# PRELIMINARY PENSION FUNDING RECOMMENDATIONS Fiscal Year 2019/20 

Finance Committee
November 29, 2018

## PLAN ASSETS AND LIABILITIES

|  | 2017 Valuation |  |  | 2016 |
| :--- | :---: | :---: | :---: | :---: |
|  | Miscellaneous | Safety | Total | Total |
| Accrued Liability | $396,834,941$ | $542,668,920$ | $939,503,861$ | $887,481,877$ |
| Less: Market Value of Assets | $278,869,980$ | $340,964,919$ | $619,834,899$ | $566,016,065$ |
|  | $117,964,961$ | $201,704,001$ | $319,668,962$ | $321,465,812$ |
| Unfunded Accrued Liability (UAL) | $70.3 \%$ | $62.8 \%$ | $66.0 \%$ | $63.8 \%$ |

## CALPERS Projection*

| Funded Status 6/30/2018* | $71.7 \%$ | $64.3 \%$ |
| :--- | :--- | :--- |
| Funded Status 6/30/2023* | $79.8 \%$ | $73.1 \%$ |

[^0]|  | 2017 Valuation |  |  | 2019 Rollforward |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agency | AL | UAL | FS | UAL | Total Pmts | Pmt Efficiency |
| City of Anaheim Total | 2,534,550,976 | 741,068,980 | 70.8\% | - 765,071,137 | 1,514,945,993 | 198\% |
| City of Brea Total | 384,756,109 | 121,252,581 | 68.5\% | - 125,739,198 | 257,714,835 | 205\% |
| City of Buena Park Total | 135,767,673 | 39,221,940 | 71.1\% | - $40,454,441$ | 78,190,765 | 193\% |
| City of Costa Mesa Total | 561,805,186 | 212,923,672 | 62.1\% | - 218,582,780 | 448,749,985 | 205\% |
| City of Cypress* Total | 77,989,853 | 18,663,147 | 76.1\% | - 19,428,798 | 38,181,448 | 197\% |
| City of Fullerton Total | 759,201,771 | 234,893,103 | 69.1\% | - 245,308,269 | 513,852,707 | 209\% |
| City of Garden Grove Total | 810,370,322 | 268,412,094 | 66.9\% | - 277,299,537 | 568,946,411 | 205\% |
| City of Huntington Beach Total | 1,267,782,797 | 403,394,647 | 68.2\% | - 415,378,946 | 840,702,143 | 202\% |
| City of Irvine Total | 648,190,242 | 154,634,662 | 76.1\% | - 143,436,013 | 265,164,006 | 185\% |
| City of La Habra Total | 109,736,831 | 26,498,700 | 75.9\% | - 27,862,230 | 56,060,884 | 201\% |
| City of Laguna Beach Total | 110,341,091 | 27,243,435 | 75.3\% | - 26,964,768 | 50,220,994 | 186\% |
| City of Mission Viejo Total | 82,812,124 | 19,596,811 | 76.3\% | - 19,947,678 | 35,963,154 | 180\% |
| City of Newport Beach Total | 939,503,861 | 319,668,962 | 66.0\% | - 305,994,956 | 509,864,150 | 167\% |
| City of Orange Total | 851,746,500 | 256,020,262 | 69.9\% | - 265,870,894 | 548,323,701 | 206\% |
| City of Santa Ana Total | 1,955,454,608 | 613,781,439 | 68.6\% | - 635,622,920 | 1,280,054,051 | 201\% |
| City of Tustin Total | 112,720,267 | 26,806,151 | 76.2\% | - 28,340,198 | 56,922,580 | 201\% |
| City of Westminster Total | 127,883,624 | 39,342,203 | 69.2\% | - $40,431,030$ | 79,306,054 | 196\% |
| City of Yorba Linda Total | 69,845,408 | 21,183,584 | 69.7\% | - 21,466,831 | 43,314,830 | 202\% |
| Irvine Ranch Water District Total | 260,190,689 | 62,900,429 | 75.8\% | - 63,953,833 | 111,870,935 | 175\% |
| Santa Margarita Water District Total | 94,619,320 | 29,770,735 | 68.5\% | 1 30,545,326 | 59,643,437 | 195\% |
| Grand Total | 11,895,269,252 | 3,637,277,537 | 69.4\% | 3,717,699,783 | 7,357,993,063 | 198\% |

## FUNDED STATUS TREND AND PROJECTION



## NET EMPLOYER COST PROJECTION

|  | Normal Cost Rate |  | Expected Normal Cost |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018/19 | 2019/20 | 2018/19 | 2019/20 | Dollars | Percent |
| Misc | 16.2\% | 16.9\% | 7,205,087 | 7,712,921 | 507,834 | 7.0\% |
| Safety | 27.4\% | 28.1\% | 9,082,071 | 9,694,972 | 612,901 | 6.7\% |
| Tota | Expected | ormal Cost | 16,287,158 | 17,407,893 | 1,120,735 | 6.9\% |


|  | Amortization of UAL |  | Change |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018/19 | 2019/20 | Dollars | Percent |
| Minimum Payment of on UAL | 25,698,507 | 26,469,557 | 771,050 | 3.0\% |
| Additional Discretionary Payment (ADP) | 8,801,493 | 8,530,443 | $(271,050)$ | -3.1\% |
| Total Planned UAL Payment | 34,500,000 | 35,000,000 | 500,000 | 1.4\% |


|  | Total Expected Pension Cost |  | Change |  |
| :---: | :---: | :---: | ---: | ---: | ---: |
|  | $2018 / 19$ | $2019 / 20$ | Dollars | Percent |
| Total Expected PERS Contribution | $50,787,158$ | $52,407,893$ | $1,620,735$ | $3.2 \%$ |
| Less: Expected Employee Contributions | $10,324,540$ | $11,017,800$ | 693,260 | $6.7 \%$ |
| Net Employer Cost "Projected" | $40,462,618$ | $41,390,093$ | 927,475 | $2.3 \%$ |

## CALPERS TIER SUMMARY

| MISCELLANEOUS |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: |
| Group Name | Benefit | Active <br> Employees | Payroll <br> FY19-20 | \% of Total |
| Tier 1 | $2.5 \%$ @ 55 | 372 | $\$ 33,348,039$ | $80 \%$ |
| Tier 2 | $2.0 \% ~ @ ~ 60 ~$ | 29 | $2,713,601$ | $6 \%$ |
| PEPRA | $2.0 \% ~ @ ~ 62$ | 113 | $5,764,989$ | $14 \%$ |
|  | TOTAL | 514 | $\$ 41,826,629$ |  |



## SUMMARY OVER TIME



## AMORTIZATION SCHEDULES



## OLD VS. NEW AMORTIZATION POLICIES

|  |  | Source |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Gain) | Loss |  |  |
| Driver | Investment | Non-investment | Assumption/Method Change | Benefit Change |
|  | ortization Policy |  |  |  |
| Amortization Period | 30 Years | 30 Years | 20 Years | 20 Years |
| Escalation Rate (Level Percent of Pay) | Payroll (2.75\%) | 2.75\% | 2.75\% | 2.75\% |
| Ramp Up | 5 | 5 | 5 | 0 |
| Ramp Down | 5 | 5 | 5 | 0 |
| Payment Efficiency (Total Pmts. As \% of Principal) | 308\% | 308\% | 223\% | 223\% |


| June 2019 Amortization Policy |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Amortization Period | 20 Years | 20 Years | 20 Years | 20 Years |
| Escalation Rate (Level Dollar) | 0\% | 0\% | 0\% | 0\% |
| Ramp Up | 5 | 0 | 0 | 0 |
| Ramp Down | 0 | 0 | 0 | 0 |
| Payment Efficiency (Total Pmts. As \% of Principal) | 225\% | 209\% | 209\% | 209\% |
|  |  |  |  |  |
| Efficiency Improvement (Interest Savings) | 27\% | 32\% | 6\% | 6\% |

## FUNDING OPTIONS

- Default Payment Option
- 2013 Fresh Start Base: Level Percent of Pay - No Ramp Up/Down (15 year period)
- 16 Individual Bases between 2014 and 2018 : Level Percent of Pay - 5 Year Ramp Up/Down (Various terms)
- Option I
- 2013 Fresh Start Base: Reset to Level Dollar Amortization - No Ramp Up/Down (15 year term)
- Consolidate 2014 - 2018 Bases: Level Dollar Amortization - No Ramp Up/Down (I5 years term)
- Option 2
- 2013 Fresh Start Base: Reset to Level Dollar Amortization- No Ramp Up/Down (I5 year term)
- Consolidate 2014 - 2018 Bases: Level Dollar Amortization - No Ramp Up/Down (20 year term)
- Option 3A -With ADPs
- 2013 Fresh Start Base: Level Percent of Pay with ADP (I5 year term)
- Partial Fresh Start - All Other Bases: Level Percent of Pay with ADP (4 year term with ADP)
- Option 3B -Without ADPs
- 2013 Fresh Start Base: Level Percent of Pay without ADP (I5 year term)
- Partial Fresh Start - All Other Bases: Level Percent of Pay (20 year term)

UAL Principal Balance
Interest
Total Payments Require to Amortize UAL
Amortiation Efficiency (AE) Ratio
Interest Savings Over 2018 Default NPV Savings @ 3\%

| 2019 Roll-Forward Balances (Used to determine minimum contributions for FY 19/20) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 Val | 2018 Projected |  |  |  |  |
| Default Option | Default Option | Option 1 | Option 2 | Option 3A (Recommended) | Option 3B |
| 305,994,956 | 325,186,486 | 325,186,486 | 325,186,486 | 325,186,486 | 325,186,487 |
| 203,869,194 | 232,632,907 | 192,250,875 | 197,114,908 | 187,653,502 | 218,970,099 |
| 509,864,150 | 557,819,393 | 517,437,361 | 522,301,394 | 512,839,988 | 544,156,586 |
| 166.6\% | 171.5\% | 159.1\% | 160.6\% | 157.7\% | 167.3\% |
|  |  | \$ 40,382,032 | \$ 35,517,999 | \$ 44,979,405 | \$ 13,662,808 |
|  |  | \$ 20,955,474 | \$ 19,009,152 | \$ 22,896,956 | \$ 9,135,543 |

## PROJECTED AMORTIZATION BASES <br> AS OF 06/30/20I8 AND ROLLED FORWARD TO 06/30/2019 MISCELLANEOUS AND SAFETY PLAN COMBINED



* Balance and payments reflect projected balances and phased-in discount rates not yet reflected in the 6/30/17 valuation.




## COMPARATIVE SAVINGS HYPOTHETICAL UNFUNDED PENSION LIABILITY

|  |  | County-wide AE Ratio |  | City Default AE Ratio | City Payment Option 3A AE Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hypothetical Unfunded Pension Liability | \$ | 300,000,000 | \$ | 300,000,000 | \$ | 300,000,000 |
| AE Ratio |  | 200\% |  | 166.6\% |  | 157.7\% |
| Total Principal \& Interest Payments |  | 600,000,000 |  | 499,800,000 |  | 473,100,000 |
| Interest savings relative to County-wide average |  |  | \$ | 100,200,000* | \$ | 126,900,000* |

* Not discounted to reflect time value of money.

Default - Minimum Payment Options (Inclusive of Projected 2018 Net Gain\Loss Bases)

## OlyヲNヨכS $\perp 7 \cap \forall \exists \exists \subset$



| 2014-2018 Bases |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% of Pay 5 Yr Ramp Up/Down |  |  |  |  |  |  |  |
|  |  |  | Various | Default Option Total |  |  |  |
| Balance |  |  | Payment |  | Balance |  | Min Pmt |
| \$ | 20,924,353 | \$ | $(1,264,887)$ | \$ | 325,186,486 | \$ | 26,469,557 |
| \$ | 24,484,898 | \$ | $(606,839)$ | \$ | 321,356,649 | \$ | 27,561,712 |
| \$ | 26,826,560 | \$ | 1,122,438 | \$ | 315,341,557 | \$ | 30,065,625 |
| \$ | 27,543,359 | \$ | 2,495,004 | \$ | 306,315,343 | \$ | 32,234,127 |
| \$ | 26,890,543 | \$ | 3,139,967 | \$ | 294,414,176 | \$ | 33,696,917 |
| \$ | 25,524,874 | \$ | 3,739,204 | \$ | 280,166,807 | \$ | 35,136,470 |
| \$ | 23,443,752 | \$ | 3,842,033 | \$ | 263,433,036 | \$ | 36,102,723 |
| \$ | 21,110,585 | \$ | 3,947,688 | \$ | 244,528,401 | \$ | 37,095,548 |
| \$ | 18,504,805 | \$ | 4,056,250 | \$ | 223,273,456 | \$ | 38,115,676 |
| \$ | 15,604,324 | \$ | 4,167,797 | \$ | 199,475,436 | \$ | 39,163,857 |
| \$ | 12,385,424 | \$ | 4,282,411 | \$ | 172,927,309 | \$ | 40,240,863 |
| \$ | 8,822,643 | \$ | 4,400,177 | \$ | 143,406,748 | \$ | 41,347,486 |
| \$ | 4,888,650 | \$ | 4,521,182 | \$ | 110,675,048 | \$ | 42,484,542 |
| \$ | 554,108 | \$ | 4,645,515 | \$ | 74,475,949 | \$ | 43,652,867 |
| \$ | $(4,212,463)$ | \$ | 4,773,267 | \$ | 34,534,388 | \$ | 44,853,321 |
| \$ | $(9,444,840)$ | \$ | 4,444,209 | \$ | $(9,444,840)$ | \$ | 4,444,209 |
| \$ | $(14,703,105)$ | \$ | 3,521,472 | \$ | $(14,703,105)$ | \$ | 3,521,472 |
| \$ | $(19,374,961)$ | \$ | 1,632,422 | \$ | (19,374,961) | \$ | 1,632,422 |
| \$ | $(22,419,798)$ | \$ | $(363,189)$ | \$ | $(22,419,798)$ | \$ | $(363,189)$ |
| \$ | $(23,613,498)$ | \$ | $(2,469,794)$ | \$ | $(23,613,498)$ | \$ | (2,469,794) |
| \$ | $(22,711,669)$ | \$ | $(4,164,792)$ | \$ | $(22,711,669)$ | \$ | $(4,164,792)$ |
| \$ | $(19,993,392)$ | \$ | $(5,296,082)$ | \$ | $(19,993,392)$ | \$ | $(5,296,082)$ |
| \$ | $(15,914,619)$ | \$ | $(5,441,724)$ | \$ | $(15,914,619)$ | \$ | $(5,441,724)$ |
| \$ | $(11,399,679)$ | \$ | $(3,723,617)$ | \$ | $(11,399,679)$ | \$ | $(3,723,617)$ |
| \$ | (8,345,917) | \$ | $(2,706,415)$ | \$ | $(8,345,917)$ | \$ | $(2,706,415)$ |
| \$ | $(6,130,594)$ | \$ | $(2,444,828)$ | \$ | $(6,130,594)$ | \$ | $(2,444,828)$ |
| \$ | $(4,030,787)$ | \$ | $(1,556,781)$ | \$ | $(4,030,787)$ | \$ | $(1,556,781)$ |
| \$ | $(2,702,595)$ | \$ | $(353,140)$ | \$ | $(2,702,595)$ | \$ | $(353,140)$ |
| \$ | $(2,526,485)$ | \$ | $(1,221,211)$ | \$ | $(2,526,485)$ | \$ | $(1,221,211)$ |
| \$ | $(1,440,108)$ | \$ | $(1,221,095)$ | \$ | $(1,440,108)$ | \$ | $(1,221,095)$ |
|  | $(277,805)$ | \$ | $(287,364)$ | \$ | $(277,805)$ | \$ | $(287,364)$ |
|  |  | \$ | 25,609,278 |  |  | \$ | 557,819,393 |
|  |  |  | Amortizatio | fici | ncy (AE) Ratio |  | 172\% |


|  |  |  | Original 2013 Fresh Start |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Level \% of Pay Without ADP |  |  |  |  |
|  |  |  |  |  | 15 |  |  |
| Yr | Val Yr | Pmt Yr |  | Balance |  | quired Pmt. | ADP |
|  |  |  |  |  | \$ | - |  |
|  |  |  |  |  | \$ | - |  |
| 1 | 2017 | 2020 | \$ | 304,262,134 | \$ | 27,734,444 |  |
| 2 | 2018 | 2021 | \$ | 296,871,751 | \$ | 28,168,551 |  |
| 3 | 2019 | 2022 | \$ | 288,514,998 | \$ | 28,943,186 |  |
| 4 | 2020 | 2023 | \$ | 278,771,983 | \$ | 29,739,124 |  |
| 5 | 2021 | 2024 | \$ | 267,523,633 | \$ | 30,556,950 |  |
| 6 | 2022 | 2025 | \$ | 254,641,933 | \$ | 31,397,266 |  |
| 7 | 2023 | 2026 | \$ | 239,989,284 | \$ | 32,260,691 |  |
| 8 | 2024 | 2027 | \$ | 223,417,816 | \$ | 33,147,860 |  |
| 9 | 2025 | 2028 | \$ | 204,768,651 | \$ | 34,059,426 |  |
| 10 | 2026 | 2029 | \$ | 183,871,112 | \$ | 34,996,060 |  |
| 11 | 2027 | 2030 | \$ | 160,541,884 | \$ | 35,958,452 |  |
| 12 | 2028 | 2031 | \$ | 134,584,105 | \$ | 36,947,309 |  |
| 13 | 2029 | 2032 | \$ | 105,786,398 | \$ | 37,963,360 |  |
| 14 | 2030 | 2033 | \$ | 73,921,841 | \$ | 39,007,352 |  |
| 15 | 2031 | 2034 | \$ | 38,746,851 | \$ | 40,080,055 |  |
| 16 | 2032 | 2035 | \$ | - |  |  |  |
| 17 | 2033 | 2036 |  |  |  |  |  |
| 18 | 2034 | 2037 |  |  |  |  |  |
| 19 | 2035 | 2038 |  |  |  |  |  |
| 20 | 2036 | 2039 |  |  |  |  |  |
| 21 | 2037 | 2040 |  |  |  |  |  |
| 22 | 2038 | 2041 |  |  |  |  |  |
| 23 | 2039 | 2042 |  |  |  |  |  |
| 24 | 2040 | 2043 |  |  |  |  |  |
| 25 | 2041 | 2044 |  |  |  |  |  |
| 26 | 2042 | 2045 |  |  |  |  |  |
| 27 | 2043 | 2046 |  |  |  |  |  |
| 28 | 2044 | 2047 |  |  |  |  |  |
| 29 | 2045 | 2048 |  |  |  |  |  |
| 30 | 2046 | 2049 |  |  |  |  |  |
| 31 | 2047 | 2050 |  |  |  |  |  |


$\begin{array}{lcc} & \$ & 544,156,586 \\ \text { Amortization Efficiency (AE) Ratio } & 167 \%\end{array}$

Option 3A - Partial Fresh Start With ADP


## STAFF RECOMMENDATION OPTION 3A

Option 3A accomplishes the following funding goals:

- Amortizes the UAL over a level dollar payment plan over 15 years as opposed to the lengthier, and consequently costlier, term options.
- Continues an aggressive funding plan to improve the plan's funded status and further increases repayment efficiency of the unfunded pension liability.
- Preserves financial flexibility to continue ADPs or not.
- Consolidates the number of amortization bases that range between 19-30 years down to a default 20-year repayment schedule and significantly reduces administrative burden of managing 16 different bases. If ADPs are continued, this 20 year base would be reduced to 4 years. See Appendix C-5 then C-4 to see how the ADPs would reduce the term of the 2018 Fresh Start Base from 20 years to 4 years.
- Starts paying on projected loss base that will be included in the 2018 actuarial valuation thereby avoiding one year's worth of negative amortization.
- Option 3A represents a savings of $\$ 45$ million over the default schedule realized over 15 years (NPV Savings of $\$ 23$ million)
- By carefully managing our bases over several years including fresh starts and ADPs, the payment efficiencies gained will save Newport Beach taxpayers between $\$ 100$ and $\$ 126$ million over 20 years relative to the county-wide repayment schedule.


## POTENTIAL BENEFITS OF USING A SECTION II5 TRUST

- Trust assets can be theoretically accessed to pay CaIPERS at anytime to reduce volatility and offset unexpected rate increases (rate stabilization).
- Provides access to a broader universe of investments that the City can undertake on its own, including stocks and longer-term bonds.
- Allows the City to maintain control and investment oversight of assets.
- Rainy Day Fund - Emergency source of funds when Employer revenues are impaired based on economic or other conditions
- Diversifies investment assets and strategies.
- Added flexibility and control compared to the direct payment method to CaIPERS
- Since PEPRA eliminated "Contribution Holidays" a Section II5 plan could serve as a relief valve when plans are approaching fully funded status


## POTENTIAL LIMITATIONS OF USING A SECTION II5 TRUST

- Does not directly reduce Net Pension Liability
- Assets not recognized when CalPERS sets contribution rates
- Investment Returns (net of expenses) likely to be lower than invested directly with CaIPERS
- Added complexities for reporting \& administration
- May introduce additional risks
- Potentially short investment horizon
- Headline risk
- Assets can't be simply transferred to CalPERS. They must be sold at current market value. In the event of an economic downturn, when the reserve funds might need to be accessed, the market value of the trust portfolio is also likely to be negatively impacted by the downturn.
- The Trust would not likely have a material impact on overall pension asset diversification or investment return relative to the $\$ 620$ million of pension assets already at CaIPERS.


[^0]:    *Assuming 7\% return and no ADP's

