Agenda Item #:

Staff Report
City of Manhattan Beach

TO: Members of the Finance Subcommittee

FROM: Steve S. Charelian, Finance Director

DATE: July 6, 2020

SUBJECT: CalPERS Pension Costs and Pension Obligation Bond Options

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RECOMMENDATION:
Staff recommends that the Finance Subcommittee receive and file this report.

FISCAL IMPLICATION:
Fiscal implications of the City's rising CalPERS pension costs and Pension Obligation Bond (POB) options will be discussed during the presentation.

DISCUSSION:
As a follow up to the September 26, 2019, Finance Subcommittee Report on the funding of CalPERS Pension Contributions, staff requested KNN Public Finance to prepare a presentation on the City's options to mitigate pension costs by issuing Pension Obligation Bonds.

If the City pursues the use of Pension Obligation Bonds, the adoption of a Pension Policy is strongly recommended to memorialize how the City intends to use the budgetary savings that will result from the issuance of the bonds.

Attachments:
1. KNN Public Finance Pension Obligation Bond Presentation
2. City of Manhattan Beach UAL Policy (Draft for Discussion)

City of Manhattan Beach
Unfunded Pension Liability Policy - Draft

PURPOSE

The purpose of this Unfunded Pension Liability Policy ("Policy") is to provide guidance on the development and adoption of a funding plan for any Unfunded Accrued Liabilities ("UAL") that are calculated annually by CALPERS, or for any unfunded accrued liabilities remaining immediately after the issuance of a Pension Obligation Bond (POB). This funding Policy should also support the decision making process of the City Council and should be consistent with the overall purpose and goals of the City of Manhattan Beach's pension plan. As used in this Policy, "City" shall mean the City and/or the City and its related entities, as the context may require.

The City recognizes that a fiscally prudent Policy should:

- Maintain the City's sound financial position
- Ensure the City has the flexibility to respond to changes in future service priorities, revenue levels, and operating expenditures
- Protect the City's creditworthiness
- Ensure that all pension funding decisions are structured to protect both current and future taxpayers, ratepayers and residents of the City, and
- Ensure that the City's debt is consistent with the City's strategic planning goals, objectives, capital improvement program, and/or budget

BACKGROUND

The primary goal of funding defined benefit pension plans is to ensure that sufficient assets will be accumulated to deliver promised benefits when they come due and to protect pension benefits in situations that involve employer insolvency or bankruptcy. Establishing sound funding guidelines promotes pension benefit security. The City's overall objective is to fund the CALPERS pension plan near 100% of the total accrued liability and no less than 80%, whenever possible.

The City is committed to fiscal sustainability by employing long-term financial planning efforts, maintaining appropriate reserve levels, and employing prudent practices in governance, management, budget administration, and financial reporting. This Policy is intended to make all relevant information readily available to decision-makers and the public to improve the quality of decisions, identify policy goals, and to demonstrate a commitment to long-term financial planning. Adherence to this Policy signals to rating agencies and the capital markets that the City is well managed and able to meet its obligations in a timely manner.

The purpose of this funding policy is to establish a framework for funding the City of Manhattan Beach's defined benefit pension plan, taking into account factors that are relevant to the plan and the City. These factors include:

- The financial position of the City
- Stability of the plan and / or the affordability of the annual contributions
- Benefit security
- The terms of the CALPERS contract for Manhattan Beach, along with any related collective bargaining agreements
- Minimum funding requirements under State law

There are a number of advantages to developing a funding policy to address an unfunded accrued liability. These advantages include the following:

- Provides the framework to ensure the proper management of future liabilities and to minimize the effects on operations. The adoption of a funding policy will ensure a disciplined decision making process, which will contribute to better predictability in funding.
- Having a written summary of the funding policy that is accessible to the employees and the public will help improve the transparency of funding decisions and increase the understanding of pension funding issues.
- The exercise of developing this funding policy improves the identification, understanding, and management of the risk factors that affect the variability of funding requirements and the security of benefits to the employees and retirees.

REMAINING UNFUNDED ACCRUED LIABILITY

The City is in the process of considering a POB that would generate bond proceeds to deposit with CALPERS up to an amount equal to 100% of the UAL as of ___date___ (based on the latest actuarial valuation information available to the City). After the deposit of bond proceeds to CALPERS, the City may or may not have a remaining unfunded accrued liability still owed to CALPERS.

If the City issue's a POB for less than the full 100% of the UAL, any remaining unfunded liability will be accounted for separately, for the purposes of this Policy, from any new increase in the accrued unfunded liability resulting from the annual actuarial valuation report changes.

The City will create a payoff / funding plan that will address this remaining unfunded liability immediately after the issuance of the POB. The remaining unfunded liability will be paid off or fully funded within a twenty (20) year period.

NEW UNFUNDED ACCRUED LIABILITY

Every year, CALPERS completes a new actuarial valuation report and recalculates the City of Manhattan Beach's pension liability as of the new valuation date. If the value of the funded assets is not equivalent to this new liability amount, the City will incur a new unfunded accrued liability at that point in time. The unfunded accrued liability may increase or decrease from year to year, due to the following factors:

- Changes in actuarial assumptions and experience changes (e.g., changes in the discount rate, changes in demographic experience, etc.)
- Changes in actuarial gains and losses due to asset returns being higher or lower than expected
- Changes in plan benefits

Due to the possibility of a new pension liability developing, the City of Manhattan Beach desires to create a policy in order to immediately address any new pension liabilities, or amortization bases, that arise. (Any new increase or decrease in the liability resulting from the annual actuarial valuation is identified as a separate line item, or amortization base, on the annual CALPERS actuarial valuation report.) The table below lays out the parameters for paying off / funding the UAL in a designated amount of time, based on the amount of the UAL, as follows:

New Unfunded Accrued Liability **(Any new liability incurred after the June 30, 2018 valuation report)**	**Payoff / Funding Time Period**
$0 to $5,000,000	Within 1 to 5 years
$5,000,001 to $10,000,000	Within 6 to 10 years
$10,000,001 to $15,000,000	Within 11 to 15 years
Over $15,000,0001	Within 16 to 20 years

Each year, when the City is provided with the annual valuation report from CALPERS, staff will present to the City Council, as part of the Mid-Year Budget Report, the following:

- The dollar amount of the new liability (new amortization base)
- The number of years that staff is recommending to pay off/fund the liability
- The dollar amount of the annual contribution to be made
- The funding source(s) of the payments
- The short-term and long-term financial impacts on the City’s General Fund reserve balance

When a new amortization base results in a credit balance, the credit will be applied, first, to any negative bases during the same period and, secondly, against any prior year bases until the credit is fully exhausted. The remaining outstanding liability will then be recalculated and a new payoff schedule and annual contribution will be determined based on the payoff schedule above. New amortization repayment schedules will be kept within 20 years to help maximize long-term savings.

PREPAYMENT OPTIONS

At the beginning of each fiscal year, the City analyzes the cost / benefits of prepaying amounts due CALPERS during that fiscal year. The City strives to continue taking advantage of any prepayment discount that is afforded by CALPERS.

FUNDING LEVELS

The City's target funding level will be near 100% of the accrued liability. The City will strive to achieve this funding level through debt refinancing, allocation of reserves, and / or cost containment measures. The total funding amount will be a combination of the amount on deposit with CalPERS, the funds deposited in the City's Section 115 trust, and any funds reserved by the City that are designated for pension liabilities.

FUNDING OPTIONS

Funding options for the remaining unfunded liability and / or any new unfunded accrued liabilities may include the use of a Section 115 Trust and / or allocating fund reserves from any allowable fund within the City.

Section 115 Trust

A Section 115 Trust was established in 2017 to transfer funds to a trust to ensure that these funds will only be used for pension related costs. The trust assets can be accessed to pay CalPERS at any time to reduce volatility and offset unexpected pension rate increases. The trust will have funds deposited into it at the discretion of the City Council, based on recommendations made by City staff during the annual budget adoption process. For the calculation of funding levels, monies put in this trust will be treated the same as putting monies on deposit with CalPERS.

ADDITIONAL DISCRETIONARY PAYMENTS

Additional Discretionary Payments ("ADP") may be deposited with CalPERS at any time. After completion of the annual audit, all discretionary fund reserve balances will be reviewed by City staff. Based on any budgetary constraints at that time, a determination may be made that it is in the best interest of the City to use any available reserves or one-time savings from the prior fiscal year to make ADP's. ADP's should not adversely affect the general operations of the City. ADP's could be deposited with CalPERS, or invested in the City's Section 115 trust.

Any savings realized from the issuance of the 2020 POB, as determined by comparing the POB level debt service and fiscal year 2020-2021 CalPERS actuarial determined contributions, will be allocated as follows: 40%-60% of the savings will be used to offset any future UAL costs that arise and 40%-60% of the savings will be used to offset General Fund operational costs.

Each year during the Budget process, a recommendation for the precise savings allocation of the next fiscal year will be determined based on CalPERS' latest year-end investment return. If CalPERS' fiscal year-end investment return is *below* its benchmark, the City will allocate a higher portion of savings to fund future UAL costs. Alternatively, if CalPERS' fiscal year-end investment return is *higher* than its benchmark, then the City may allocate more of the budgetary savings to offset General Fund operational costs.

CONSIDERATION OF FUTURE PENSION BENEFITS

The issuance of a POB may result in the funding of the City's pension plan with CalPERS up to, and even in excess of, 100% of the plan assets necessary to pay all pension liabilities. Even though this situation may occur, the City is still obligated to make annual debt service payments on the bonds. These payments are in lieu of annual UAL payments that the City would have made to CalPERS.

To the extent that the City is making any annual debt service payments on an issued POB, it is fiscally responsible for the City to not offer any enhanced pension benefits to City employees. This will allow the City to focus its financial resources on the current pension obligations due the bondholders and / or CalPERS.

City of Manhattan Beach

Presentation to Finance Subcommittee

Pension Obligation Bonds

July 6, 2020

KNN public finance

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Pension Cost Background

Three Different Pension Cost Areas

- Employer Normal Cost - $4.37mm for FY 2019-20
  - Employer pension costs are determined by CalPERS and paid by the City (including any cost sharing agreements)
    - Fire employer costs are 18.748% (Classic) or 13.786% (PEPRA) of payroll
    - Police employer costs are 20.654% (Classic) or 13.786% (PEPRA) of payroll
    - Misc. employer costs are 9.047% of payroll

- Employee Normal Cost - $2.87mm for FY 2019-20
  - Employees also contribute toward pension related costs (including any cost sharing agreements)
    - Fire employees contribute 12% (Classic) or 12.75% (PEPRA) of payroll costs
    - Police employees contribute 12% (Classic) or 12.75% (PEPRA) of payroll costs
    - Misc. employees contribute 7% of payroll costs

- Unfunded Accrued Liability (UAL) Cost - $5.0 mm for FY 2019-20
  - UAL costs are assessed to make up for valuation lost and costs incurred from prior years
    - Lower than projected investment returns
    - Changes in actuarial assumptions

UAL Structure Similar To A Mortgage

- Accelerated UAL payments mandated by CalPERS have been the cause of our current pension crisis

- Of note, UAL payments will end when the overall accrued debt load has been paid off
  - In some ways, UAL payment is similar to a mortgage payment

- The City's UAL "mortgage" includes the following key terms:
  - An interest rate of 7% to service our UAL debt load
  - 26 years left on the term of our current "mortgage"
    - Final payment scheduled for June 30, 2046
  - Annual payments will increase through FY 2031-32

Manhattan Beach Unfunded Accrued Liability

- Per the CalPERS Actuarial Valuation reports as of June 30, 2018, the City's funded ratios were:
  - 76.1% for Miscellaneous
  - 92.1% for PEPRA Fire
  - 92.1% for PEPRA Police
  - 72.8% for Fire
  - 71.5% for Police
- Projected unfunded accrued liabilities for fiscal year 2021 are:
  - $19,239,329 for Fire
  - $41,425,963 for Police
  - $27,985,675 for Miscellaneous
  - **$88,650,967 Total**

Date	Jul-19		Jul-19		Jul-19			
Valuation as of	6/30/2018		6/30/2018		6/30/2018			
Plan	Subtotal FIRE		Subtotal Police		Miscellaneous Plan		TOTAL UAL	
Required Contribution In	Balance	Payment	Balance	Payment	Balance	Payment	Balance	Payment
6/30/2021	19,239,329	1,221,821	41,425,963	2,676,297	27,985,675	1,833,630	88,650,967	5,731,748
6/30/2022	19,322,221	1,418,654	41,557,397	3,069,849	28,047,950	2,118,747	88,927,568	6,607,250
6/30/2023	19,207,310	1,580,795	41,290,939	3,398,706	27,819,657	2,356,741	88,317,906	7,336,242
6/30/2024	18,916,635	1,679,200	40,665,656	3,605,618	27,329,202	2,513,552	86,911,493	7,798,370
6/30/2025	18,503,821	1,777,996	39,782,572	3,812,950	26,642,208	2,679,360	84,928,601	8,270,306
6/30/2026	17,959,915	1,824,959	38,623,206	3,917,807	25,735,610	2,753,040	82,318,731	8,495,806
6/30/2027	17,329,356	1,875,146	37,274,218	4,025,547	24,689,336	2,828,750	79,292,910	8,729,443
6/30/2028	16,602,745	1,926,712	35,719,356	4,136,249	23,491,509	2,906,540	75,813,610	8,969,501
6/30/2029	15,771,931	1,979,697	33,941,142	4,249,996	22,129,368	2,986,471	71,842,441	9,216,164
6/30/2030	14,828,152	2,034,138	31,920,792	4,366,871	20,589,193	3,068,597	67,338,137	9,469,606
6/30/2031	13,761,993	2,090,077	29,638,121	4,486,960	18,856,255	3,152,986	62,256,369	9,730,023
6/30/2032	12,563,340	2,147,554	27,071,442	4,610,351	16,914,718	3,020,555	56,549,500	9,778,460
6/30/2033	11,221,326	2,119,184	24,197,459	4,565,235	14,974,262	2,977,552	50,393,047	9,661,971
6/30/2034	9,814,718	2,087,629	21,168,965	4,514,151	12,942,455	2,718,132	43,926,138	9,319,912
6/30/2035	8,342,289	2,020,272	17,981,319	4,392,710	11,036,769	2,606,853	37,360,377	9,019,835
6/30/2036	6,836,464	1,904,589	14,696,156	4,175,161	9,112,792	2,415,470	30,645,412	8,495,220
6/30/2037	5,344,894	1,701,672	11,406,066	3,779,490	7,252,105	2,083,344	24,003,065	7,564,506
6/30/2038	3,958,813	979,397	8,294,955	2,052,943	5,604,723	1,875,501	17,858,491	4,907,841
6/30/2039	3,222,834	839,686	6,752,022	1,770,854	4,057,019	1,654,653	14,031,875	4,265,193
6/30/2040	2,579,855	728,731	5,392,878	1,548,206	2,629,425	1,122,027	10,602,158	3,398,964
6/30/2041	2,006,640	660,333	4,168,903	1,410,400	1,652,853	1,009,935	7,828,396	3,080,668
6/30/2042	1,464,051	521,188	3,001,797	1,113,305	723,868	537,816	5,189,716	2,172,309
6/30/2043	1,027,413	498,900	2,060,311	1,036,550	218,219	225,727	3,305,943	1,761,177
6/30/2044	583,266	396,160	1,132,317	805,680			1,715,583	1,201,840
6/30/2045	214,304	203,438	378,178	391,191			592,482	594,629
6/30/2046	18,867	19,516					18,867	19,516
TOTAL		**36,237,444**		**77,913,077**		**51,445,979**		**165,596,500**

Source: CalPERS Actuarial Valuation - June 30, 2018

CalPERS Cost Increases Enacted

- In response to deteriorating financial conditions, CalPERS has enacted a series of pension cost increases

  - March 16, 2012 – Change in Discount Rate from 7.75% to 7.50%
    - Designed to more accurately reflect investment return earnings
    - Impacted employer rates beginning in FY 2013-14

  - April 17, 2013 – Change in Amortization & Rate Smoothing Policy
    - Designed to pay down unfunded liabilities faster
    - Impacted employer rates beginning in FY 2015-16

  - February 18, 2014 – Change in Actuarial Assumptions & Asset Allocations
    - Designed to account for demographic and mortality adjustments
    - Impacted employer rates beginning in FY 2016-17

Additional Increases Enacted In 2016

- On December 21, 2016, the CalPERS Board voted to enact two substantial new changes
  - Lower the discount rate from 7.5% to 7.0%
  - Enact an accelerated payback schedule for all unfunded accrued liabilities (UAL)

- The net effect of the two changes includes the following:
  - Discount Rate Reduction
    - Designed to more accurately reflect investment return earnings
    - Impacted employer rates beginning in FY 2018-19
  - UAL Payment Acceleration
    - Designed to accelerate payments to fully fund existing unfunded liabilities over a 20-30 year period

Pension Obligation Bonds

Pension Obligation Bonds

- A Pension Obligation Bond ("POB") is a taxable debt issuance used to extinguish some or all of a public agency's unfunded accrued liability ("UAL").

- Proceeds would be deposited with the City's pension system, CalPERS, and invested along with other pension system assets, presumably in a mix of equities and corporate fixed income securities.
  - No "side-fund" specific to the City

- POBs are issued only when the all-in interest rate of the bond issue is significantly below the actuarial rate of interest factored into the calculation of the UAL.

- Debt service payments to bondholders would replace the portion of the employer contribution rate that was allocable to the payment of the extinguished UAL.

Why Is Refinancing Cheaper?

- One of the primary cost savings driver when assessing the POB option is the current municipal bond market
  - We currently live in a low-interest rate world, with certain governmental entities (Germany, Japan, and the EU) offering negative savings rates
  - These global market conditions have created a scenario where municipal borrowing rates are currently near the lowest levels ever recorded

- For the proposed POB, preliminary market rates indicate the City could refinance its UAL debt at a "true interest cost" of approximately 3.3%

- By comparison, CalPERS is currently assessing an interest rate of 7% on the City's UAL debt

Reasons Why Refinancing Could Be A Bad Idea

- Issuing a POB now does nothing to address future possible unfunded actuarial liabilities growth
  - Returning our UAL to zero now does nothing to keep it at zero in the future

- CalPERS could over-perform from an investment perspective, and we wouldn't have had to issue such a large POB
  - If Cal PERS over-performs and beats 7% investment returns (6.7% return earned in FY 2018/19), then our UAL amount will decrease

- Unknown possible State legislative/ judicial changes in the future
  - The State and/ or the Courts could make pension rule changes to reduce our UAL amounts

Reasons Why Refinancing Makes Sense

- Refinancing removes an unknown cost variable and replaces UAL cost increases with a stable fixed payment amount
  - i.e. variable rate to fixed rate

- Interest rates are at historic lows

- More than likely, CalPERS will be able to earn an investment return of at least 3.3% (our estimated cost of the POB)

- Issuing a POB to refinance the UAL does not preclude the City from taking part in any future State/court decisions, if any, related to pension program changes
  - Near-term pension program fixes are unlikely

- Even if the pension fund is overfunded, those funds stay in the City's CalPERS account and can be used to cover future UAL shortfalls

Other Pension Obligation Bond Considerations

- Overfunding: If the City's POBs are sized to eliminate the entire UAL, above market returns could create an actuarial "surplus" in the retirement system.
  - Possibly result in political pressure to increase benefits.
  - If earnings above the actuarial rate in any given year are deposited into a supplemental benefit reserve, this can undermine the ability to achieve budgetary savings over the long-run with a POB.

- Consider issuing less than 100% of the current estimate of the UAL in order to manage the risks of market timing and the pressures from a potentially over-funded system.

- GFOA Advisory on Pension Obligation Bonds discourages use of this instrument.

- Consider in the context of long-term capital planning: issue a tax-exempt infrastructure financing in-lieu of taxable POB.
  - Freed up cash can be used to prepay a portion of the UAL.
  - Fungibility of cash creates a "tax-exempt" POB financing.

POBs are Increasing In the Current Market

	Sale Dates	CA POB Issuers	Par Amount ($MM)
1	2/5/2020	City of Pasadena	$131.805
2	4/22/2020	County of Riverside	$719.995
3	4/30/2020	City of Larkspur	$18.295
4	5/13/2020	City of Ontario	$236.585
5	5/27/2020	City of Montebello	$153.425
6	6/2/2020	City of Inglewood	$101.620
7	6/4/2020	City of Riverside	$432.165
8	6/9/2020	City of El Monte	$118.725
9	6/10/2020	City of Carson	$108.020
10	6/11/2020	North County Fire Protection District	$20.305

Illustrative Pension Obligation Bonds – 80%

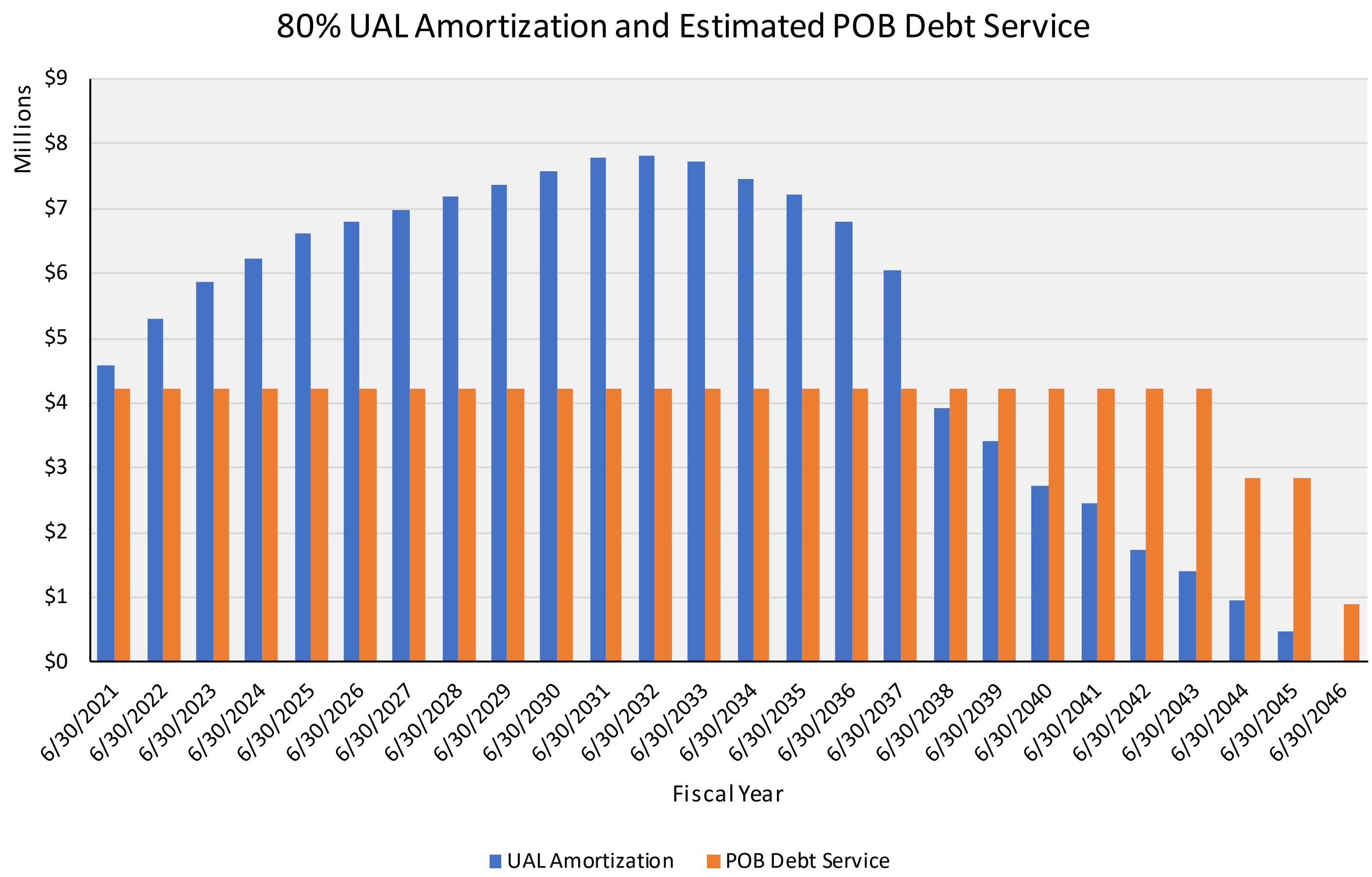
- 80% UALs and level debt service

	80% Fire UAL 15,391,463			3.284%	80% Police UAL 33,140,770			3.284%	80% Misc. UAL 22,388,540			3.284%	80% Total UAL 70,920,774			3.284%
Required Contribution In	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings
6/30/2021	977,457	886,341	91,116	88,218	2,141,038	1,951,139	189,899	183,860	1,466,904	1,381,577	85,328	82,614	4,585,398	4,219,057	366,342	354,692
6/30/2022	1,134,923	888,578	246,345	230,927	2,455,879	1,956,984	498,895	467,670	1,694,998	1,383,419	311,579	292,077	5,285,800	4,228,981	1,056,819	990,674
6/30/2023	1,264,636	887,097	377,540	342,655	2,718,965	1,957,159	761,806	691,416	1,885,393	1,382,170	503,223	456,726	5,868,994	4,226,425	1,642,569	1,490,798
6/30/2024	1,343,360	890,013	453,348	398,374	2,884,494	1,955,898	928,597	815,995	2,010,842	1,384,853	625,989	550,081	6,238,696	4,230,763	2,007,933	1,764,450
6/30/2025	1,422,397	887,228	535,169	455,320	3,050,360	1,953,165	1,097,195	933,488	2,143,488	1,386,359	757,129	644,162	6,616,245	4,226,752	2,389,493	2,032,970
6/30/2026	1,459,967	888,674	571,294	470,598	3,134,246	1,953,613	1,180,633	972,534	2,202,432	1,386,413	816,019	672,188	6,796,645	4,228,700	2,567,945	2,115,319
6/30/2027	1,500,117	889,281	610,836	487,169	3,220,438	1,957,201	1,263,237	1,007,488	2,263,000	1,385,051	877,949	700,204	6,983,554	4,231,533	2,752,022	2,194,861
6/30/2028	1,541,370	888,973	652,397	503,770	3,308,999	1,953,657	1,355,343	1,046,573	2,325,232	1,382,149	943,084	728,233	7,175,601	4,224,778	2,950,823	2,278,575
6/30/2029	1,583,758	887,624	696,134	520,449	3,399,997	1,952,800	1,447,197	1,081,965	2,389,177	1,382,493	1,006,684	752,625	7,372,931	4,222,916	3,150,015	2,355,038
6/30/2030	1,627,310	890,546	736,764	533,309	3,493,497	1,955,228	1,538,269	1,113,481	2,454,878	1,386,509	1,068,369	773,342	7,575,685	4,232,282	3,343,403	2,420,132
6/30/2031	1,672,062	887,592	784,470	549,783	3,589,568	1,955,764	1,633,805	1,145,026	2,522,389	1,384,030	1,138,359	797,801	7,784,018	4,227,385	3,556,633	2,492,611
6/30/2032	1,718,043	889,124	828,919	562,461	3,688,281	1,954,943	1,733,338	1,176,153	2,416,444	1,385,590	1,030,854	699,484	7,822,768	4,229,657	3,593,112	2,438,097
6/30/2033	1,695,347	889,733	805,615	529,265	3,652,188	1,952,125	1,700,064	1,116,890	2,382,042	1,385,573	996,469	654,650	7,729,577	4,227,430	3,502,147	2,300,805
6/30/2034	1,670,103	889,388	780,716	496,596	3,611,321	1,952,250	1,659,071	1,055,299	2,174,506	1,383,929	790,577	502,869	7,455,930	4,225,566	3,230,364	2,054,764
6/30/2035	1,616,218	888,059	728,159	448,437	3,514,168	1,955,113	1,559,055	960,145	2,085,482	1,385,607	699,876	431,019	7,215,868	4,228,779	2,987,090	1,839,601
6/30/2036	1,523,671	891,007	632,664	377,237	3,340,129	1,956,158	1,383,971	825,216	1,932,376	1,385,913	546,464	325,838	6,796,176	4,233,078	2,563,099	1,528,290
6/30/2037	1,361,338	889,167	472,171	272,587	3,023,592	1,956,472	1,067,120	616,054	1,666,675	1,383,057	283,619	163,735	6,051,605	4,228,696	1,822,909	1,052,375
6/30/2038	783,518	891,599	-108,081	-60,412	1,642,354	1,954,966	-312,612	-174,733	1,500,401	1,383,927	116,474	65,103	3,926,273	4,230,492	-304,219	-170,042
6/30/2039	671,749	888,121	-216,372	-117,095	1,416,683	1,956,640	-539,957	-292,210	1,323,722	1,383,341	-59,618	-32,264	3,412,154	4,228,102	-815,947	-441,568
6/30/2040	582,985	888,915	-305,930	-160,296	1,238,565	1,956,312	-717,747	-376,073	897,622	1,386,299	-488,677	-256,049	2,719,171	4,231,526	-1,512,354	-792,418
6/30/2041	528,266	888,799	-360,533	-182,899	1,128,320	1,953,982	-825,662	-418,859	807,948	1,382,619	-574,671	-291,531	2,464,534	4,225,400	-1,760,865	-893,288
6/30/2042	416,950	887,416	-470,465	-231,078	890,644	1,953,835	-1,063,191	-522,206	430,253	1,386,863	-956,610	-469,857	1,737,847	4,228,113	-2,490,266	-1,223,141
6/30/2043	399,120	890,110	-490,990	-233,490	829,240	1,956,474	-1,127,234	-536,056	180,582	1,384,262	-1,203,680	-572,409	1,408,942	4,230,845	-2,821,903	-1,341,955
6/30/2044	316,928	891,697	-574,769	-264,639	644,544	1,956,715	-1,312,171	-604,159	0	0	0	0	961,472	2,848,411	-1,886,939	-868,798
6/30/2045	162,750	887,177	-724,426	-322,939	312,953	1,954,557	-1,641,604	-731,803	0	0	0	0	475,703	2,841,733	-2,366,030	-1,054,741
6/30/2046	15,613	891,734	-876,121	-378,142	0	0	0	0	0	0	0	0	15,613	891,734	-876,121	-378,142
TOTAL	**28,989,955**	**23,113,988**	**5,875,967**	**5,316,165**	**62,330,462**	**48,873,145**	**13,457,317**	**11,553,154**	**41,156,783**	**31,841,995**	**9,314,788**	**7,670,640**	**132,477,200**	**103,829,127**	**28,648,073**	**24,539,960**

AAA rates as of 6/24/2020; PV Savings at Arbitrage Yield

Illustrative Pension Obligation Bonds – 80%

- 80% UALs and level debt service



Illustrative Pension Obligation Bonds – 100%

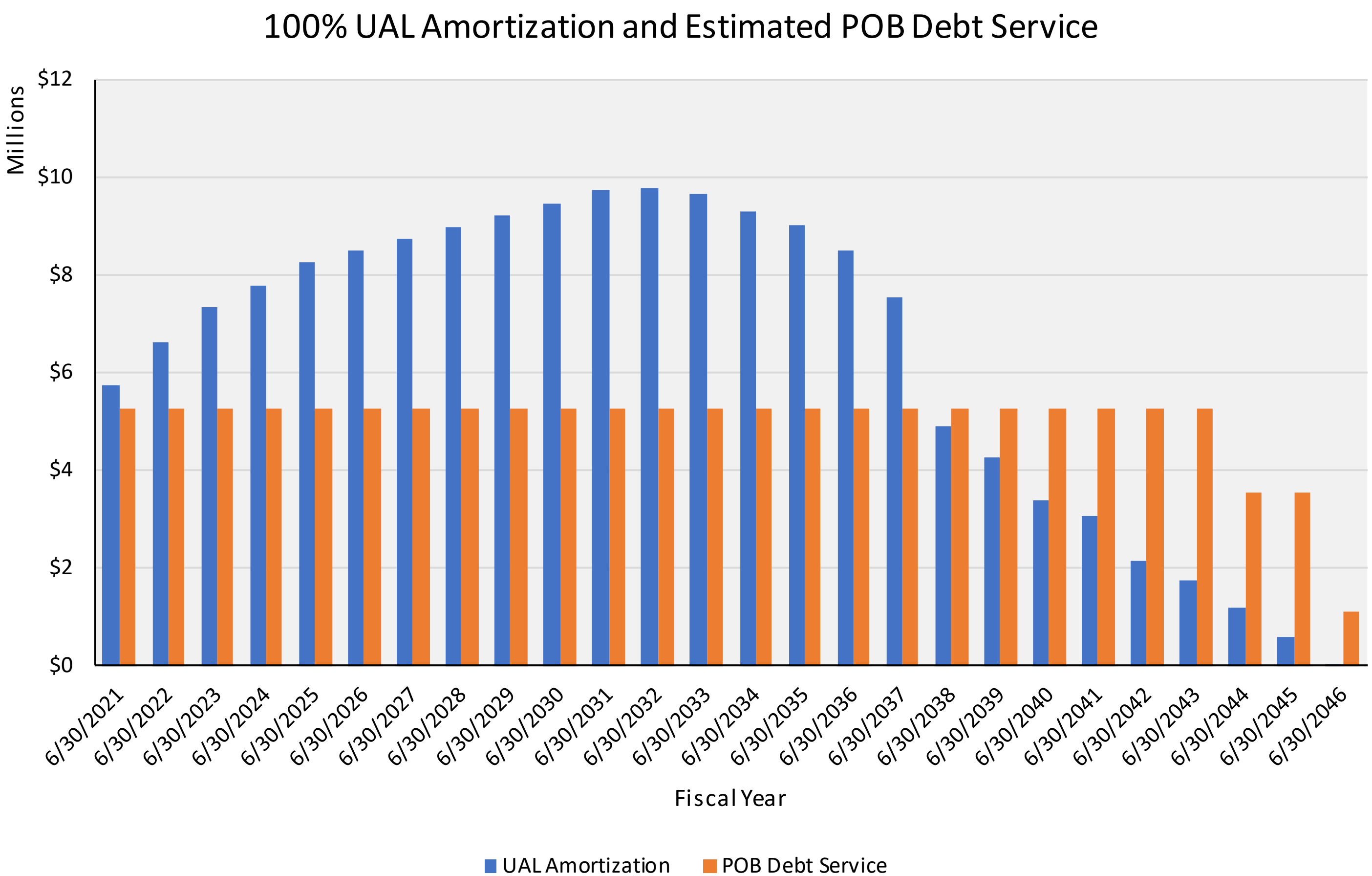
- 100% UALs and level debt service

	100% Fire UAL 19,239,329			3.284%	100% Police UAL 41,425,963			3.284%	100% Misc. UAL 27,985,675			3.284%	100% Total UAL 88,650,967			3.284%
Required Contribution In	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings	Payment	POB Debt Service	Savings	PV Savings
6/30/2021	1,221,821	1,108,706	113,115	109,518	2,676,297	2,433,267	243,030	235,302	1,833,630	1,721,518	112,113	108,548	5,731,748	5,263,490	468,258	453,368
6/30/2022	1,418,654	1,111,014	307,641	288,387	3,069,849	2,441,236	628,614	589,272	2,118,747	1,729,687	389,060	364,711	6,607,250	5,281,936	1,325,314	1,242,369
6/30/2023	1,580,795	1,107,893	472,902	429,209	3,398,706	2,442,760	955,947	867,624	2,356,741	1,730,607	626,135	568,284	7,336,242	5,281,259	2,054,983	1,865,117
6/30/2024	1,679,200	1,109,038	570,162	501,028	3,605,618	2,442,474	1,163,145	1,022,109	2,513,552	1,730,151	783,402	688,411	7,798,370	5,281,662	2,516,708	2,211,549
6/30/2025	1,777,996	1,109,350	668,646	568,887	3,812,950	2,440,330	1,372,621	1,167,831	2,679,360	1,728,283	951,077	809,180	8,270,306	5,277,963	2,992,344	2,545,898
6/30/2026	1,824,959	1,108,634	716,325	590,073	3,917,807	2,440,890	1,476,918	1,216,611	2,753,040	1,729,671	1,023,369	843,000	8,495,806	5,279,195	3,216,612	2,649,684
6/30/2027	1,875,146	1,111,918	763,228	608,717	4,025,547	2,439,125	1,586,423	1,265,261	2,828,750	1,729,269	1,099,481	876,898	8,729,443	5,280,312	3,449,132	2,750,877
6/30/2028	1,926,712	1,109,007	817,706	631,429	4,136,249	2,439,830	1,696,420	1,309,968	2,906,540	1,726,918	1,179,622	910,899	8,969,501	5,275,754	3,693,747	2,852,295
6/30/2029	1,979,697	1,109,850	869,848	650,334	4,249,996	2,442,538	1,807,459	1,351,330	2,986,471	1,727,348	1,259,123	941,372	9,216,164	5,279,735	3,936,429	2,943,036
6/30/2030	2,034,138	1,109,722	924,417	669,155	4,366,871	2,443,012	1,923,860	1,392,620	3,068,597	1,731,118	1,337,479	968,158	9,469,606	5,283,851	4,185,755	3,029,932
6/30/2031	2,090,077	1,108,593	981,485	687,873	4,486,960	2,441,182	2,045,779	1,433,784	3,152,986	1,728,051	1,424,935	998,666	9,730,023	5,277,825	4,452,198	3,120,323
6/30/2032	2,147,554	1,111,758	1,035,797	702,854	4,610,351	2,442,720	2,167,631	1,470,877	3,020,555	1,728,784	1,291,771	876,550	9,778,460	5,283,262	4,495,199	3,050,281
6/30/2033	2,119,184	1,108,735	1,010,450	663,852	4,565,235	2,441,698	2,123,538	1,395,137	2,977,552	1,727,580	1,249,972	821,216	9,661,971	5,278,012	4,383,959	2,880,205
6/30/2034	2,087,629	1,109,623	978,006	622,106	4,514,151	2,443,034	2,071,117	1,317,430	2,718,132	1,729,379	988,753	628,942	9,319,912	5,282,036	4,037,876	2,568,478
6/30/2035	2,020,272	1,109,249	911,024	561,072	4,392,710	2,441,505	1,951,205	1,201,688	2,606,853	1,728,977	877,877	540,657	9,019,835	5,279,730	3,740,105	2,303,417
6/30/2036	1,904,589	1,107,934	796,656	475,035	4,175,161	2,442,848	1,732,313	1,032,954	2,415,470	1,726,933	688,538	410,565	8,495,220	5,277,714	3,217,506	1,918,554
6/30/2037	1,701,672	1,110,816	590,857	341,116	3,779,490	2,440,786	1,338,704	772,868	2,083,344	1,729,795	353,550	204,113	7,564,506	5,281,396	2,283,110	1,318,097
6/30/2038	979,397	1,112,606	-133,209	-74,459	2,052,943	2,441,540	-388,597	-217,213	1,875,501	1,730,837	144,665	80,863	4,907,841	5,284,982	-377,141	-210,810
6/30/2039	839,686	1,108,304	-268,618	-145,374	1,770,854	2,439,928	-669,074	-362,098	1,654,653	1,730,059	-75,406	-40,809	4,265,193	5,278,290	-1,013,097	-548,281
6/30/2040	728,731	1,108,092	-379,361	-198,779	1,548,206	2,440,950	-892,744	-467,784	1,122,027	1,727,461	-605,434	-317,238	3,398,964	5,276,502	-1,877,538	-983,800
6/30/2041	660,333	1,111,788	-451,455	-229,033	1,410,400	2,439,424	-1,029,024	-522,047	1,009,935	1,728,043	-718,108	-364,312	3,080,668	5,279,254	-2,198,586	-1,115,392
6/30/2042	521,188	1,108,762	-587,574	-288,611	1,113,305	2,439,333	-1,326,028	-651,332	537,816	1,730,848	-1,193,032	-586,006	2,172,309	5,278,942	-3,106,633	-1,525,949
6/30/2043	498,900	1,109,630	-610,730	-290,446	1,036,550	2,441,474	-1,404,924	-668,142	225,727	1,726,439	-1,500,712	-713,696	1,761,177	5,277,542	-3,516,365	-1,672,283
6/30/2044	396,160	1,109,206	-713,046	-328,321	805,680	2,440,663	-1,634,983	-752,827	0	0	0	0	1,201,840	3,549,868	-2,348,028	-1,081,148
6/30/2045	203,438	1,107,490	-904,052	-403,034	391,191	2,441,900	-2,050,709	-914,222	0	0	0	0	594,629	3,549,390	-2,954,761	-1,317,256
6/30/2046	19,516	1,109,483	-1,089,967	-470,465	0	0	0	0	0	0	0	0	19,516	1,109,483	-1,089,967	-470,465
TOTAL	**36,237,444**	**28,847,193**	**7,390,251**	**6,672,124**	**77,913,077**	**61,024,439**	**16,888,638**	**14,486,999**	**51,445,979**	**39,757,750**	**11,688,229**	**9,618,972**	**165,596,500**	**129,629,382**	**35,967,118**	**30,778,094**

AAA rates as of 6/24/2020; PV Savings at Arbitrage Yield

Illustrative Pension Obligation Bonds – 100%

- 100% UALs and level debt service



Development of a UAL Policy

- In conjunction with a POB issuance, The City is developing a UAL policy as "best practice" to provide guidance on the development and adoption of a funding plan for any UAL
- Overall objective is to fund the CalPERS pension plan near 100% of the total accrued liability and no less than 80%, whenever possible
- The table below lays out the parameters for paying off / funding the UAL in a designated amount of time, based on the amount of the UAL

New Unfunded Accrued Liability (Any new liability incurred after the June 30, 2018 valuation report)	Payoff / Funding Time Period
$0 to $5,000,000	Within 1 to 5 years
$5,000,001 to $10,000,000	Within 6 to 10 years
$10,000,001 to $15,000,000	Within 11 to 15 years
Over $15,000,0001	Within 16 to 20 years

- Funding plan will utilize prepayment discounts, a Section 115 Trust, additional discretionary payments, allocated reserves, and POBs
- 40-60% savings from POBs will be used to offset any future UAL costs that arise and 40-60% of savings will be used to offset General Fund operational costs - (Allocation will be determined annually during the Budget process)
- No offers of any enhanced pension benefits to City employees while POBs are outstanding

Questions