



Office of the City Manager

WORKSESSION
February 24, 2015

To: Honorable Mayor and Members of the City Council

From:  Christine Daniel, City Manager

Submitted by: Teresa Berkeley-Simmons, Budget Manager

Subject: Projections of Future Liabilities

INTRODUCTION

The balancing act between projecting revenues against increasing expenditures is always challenging. The City Council and City staff have taken actions over the last several years that have allowed the City to effectively manage and balance its budget during some very difficult times. Expenditure controls during that period included an absence of cost of living increases for employees, deferred major maintenance and capital improvements in some areas and addressing some employee benefits on a pay-as-you-go basis. As the economy recovers and moves through its next cycle of growth, the City has the opportunity to develop a plan to address its long-term obligations in a sustainable way. The purpose of this report is to facilitate that process by offering a long-term forecast of both expenditures and revenues that illuminates options to achieve financial stability through future economic cycles.

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." 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 succeeding 10 year period with costs increases based on MOU's with bargaining units; and the same assumptions used for the independent CalPERS actuarial report.

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.
4. Summary of all capital assets and infrastructure including:
 - a. Public Buildings
 - i. Appraisal of assets valued at \$5 million or more;
 - ii. Projected maintenance costs over the succeeding 5 years
 - iii. Projected budget over the succeeding 5 years
 - 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 next biennial budget. The intent 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.

When the first version of this report was presented in February 2013, members of the City Council observed that it would be helpful to include revenue projections, as well as expenditure projections. In response to that, this report also includes ten year revenue projections for the General Fund. These projections were developed with the assistance of several financial advisors including the City’s sales tax consultants 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.

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. In 2013, the CalPERS Board voted to change the actuarial model for the pension plans along with certain actuarial assumption upon which rates are based. First, the new model provides that the plans will 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 will be structured in such a way that the first five years will be a "ramp up" period to improve the plans funded percentage. That means that FY2016, 2017, 2018, 2019, and 2020 will have higher rates, and the years following are projected to plateau for some time before decreasing in the last five years of the 30 year funding period.

In addition, on February 18, 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. The new increase will be phased in over a five year period beginning with the FY 2017 rates. CalPERS will notify the City's of its FY 2017 employer contribution rates in the Fall of 2015. The impact of these rates increases was presented to Council at the [February 25, 2014 Worksession](#)¹

The City contributes to three plans in the CalPERS system: Police Safety Plan, Fire Safety Plan, and Miscellaneous Employee plan. For the Miscellaneous plan, the City pays both the employer share of the contribution and the additional 8%² employee share. Each of the plans has different rates for the City's annual employer contribution which are generally based on the demographics of the plan participants and the value of investment returns of the City's assets in the CalPERS system.

¹ http://www.cityofberkeley.info/Clerk/City_Council/2014/02_Feb/City_Council__02-25-2014_-_Special_Meeting_Annotated_Agenda.aspx

² New Miscellaneous employees hired on or after January 1, 2013, who were not previously members of CalPERS and are represented by bargaining units that did not have a contract in place as of December 31, 2012, are required to contribute 6.75% to the retirement plan as set forth in the pension reform legislation.

For the next biennial budget, FY 2016 and FY 2017, the City is using the following rates from CalPERS.

	CalPERS Actuals FY 2015	CalPERS Actuals FY 2016	CalPERS Estimates for FY 2017
Police	46.573%	48.585%	52.1%
Fire	33.156%	36.584%	38.8%/
Miscellaneous	21.912%	24.030%	25.9%
<i>Does not include the City-paid Employee Rate of 8% for Miscellaneous (non-sworn) employees</i>			

The two tables below translate the rates into dollars. The following payments will be made by the City into the PERS system for the years indicated. The first chart demonstrates required contribution by Plan. The second chart presents projected contributions based on various scenarios tied to possible COLA increases in employees salaries. 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 his own actuarial estimates that the City can use in budget planning. This report uses CalPERS' actual rates for FY 2016 and CalPERS' projections for FY 2017. This reports relies on the outside actuary's projections for FY 2018 through FY 2024, since CalPERS has not yet provided actual rates for those years.

Future Payments to California Public Employees' Retirement System All Plans and All Funds Zero COLA By Plan (dollars in millions)										
	FY15 Adopted Budget	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Police	10.5	11.1	11.9	12.1	12.5	12.8	12.7	12.6	12.5	12.5
Fire	5.2	5.8	6.1	6.4	6.7	7.0	6.9	6.9	6.8	6.7
Misc	27.2	28.9	30.6	32.7	33.9	35.1	35.1	34.9	34.8	35.7
Total	43.0	45.8	49.5	51.2	53.1	55.0	54.7	54.4	54.1	53.9
FY 2016 and FY 2017 are based on CalPERS' projections										
FY 2018 through FY 2024 are based on Actuary's Projections										
Miscellaneous includes the 8% employee share paid by the City on behalf of the employees										

CalPERS rates are assessed as a percent of salary. Accordingly, as salary increases, pension contributions increase correspondingly. The chart below shows the increases in payments to CalPERS should employees salaries be increased across the board 1% each year.

Future Payments to California Public Employees' Retirement System All Plans and All Funds COLA Comparison (dollars in millions)										
	FY15 Adopted Budget	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
PERS - No COLA	\$ 43.0	\$ 45.8	\$ 49.5	\$ 51.2	\$ 53.1	\$ 55.0	\$ 54.7	\$ 54.4	\$ 54.1	\$ 53.9
PERS - 1% COLA	-	\$ 47.2	\$ 50.6	\$ 52.8	\$ 55.3	\$ 57.8	\$ 58.1	\$ 58.3	\$ 58.6	\$ 58.8
FY 2016 and FY 2017 are based on CalPERS' projections										
FY 2018 through FY 2024 are based on Actuary's Projections										
Miscellaneous includes the 8% employee share paid by the City on behalf of the employees										

As noted above, 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 inactives (including retirees) and benefits due to prior service for actives. CalPERS calculates the value of the City's plan assets based on the market value of assets (MVA). The market value of assets values the assets based on the current value of assets held by the plan at the end of a fiscal year and reflects the solvency of the plan at that point in time.

Based on the CalPERS' actuarial valuations as of June 30, 2013, of the City's assets held by CalPERS for the City's plans are currently funded as follows: Police Safety 62.48%; Fire Safety 73.46%; and Miscellaneous 72.42%..

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. The City has individual trusts for each bargaining unit that fund the medical plans, as well as a 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 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 about 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" 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. The City Council may wish to add to the annual contribution to the plans being funded as on a pay-as-you-go basis in order to ensure that the long term funding target is achieved. Each benefit plan is described in detail below.

Police Retiree Income Benefit Plan (closed plan)

The City sponsors a Retiree Income Benefit Plan for its 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. The monthly benefit is pro-rated based on years of service.

As of June 30, 2014, the most recent actuarial valuation date, the plan was 13.64 % funded. The actuarial accrued liability for benefits was \$48.3 million, and the actuarial value of assets was \$6.6 million, resulting in an unfunded accrued liability of \$41.7 million.

Police Retiree Health Premium Assistance Plan

The City sponsors a Retiree Health Premium Assistance Plan for its Police retirees. 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. The City will pay for employees retiring on or after September 19, 2012, \$600 toward the cost of single party coverage and \$1,200 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 \$382.90 / \$765.80 and retirees must pay the difference of the actual premium cost. The City's share will increase up to 6% per year. The monthly benefit is pro-rated based on years of service.

As of June 30, 2013, the most recent actuarial valuation date, the plan was 0.00% funded. The actuarial accrued liability for benefits was \$25.2 million, and the actuarial value of assets was \$0.0 million, resulting in an unfunded accrued liability of \$25.2 million

Police Sick Leave Conversion Health Benefits (closed plan)

The City sponsors a Sick Leave Conversion Retiree Health Benefit Plan for its Police retirees. Benefits are payable based on the retiree's unused accrued sick leave hours at retirement. Effective December 23, 2012, active members are no longer eligible to convert sick leave balances to monthly health insurance coverage. Retired members on or before this date will continue to receive monthly health insurance benefits under the terms of the plan in effect prior to the change on December 23, 2012. This valuation includes liabilities only for members who retired prior to December 23, 2012 and were receiving a sick leave conversion retiree health benefit on July 1, 2013. As of the June 30, 2013 actuarial valuation date there were nine retirees receiving Police Sick Leave Conversion health Benefits. Expected benefit payments for future retirees are zero since current and future active employees are not eligible to convert their sick leave balances to monthly health insurance premiums. The plan is scheduled to be paid off in FY 2027.

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 4.5% per year. The City's contribution is prorated based on years of service.

As of July 1, 2013, the most recent actuarial valuation date, the plan was 54.4% funded. The actuarial accrued liability for benefits was \$13.1 million, and the actuarial value of assets was \$7.1 million, resulting in an unfunded accrued liability of \$6.0 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 from among 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. A Participant's applicable percentage is based on years of service with the City. Contribution amounts are negotiated and vary by bargaining unit.

As of July 1, 2014, the most recent actuarial valuation date, the plan was 37.5% funded. The actuarial accrued liability for benefits was \$44.2 million, and the actuarial value of assets was \$16.6 million, resulting in an unfunded accrued liability of \$27.6 million.

Plan	Valuation Date	Actuarial Estimated Liabilities	Plan Assets	Annual Required Contribution (ARC)	Actual Contribution *	% Funded
Police Employee Retiree Income Benefit Plan (closed)	6/30/2014	\$ 48,293,145	\$ 6,587,939	\$ 2,766,138	\$ 1,899,960	13.64%
Police Employees Retiree Health Premium Assistance Plan (new)	7/1/2013	25,173,242	-	3,826,168	68,002	0.00%
Police Sick Leave Conversion Health Benefits (closed)	7/1/2013	285,145	-	79,664	81,024	0.00%
Fire Employees Retiree Health Plan	7/1/2013	13,118,828	7,140,525	829,307	796,249	54.43%
Retiree Health Premium Assistance Plans (Non-Safety Members)	7/1/2014	44,160,386	16,572,443	3,869,383	1,848,947	37.53%
Total		\$ 131,030,746	\$ 30,300,907	\$ 11,370,660	\$ 4,694,182	23.13%

*.Actual contribution does not include interest income

c. Workers' Compensation

The City is required by law to provide workers' compensation coverage for its employees. The City is self insured for workers' compensation. The City began its self-insured worker's compensation program on March 1, 1975. In 2005 the City established a formula for assessing charges across all City departments and programs. Payments are made to the Worker's Compensation Self-Insurance Internal Service Fund by transfers from all City funds. Since that time, the Fund has been able to both pay claims and costs, as well as build up a balance. In FY 2014, the City transferred \$8.2 million into the Fund. The total annual expenditure from the fund, including claims paid and administrative costs as of June 30, 2014 was \$5.7 million. The fund balance as of June 30, 2014 was \$19.3 million.

The actuarial estimate for the program's liability for outstanding claims was \$29.6 million as of June 30, 2014. This represents estimates of amounts to ultimately be paid for reported claims and upon past experience, recent claim settlement trends, and other information. It is the City's practice to obtain an actuarial study on an annual basis for this fund. The actuary recommends that the funding amount be sufficient to bring funding to the 75% to 85% confidence level. In the nine years since the City established the formula for assessing charges to departments, the Fund has achieved a 65.13% funding level, with the balance being increased each year. The funding for this program is a good example of how an underfunded liability can be successfully addressed over time.

Workers Compensation as of June 30, 2014						
Estimated Liability	Plan Assets	Annual Required Contribution	Actual Contribution	Funding Target	Unfunded Liability	% Funded
\$ 29,604,000	\$ 19,280,000	\$ 7,583,000	\$ 8,226,975	between 75% and 85% confidence level	\$ 10,324,000	65.13%

d. 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 currently pays 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. For FY 2014, the General subsidy to the SMPF was \$568,620. There are 18 participants remaining in the plan, with ages ranging from 82 to 99, with an average of 90.7 years.

e. 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 contributed 5.7% of salary up to a salary of \$32,000 into a disability reserve account for each covered employee. The total assets of SRIP I available for benefits at June 30, 2014, was \$8,087,482, which was comprised of participant accounts. These assets are the property of the individual account holders and not the property of the City.

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 MidAmerica Administrative & Retirement Solutions, Inc.. Currently, the City pays the cost of the monthly disability benefits on a pay-as-you-go basis. As of June 30, 2014, there were a total of 100 closed group participants, 25 active employees and 75 disabled participants receiving benefits. The unfunded liability for SRIP I at July 1, 2012, the date of the last actuarial study, was \$13,239,000. For FY 2014, the City paid total SRIP I disability payments of \$1,719,623.

2. Current Costs for Active Employees

As of June 30, 2014, the City budgeted for 1452.67 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 payroll costs for the succeeding 10 years is based on the number of budgeted FTE as of June 30, 2014. That number was then inflated based on the cost of living adjustments established in collective bargaining agreements (currently zero through FY 2015). 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, payroll costs would grow from \$225.5 million in FY 2015 to \$260.3 million in FY 2024. With Zero COLAs applied, that entire increase is due to the increase in the costs of benefits.

Citywide Fringe Rate Over Time with Zero COLAS*										
Zero COLA	FY15 Adopted Budget	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Total Payroll	\$ 135.9	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7	\$ 136.7
Total Benefits	\$ 89.6	\$ 93.7	\$ 97.5	\$ 102.8	\$ 107.3	\$ 112.0	\$ 114.6	\$ 120.3	\$ 120.3	\$ 123.6
Fringe Rate	66%	69%	71%	75%	79%	82%	84%	88%	88%	90%
Total Personnel Costs	\$ 225.5	\$ 230.4	\$ 234.1	\$ 239.5	\$ 244.0	\$ 248.7	\$ 251.3	\$ 257.0	\$ 257.0	\$ 260.3

*The February 19, 2013 Projections of Future Liabilities³ report included a 3% annual growth assumption in total payroll. This chart does not include that same assumption.

One example of the increase in benefit costs is the projected increase in health care premiums for active employees (meaning exclusive of retiree medical contributions). The cost of premiums for medical alone is estimated to grow from \$17.4 million in FY 2015 to \$27.3 million in FY 2024.

A summary of employee and retiree benefits and unfunded liabilities can be found in Attachment 1.

³ http://www.cityofberkeley.info/Clerk/City_Council/2013/02Feb/City_Council_02-19-2013_-_Special_Meeting_Annotated_Agenda.aspx

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

The City's debt includes General Obligation Bonds, Certificates of Participation and Lease 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 and the animal shelter. The oldest of these authorizations dates back to 1992.

The City has an aggregate bond tax rate for FY 2014 of 0.0505% (which represents \$50.5 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.). 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 2045 (Measure M is the latest bond authorization).

<u>Bond Authorization</u>	<u>Authorization Year</u>	<u>Authorization Amount</u>	<u>Outstanding Amount</u>	<u>Final Maturity</u>	FY 2014 Bond Tax Rate
Measure G	1992	\$32,500,000	\$13,570,000	2027	.0125%
Measure S	1996	\$49,000,000	\$32,985,000	2029	.0190%
Measure I	2006	\$7,200,000	\$6,925,000	2027	.0020%
Measure FF	2008	\$26,000,000	\$25,595,000	2040	.0100%
Measure M	2015	30,000,000	--	2045	.0070%
TOTAL		\$144,700,000	\$79,075,000		.0505%

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

While funding for major maintenance and capital infrastructure continues to be a challenge, several recent actions by the voters have improved the picture for Berkeley. The November 2014 voter approval of Berkeley Measure F will benefit the Parks, Recreation & Waterfront Department in terms of additional annual funding for major maintenance and capital expenses for parks facilities⁴. In addition, the approval of Measure BB also in November 2014, which implements a 30 year Transportation Expenditure Plan by renewing the 0.5 percent transportation sales tax approved in 2000 and increasing the tax by 0.5 percent, will benefit the City's streets and roads, as well as pedestrian and bicycle infrastructure. This 1 percent sales tax is managed by the Alameda County Transportation Commission and Berkeley will receive over \$3 million a year in additional funding, as well as capital funding for the Gilman interchange project. Finally, and not to be forgotten, Berkeley voters approved Measure M in November 2012, General Obligation bonds not-to-exceed \$30 million, which are being used to significantly accelerate the implementation of the 5-Year Street Plan and install green infrastructure where appropriate.

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. The information in this report is based on City staff's analysis of the capital improvement needs over the next five years. As noted below, Public Works retained a consultant to update the facilities assessments that were completed over 14 years ago, this assessment was completed in 2013 and provides the basis for more refined cost estimates and capital planning.

Attachment 3 contains the budget and projected funding needs for the City's facilities and assets described below.

a. Public Buildings

The following is a preliminary cost estimate of capital improvements and major maintenance for City facilities over the next 5 years. 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.

⁴ The Parks & Waterfront Commission will review FY 2016 and FY 2017 Capital and Major Maintenance funding in the coming months, and their recommendations will come to Council in spring 2015.

In 1997 and again in 2000 the City conducted assessments of City facilities with an outside consultant (Pack Report 1997 and 2000) that described each building, its improvement needs and associated costs. While much of this capital needs information is still valid, new facilities have been built, improvements have been done to existing facilities, and facilities have continue to degrade. As a result, in 2013 staff obtained the professional services of Kitchell Consulting to perform new assessments and provide updated condition reports and cost estimates.

All projects included in these assessments are considered either major maintenance or capital projects. Major maintenance projects involve improvements to a facility at a cost of up to \$50,000 that are over and above the industry norm for routine maintenance services. Capital projects involve the construction of new or restored facilities or improvements to existing facilities at a cost of \$50,000 or more. Routine maintenance projects are defined as projects involving repairs to minor components at existing facilities including plumbing, electrical, HVAC, painting etc., and are not included in this report.

Despite support from a variety of City funds, the cost for routine maintenance, major maintenance, and capital improvements far exceeds currently existing sources of funds. The current estimated cost for the 5-Year Facility Capital Improvement Program is estimated at \$21.3 million. The current budget allocation for this work is \$4 million; which results in an estimated unfunded liability of \$17.3 million.

b. Streets & Roads

On November 15, 2011 the City Auditor presented Council with an Audit that included an overview on the condition of the City's streets and made recommendations, that if implemented, would improve the "at risk" condition for the pavement condition rating for the average Berkeley street. Recommendations included adoption of a desired average Pavement Condition Index (PCI) rating identifying both the timeframe and funding strategies to meet this target. Consistent with the Council's Resolution No. 65,748-N.S. directing the creation of this report. A target PCI of 75 was used to assess the City's current unfunded liability for streets.

Using the StreetSaver system software and the current projections for future funding, the City needs to allocate an additional \$30 million to achieve a PCI of 75 within 5 years. This funding is in addition to the \$30 million received from Measure M, approved by Berkeley voters in 2012, that is being used to improve the condition of City streets and install Green Infrastructure projects as appropriate. With Measure M funding, the projected PCI within 5 years will be 68. While this is a significant improvement to the City's PCI of 55 prior to the passage of Measure M, an additional \$30 million would be needed to achieve the target PCI of 75. In order to maintain the City's PCI after Measure M funds are expended, additional annual funding would need to be added to the existing \$3.4 million per year allocation to the pavement management program.

One potential funding source is Measure BB recently passed by Alameda County voters.

c. Sewers

The City has not proposed raising Sewer rates since FY 2006 and over the past 8 years the Fund has maintained a reasonable fund balance while continuing to provide required maintenance and improvements to the sewer system. In September 2014, staff concluded negotiations with the Environmental Protection Agency and the Department of Justice on the final Consent Decree, which mandates significant additional maintenance activities and capital improvement thereby increasing the costs of managing the City's existing sewer system. As a result of the new mandates, staff will present the City Council proposals for a sewer rate increase beginning in FY 2016 to pay for the increased maintenance requirements and capital improvements. This presentation is tentatively scheduled for March 17, 2015. Currently, Public Works is working closely with the IT Department to complete implementation of a computerized maintenance management system (CMMS), which is scheduled to be operational beginning in Calendar Year 2015.

The new CMMS will provide better information management, tracking, and reporting mechanism leading to a more efficient allocation of City resources and improved service delivery. As the CMMS matures and is fully populated with all program data, it will be useful in tracking and projecting future program costs and future program needs.

d. Storm Drains- Clean Stormwater Program

The City currently allocates approximately \$2.3 million to the stormwater system. This revenue is generated by Clean Stormwater fees assessed to owners of real property that contribute to stormwater runoff and use the City's storm drain system for collection and conveyance. The Clean Stormwater fees have not been increased since they were established in the early 1990's. In addition, the City also receives \$245,000 annually from the University of California as part of a Long Range Development Plan agreement. Annual projected expenditures to maintain the system, including capital replacements to the aging storm drains, storm support and maintenance of the new Green Infrastructure projects currently being installed, exceed the available revenues. The Program has in the past relied on General Fund support, \$700,000 annually, to address shortfalls in capital expenditures and application of established Best Management Practices in the Public Works Operations Division. This General Fund contribution ended in FY 2013 as part of the City's overall cost containment measures.

In 2012, City Council adopted the City's Watershed Management Plan (WMP). The WMP establishes an integrated and sustainable strategy for managing urban water resources that addresses water quality, flooding, and the preservation of local creek habitats and the San Francisco Bay using multi-objective approaches where possible. Through modeling and analysis, the WMP also identifies capital improvement projects

and projected revenue needs for all City watersheds. The city's unfunded liability over the next 5 years is estimated at \$37 million. This includes \$5 million in unfunded maintenance needs and \$32 million for projected capital improvement projects.

This year, the Engineering Division completed design of over \$2 million in storm drain capital improvements at twelve locations citywide. Funding has been identified for six of the twelve projects in FY 2015. An additional funding allocation of \$1.5 million would be needed to complete the remaining six projects. Other projects have been identified if additional funding becomes available in addition to the \$1.5 million.

e. Traffic Signals

The City currently has 136 traffic signals which are maintained by Public Works Department. Due to a lack of regular funding staff has not been able to perform capital improvement work needed to keep these signals up to date. As a result there are a number of deficiencies including: 1) lack of detection devices at 67 intersection, 2) lack of pedestrian push buttons at 103 intersections, and 3) lack of battery backup for signal controllers in case of power outages at 124 intersections. Since last year an annual budget of \$50,000 has been allocated for improvement of the traffic signals. In comparison, in order to install a new traffic signal for a full intersection, the City would need to identify approximately \$300,000 for such a project.

f. IT Infrastructure

Technology infrastructure presents some unique challenges with respect to forecasting long term requirements; technology evolves quickly compared to other types of infrastructure. The City's future needs in terms of network bandwidth, data storage, and wireless devices may not even exist today. Additionally, unlike traditional infrastructure replacement projects which can be done incrementally, technology tools require a large upfront investment to implement. City staff currently use and maintain a vast technology infrastructure to provide services to the community each day. The current infrastructure will expand as the City uses more technology tools to gain efficiencies.

Currently, the City's PC inventory comprises 1,170 desktops, 106 laptops, and 75 Public Safety MDTs (Mobile Data Terminals). In FY 2003, the City's server infrastructure comprised 93 servers (13 for email), with each server supporting a single software application. Currently, the City runs 130 servers (4 for email) and over 150 routers, switches, and access points that connect the City's 42 service locations.

In FY 2008, the City centralized PC purchasing and instituted a capital replacement program requiring departments to set aside money every year for desktop PCs, enterprise desktop software, and for servers. Because a capital replacement fund was established, the City's PC inventory is a funded liability and the server inventory is an

underfunded liability. In FY2015 the City established a replacement fund for our core enterprise financial system, FUND\$, based on the timing and replacement costs reported in the [FUND\\$ Status Report](#).

In FY2016 the City plans to establish 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. These replacement funds serve as a useful comparison to other technology infrastructure categories.

The table in Attachment 4 is the current 5 year projection of the funded and underfunded status of the information technology infrastructure. While some infrastructure components have been funded via annual contributions through replacement funds, others have not. Of the five categories listed, network equipment remains underfunded and without a replacement fund to support this liability.

As the economy begins to recover and revenues begin to increase, the City has the opportunity to consider how to prioritize expenditures to address some of its long term obligations in order to maintain a healthy future. In addition to increasing revenue, some expenditures, such as the Safety Members Pension Fund subsidy, are projected to decrease in the future. That also presents an opportunity to consider how to prioritize those newly available funds. Some preliminary options for consideration are discussed below

Options to Address Long Term Retirement and Infrastructure Costs

1. Retiree Medical Plans: Safety Members Pension Fund (SMPF) decrease in funding needs over time

As discussed above, the City currently pays 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. For FY 2014, the General subsidy to the SMPF was \$568,120. By FY 2018, staff estimates the subsidy will drop below \$100,000, as there are 17 participants remaining in the plan, with ages ranging from 82 to 99, with an average of 90.7 years. As the subsidy to SMPF declines over the next several years, the amount of the annual decreases will be used to help fund the shortfall in other City retirement plans such as the retiree medical plans.

2. Infrastructure and Capital Assets:

a. Continue to set aside property transfer tax revenue that exceeds recurring revenue of \$10.5 million

In FY 2005 Property Transfer Tax revenue increased by over \$3 million. City staff quickly recognized that the revenues received from the real estate boom were not going to be recurring, and did not build this “extra revenue” into the City’s recurring, operational budget. Staff performed an analysis of historical Property Transfer Tax revenue and identified \$10.5 million as the City’s recurring level for Property Transfer Tax revenue. In FY 2006, the City Council adopted a budget policy that the excess Property Transfer Tax revenue over the \$10.5 million only be used for one-time capital expenditures. This policy has been in place since FY 2006. During the depths of the recession, the wisdom of this policy was effectively proven when transfer tax revenue decreased to as low as \$8 million in FY 2010, \$9.1 million in FY 2011 and then back down to \$8.4 million in FY 2012. While current real estate activity has increased transfer tax revenue, the volatility of its history has shown that allocating amounts above the most likely recurring revenues to one-time capital projects is prudent. With this current boom generating transfer tax revenue in excess of \$10.5 million, those amounts can be used to fund replacement of the City’s very old financial system (FUND\$), as well as various important capital infrastructure needs including Parks facilities.

Thus, Property Transfer Tax revenue above \$10.5 million will continue to be set aside in the City’s Capital Improvement Fund and allocated to capital asset and infrastructure projects.

b. Consider additional bonding capacity

GO Bond Capacity

The City’s Financial Advisor, NHA Advisors, LLC, prepared an analysis of the City’s current GO bonding capacity, assuming that the City’s aggregate bond tax rate were held constant. That analysis follows:

- As indicated in Attachment 2 Exhibit A, by FY 2020 (in 5 years), the outstanding GO bond principal balance will drop by \$20,435,000 or 24.6%, from \$83,035,000 (as of June 30, 2014) to \$62,600,000 (as of June 30, 2020);
- By FY 2025 (in 10 years), the outstanding GO principal balance will drop another \$19,235,000, to \$43,365,000. This is approximately half the current outstanding balance; and,
- By FY 2030 (in 15 years), the outstanding GO bond principal balance will drop another \$18,995,000, to \$24,370,000 or approximately 29.35% of the current balance.

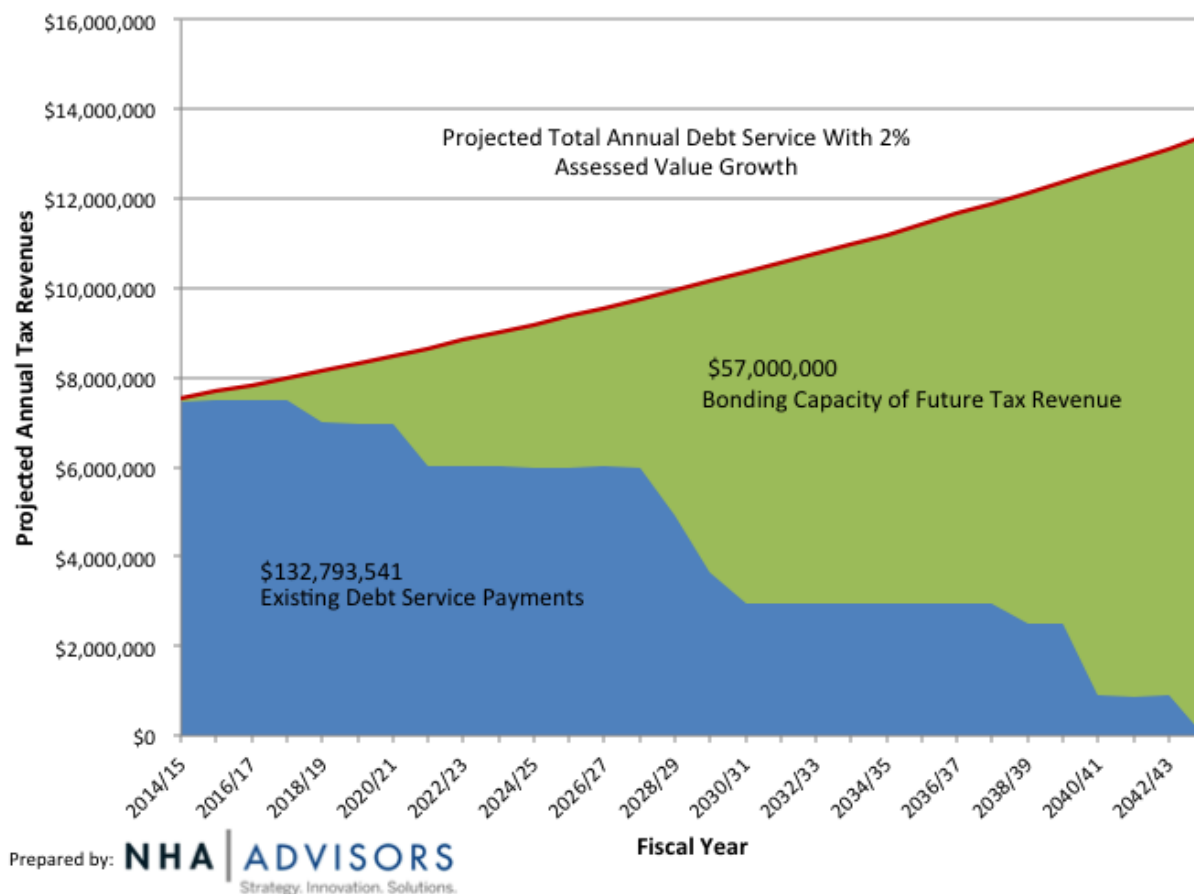
NHA Advisors calculated the potential bonding capacity based on holding the tax rate at the current FY 2015 level (0.0505%) for the next 30 years. Once existing debt service obligations are made, there will be tax revenues that could be applied toward payment

on a new bond authorization. This amount increases each year that the total A.V. rises and the existing debt service drops off as bonds mature.

Projected tax revenues are based on scenarios of 30-years of A.V. growth at 2% and 3%. The present value of the available future tax revenues is calculated using a 6% discount rate (conservative bond interest rate).

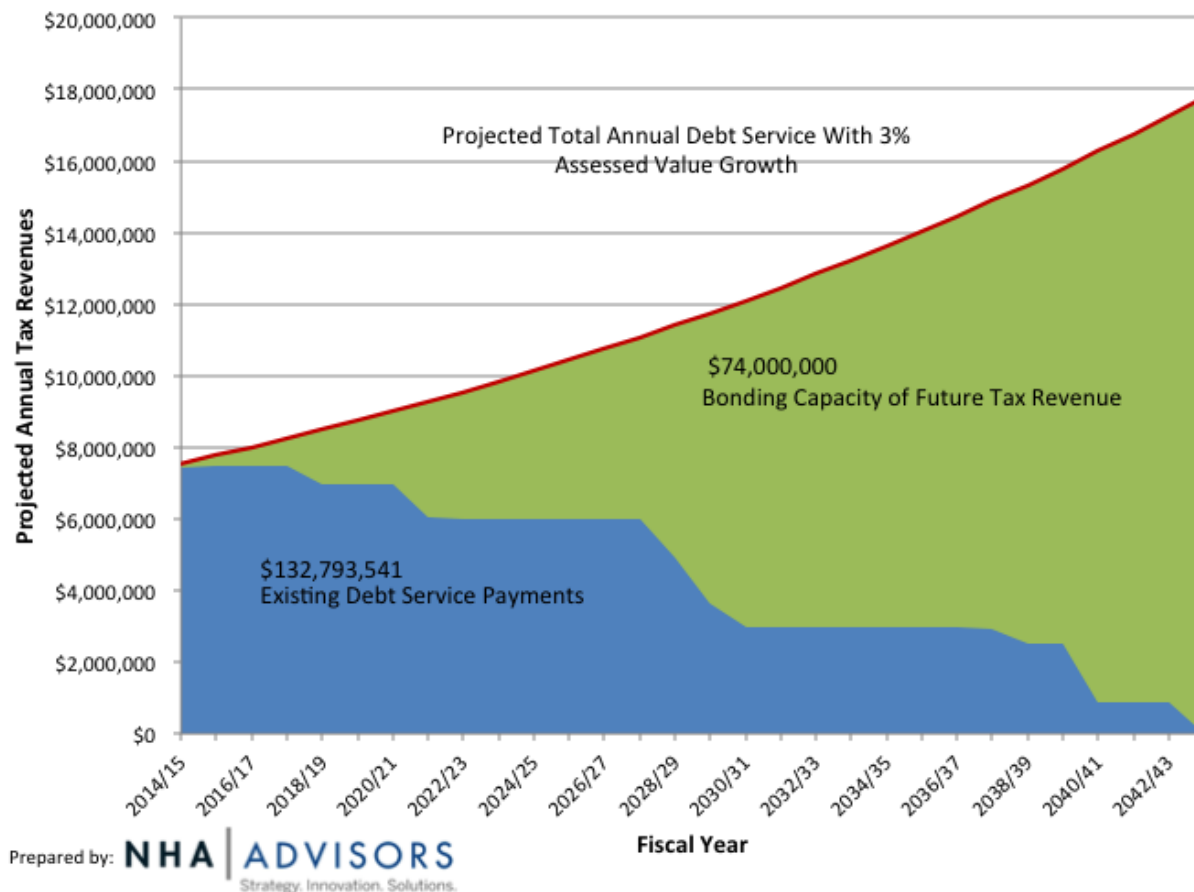
Scenario 1 – A.V. increase of 2% annually

- 30-Year period to capture available tax revenues
- New bond authorization paid from available revenue (green area in graph)
- Projected capacity - \$57,000,000



Scenario 2 – A.V. increase of 3% annually

- 30-Year period to capture available tax revenues
- New bond authorization paid from available revenue (green area in graph)
- Projected capacity - \$74,000,000



Based on the existing bond authorizations, outstanding balances and projected tax revenues, the City is likely to have the ability to generate new bond proceeds in the range of \$57M-\$74M and keep the total tax rate near the current level (0.0505%) over the next 30 years. The Council may wish to consider asking staff to develop scenarios for bond debt programs that would keep the taxes paid by property owners level over a course of time. This could mean that as old debt is retired, new debt could be issued for new projects. Staff could develop a timeline for that debt issuance and a list of potential projects for the Council to consider.

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. Staff has developed a model for revenue projections, assisted by consultants who are familiar with the City's historical revenue growth and economic conditions that have impacted that growth. 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 Center, Sewer, Public Health, Mental Health).

The chart below provides a summary of total General Fund Revenues projected through FY 2023. 58% of the City's General Fund revenue is derived from property, transfer, utility 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 5.

General Fund Revenue Projections									
	FY15 Adopted Budget	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Total General Fund Revenues	154.38	159.45	161.39	161.34	166.81	172.22	177.81	181.52	186.33

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 assume a 5.6% increase in property tax in FY 2016 and an annual increase averaging 3.9% through 2023 based on historical trends. For comparison, Berkeley was one of the only cities in Alameda County to survive the recession without a decrease in real property taxes. During the recession, while Berkeley's property tax growth was smaller than in prior years, it did not ever go negative as other cities experienced.

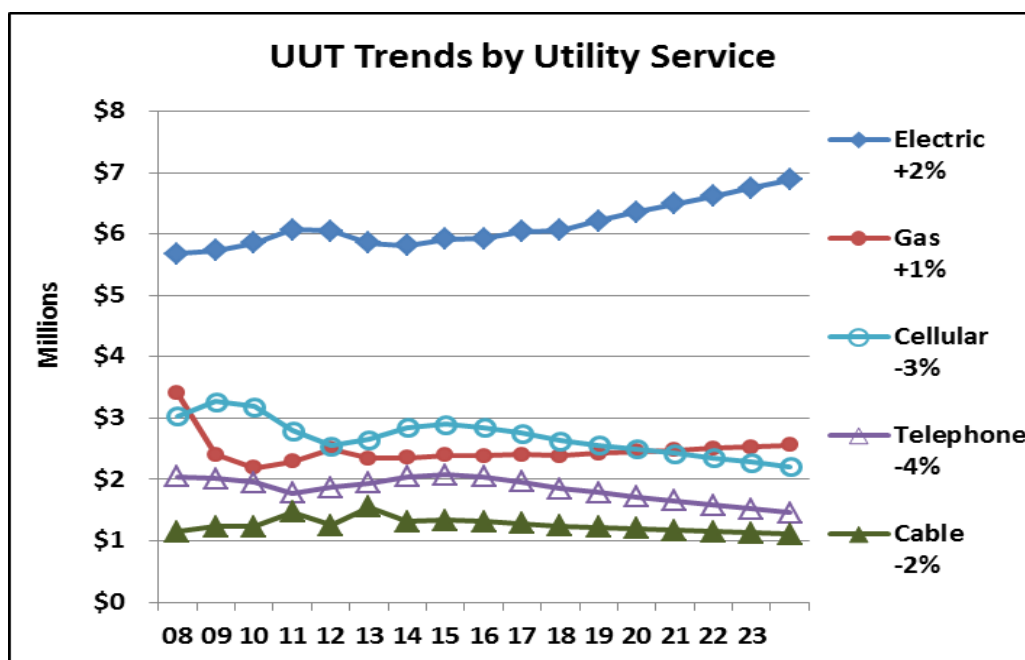
Property Transfer Tax

The Property Transfer Tax rate set by the City of Berkeley is 1.5% of the value of consideration paid for the documented sale of real property or any transfer of interest in real property. 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.

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 \$10.5 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 \$10.5 million annually since any remainder transfers into the Capital Fund.

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.

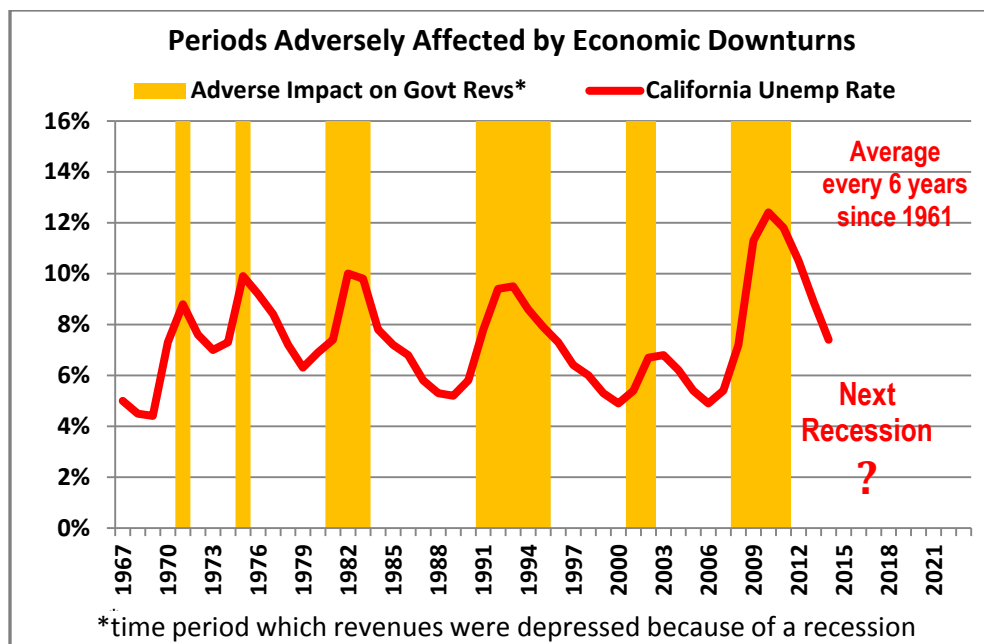


Sales Tax

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. While sales tax is a relatively stable revenue source for Berkeley, with the exception of FY 2012 when the City saw a \$2 million decline, Berkeley is somewhat unique in that 21.3% of its sales tax is from restaurants compared to 13.4% statewide (SF Bay Area is 14.4%). Berkeley otherwise has a generally well diversified sales tax base that is projected to continue to modestly improve over time, although this revenue source is likely to be affected by an economic contraction anticipated in the next couple of years.

Projected Economic Contraction

There is no way to predict the timing, magnitude, duration and consequence of the next economic contraction or recession on the various local revenue streams with complete accuracy. However, recessions are cyclical and have occurred on average every 6.5 years since 1928. Recessions occurring after 1945 have peak-to-trough GDP declines ranging from a low of 0.3% to the Great Recession's 4.3% decline, with an average of 2.21%. These declines have had varying impacts on local government revenues (and expenditures). Some revenues like the sales tax (monthly revenues, trued-up quarterly) reflect an immediate impact, while others like the property tax (with an annual lien date) have an effective one-year lag in recognizing economic impacts. A Summary of Recessions since the Great Depression can be found at Attachment 6.



General Fund Expenditures versus General Fund Revenues

One value of producing long term General Fund revenue projections is to compare them against General Fund expenditure projections. Since 77% 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 is offered as a demonstration only and is not a proposal or budget plan. With the estimated increases in benefits, but no increase in salary⁵, and revenues continuing to steadily grow (except in FY 2018 where the impact of the projected economic contraction noted above is realized) the chart below reflects a balance, with a surplus most years. If an annual COLA is introduced, General Fund expenditures begin to outpace General Fund revenues, with a deficit beginning in FY 2018.

	General Fund Revenues v.s. Expenditures - Demonstrative Comparison								
	FY15 Adopted Budget	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
GF Revenues	\$ 154.38	\$ 159.45	\$ 161.39	\$ 161.34	\$ 166.81	\$ 172.22	\$ 177.81	\$ 181.52	\$ 186.33
GF Expenditures - Zero COLA	\$ 154.38	\$ 157.36	\$ 159.59	\$ 163.04	\$ 166.56	\$ 170.16	\$ 172.59	\$ 175.22	\$ 177.99
GF Expenditures - 1% COLA	---	\$ 158.66	\$ 161.68	\$ 165.88	\$ 170.41	\$ 175.05	\$ 178.47	\$ 182.10	\$ 185.88

Controlling expenditures has been, and will continue to be, a necessity in managing the City's budget, and labor costs are a critical factor in that approach. Achieving a sustainable balance of both personnel and non-personnel expenditures against reasonable revenue projections will continue to require close attention, especially as we move through new economic cycles. As labor contracts expire at the end of this fiscal year, the City has an opportunity to work with the bargaining units to establish an approach to managing labor costs that will enable stability into the future.

⁵ Please note that labor negotiations commence in the spring of 2015 and thus costs are dependent on the outcome of those discussions.

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.

The advantage of maintaining 100% funding for all long term obligations at all times is that the organization will almost always be able to meet its obligations whenever demand is made for payment for each liability. The disadvantage is that a far greater portion of the organization’s cash is reserved or tied up, and cannot be used for operations, providing services or meeting other community needs or desires. The City has a history of prudently balancing its approach to future obligations with its response to current economic variables and will continue to do so.

POSSIBLE FUTURE ACTION

The information contained in this report will be referenced throughout the budget planning meetings in advance of the FY 2016 and FY 2017 budget adoption.

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

Teresa Berkeley-Simmons, Budget Manager, 981-7000

Attachments:

1. Employee and Retiree Benefits and Unfunded Liabilities
2. City’s Debt Obligations
 - Exhibit A: General Obligation bonds
 - Exhibit B: Certificates of Participation
 - Exhibit C: Revenue Bonds
3. Capital Assets Infrastructure
4. Information Technology Infrastructure

5. General Fund Revenues
6. Summary of Recessions Since the Great Depression

General Obligation Bond

GENERAL OBLIGATION BONDS																												
	2002 Measure G		Refunding Bonds (B)		2007 Measure G		Refunding Bonds (A)		2007 Measure S		Refunding Bonds		2008 Measure I		2009 Measure FF, Series A		2010 Measure FF		2014 Measure MM		2014 Street and Integrated Watershed		TOTAL		Interest		End of FY	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	GO Bonds	Balance
FY 2015	1,145,000.00	309,845.00	185,000.00		1,500,000.00		143,693.00		1,235,218.76		160,000.00		279,925.04		175,000.00		480,562.50		340,000	611,806.26	160,000.00		714,688.89	3,665,000	3,775,339.45	83,900,000		
FY 2016	1,205,000.00	254,107.50	200,000.00		1,565,000.00		134,568.00		1,173,918.76		170,000.00		273,750.04		185,000.00		475,162.50		355,000	597,906.26	265,000.00		633,075.00	3,945,000	3,542,488.06	79,955,000		
FY 2017	1,265,000.00	198,532.50	210,000.00		1,625,000.00		125,868.00		1,110,118.76		180,000.00		267,625.04		195,000.00		469,462.50		365,000	583,506.26	280,000.00		620,850.00	4,120,000	3,375,963.06	75,835,000		
FY 2018	1,325,000.00	142,907.50	220,000.00		1,690,000.00		117,268.00		1,043,818.76		185,000.00		260,775.04		205,000.00		463,206.25		380,000	568,606.26	290,000.00		608,000.00	4,295,000	3,204,381.81	71,540,000		
FY 2019	860,000.00	97,685.00	225,000.00		1,760,000.00		108,368.00		974,818.76		195,000.00		253,175.04		215,000.00		455,843.75		395,000	551,131.26	305,000.00		593,125.00	3,955,000	3,034,446.81	67,585,000		
FY 2020	895,000.00	60,382.50	235,000.00		1,830,000.00		99,168.00		903,018.76		200,000.00		245,275.04		225,000.00		447,875.00		415,000	530,881.26	320,000.00		577,500.00	4,120,000	2,864,100.56	63,465,000		
FY 2021	935,000.00	20,570.00	245,000.00		1,900,000.00		89,568.00		828,418.76		210,000.00		237,075.04		240,000.00		436,137.50		435,000	509,631.26	335,000.00		561,125.00	4,300,000	2,682,525.56	59,165,000		
FY 2022			255,000.00		1,980,000.00		79,568.00		750,818.76		215,000.00		228,575.04		250,000.00		420,212.50		460,000	491,856.26	350,000.00		544,000.00	3,510,000	2,515,030.56	55,655,000		
FY 2023			265,000.00		2,060,000.00		69,008.00		667,443.76		225,000.00		219,775.04		265,000.00		403,475.00		470,000	477,906.26	370,000.00		526,000.00	3,655,000	2,363,603.06	52,000,000		
FY 2024			275,000.00		2,145,000.00		57,694.00		578,087.51		235,000.00		210,575.04		280,000.00		386,762.50		485,000	462,975.01	385,000.00		507,125.00	3,805,000	2,202,219.06	48,195,000		
FY 2025			285,000.00		2,235,000.00		45,794.00		485,012.51		245,000.00		200,975.04		295,000.00		367,075.00		500,000	445,093.76	405,000.00		491,425.00	3,965,000	2,035,375.31	44,230,000		
FY 2026			300,000.00		2,330,000.00		33,363.00		386,550.01		255,000.00		190,975.04		310,000.00		350,512.50		520,000	424,693.76	420,000.00		478,787.50	4,135,000	1,864,881.81	40,095,000		
FY 2027			310,000.00		2,435,000.00		20,400.00		282,315.63		270,000.00		180,306.29		330,000.00		335,906.25		545,000	403,393.76	430,000.00		465,237.50	4,320,000	1,687,559.43	35,775,000		
FY 2028			325,000.00		2,540,000.00		6,906.00		171,900.00		280,000.00		168,787.54		350,000.00		320,050.00		565,000	381,193.76	445,000.00		449,350.00	4,505,000	1,498,887.30	31,270,000		
FY 2029					1,885,000.00				72,337.50		290,000.00		156,675.04		365,000.00		303,156.25		585,000	358,193.76	465,000.00		431,150.00	3,590,000	1,321,512.55	27,680,000		
FY 2030					665,000.00				14,962.50		305,000.00		144,081.29		385,000.00		283,900.00		610,000	334,293.76	480,000.00		412,250.00	2,445,000	1,189,437.55	25,235,000		
FY 2031											320,000.00		130,750.04		410,000.00		262,037.50		635,000	308,996.88	500,000.00		392,650.00	1,865,000	1,094,434.42	23,370,000		
FY 2032											335,000.00		116,203.16		430,000.00		238,937.50		660,000	282,287.50	520,000.00		372,250.00	1,945,000	1,009,078.16	21,425,000		
FY 2033											350,000.00		100,362.53		455,000.00		215,737.50		690,000	254,443.75	540,000.00		350,712.50	2,035,000	921,256.28	19,390,000		
FY 2034											365,000.00		83,828.15		480,000.00		192,362.50		715,000	225,465.63	565,000.00		327,921.88	2,125,000	829,578.16	17,265,000		
FY 2035											380,000.00		66,600.02		505,000.00		167,737.50		745,000	195,353.13	590,000.00		304,100.01	2,220,000	733,790.66	15,045,000		
FY 2036											400,000.00		48,562.52		535,000.00		141,737.50		780,000	163,412.50	610,000.00		278,587.51	2,325,000	632,300.03	12,720,000		
FY 2037											415,000.00		29,715.64		565,000.00		113,531.25		810,000	129,625.00	640,000.00		251,243.76	2,430,000	524,115.65	10,290,000		
FY 2038											435,000.00		10,659.38		595,000.00		83,081.25		845,000	94,456.25	665,000.00		222,696.88	2,540,000	410,293.76	7,750,000		
FY 2039															625,000.00		51,056.25		880,000	57,800.00	695,000.00		192,946.88	2,200,000	301,803.13	5,550,000		
FY 2040															660,000.00		17,325.00		920,000	19,555.00	725,000.00		161,884.38	2,305,000	198,764.38	3,245,000		
FY 2041																					760,000.00		128,925.00	760,000	128,925.00	2,485,000		
FY 2042																					790,000.00		94,050.00	790,000	94,050.00	1,695,000		
FY 2043																					830,000.00		57,600.00	830,000	57,600.00	865,000		
FY 2044																					865,000.00		19,462.50	865,000	19,462.50	-		
	7,630,000.00	1,084,030.00	3,535,000.00		1,131,229.00		30,145,000.00		10,678,759.50		6,620,000.00		4,103,957.08		9,530,000.00		15,105,000.00		9,464,464.55	15,000,000.00		11,768,720.19	87,565,000.00	46,114,004.07				

Revenue Bonds

[illegible]

Summary of Capital Assets Infrastructure

		FY 2016 Year 1	FY 2017 Year 2	FY 2018 Year 3	FY 2019 Year 4	FY 2020 Year 5	Total Year 1- 5
Public Buildings ⁽¹⁾							
Available Funding		\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$4,000,000
Expenditures							
Capital		\$7,162,946	\$4,390,834	\$4,522,560	\$4,658,236	\$4,797,983	\$25,532,559
Major Maintenance							\$0
Unfunded Liability		(\$6,362,946)	(\$3,590,834)	(\$3,722,560)	(\$3,858,236)	(\$3,997,983)	(\$21,532,559)
Streets & Roads							
Available Funding		\$9,444,303	\$10,168,303	\$10,168,303	\$4,168,303	\$4,168,303	\$38,117,515
Expenditures							
Capital		\$14,213,179	\$18,699,695	\$18,710,383	\$19,964,797	\$5,412,752	\$77,000,806
Maintenance		\$438,715	\$81,152	\$345,464	\$377,393	\$25,739	\$1,268,463
Unfunded Liability		(\$5,207,591)	(\$8,612,544)	(\$8,887,544)	(\$16,173,887)	(\$1,270,188)	(\$40,151,754)
Sewers							
Available Funding		\$12,675,934	\$12,675,934	\$12,675,934	\$12,675,934	\$12,675,934	\$63,379,670
Expenditures							
Capital		\$9,240,000	\$9,609,600	\$10,393,743	\$10,809,493	\$11,241,873	\$51,294,709
Maintenance		\$6,077,997	\$6,260,337	\$6,448,147	\$6,641,591	\$6,840,839	\$32,268,911
Balance		(\$2,642,063)	(\$3,194,003)	(\$4,165,956)	(\$4,775,150)	(\$5,406,778)	(\$20,183,950)
Unfunded Liability		\$0	\$0	\$0	\$0	\$0	\$0
Storm Drains							
Available Funding		\$2,056,988	\$2,056,988	\$2,056,988	\$2,056,988	\$2,056,988	\$10,284,940
UC LRDP Payment (CIP ONLY)		\$260,955	\$268,784	\$276,847	\$285,153	\$293,707	\$1,385,446
Expenditures							
Capital		\$6,900,000	\$6,900,000	\$6,900,000	\$6,900,000	\$6,900,000	\$34,500,000
Maintenance		\$3,100,000	\$3,100,000	\$3,100,000	\$3,100,000	\$3,100,000	\$15,500,000
Unfunded Liability		(\$7,682,057)	(\$7,674,228)	(\$7,666,165)	(\$7,657,859)	(\$7,649,305)	(\$38,329,614)
Traffic Signals (2)							
Available Funding		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000.000
Expenditures							
Capital		\$1,488,800	\$1,488,800	\$1,488,800	\$1,488,800	\$1,488,800	7,444,000.000
Maintenance		\$0	\$0	\$0	\$0	\$0	\$0
Unfunded Liability		(\$1,438,800)	(\$1,438,800)	(\$1,438,800)	(\$1,438,800)	(\$1,438,800)	(\$7,194,000)

(1) While the figures include building and play equipment within parks, the figures do *not* include costs for major maintenance and capital improvements for parks infrastructure such as sports fields, tennis and basketball courts, irrigation and drainage systems, or landscaping.

(2) Improving safety and efficiency of traffic operations for road users.

Unfunded Liabilities for IT Infrastructure FY15-FY19

	Year 1 FY 2015	Year 2 FY 2016	Year 3 FY 2017	Year 4 FY 2018	Year 5 FY 2019	Total
1. PCs						
Available Funding	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	
Infrastructure Need	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	
Maintenance	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	
Unfunded Liability	\$0	\$0	\$0	\$0	\$0	\$0
2. Telephones						
Available Funding ¹	\$50,000	\$153,000	\$153,000	\$153,000	\$153,000	
Infrastructure Need	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	
Handset Replacement ²	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	
Maintenance ³	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	
Unfunded Liability	(\$113,000)	(\$10,000)	(\$10,000)	(\$10,000)	(\$10,000)	(\$153,000)
3. FUND\$						
Available Funding ⁴	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	
Infrastructure Need	\$1,313,127	\$1,313,127	\$1,313,127	\$1,313,127	\$1,313,127	
Maintenance	\$135,000	\$135,000	\$135,000	\$135,000	\$135,000	
Unfunded Liability	(\$948,127)	(\$948,127)	(\$948,127)	(\$948,127)	(\$948,127)	(\$4,740,633)
4. Servers						
Available Funding	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	
Infrastructure Need	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	
Maintenance	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	
Unfunded Liability	(\$130,000)	(\$130,000)	(\$130,000)	(\$130,000)	(\$130,000)	(\$650,000)
5. Network						
Available Funding	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	
Infrastructure Need	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	
Maintenance	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	
Unfunded Liability	(\$60,000)	(\$60,000)	(\$60,000)	(\$60,000)	(\$60,000)	(\$300,000)
Total:	#####	(\$1,148,127)	(\$1,148,127)	(\$1,148,127)	(\$1,148,127)	(\$5,843,633)

¹ established a ten year replacement fund in FY16² estimating handset replacement after five years³ maintenance changed from \$55,000 to \$65,000⁴ established a replacement fund in FY15

General Fund Revenue Projections

General Fund Revenue Forecast Summary (\$ in Mil.)									
	<u>Adopted Budget 2015</u>	<u>Projected 2016</u>	<u>Projected 2017</u>	<u>Projected 2018</u>	<u>Projected 2019</u>	<u>Projected 2020</u>	<u>Projected 2021</u>	<u>Projected 2022</u>	<u>Projected 2023</u>
Real Property Tax	\$46.41	\$49.09	\$50.97	\$50.38	\$53.17	\$56.13	\$59.27	\$61.60	\$ 64.05
Unsecured Property Tax	2.50	2.80	2.91	2.88	3.04	3.21	3.39	3.53	3.67
Property Transfer Tax	11.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Sales Tax	16.37	18.12	17.21	17.50	18.51	19.27	20.06	20.88	21.73
Business License Tax	16.19	16.76	17.10	17.15	17.57	17.99	18.35	18.72	19.10
Hotel Tax	5.96	6.56	6.69	6.72	6.88	7.04	7.18	7.33	7.48
Utility Users Tax	14.63	14.48	14.19	14.22	14.26	14.24	14.23	14.24	14.24
Vehicle License (VLFAA)	9.67	10.17	10.57	10.46	11.05	11.67	12.33	12.83	13.35
Parking Fines	7.20	7.32	7.40	7.47	7.54	7.62	7.70	7.77	7.85
Moving Violations	0.23	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.27
Interest	2.60	2.47	2.35	2.23	2.12	2.01	1.91	1.82	1.72
Service Fees	8.25	7.99	8.14	8.30	8.46	8.62	8.78	8.95	9.12
Other Revenue/Transfers In	13.37	12.96	13.13	13.30	13.48	13.66	13.84	13.09	13.25
Total Revenues	154.38	159.45	161.39	161.34	166.81	172.22	177.81	181.52	186.33

- Includes secured taxes, redemptions, and supplemental

Summary of Recessions Since the Great Depression

Name	Dates	Duration (months)	Time since previous recession (months)	Peak unemployment	GDP decline (peak to trough)	Characteristics
Great Depression	Aug 1929 – Mar-33	3 years 7 months	1 year 9 months	24.9% [31] -1933	-26.7%	Stock markets crashed worldwide. A banking collapse took place in the United States. Extensive new tariffs and other factors contributed to an extremely deep depression. The United States did remain in a depression until World War II. In 1936, unemployment fell to 16.9%, but later returned to 19% in 1938 (near 1933 levels).
Recession of 1937–1938	May 1937 – Jun-38	1 year	4 years	19.0% [32] -1938	-18.2%	The Recession of 1937 is only considered minor when compared to the Great Depression, but is otherwise among the worst recessions of the 20th century. Three explanations are offered for the recession: that tight fiscal policy from an attempt to balance the budget after the expansion of the New Deal caused recession, that tight monetary policy from the Federal Reserve caused the recession, or that declining profits for businesses led to a reduction in investment. ^[33]
Recession of 1945	Feb–Oct 1945	1 month 8 months	2 months 6 years	-1938 5.2% [32]	-12.7%	The decline in government spending at the end of World War II led to an enormous drop in gross domestic product, making this technically a recession. This was the result of demobilization and the shift from a wartime to peacetime economy. The post-war years were unusual in a number of ways (unemployment was never high) and this era may be considered a " sui generis end-of-the-war recession". ^[34]
Recession of 1949	Nov 1948 – Oct-49	11 months	3 years 1 month	7.90% (Oct 1949)	-1.7%	The 1948 recession was a brief economic downturn; forecasters of the time expected much worse, perhaps influenced by the poor economy in their recent lifetimes. ^[35] The recession also followed a period of monetary tightening. ^[36]
Recession of 1953	July 1953 – May-54	10 months	3 years 9 months	6.10% (Sep 1954)	-2.6%	After a post-Korean War inflationary period, more funds were transferred to national security . In 1951, the Federal Reserve reasserted its independence from the U.S. Treasury and in 1952, the Federal Reserve changed monetary policy to be more restrictive because of fears of further inflation or of a bubble forming . ^{[30][36][37]}
Recession of 1958	Aug 1957 – Apr-58	8 months	3 years 3 months	7.50% (July 1958)	-3.7%	Monetary policy was tightened during the two years preceding 1957, followed by an easing of policy at the end of 1957. The budget balance resulted in a change in budget surplus of 0.8% of GDP in 1957 to a budget deficit of 0.6% of GDP in 1958, and then to 2.6% of GDP in 1959. ^[38]
Recession of 1960–61	Apr 1960 – Feb-61	10 months	2 years	7.10% (May 1961)	-1.6%	Another primarily monetary recession occurred after the Federal Reserve began raising interest rates in 1959. The government switched from deficit (or 2.6% in 1959) to surplus (of 0.1% in 1960). When the economy emerged from this short recession, it began the second-longest period of growth in NBER history. ^[30] The Dow Jones Industrial Average (Dow) finally reached its lowest point on Feb. 20, 1961, about 4 weeks after President Kennedy was inaugurated.
Recession of 1969–70	Dec 1969 – Nov-70	11 months	8 years 10 months	6.10% (Dec 1970)	-0.6%	The relatively mild 1969 recession followed a lengthy expansion. At the end of the expansion, inflation was rising, possibly a result of increased deficits. This relatively mild recession coincided with an attempt to start closing the budget deficits of the Vietnam War (fiscal tightening) and the Federal Reserve raising interest rates (monetary tightening). ^[38]
1973–75 recession	Nov 1973 – Mar-75	1 year 4 months	3 years	9.00% (May 1975)	-3.2%	A quadrupling of oil prices by OPEC coupled with high government spending because of the Vietnam War led to stagflation in the United States. ^[38] The period was also marked by the 1973 oil crisis and the 1973–1974 stock market crash . The period is remarkable for rising unemployment coinciding with rising inflation. ^[39]
1980 recession	Jan–July 1980	6 months	4 years 10 months	7.80% (July 1980)	-2.2%	Unemployment remained relatively elevated in between recessions. The recession began as the Federal Reserve, under Paul Volcker , raised interest rates dramatically to fight the inflation of the 1970s . The early '80s are sometimes referred to as a "double-dip" or "V-shaped" recession. ^{[30][40]}
Early 1980s recession	July 1981 – Nov-82	1 year 4 months	1 year	10.80% (Nov 1982)	-2.7%	The Iranian Revolution sharply increased the price of oil around the world in 1979, causing the 1979 energy crisis . This was caused by the new regime in power in Iran, which exported oil at inconsistent intervals and at a lower volume, forcing prices up. Tight monetary policy in the United States to control inflation led to another recession. The changes were made largely because of inflation carried over from the previous decade because of the 1973 oil crisis and the 1979 energy crisis . ^{[41][42]}
Early 1990s recession	July 1990 – Mar-91	8 months	7 years 8 months	7.80% (June 1992)	-1.4%	After the lengthy peacetime expansion of the 1980s, inflation began to increase and the Federal Reserve responded by raising interest rates from 1986 to 1989. This weakened but did not stop growth, but some combination of the subsequent 1990 oil price shock, the debt accumulation of the 1980s, and growing consumer pessimism combined with the weakened economy to produce a brief recession. ^{[43][44][45]}
Early 2000s recession	March 2001–Nov 2001	8 months	10 years	6.30% (June 2003)	-0.3%	The 1990s were the longest period of growth in American history. The collapse of the speculative dot-com bubble, a fall in business outlays and investments, and the September 11th attacks ^[46] brought the decade of growth to an end. Despite these major shocks, the recession was brief and shallow. ^[47] Without the September 11th attacks, the economy might have avoided recession altogether. ^[48]
Great Recession	Dec 2007 – June 2009 ^{[48][49]}	1 year 6 months	6 years 1 month	10.00% (October 2009) ^[50]	-4.3%	The subprime mortgage crisis led to the collapse of the United States housing bubble . Falling housing-related assets contributed to global financial crisis , even as oil and food prices soared. The crisis led to the failure or collapse of many of the United States' largest financial institutions: Bear Stearns, Fannie Mae, Freddie Mac, Lehman Brothers, Citic Bank and AIG, as well as a crisis in the automobile industry. The government responded with an unprecedented \$700 billion bank bailout and \$787 billion fiscal stimulus package. The National Bureau of Economic Research declared the end of this recession over a year after the end date. ^[51] The Dow Jones Industrial Average (Dow) finally

