CITY OF NEWPORT BEACH
MISCELLANEOUS AND SAFETY PLANS

CalPERS Actuarial Issues – 6/30/15 Valuation
Preliminary Results

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Bartel Associates, LLC

November 10, 2016

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**DEFINITIONS**

**Present Value of Benefits June 30, 2015**

- **PVB - Present Value of all Projected Benefits:**
  - Discounted value (at valuation date - 6/30/15), of all future expected benefit payments based on various (actuarial) assumptions

- **Actuarial Liability:**
  - Discounted value (at valuation date) of benefits earned through valuation date [value of past service benefit]
  - Portion of PVB “earned” at measurement

- **Current Normal Cost:**
  - Portion of PVB allocated to (or “earned” during) current year
  - Value of employee and employer current service benefit

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**DEFINITIONS**

- **Target:** Have money in the bank to cover Actuarial Liability (past service)
- **Unfunded Liability:** Money short of target at valuation date
- **Excess Assets / Surplus:**
  - Money over and above target at that point in time
  - Doesn’t mean you’re done contributing
- **Super Funded:**
  - Assets cover whole pie (PVB)
  - If everything goes exactly like PERS calculated, you’ll never have to put another (employer or employee) dime in
CALPERS CHANGES

- Contribution policy changes:
  - No asset smoothing
  - No rolling amortization
  - 5-year ramp up
  - Included in 6/30/13 valuation (first impact 15/16 rates; full impact 19/20)

- Assumption changes:
  - Anticipate future mortality improvement
  - Other, less significant, changes
  - Included in 6/30/14 valuation (first impact 16/17 rates; full impact 20/21)

- Risk Mitigation Strategy
  - Move to more conservative investments over time
  - Only when investment return is better than expected
  - Lower discount rate in concert
  - Essentially use ≈50% of investment gains to pay for cost increases
  - Likely get to 6.5% over ≈ 20 years

- CALPERS Board reviewing their Capital Market Assumptions next summer/fall
  - Likely results in reduction to discount rate of 25-50 basis points

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Above assumes contributions, payments, etc. received evenly throughout year.

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### SUMMARY OF DEMOGRAPHIC INFORMATION - MISCELLANEOUS

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<td>City Service</td>
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<td>10</td>
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<td>PERSable Wages</td>
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<td>$59,400</td>
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<td>Total PERSable Wages (millions)</td>
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<td><strong>Receiving Payments</strong></td>
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<td>Counts</td>
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<td>Disability</td>
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<td>Beneficiaries</td>
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<td>Total</td>
<td>234</td>
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<td>605</td>
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<td>Average Annual City Provided Benefit(^1)</td>
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<td>Service</td>
<td>$13,700</td>
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<td>Disability</td>
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<td>10,200</td>
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<td>Service Retirements in last 5 years</td>
<td>22,700</td>
<td>36,200</td>
<td>26,900</td>
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</table>

\(^1\) Average City provided pensions are based on City service & City benefit formula, and are not representative of benefits for long service employees.

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### MEMBERS INCLUDED IN VALUATION - MISCELLANEOUS

![Bar Chart of Members Included in Valuation - Miscellaneous]

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**Funded Ratio - Miscellaneous**

6/30/16 & 6/30/17 funded status estimated.

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Funded Status (Millions) - Miscellaneous

6/30/16 & 6/30/17 funded status estimated.

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Contribution Rates - Miscellaneous

November 10, 2016
CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Market Value Investment Return:
- June 30, 2016: 0.6%\(^2\)
- June 30, 2017: 9.4%\(^3\)
- Future returns based on stochastic analysis using 1,000 trials

<table>
<thead>
<tr>
<th>Single Year Returns at (^4)</th>
<th>25th Percentile</th>
<th>50th Percentile</th>
<th>75th Percentile</th>
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</thead>
<tbody>
<tr>
<td>7.5% Investment Mix</td>
<td>0.6%</td>
<td>7.5%</td>
<td>15.3%</td>
</tr>
<tr>
<td>6.5% Investment Mix</td>
<td>1.3%</td>
<td>6.5%</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- Excludes Employer Paid Member Contributions (EPMC)
- Tier 2 2%@60 effective 11/24/12
- New hire assumptions:
  - Assumes 50% of 2013 new hires will be Classic Tier 2 Members (2%@60)
  - and 50% will be New Members with PEPRA benefits
  - Assumes Classic Tier 2 Members will decrease from 50% to 0% of new hires over 20 years

\(^2\) Based on CalPERS press release on 7/18/16, preliminary investment return of 0.61%.
\(^3\) June 30, 2017 return based on CalPERS return of 3.6% through 9/30/16 and assumed future returns for 9 months.
\(^4\) Nth percentile means N percentage of our trials result in returns lower than the indicated rates.

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CONTRIBUTION PROJECTIONS - MISCELLANEOUS

Current Amortization
- 2014 Base – 17 years level % of pay
- 2014 Credit – 29 years (ramp up and ramp down)
- 2015 Loss - 30 years (ramp up and ramp down)
- 2016 Loss – 30 years (ramp up and ramp down), 1st payment in 2018/19

Alternative #1 Amortization
- 2014 Base – 17 years level % of pay
- 2014 Credit – 29 years (ramp up and ramp down)
- 2015 Loss – 20 years level % of pay
- 2016 Loss – 20 years level % of pay, 1st payment in 2017/18

Alternative #2 Amortization
- 2014 Base – 17 years level dollar
- 2014 Credit – 17 years level dollar
- 2015 Loss – 17 years level dollar
- 2016 Loss – 17 years level dollar, 1st payment in 2017/18

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PREPARED FOR:

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*All results taken from most recently available CalPERS Gbras valuation reports.*
AGENCY COMPARISON - MISCELLANEOUS

6/30/15 Unfunded Actuarial Accrued Liability as a Percentage of Payroll - Miscellaneous

*All results taken from most recently available CalPERS GOV/15 valuation reports.

AGENCY COMPARISON - MISCELLANEOUS

Employer Normal Cost Rate - Miscellaneous

*All results taken from most recently available CalPERS GOV/15 valuation reports.

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AGENCY COMPARISON - MISCELLANEOUS

Total Employer Rate - Miscellaneous

- City of Costa Mesa
- City of Irvine
- City of Anaheim
- City of Huntington Beach
- City of Santa Ana
- City of Long Beach
- City of Beverly Hills
- City of Newport Beach

*All results taken from most recently available CalPERS GB35 valuation reports.

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SUMMARY OF DEMOGRAPHIC INFORMATION - SAFETY

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<thead>
<tr>
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<td><strong>Actives</strong></td>
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<tr>
<td>Counts</td>
<td>263</td>
<td>268</td>
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<tr>
<td><strong>Average</strong></td>
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<td>39</td>
<td>40</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>City Service</td>
<td>14</td>
<td>13</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>PERSable Wages</td>
<td>$54,000</td>
<td>$90,700</td>
<td>$111,200</td>
<td>$111,800</td>
</tr>
<tr>
<td>Total PERSable Wages (millions)</td>
<td>14.2</td>
<td>24.3</td>
<td>29.9</td>
<td>30.1</td>
</tr>
</tbody>
</table>

| **Receiving Payments** |       |       |       |       |
| Counts               |       |       |       |       |
| Service              | 153   | 255   | 263   |       |
| Disability           | 108   | 124   | 126   |       |
| Beneficiaries        | 22    | 31    | 35    |       |
| Total                | 132   | 283   | 410   | 424   |
| **Average Annual City Provided Benefit** |       |       |       |       |
| Service              | $13,700 | $73,100 | $76,500 |       |
| Disability           | 7,200  | 43,800 | 44,500 |       |
| Service Retirements in last 5 years | 62,300 | 90,200 | 93,000 |       |

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5 Average City provided pensions are based on City service & City benefit formula, and are not representative of benefits for long service employees.

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MEMBERS INCLUDED IN VALUATION - SAFETY

PLAN FUNDED STATUS - SAFETY

Present Value of Benefits
June 30, 2014

Present Value of Benefits
June 30, 2015

June 30, 2014
$ 120,500,000 Active AAL $ 117,600,000
343,400,000 Retiree AAL 365,500,000
12,100,000 Inactive AAL 8,900,000
476,000,000 Total AAL 492,000,000
312,100,000 Market Asset Value 317,500,000
(163,900,000) (Unfunded Liability) (174,500,000)

$374,400,000
CONTRIBUTION RATES - SAFETY

CONTRIBUTION PROJECTIONS - SAFETY

- Market Value Investment Return:
  - June 30, 2016: 0.6%  
  - June 30, 2017: 9.4%  
  - Future returns based on stochastic analysis using 1,000 trials
    - Single Year Returns at 7.5% Investment Mix: 0.6%  
    - 25th Percentile: 7.5%  
    - 50th Percentile: 15.3%  
    - 75th Percentile: 11.9%

- No Other: Gains/Losses, Method/Assumption Changes, Benefit Improvements
- Excludes Employer Paid Member Contributions (EPMC)
- Tier 2 Police 3%@55 and Fire 2%@50 effective 11/24/12
- New hire assumptions:
  - Assumes 50% of 2013 new hires will be Classic Tier 2 Members and 50% will be New Members with PEPRA benefits
  - Assumes Classic Tier 2 Members will decrease from 50% to 0% of new hires over 10 years

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6 Based on CalPERS press release on 7/18/16, preliminary investment return of 0.61%.
7 June 30, 2017 return based on CalPERS return of 3.6% through 9/30/16 and assumed future returns for 9 months.
8 Nth percentile means N percentage of our trials result in returns lower than the indicated rates.
CONTRIBUTION PROJECTIONS - SAFETY

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Alternative #2 Amortization
- 2014 Base – 17 years level dollar
- 2014 Credit – 17 years level dollar
- 2015 Loss – 17 years level dollar
- 2016 Loss – 17 years level dollar, 1st payment in 2017/18

CONTRIBUTION PROJECTIONS - SAFETY

Current

[Graph showing contribution projections over time]
ALTERNATIVE #1 - SAFETY

Alternative #1 – 20-Year Level Percentage of Projected Payroll

Funded Status With Risk Mitigation

ALTERNATIVE #2 - SAFETY

Alternative #2 – 17-Year Level Dollar

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AGENCY COMPARISON - SAFETY

Funded Status - Safety

City of Costa Mesa
City of Irvine
City of Anaheim
City of Huntington Beach
City of Santa Ana
City of Long Beach
City of Beverly Hills
City of Newport Beach

*All results taken from most recently available CalPERS 6/30/15 valuation reports.

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AGENCY COMPARISON - SAFETY

6/30/15 Unfunded Actuarial Accrued Liability as a Percentage of Payroll - Safety

City of Costa Mesa
City of Irvine
City of Anaheim
City of Huntington Beach
City of Santa Ana
City of Long Beach
City of Beverly Hills
City of Newport Beach

*All results taken from most recently available CalPERS 6/30/15 valuation reports.

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AGENCY COMPARISON - SAFETY

Normal Cost Rate - Safety

*All results taken from most recently available CalPERS OJ3035 valuation reports.

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AGENCY COMPARISON - SAFETY

Total Employer Rate - Safety

*All results taken from most recently available CalPERS OJ3035 valuation reports.

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PEPRA

- Target of 50% of total normal cost for everyone
- *New members* must pay greater of 50% of total normal cost or bargained amount if higher
- Employer cannot pay any part of *new member* required employee contributions
- Employer may impose current employees pay 50% of total normal cost (limited to certain amounts) if not agreed through collective bargaining by 1/1/18
- Miscellaneous Plan:

<table>
<thead>
<tr>
<th></th>
<th>Classic Members</th>
<th>New Members</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Tier 1</td>
<td>Tier 2</td>
</tr>
<tr>
<td></td>
<td>2.5%@55 FAE1</td>
<td>2%@60 FAE3</td>
</tr>
<tr>
<td>Employer Normal Cost</td>
<td>8.6%</td>
<td>5.8%</td>
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<tr>
<td>Member Normal Cost</td>
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<tr>
<td>Total Normal Cost</td>
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<td>50% Target</td>
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PEPRA

- Safety Plan:

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<th>Classic Members</th>
<th>New Members</th>
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<td>Tier 1</td>
<td>Tier 2 Police</td>
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<td>3%@50 FAE1</td>
<td>3%@55 FAE3</td>
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<tr>
<td>Employer Normal Cost</td>
<td>18.6%</td>
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<tr>
<td>Member Normal Cost</td>
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<td>24.8%</td>
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<tr>
<td>50% Target</td>
<td>13.8%</td>
<td>12.4%</td>
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</tbody>
</table>
Paying Down the Unfunded Liability

- Accelerated Funding
  - Fresh Start
    - Higher short term payments
    - Less interest and lower long term payments
  - One time payments
    - City resolution to use portion of one time money
  - Target specific amortization bases
    - Shorter periods – bigger rate impact but lower long term savings
    - Longer periods: lower rate impact but higher long term savings

- Pension Obligation Bond (POB)
  - Interest arbitrage between expected CalPERS earnings and rate paid on POB
  - Not guaranteed

Paying Down the Unfunded Liability

- Borrow from General Fund
  - Pay GF back like a loan
  - Payments come from all funds

- Internal Service Fund
  - Restricted investments
    - Likely low (0.5% - 1.0%) investment returns
    - Short term/high quality
    - Designed for preservation of principal
  - Assets could be used by Council for other purposes
IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- > 50 trusts established
- PARS & PFM
- Investments significantly less restricted than City investment funds
  - Designed for long term returns
  - Likely much higher (5% - 7%) investment return
- Assets could not be used by the Board for other purposes
- Can only be used to
  - Reimburse City for CalPERS contributions
  - Make payments directly to CalPERS
- Reasons agencies have established:
  - Mitigate Rate Volatility
  - Mitigate impact of Normal Cost minimum contribution
  - Pay down Unfunded Liability
    - Not as compelling

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IRREVOCABLE SUPPLEMENTAL (§115) PENSION TRUST

- GASB will almost certainly weigh in on certain accounting issues
  - Can Supplemental Pension Trust assets be included in Fiduciary Net Position?
  - If assets can be included would inclusion impact discount rate?
- Parameters:
  - Initial seed money?
  - Additional amount contributed in future years?
  - Target budget rate?
  - Year target budget rate kicks in?
    - Before or after CalPERS rate exceeds budgeted rate?

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