprises approximately 1,300 desktops, 530 laptops, 100 tablets, and 100 Public Safety Mobile Data Computers (MDCs), which is an increase of 20% compared to last Fiscal Year (FY) 2019 due to remote work expansion.

In FY 2015 the City established a replacement fund for our core enterprise financial system, FUND\$. The property tax in excess of the \$10.5 million baseline was allocated for FUND\$ replacement, based on the timing and replacement costs reported in the FUND\$ Status Report¹⁴.

In FY 2016, the City released an RFP to identify a vendor and product to replace FUND\$. In FY 2017, the City assembled a team of subject matter experts from across the organization to lead the implementation process of the new software with a focus on change management and process improvement. The team completed the evaluation process and selected a vendor to propose to Council. The team is also charged with replacing additional modules utilized in FUND\$ that are not core financial or HR/Payroll. The Core Financials went live in November 2018 and the HR/Payroll went live in January 2021. Other modules will occur in subsequent years and are detailed in the Digital Strategic Plan presented to Council on November 11, 2016.¹⁵

¹⁴ https://www.cityofberkeley.info/uploadedFiles/Clerk/Level_3_-_City_Council/2010/06Jun/2010-06-01_Item_54_FUND_Status_Report.pdf

¹⁵ http://www.cityofberkeley.info/Clerk/City_Council/2016/11_Nov/Documents/2016-11-15_WS_Item_01_Digital_Strategic_Plan.aspx

In FY 2016, the City established a replacement fund for the citywide telephone system, estimating a ten-year replacement cycle. Staff is planning to replace the handsets at the five-year mark, as the current handsets are already one generation behind. Annual maintenance cost for the VOIP system has increased to \$65,000.

In FY 2016, the City funded additions to our storage area network (SAN), which supports the backend storage for our virtual server infrastructure and add storage capacity for the City needs of data storage and retention.

In FY 2017, the City upgraded its Microsoft Office software licenses to enable video conferencing and Office 365 capabilities. These upgraded licenses provided more reliable security and will help enhance the disaster recovery (DR) process, which is designed to allow email to be accessible on mobile devices should City Hall be impacted in a disaster. Later phases of this project will improve access to data and files from any location thus increasing employee efficiencies. Investment decisions will prioritize initiatives that achieve the best performance outcomes and greatest benefit so funding and other resources currently dedicated to operations and maintenance efforts can be recapitalized and invested in modernization efforts.

In FY 2019, the IT Department developed a Technology Internal Service Fund, which accounted for IT infrastructure costs. Now, PCs, servers, storage, wireless, uninterrupted power supplies (UPS), and network devices are fully funded. Cyber Security initiatives remain partially unfunded at this time.

In FY 2019, the IT department upgraded the server and storage backend infrastructure to support the City's Cyber Resilience efforts and to provide operational and offsite DR including business continuity to our critical applications. The City now has operational backup between the two data centers for business continuity and a remote offsite for DR. In FY 2019, the network routers and switches were consolidated at remote sites to advanced layer 3 switches resulting in 40% reduction in network equipment thus resulting in energy efficiencies and reduced staff time in support.

In FY 2020, the IT Department began the RFP process for the VoIP phone system upgrade and backup replacement solutions, both of which will be implemented in FY 2021. The VoIP Phone system will provide a redundant onsite system for DR needs. The offsite redundancy is still unfunded. The backup replacement solution will provide both onsite and offsite backup and redundancy.

In FY 2021, the IT Department will also replace the legacy core network switches located in City Hall and the Public Safety Building, as well as the network switches on each floor that serve our largest City facilities; City Hall, the Public Safety Building, and 1947 Center Street.

Four critical projects need to be addressed through unfunded liabilities:

1. **Cybersecurity Resiliency Plan:**

The goal of this project to implement foundational safeguards that address documented gaps and deficiencies in the City's procedures and technologies to support the delivery of services to the community in a safe and resilient manner¹⁶.

In FY 2021 Council approved a portion of funding for the cyber resilience plan for the top 5 projects and implementation is underway to address efforts around data safety, data hygiene and data classification including the onboarding of a Managed Security services provider (MSSP).

There are approximately eight projects for FY 22, and the purpose of the projects is to address the most critical and consequential issues and action items identified by the City's consultant that impact or are impacted by pandemic induced work from home in the delivery of services to the community. These projects are prioritized to address the current threat and regulatory environments, then considers the traffic patterns and key components of a "new normal" of distributed operations and faces the known challenges that the City faces in meeting and keeping up with the needs of both.

The focus areas driving the projects selection and their scope are the (i) user, (ii) the last mile (endpoint devices and clients), (iii) the resources being used (City, home, ISP, and cellular networks) to (iv) access the last mile (Cloud, server, files, and applications), and (v) the resilience of each.

2. **Customer Relationship Management (CRM):**

In FY 2019, the City of Berkeley upgraded the existing CRM software application to version V14R2, Verint-Lagan, used by 311, Public Works and Parks to enter community service requests. Both the CRM and Verint-Lagan knowledge system used by 311 were upgraded. The new 311 CRM system replacement and implementation targeted for FY 2021 was delayed due to COVID related proposed budget reduction.

A new CRM system will give 311 the ability to capture, route, and manage all forms of requests through multiple communication channels with integration to Public Works work order system and Zero Waste billing system. Allow community members to see status of their requests through online status of service requests or a City of Berkeley branded mobile solution and an provide an integrated knowledge system with the City Website.

¹⁶ https://www.cityofberkeley.info/Clerk/City_Council/2020/12_Dec/City_Council_12-01-2020_-_Special_Closed_Meeting_Agenda.aspx

3. Geographical Information Systems (GIS)– Master Address Database (MAD) to address the Non-Compliance with NENA GRID and e911 Technology:

Goal of the Project – To establish one master address database out of the City's multiple sources of address data. This master address database will be a modern, GIS based system, that will provide addresses that are more accurate and parcel information that is consistent and current across the City's various applications.

As the City rolls out a new work order system, zero waste billing system, digital permitting system, and CRM system and others, it is critical that we have a modern, centralized address database that can easily feed accurate and consistent GIS address data. Having one source of truth for address data will allow for ease of maintenance, timely updates, and consistency. This will bring greater efficiencies for staff through various workflows including permitting, building inspections, work orders, billing, assessments and more. It will result in service that is more effective to our community by providing real time and accurate address data across departments.

4. IT Department Move to 1947:

The Department of Information Technology was scheduled to move to 1947 Center Street in FY 2020. This move was cancelled due to COVID related proposed budget reductions.

In their current space, the IT Department is unable to work at a safe distance from each other. Remote work will be a long-term strategy unless the City can identify a safe seating arrangement and improve the work environment for staff to return safely to work. Extended remote work has its challenges and may have a negative service impact on response times to tickets as well as resolutions to hardware issues.

Options to Address Long Term Retirement and Infrastructure Costs

The City continues to consider how to prioritize expenditures to address some of its long-term obligations in order to maintain a healthy future.

As mentioned earlier in this report, Council has already taken the following actions to address the City's unfunded liabilities.

- On June 26, 2018, Council authorized the City Manager to establish an IRS Section 115 Pension Trust Fund (Trust) to be used to help pre-fund pension obligations¹⁷. On May 14, 2019, Council authorized the City Manager to execute

¹⁷ https://www.cityofberkeley.info/Clerk/City_Council/2018/06_June/Documents/2018-06-26_Item_19_Authorization_to_Establish_IRS.aspx

a contract with Keenan Financial Services to establish, maintain, and invest the pension Section 115 Trust¹⁸.

- The Section 115 Trust currently has a balance of \$10,628,125.22.

On February 27, 2020 the Budget & Finance Policy Committee discussed ongoing funding into the 115 Pension Trust. The following was recommended:

- Raise the Property Transfer Tax baseline from \$12.5M to \$15M. The additional \$2.5M will be allocated to the Trust.
- Property Transfer Tax in excess of \$15 million would be used to fund the City's capital infrastructure need. However, revenue generated from Measure P is excluded from this transfer.
- Savings generate by prefunding CalPERS will be contributed to the 115 Pension Trust. On an annual basis, staff will analyze the impact of prefunding CalPERS. If the analysis determines that pre-funding CalPERS will result in budgetary savings, the net savings will be contributed to the Trust.

Staff requested Council to delay adopting these policies because the City was facing the financial fallout of the pandemic.

- The City prefunded the unfunded liability portion of the FY 2021 CalPERS pension resulting in savings totaling \$1.3 million.
- In addition, as the General Fund subsidy to the Safety Members Pension Fund declines over the next several years, the amount of the annual decrease will be used to help fund the new Police Employee Retiree Health Plan.

Most noteworthy are Berkeley voters who passed several bond measures to improve the City's infrastructure, including Measure F for parks, Measure M for streets, and most recently Measure T1 which authorized the City to sell \$100 million of General Obligation Bonds to repair, renovate, replace or reconstruct the City's aging infrastructure and facilities.

Effects of Unfunded Liabilities on Bonding Capacity:

The long term liability burden is one of the major criteria that bonding rating use in determining the ratings of Municipal Issuers. The others are Revenue Framework, Expenditure Framework and Operational Performance. The long term liability assessment typically considers both direct and overlapping debt. Pension liabilities are now considered part of an issuers' long term debt picture and bond rating agencies have placed these obligations on par with debt obligations as a component of the long term liability picture.

¹⁸ https://www.cityofberkeley.info/Clerk/City_Council/2019/05_May/City_Council_05-14-2019_-_Regular_Meeting_Agenda.aspx (Item #5)

Municipal securities issuers (i.e., Berkeley) must prepare an “Official Statement” (OS) before presenting the primary offering. These municipal disclosure documents provide information for investors, including the terms of the bond offering and financial information on the issuer. They also typically contain information regarding the purpose of the bond; whether the issuer can redeem the bonds prior to maturity; and when and how principal and interest on the bond will be repaid.

After the Preliminary Official Statement (POS) is prepared, it is submitted to a bond rating agency. The bond rating agency reviews and evaluates the POS and other financial information and issues a rating on the bonds being issued. Municipal bond credit ratings measure the issuer’s risk of paying all interest and principal back to investors. A bond rating system helps investors distinguish an issuer’s credit risk. The three major rating agencies are Moody’s Investor Services, S&P Global Ratings, and Fitch Ratings.

The City utilized S&P Global Ratings to rate its latest 2020 bonds that was issued (Attachment 5 Exhibit A). The below summarizes their findings and indicates the weaknesses of the City’s financial health because of the City’s Unfunded Pension Liability.

Rating Summary

The rating reflect S&P Global Ratings (view of the following credit characteristics of the City:

Weaknesses

The weaknesses S&P identified in their ratings evaluation were the following:

- Weak debt and contingent liability profile, with debt service carrying charges of 4.2% of expenditures and net direct debt that is 47.8% of total governmental fund revenue;
- Large pension and other postemployment benefits (OPEB) and the lack of a plan to sufficiently address the obligations
 1. The City has a large pension and OPEB liability that is pressuring the City’s operations, and while the City has made progress in planning-including, establishing a Section 115 trust, S&P Global Ratings does not believe the City has adequately planned for expected cost escalation;
 2. The City’s pension funding ratios as of June 30, 2019 (Miscellaneous-70%; Fire-71%; and Police-61%), combined with recent changes in the assumed discount rate and amortization methods, will likely lead to accelerating costs in the medium term;
 3. The City is not making full actuarially determined contributions towards its OPEB liabilities (combined 45% funded), which will lead to significant contribution volatility over time.

Additional Information Requested

After staff reviewed and analyzed the rating rationale, staff was concerned about the section that stated that the City had a “Weak debt and contingent liability profile”. Staff wrote to S&P for additional information and clarification on how S&P conducted the analysis of the city’s debt and contingent liability profile. On February 28, 2020, S&P issued additional information that detailed their methodology (Attachment 5 Exhibit B).

Summary of Initial Debt and Contingent Liabilities Score

S&P used two criteria to form the initial debt and contingent liabilities score for the City:

- Total governmental funds debt service as a percentage of total governmental funds expenditures; and
- Net direct debt as a percentage of total governmental funds revenue

Net direct debt is the total amount of general obligation debt, including notes and short-term financing issued by a municipality or state.

The potential scores were the following:

- 1 Very Strong
- 2 Strong
- 3 Adequate
- 4 Weak
- 5 Very Weak

S&P gave the City a score of 4, indicating a weak debt and contingent liability profile, as a result of total governmental funds debt service of 4.2% of total governmental funds expenditures and net direct debt of 47.8% of total governmental funds revenue. The initial scoring of the debt and contingent liabilities score of 2 indicated a strong scoring but when S&P added an additional qualitative adjustments factor with a negative impact on Berkeley’s initial debt and contingent liabilities score, it resulted in a final debt and contingent liability score of four. From their point of view, one of the negative qualitative factors is the presence of an unaddressed exposure to large unfunded pension or OPEB obligations which represents a significant pressure on the budget over the medium term. In their view, the city has a large pension and OPEB liability that is pressuring the city’s operations, and while the city has made progress planning, including establishing a Section 115 Trust, they do not think the City has adequately planned for the expected cost escalation.

The take away from this analysis is that the impact of the huge pension liability has a negative effect on the city’s debt capacity. It appears that the assumption that as long as the debt service on General Obligation Bonds is being paid by the citizens and businesses, and not directly by the City, will not affect the City’s debt capacity is not true. Implicit in the S&P weak score of 4 for the City’s debt and contingent liability profile is a warning that this is not the case and the City needs to be aware of it.

Staff Observations, Conclusions and Recommendations

1. S&P Global Ratings acknowledged the City's current strong credit profile and the City's attempt to start planning for a reduction in its pension and OPEB liabilities, but there was an underlying warning from them that what the City is currently doing is not enough. There is an 800 pound gorilla in the room, and that is the City's large unfunded pension liability, and CalPERS and others are predicting a significant increase in those pension liabilities in the next several years.

In fact, despite the substantial increases in CalPERS pension rates over the last several years, the funding ratios for all three plans has worsened, as illustrated in Tables 1 through 3 below. In addition, the funding ratios for the OPEB plans have remained flat or declined, at very low levels, as illustrated in Tables 4 through 6:

Table 1: CalPERS Miscellaneous Defined Benefit Pension Plan Trends-By Fiscal Year

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY2019
	<i>(\$ in millions)</i>					
Liability	\$864	\$874	\$902	\$983	\$1,016	\$1,072
Net Position	655	656	641	696	736	767
Net Liability	209	218	261	287	280	305
Funded Ratio	76%	75%	71%	71%	72%	71%

Table 2: CalPERS Fire Defined Benefit Pension Plan Trends-By Fiscal Year

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
	<i>(\$ in millions)</i>					
Liability	\$241	\$240	\$247	\$267	\$273	\$284
Net Position	186	182	177	183	197	203
Net Liability	55	58	70	78	76	80
Funded Ratio	77%	76%	72%	69%	72%	72%

Table 3: CalPERS Police Defined Benefit Pension Plan Trends-By Fiscal Year

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
	<i>(\$ in millions)</i>					
Liability	\$357	\$362	\$372	\$405	\$417	\$430
Net Position	233	232	226	245	258	268
Net Liability	124	130	146	160	159	162
Funded Ratio	65%	64%	61%	61%	62%	62%

Table 4: OPEB: Miscellaneous Retiree Health Plan Trends-By Fiscal Year

	FY 2017	FY 2018	FY 2019	FY 2020
	<i>(\$ in millions)</i>			
Liability	\$62	\$59	\$66	\$90
Net Position	24	25	28	29
Net Liability	38	34	37	61
Funded Ratio	39%	42%	43%	33%

Table 5: OPEB: Fire Retiree Health Plan Trends-By Fiscal Year

	FY 2017	FY 2018	FY 2019	FY 2020
	<i>(\$ in millions)</i>			
Liability	\$28	\$27	\$31	\$33
Net Position	10	10	11	12
Net Liability	18	17	20	21
Funded Ratio	36%	37%	37%	36%

Table 6: OPEB: Police Retiree Health Plan Trends-By Fiscal Year

	FY 2017	FY 2018	FY 2019	FY 2020
	<i>(\$ in millions)</i>			
Liability	\$47	\$43	\$49	\$60
Net Position	46	42	46	57
Net Liability	1	1	3	3
Funded Ratio	4%	4%	5%	4%

- Staff would like to point out that the lower the discount rate is for a pension plan, the higher the unfunded liability is. In staff's view, even these low funding ratios reported by CalPERS are overstated because CalPERS is not reporting and charging local governments pension rates based on what it believes the true discount rate is. Instead, it reports ongoing, small piecemeal annual reductions in the discount rate, in order to avoid immediately increasing the pension rates to a level they feel local governments could not afford.

This means that, even after those piecemeal discount rate reductions and resulting increase in the unfunded liability, the City's unfunded liability for each of the three plans is understated.

To summarize, rather than provide local and state governments with what CalPERS actually believes the discount rate to be, CalPERS is providing the reductions in small increments over a period of time, so that they don't have to raise the employer contribution rate so dramatically that it will put such a strain on local and state government budgets, that many won't be able to make them without significant cuts in service or financial trouble. What that means is that the City's current real unfunded pension liability is larger than the amounts reported

by CalPERS each year, and that the real funded ratio is lower than the ratio reported by CalPERS each year.

Furthermore, the discount rate (or expected return on future investments) is very likely to continue to decline in the future, for the following reasons, among others: (1) In order to reduce risk, much of the equity portfolio is typically invested in mature countries and mature companies in those countries. As a result, future earnings growth will slow; (2) Higher Interest rates and higher Inflation are expected in the future. The stock market has been in a 12- year bull market due primarily to the Federal Reserve (the Fed) lowering interest rates to zero and dramatically increasing the money supply by dramatic increases in bond purchases (i.e., quantitative easing). At some point, interest rates and inflation will increase (in fact, long-term interest rates have already started rising significantly recently). The Federal Reserve can't control long-term interest rates. As inflation moves above the Fed's 2 percent target, the Fed will be forced to tighten monetary policy to combat inflation. If the Fed tightens the monetary supply, stocks are likely to decline;(3) As a result of an increase in nationalism, there will be slower growth throughout the world; (4) Fixed income instruments will become more attractive to investors as interest rates rise. This will put downward pressure on stocks as fixed income investors move money out of equity securities. During this 12-year stock bull market, many fixed income investors have been forced to participate in the equity market in order to get some yield, since fixed-income yields were near zero. (5) There will be less earnings from the fixed income portion of the portfolio as a result of the extremely low interest rates throughout the world; and (6) mortality improvements will mean that pensioners get paid for a longer period of time

3. There have been some discussions about the possibility of issuing additional debt to fund some of the infrastructure needs that will help fix some of the crumbling infrastructure and lack of low-income housing. In these conversations, the justification used is that the State debt limit allows it, so therefore the City has capacity.

Staff will like to point out that the maximum debt margin is merely a ratio of 15 percent of assessed value to total assessed value. All it does is establish an arbitrary maximum level of general obligation bonds that general law cities may issue under State law. It does not consider all the level or status of the City's liabilities, especially net pension liability and net OPEB liability.

Any measure that does not take into account all of an organization's liabilities, and the trend in those liabilities, is not a measure that should be used to determine how much to borrow (the Capacity of the entity). An organization should not take on a level of debt that makes it difficult to sustain its financial position. The debt margin for general law cities is not a reasonable measure for assessing an organization's debt profile or borrowing capacity, and it is not the

one used by debt rating agencies or financial analysts to assess debt profiles or borrowing capacity. In fact, the evaluation standards used by the S & P Global debt rating agency were (1) total governmental funds debt service as a percentage of total governmental expenditures; and (2) Net direct debt as a percentage of total governmental funds revenue.

4. The City has not adequately planned for expected pension and OPEB cost increases. The more these pension and OPEB costs increase, the more strain there will be on the City's budgets and operations. Failure to address this could result in:
 - a. Reduction in the number of employees
 - b. Reduction in pension benefits
 - c. Reduction in services provided to citizens and businesses
 - d. Possible future tax increases
 - e. A combination of these possible outcomes

Staff also believes that a huge increase in borrowing by the City, without the development of an effective plan for reducing the substantial unfunded pension and OPEB liabilities, might be met by skepticism from bond rating agencies (i.e., possible downgrade of the City's general obligation bonds, resulting in even higher taxes to the citizens and businesses in the City) and skepticism from investors (i.e., lower demand for the City's general obligation bond, resulting in higher interest rates on the bonds, and resulting increase in taxes to citizens and businesses).

Staff Recommendations

1. Before any additional borrowing is contemplated, the City should contract with a debt rating agency and/or actuarial consultant that specializes in evaluating and assessing debt profiles, borrowing capacity and actuarial analysis and reporting to provide the City guidance in these areas, and to assess the ramifications of substantially increasing borrowing.
 - Assess the potential rating agency response to significantly increased borrowing
 - Assess potential investor response to significantly increased borrowing
 - Assess tax impact on citizens and businesses
 - Determination of the actual discount rate and the actual unfunded pension liabilities
 - Options and costs of reducing the pension and OPEB liabilities
2. Meetings and discussions among all the stakeholders to identify and understand the problems before working toward a solution.

3. Pending the analysis and recommendations in #1 above, staff believe the City needs to contribute more to the Section 115 Pension Trust Fund than it is currently contributing, so that the increases in the CalPERS contributions plus the amount in the Section 115 Pension Trust Fund are used to reduce the unfunded pension liability, and not to offset the increase in the liability resulting from the reductions in the discount rate.

General Fund Revenue Projections

As noted in the introduction, when this report was originally presented in 2013, members of the City Council requested that staff include long-term revenue projections in the next biennial report, in addition to the expenditure projections identified in Council Resolution No. 65,748-N.S. The intent was to present a more complete and informative forecast, and provide a better long-term perspective on Berkeley’s ability to achieve financial stability through future economic cycles. The projections presented in this report are limited to the General Fund as those funds are the most discretionary in terms of allocation, and also highly subject to economic conditions. The General Fund typically comprises about one-half of the City’s total budget; the remainder of the budget consists of various Special Funds which are restricted in purpose (e.g. Zero Waste, Permit Services Center, Sewer, Public Health, and Mental Health).

The chart below provides a summary of total General Fund Revenues projected through FY 2026. The revenue projections have been updated to reflect results from the first six months of Fiscal Year 2021. Fifty-eight percent (58%) of the City’s FY 2021 Projected General Fund revenue is derived from Secured Property, Property Transfer, Utility Users and Sales Taxes. Each major contributing revenue stream is described in more detail below. Additional detail on General Fund Revenue Projections can be found in Attachment 4.

General Fund Revenues Projections (dollar in millions)						
	FY 2021 Projected	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
GF Revenues						
Baseline	\$ 195.9	\$ 186.5	\$ 192.1	\$ 197.0	\$ 201.9	\$ 206.6

Property Tax

Real Property Taxes are applied to all taxable real and personal property and are set at 1% of the assessed value. Proposition 13 limited the amount that this tax can be increased to no more than 2% each year. The Alameda County Assessor maintains property tax assessment rolls that account for all property. The City’s Property Tax is collected by Alameda County. The City receives approximately 32.57% of the real property tax dollar generated within the City limits. (Berkeley receives a comparatively higher share of the property tax dollar than other cities in Alameda County, many of

whom receive about 15% of the tax dollar due to the way that Proposition 13 was implemented in 1978.) The projections above assumed a 7.7% increase in property tax in FY 2021, an increase of 4.5% in FY 2022, and an annual increase averaging 3.5% from FY 2023 through 2030.

Property Transfer Tax

The Property Transfer Tax rate set by the City of Berkeley is 1.5% of the value of consideration of \$1.5 million, and 2.5% for transfer properties with consideration of over \$1.5 million (Measure P Revenues). The tax is due when the documents of transfer are recorded with the County. Title companies collect the tax as part of the sales closing process, and remit the funds to Alameda County when sales or transfers are finalized. Alameda County remits the amounts due monthly, and the amounts are credited to the General Fund.

In addition, the City has a Seismic Retrofit Rebate Program. In Berkeley, a portion of Transfer Taxes are used to fund the City's Seismic Retrofit Rebate Program for residential housing. Upon transfer of a qualifying residential property, the buyer may voluntarily choose to reserve up to 1/3 of the total Transfer Tax to perform voluntary seismic upgrades as specified by the City.

Property owners have up to one year after the recording of the sale to complete the seismic work and file for the rebate. An extension for good cause may be requested in writing up to one year past the original deadline date, provided the request is made prior to the one-year filing deadline. The total amount of seismic rebates to property owners is netting against the Property Transfer Taxes remitted to the City by the County, to determine the net Property Transfer Tax revenue each year.

Because Property Transfer Tax is tied directly to real property sales, it is a volatile revenue source, and difficult to predict more than one year at a time. Understanding the volatility of this General Fund revenue stream, Council adopted a policy that Transfer Tax in excess of \$12.5 million is treated as one-time revenue to be transferred to the Capital Improvement Fund for capital infrastructure needs. Therefore, the amount of Property Transfer Tax included in the chart above is set at the baseline level of \$12.5 million annually since any remainder is transferred into the Capital Improvement Fund after the fiscal year ends.

Utility Users Tax

Utility Users Tax (UUT) is charged at the rate of 7.5% to all users of a given utility (gas, electricity, telephone, cable, and cellular). UUT is Berkeley's 4th largest source of General Fund revenue. Factors that affect the revenue generated by UUT include consumption, PUC rate changes, regulatory actions, evolution of technology and market forces.

Sales Tax

Sales Tax is an excise tax imposed on retailers. The proceeds of sales and use taxes imposed within the boundaries of Berkeley are distributed by the State to various agencies, with the City of Berkeley receiving 1% of the amount collected. City staff review sales tax revenues regularly and compares Berkeley's performance with other cities in Alameda County, as well as statewide trends. Sales tax is a relatively stable revenue source for Berkeley. Berkeley is somewhat unique in that 24.5% of its sales tax is from restaurants compared to 16.2% statewide (SF Bay Area is 15.1%). Berkeley otherwise has a generally well diversified sales tax base that is projected to continue to modestly improve over time, unless the Bay Area experiences a recession or as the city is noticing the significant effects of the current pandemic on its Sales revenues.

General Fund Revenues versus General Fund Expenditures

One value of producing long term General Fund revenue projections is to compare them against General Fund expenditure projections. Since about 67% of the General Fund expenditures are personnel costs, any change in those costs has an impact on the balance between revenues and expenditures. The chart below reflects all currently negotiated impacts on salaries and benefits. The expenditure projections assume no cost of living adjustments (COLA) beyond what is currently negotiated. The chart below is offered as a demonstration only and is not a proposal or budget plan.

General Fund Revenues v.s. Expenditures - Demonstrative Comparison (dollars in millions)						
	FY 2021 Adopted	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
GF Revenues Baseline	\$ 188.35	\$ 186.50	\$ 192.10	\$ 197.00	\$ 201.90	\$ 206.60
GF Expenditures - Zero COLA	\$ 187.04	\$ 208.77	\$ 216.55	\$ 221.62	\$ 227.70	\$ 233.11
Surplus/(Deficit)	\$ 1.30	\$ (22.27)	\$ (24.45)	\$ (24.62)	\$ (25.80)	\$ (26.51)

Staff is in the process of developing the FY 2022 Budget, however, the preliminary forecast above indicates that the City has a structural deficit that needs to be addressed. Both Council and operating departments have identified additional funding needs tied to Council mandates and priorities, which are not included in the expenditures noted above.

It is important to note that not included in the chart above are General Fund revenues from Rental Unit Business License Tax (U1)¹⁹ estimated to be about \$2.8 million in FY 2022 as well as General Fund revenues generated from Measure P²⁰ estimated to be

¹⁹ Measure U1 is a revenue stream assigned to fund affordable housing and protect Berkeley residents from homelessness.

²⁰ Measure P is a general fund revenue stream assigned for general municipal purposes such as aviation centers, mental health support, rehousing and other services for the homeless.

about \$6.2 million in FY 2022. Also not included in the chart above are corresponding General Fund expenditures tied to U1 and Measure P.

Attachment 4 details the projected General Fund revenues.

CONCLUSION

One of the terms that is often used with respect to the long-term obligations that are described above is “unfunded liabilities.” Unfunded liabilities are defined as identifiable obligations of an organization for which the organization does not have 100% of the funding (cash or other assets) set aside to cover the cost should all obligations become immediately due. Generally, an organization manages a balance between funding a portion of the entire obligation and the associated risk that the obligation will be due at the same time. This balance is considered the practical and responsible approach since payment demands of these obligations rarely, if ever, occur simultaneously. The alternative would be to 100% fund the obligations causing a great portion of cash to be reserved and not available for providing services or meeting other immediate obligations, needs, or desires of the community. Maintaining a careful balance between cash on hand to fund daily operations and liquidity to cover unfunded liabilities is a key challenge for all governments. With that said, the City’s unfunded liabilities tied to benefits total \$751 million, and the City’s unfunded infrastructure needs total \$1.1 billion.

POSSIBLE FUTURE ACTION

The information contained in this report will be referenced throughout the budget planning meetings in advance of the FY 2022 budget adoption and during the FY 2023 & FY 2024 Biennial Budget process.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

See information described above.

ENVIRONMENTAL SUSTAINABILITY

Actions included in the budget will be developed and implemented in a manner that is consistent with the City’s environmental sustainability goals and requirements.

CONTACT PERSON

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Attachments:

1. Employee and Retiree Benefits Funded Status
2. City’s Debt Obligations
 - Exhibit A: General Obligation bonds
 - Exhibit B: Certificates of Participation
 - Exhibit C: Revenue Bonds
3. Capital Assets

Exhibit A: Infrastructure

Exhibit B: Appraisal of Buildings Valued at \$5 million or more

4. General Fund Revenues

5. Effects of Unfunded Liabilities on Bonding Capacity

Exhibit A: S&P Global Ratings: Ratings Direct

Exhibit B: S&P Additional Information on Debt and Contingent Liability Analysis

Employee and Retiree Benefits Funded Status (dollars in millions)						Attachment 1
Fund Name	Valuation Date	Estimated Liability	Plan Assets	Funding Target	Net Liability	% Funded
Police Retiree Income Plan (closed)*	6/30/2020	\$ 79.95	\$ 5.83	2	\$ 74.1	7.29%
Police Employee Retiree Health Plan (new)*	7/1/2019	\$ 40.43	\$ 2.49	2	\$ 37.9	6.16%
Fire Employees Retiree Health Plan*	7/1/2019	\$ 25.83	\$ 11.31	1	\$ 14.5	43.8%
Retiree Health Premium Assistance Plan (Non-Safety Members)*	7/1/2019	\$ 68.46	\$ 27.81	1	\$ 40.7	40.62%
Safety Members Pension Fund*	6/30/2020	\$ 1.86	\$ 0.10	2	\$ 1.76	5.4%
Miscellaneous CalPERS Plan*	6/30/2019	\$ 1,095.0	\$ 766.8	1	\$ 328.2	70.0%
Police CalPERS Plan*	6/30/2019	\$ 438.9	\$ 268.0	1	\$ 170.9	61.1%
Fire CalPERS Plan*	6/30/2019	\$ 286.5	\$ 203.5	1	\$ 83.00	71.0%
TOTAL		\$ 2,036.9	\$ 1,285.8	-	\$ 751.1	63.1%

Since the implementation of GASB67 and 68 the Annual Required Contribution (ARC) is no longer provided.

Funding Target:

1 - percentage of payroll

2 - pay as you go

**Retiree Medical Plan data from actuarial reports from Bartel Associates, LLC and CalPERS Plans data from CalPERS*

General Obligation Bonds

FY	2009 Measure FF, Series A		2010 Measure FF, Series B		2014 Measure M (2014 Street and Integrated Watershed)		2015 GO Refunding Bonds (Refunding Measure G, S, I)		2016 Measure M (2016 Street and Integrated Watershed)		2017 Measure T1 Infrastructure and Facilities Improvementsd		2020 Measure O Affordable Housing		Total		Annual Total P & I	End of FY GO Bonds Balance	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest			
2020																			142,905,000
2021	345,000	261,268.75	580,000	333,295.14	335,000	561,125.00	2,850,000	1,022,962.50	295,000	450,737.50	660,000.00	1,070,056.26	845,000.00	503,527.50	5,910,000	4,202,973	10,112,972.65	136,995,000	
2022	250,000	284,950.00	380,000	428,687.50	350,000	544,000.00	2,160,000	890,587.50	305,000	435,737.50	695,000.00	1,036,181.26	715,000.00	1,308,940.00	4,855,000	4,929,084	9,784,083.76	132,140,000	
2023	265,000	272,075.00	395,000	409,312.50	370,000	526,000.00	2,270,000	779,837.50	320,000	420,112.50	730,000.00	1,000,556.26	740,000.00	1,280,340.00	5,090,000	4,688,234	9,778,233.76	127,050,000	
2024	275,000	258,575.00	415,000	389,062.50	385,000	507,125.00	2,380,000	663,587.50	335,000	403,737.50	765,000.00	963,181.26	770,000.00	1,250,740.00	5,325,000	4,436,009	9,761,008.76	121,725,000	
2025	285,000	244,575.00	435,000	367,812.50	405,000	491,425.00	2,495,000	541,712.50	350,000	386,612.50	805,000.00	923,931.26	800,000.00	1,223,790.00	5,575,000	4,179,859	9,754,858.76	116,150,000	
2026	300,000	229,950.00	455,000	345,562.50	420,000	478,787.50	2,625,000	413,712.50	370,000	370,462.50	845,000.00	882,681.26	825,000.00	1,195,790.00	5,840,000	3,916,946	9,756,946.26	110,310,000	
2027	315,000	214,575.00	485,000	322,062.50	430,000	465,237.50	2,760,000	306,687.50	385,000	355,362.50	885,000.00	843,856.26	855,000.00	1,166,915.00	6,115,000	3,674,696	9,789,696.26	104,195,000	
2028	335,000	198,325.00	505,000	297,312.50	445,000	449,350.00	2,840,000	222,687.50	405,000	339,562.50	920,000.00	807,756.26	885,000.00	1,136,990.00	6,335,000	3,451,984	9,786,983.76	97,860,000	
2029	355,000	181,075.00	530,000	271,437.50	465,000	431,150.00	1,960,000	150,687.50	425,000	322,962.50	960,000.00	779,156.26	915,000.00	1,106,015.00	5,610,000	3,242,484	8,852,483.76	92,250,000	
2030	370,000	162,950.00	555,000	244,312.50	480,000	412,250.00	880,000	108,087.50	450,000	307,712.50	980,000.00	757,931.26	950,000.00	1,073,990.00	4,665,000	3,067,234	7,732,233.76	87,585,000	
2031	395,000	143,825.00	585,000	215,812.50	500,000	392,650.00	305,000	89,931.25	470,000	293,912.50	1,000,000.00	731,906.26	980,000.00	1,040,740.00	4,235,000	2,908,778	7,143,777.51	83,350,000	
2032	410,000	125,750.00	615,000	188,887.50	520,000	372,250.00	315,000	79,856.25	485,000	279,587.50	1,030,000.00	701,456.26	1,015,000.00	1,006,440.00	4,390,000	2,754,228	7,144,227.51	78,960,000	
2033	430,000	108,950.00	640,000	163,787.50	540,000	350,712.50	325,000	69,253.13	500,000	264,812.50	1,060,000.00	670,106.26	1,050,000.00	973,452.50	4,545,000	2,601,074	7,146,074.39	74,415,000	
2034	450,000	94,725.00	665,000	137,687.50	565,000	327,921.88	335,000	57,906.26	515,000	250,875.00	1,095,000.00	637,781.26	1,085,000.00	939,327.50	4,710,000	2,446,224	7,156,224.40	69,705,000	
2035	460,000	82,200.00	690,000	114,037.50	590,000	304,100.01	345,000	46,006.26	530,000	237,812.50	1,125,000.00	604,481.26	1,120,000.00	904,065.00	4,860,000	2,292,703	7,152,702.53	64,845,000	
2036	480,000	68,700.00	715,000	95,643.75	610,000	278,587.51	360,000	33,668.76	550,000	223,968.75	1,160,000.00	570,206.26	1,155,000.00	867,665.00	5,030,000	2,138,440	7,168,440.03	59,815,000	
2037	495,000	64,575.00	730,000	76,650.00	640,000	251,243.76	370,000	20,662.51	570,000	209,268.75	1,195,000.00	534,881.26	1,190,000.00	830,127.50	5,190,000	1,987,409	7,177,408.78	54,625,000	
2038	510,000	39,600.00	750,000	56,325.00	665,000	222,696.88	385,000	6,978.13	590,000	193,675.00	1,230,000.00	497,737.51	1,235,000.00	785,502.50	5,365,000	1,802,515	7,167,515.02	49,260,000	
2039	525,000	24,075.00	770,000	35,400.00	695,000	192,946.88			610,000	177,175.00	1,270,000.00	458,675.01	1,285,000.00	739,190.00	5,155,000	1,627,462	6,782,461.89	44,105,000	
2040	540,000	8,100.00	795,000	11,925.00	725,000	161,884.38			630,000	160,125.00	1,310,000.00	418,362.51	1,330,000.00	691,002.50	5,330,000	1,451,399	6,781,399.39	38,775,000	
2041					760,000	128,925.00			655,000	142,456.25	1,350,000.00	375,956.26	1,380,000.00	641,127.50	4,145,000	1,288,465	5,433,465.01	34,630,000	
2042					790,000	94,050.00			680,000	124,100.00	1,395,000.00	331,350.01	1,435,000.00	589,377.50	4,300,000	1,138,878	5,438,877.51	30,330,000	
2043					830,000	57,600.00			705,000	104,175.00	1,440,000.00	285,281.26	1,485,000.00	535,565.00	4,460,000	982,621	5,442,621.26	25,870,000	
2044					865,000	19,462.50			735,000	82,575.00	1,485,000.00	237,750.01	1,545,000.00	479,877.50	4,630,000	819,665	5,449,665.01	21,240,000	
2045									765,000	60,075.00	1,535,000.00	188,675.01	1,600,000.00	421,940.00	3,900,000	670,690	4,570,690.01	17,340,000	
2046									795,000	36,675.00	1,585,000.00	137,975.01	1,655,000.00	367,540.00	4,035,000	542,190	4,577,190.01	13,305,000	
2047									825,000	12,375.00	1,635,000.00	84,628.13	1,710,000.00	311,270.00	4,170,000	408,273	4,578,273.13	9,135,000	
2048											1,690,000.00	28,518.75	1,770,000.00	253,130.00	3,460,000	281,649	3,741,648.75	5,675,000	
2049													1,830,000.00	192,950.00	1,830,000	192,950	2,022,950.00	3,845,000	
2050													1,890,000.00	130,730.00	1,890,000	130,730	2,020,730.00	1,955,000	
2051													1,955,000.00	66,470.00	1,955,000	66,470	2,021,470.00	-	
Grant Total	\$ 7,790,000	\$ 3,068,819	\$ 11,690,000	\$ 4,505,014	\$ 13,380,000	\$ 8,021,481	\$ 25,960,000	\$ 5,504,813	\$ 14,250,000	\$ 6,646,644	\$ 31,835,000	\$ 16,561,016	\$ 38,000,000	\$ 24,014,528	\$ 142,905,000	\$ 68,322,314	\$ 211,227,314		

Attachment 2

Exhibit B

Certificates of Participation

FY	2010 COP Animal Shelter		Total Annual P & I	End of FY COPs Balance
	Principal	Interest		
			\$ -	
2020				4,890,000
2021	125,000	276,800.00	401,800.00	4,765,000
2022	135,000	270,106.25	405,106.25	4,630,000
2023	140,000	262,200.00	402,200.00	4,490,000
2024	150,000	253,862.50	403,862.50	4,340,000
2025	155,000	245,093.75	400,093.75	4,185,000
2026	165,000	235,893.75	400,893.75	4,020,000
2027	175,000	226,118.75	401,118.75	3,845,000
2028	185,000	215,768.75	400,768.75	3,660,000
2029	195,000	204,843.75	399,843.75	3,465,000
2030	210,000	193,200.00	403,200.00	3,255,000
2031	220,000	180,837.50	400,837.50	3,035,000
2032	235,000	167,756.25	402,756.25	2,800,000
2033	245,000	153,956.25	398,956.25	2,555,000
2034	260,000	139,437.50	399,437.50	2,295,000
2035	275,000	124,056.25	399,056.25	2,020,000
2036	290,000	107,812.50	397,812.50	1,730,000
2037	310,000	90,562.50	400,562.50	1,420,000
2038	325,000	72,306.25	397,306.25	1,095,000
2039	345,000	53,043.75	398,043.75	750,000
2040	365,000	32,631.25	397,631.25	385,000
2041	385,000	11,068.75	396,068.75	-
Grand Total	\$ 4,890,000.00	\$ 3,517,356.25	\$ 8,407,356.25	

Revenue Bonds

FY	Berkeley Rep. 2012 Refunding		1947 Center 2012 Refunding		2016 Parking Revenue Bond		Total		Annual Total P & I	End of FY Rev Bonds Balance
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest		
2020										52,465,000
2021	320,879.33	178,817.04	1,049,121	584,645.46	780,000	1,130,250.00	2,150,000	1,893,713	4,043,712.50	50,315,000
2022	337,274.63	162,363.19	1,102,725	530,849.31	805,000	1,106,850.00	2,245,000	1,800,063	4,045,062.50	48,070,000
2023	352,498.83	146,881.34	1,152,501	480,231.16	840,000	1,074,650.00	2,345,000	1,701,763	4,046,762.50	45,725,000
2024	366,551.94	130,667.56	1,198,448	427,219.93	870,000	1,041,050.00	2,435,000	1,598,937	4,033,937.49	43,290,000
2025	386,460.51	111,842.25	1,263,539	365,670.25	905,000	1,006,250.00	2,555,000	1,483,763	4,038,762.50	40,735,000
2026	405,197.99	92,050.79	1,324,802	300,961.71	945,000	970,050.00	2,675,000	1,363,063	4,038,062.50	38,060,000
2027	427,448.74	71,234.62	1,397,551	232,902.88	980,000	932,250.00	2,805,000	1,236,388	4,041,387.50	35,255,000
2028	442,672.95	53,908.31	1,447,327	176,254.19	1,020,000	893,050.00	2,910,000	1,123,213	4,033,212.50	32,345,000
2029	459,068.24	40,095.28	1,500,932	131,092.22	1,060,000	852,250.00	3,020,000	1,023,438	4,043,437.50	29,325,000
2030	320,879.33	16,461.17	1,049,121	102,695.08	1,105,000	809,850.00	2,475,000	929,006	3,404,006.25	26,850,000
2031			1,450,000	74,187.50	1,145,000	765,650.00	2,595,000	839,838	3,434,837.50	24,255,000
2032			1,500,000	25,312.50	1,190,000	719,850.00	2,690,000	745,163	3,435,162.50	21,565,000
2033					1,240,000	672,250.00	1,240,000	672,250	1,912,250.00	20,325,000
2034					1,290,000	622,650.00	1,290,000	622,650	1,912,650.00	19,035,000
2035					1,340,000	571,050.00	1,340,000	571,050	1,911,050.00	17,695,000
2036					1,380,000	530,850.00	1,380,000	530,850	1,910,850.00	16,315,000
2037					1,425,000	489,450.00	1,425,000	489,450	1,914,450.00	14,890,000
2038					1,465,000	446,700.00	1,465,000	446,700	1,911,700.00	13,425,000
2039					1,510,000	402,750.00	1,510,000	402,750	1,912,750.00	11,915,000
2040					1,555,000	357,450.00	1,555,000	357,450	1,912,450.00	10,360,000
2041					1,600,000	310,800.00	1,600,000	310,800	1,910,800.00	8,760,000
2042					1,650,000	262,800.00	1,650,000	262,800	1,912,800.00	7,110,000
2043					1,700,000	213,300.00	1,700,000	213,300	1,913,300.00	5,410,000
2044					1,750,000	162,300.00	1,750,000	162,300	1,912,300.00	3,660,000
2045					1,805,000.00	109,800.00	1,805,000	109,800	1,914,800.00	1,855,000
2046					1,855,000.00	55,650.00	1,855,000	55,650	1,910,650.00	-
Grand Total	\$ 3,818,932	\$ 1,004,322	\$ 15,436,068	\$ 3,432,022	\$ 33,210,000	\$ 16,509,800	\$ 52,465,000	\$ 20,946,144	\$ 73,411,144	

	FY 2022 Year 1	FY 2023 Year 2	FY 2024 Year 3	FY 2025 Year 4	FY 2026 Year 5	Total Year 1- 5
Parks, Park Buildings, Pools, Waterfront, and Camps						
Available Funding ⁽¹⁾	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$8,750,000
Expenditures	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$8,750,000
Capital & Maint. Need ⁽²⁾ \$217,039,000						
Unfunded Liability	(\$219,594,780)	(\$222,201,676)	(\$224,860,709)	(\$227,572,923)	(\$230,339,382)	(\$230,339,382)
Public Buildings						
Available Funding	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$4,000,000
Expenditures	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$4,000,000
Capital & Maint. Need \$282,300,000						
Unfunded Liability	(\$287,130,000)	(\$292,056,600)	(\$297,081,732)	(\$302,207,367)	(\$307,435,514)	(\$307,435,514)
Sidewalks						
Available Funding	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$3,500,000
Expenditures	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$3,500,000
Capital & Maint. Need \$11,120,000						
Unfunded Liability	(\$10,628,400)	(\$10,126,968)	(\$9,615,507)	(\$9,093,818)	(\$8,561,694)	(\$8,561,694)
Streets & Roads						
Available Funding	\$6,820,000	\$6,820,000	\$6,820,000	\$6,820,000	\$6,820,000	\$34,100,000
Expenditures	\$6,820,000	\$6,820,000	\$6,820,000	\$6,820,000	\$6,820,000	\$34,100,000
Capital & Maint. Need \$250,000,000						
Unfunded Liability	(\$248,043,600)	(\$246,048,072)	(\$244,012,633)	(\$241,936,486)	(\$239,818,816)	(\$239,818,816)
Sewers						
Available Funding	\$21,974,583	\$16,456,882	\$20,188,912	\$24,206,893	\$24,700,000	\$107,527,270
Expenditures	\$21,974,583	\$16,456,882	\$20,188,912	\$24,206,893	\$24,700,000	\$107,527,270
Capital & Maint. Need \$193,800,000						
Unfunded Liability	(\$175,261,925)	(\$161,981,144)	(\$144,628,077)	(\$122,829,608)	(\$100,092,200)	(\$100,092,200)
Storm Water						
Available Funding	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$6,500,000
Expenditures	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$6,500,000
Capital & Maint. Need \$245,820,000						
Unfunded Liability	(\$249,410,400)	(\$253,072,608)	(\$256,808,060)	(\$260,618,221)	(\$264,504,586)	(\$264,504,586)
Traffic Signals & Parking Infrastructure						
Available Funding	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Expenditures	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Capital & Maint. Need \$14,838,800						
Unfunded Liability	(\$14,727,576)	(\$14,614,128)	(\$14,498,410)	(\$14,380,378)	(\$14,259,986)	(\$14,259,986)
TOTAL						
Available Funding	\$33,744,583	\$28,226,882	\$31,958,912	\$35,976,893	\$36,470,000	\$166,377,270
Expenditures	\$33,744,583	\$28,226,882	\$31,958,912	\$35,976,893	\$36,470,000	\$166,377,270
T1 Funding: \$100M Infrastructure Bond ⁽³⁾	\$10,650,000	\$10,650,000	\$10,650,000	\$10,650,000	\$10,650,000	\$53,250,000
Capital & Maint. Need \$1,214,917,800						
Unfunded Liability	(\$1,193,933,681)	(\$1,178,935,473)	(\$1,159,905,270)	(\$1,136,476,483)	(\$1,112,086,012)	(\$1,112,086,012)

⁽¹⁾ Unless otherwise noted, available funding includes recurring sources of capital and major maintenance funding.

⁽²⁾ Capital & Maint. Needs are current estimates of unfunded needs. Needs are estimated to increase at a rate of 2% per year.

⁽³⁾ The remaining \$53.25M of the bond allocated to project budgets is estimated to be equally distributed over 5 years, (\$10.65 million/year).

		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 1- 5
Cybersecurity Resiliency Plan¹							
Available Funding		\$489,000	\$0	\$0	\$0	\$0	\$489,000
Expenditures		(\$2,129,500)	(\$2,649,000)	(\$3,701,500)	(\$2,189,500)	(\$2,298,975)	(\$12,968,475)
Capital & Maint. Need	\$12,479,475						
Unfunded Liability		(\$1,640,500)	(\$2,649,000)	(\$3,701,500)	(\$2,189,500)	(\$2,298,975)	(\$12,479,475)
Customer Relationship Management (CRM) System							
Available Funding		\$0	\$80,000	\$80,000	\$80,000	\$80,000	\$320,000
Expenditures		(\$200,000)	(\$80,000)	(\$80,000)	(\$80,000)	(\$80,000)	(\$520,000)
Capital & Maint. Need	\$520,000						
Unfunded Liability		(\$200,000)	\$0	\$0	\$0	\$0	(\$200,000)
GIS: Master Address Database (MAD)							
Available Funding		\$0	\$0	\$50,000	\$50,000	\$50,000	\$150,000
Expenditures		(\$250,000)	(\$100,000)	(\$50,000)	(\$50,000)	(\$50,000)	(\$500,000)
Capital & Maint. Need	\$500,000						
Unfunded Liability		(\$250,000)	(\$100,000)	\$0	\$0	\$0	(\$350,000)
Information Technology Move to 1947							
Available Funding		\$0	\$0	\$0	\$0	\$0	\$0
Expenditures		(\$770,000)	(\$200,850)	(\$206,876)	(\$213,082)	(\$219,474)	(\$1,610,281)
Capital & Maint. Need	\$1,610,281						
Unfunded Liability		(\$770,000)	(\$200,850)	(\$206,876)	(\$213,082)	(\$219,474)	(\$1,610,281)
TOTAL							
Available Funding		\$0	\$80,000	\$130,000	\$130,000	\$130,000	\$470,000
Expenditures		(\$3,349,500)	(\$3,029,850)	(\$4,038,376)	(\$2,532,582)	(\$2,648,449)	(\$15,598,756)
Capital & Maint. Need	\$15,128,756						
Unfunded Liability		(\$3,349,500)	(\$2,949,850)	(\$3,908,376)	(\$2,402,582)	(\$2,518,449)	(\$15,128,756)

¹ As presented to Council in the closed session dated 12/1/2020

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Public Buildings - Appraisal of Assets Valued @ \$5M or More

Attachment 3 Exhibit B

Other ID.	Address	Sq Feet	Year Built	Last Appr.	Occupied As	Leased Owned	Total Values
MAIN LIBRARY	2090 KITTREDGE STREET (FRONT)	102000	1931	2016	LIBRARY - HIGH END	OWNED	\$ 65,314,995
VEHICLES	VARIOUS LOCATIONS	0			RC, COMP & COLLISION	OWNED	\$ 55,896,045
CIVIC CENTER BUILDING ANNEX	1947 CENTER STREET	112798	1947	2016	PUBLIC WORKS ENGINEERING AND TRANSPORTATION	OWNED	\$ 47,904,716
CENTER STREET GARAGE AND COMMERCIAL SPACE	2025 CENTER STREET	248000	2018	2018	CITY AND PUBLIC PARKING AND OFFICE	OWNED	\$ 47,061,572
MARTIN LUTHER KING JR. CIVIC CENTER	2180 MILVIA STREET	89075	1940	2016	OFFICE BUILDING	OWNED	\$ 36,913,177
PUBLIC SAFETY BUILDING (INCLUDES PRIMARY EOC)	2100 MARTIN LUTHER KING JR WAY	60108	2000	2016	POLICE STATION/FIRE STATION OFFICES	OWNED	\$ 26,636,433
OLD CITY HALL	2134 MARTIN LUTHER KING JR. WAY	38400	1908	2016	OFFICE	OWNED	\$ 17,435,819
TELEGRGRAPH/CHANNING (SATHER GATE) MALL AND GARAGE	2438 DURANT AVENUE/CHANNING AVENUE	186890	1990	2016	PARKING GARAGE W/RETAIL	OWNED	\$ 15,052,194
FIRE DEPARTMENT WAREHOUSE	1011 FOLGER AVENUE	8021	2011	2019	WAREHOUSE	OWNED	\$ 11,818,413
DONA SPRING ANIMAL SHELTER	1 BOLIVAR DRIVE	11700	2013	2016	Animal Shelter	OWNED	\$ 10,300,011
LIBRARY-WEST BRANCH	1125 UNIVERSITY AVENUE	9300	2013	2014	LIBRARY	OWNED	\$ 8,022,103
125-127 University Office Building	125-127 UNIVERSITY AVE.	15396	1968	2015		OWNED	\$ 7,810,758
TAREA HALL PITTMAN SOUTH BRANCH	1901 RUSSELL STREET	8700	2013	2016	LIBRARY	OWNED	\$ 6,936,886
OXFORD STREET GARAGE	2165 KITTREDGE STREET	42128	2009	2016	PARKING/RETAIL	OWNED	\$ 6,796,983
BERKELEY REP THEATER	2025 ADDISON STREET	24893	2000	2016	THEATRE	OWNED	\$ 6,678,445

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Public Buildings - Appraisal of Assets Valued @ \$5M or More

Attachment 3 Exhibit B

Other ID.	Address	Sq Feet	Year Built	Last Appr.	Occupied As	Leased Owned	Total Values
VETERANS MEMORIAL HALL	1931 CENTER STREET	33254	1923	2016	ASSEMBLY AND HOMELESS SHELTER	OWNED	\$ 6,588,339
NORTH BERKELEY SENIOR CITIZENS CENTER	1901 HEARST AVENUE	20880	1977	2011	SENIOR CENTER	OWNED	\$ 6,179,583
JAMES KENNEY RECREATION CENTER	1718 & 1720 8TH STREET	17724	1973	2019	RECREATION CENTER/ASSEMBLY	OWNED	\$ 5,841,155
LIBRARY-NORTH BRANCH	1170 THE ALAMEDA	9555	1936	2019	LIBRARY	OWNED	\$ 5,823,439
LIBRARY - CLAREMONT BRANCH	2940 BENVENUE AVENUE	8110	1924	2019	LIBRARY	OWNED	\$ 5,496,807
SOUTH BERKELEY SENIOR CENTER	2939 ELLIS STREET	17156	1977	2019	SENIOR CENTER	OWNED	\$ 5,582,332
BERKELEY MARINA	201 UNIVERSITY AVENUE	152571	1974	2019	BOAT DOCKS	OWNED	\$ 5,340,000
TOTAL							\$ 411,430,205

PROJECTED GENERAL FUND REVENUES

	Projected General Fund Revenue FY 2021 through FY 2026					
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Undesignated Revenues						
Secured Property Taxes	68,058,514	71,121,147	73,610,388	76,186,751	78,853,287	81,613,152
Unsecured Property Taxes	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Supplemental Taxes	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Property Transfer Taxes	16,500,000	12,500,000	12,500,000	12,500,000	12,500,000	12,500,000
Sales Taxes	16,727,492	16,705,100	17,569,800	18,475,300	19,117,700	19,550,400
Soda Tax	970,794	990,210	1,010,014	1,030,214	1,050,819	1,071,835
Utility Users Taxes	12,750,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000
Transient Occupancy Taxes(TOT)	3,070,000	3,394,880	3,496,726	3,601,628	3,709,677	3,849,903
TOT for Short-Term Rentals	476,260	500,073	525,077	551,330	578,897	607,842
Business License Taxes	12,984,192	14,043,702	14,605,450	15,189,668	15,797,255	16,429,145
Business License Taxes for Cannabis Recreational	1,300,000	1,326,000	1,352,520	1,379,570	1,407,162	1,435,305
Vehicle In Lieu Taxes	14,384,459	15,031,760	15,557,872	16,102,397	16,665,981	17,249,290
Other Taxes	1,456,560	1,471,126	1,485,837	1,500,695	1,515,702	1,530,859
Parking Fines	4,049,000	4,129,980	4,212,580	4,296,831	4,382,768	4,470,423
Moving Violations	190,000	190,000	190,000	190,000	190,000	190,000
Interest Income	4,051,200	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Ambulance Fees	3,342,159	3,342,159	4,200,000	4,200,000	4,200,000	4,200,000
Franchise Fees	1,581,650	2,152,513	2,195,563	2,239,474	2,284,263	2,329,948
Indirect cost reimbursements	5,490,000	5,490,000	5,490,000	5,490,000	5,490,000	5,490,000
Transfers	17,274,293	5,874,293	5,874,293	5,874,293	5,874,293	5,874,293
Other Revenues	6,246,348	6,246,348	6,246,348	6,246,348	6,246,348	6,246,348
Total Undesignated Revenues	195,902,922	186,509,291	192,122,467	197,054,501	201,864,152	206,638,744
Designated Revenues						
Prop. Transfer Taxes for capital improvements		3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Prop. Transfer Taxes-Measure P	6,247,414	6,247,414	6,247,414	6,247,414	6,247,414	6,247,414
Measure U1 for low income housing	2,700,000	2,808,000	2,920,320	3,037,133	3,158,618	3,284,963
Total Designated Revenues	8,947,414	12,555,414	12,667,734	12,784,547	12,906,032	13,032,377
TOTAL REVENUES AND TRANSFERS	204,850,336	199,064,705	204,790,201	209,839,048	214,770,184	219,671,121

1. Secured Property Taxes- Projections based on actual or forecast increase in assessed values: FY 2021 7.70%; FY 2022 4.5%;FY 2023-FY 2026 3.5%. Conservatively assumes the real estate market will remain active for the next two years, and then dip and level off.
2. Unsecured Property Taxes, Supplemental Taxes,Utility Users Taxes, and Ambulance Fees-Historical revenues have been flat for several years, and are expected to remain so.
3. Property Transfer Taxes- Projections assume a \$16.5 million level from FY 2021 to FY 2022 and then a drop to the \$16 million level from FY 2022 through FY 2026.
4. Sales Taxes- Projections are "the most likely outcome" each year up to FY 2026, as provided by MuniServices, the City's Sales Tax consultant that maintains the City's Sales Tax data base. 1% growth each year after FY 2026.
5. Transient Occupancy Taxes- After several years of double-digit growth, this revenue source was devastated by COVID-19 in FY 2021; Thereafter, 3% growth is projected through FY 2026.
6. Business License Taxes (excluding Cannabis Recreational)-Huge decline is expected in FY 2021 as a result of COVID-19; Thereafter, assumes a 4% growth rate from FY 2022-FY 2026
7. Business License Taxes- Cannabis Recreational- Assumes a 4% growth rate from FY 2022-FY 2026.
8. Vehicle In Lieu Taxes- Projections based on actual or forecast increase in assessed values: FY 2021 7.70%; FY 2022 4.5%; FY 2023-FY 2026 3.5%.
9. Parking Fines- Ticket writing has been in a downward spiral for many years; the projections assume flat revenue each year from FY 2022 through FY 2026.
10. Interest Income-The Fed lowered rates to zero again. After a big hit in FY 2021, projection assumes flat growth through FY 2026.
11. Franchise Fees- This revenue source has historically experienced relatively low growth. After a big hit in FY 2021, projection assumes 2% each year through FY 2026.
12. Indirect Cost Reimbursements-Reimbursement increases result from increases in the indirect cost allocation base (i.e., total direct salaries and wages in the fund), an increase in the indirect cost rate or both. Projections assume flat revenue through FY 2026.
13. Transient Occupancy Taxes- Short-term Rentals- After a big hit in FY 2021 as a result of COVID-19, projections assume a 4% growth rate.
14. Soda Taxes- This revenue source was always expected to decline, as the decline in sweet drinks decline. Projections assume a dip in FY 2021 and then 2% growth each year until the tax sunsets on 12/31/2026.



RatingsDirect®

Summary:

Berkeley, California; Appropriations; General Obligation

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Rationale

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Related Research

Summary:**Berkeley, California; Appropriations; General Obligation**

Credit Profile		
US\$38.0 mil 2020 GO bnds (2018 Election Measure O) due 09/01/2050		
<i>Long Term Rating</i>	AA+/Stable	New
US\$12.12 mil 2010 GO rfdg bnds (2008 Election Measure FF) ser B due 09/01/2039		
<i>Long Term Rating</i>	AA+/Stable	New
US\$7.755 mil 2009 GO rfdg bnds (2008 Election Measure FF) ser A due 09/01/2039		
<i>Long Term Rating</i>	AA+/Stable	New
US\$4.01 mil 2010 certs of part rfdg bnds due 10/01/2040		
<i>Long Term Rating</i>	AA/Stable	New

Rationale

S&P Global Ratings assigned its 'AA+' long-term rating to Berkeley, Calif.'s 2020 general obligation (GO) bonds (Measure O Authorization) (\$38 million in planned par), 2020 GO refunding bonds series A (\$7.8 million in planned par), and 2020 GO refunding bonds series B (\$12.1 million in planned par). S&P Global Ratings additionally assigned its 'AA' long-term rating to the city's 2020 lease revenue refunding bonds (\$4 million in planned par). Finally, S&P Global Ratings affirmed its 'AA+' long-term rating and underlying rating (SPUR) on Berkeley's general obligation (GO) debt outstanding, and its 'AA' long-term rating on the city's certificates of participation (COPs) and lease revenue bonds (LRBs) outstanding. The outlook on all ratings is stable.

Security and use of proceeds

Revenue from unlimited ad valorem taxes levied on taxable property in the city secures both the new and outstanding GO bonds. The city has the power and obligation to levy these taxes without limitation as to rate or amount. Proceeds from the 2020 GO bond (Measure O Authorization) will be used for improvements to and acquisition of affordable and transition housing within the city. Proceeds from the series A and series B 2020 GO refunding bonds will refund a portion of the city's outstanding debt for level interest savings.

The LRBs and COPs outstanding are payable from lease payments to be made from the city to the Berkeley Joint Powers Financing Authority for use of real property in the city. The LRBs are payable under a lease-leaseback agreement whereby the city leases the property to the authority and the authority leases it back to the city. As provided in the lease for the LRBs and the 2010 COPs, payments are triple net, without right of set-offs, and the city is responsible for the maintenance, taxes, and utilities of the leased property. Base rental payments may be abated in the event of damage to, or the destruction of, the assets. To mitigate the risk of abatement in such a case, the city has covenanted to maintain at least 24 months' rental interruption insurance coverage, except with respect to earthquake coverage. In addition, insurance against loss or damage, for certain causes of loss equal to the lesser of 100%

outstanding aggregate principal amount of the bonds or 100% replacement cost of all structures, is required under the lease. The transaction documents do not require the city to fund a debt service reserve. In accordance with our criteria, we do not view the lack of a debt service reserve as a significant credit weakness because the three-month lag between the start of the city's fiscal year (July 1) and the debt service due date (Oct. 1) mitigates late budget adoption risk. Our ratings on the city's LRBs and COPs are one notch below the city GO rating to reflect appropriation risk. Proceeds from the series 2020 lease revenue refunding bonds will be used to refund a portion of the city's outstanding debt. The city is planning to redirect the savings, which will be frontloaded, to the city's section 115 pension trust.

Credit overview

The city of Berkeley's credit quality is anchored by the city's desirable location on the San Francisco Bay in Alameda County, as well as the presence of the University of California's flagship Berkeley campus. These factors have helped the city enjoy extraordinary growth during the recent expansion. Importantly, the city has successfully leveraged this wealth to fortify its financial position. A history of strong operating surpluses has allowed the city to maintain very strong budgetary flexibility. While the city has begun to take steps to plan for continued increases in pension costs, we believe the city's elevated pension liabilities will continue to challenge the city, particularly if a recession once again causes a decline in revenue. We also believe the statewide challenges of housing affordability and homelessness are beginning to affect the city's credit quality, with the city dedicating significant attention and, increasingly, fiscal resources to address the problems.

The ratings further reflect our view of the following credit characteristics of the city:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA) and a local stabilizing institutional influence;
- Very strong management, with strong financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Strong budgetary performance, with operating surpluses in the general fund and at the total governmental fund level in fiscal 2019;
- Very strong budgetary flexibility, with an available fund balance in fiscal 2019 of 50% of operating expenditures;
- Very strong liquidity, with total government available cash at 105.2% of total governmental fund expenditures and 24.8x governmental debt service, and access to external liquidity we consider strong;
- Weak debt and contingent liability profile, with debt service carrying charges at 4.2% of expenditures and net direct debt that is 47.8% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligation and the lack of a plan to sufficiently address the obligation; and
- Strong institutional framework score.

Very strong economy

We consider Berkeley's economy very strong. The city, with an estimated population of 123,328, is located in Alameda County in the San Francisco-Oakland-Hayward, Calif., MSA, which we consider to be broad and diverse. The city also benefits, in our view, from a stabilizing institutional influence. The city has a projected per capita effective buying income of 159% of the national level and per capita market value of \$167,618. The city's market value grew by 7.0% over the past year to \$20.7 billion in 2020. The county unemployment rate was 3.0% in 2018.

Berkeley is located on the east side of the San Francisco Bay, approximately 10 miles northeast of San Francisco. The University of California, on the eastern side of the city, acts as a stabilizing institution and serves as a major component of the city's economy, employing approximately 13,400 (roughly 20% of total employment) full- and part-time workers. In our view, the University of California's student population (roughly 43,000 enrolled students in 2019) lowers income levels within the city. According to management, the university is planning to continue adding students after adding nearly 10,000 in recent years. Management also reports that the city is continuing to experience a significant construction boom as a result of major residential and commercial construction projects as well as an increase in single-family home renovations.

Looking ahead at macro-level considerations, despite some indications of a weakening economy at the national level, state and local government credit quality has not shown any signs of broad deterioration. We believe the prolonged trade dispute with China is pulling down projections for U.S. GDP growth. That said, we note that the city could face some economic risk due to increasingly unaffordable housing across much of coastal California and due to the cap on the state and local tax deduction imposed by the federal Tax Cuts and Jobs Act--although we have not seen these risks materialize thus far. For additional information, see "In The Mist Of Mixed Economic Signals, U.S. State And Local Credit Quality Remains Strong" (published Oct 29, 2019) and "U.S. Tax Reform: Mapping The Potential Winners And Losers By County" (published May 2, 2018).

Very strong management

We view the city's management as very strong, with strong financial policies and practices under our FMA methodology, indicating financial practices are strong, well embedded, and likely sustainable.

Highlights of the city's approach to financial management include:

- A budget formation process that incorporates historical revenue and expenditure trends, as well as some independent revenue forecasts;
- A biannual budget process with formal revision twice per calendar year, coupled with quarterly monitoring of budget-to-actual results;
- A five-year financial forecast that is updated annually;
- A five-year capital improvement plan, updated annually as part of the budget process, that identifies all known revenue sources to support potential projects;
- A formal investment policy that details permitted instruments and portfolio objectives and includes monitoring requirements with quarterly presentations to the council;
- A basic debt policy that includes some quantitative limits but does not include robust quantitative measures or benchmarks; and
- A minimum reserve and fund balance policy of 13.8% of budgeted revenue, with a longer-term goal of 30%.

Strong budgetary performance

Berkeley's budgetary performance is strong, in our opinion. The city had operating surpluses of 9.7% of expenditures in the general fund and of 17.0% across all governmental funds in fiscal 2019. Our assessment accounts for our expectation that budgetary results could deteriorate somewhat in the near term.

We believe the city is operationally balanced, and due largely to the city's robust economic growth in recent years, the city has experienced sizable positive net general fund results due to positive variation in revenue. However, the city's challenges with housing and homelessness have absorbed much of this additional fiscal capacity in recent years, in our view. In the city's 2016 and 2018 election, the two most significant fiscal measures--a new real estate transfer tax that was expected to generate \$6 million-\$8 million annually and a \$135 million GO authorization--were both passed by voters as measures to address the city's housing affordability and homelessness challenges. While the actions the city has taken to date are significant and unique in the region, at this point it's not clear if they will be sufficient. If not, the city may need to dedicate additional ongoing budgetary resources or debt capacity to respond to the challenge.

The city is budgeting for balanced general fund results over the 2020-2021 biennium, and we believe they will likely end better than budgeted.

We have adjusted general fund expenditures upward and the corresponding net transfers downward to reflect ongoing transfers out to various special funds to support operations and maintenance. We also adjusted general fund revenue and the corresponding net transfers in the past three audited years to reflect ongoing transfers in from the parking enterprise fund.

Very strong budgetary flexibility

We expect the available fund balance to remain above 30% of expenditures for the current and next fiscal years, which we view as a positive credit factor.

The city maintains very strong reserves and has no plans to spend them down. We do not anticipate that the city will spend them down.

Very strong liquidity

In our opinion, Berkeley's liquidity is very strong, with total government available cash at 105.2% of total governmental fund expenditures and 24.8x governmental debt service in 2019. In our view, the city has strong access to external liquidity if necessary.

We believe the city's investment policy restricts its ability to maintain an aggressive investment portfolio, and we have not identified any contingent risks that would jeopardize the city's liquidity. The city invests in money market funds, medium-term notes, and municipal bonds. We do not expect the city's liquidity position to deteriorate over the medium term, based on historical performance and a lack of identified material risks to liquidity.

Weak debt and contingent liability profile

In our view, Berkeley's debt and contingent liability profile is weak. Total governmental fund debt service is 4.2% of total governmental fund expenditures, and net direct debt is 47.8% of total governmental fund revenue.

In November 2018, the city's voters approved \$135 million in general fund bond authorization specifically to address the city's housing challenges, and this series will be the first issuance. According to management, the city will likely issue the remaining \$97 million in three series over the next several years, with the next issuance expected in 2023. In addition, the city still has \$65 million in authority from its 2016 measure T1 authorization.

Management also confirmed that the city has no alternative financing obligations.

Pension and OPEB highlights

- In our view, the city has a large pension and OPEB liability that is pressuring the city's operations, and while the city has made progress planning—including establishing a Section 115 trust—we don't yet believe the city has adequately planned for expected cost escalation.
- The city's pension funded status, combined with recent changes to assumed discount rate and amortization methods, will likely lead to accelerating costs in the medium term. However, we believe this approach will help the city make timely progress reducing pension liabilities.
- While the city is not making full actuarially determined contributions (ADCs) toward its OPEB liability, which will lead to significant contribution volatility over time, we believe Berkeley's pension costs represent a more urgent source of adverse credit pressure.

The city participates in the following plans funded as of June 30, 2018:

- California Public Employees' Retirement System (CalPERS) miscellaneous plan: \$281 million in net liability, or 72% funded;
- CalPERS police plan: \$159 million in net liability, or 62% funded;
- CalPERS fire plan: \$76 million in net liability, or 72% funded; and
- Retiree Health Plan: single-employer OPEB plan with \$37 million in net liability, or 45% funded.

Berkeley's combined required pension and actual OPEB contributions totaled 15.9% of total governmental fund expenditures in 2019. Of that amount, 14.8% represented required contributions to pension obligations, and 1.1% represented OPEB payments. The city's 2018 ADC for all three of its CalPERS plans fell short of static funding, indicating that the city's pension liabilities increased. While CalPERS' recent adoption of a 20-year, level dollar amortization approach for new gains and losses will lead to more rapid contribution increases, a shorter amortization period will provide a faster recovery to plan funding following years of poor investment performance or upward revisions to the pension liability, which we view favorably. However, we believe costs will continue to increase for the next several years to retire existing unfunded liability, much of which is amortized over 30-year periods using a level percent of payroll approach. In our view, the discount rate of 7.15% contributes to contribution volatility.

Strong institutional framework

The institutional framework score for California municipalities required to submit a federal single audit is strong.

Outlook

The stable outlook reflects our view of Berkeley's historically stable financial position and demonstrated willingness to reduce expenditures as volatile revenues decline. We also expect that city management will continue to balance its operations and maintain very strong reserves. We do not expect to change the ratings within the two-year outlook horizon.

Upside scenario

We could raise the ratings if the city significantly reduces its unfunded pension liability and we believe the city will not

need to increase its ongoing fiscal commitments to address its housing and homelessness challenges.

Downside scenario

We could lower the ratings if the city's financial performance and flexibility deteriorate to a level we consider adequate, and if debt or economic scores worsen.

Related Research

- SeismiCat Earthquake Model, May 4, 2018
- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Criteria Guidance: Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings, Oct. 7, 2019
- 2019 Update Of Institutional Framework For U.S. Local Governments

Ratings Detail (As Of February 14, 2020)		
Berkeley GO		
<i>Long Term Rating</i>	AA+/Stable	Affirmed
Berkeley GO (BAM)		
<i>Unenhanced Rating</i>	AA+(SPUR)/Stable	Affirmed
Berkeley APPROP		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Berkeley GO		
<i>Long Term Rating</i>	AA+/Stable	Affirmed
Berkeley 2010 certs of part rfdg bnds due 10/01/2040		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Berkeley Jt Pwrs Fing Auth, California		
Berkeley, California		
Berkeley Jt Pwrs Fing Auth (Berkeley) 2012 rfdg lse rev bnds		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Many issues are enhanced by bond insurance.		

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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To: Henry Oyekanmi
From: Ben Geare
Date: Feb 28, 2020
Re: Additional information on debt and contingent liability analysis

Dear Henry,

Per your request, please find below some additional information on how we conducted our analysis of the city of Berkeley's debt and contingent liability profile.

Please note that certain terms used in our rating report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria.

The debt and contingent liabilities section of our analysis relies on the three documents listed below (attached in Appendix 4). Note that these documents, as well as any other criteria used to assign the rating, should be read in full to understand all aspects of our analysis.

- "Debt Statement Analysis" criteria, published Aug 22, 2006
- "U.S. Local Governments General Obligation Ratings: Methodology And Assumptions" criteria, published Sept. 12, 2013
- "Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings" guidance, published Oct 7, 2019

Initial debt and contingent liabilities score

The criteria form the initial debt and contingent liabilities score from the combination of two measures: total governmental funds debt service as a percentage of total governmental funds expenditures and net direct debt as a percentage of total governmental funds revenue. Table 14 from our "U.S. Local Governments General Obligation Ratings: Methodology And Assumptions" criteria (listed in Appendix 2 below) details the scoring for the debt and contingent liabilities score. A score from that table of 1, 2, 3, 4, or 5 are very strong, strong, adequate, weak and very weak, respectively.

Our description of Berkeley's debt and contingent liability profile as "weak" indicates a score of 4. As we stated in our report, we determined (according the methods described in our Debt Statement Analysis criteria) that Berkeley's total governmental fund debt service is 4.2% of total governmental fund expenditures, and net direct debt is 47.8% of total governmental fund revenue. If you reference Table 14 below, you will see that these two scores result in an initial debt and contingent liabilities score of 2 (with TGF debt service below the 8% threshold and net direct debt as a percentage of TGF revenue between 30% and 60%).

Additional qualitative adjustments related to pension and OPEB liabilities

As our report also indicates, there was an additional qualitative factor with a negative impact on Berkeley's initial debt and contingent liabilities score, resulting in a final debt and contingent

liabilities score of four. As you can see in table 14 in Appendix 2 below, one of these negative qualitative factors is the presence of an “unaddressed exposure to large unfunded pension or OPEB obligations leading to accelerating payments over the medium term that represent significant budget pressure...” and the criteria goes on to say that: “If there is a plan to address the obligations, the final score will worsen by one point, otherwise the score worsens by two points”. As we stated in the rating report, “...In our view, the city has a large pension and OPEB liability that is pressuring the city's operations, and while the city has made progress planning--including establishing a Section 115 trust--we don't yet believe the city has adequately planned for expected cost escalation”.

Paragraph 82 of our Sept. 2013 Local Government GO Ratings criteria (included in appendix 2 below) provides more detail on areas of analytical focus when assessing pension and OPEB burden. This section notes: “A combined carrying charge (required annual pension payment plus annual OPEB payment as a percentage of total governmental funds expenditures) of 10% or more will be considered elevated, however, we will consider whether we expect the elevated payments to result in lower future obligations.” And then goes on to state that when pension plan funded ratios “are less than 80%, they will receive further review especially when the carrying charge is elevated.” As we noted in our report, “Berkeley's combined required pension and actual OPEB contributions totaled 15.9% of total governmental fund expenditures in 2019. Of that amount, 14.8% represented required contributions to pension obligations, and 1.1% represented OPEB payments.” We also noted that, as of June 30, 2018, the city's miscellaneous, police, and fire CalPERS plans were funded at 72%, 62%, and 72%, respectively.

Our Oct. 7, 2019 pension guidance document provides guidelines that we commonly consider when analyzing the potential for pension cost acceleration and budget stress. This document defines how we calculate our assessment of “static funding” and “minimum funding progress,” which are metrics used to assess cost trajectory and potential for budgetary stress. See appendix 3 for the definition of these metrics and an explanation of how they are calculated. Our statement in the report that all three of the city's CalPERS plans “fell short of static funding” refers to this metric. The pension guidance document also includes guidelines we use to assess other actuarial methods and assumptions, including the plan amortization approach and discount rate.

I hope this answers your question. We are happy to discuss any additional questions you might have.

Kind Regards,

Ben Geare
Feb 28, 2020

Appendix 1:

The debt and contingent liabilities section for the City of Berkeley's Feb 14, 2020 Rating Report

“Weak debt and contingent liability profile

In our view, Berkeley's debt and contingent liability profile is weak. Total governmental fund debt service is 4.2% of total governmental fund expenditures, and net direct debt is 47.8% of total governmental fund revenue.

In November 2018, the city's voters approved \$135 million in general fund bond authorization specifically to address the city's housing challenges, and this series will be the first issuance. According to management, the city will likely issue the remaining \$97 million in three series over the next several years, with the next issuance expected in 2023. In addition, the city still has \$65 million in authority from its 2016 measure T1 authorization.

Management also confirmed that the city has no alternative financing obligations.

Pension and OPEB highlights

- In our view, the city has a large pension and OPEB liability that is pressuring the city's operations, and while the city has made progress planning--including establishing a Section 115 trust--we don't yet believe the city has adequately planned for expected cost escalation.
- The city's pension funded status, combined with recent changes to assumed discount rate and amortization methods, will likely lead to accelerating costs in the medium term. However, we believe this approach will help the city make timely progress reducing pension liabilities.
- While the city is not making full actuarially determined contributions (ADCs) toward its OPEB liability, which will lead to significant contribution volatility over time, we believe Berkeley's pension costs represent a more urgent source of adverse credit pressure.

The city participates in the following plans funded as of June 30, 2018:

- California Public Employees' Retirement System (CalPERS) miscellaneous plan: \$281 million in net liability, or 72% funded;
- CalPERS police plan: \$159 million in net liability, or 62% funded;
- CalPERS fire plan: \$76 million in net liability, or 72% funded; and
- Retiree Health Plan: single-employer OPEB plan with \$37 million in net liability, or 45% funded.

Berkeley's combined required pension and actual OPEB contributions totaled 15.9% of total governmental fund expenditures in 2019. Of that amount, 14.8% represented required contributions to pension obligations, and 1.1% represented OPEB payments. The city's 2018 ADC for all three of its CalPERS plans fell short of static funding,

indicating that the city's pension liabilities increased. While CalPERS' recent adoption of a 20-year, level dollar amortization approach for new gains and losses will lead to more rapid contribution increases, a shorter amortization period will provide a faster recovery to plan funding following years of poor investment performance or upward revisions to the pension liability, which we view favorably. However, we believe costs will continue to increase for the next several years to retire existing unfunded liability, much of which is amortized over 30-year periods using a level percent of payroll approach. In our view, the discount rate of 7.15% contributes to contribution volatility.”

Appendix 2

Selections from “U.S. Local Governments General Obligation Ratings: Methodology And Assumptions” criteria, published Sept. 12, 2013

I. Debt And Contingent Liabilities Score

78. The criteria form the initial debt and contingent liabilities score from the combination of two measures: total governmental funds debt service as a percentage of total governmental funds expenditures and net direct debt as a percentage of total governmental funds revenue. Debt service as a percentage of expenditures measures the annual fixed-cost burden that debt places on the government. Debt to revenues measures the total debt burden on the government's revenue position rather than the annual cost of the debt, which can be manipulated by amortization structures. Net direct debt is calculated as of the date of our analysis, including any debt issuance we are currently rating. Debt to expenditures is measured similarly, recognizing any near-term changes due to the government's debt structure. Table 14 details the scoring for the debt and contingent liabilities score. For more information on debt measurement, see "[Debt Statement Analysis](#)," published Aug. 22, 2006.

Table 14 Assessing The Debt And Contingent Liabilities Score (see paragraphs 78-84)					
	Net Direct Debt As % Of Total Governmental Funds Revenue				
Total Governmental Funds Debt Service As A % of Total Governmental Funds Expenditures	<30	30 to 60	60 to 120	120 to 180	≥180
< 8	1	2	3	4	5
8 to 15	2	3	4	4	5
15 to 25	3	4	5	5	5
25 to 35	4	4	5	5	5
≥35	4	5	5	5	5
A score of 1, 2, 3, 4 and 5 are very strong, strong, adequate, weak and very weak, respectively.					
Qualitative factors with a positive impact on the initial score:			Qualitative factors with a negative impact on the initial score:		
Overall net debt as a percentage of market value below 3%.			Significant medium-term debt plans produce a higher initial score when included.		
Overall rapid annual debt amortization, with more than 65% coming due in 10 years.			Exposure to interest-rate risk or instrument provisions that could increase annual payment requirements by at least 20%.		
			Overall net debt as a percentage of market value exceeding 10%.		
			Unaddressed exposure to large unfunded pension or OPEB obligations leading to accelerating payment obligations over the medium term that represent significant budget pressure (see paragraph 82). If there is a plan to address the obligations, the final score worsens by one point; otherwise the score worsens by two points.		
			Speculative contingent liabilities or those otherwise likely to be funded on an ongoing basis by the government representing more than 10% of total governmental revenue.		
For each relevant qualitative factor, the score changes by one point, except for unaddressed exposure to unfunded pension or OPEB obligations which can worsen the final score by two points. The final debt and contingent liabilities score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics equal a cutoff point between two initial scores will equate to the worse score.					

79. *Qualitative adjustments may raise or lower the final debt and contingent liabilities score relative to the initial score, as shown in table 14. The criteria consider pending debt issuance through an upward score adjustment when including the planned or recently issued debt results in a worse score.*

80. *The criteria improve the final score by one point when above-average annual debt amortization (based on total direct debt) inflates the debt service as a percentage of expenditures score and masks the future flexibility stemming from an early deleveraging. The criteria do not apply this adjustment when the early amortization results from a near-to-medium term bullet maturity that will not be retired with funds on hand. Exposure to interest-rate risk or instrument provisions that cause amortization or interest-rate changes beyond the issuer's control increase the score by one point, reflecting additional uncertainty as to whether current debt service costs will be sustained. Examples include unhedged variable-rate debt or higher interest rates resulting from failed remarketings in instruments such as auction-rate securities, variable-rate demand bonds, and certain direct purchase obligations.*

81. *An overall net debt to TMV level of above 10% worsens the score by one point, while a low level, below 3%, improves the score by one point. This statistic captures the burden of the local government's debt in addition to that of overlapping jurisdictions on the overall tax base. An atypical debt burden can present extra challenges or flexibility over and above that suggested by the individual government's debt burden alone.*

82. *The impact of pension and OPEB obligations depends on the degree to which such costs will likely escalate and whether the government has plans to address them. Relative to debt, governments have a higher level of flexibility to address these costs, both from a temporal payment perspective and from an obligation level perspective. Many governments have the flexibility to alter benefit levels, and some governments already have availed themselves of this ability. Most governments also can pay less than the annual required contribution without leaving the fund unable to meet actual payments in the current and following year. On the other hand, such delays accelerate the growth rate of future payments. When the potential for such accelerations exists and the increased payments would increase budget stress, the final debt and contingent liabilities score worsens by one point when a specific and credible plan to address this burden is in place. Otherwise, the score worsens by two points relative to the initial score. Among the areas of analytic focus when assessing the pension and OPEB burden will be:*

- *The required annual pension payment plus annual OPEB payment as a percentage of total governmental funds expenditures. A combined carrying charge of 10% or more will be considered elevated, however, we will consider whether we expect the elevated payments to result in lower future obligations.*
- *The actuarial funded ratio(s) of the pension plan(s) a local government participates in or sponsors. If the ratio(s) are less than 80%, they will receive further review especially when the carrying charge is elevated. We also consider the magnitude of the unfunded obligation in tandem with the funded ratio(s) when assessing the potential for stress.*
- *The contributions actually made to all pension plans a local government participates in or sponsors. The degree to which a local government contributes less than its full*

required contribution(s) could be an indication of either short-term cash flow issues or a willingness of management to defer difficult decisions.

- *The OPEB costs exceed 5% of total governmental funds expenditures and the local government has limited flexibility to change or amend these benefits.*

83. Finally, another adjustment considers additional future contingent liabilities not yet requiring government support. While our debt burden calculation already considers other nondirect debt requiring government support and our liquidity score considers the near-term impact of any contingent liabilities, the adjustment to the debt score results from a likelihood of ongoing payment obligations not yet occurring that represent more than 10% of total governmental funds revenues. Once the payment obligations become reality, they are included in the debt measure. Examples of contingent liabilities include potential legal judgments, currently self-supporting government enterprise debt that is likely to require support in the near future, guaranteed debt likely to need support in the near future, and additional costs resulting from pending changes in law.

Appendix 3

Selections from “Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings” guidance, published Oct 7, 2019

Actual Contribution

Not all pension plans have an actuarial funding plan in place, which can hinder evaluation of the funding discipline. One way we may evaluate how effective the most recent year's contributions are at reaching 100% funding within a reasonable timeframe is our minimum funding progress (MFP) metric. The MFP metric assesses whether the most recent employer and employee contributions cover total service cost plus unfunded interest cost plus 1/30th of the principal and is defined as follows:

$$MFP = SC + IC + NPL/30$$

- *Service cost = new benefits earned during the year*
- *Unfunded interest cost = interest earned during the year on the net pension liability*
- *Net pension liability (NPL) = NPL at beginning of year*

When contributions are to equal service cost plus unfunded interest cost alone, the plan would typically maintain its current funding levels and not make any progress toward full funding; in other words, it is "static funding." We generally do not view static funding as prudent because failing to make measureable progress on the unfunded liability, especially during periods of economic expansion, indicates poor plan management that increases the risk of higher costs during down markets. We view contributions that cover static funding plus 1/30th of the unfunded liability in the most recent annual contribution as a minimum amount of progress that governments should make toward full funding, without regard to an actuarial funding plan.

Appendix 4

Selected Criteria and Guidance documents

Link to spratings.com	“Debt Statement Analysis” criteria, published Aug 22, 2006
Link to spratings.com	“U.S. Local Governments General Obligation Ratings: Methodology And Assumptions” criteria, published Sept. 12, 2013
Link to spratings.com	“Assessing U.S. Public Finance Pension And Other Postemployment Obligations For GO Debt, Local Government GO Ratings, And State Ratings” guidance, published Oct 7, 2019