CALL TO ORDER

PLEDGE OF ALLEGIANCE by Director Kelley

ROLL CALL
PUBLIC COMMENTS

Any member of the public may address the Committee on items within the Committee’s subject matter jurisdiction but which are not listed on this agenda during PUBLIC COMMENTS. However, no action may be taken on matters that are not part of the posted agenda. We request comments made on the agenda be made at the time the item is considered and that comments be limited to three minutes per person. Please address your comments to the Committee as a whole, and do not engage in dialogue with individual Committee Members, Authority staff, or members of the audience.

MINUTES

1. Minutes for the March 13, 2013, Budget and Finance Committee Meeting
   Submitted by: Sherry Wentz, Clerk of the Authority

   Recommended Action:
   Approve as submitted.

CONSENT CALENDAR

2. Quarterly Status Update – Orange County Employees’ Retirement System
   Submitted by: Lori Zeller, Assistant Chief, Business Services Department

   Recommended Action:
   Receive and file the report.

DISCUSSION CALENDAR

3. Monthly Investment Report
   Submitted by: Patricia Jakubiak, Treasurer

   Recommended Action:
   Review the proposed agenda item and direct staff to place the item on the agenda for the Executive Committee meeting of May 23, 2013, with the Budget and Finance Committee’s recommendation that the Executive Committee receive and file the report.

4. OCERS’ Proposed Actuarial Funding Policy
   Submitted by: Lori Zeller, Assistant Chief, Business Services Department

   Recommended Action:
   Review OCERS’ proposed Actuarial Funding Policy and provide direction to staff regarding any recommendations that the Committee would like transmitted to the OCERS Board of Retirement to be considered at its April 15, 2013, meeting.
5. **Hazardous Materials Emergency Response Subscription Service**  
   Submitted by: Dave Thomas, Assistant Chief/Operations Department

   **Recommended Action:**
   Review the proposed agenda item and direct staff to place this item on the agenda for the Board of Directors’ meeting of May 23, 2013, with the Budget and Finance Committee’s recommendation that the Board of Directors take the following actions:

   1. Approve and authorize the implementation of a Hazardous Materials Emergency Response subscription service for non-OCFA cities within the Orange County Operational Area, using the “fair-share” subscription cost methodology based on population and assessed value.

   2. Approve the submitted Subscriber Contract as to form, and authorize the Fire Chief to execute these contracts with any non-OCFA cities that choose to subscribe for Hazardous Materials Emergency Response Services from OCFA.

**REPORTS**

No items.

**COMMITTEE MEMBER COMMENTS**

**ADJOURNMENT** – The next regular meeting of the Budget and Finance Committee is scheduled for Wednesday, May 8, 2013, at 12:00 noon.
AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury under the laws of the State of California, that the foregoing Agenda was posted in the lobby and front gate public display case of the Orange County Fire Authority, Regional Fire Operations and Training Center, 1 Fire Authority Road, Irvine, CA, not less than 72 hours prior to the meeting. Dated this 4th day of April 2013.

______________________________
Sherry A.F. Wentz, CMC
Clerk of the Authority

UPCOMING MEETINGS:

Claims Settlement Committee Meeting Thursday, April 25, 2013, 5:30 p.m.
Budget and Finance Committee Meeting Wednesday, May 8, 2013, 12:00 noon
Claims Settlement Committee Meeting Thursday, May 23, 2013, 5:30 p.m.
Executive Committee Meeting Thursday, May 23, 2013, 6:00 p.m.
Board of Directors Meeting Thursday, May 23, 2013, 6:30 p.m.
CALL TO ORDER
A regular meeting of the Orange County Fire Authority Budget and Finance Committee was called to order on March 13, 2013, at 12:00 p.m. by Chairman Al Murray.

PLEDGE OF ALLEGIANCE
Director McCloskey led the assembly in the Pledge of Allegiance to our Flag.

ROLL CALL
Present: Randal Bressette, Laguna Hills
         Trish Kelley, Mission Viejo
         Jerry McCloskey, Laguna Niguel
         Al Murray, Tustin
         Elizabeth Swift, Buena Park
         Steven Weinberg, Dana Point

Absent: Sam Allevato, San Juan Capistrano

Also present were:
         Fire Chief Keith Richter
         Deputy Fire Chief Ron Blaul
         Assistant Chief Craig Kinoshita
         Assistant Chief Lori Zeller
         Lydia Slivkoff, Assistant Clerk
         General Counsel David Kendig
         Assistant Chief Laura Blaul
         Assistant Chief Brian Stephens
         Clerk of the Authority Sherry Wentz

PUBLIC COMMENTS (F: 12.02B3)
Chair Murray opened the Public Comments portion of the meeting. Chairman Murray closed the Public Comments portion of the meeting without any comments.
MINUTES

1. Minutes for the February 13, 2013, Budget and Finance Committee Meeting (F: 12.02B2)

   On motion of Director Weinberg and second by Director Bressette, the Committee voted unanimously to approve the minutes from the February 13, 2013, Regular Budget and Finance Committee Meeting.

CONSENT CALENDAR

No items.

DISCUSSION CALENDAR


   Treasurer Tricia Jakubiak provided an overview of the investment report and current global market activity.

   On motion of Director Bressette and second by Director Kelley, the Committee voted unanimously to direct staff to place the item on the agenda for the Executive Committee meeting of March 28, 2013, with the Budget and Finance Committee’s recommendation that the Executive Committee receive and file the report.

3. FY 2012/13 Mid-year Budget Adjustments (F: 15.04 FY 2012/13)

   Assistant Chief Lori Zeller provided an overview of FY 2012/13 Mid-year Budget Adjustments.

   On motion of Director Weinberg and second by Director Kelley, the Committee voted unanimously to direct staff to place the item on the agenda for the Board of Directors meeting of March 28, 2013, with the Budget and Finance Committee’s recommendation that the Board of Directors take the following actions:
   1. Authorize the proposed mid-year budget adjustments.
   2. Approve the proposed Schedule of Fund Balance.
4. Communication with Auditors for Fiscal Year 2012/13 Financial Audit  (F: 15.02B)

Assistant Chief Lori Zeller introduced Finance Manager/Auditor Jim Ruane who provided an overview on the communication with Auditors for Fiscal Year 2012/13 Financial Audit, and introduced Rich Kikuchi, Partner with Lance, Soll & Lunghard, LLC.

Stephen Wontrobski, Mission Viejo resident, provided public comments on his concerns with the internal fraud hotline and the hazardous materials billing issue.

On motion of Director Weinberg and second by Director Kelley, the Committee voted unanimously to receive and file the report.

5. Proposed Scope for a Third Audit Area in Year One of the Comprehensive Review of OCFA’s Financial Internal Controls  (F: 15.06)

Assistant Chief Lori Zeller introduced Finance Manager/Auditor Jim Ruane who provided an overview on the proposed scope for a third audit area in year one of the comprehensive review of OCFA’s financial internal controls, and introduced Christa Shelley, C.P.A., Lance, Soll & Lunghard, LLC.

Stephen Wontrobski, Mission Viejo resident, provided comments in support of the audit.

On motion of Director Weinberg and second by Director Bressette, the Committee voted unanimously to:
1. Approve the Purchasing/Procurement Review as the third audit area to be included in the first year of the comprehensive internal control review.
2. Direct staff to include an adjustment for $15,000 in the mid-year report.

REPORTS
No items.

COMMITTEE MEMBER COMMENTS  (F: 12.02B4)

Director Weinberg thanked Deputy Chief Ron Blaul for his guidance and many years of service.
Chair Murray thanked Deputy Chief Blaul and indicated he attended and enjoyed the March 12 retiree event at the OCFA.

ADJOURNMENT

Chair Murray adjourned the meeting at 1:05 p.m. The next regular meeting of the Budget and Finance Committee is scheduled for Wednesday, April 10, 2013 at 12:00 noon.

__________________________
Sherry A.F. Wentz, CMC
Clerk of the Authority
TO: Budget and Finance Committee, Orange County Fire Authority

FROM: Lori Zeller, Assistant Chief
Business Services Department

SUBJECT: Quarterly Status Update - Orange County Employees’ Retirement System

Summary:
This agenda item is submitted to provide a status update regarding steps taken over the past quarter, covering January-March 2013, to improve the Orange County Employees’ Retirement System’s (OCERS) financial policies, procedures, and practices.

Recommended Action:
Receive and file the report.

Background:
In April 2010, OCERS disclosed that it had uncovered an error in how it handled premium pay salary items, which impacted several plan sponsors including the Orange County Fire Authority (OCFA). Premium pay includes salary items such as education bonus, paramedic bonus, bilingual pay, etc. OCERS should have included these items in the salary data it provided to its actuary, but failed to do so resulting in an under-reporting of pensionable compensation. The error occurred going back to 2004, which compounded the problem. The end result was an $82.7 million increase in OCFA’s recognized unfunded liability with OCERS. OCFA immediately requested supporting documentation, and requested an accounting of OCFA’s contributions to OCERS to ensure that OCFA had been given proper credit, since it had always paid retirement contributions on these premium pays. Subsequently, OCERS corrected the premium pay error which moved $40 million in assets over to OCFA and lowered OCFA’s Unfunded Actuarial Accrued Liability (UAAL) by the same amount.

On February 9, 2011, OCFA staff provided a report to the Budget and Finance Committee (B&FC) regarding improvements needed to OCERS’ financial policies, procedures, and practices, as well as an overview of work expected to be performed to correct the amount of retirement contributions attributed to OCFA and other plan sponsors participating in OCERS. The Committee directed OCFA staff to perform additional work, which was completed and reported to the OCFA Board of Directors in April and July 2011.

Following the July 2011 report, the B&FC directed staff to continue providing monthly updates until an extended period of time passes with no new findings of errors, and/or until the Committee becomes more confident that OCERS has corrected the underlying systemic weaknesses which allowed these problems to occur. Following the March 2012 report, the B&FC authorized staff to reduce the frequency of status updates from monthly to quarterly.
### Actions Taken/Financial Policies & Practices – January – March 2013

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
</table>
| January 22 | **OCERS BOARD OF RETIREMENT:**

**THIRD QUARTER 2012 BUDGET TO ACTUAL REPORT**

In prior years, a simple once a month budget snapshot report had been provided to the Board at each regular administrative meeting. Ms. Tracy Bowman, Director of Finance, explained that there will be a new format for budget reporting. The very detailed quarterly budget reports that the Board will now be receiving outline the budget to-date, and show actual distributions, while providing a more detailed explanation of any variances. (Attachment 1)

**PENSION ADMINISTRATION SYSTEM SOLUTION PROJECT BUDGET AMENDMENT (V3 Rebaselining Project)**

Following a full presentation by OCERS IT Director, Mr. Jimmy Blanco, and Assistant CEO for Internal Operations, Ms. Brenda Shott, and accompanied by some very pointed questions and clear concerns as expressed by individual Trustees, the Board of Retirement approved the staff request to rebaseline the V3 software conversion project, which moves the conclusion of the project from December 2013 to February 2015, increases total staff required by an additional four positions, and takes the project budget from $14.6 million to $23.9 million.

| January 23 | **OCERS INVESTMENT COMMITTEE:**

**DASHBOARDS – PROTOTYPE DEBUT**

OCERS staff shared working examples of a series of economic indicator reports, in dashboard format, that are being created to assist the Investment Committee to better understand the impact of macroeconomic issues on the OCERS portfolio. The Committee approved the direction the OCERS Investment Team was going with these reports and indicated their interest in seeing future reports of this caliber. Once finalized, the reports will be available at [www.ocers.org](http://www.ocers.org)
**OCERS GOVERNANCE COMMITTEE:**

**INVESTMENT MANAGER MONITORING SUBCOMMITTEE STRUCTURE**

With more than 50 investment managers engaged by the OCERS Board’s Investment Committee, the challenge of finding the time to meet regularly with each of the managers led to the Board’s approval of a new subcommittee. The Governance Committee will submit the following structure recommendations to the Board:

- **a.** Four members appointed by the Board chair; two appointed and two elected.
- **b.** The Board chair shall appoint a chairperson for the Investment Manager Monitoring Subcommittee.
- **c.** Any member of the Investment Committee may attend these meetings. Those not serving on the subcommittee should, however, be seated in the audience to avoid (Brown) meetings act issues. Rather than formally designating alternates, the Subcommittee chair is authorized to invite a substitution in whatever manner is convenient for this purpose. This could be done in advance if an absence is predictable, or on the spot if an “auditing” Board member is present to fill a vacant Subcommittee seat. Because there would be no voting, there are not quorum requirements to continue a meeting.
- **d.** The preferred meeting date is shortly after the Investment Committee meetings.
- **e.** The Subcommittee chair shall report briefly to the full Investment Committee which managers were interviewed and several of the key due diligence discussion items, for the record.
- **f.** Staff will take and print notes of key items discussed with each manager, which will be transmitted to the full Investment Committee in its subsequent agenda materials.
- **g.** The Subcommittee will not vote on managers, but rather will identify any concerns or express any opinions to the full Investment Committee through its meeting notes and the chair’s report to the full Committee.
- **h.** Each manager shall complete a due diligence questionnaire in advance of the Subcommittee meeting. Staff will prepare a refresher summary of each manager’s profile and history with OCERS, and NEPC will provide a briefing sheet. Staff will also prepare key questions and topics that each manager should review with the Subcommittee during their presentation.
- **i.** The Subcommittee’s review schedule shall assure that each manager is reviewed at least biennially (every two years). Hedge fund managers will begin to undergo biennial reviews in October 2014 as part of this process.
- **j.** Managers with exceptional performance, either up or down, shall be reviewed by the full Investment Committee and bypass the Subcommittee.
February 19

**OCERS BOARD OF RETIREMENT:**

**REVIEW OF ACTUARIAL FUNDING POLICY**

Paul Angelo, of The Segal Company, had two discussions with the Board, pertaining to the development of an actuarial funding policy for OCERS. Mr. Angelo reviewed current funding policy practices, and possible modifications to be incorporated into a formal policy document. Presently, the OCERS Board’s funding directives have been adopted through Board actions at various times based on discussions specific to each policy component.

A very detailed review of the components of an actuarial funding policy was prepared by The Segal Company, placing particular emphasis on funding policy elements the Board may need to consider modifying and adopting, in light of changing directives and practices among governmental pension plans.

Mr. Angelo’s February presentation was informational only, with plans to return in March for the second of these discussions. (See separate OCFA Budget and Finance Committee Agenda item 4 for further information).

**2013 COST OF LIVING ADJUSTMENT**

Based on the 2.04% change in the Consumer Price Index for the Los Angeles-Orange area, the OCERS Board of Retirement approved a 2% Cost of Living Adjustment to be effective for those retired as of April 1, 2013.

**ALTERNATE APPOINTED MEMBER**

The OCERS Board of Retirement presently has by law one alternate member (Mr. Ray Geagan-OCFA), who is available to act on behalf of any of the four elected members in their absence. There is no corresponding alternate member for the four appointed members. The Board Chair has asked that Ms. Julie Wyne, OCERS Legal Counsel, outline the steps that would be necessary to include such a position on the OCERS Board of Retirement. The Board directed OCERS staff to discuss with the Board of Supervisors the pursuit of legislation for an Alternate Appointed Member.

**POLICIES AND PROCEDURES OVERVIEW**

At the start of 2012, the firm of Clifton Gunderson outlined a series of recommendations for OCERS to undertake to improve the development, use and application of policies and procedures. A follow up presentation was given by Ms. Dawn Matsuo of the OCERS Legal team. Ms. Matsuo has been tasked through the year with guiding this project, and shared with the Board the progress that has been made in ensuring that the agency has a documented and practical approach to its policies and procedures (Attachment 2).
OCERS INVESTMENT COMMITTEE:

NEPC – BRIDGEWATER MANDATE REVIEW AND GTAA SEARCH
With Bridgewater already taking a global macro approach to their investment strategy, OCERS Investment Consultant, NEPC, discussed with the Board the need to find one or two other managers in the Global Tactical Asset Allocation (GTAA) space to compliment the work being done by Bridgewater. The Investment Committee approved commencing that search.

BRIDGEWATER MANDATE: ACCOUNT STRUCTURE AND FEE REVIEW
As OCERS looks to see how best to balance its careful approach to risk while also looking to obtain the best return for that risk, the Investment Committee discussed raising the volatility target level of Bridgewater’s investments from the current 7%, which is particularly conservative, to 12%. Allowing Bridgewater this relative adjustment to their mandate will in turn free up some cash presently held in the Bridgewater account that OCERS investment team can then strategically move elsewhere in the OCERS portfolio.

There was also considerable discussion of the fees being paid to Bridgewater. The fee arrangement with Bridgewater has been adjusted a number of times in the past 7-8 years, and determining which of those structures is the preferred direction moving forward was the crux of the discussion. Ultimately the Investment Committee voted to come back to the issue of volatility level and fees after the GTAA search has been completed.

FEE POLICY DISCUSSION – INTRODUCTION OF P5 CONCEPT
This agenda item was an informational item from OCERS CIO, Mr. Girard Miller, providing the Investment Committee with background on discussions Mr. Miller has been holding with other public pension systems to determine if there is interest in collaborating on fee issues. Mr. Miller made clear that this is not a move to create a “superfund” combining the investment dollars of other systems, but instead is more of a “buyer’s group,” whereby firms that wish to seek business with the P5 group would be willing to offer pension plan fee discounts in return for receiving the long-term capital the public plans have available to invest. The Investment Committee asked that Mr. Miller continue his work and report back on progress.
**OCERS BOARD OF RETIREMENT:**

**PENSION ADMINISTRATION SYSTEM SOLUTION (PASS) STATUS REPORT**
With the recent need to rebaseline the V3 conversion project, OCERS staff will be providing a monthly written update to the Board of activities and progress. On a quarterly basis those reports will be live presentations. This particular report indicated that OCERS is three weeks behind schedule in preparing for the first Build Out, a major milestone in this project. A major challenge is the near record number of retirement applications OCERS is receiving for April 1, which requires a shifting of staff from the V3 project on a temporary basis to meet member’s immediate needs. The IT team is now meeting to discuss streamlining and resource management and feels confident that they will be able to make up for that time in the near term.

**REVIEW OF ACTUARIAL FUNDING POLICY**
This agenda item was a continuation of the presentation made by Paul Angelo of The Segal Company last month, pertaining to the development of an actuarial funding policy for OCERS. Mr. Angelo’s discussion further reviewed current funding policy practices and possible modifications, with staff intending ultimately to incorporate them in a more formalized policy document. Presently, the OCERS Board’s funding directives have been adopted through Board actions at various times based on discussions specific to each policy component.

A revised set of PowerPoint slides was used by Mr. Angelo in his discussion. Where a new slide had been created in response to questions or issues raised by the Board during the February discussion, the slide is annotated “NEW”. (See separate OCFA Budget and Finance Committee Agenda item 4 for further information).

Whereas Mr. Angelo’s presentation last month was informational only, the Board was asked to consider making certain suggested changes to current funding policy effective with the December 31, 2013 valuation. The Board requested additional information and the item was delayed until the April 15.

**2013 STAR COLA FINAL APPROVAL**
STAR COLA stands for Supplemental Targeted Adjustment for Retirees, Cost of Living Adjustment. The purpose is to restore purchasing power for retirees who have lost more than 20% of their purchasing power since retirement – currently those members who retired on or before April 1, 1981. As required by statute, notice of this planned discussion was provided as a consent agenda item last month and approved by the Board at this meeting.

**MANAGER MONITORING SUBCOMMITTEE**
With nearly 50 investment managers engaged by the OCERS Board’s Investment Committee, the challenge of finding the time to meet regularly with each of the managers has led to the Board’s approval of a new subcommittee - a four-member Investment Manager Monitoring Subcommittee. This committee, due to first meet in April, will meet with each of the managers on a biennial basis. Where there are
concerns with a given manager, those presentations will instead be made to the full Investment Committee.

When the Board approved the creation of this subcommittee, the stated policy was to have the four members evenly split between appointed and elected members of the full Board. However, due to scheduling constraints, Board Chair Flannigan has appointed an initial subcommittee of one appointed and three elected trustees (Eley, Freidenrich, Hilton, Prevatt). At OCERS Legal Counsel’s suggestion, the consent agenda memo was provided to the Board for their approval of the proposed configuration.

**RETIREMENT APPLICATION PROCESS**
OCERS is receiving a near record number of requests to retire as of April 1, 2013. The primary drivers seem to be the (1) increase in direct payment of member contributions that a number of bargaining units are facing, and (2) the fact that a COLA will be paid this year [2%] to any individual who is retired as of that April 1 date. Ms. Suzanne Jenike outlined for the Board of Retirement the actions taken to meet this increased demand for services including delaying the V3 Pension System project so two employees could assist with retirement calculations and hiring back a former employee to assist with processing retirees.

Staff will continue to monitor actions taken by OCERS to improve its financial policies and practices, and will report back in July regarding progress made during the next quarter.

**Impact to Cities/County:**
Changes in OCFA’s retirement rates have a direct impact on the annual increases in contract charges to OCFA’s cash contract cities, and can impact the amounts available to budget for other important services. A separate agenda item regarding potential changes to OCERS’ Actuarial Funding Policy will be presented at the April 10 meeting of the Budget and Finance Committee. (See separate OCFA Budget and Finance Committee Agenda item 4 for further information).

**Staff Contacts for Further Information:**
Lori Zeller, Assistant Chief/Business Services Department
LoriZeller@ocfa.org
(714) 573-6020

Tricia Jakubiak, Treasurer
TriciaJakubiak@ocfa.org
(714) 573-6301

**Attachments:**
1. OCERS’ Third Quarter 2012 Budget to Actual Report
2. Clifton Gunderson Update
ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM

MEMORANDUM

DATE: January 22, 2013

TO: Members, Board of Retirement

FROM: Tracy Bowman, Director of Finance

SUBJECT: THIRD QUARTER 2012 BUDGET TO ACTUAL REPORT

Recommendation:

Receive and File.

Background:

The Board of Retirement approved OCERS’ Administrative and Investment Budget for Fiscal Year 2012 (FY12) on November 9, 2011. The approved administrative budget for FY12 is $15,601,115 and the approved investment budget for FY12 is $55,850,688.

OCERS budgeting authority is regulated by California Government Code Sections 31580.2 and 31596.1, including a provision that OCERS’ budget for administrative expenses (which excludes investment related costs and expenditures for computer software, hardware and related technology consulting services) is limited to twenty-one hundredths of one percent of the accrued actuarial liability of the retirement system (commonly referred to as the 21 basis point test). The approved FY12 administrative budget represents 8.42 basis points of the projected actuarial accrued liability. The budget also meets the Agency’s current policy limitation of 18 basis points of the projected actuarial value of total assets and represents 13.15 basis points of assets for FY12. Although the Agency is no longer bound by this test by the Government Code, the Board of Retirement directed staff to continue to prepare the calculation for this test when compiling its budget.

The Chief Executive Officer, or the Assistant CEO, has the authority to transfer funds within the three broad categories of the budget: 1) Salaries and Benefits, 2) Services and Supplies, and 3) Capital Projects. Funds may not be moved from one category to another without approval from the Board of Retirement.

Discussion:

Administrative Summary

For the nine months ended September 30, 2012, year-to-date actual administrative expenses are $10,885,105 or 69.8% of the $15,601,115 administrative budget and below the 75% target set for the end of the third quarter (nine months ended September 30, 2012/twelve months for the year ending December 31, 2012). A summary of all administrative expenses (excluding investments) and explanations of significant variances are provided below:
## Summary of all Administrative Expenses (excluding Investments)
### For the Nine Months Ended September 30, 2012

<table>
<thead>
<tr>
<th></th>
<th>Actuals to Date</th>
<th>Annual Budget</th>
<th>Balance Remaining</th>
<th>% of Budget Used</th>
<th>Prorated Budget*</th>
<th>Prorated Budget vs. Actuals (Over)/Under</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel Costs</strong></td>
<td>$5,330,018</td>
<td>$7,734,803</td>
<td>$2,404,785</td>
<td>68.9%</td>
<td>$5,801,102</td>
<td>$471,084</td>
</tr>
<tr>
<td><strong>Services and Supplies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meetings</td>
<td>12,063</td>
<td>32,260</td>
<td>20,197</td>
<td>37.4%</td>
<td>24,195</td>
<td>12,132</td>
</tr>
<tr>
<td>Training</td>
<td>91,339</td>
<td>374,542</td>
<td>283,203</td>
<td>24.4%</td>
<td>280,907</td>
<td>169,567</td>
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<tr>
<td>Professional Services</td>
<td>627,523</td>
<td>981,900</td>
<td>354,377</td>
<td>63.9%</td>
<td>736,425</td>
<td>108,902</td>
</tr>
<tr>
<td>Legal Services</td>
<td>659,962</td>
<td>390,000</td>
<td>(269,962)</td>
<td>169.2%</td>
<td>252,500</td>
<td>(367,462)</td>
</tr>
<tr>
<td>Equipment/Bldg Maintenance</td>
<td>262,992</td>
<td>404,100</td>
<td>141,108</td>
<td>65.1%</td>
<td>303,075</td>
<td>40,083</td>
</tr>
<tr>
<td>Equipment/Software Purchase</td>
<td>45,354</td>
<td>213,000</td>
<td>167,646</td>
<td>21.3%</td>
<td>159,750</td>
<td>114,396</td>
</tr>
<tr>
<td>Equipment/Bldg Lease</td>
<td>620,507</td>
<td>924,500</td>
<td>303,993</td>
<td>67.1%</td>
<td>693,375</td>
<td>72,668</td>
</tr>
<tr>
<td>Telephone</td>
<td>43,068</td>
<td>45,000</td>
<td>1,932</td>
<td>95.7%</td>
<td>33,750</td>
<td>(9,318)</td>
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<tr>
<td>Postage</td>
<td>61,360</td>
<td>177,000</td>
<td>115,640</td>
<td>34.7%</td>
<td>132,750</td>
<td>71,390</td>
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<tr>
<td>Printing</td>
<td>70,122</td>
<td>135,100</td>
<td>64,978</td>
<td>51.9%</td>
<td>101,325</td>
<td>31,205</td>
</tr>
<tr>
<td>Membership/Periodicals</td>
<td>18,481</td>
<td>30,410</td>
<td>11,929</td>
<td>60.8%</td>
<td>22,808</td>
<td>4,326</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>31,859</td>
<td>46,000</td>
<td>14,141</td>
<td>69.3%</td>
<td>34,500</td>
<td>2,641</td>
</tr>
<tr>
<td><strong>Services and Supplies</strong></td>
<td>$2,544,631</td>
<td>$3,753,812</td>
<td>$1,208,181</td>
<td>67.6%</td>
<td>$2,815,359</td>
<td>$270,728</td>
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<tr>
<td><strong>Administrative Expense-Sub Total</strong></td>
<td>$7,874,649</td>
<td>$11,488,615</td>
<td>$3,613,966</td>
<td>68.5%</td>
<td>$8,616,461</td>
<td>$741,813</td>
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<tr>
<td><strong>Capital Expenditures</strong></td>
<td>3,010,456</td>
<td>4,112,500</td>
<td>1,102,044</td>
<td>73.2%</td>
<td>3,084,375</td>
<td>73,919</td>
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<tr>
<td><strong>Administrative Expense Total</strong></td>
<td>$10,885,105</td>
<td>$15,601,115</td>
<td>$4,716,010</td>
<td>69.8%</td>
<td>$11,700,836</td>
<td>$815,732</td>
</tr>
</tbody>
</table>

*Prorated Budget represents 75% (9 months/12 months) of Annual Budget
**Capital expenditures represent purchases of assets to be amortized in future periods.

### Personnel Costs - Administrative

Personnel Costs incurred as of the third quarter are $5.3 million or 68.9% of the annual budget for this category. The variance of $471,084 between the prorated budget of $5.8 million and year-to-date actuals is due to several positions budgeted for in FY12, but remained unfilled as of the end of the third quarter, including a Finance Reporting Manager and IT Supervisor-Programming. The savings for these unfilled positions was offset by the use of temporary help to assist in covering staff shortages.

### Services and Supplies - Administrative

Total expenditures for services and supplies are $2.5 million or 67.8% of the annual budget for this category. The variance of $270,728 between the prorated budget and year-to-date actuals in this category is primarily due to the following:

- The training budget has utilized 24.4% of the annual budget and is lower than the prorated budget by $189,567. This is primarily due to amounts that have been budgeted for...
but not yet expended, including the Southern California SACRS conference and various training sessions postponed by IT in order to focus their resources on the V3 project.

- Professional Services are at 63.9% of the annual budget. Expenses are lower than the pro-rated budget by $108,902 due to the inclusion of services in this budget line item related to Writ of Mandate (court ordered payments) and Pension Gold customization that are used on an as-needed-basis.

- Legal Services are at 169.2% of the annual budget and are significantly over due to litigation related to a wrongful termination lawsuit which has since been adjudicated in OCERS’ favor. As the total amount expended under the Services and Supplies category remains under budget, an amendment is not required at this time to cover the budget shortage in Legal Services; however, the CEO or Assistant to the CEO has the authority to move budget dollars within the Services and Supplies category to cover this shortage and will do so by year-end.

- Equipment/Software Purchase is at 21.3% of the annual budget and lower than the pro-rated budget by $114,396. This is primarily due to the timing of the purchases of lap tops, computers and iPads which are not scheduled to be completed until the end of the fourth quarter.

- Telephone is at 95.7% of the annual budget and higher than the pro-rated budget by $9,318. Actual expenses have come in higher than what was anticipated due to a new T1 router that was placed in service during FY12. As the total amount expended under the Services and Supplies category remains under budget, an amendment is not required at this time to cover the Telephone budget shortage; however, the CEO or Assistant to the CEO has the authority to move budget dollars within the Services and Supplies category to cover this shortage and will do so by year-end.

- Postage is at 34.7% of the annual budget and lower than the pro-rated budget by $71,390. This can be attributed to the timing of bulk mailings to Plan members and use of postage on an as-needed basis.

**Capital Expenditures - Administrative**

Capital Expenditures as of the third quarter are $3 million or 73.2% of the annual budget for this category. The majority of these expenses is related to the V3 project and is within the 75% target for budget used as of the third quarter.

**Investment Summary**

For the nine months ended September 30, 2012, year-to-date actual investment expenses are $26,061,121 or 46.7% of the $55,850,688 investment budget and below the 75% target as of the end of the third quarter. A summary of all investment expenses and explanations of significant variances are provided below:
Summary of All Investment Expenses
For the Nine Months Ended September 30, 2012

<table>
<thead>
<tr>
<th>Personnel Costs</th>
<th>Actuals to Date</th>
<th>Annual Budget</th>
<th>Balance Remaining</th>
<th>% of Budget Used</th>
<th>Prorated Budget</th>
<th>Prorated Budget vs. Actuals (Over)/Under</th>
</tr>
</thead>
<tbody>
<tr>
<td>$698,158</td>
<td>$1,006,858</td>
<td>$308,700</td>
<td>69.3%</td>
<td>$755,144</td>
<td>$56,985</td>
<td></td>
</tr>
</tbody>
</table>

Services and Supplies

| Due Diligence   | 9,791          | 88,250        | 78,459            | 11.1%           | 66,188         | 56,397       |
| Meetings        | 3,773          | 1,755         | (2,018)           | 215.0%          | 1,316          | (2,457)      |
| Training        | 3,667          | 28,565        | 24,898            | 12.8%           | 21,424         | 17,757       |
| Professional Services | 25,229,677 | 54,322,776    | 29,093,099        | 46.4%           | 40,742,082     | 15,512,405   |
| Legal Services  | 68,446         | 300,000       | 231,555           | 22.8%           | 225,000        | 156,555      |
| Equipment/Software Purchase | 42,775       | 75,000        | 32,225            | 57.0%           | 56,250         | 13,475       |
| Membership/Periodicals | 4,834        | 27,484        | 22,650            | 17.6%           | 20,613         | 15,779       |
| Services and Supplies | 25,362,963    | 54,843,830    | 29,480,867        | 46.2%           | 41,132,873     | 15,769,910   |

Investment Expense Total $26,061,121 $55,850,688 $29,789,567 46.7% $41,888,016 $15,826,895

*Prorated Budget represents 75% (9 months/12 months) of Annual Budget

Personnel Costs - Investments

Personnel costs are $698,158 or 69.3% of the annual budget for this category. The variance of $56,985 between the prorated budget of $755,144 and year-to-date actuals is due to the Chief Investment Officer position that was budgeted in FY12, but not filled until the beginning of the third quarter and an Investment Analyst position that became vacant in the second quarter and remains unfilled as of the end of the third quarter. The savings for these unfilled positions was offset by severance paid to the former Managing Director of Investments.

Services and Supplies - Investments

Services and Supplies expenditures as of the third quarter are $25,362,963 or 46.2% of the annual budget for this category. The majority of this category consists of professional services, primarily investment management fees. The variance of $15,512,405 between the prorated budget of $40,742,082 and year-to-date actuals is due to the inclusion of indirect management fees in this budgeted line item, but which are deducted from fund-level returns and therefore not expensed directly to the Professional Services budget. This has resulted in an artificially inflated budget for investments and effective with the FY13 budget, the practice of including indirect management fees in the Professional Services budget will be discontinued and these types of expenditures will be monitored and reported separately to assure full transparency of these costs. In addition, it has been management’s practice is to disallow transfers out of the investment management fees line item to fund other budgets.
Conclusion:

Through the end of the third quarter, both the Administrative Budget and Investment Budget were below the 75% target for the nine months ended September 30, 2012 at 69.8% and 46.7%, respectively, of their annual budget. In addition, actual Administrative expenses are within the 21 basis point test and 18 basis point test as originally budgeted.

Prepared by:

CCER$ T.B. - Approved

Tracy Bowman
Director of Finance
Clifton Gunderson Implementation Plan

• Developing out of the Premium Pay reporting error, the OCERS Board approved a broad review of the OCERS Finance Department, leading to a contract with consulting firm Clifton Gunderson LLP in January 2011.

• Clifton Gunderson delivered their final report to the OCERS Board’s Governance Committee on July 18, 2011.

• The report contained 13 Observations, 7 Best Practices and 15 Recommendations for OCERS to consider and evaluate.

• OCERS Executive Management took action to implement the report’s observations and recommendations by assigning “teams” consisting of staff members to evaluate, investigate and resolve recommendations contained within each Observation, Best Practice and Recommendation.
Observations and Recommendations

- Observations # 9 & 10: Clifton Gunderson noted that OCERS had promulgated about 30 policies, and that current procedures were not comprehensive, standardized or up to date. Clifton Gunderson recommended that OCERS develop and implement policies that emphasize the importance of internal controls and acceptable practices and that it develop a comprehensive procedures manual using a standard format. It also recommended that executive management approval be required of all procedures before their inclusion or revision within the manual.

- Recommendations # 9 & 10: Clifton Gunderson suggested that the written policies and procedures be maintained in an electronic “manual” that would be easy for staff to access.
• Observations 9 & 10:

• OCERS’ staff identified the existing written material used by staff to complete their essential job duties, including then current policies and procedures.

• OCERS began removing and/or archiving outdated electronic policies and procedures.

• OCERS adopted a new format for its Board policies, Internal policies and procedures which is currently used when a new policy or procedure is adopted or an old one revised.

• OCERS modified its electronic site where it maintained electronic copies of its policies and procedures. Modifications included a “review only” feature, specific personnel authorized to make changes or revise the policies and procedures and a “search” feature.

• OCERS organized its electronic files for each department into folders for policies, procedures and guidance.
OCERS placed a link to its policies and procedures on its Intranet for staff's easy access.
The Clifton Gunderson Implementation Plan included the need to fill a number of key positions. OCERS filled these key positions in late 2011 and early 2012.

In September 2011, Brenda Shott was hired as the Assistant CEO of Finance and Internal Operations and David James was hired as the Director of Internal Audit.

In March 2012, Tracy Bowman was hired as the Director of Finance.

In April 2012, Megan Cortez was hired as the Disability Coordinator and Toishe Merida was hired as a Senior Staff Development Specialist.

In July 2012, Mark Adviento was hired as an Internal Auditor.

In January 2013, Jennifer Dalisay was hired as the Financial Reporting Manager.
• With these key positions filled, OCERS was set to address Clifton Gunderson’s observation that OCERS’ procedures were not comprehensive, standardized or up to date.

• OCERS continued to develop and implement policies that emphasize the importance of internal controls and acceptable practices.

• Clifton Gunderson noted that OCERS’ Board had promulgated about 30 policies.

• OCERS’ Board continued to generate new policies and to revise/update existing policies.

• OCERS’ Board revised/updated many of its Charters.
The updated Policies and Charters are electronically available to staff as individual documents and collectively as searchable files.
ORANGE COUNTY

EMPLOYEES RETIREMENT SYSTEM

ABSOLUTE RETURN PROGRAM INVESTMENT POLICY STATEMENT

Purpose and Objectives

1. The Absolute Return Program (the "Program") will invest in active strategies whose return and risk profiles are expected to differ meaningfully from traditional investment strategies. These strategies have historically generated returns by exploiting mis-pricings and inefficiencies in global capital markets while attempting to reduce exposures to primary market factors (e.g., equity markets and interest rates) through various hedging techniques. These strategies have historically delivered returns that are less correlated with equity and fixed income markets than traditional investment strategies. The goals of the Program are as follows:

(a) Enhance OCERS' (the "Fund") long-term risk-adjusted returns;
(b) Preserve capital and lower the Fund’s overall volatility; and
(c) Provide diversification benefits to the Fund.

Asset Allocation

2. The Program will be funded based on the Fund’s overall asset allocation plan. The current asset allocation target for the Program is 7%, with the allowance for the allocation to be within a 5% to 9% range. Taking into account the less liquid nature of hedge funds, there is a possibility that the Program allocation may be out of compliance with its limits. If this should occur, OCERS' staff ("staff") will inform the Investment Committee ("Committee") of specific plans for rebalancing the
The Finance Department continued its efforts in 2012 to improve/update its policies and procedures by:

- significantly revising its accounts payable procedures, specifically as it relates to the approval and coding of invoices, review and processing of American Express credit card activity, and overall procedures that strengthen internal controls in this area.

- making significant changes in its procedures for monthly, quarterly and annual financial and budgeting reporting.

- assigning the new Financial Reporting Manager the responsibility to generate formal documentation for these new procedures and to review and update the Finance Department’s current written policies and procedures as needed. This entails meeting with staff, observing their procedures for consistency with current written procedures and making revisions to the procedures for needed changes or areas identified as an opportunity for improvement.

Policies and Procedures for the Finance Department will be reviewed by the Director of Finance and Assistant CEO of Finance and Internal Operations for final approval.
The Member Services Department continued its efforts in 2012 to improve/update its policies and procedures by:

- Creating a spreadsheet to organize and prioritize the Department’s 120+ procedures. This is a live document and procedures are reprioritized regularly in order to meet business needs.

- Assigning the new Senior Staff Development Specialist and the Disability Coordinator the responsibility to review and update the policies and procedures for the Member Services Department and its subgroup, Disabilities.

Since April 2012, 12 procedures have been revised, reformatted, and approved. As each procedure is being reviewed, confidential information is redacted to maintain member confidentiality. On many procedures this includes creation of several new screen shots.

The Member Service Department’s goal for 2013 is to revise 4 - 5 procedures monthly until all procedures are current.
OCERS' 2012 Follow-up
Continued...

- Investment Staff in conjunction with NEPC conducted a thorough review of the Investment Policy Statement with the Investment Committee adopting the revised policy.

- Staff in conjunction with R.V. Kuhns conducted a complete review of the Strategic Plan for Real Estate with the Investment Committee adopting the revised policy.

- Staff in conjunction with Aksia presented the Absolute Return Program Investment Policy Statement for the Investment Committee’s adoption.

- Staff has completed its periodic review of departmental procedures including - invoice processing (investment manager and other vendors that submit an invoice for payment), account opening (for new investment managers), manager contract (for new investment managers), capital calls (funding for managers in real estate, private equity, energy, etc.) and fund transfers (any rebalancing between investment managers).

- To streamline the marketing of investment products and services, the CIO developed a document that provides guidance to marketers. This document is now posted on OCERS web site, www.ocers.org. This guidance has eliminated a great deal of wasted staff time, while providing direction to marketers and assuring a level playing field in the competitive selection process.

- Staff has developed a revised, more comprehensive Due Diligence Questionnaire (DDQ) for new investment managers. This DDQ addresses areas such as legal, audit, compliance in addition to investment team, philosophy, process and performance.
OCERS' 2012 Follow-up
Continued...

- In an effort to educate the staff on the policies and procedures and how to locate them when needed, OCERS has presented demonstrations during the staff quarterly luncheons.

- 1st Quarter luncheon held in March 2012 a demonstration was presented to staff on how to use the Intranet link to locate electronic policies and procedures.

- 2nd Quarter luncheon held in June 2012 a demonstration was presented to staff on the Administrative Hearing Rules.

- 3rd Quarter luncheon held in September 2012 a demonstration was presented to staff on use and location of Panic Buttons.
OCERS’ 2013 Goals

• The Finance Department’s new Financial Reporting Manager will create written procedures documenting the changes implemented in that department.

• The Member Services Department will continue to review and update that department’s procedures.

• The Human Resources Department will finalize its review of and revisions to the Personnel Policy and Procedure Manuel.

• The Disability procedures will be completed and accessible to the staff as individual documents and collectively as a searchable file.

• OCERS will continue to educate the staff on policies and procedures at the quarterly luncheons.
TO: Budget and Finance Committee, Orange County Fire Authority

FROM: Patricia Jakubiak, Treasurer

SUBJECT: Monthly Investment Report

Summary:
This agenda item is submitted to the Committee in compliance with the investment policy of the Orange County Fire Authority and with Government Code Section 53646.

Recommended Action:
Review the proposed agenda item and direct staff to place the item on the agenda for the Executive Committee meeting of May 23, 2013, with the Budget and Finance Committee’s recommendation that the Executive Committee receive and file the report.

Background:
Attached is the final monthly investment report for the month ended February 28, 2013. A preliminary investment report as of March 22, 2013, is also provided as the most complete report that was available at the time this agenda item was prepared.

Impact to Cities/County:
Not Applicable.

Fiscal Impact:
Not Applicable.

Staff Contact for Further Information:
Patricia Jakubiak, Treasurer
Triciajakubiak@ocfa.org
(714) 573-6301

Attachment:
Orange County Fire Authority
Monthly Investment Report

Final Report – February 2013

Preliminary Report – March 2013
Orange County Fire Authority

Final Investment Report

February 28, 2013
EXECUTIVE SUMMARY

Portfolio Activity & Earnings

During the month of February 2013, the size of the portfolio decreased from $133.2 million to $115.6 million. Major receipts for the month included property tax apportionments, pass-through taxes, and various contract and grant payments totaling $4.3 million. Significant disbursements for the month included primarily biweekly payrolls and a payment of $1.3 million for three fire engines. The portfolio’s balance is expected to stay about the same in the following month.

In February, the portfolio’s yield to maturity (365-day equivalent) stayed unchanged at 0.28%. The effective rate of return increased by 6 basis points to 0.31% for the month but remained unchanged at 0.31% for the fiscal year to date. The average maturity of the portfolio shortened by 160 days to 146 days to maturity.

Economic News

The U.S. economic activity appeared to pick up moderately and broadly in February 2013. Employment conditions showed improvement in February. U.S. employers created a total of 236,000 new jobs in February, a stronger number than expected. Unemployment conditions also improved, declining to 7.7% from 7.9% previously. Both the University of Michigan Consumer Sentiment and the Conference Board Consumer Confidence measures climbed in February. Retail sales and durable goods orders both increased more than expected. Manufacturing and non-manufacturing activity continued to expand moderately. Industrial production increased better than expected for the month. Despite the pickup in energy prices in February, inflation remained contained, and the housing sector seemed to continue improving. On March 20, 2013, the Federal Open Market Committee met for its second day of its scheduled meeting and voted to keep the federal funds rate unchanged at a target range of 0 – 0.25%. Although the Committee assessed a slightly upgraded outlook on the economy, it decided to “continue its purchases of Treasury and agency mortgage-backed securities, and employ its other policy tools as appropriate, until the outlook for the labor market has improved substantially in a context of price stability.”
BENCHMARK COMPARISON AS OF FEBRUARY 28, 2013

3 Month T-Bill: 0.10%
6 Month T-Bill: 0.12%
1 Year T-Bill: 0.16%
LAIF: 0.29%
OCFA Portfolio: 0.31%

PORTFOLIO SIZE, YIELD, & DURATION

<table>
<thead>
<tr>
<th></th>
<th>Current Month</th>
<th>Prior Month</th>
<th>Prior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Value-</td>
<td>$115,577,530</td>
<td>$133,223,691</td>
<td>$110,198,967</td>
</tr>
<tr>
<td>Yield to Maturity (365 day)</td>
<td>0.28%</td>
<td>0.28%</td>
<td>0.51%</td>
</tr>
<tr>
<td>Effective Rate of Return</td>
<td>0.31%</td>
<td>0.25%</td>
<td>0.39%</td>
</tr>
<tr>
<td>Days to Maturity</td>
<td>146</td>
<td>306</td>
<td>525</td>
</tr>
</tbody>
</table>
# Orange County Fire Authority

## Portfolio Management

### Portfolio Summary

February 28, 2013

(See Note 1 on page 9)

(See Note 2 on page 9)

<table>
<thead>
<tr>
<th>Investments</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>% of Portfolio</th>
<th>Term</th>
<th>Days to Maturity</th>
<th>YTM/IC (360)</th>
<th>YTM/IC (365)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Market Mutual Funds/Cash</td>
<td>4,318,061.72</td>
<td>4,318,061.72</td>
<td>4,318,061.72</td>
<td>3.05</td>
<td>1</td>
<td>1</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Commercial Paper Disc.-Amortizing</td>
<td>7,000,000.00</td>
<td>8,908,480.00</td>
<td>6,690,428.33</td>
<td>5.92</td>
<td>79</td>
<td>42</td>
<td>0.070</td>
<td>0.071</td>
</tr>
<tr>
<td>Federal Agency Coupon Securities</td>
<td>30,000,000.00</td>
<td>30,037,260.00</td>
<td>30,013,818.76</td>
<td>25.36</td>
<td>1,393</td>
<td>533</td>
<td>0.554</td>
<td>0.572</td>
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<tr>
<td>Federal Agency Disc.-Amortizing</td>
<td>27,000,000.00</td>
<td>26,997,750.00</td>
<td>26,998,005.00</td>
<td>22.62</td>
<td>104</td>
<td>33</td>
<td>0.030</td>
<td>0.051</td>
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<tr>
<td>Local Agency Investment Funds</td>
<td>50,000,000.00</td>
<td>50,056,361.56</td>
<td>50,000,000.00</td>
<td>42.26</td>
<td>1</td>
<td>1</td>
<td>0.282</td>
<td>0.286</td>
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<tr>
<td></td>
<td><strong>118,318,061.72</strong></td>
<td><strong>118,377,893.27</strong></td>
<td><strong>118,329,313.81</strong></td>
<td><strong>106.00%</strong></td>
<td>382</td>
<td>146</td>
<td><strong>0.278</strong></td>
<td><strong>0.282</strong></td>
</tr>
</tbody>
</table>

**Investments**

<table>
<thead>
<tr>
<th>Cash and Accrued Interest</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Passbook/Checking</td>
<td>-2,846,119.34</td>
<td>-2,846,119.34</td>
<td>-2,846,119.34</td>
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<td>0</td>
<td>0</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>(See Note 4 on page 9) (not included in yield calculations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accrued Interest at Purchase</td>
<td>10,250.00</td>
<td>10,250.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>-2,835,869.34</td>
<td>-2,835,869.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cash and Investments</td>
<td><strong>115,471,942.38</strong></td>
<td><strong>115,542,023.93</strong></td>
<td><strong>115,493,444.47</strong></td>
<td><strong>382</strong></td>
<td><strong>146</strong></td>
<td><strong>0.278</strong></td>
<td><strong>0.282</strong></td>
<td></td>
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</tbody>
</table>

## Total Earnings

<table>
<thead>
<tr>
<th></th>
<th>February 28 Month Ending</th>
<th>Fiscal Year To Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Year</td>
<td>28,339.36</td>
<td>246,195.32</td>
</tr>
<tr>
<td>Average Daily Balance</td>
<td>123,134,282.91</td>
<td>118,490,473.35</td>
</tr>
<tr>
<td>Effective Rate of Return</td>
<td><strong>0.31%</strong></td>
<td><strong>0.31%</strong></td>
</tr>
</tbody>
</table>

*I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2013. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months.*

Patricia Jakubisin, Treasurer

3/1/13

**Cash and Investments with GASB 31 Adjustment:**

- **Book Value of Cash & Investments before GASB 31 (Above):**
  - **$115,493,444.47**

- **GASB 31 Adjustment to Books** (See Note 3 on page 9):
  - **$54,085.98**

- **Total GASB 31 Adjustment to Books:**
  - **$115,577,530.45**
## ORANGE COUNTY FIRE AUTHORITY
### Portfolio Management
#### Portfolio Details - Investments
February 28, 2013

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment Type</th>
<th>Issuer</th>
<th>Average Purchase Date</th>
<th>Per Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>YTM/IC 365</th>
<th>Maturity Date</th>
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<td></td>
<td>Money Mkt Mutual Funds/Cash</td>
<td>High Mark 100% US Treasury MMF</td>
<td>(See Note 4 on page 2)</td>
<td>4,318,061.72</td>
<td>4,318,061.72</td>
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<td>0.001</td>
<td>1</td>
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<tr>
<td>SY8528</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Subtotal and Average</td>
<td></td>
<td></td>
<td>4,318,061.72</td>
<td>4,318,061.72</td>
<td>4,318,061.72</td>
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<td></td>
<td>Commercial Paper Disc. - Amortizing</td>
<td>GEN ELEC CAP Crp</td>
<td>01/22/2013</td>
<td>7,000,000.00</td>
<td>6,998,450.00</td>
<td>6,999,428.33</td>
<td>0.070</td>
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<tr>
<td></td>
<td>Subtotal and Average</td>
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<td></td>
<td>6,999,444.00</td>
<td>6,998,450.00</td>
<td>6,999,428.33</td>
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<td>42</td>
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<tr>
<td></td>
<td>Federal Agency Coupon Securities</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>31336CBTD0</td>
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<td>Federal Farm Credit Bank (Callable on 3-26-13)</td>
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<td>31336C6V86</td>
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<td>Fed Home Loan Bank (Callable anytime)</td>
<td>06/09/2012</td>
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<td>6,000,600.00</td>
<td>6,000,000.00</td>
<td>1.000</td>
<td>0.981</td>
</tr>
<tr>
<td>313386B22</td>
<td></td>
<td>Fed Home Loan Bank (Callable anytime)</td>
<td>08/22/2012</td>
<td>6,000,000.00</td>
<td>6,000,100.00</td>
<td>6,000,000.00</td>
<td>0.450</td>
<td>0.440</td>
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<tr>
<td>3133815N4</td>
<td></td>
<td>Fed Home Loan Bank (Callable on 5-6-13)</td>
<td>12/20/2012</td>
<td>9,000,000.00</td>
<td>9,010,000.00</td>
<td>9,013,814.76</td>
<td>1.000</td>
<td>0.504</td>
</tr>
<tr>
<td></td>
<td>Subtotal and Average</td>
<td></td>
<td></td>
<td>30,014,039.93</td>
<td>30,000,000.00</td>
<td>30,007,260.00</td>
<td>30,015,818.76</td>
<td>0.972</td>
</tr>
<tr>
<td></td>
<td>Federal Agency Disc. - Amortizing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>313297EX9</td>
<td></td>
<td>Freddie Mac</td>
<td>12/20/2012</td>
<td>9,000,000.00</td>
<td>8,997,930.00</td>
<td>8,998,110.00</td>
<td>0.080</td>
<td>0.091</td>
</tr>
<tr>
<td>313396CM6</td>
<td></td>
<td>Fed Home Loan Bank</td>
<td>12/20/2012</td>
<td>9,000,000.00</td>
<td>9,000,000.00</td>
<td>9,000,000.00</td>
<td>0.030</td>
<td>0.030</td>
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<tr>
<td>313565D09</td>
<td></td>
<td>Fed Home Loan Bank</td>
<td>12/20/2012</td>
<td>9,000,000.00</td>
<td>8,999,830.00</td>
<td>8,999,885.00</td>
<td>0.020</td>
<td>0.030</td>
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<tr>
<td></td>
<td>Subtotal and Average</td>
<td></td>
<td></td>
<td>30,997,484.31</td>
<td>27,000,000.00</td>
<td>26,997,760.00</td>
<td>26,995,006.00</td>
<td>0.961</td>
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<tr>
<td></td>
<td>Local Agency Investment Funds</td>
<td>Local Agency Invest Fund</td>
<td></td>
<td>50,000,000.00</td>
<td>50,000,000.00</td>
<td>50,000,000.00</td>
<td>0.286</td>
<td>0.286</td>
</tr>
<tr>
<td>SY9436</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subtotal and Average</td>
<td></td>
<td></td>
<td>60,000,000.00</td>
<td>60,000,000.00</td>
<td>60,000,000.00</td>
<td>0.286</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total and Average</td>
<td></td>
<td></td>
<td>123,134,562.91</td>
<td>118,316,061.72</td>
<td>118,377,593.27</td>
<td>118,329,313.81</td>
<td>0.282</td>
</tr>
</tbody>
</table>
### ORANGE COUNTY FIRE AUTHORITY

**Portfolio Management**

**Portfolio Details - Cash**

**February 28, 2013**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment #</th>
<th>Issuer</th>
<th>Average Balance</th>
<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>Stated Rate</th>
<th>YTM/C 365</th>
<th>Days to Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYS10104</td>
<td>10104</td>
<td>American Benefit Plan Admin</td>
<td>07/01/2012</td>
<td>15,000.00</td>
<td>15,000.00</td>
<td>15,000.00</td>
<td>0.000</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYS100003</td>
<td>100033</td>
<td>Revolving Fund</td>
<td>07/01/2012</td>
<td>20,000.00</td>
<td>20,000.00</td>
<td>20,000.00</td>
<td>0.000</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYS4</td>
<td>3</td>
<td>Union Bank of California</td>
<td>07/01/2012</td>
<td>-3,131,119.34</td>
<td>-3,131,119.34</td>
<td>-3,131,119.34</td>
<td>0.000</td>
<td>1</td>
<td></td>
<td>(See Note 4 on page 9)</td>
</tr>
<tr>
<td>SYS381</td>
<td>351</td>
<td>YORK</td>
<td>07/01/2012</td>
<td>250,000.00</td>
<td>250,000.00</td>
<td>250,000.00</td>
<td>0.000</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Average Balance**: 0.00

| Accrued Interest at Purchase | 10,000.00 | 10,000.00 | 0 |

**Subtotal**: -2,836,869.34

**Total Cash and Investments**: 123,134,262.91

| 115,471,942.38 | 115,542,023.53 | 115,493,444.47 | 0.282 | 146 |

### Note

- See Note 4 on page 9.
(This Page Intentionally Left Blank)
## ORANGE COUNTY FIRE AUTHORITY
### Aging Report
#### By Maturity Date
##### As of March 1, 2013

<table>
<thead>
<tr>
<th>Aging Interval</th>
<th>Date Range</th>
<th>Maturity</th>
<th>Payments</th>
<th>Par Value</th>
<th>Percent of Portfolio</th>
<th>Book Value</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 days</td>
<td>(03/01/2013 - 03/01/2013)</td>
<td>7</td>
<td>0</td>
<td>60,471,942.38</td>
<td>52.37%</td>
<td>60,471,942.38</td>
<td>60,528,303.93</td>
</tr>
<tr>
<td>1 - 30 days</td>
<td>(03/02/2013 - 03/31/2013)</td>
<td>1</td>
<td>0</td>
<td>9,000,000.00</td>
<td>7.79%</td>
<td>8,999,995.00</td>
<td>8,999,620.00</td>
</tr>
<tr>
<td>31 - 60 days</td>
<td>(04/01/2013 - 04/30/2013)</td>
<td>1</td>
<td>0</td>
<td>7,000,000.00</td>
<td>6.06%</td>
<td>6,999,428.33</td>
<td>6,998,460.00</td>
</tr>
<tr>
<td>61 - 91 days</td>
<td>(05/01/2013 - 05/31/2013)</td>
<td>1</td>
<td>0</td>
<td>9,000,000.00</td>
<td>7.79%</td>
<td>8,998,110.00</td>
<td>3,957,930.00</td>
</tr>
<tr>
<td>92 - 121 days</td>
<td>(06/01/2013 - 06/30/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>122 - 152 days</td>
<td>(07/01/2013 - 07/31/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>153 - 183 days</td>
<td>(08/01/2013 - 08/31/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>184 - 274 days</td>
<td>(09/01/2013 - 11/30/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>275 - 365 days</td>
<td>(12/01/2013 - 03/01/2014)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>366 - 1095 days</td>
<td>(03/02/2014 - 02/29/2016)</td>
<td>2</td>
<td>0</td>
<td>15,000,000.00</td>
<td>12.95%</td>
<td>15,000,000.00</td>
<td>14,996,580.00</td>
</tr>
<tr>
<td>1096 - 1825 days</td>
<td>(03/01/2016 - 02/28/2018)</td>
<td>2</td>
<td>0</td>
<td>15,000,000.00</td>
<td>12.95%</td>
<td>15,013,918.76</td>
<td>15,010,680.00</td>
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<tr>
<td>1826 days and after</td>
<td>(03/01/2018 - )</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Total for 14 Investments 0 Payments 100.00 115,483,194.47 115,531,773.83
NOTES TO PORTFOLIO MANAGEMENT REPORT

Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The Union Bank Trust Department provides market values of the remaining investments.

Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.

Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/losses as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2012 includes an increase of $60,965 to the LAIF investment and an increase of $23,121 to the remaining investments.

Note 4: The Highmark money market mutual fund functions as the Authority’s sweep account. Funds are transferred to and from the sweep account to/from OCFA’s checking account in order to maintain a target balance of $1,000,000 in checking. Since this transfer occurs at the beginning of each banking day, the checking account sometimes reflects a negative balance at the close of the banking day. The negative closing balance is not considered an overdraft since funds are available in the money market mutual fund. The purpose of the sweep arrangement is to provide sufficient liquidity to cover outstanding checks, yet allow that liquidity to be invested while payment of the outstanding checks is pending.
Local Agency Investment Fund (LAIF)

As of February 28, 2013, OCFA has $50,000,000 invested in LAIF. The fair value of OCFA’s LAIF investment is calculated using a participant fair value factor provided by LAIF on a quarterly basis. The fair value factor as of December 31, 2012 is 1.001127231. When applied to OCFA’s LAIF investment, the fair value is $50,056,362 or $56,362 above cost. Although the fair value of the LAIF investment is higher than cost, OCFA can withdraw the actual amount invested at any time.

LAIF is included in the State Treasurer’s Pooled Money Investment Account (PMIA) for investment purposes. The PMIA market valuation at February 28, 2013 is included on the following page.
## State of California
### Pooled Money Investment Account
### Market Valuation
#### 2/28/2013

<table>
<thead>
<tr>
<th>Description</th>
<th>Carrying Cost Plus Accrued Interest Purch</th>
<th>Fair Value</th>
<th>Accrued Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>United States Treasury:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bills</td>
<td>$21,364,321,394.72</td>
<td>$21,383,434,100.00</td>
<td>NA</td>
</tr>
<tr>
<td>Notes</td>
<td>$15,231,781,609.50</td>
<td>$15,272,690,500.00</td>
<td>$20,404,400.50</td>
</tr>
<tr>
<td><strong>Federal Agency:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBA</td>
<td>$531,624,405.41</td>
<td>$531,729,410.70</td>
<td>$539,362.59</td>
</tr>
<tr>
<td>MBS-REMIs</td>
<td>$230,012,064.39</td>
<td>$249,375,135.18</td>
<td>$1,099,604.33</td>
</tr>
<tr>
<td>Debentures</td>
<td>$1,000,310,087.04</td>
<td>$1,000,948,000.00</td>
<td>$1,491,778.00</td>
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<tr>
<td>Debentures FR</td>
<td>-</td>
<td>-</td>
<td>$-</td>
</tr>
<tr>
<td>Discount Notes</td>
<td>$5,393,961,583.34</td>
<td>$5,398,026,000.00</td>
<td>NA</td>
</tr>
<tr>
<td>GNMA</td>
<td>$-</td>
<td>2,203.34</td>
<td>2,222.19</td>
</tr>
<tr>
<td>IBRD Debenture</td>
<td>$399,961,857.92</td>
<td>$400,820,000.00</td>
<td>$416,668.00</td>
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<td>IBRD Deb FR</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CDs and YCDs FR</td>
<td>$400,000,000.00</td>
<td>$400,000,000.00</td>
<td>$96,927.77</td>
</tr>
<tr>
<td>Bank Notes</td>
<td>-</td>
<td>-</td>
<td>$-</td>
</tr>
<tr>
<td>CDs and YCDs</td>
<td>$5,750,002,164.56</td>
<td>$5,748,394,211.65</td>
<td>$1,313,527.78</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>$2,849,419,638.92</td>
<td>$2,849,524,763.88</td>
<td>NA</td>
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<tr>
<td><strong>Corporate:</strong></td>
<td></td>
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</tr>
<tr>
<td>Bonds FR</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bonds</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Repurchase Agreements</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reverse Repurchase</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Time Deposits</td>
<td>$4,242,640,000.00</td>
<td>$4,242,640,000.00</td>
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<tr>
<td>AB 55 &amp; GF Loans</td>
<td>$1,636,124,016.23</td>
<td>$1,636,124,016.23</td>
<td>NA</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$59,030,161,025.37</td>
<td>$59,113,708,359.83</td>
<td>$25,362,291.53</td>
</tr>
</tbody>
</table>

**Fair Value Including Accrued Interest**

$59,139,070,651.36

Repurchase Agreements, Time Deposits, AB 55 & General Fund loans, and Reverse Repurchase agreements are carried at portfolio book value (carrying cost).
Orange County Fire Authority

Preliminary Investment Report

March 22, 2013
### ORANGE COUNTY FIRE AUTHORITY

**Portfolio Management**  
**Portfolio Summary**  
**March 22, 2013**

(Sue Note 1 on page 19)  
(See Note 2 on page 19)

<table>
<thead>
<tr>
<th>Investments</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>% of Portfolio</th>
<th>Term</th>
<th>Days to Maturity</th>
<th>YTM/C 360 Equiv.</th>
<th>YTM/C 365 Equiv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Mkt/Mutual Funds/Cash</td>
<td>7,118,068.89</td>
<td>7,118,068.89</td>
<td>7,119,008.89</td>
<td>6.18%</td>
<td>1</td>
<td>1</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Commercial Paper Disc. -Amortizing</td>
<td>7,000,000.00</td>
<td>8,999,440.00</td>
<td>6,998,777.76</td>
<td>6.08%</td>
<td>1</td>
<td>1</td>
<td>0.070</td>
<td>0.071</td>
</tr>
<tr>
<td>Federal Agency Coupon Securities</td>
<td>42,000,000.00</td>
<td>42,066,600.00</td>
<td>42,011,268.57</td>
<td>36.46%</td>
<td>1</td>
<td>1</td>
<td>0.537</td>
<td>0.545</td>
</tr>
<tr>
<td>Federal Agency Disc. -Amortizing</td>
<td>5,000,000.00</td>
<td>8,988,020.00</td>
<td>8,998,605.00</td>
<td>7.82%</td>
<td>1</td>
<td>1</td>
<td>0.090</td>
<td>0.091</td>
</tr>
<tr>
<td>Local Agency Investment Funds</td>
<td>50,000,000.00</td>
<td>50,056,301.66</td>
<td>50,000,000.00</td>
<td>43.43%</td>
<td>1</td>
<td>1</td>
<td>0.282</td>
<td>0.286</td>
</tr>
<tr>
<td></td>
<td><strong>115,118,068.89</strong></td>
<td><strong>115,179,390.44</strong></td>
<td><strong>115,127,658.24</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>494</strong></td>
<td><strong>252</strong></td>
<td><strong>0.330</strong></td>
<td><strong>0.334</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investments</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Accrued Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passbook/Checking (not included in yield calculations)</td>
<td>805,504.57</td>
<td>805,604.57</td>
<td>805,604.57</td>
<td>1%</td>
<td>1</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Accrued Interest at Purchase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td><strong>11,503.33</strong></td>
<td><strong>11,503.33</strong></td>
<td><strong>11,503.33</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>494</strong></td>
<td><strong>252</strong></td>
<td><strong>0.330</strong></td>
<td><strong>0.334</strong></td>
</tr>
<tr>
<td>Total Cash and Investments</td>
<td><strong>115,923,673.46</strong></td>
<td><strong>115,955,496.34</strong></td>
<td><strong>115,944,766.14</strong></td>
<td><strong>100.00%</strong></td>
<td><strong>494</strong></td>
<td><strong>252</strong></td>
<td><strong>0.330</strong></td>
<td><strong>0.334</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Earnings</th>
<th>March 22 Month Ending</th>
<th>Fiscal Year To Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Year</td>
<td>23,492.52</td>
<td>259,687.64</td>
</tr>
<tr>
<td>Average Daily Balance</td>
<td>113,792,489.50</td>
<td>116,100,449.47</td>
</tr>
<tr>
<td>Effective Rate of Return</td>
<td>0.34%</td>
<td>0.31%</td>
</tr>
</tbody>
</table>

I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2013. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months.

Patricia Jakubik, Treasurer

---

Cash and Investments with GASB 31 Adjustment:

<table>
<thead>
<tr>
<th>Book Value of Cash &amp; Investments before GASB 31 (Above)</th>
<th>$ 115,944,766.14</th>
</tr>
</thead>
<tbody>
<tr>
<td>GASB 31 Adjustment to Books (See Note 3 on page 19)</td>
<td>$ 64,085.98</td>
</tr>
<tr>
<td>Total</td>
<td>$ 116,028,852.12</td>
</tr>
</tbody>
</table>
### ORANGE COUNTY FIRE AUTHORITY

**Portfolio Management**

**Portfolio Details - Investments**

**March 22, 2013**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment #</th>
<th>Issuer</th>
<th>Average Balance</th>
<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>Yield</th>
<th>Stated Rate</th>
<th>YTM</th>
<th>Days to Maturity</th>
<th>Maturity Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Mkt Mutual Funds/Cash</td>
<td></td>
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<td>Subtotal and Average</td>
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<td>8,992,727.78</td>
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<td>0.071</td>
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<td>31338CRT0</td>
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<td>34,376,491.52</td>
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<td>Federal Agency Disc. - Amortizing</td>
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<td></td>
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<td>9,000,000.00</td>
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<td>0.091</td>
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<td>05/24/2015</td>
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<tr>
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<td>0.091</td>
<td>62</td>
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<td>Local Agency Investment Funds</td>
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<td></td>
<td>Subtotal and Average</td>
<td>50,000,000.00</td>
<td>50,000,000.00</td>
<td>50,000,000.00</td>
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<tr>
<td>Total and Average</td>
<td></td>
<td></td>
<td>113,792,468.30</td>
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<td>115,118,068.89</td>
<td>115,179,380.44</td>
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</table>
## ORANGE COUNTY FIRE AUTHORITY
### Portfolio Management
#### Portfolio Details - Cash
##### March 22, 2013

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Investment &amp; Issuer</th>
<th>Average Balance</th>
<th>Purchase Date</th>
<th>Par Value</th>
<th>Market Value</th>
<th>Book Value</th>
<th>Stated Rate</th>
<th>YTM/O</th>
<th>Days to 365 Maturity</th>
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<tr>
<td>SYS10104</td>
<td>American Benefit Plan: Admin</td>
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<td>0.000</td>
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<td>07/01/2012</td>
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<td>07/01/2012</td>
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<table>
<thead>
<tr>
<th>Average Balance</th>
<th>0.00</th>
<th>Accrued Interest at Purchase</th>
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<th>11,503.33</th>
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<td></td>
<td></td>
<td>817,107.90</td>
<td>817,107.90</td>
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</table>

### Total Cash and Investments
- **113,792,458.50**
- **115,923,673.46**
- **115,996,498.34**
- **115,944,766.14**
- **0.354**
- **252**
### Aging Report
**By Maturity Date**
**As of March 23, 2013**

<table>
<thead>
<tr>
<th>Aging Interval</th>
<th>Maturity Dates</th>
<th>Maturities</th>
<th>Payments</th>
<th>Par Value</th>
<th>Percent of Portfolio</th>
<th>Current Book Value</th>
<th>Current Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 days</td>
<td>(03/23/2013 - 03/23/2013)</td>
<td>6</td>
<td>0</td>
<td>57,923,673.46</td>
<td>49.97%</td>
<td>57,923,673.46</td>
<td>57,980,035.01</td>
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<tr>
<td>1 - 30 days</td>
<td>(03/24/2013 - 04/22/2013)</td>
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<td>7,000,000.00</td>
<td>6.04%</td>
<td>6,998,727.78</td>
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<tr>
<td>31 - 60 days</td>
<td>(04/23/2013 - 05/22/2013)</td>
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<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
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<tr>
<td>61 - 91 days</td>
<td>(05/23/2013 - 06/22/2013)</td>
<td>1</td>
<td>0</td>
<td>9,000,000.00</td>
<td>7.76%</td>
<td>8,998,605.00</td>
<td>8,998,400.00</td>
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<tr>
<td>92 - 121 days</td>
<td>(06/23/2013 - 07/22/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>122 - 152 days</td>
<td>(07/23/2013 - 08/22/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>153 - 183 days</td>
<td>(08/23/2013 - 09/22/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>184 - 274 days</td>
<td>(09/23/2013 - 12/22/2013)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>275 - 365 days</td>
<td>(12/23/2013 - 03/23/2014)</td>
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<td>0.00</td>
<td>0.33%</td>
<td>0.00</td>
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<td>386 - 1095 days</td>
<td>(03/24/2014 - 03/22/2016)</td>
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<td>23.28%</td>
<td>26,987,617.91</td>
<td>26,995,419.00</td>
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<td>1096 - 1825 days</td>
<td>(03/23/2016 - 03/22/2018)</td>
<td>2</td>
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<td>15,000,000.00</td>
<td>12.94%</td>
<td>15,013,638.88</td>
<td>15,011,190.00</td>
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<td>1826 days and after</td>
<td>(03/23/2018 - )</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
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Total for 13 Investments 0 Payments

<table>
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<tr>
<th>Par Value</th>
<th>Percent of Portfolio</th>
<th>Current Book Value</th>
<th>Current Market Value</th>
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<td>115,933,262.81</td>
<td>100.00</td>
<td>115,933,262.81</td>
<td>115,984,996.01</td>
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</table>
Notes to Portfolio Management Report

Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The Union Bank Trust Department provides market values of the remaining investments.

Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.

Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/losses as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2012 includes an increase of $60,965 to the LAIF investment and an increase of $23,121 to the remaining investments.

Note 4: The Highmark money market mutual fund functions as the Authority’s sweep account. Funds are transferred to and from the sweep account to/from OCFA’s checking account in order to maintain a target balance of $1,000,000 in checking. Since this transfer occurs at the beginning of each banking day, the checking account sometimes reflects a negative balance at the close of the banking day. The negative closing balance is not considered an overdraft since funds are available in the money market mutual fund. The purpose of the sweep arrangement is to provide sufficient liquidity to cover outstanding checks, yet allow that liquidity to be invested while payment of the outstanding checks is pending.
TO: Budget and Finance Committee, Orange County Fire Authority

FROM: Lori Zeller, Assistant Chief
Business Services Department

SUBJECT: OCERS’ Proposed Actuarial Funding Policy

Summary:
This item is submitted to review the Orange County Employees’ Retirement System’s (OCERS’) proposed Actuarial Funding Policy, and to discuss potential impacts to OCFA’s budget and its corresponding cash contract charges.

Recommended Action:
Review OCERS’ proposed Actuarial Funding Policy and provide direction to staff regarding any recommendations that the Committee would like transmitted to the OCERS Board of Retirement to be considered at its April 15, 2013, meeting.

Background:
Presently, the OCERS Board’s funding directives have been adopted through Board actions at various times based on discussions specific to each policy component. OCERS’ actuarial firm, The Segal Company, recently had discussions with the Board pertaining to the development of a formal actuarial funding policy for OCERS. A very detailed review of the components of an actuarial funding policy was prepared by The Segal Company (Attachments 1 and 2); placing particular emphasis on funding policy elements the Board may need to consider modifying or adopting outright, in light of new requirements for pension reporting by the Government Accounting Standards Board (GASB).

The Actuarial Funding Policy has 3 components:

1. Actuarial Cost Method: allocates the cost/liability of retirement benefits to a given period of time. OCERS currently uses an “Entry Age Normal” method that calculates the Normal Cost (cost of the benefit) as a level percentage of pay over the working lifetime of the plan’s members. No changes are being recommended to the Actuarial Cost Method.

2. Asset Smoothing Method: defines the techniques that spread the recognition of investment gains or losses over a period of time to reduce the effects of short-term volatility. OCERS currently smoothes its investment gains and losses over a 5 year period. No changes are being recommended to the Asset Smoothing Method.

3. Amortization Policy: determines how and how long to fund the difference between liabilities and assets, also known as the plan’s Unfunded Actuarial Accrued Liability (UAAL). As a result of a review in 2005, prior balances in the UAAL amortization layers were combined and reamortized as a level percent of pay over 30 years, effective
December 31, 2004. As of December 31, 2012 there are 22 years left for amortizing this base layer of UAAL. In addition to the base layer of UAAL, OCERS’ current policy requires the financial impact from annual gains, losses and plan amendments to be amortized over 15 years and it requires the impact from assumption changes to be amortized over 30 years. These various layers of UAAL (pre-2004 and post-2004) currently average a remaining amortization period of roughly 19 years.

For layers of UAAL established prior to 12/31/2012, no changes are recommended unless the OCERS’ Board wants to accelerate the system’s progress to 100% funding. To date, the OCERS’ Board has not indicated a majority-interest to pursue accelerated funding of the existing UAAL.

For layers of UAAL established after 12/31/2012, OCERS is considering 3 alternatives. All alternatives for future changes in UAAL use relatively short amortization periods for plan amendments and Early Retirement Incentive Plans (ERIPs) and a long amortization period for surplus. The alternatives differ in treatment of gains, losses and assumption/method changes.

<table>
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<tr>
<th>Source</th>
<th>Current Policy</th>
<th>Alternative #1</th>
<th>Alternative #2</th>
<th>Alternative #3</th>
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<td>Actuarial Gains or Losses</td>
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<td>15</td>
<td>20</td>
<td>15</td>
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<tr>
<td>Assumptions or Method Changes</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>25</td>
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<tr>
<td>Plan Amendments</td>
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<td>ERIPs</td>
<td>15</td>
<td>Up to 5</td>
<td>Up to 5</td>
<td>Up to 5</td>
</tr>
<tr>
<td>Actuarial Surplus</td>
<td>15</td>
<td>30</td>
<td>30</td>
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The table below shows the different amortization periods: 30, 25, 20 and 15 years. The data illustrates how the longer the amortization period, the greater the amount of interest paid. For example, for each $1 million of Accrued Actuarial Liability (AAL), the interest paid using a 30 year amortization is $1,986,918 whereas using a 15 year amortization the liability is paid off sooner and the interest cost is less at $754,000.
## Discussion Calendar - Agenda Item No. 4
### Budget and Finance Committee Meeting
April 10, 2013     Page 3

### 7.25% Interest
<table>
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<tr>
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<th>30 years</th>
<th>30 years</th>
<th>25 years</th>
<th>20 years</th>
<th>15 years</th>
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</table>

### 3.75% Salary Incr.
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<th>Flat dollar</th>
<th>% of pay</th>
<th>% of pay</th>
<th>% of pay</th>
<th>% of pay</th>
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<tr>
<td></td>
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</table>

**Increase in AAL:**
- 1,000,000

**Amortization Factor:**
- 12.1037
- 18.0116
- 16.1061
- 13.8568
- 11.2017

(First Year)
- 0.082620
- 0.055520
- 0.062088
- 0.072167
- 0.089272

### Amortization Amount:

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<th>Year 15</th>
<th>Year 20</th>
<th>Year 30</th>
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<td>Interest</td>
<td>$55,520</td>
<td>$92,957</td>
<td>$111,743</td>
<td>$161,474</td>
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### Total Amount Paid:

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<th>Year 15</th>
<th>Year 20</th>
<th>Year 30</th>
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<td>Principal</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
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<td>Interest</td>
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<td>$1,986,918</td>
<td>$1,500,357</td>
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<td>Total</td>
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<td>$2,986,918</td>
<td>$2,500,357</td>
<td>$1,754,709</td>
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A representative from The Segal Company will be present at the meeting to review and discuss the proposed changes.

### Impact to Cities/County:
Any increase in OCFA’s retirement costs will impact annual increases to charges passed on to cash contract cities and JWA.

### Fiscal Impact:
Any changes to the amortization of future UAALs will be included in the 2013 actuarial valuation and would be implemented in July 2015. Longer amortization periods result in lower contributions and lower contribution volatility. Conversely, shorter amortization periods get to full funding sooner but at the price of higher current contributions and higher contribution volatility. It is not possible to quantify in advance the full future cost impact associated with adopting any of the alternative amortization periods for future changes in UAAL simply because the plan’s future changes in UAAL are not yet identified.

### Staff Contacts for Further Information:
Lori Zeller, Assistant Chief of Business Services
lorizeller@ocfa.org
(714) 573-6020

Tricia Jakubiak, Treasurer
triciajakubiak@ocfa.org
(714) 573-6301
Attachments:
1. The Segal Company’s Review and Discussion of OCERS’ Actuarial Funding Policy, February 13, 2013
2. The Segal Company’s Presentation on OCERS’ Actuarial Funding Policy, March 18, 2013
February 13, 2013

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701

Re: Orange County Employees Retirement System
Review and Discussion of Actuarial Funding Policy

Dear Board Members:

We have prepared this discussion of the significant provisions that would comprise an actuarial funding policy for OCERS. This review incorporates OCERS’ current funding policy elements and reviews those policies in light of emerging model actuarial practice in this area. In particular, we have provided a detailed discussion of the amortization policy, including some alternative policy elements that may be considered by the Board for future actuarial valuations.

Another consideration in undertaking this review relates to the Governmental Accounting Standards Board’s (GASB) recently adopted Statements 67 and 68 that substantially revise financial reporting requirements for governmental pension plans and their sponsors\(^1\). Included in those proposals is the requirement to describe and report the “actuarially determined (employer) contributions”, based on the funding policy adopted by the governing body. One of the byproducts of our funding policy review is that OCERS will have a readily accessible comprehensive statement of funding policy to use in meeting the new GASB requirements.

Please note that any recommended changes in funding policy are proposed for implementation in the December 31, 2013 actuarial valuation. The December 31, 2012 valuation will be performed based on OCERS current funding policy.

\(^1\) Statement 67 replaces Statement 25 for used in reporting by the pension plan and Statement 68 replaces Statement 27 for used in reporting by the plan sponsor. In the case of OCERS, these new Statements will be effective for plan year 2014 for the Retirement System and fiscal year 2014/2015 year for the employer.
GENERAL FUNDING POLICY GOALS

This report starts with a general discussion of pension plan funding policy followed by detailed discussion of specific policy components along with various policy recommendations. This discussion is based on the following high level funding policy goals:

1. Future contributions and current plan assets should be sufficient to provide for all benefits expected to be paid to current active, inactive and retired members. This means that contributions should include the cost of current service plus a series of payments to fully fund (or recognize) any unfunded (or overfunded) past service costs.

2. The funding policy should seek a reasonable allocation of the cost of benefits to the years of service and the funding of such cost by the employer. This includes the goal that annual contributions should, at a minimum, maintain a close relationship to the cost of each year of service, and that the current service cost should bear a stable relationship to compensation.

3. The funding policy should seek to manage and control future employer contribution volatility to the extent reasonably possible, consistent with other policy goals.

4. The funding policy should support the general public policy goals of accountability and transparency. While these terms can be difficult to define in general, here the meaning includes that the funding policy should be clear both as to intent and effect, and that it should allow an assessment of whether, how and when the plan sponsor will meet the funding requirements of the plan.

Policy objectives 2 and 3 reflect two aspects of the general policy objective of “interperiod equity” (IPE). The “demographic matching” goal of policy objective 2 promotes 
*intergenerational* IPE, which seeks to have each generation of taxpayers incur the cost of benefits for the employees who provide services to those taxpayers, rather than deferring those costs to future taxpayers. The “volatility management” goal of policy objective 3 promotes 
*period-to-period* IPE, which seeks to have the cost incurred by taxpayers in any period compare equitably to the cost for just before and after.

GENERAL DISCUSSION OF PENSION PLAN FUNDING POLICIES

A pension plan funding policy is designed to determine how much should be contributed each year in total by the employer and the active members to provide for the secure funding of benefits in a systematic fashion. The funding policy starts with an actuarial cost method that allocates a portion of the total present value of the members’ benefits to each year of service. In theory, contributing that “Normal Cost” for each year of service will be sufficient to fund all plan benefits, assuming that all actuarial assumptions are met including the assumed rate of investment return. In that ideal situation, plan assets will always be exactly equal to the value today of all the past Normal Costs less benefit payments (the Actuarial Accrued Liability or AAL), and the current contribution will be only the current Normal Cost.
In practice, for a variety of reasons, the assets will be greater than or less than the AAL, leaving the plan overfunded (i.e., with a surplus) or underfunded (i.e., with an Unfunded Actuarial Accrued Liability or UAAL). The funding policy adjusts contributions to reflect any surplus or UAAL in a way that reduces short term, year-by-year volatility, but still assures that future contributions, together with current assets, will be enough to provide all future benefits.

A comprehensive funding policy is generally made up of three major components:

I. An actuarial cost method, which allocates the total present value of future benefits to each year (Normal Cost) including all past years (AAL).

II. An asset smoothing method, which reduces the effect of short-term market volatility while still tracking the overall movement of the market value of plan assets.

III. An amortization policy, which determines the length of time and the structure of the payments for the contributions required to systematically pay off the plan’s UAAL.

Each of these policy components is currently in effect for OCERS. We are not recommending any change to the actuarial cost method, or to the asset smoothing method (that was reviewed by the Board in 2009). Accordingly, the next sections briefly review those policy components, followed by a detailed discussion on the amortizations policy.

**ACTUARIAL COST METHOD**

The ultimate costs (ignoring expenses) for the plan are determined by the actual benefits paid from the plan, offset by actual investment income. Each year, an actuarial valuation is completed to develop the next year’s annual contribution for the pension plan. The valuation uses a funding method to allocate the ultimate expected costs for active members to each year of service, and thus among past service, current service, and future service. As described above, the cost attributed to the current year of service is the plan’s Normal Cost. The accumulated costs attributed to past service is the plan’s AAL. The plan’s annual contribution is the Normal Cost, plus an amount to fund or “amortize” the plan’s UAAL.

Currently, the Plan is funded using the Entry Age Normal (EAN) method. This method is considered a reasonable funding method under the Actuarial Standards of Practice. Further, this method is most consistent with the policy goal of having the Normal Cost bear a consistent relationship to payroll. In fact, for that reason, the recently adopted GASB Statements require all plans to report their liabilities for accounting purposes using the EAN method.

This method produces individual Normal Costs that are determined as a level percentage of covered payroll over each member’s career. The AAL is calculation on an individual basis and is based on each individual’s past Normal Costs, allocated as a level percent of compensation. We would recommend that for funding purposes, the Board continue the current EAN actuarial cost method.

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2 Note that prior to the December 31, 2004 valuation, the Plan was using the Projected Unit Credit method.
ASSET SMOOTHING METHOD

In 2009, the Board reviewed the period used in the asset smoothing method. In that review, we compared contribution rates and other pertinent actuarial measures using four different smoothing periods: (i) 5-year, (ii) 7-year, (iii) 10-year and (iv) 12-year. As a result of that review, the Board decided to maintain its 5-year asset smoothing period for all investment gains/losses and to continue the smoothing method without a Market Value of Assets (MVA) Corridor so that the Actuarial Value of Assets (AVA) would not be constrained to be within a certain range of the MVA.

This decision was made after detailed discussions of the impact of using different smoothing periods to develop the AVA, as detailed in our formal report from March 2009 as well as subsequent presentations. That decision was based in part on the fact that the 5-year asset smoothing period currently used by the Board is still the industry standard and is by far the most common period used by public plans. That 5-year period, in our opinion, also meets the Actuarial Standard of Practice standard of being “sufficiently short,” which allows the Board substantial flexibility in setting the MVA Corridor, including having no MVA Corridor. For those reasons, we believe it is reasonable for the Board to continue the asset smoothing policy reaffirmed in 2009.

One observation we have made is that a period of significant market change may be followed by a period of market correction. Depending on the magnitude of the market change and subsequent market correction, it may be advisable to perform an ad-hoc adjustment to change the pattern of the recognition of the deferred investment gains or losses. We would recommend to the Board that the Statement of Funding Policy reserve to the Board the right to consider such future adjustments upon receiving the necessary analysis from its actuary. The funding policy could also describe in general terms the conditions that would typically lead to such an ad-hoc adjustment.

AMORTIZATION POLICY

General Discussions

With the exception that the UAAL has to be amortized over a period not to exceed 30 years under Section 31453.5 of the 1937 CERL, governmental or public defined benefit plans like OCERS are generally not subject to specific statutory funding or funding policy requirements such as those established for single employer (corporate) and multiemployer (Taft-Hartley) defined benefit pension plans under the Employee Retirement Income Security Act (ERISA) and the Internal Revenue Code (IRC). The prior accounting standards promulgated by GASB under GASB Statements 25 and 27 define an Annual Required Contribution (ARC) that, despite its name, is actually the amount of expense that the employer must recognize each year. Also,

3 Note that Section 7522.52 was recently enacted as part of the California Public Employees’ Pension Reform Act (CalPEPRA) of 2013. Under that Section of the Act, a public pension plan has to have at least a 120% funded ratio, and meet other conditions, before any negative UAAL (or surplus) may be amortized and used to reduce the Normal Cost of the plan.
the prior GASB accounting standards provide considerable policy latitude when determining the ARC\textsuperscript{4}.

Even though this leaves governmental or public plans relatively free to set funding policy, it is worth noting that long term funding policy structures – corporate, multiemployer and GASB – generally take the same form, at least for underfunded plans (plans with a UAAL):

1. Contribute the Normal Cost for the year, and
2. Contribute an additional amount that will fully fund (“amortize”) any UAAL over a period of years.

Implicit in this form of policy is a funding target of 100 percent, since at the end of the amortization period the plan will be fully funded. This is in contrast to “corridor” or “collar” methods that allow contributions equal to only the Normal Cost as long as the plan is within, for example, 20 percent of being fully funded. The funding policy presented in this discussion is based on the UAAL amortization method because it targets 100 percent funding of the AAL, and accordingly is well established for all types of pension plans.

For OCERS, the UAAL amortization policy was last reviewed in 2005 for the December 31, 2004 valuation. As a result of that review, the prior balances in the UAAL amortization layers were combined and reamortized as a level percentage of payroll over 30 years effective December 31, 2004. Future actuarial gains or losses and plan amendments are amortized over 15 years and assumption changes are amortized over 30 years.

A general review of the UAAL amortization policy would include both the amortization periods and the structure of the amortization payments. A detailed discussion of the selection of the UAAL amortization period and structure is presented in the following sections. For now, we note only that, for plans with UAAL, longer amortization periods result in lower current contributions and a longer period before the contribution reverts to the Normal Cost. Longer periods also produce lower contribution volatility. In contrast, shorter amortization periods get to full funding more rapidly but at the price of higher current contributions and higher contribution volatility.

That leaves the question of funding policy for overfunded plans, those that have a surplus instead of a UAAL. The policy structure used by most public plans when determining contribution amounts when there is a surplus is that the surplus is amortized the same way as a UAAL, except that instead of producing an amortization charge, there is an amortization credit.

\textsuperscript{4} As previously discussed, GASB has recently adopted Statements 67 and 68 that replace Statements 25 and 27 for accounting and financial reporting standards for governmental pension plans and their sponsoring employers. The new Statements eliminate the linkage between actuarial funding and financial reporting found in the prior Statements. In this discussion unless noted otherwise, all references to GASB standards relate to the prior standards, which were viewed as an authoritative guide to the range and limits of funding policy practices used by most public plans before GASB adopted the new reporting standards.
This means that the contribution amount is the Normal Cost *minus* an amount that will in effect spend down the surplus over the amortization period.

Unlike for UAAL, longer amortization periods result in a lower amortization credit, and so produce a higher current contribution (but still less than the Normal Cost). Shorter amortization periods for surplus take credit for the surplus more quickly. This produces a lower contribution, but it also means a shorter period before the contribution reverts up to the full Normal Cost.

While this policy structure still generally reflects a funding target of 100 percent, amortizing surplus results in an annual contribution that is less than the Normal Cost. This can lead to a full or partial “contribution holiday” where contributions are less than the regular, ongoing cost of current service, especially if the surplus amortization period is relatively short. Recent history has led to a reevaluation of this condition for public pension plans.

One of the most significant changes in industry thinking and practice to come from the market experience around the turn of the 21st century is the way surplus is recognized in public pension funding policy. In many cases, short amortization periods for surplus in the late 1990s led to reductions in contributions below the level of Normal Cost, sometimes even to complete “contribution holidays” of zero contributions. As the market reversals in the early 2000s led to resumption of contributions in most pension plans, the general lesson was that a contribution level less than the Normal Cost (that is, funding the Normal Cost out of surplus) should always be viewed with caution, as ultimately the Normal Cost will reemerge as the basic cost of the plan.

One possible response would be to require that contributions never fall below the Normal Cost level. However, that would be inconsistent both with the prior GASB accounting standards and with the actuarial principle that funding policy should target 100 percent funding, and not sustain a level that is either higher or lower than 100 percent. That leads to the general conclusion that surplus should be amortized, but over very long periods. Note that this is consistent with the 30-year surplus amortization policy adopted by CalPERS in April 2005. That 30-year surplus amortization period is also to be found as Recommendation 7 in the Report of the (California) Public Employee Post-Employment Benefits Commission.

**Selection of Amortization Structure and Methods**

Setting an amortization policy involves a few policy decisions and considerations in addition to selecting the amortization periods. Here is a brief description of those issues, followed by a detailed discussion of amortization periods. That discussion includes the current OCERS UAAL amortization policy parameters and some possible alternatives that may be considered by the Board.

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5 Before CalPEPRA, a public pension plan could start to amortize surplus when the funded ratio is greater than 100%. After CalPEPRA, before the surplus may be amortized the funded ratio has to be in excess of 120% and other conditions must be met as well. In practice, we understand that CalPEPRA effectively precludes the amortization of surplus.
Single amortization layer for the entire UAAL or surplus, or separate amortization layers for each source of UAAL or surplus

Closed (fixed) period amortization or open (rolling) period amortization

Level dollar or level percent of pay amortization payments

For separate amortization layers, when is it appropriate to “restart” or otherwise combine the amortization layers

The current OCERS policy uses separate, fixed period amortization layers for each source of UAAL, and level percent of pay amortization payments.

**Single vs Multiple layers, Fixed vs Rolling amortization**

Historically many public pension systems amortized their UAAL as a single amount. Because new amounts of UAAL arise each year (due to gains and losses, assumption changes and plan amendments), this requires a policy choice as to how to determine the remaining amortization period each year.

A “closed” or fixed period works like a home mortgage and so gets shorter each year. However, unlike a home mortgage, for a pension plan this eventually leads to an unstable situation where each year’s gain or loss (or other UAAL changes due to assumption or benefit changes) is amortized over a shorter and shorter period. Eventually the policy needs to be amended to restart the amortization period at something like its original period.

To avoid this need to periodically revisit the policy, some systems use an “open” or rolling amortization period. This is analogous to refinancing your home mortgage each year, but including any new UAALs arising each year. While this is a stable policy, it also means that there is no date by which the UAAL is fully amortized, which raises questions of accountability and intergenerational equity.

To address both the stability and the accountability issues, many public systems, including OCERS, have adopted the “layered” approach used by all corporate and multiemployer pension plans. Here each new amount of UAAL is amortized over a separate, fixed period. This approach also has the advantage of identifying the source of each dollar of current UAAL, as well as when each portion of UAAL will be fully amortized.

As described above, the layered approach provides reassurance that any past UAAL will be paid off at a specific time. It also shows when and how each new separate portion of underfunding originated and how much of each such original amount of UAAL remains to be amortized. It also allows for flexibility to allow underfunding from different sources to be amortized over different periods of time. We note that this is the structure required by the ERISA/IRC rules for corporate and multiemployer plans, and is increasingly common for public pension plans, especially in California.
We recommend no change to OCERS’ current use of separate, fixed period amortization layers.

Level Dollar vs. Level Percent of Pay Amortization

The amortization payments may be patterned in one of two ways, as a level dollar amount or as a level percentage of pay. The ERISA/IRC rules for corporate and multiemployer plans require level dollar amortization, similar to a typical home mortgage. However, by far most public plans use level percent of pay amortization where the payments increase each year in proportion to the assumed payroll growth for the entire active workforce. That means they start lower than the corresponding level dollar payments, but then increase until they are higher.

The level dollar method is more conservative in that it funds the UAAL faster in the early years. For the same reason, it also incurs less interest cost over the amortization period. The level dollar method was used by OCERS prior to the December 31, 2004 valuation. The current OCERS policy uses level percent of pay amortization. The justification for using level percent of pay payments is that it is consistent with the Normal Cost (which for pay related plans like OCERS is almost always determined as a percentage of pay) and that it provides a total cost that remains level as a percentage of pay. In contrast, level dollar amortization of UAAL will produce a total cost that decreases as a percentage of pay over the amortization period. Note that both these results depend on actual payroll growth meeting the assumed payroll growth assumptions.

We recommend no change to OCERS’ current use of level percent of pay amortization.

Negative Amortization

Another important aspect of level percent of pay amortization is that, unlike a level dollar amortization, under level percent of pay amortization the UAAL may increase during the early years of the amortization period even though contributions are being made to amortize the UAAL. This happens because with level percent of pay amortization, the lower early payments can actually be less than interest on the outstanding balance, so that the outstanding balance increases instead of decreases. For typical public plan assumptions (including OCERS), this happens whenever the amortization period is longer than about 20 years. This means that the outstanding balance of the UAAL does not decrease until there are 20 or fewer years left in the amortization period. It also means that the outstanding balance will not fall below the original amount until some years after that time.

A comparison of the contributions under level percent of payroll amortization using different amortization periods is provided in Attachment 1. Attachment 2 shows the resulting UAAL balances for a sample starting UAAL layer of $1 million under various level percent of pay amortization periods. While there is nothing inherently wrong with negative amortization, the

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6 This result of 20 years has been calculated using the assumptions approved for the actuarial valuation as of December 31, 2012. If we use the assumptions that were approved for the December 31, 2011 valuation, negative amortization would not occur unless the amortization period is longer than about 19 years.
Board should be aware of its consequences, especially for amortization periods that are substantially longer than 20 years.

_When is it Appropriate to “Restart” the Amortization Layers?_

As discussed above, the current OCERS policy uses separate, fixed period amortization layers for each source of UAAL. Under this approach, over time there will be a series of these layers, one for each year’s gain or loss as well as for any other changes in UAAL. This is perfectly manageable and in fact provides a history of sources of the System’s UAAL in any year. Also, note that in practice, the number of layers will be limited by the length of the amortization period as eventually layers are fully amortized, and so are no longer part of the series of layers.

Under the current amortization policy, there may be conditions where the Board would want to consider action whereby all the amortization layers are wiped out (“considered fully amortized”) and the series is restarted. For example, this would very likely be appropriate if the System goes from surplus to UAAL, or from UAAL to surplus. This would be done to avoid possible anomalies as well as to avoid results that might fail to comply with the prior GASB accounting standards.

In particular, under the layered approach, it is possible for a plan with a UAAL to nevertheless have a net amortization credit in the current year. While that result is actuarially consistent, it is also very counterintuitive, since a UAAL would seem to require a net amortization charge. In fact, for that very reason this result would fail to meet the prior GASB requirement that a plan with a UAAL must have a net amortization charge. This drawback can be readily avoided by treating each “new” UAAL or surplus condition as the beginning of a new series of amortization layers.

The above is only one example of when the amortization layers might be restarted or combined. Another is when there are alternating years of gains and losses of relatively equal size. To address these situations as part of its funding policy, the Board should reserve the right to restart or otherwise combine the amortization layers whenever appropriate circumstances arise. In particular, we recommend that all amortization layers be restarted whenever the System switches from an underfunded position to surplus or vice versa.

_Amortization Periods_

The UAAL amortization periods for public plans typically range from 15 to 30 years, with 30 years being the maximum allowable period under the prior GASB accounting standards. As discussed above under “General Funding Policy Goals”, the amortization period should not be set so short that it creates too much volatility in the contributions yet it should not be so long that it constitutes a shift of cost to future funding sources. Balancing these two conflicting policy goals is a key consideration when setting amortization periods. Another consideration is how much and in what circumstances negative amortization is an acceptable consequence of using longer amortization periods.
Plans that amortize the UAAL in layers by source sometimes use different amortization periods for different sources of UAAL. Generally such plans (including OCERS) amortize actuarial gains or losses over shorter periods (15 to 20 years or less) and UAAL changes due to assumption or method changes and plan amendments over longer periods (sometimes up to the prior 30-year GASB limit). We will discuss that further in the following sections.

**Selection of Amortization Periods for Actuarial Gains or Losses**

When selecting the amortization period for gains or losses, a review of both historical practices and recent experience is instructive. For amortizing actuarial gains or losses, a 15-year amortization period has been used in the ERISA/IRC rules for multiemployer plans and also for corporate plans prior to the 1987 overhaul of the corporate pension funding rules. Public plans also generally used 15 years or longer, often for the entire UAAL including any gains or losses. By the late 1990s, as plans came close to being fully funded or even over funded there was a trend toward amortization periods as short as 10 or even 5 years. For example, in 1987, the ERISA/IRC rules for corporate plans were changed to reduce the amortization period for gains and losses from the original 15 years to 5 years. This led to rapid reductions in contributions when the large investment gains from that period were recognized over such short periods. The investment losses in the early 2000s led to similar cost increases except for public plans that lengthened their amortization periods substantially once those losses started to emerge.

Based on this experience, we recommend a balance between: (a) reducing contribution volatility by using a longer amortization period and (b) maintaining a closer relationship between contributions and routine changes in the UAAL by using a shorter amortization period. Using a shorter amortization period also reduces or avoids negative amortization as previously discussed. Based on these three considerations we generally recommend gains and losses amortization periods in the range of 15 to 20 years.

**Selection of Amortization Periods for Assumption or Method Changes**

Assumption or method changes, such as a modification in the mortality assumption to anticipate an improvement in life expectancy for current active members when they retire, often include a long-term remeasurement of plan costs and liabilities. For assumption changes, in effect, such changes take gains or losses that are expected to occur in the future and build them into the cost and liability measures today. For method changes, such changes fundamentally redetermine how costs are allocated to years of service for active members. In either case the long-term nature of these changes could justify using a longer amortization period than that used for actuarial gains or losses, in the range of 15 to 25 years for assumption changes or even 30 years for method changes.7

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7 Note that the longer amortization for method changes would be most appropriate for substantial changes, such as going from Projected Unit Credit method to the Entry Age Normal (EAN) method. This is not a consideration for OCERS as the System is already using the EAN method.
Selection of Amortization Periods for Plan Amendments

While some plans have used 30 years to amortize the UAAL from plan amendments, recent actuarial practice has evolved to use a much shorter period. As discussed above, amortization generally involves a balance between matching member demographics and managing contribution volatility. However, for plan amendments, volatility control is not generally a consideration. That leads to the following arguments and considerations for using a short amortization period:

- Matching the amortization period to the average remaining service lifetime of the active members receiving the benefit improvement
- Matching the amortization period to the average life expectancy of the retired members receiving the benefit improvement
- Avoiding “negative amortization” for UAAL changes that are within the control of or result from actions taken by the plan sponsor
- Considering any special circumstances that may apply to a specific benefit improvement

The first two considerations would usually lead to at most a 15 to 20-year amortization period while, for OCERS, the third consideration would limit the period to around 20 years or less. Accordingly, we would recommend that the Board consider a maximum amortization period for plan amendments of 15 years. Note that for OCERS the current amortization period for plan amendments is 15 years.

As an example of the fourth consideration, current practice clearly favors shorter amortization periods for Golden Handshakes or early retirement incentive type programs (ERIP) due to the relatively short period of their expected financial impact. For example, a GFOA 2004 Recommended Practice states that “the incremental costs of an ERIP should be amortized over a short-term payback period, such as three to five years. This payback period should match the period in which the savings are realized”. Recent comments to GASB by public plan actuaries are consistent with this view.

A demographically based amortization period for an ERIP could range from 0 years (for an immediate recognition of the entire UAAL due to the ERIP) to a period of 10 years. These different periods corresponded to various alternative periods of cost savings or benefit payments under such a program.

We recommend that the actuarial funding policy use a relatively short default amortization period for Golden Handshakes or ERIPs of up to five years along with a statement that a recommendation by the actuary to the Board on the amortization period be included as part of the required actuarial cost study for any such ERIP. As already stated, we also recommend that an amortization period of at most 15 years be used for any other plan amendments.
Amortization of Surplus

As discussed above, one of the most significant changes in industry thinking and practice to come from the market experience around the turn of the 21st century is the way surplus is recognized in public pension funding policy. Generally, current practice is reflected in the goal of keeping contributions close to the cost of current service.

One possible response would be to require that contributions never fall below the Normal Cost level. However, that would be inconsistent both with the current GASB accounting standards and with the actuarial principle that funding policy should target 100 percent funding, and not sustain a level that is either higher or lower than 100 percent. That leads to the general conclusion that surplus should be amortized over the longest currently permissible period of 30 years. For example, CalPERS uses a 30-year amortization period when there is a surplus. This same 30-year period can also be found as Recommendation 7 in the Report of the (California) Public Employees Post-Employment Benefits Commission. We recommend that the actuarial funding policy include a 30-year period for surplus amortization.

Selection of Amortization Periods for Past vs. Future UAAL

As the Board deliberates modifying the amortization periods in its current funding policy, we recommend that the Board separate the discussions between (1) the amortization of the current (past) UAAL and (2) amortization of future changes in the UAAL.

As of December 31, 2011, the total UAAL for the pension plan (measured using the 7.75% investment return assumption used in that valuation) was $4,458.6 million. While the UAAL was amortized over different layers as discussed above, the combined net UAAL payment from the different layers was roughly equivalent to the payment amount that would result from using a single amortization period of about 19 to 20 years.

We would not recommend any modifications that would lengthen the amortization periods for the current UAAL since the current average period is already at the long end of the 15-20 year range that we would recommend for gains and losses. Also, any change to a longer amortization period would produce additional negative amortization in the next few years. However, if the Board wishes to accelerate the plan’s progress to 100% funding, the most direct way to do so would be to reamortize the current UAAL over a period shorter than the current equivalent single amortization period of about 19 to 20 years.

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8 Since CalPEPRA has imposed a new requirement that surplus be amortized only when the funded ratio is at least 120%, along with other conditions, we would propose that a reference be made in the Board’s funding policy to that requirement.
**Alternative Amortization Periods for Future Changes in UAAL**

Based on the above discussions, here are some alternative sets of amortization periods that the Board may want to consider with respect to any future changes in UAAL.

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<th>Alternative #2</th>
<th>Alternative #3</th>
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<tbody>
<tr>
<td>Actuarial Gains or Losses</td>
<td>15</td>
<td>15</td>
<td>20</td>
<td>15</td>
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<td>Assumption or Method Changes</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>25</td>
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<tr>
<td>Plan Amendments</td>
<td>15</td>
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<td>15</td>
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<td>ERIPs</td>
<td>15</td>
<td>5</td>
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Consistent with the above discussions, all the alternatives use relatively short amortization periods for plan amendments and ERIPs and a long period for surplus. The alternatives differ only in their treatment of gains losses and of assumption and method changes.

Please note that with all of the above recommendations, we recommend that the Board continue to use closed (fixed) amortization periods and level percent of pay amortization. The exception is for actuarial surplus where a rolling amortization period would be used.

**Recent Developments Related to Actuarial Funding Policy From the CAAP**

While, as discussed earlier, systems can no longer look to GASB for guidance on funding policy, there is another source of guidance that is in the process of development. The California Actuarial Advisory Panel (CAAP) was created by the passage of Senate Bill 1123 of the 2008/2009 legislative session and consists of eight public sector actuaries appointed by the various appointing powers pursuant to Section 7507.2 of the Government Code. We note that your principal actuary, Paul Angelo, serves on the CAAP as an appointee of the University of California.

The CAAP has been studying actuarial funding policies for some time and recently issued a comment draft of a statement of model funding policies. While the recommendations and opinions of the Panel are nonbinding and advisory only, such viewpoints are still anticipated to have an influence on the retirement systems that operate in California as they select and finalize their individual funding policy approaches.

Because the CAAP’s work in this area is based on Segal’s and other actuaries’ experience with California plans like OCERS, it is no coincidence that the elements of the funding policy developed by Segal for OCERS are in compliance with the CAAP model policies. In particular,
those model policies include preferred ranges for amortization periods that are similar to the ones presented in the above section 9.

**Cost Impact – Future Changes in UAAL**

It is not possible to quantify in advance the full future cost impact associated with adopting any of the alternative amortization periods for future changes in UAAL simply because the plan’s future changes in UAAL are not yet identified. However, for a general illustration of cost impact, the charts in Attachments #1 and #2 compare the annual UAAL payments and the outstanding balance of the UAAL for a sample change in UAAL of $1 million under different amortization periods. Please note that these Attachments have been prepared using the assumptions approved for the actuarial valuation as of December 31, 2012.

While any changes to the amortization periods would not be reflected until the December 31, 2013 valuation, we can illustrate the impact of the alternative amortization periods for actuarial gains and losses and for assumption changes by considering what the cost impact of any amortization period changes would have been if they were effective as of December 31, 2011. Under that illustrative scenario, we can estimate the contribution rate impact as of December 31, 2011 on future changes in UAAL that we have previously identified.

For gains and losses, note that in the December 31, 2011 valuation there were deferred investment losses of about $598.9 million that have not been recognized. While these losses will be mitigated somewhat by the 11.80% market return during 2012 that translate into an investment gain, we have illustrated the impact on the employer UAAL contribution rate of the alternative amortization periods only for the deferred investment losses as of December 31, 2011.

<table>
<thead>
<tr>
<th>Actuarial Gains or Losses**</th>
<th>Impact on UAAL Contribution Rate (current policy)</th>
<th>Dollar Amount</th>
<th>15 Years</th>
<th>20 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Deferred investment losses</td>
<td></td>
<td>$598.9 M</td>
<td>3.20%</td>
<td>2.58%</td>
</tr>
</tbody>
</table>

* Calculated under the new assumptions for the December 31, 2012 valuation and does not include adjustment for 18-month delay in contribution rate implementation.

** In practice, this contribution rate impact would be recognized on a smoothed basis over 4 years.

9 The “model” funding periods are expressed as a range in the draft model actuarial funding policy. Those periods are as follows:

- Actuarial Gains or Losses: 15 to 20 years
- Assumption or Method Changes: 15 to 25 years
- Plan Amendments: Up to 15 years
- ERIPs: 5 years or less
- Actuarial Surplus: 30 years
For assumption changes, note that in our letter dated September 7, 2012, we provided the change in the UAAL of about $901.5 million due to lowering the investment return assumption to 7.25%, as if that assumption were implemented in the December 31, 2011 valuation. Below we have illustrated the impact of that assumption change on the employer UAAL contribution rate under alternative amortization periods, also as of December 31, 2011.

<table>
<thead>
<tr>
<th>Assumption or Method Changes</th>
<th>Dollar Amount</th>
<th>Impact on UAAL Contribution Rate (% of Payroll)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduction in investment return assumption</td>
<td>$901.5 M</td>
<td>4.81% 3.89% 3.35% 2.99%</td>
</tr>
<tr>
<td>* Calculated under the new assumptions for the December 31, 2012 valuation and does not include adjustment for 18-month delay in contribution rate implementation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As discussed below, the Board may consider reamortizing the total UAAL over a shorter single period as of December 31, 2013. Note that the above change in the assumptions from the December 31, 2012 valuation would be included in the total UAAL to be reamortized as of December 31, 2013.

**Cost Impact – Reamortization of Past UAAL**

As noted earlier, the total UAAL for the pension plan as of December 31, 2011 (measured using the 7.75% investment return assumption used in that valuation) was $4,458.6 million. The current net UAAL payment was 20.73% of payroll, which is roughly equivalent to a single amortization period of about 19 to 20 years. If that total UAAL was amortized over the same layers used in the December 31, 2011 valuation but using the 7.25% investment return assumption, the UAAL contribution rate would decrease by about 0.82% of payroll due to the fact that less interest is being charged. The net UAAL payment of 19.91% of payroll would still be equivalent to a single amortization period of about 19 to 20 years.

As discussed above, the Board may consider reamortizing the total UAAL over a shorter single period to accelerate the plan’s progress to 100% funding. The change in the employer UAAL contribution rate of 19.91% under alternative amortization periods is as follows:

- Single 20-year period: Decreases the total UAAL contribution rate by 0.23% of payroll
- Single 15-year period: Increases the total UAAL contribution rate by 4.33% of payroll
- Single 10-year period: Increases the total UAAL contribution rate by 13.58% of payroll

Note that the recommended changes in funding policy are proposed for implementation in the December 31, 2013 actuarial valuation. This means that any amount reamortized would also include the increase in UAAL due to the recent investment return assumption change. The cost impact of that reamortization is illustrated in the previous section. Also these amounts do not include adjustment for 18-month delay in contribution rate implementation.
OTHER FUNDING POLICY PARAMETERS

There are a few other more technical funding policy parameters that are used to determine the contribution rate in the annual actuarial valuation. These parameters are discussed in this section.

Adjustment for 18-month Delay between Rate Calculation and Rate Implementation

In order to allow the employers to more accurately budget for pension contributions and other practical considerations, the contribution rates determined in each valuation (as of December 31) will apply to the fiscal year beginning 18 months after the valuation date. The UAAL contribution rates in the actuarial valuation are adjusted to account for this 18-month delay in implementing changes in the employer contribution rates.

Aggregation of Tier 1 and Tier 2 Normal Cost

Currently, the employer Normal Cost contribution rates for Tier 1 and Tier 2 are calculated on a pooled or aggregate basis in order to help stabilize the employer Normal Cost rate for Tier 1, since this tier is mostly closed to new members. As part of the future implementation of CalPEPRA, the employer Normal Cost rate for these tiers may have to be calculated on a separate basis by Tier.

Rate Group Structure

OCERS’ UAAL is determined separately for each Rate Group using the liability calculated for members assigned to each Rate Group and on the assets (including contributions and benefit payments) that are tracked separately for each Rate Group. The Rate Groups were developed in an effort to group different employers offering the same benefit formula (on a prospective basis) and whose future actuarial experience may be perceived to be comparable. For that reason, different compensation practices and other actuarial experience, if any, among employers have not been accounted for explicitly.

This type of arrangement to pool actuarial experience of different employers so that a more stable contribution rate can be developed in the valuation is very common among other county retirement systems.

10 Note that with the exception of Plan A and Plan B that correspond to Tier 1 and Tier 2 in Rate Groups #1 and #5, the only difference is that Tier 1 members would have their benefits calculated based on a final one-year average compensation while Tier 2 members would have their benefits calculated on a final three-year average compensation. In addition, Safety Tier 1 members have their Basic employee contribution rates calculated on a half-rate basis while Safety Tier 2 members have their Basic employee contribution rates calculated on a full-rate basis.

11 It is our understanding that the maintenance of assets by Rate Group is done on a “book-keeping” basis only. This is because from a legal perspective the assets in the entire System are equally available to pay benefits for members in every Rate Group.
Employer/Member Cost Sharing of the Cost Impact of Annual Payoffs

For new members after January 1, 2013 CalPEPRA mandates a 50:50 sharing of the total Normal Cost between members and the employers. This funding policy parameter involves the sharing of Normal Cost for pre-PEPRA members. Even prior to CalPEPRA, the cost to provide a 3% cost-of-living adjustment (COLA) has always been shared 50:50 between the employer and the member (Section 31873). However, this is not the current cost sharing arrangement for the cost of the Basic benefits.

In developing the COLA component of the member’s contribution rate, we used the System’s assumed investment return, life expectancies and salary increases plus all the demographic assumptions derived using the observed experience of similarly situated members. Those assumptions include: (i) probabilities of service retirement, disability or termination at various ages, (ii) marital or domestic partnership status with beneficiary eligible for automatic continuance benefit, (iii) proportion of terminating members who leave contributions on deposit versus those who withdraw their contributions and forfeit their pension benefit and (iv) amount of annual payoffs included in the final salary averaging period. As the COLA member rate has been set using these assumptions, after the Ventura Settlement OCERS’ COLA member rates have been increased to anticipate annual payoffs using the 50:50 cost sharing between the employer and the member. This practice is similar to other county retirement systems that recognize that pay element.

Unlike the COLA member rate, the calculation of the Basic member rate uses the System’s expected investment return, life expectancy and anticipated salary increase assumptions but with parameters that are prescribed by the 1937 CERL for each benefit formula. The prescribed parameters include: (i) fixed age at retirement, (ii) all members are single and eligible to receive a benefit over their lifetime only and (iii) all members will retire and receive a service retirement benefit. After the Ventura Settlement, OCERS’ Basic member rates have not been increased to anticipate annual payoffs. An argument for not doing so may be that different member groups have different levels of possible payoffs and the level of payoffs observed at the assumed retirement ages for setting COLA member rates may not represent the payoffs at the fixed retirement age used for the Basic member rates. This practice of not anticipating annual payoffs in developing the member rates varies among other county retirement systems.

We have no recommended changes to the above additional funding policy parameters for OCERS at this time. We invite direction from the Board as to whether further analysis and discussion is desired on any of these policy parameters.

We have attached a working draft of a comprehensive funding policy as an example of how such a document would be developed. It incorporates the three major components of the policy as well as the additional parameters just described.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.
Please let us know if you have any questions, and we look forward to discussing this with the Board.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Associate Actuary

MYM/gxk
Enclosures
Attachment #1 - Illustration of Payments Under Different Amortization Periods (on $1 million UAAL)

- 30 Years Level Dollar
- 30 Years Level Percent
- 25 Years Level Percent
- 20 Years Level Percent
- 15 Years Level Percent

Investment Return Assumption: 7.25%
Payroll Growth Assumption: 3.75%
Attachment #2 - Illustration of Outstanding UAAL Balance Under Different Amortization Periods

Outstanding Balance (’000)

Beginning of Year

Investment Return Assumption: 7.25%
Payroll Growth Assumption: 3.75%
Attachment #3

Orange County Employees Retirement System

Draft Actuarial Funding Policy

Introduction

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board of Retirement (Board) for the Orange County Employees Retirement System (OCERS). The Board establishes this Actuarial Funding Policy to help ensure the systematic funding of future benefit payments for members of OCERS. In addition, this document records certain guidelines established by the Board to assist in administering OCERS in a consistent and efficient manner.

This Actuarial Funding Policy supersedes any previous Actuarial Funding Policies. It is a working document and may be modified as the Board deems necessary.

Goals of Actuarial Funding Policy

1. To achieve long-term full funding of the cost of benefits provided by OCERS;
2. To seek reasonable and equitable allocation of the cost of benefits over time; and,
3. To minimize volatility of the plan sponsor’s contribution to the extent reasonably possible, consistent with other policy goals.

Funding Requirement and Policy Components

OCERS annual funding requirement is comprised of a payment of the Normal Cost and a payment on the Unfunded Actuarial Accrued Liability (UAAL). The Normal Cost and the amount of payment on UAAL are determined by the following three components of this funding policy:

I. Actuarial Cost Method: the techniques to allocate the cost/liability of retirement benefit to a given period;

II. Asset Smoothing Method: the techniques that spread the recognition of investment gains or losses over a period of time for the purposes of determining the Actuarial Value of Assets used in the actuarial valuation process; and

III. Amortization Policy: the decisions on how, in terms of duration and pattern, to reduce the difference between the Actuarial Accrued Liability (AAL) and the Actuarial Value of Assets in a systematic manner.
I. Actuarial Cost Method:

The Entry Age Normal method shall be applied to the projected benefits in determining the Normal Cost and the AAL. The Normal Cost shall be determined on an individual basis for each active member.

II. Asset Smoothing Method:

The investment gains or losses of each valuation period, as a result of comparing the actual market return to the expected market return, shall be recognized in level amounts over 5 years in calculating the Actuarial Value of Assets.

The Board reserves the right to consider future ad-hoc adjustments to change the pattern of the recognition of the deferred investment gains or losses after a period of significant market change followed by a period of market correction upon receiving the necessary analysis from its actuary.

III. Amortization Policy:

- For UAAL identified on or before the December 31, 2012 actuarial valuation, the outstanding balance of the UAAL from the December 31, 2004 valuation, the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are amortized over a declining period with 22 years remaining as of December 31, 2012. Any other UAALs established as a result of actuarial gains or losses or as a result of plan amendments are amortized over a period of 15 years. Any UAALs established as a result of changes in actuarial assumptions or methods are amortized over a period of 30 years.

- Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of ___ years.

- Any new UAAL as a result of actuarial gain or losses will be amortized over a period of ___ years.

- Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis:
  a. with the exception noted in b., below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years;
  b. the increase in UAAL resulting from a temporary retirement incentive will be funded over a period of up to 5 years.

- UAAL shall be amortized over “closed” amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

- UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of
covered payroll, taking into consideration the current assumption for general payroll increase.

- If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus and the amount of such surplus is in excess of 20% of the AAL per Section 7522.52 of CalPEPRA), such actuarial surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized as the first of a new series of amortization layers, using the above amortization periods.

Other Policy Considerations

In order to allow the employers to more accurately budget for pension contributions and other practical considerations, the contribution rates determined in each valuation (as of December 31) will apply to the fiscal year beginning 18 months after the valuation date. The UAAL contribution rates in the actuarial valuation are adjusted to account for this 18-month delay.

The employer Normal Cost contribution rate for Tier 1 and Tier 2 are calculated on a pooled or aggregate basis in order to help stabilize the employer Normal Cost rate for Tier 1 since this tier is mostly closed to new members.

OCERS’ UAAL is determined separately for each Rate Group using liability calculated for members assigned and on the assets (including contributions and benefit payments) that are tracked separately for each Rate Group.

OCERS’ Basic member rates are not increased to anticipate annual payoffs while COLA member rates are increased to anticipate annual payoffs using the 50:50 cost sharing between the employer and the member.

Glossary of Funding Policy Terms

- **Present Value of Benefits (PVB) or total cost**: the “value” at a particular point in time of all projected future benefit payments for current plan members. The “future benefit payments” and the “value” of those payments are determined using actuarial assumptions as to future events. Examples of these assumptions are estimates of retirement patterns, salary increases, investment returns, etc. Another way to think of the PVB is that if the plan has assets equal to the PVB and all actuarial assumptions are met, then no future contributions would be needed to provide all future service benefits for all members, including future service and salary increases for active members.

- **Actuarial Cost Method**: allocates a portion of the total cost (PVB) to each year of service, both past service and future service.

- **Normal Cost (NC)**: the cost allocated under the Actuarial Cost Method to each year of active member service.
• **Entry Age Normal Actuarial Cost Method:** A funding method that calculates the Normal Cost as a level percentage of pay over the working lifetime of the plan’s members.

• **Actuarial Accrued Liability (AAL):** the value at a particular point in time of all past Normal Costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions and participant data had always been in effect, contributions equal to the Normal Cost had been made and all actuarial assumptions came true.

• **Market Value of Assets:** the fair value of assets of the plan as reported in the plan’s audited financial statements.

• **Actuarial Value of Assets (AVA) or smoothed value:** a market-related value of the plan assets for determining contribution requirements. The AVA tracks the market value of assets over time, smoothes out short term fluctuations in market values and produces a smoother pattern of contributions than would result from using market value.

• **Valuation Value of Assets (VVA):** the value of assets used in the actuarial valuation to determine contribution rate requirements. It is equal to the Actuarial Value of Assets reduced by the value of any non-valuation reserves.

• **Unfunded Actuarial Accrued Liability (UAAL):** the positive difference, if any, between the AAL and the VVA.

• **Surplus:** the positive difference, if any, between the VVA and the AAL.

• **Actuarial Value Funded Ratio:** the ratio of the VVA to the AAL.

• **Market Value Funded Ratio:** the ratio of the MVA to the AAL.

• **Actuarial Gains and Losses:** changes in UAAL or surplus due to actual experience different from what is assumed in the actuarial valuation. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or “actuarial gain” as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.

• **Valuation Date:** December 31 of every year.
Actuarial Funding Policy
(Second Discussion)
March 18, 2013

PAUL ANGELO, FSA
Senior Vice President and Actuary
The Segal Company
Funding Policy Components

- **Actuarial Cost (Funding) Method** – allocates costs to time periods, past vs. future
- **Asset Smoothing Method** – assigns a value to assets for determining contribution requirements
- **UAAL Amortization Policy** – how, and how long to fund difference between liabilities and assets
- Interest crediting and excess earnings policy
  - Unique to 1937 Act county systems
  - Generally separate from funding policy
Funding Policy and Annual Cost

- Actuarial Value of Assets
- Unfunded Actuarial Accrued Liability
- Present Value of Future Normal Costs
- Normal Cost

Amortization of Unfunded Actuarial Accrued Liability
General Policy Objectives (NEW)

1. Future contributions plus current assets sufficient to fund all benefits for current members
   - Contributions = Normal Cost + full UAAL payment

2. Reasonable allocation of cost to years of service
   - Both expected costs and variations from expected costs

3. Reasonable management and control of future employer contribution volatility
   - Consistent with other policy objectives
General Policy Objectives (NEW)

4. Support public policy goals of accountability and transparency
   - Clear in intent and effect
   - Allow assessment of whether, how and when sponsor will meet funding requirements
   - Enhance credibility and objectivity of cost calculations
General Policy Objectives **(NEW)**

- Policy objectives 2 and 3 reflect two aspects of the general policy objective of “interperiod equity” (IPE).
- Objective 2 promotes “demographic matching”
  - intergenerational interperiod equity
- Objective 3 promotes “volatility management”
  - period-to-period interperiod equity
- These two aspects of IPE tend to move funding policy in opposite directions.
  - policy objectives 2 and 3 combine to seek to balance intergenerational and period-to-period IPE
  - demographic matching vs. volatility management
OCERS Current Funding Policy

- Cost method
  - Entry Age Normal (EAN)

- Asset smoothing method
  - 5-year smoothing period without a market value corridor
  - Reaffirmed by the Board in 2009

- UAAL amortization policy
  - Layered approach for UAAL established after 12/31/2004
    - 15 years for gains or losses and plan amendments
    - 30 years for assumption changes
  - UAAL prior to 12/31/2004 combined and amortized over 30 years
    - 22 years left as of 12/31/2012
  - Level percent of pay amortization
Review of OCERS Funding Policy

- Review all three current funding policy components
  - Cost method, asset smoothing, UAAL amortization
  - Incorporate all components into a comprehensive statement of funding policy
    - Review and adoption by the Board
    - Increased importance due to GASB changes

- Separate topic not a part of this review
  - Interest crediting and excess earnings allocation policy
Funding Policy Recommendations

- No change to Entry Age Normal cost method
- No change to asset smoothing method
- Emerging model practices for UAAL amortization
  - Shorter than 30 years for assumption changes
- Plan Amendments
  - Shorter periods than for other sources of UAAL
  - Particularly for Early Retirement Incentive Programs
- Surplus
  - Longer periods than for UAAL
  - Allows consideration of other Surplus management tools
Actuarial Cost Method

Present Value of Future Benefits

Current Year Normal Cost

Actuarial Accrued Liability

Present Value of Future Normal Costs

Entry Age  Current Age  Retirement Age
Entry Age Normal Method (EAN)

- Direct allocation of cost
- Designed to produce Normal Cost that stays level as a percentage of pay
  - Normal Cost Percentage = percentage of future payroll for each active member needed to fund PV of member’s projected benefits at retirement
  - Normal Cost = NC% times current pay
- Model practice and consistent with version endorsed by GASB Statements 67/68
- Normal cost is not just the value of benefit earned
Normal Cost vs Earned Benefit

Cost (% of pay)

Normal Cost under EAN method

Value of Benefit Earned Each Year

25 35 45 55 65

Age
QUESTIONS
Managing Contribution Volatility

- Asset allocation – volatility at the source
- Asset smoothing
  - Specific to investment return volatility
- UAAL amortization – assets and liabilities
  - More than just asset volatility control
- Direct contribution rate smoothing
  - Contribution collar – limits increases
  - Contribution rate phase-in – delays full impact
Funding Policy and Annual Cost

- Actuarial Value of Assets
- Unfunded Actuarial Accrued Liability
- Present Value of Future Normal Costs
- Normal Cost

Amortization of Unfunded Actuarial Accrued Liability
Asset Smoothing Methods

- **Objectives**
  - Reflect market value of assets
  - Smooth out fluctuations in market values
  - Produce smoother pattern of contributions

- **Features**
  - Practical to both understand and model
  - Consistently lead or lag market
  - Treatment of realized vs. unrealized gains
  - Consistency with other investment policies
  - “Return to Market” conditions

- **Smoothing methods and periods**
  - Including “Market Value Corridor”

---

Slide 16
Income Smoothing Methods

- Contributions and benefits recognized immediately
- Split income into Immediate and Deferred portions
  - Deferred portion gets “smoothed”
- Smooth over \( n \) years, \( n = 3, 4 \) or \( 5 \) … or \( 10 \) or \( 15 \)!
- Decide what part of earnings gets smoothed
  - Unrealized gains/losses
  - All capital gains/losses
  - Total return above or below assumed earnings
### Example: one good year

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVA return</td>
<td>13%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Deferred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(5%)</td>
<td></td>
</tr>
<tr>
<td>Recognized</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVA return</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

* Using 8% as assumed return.
Example: one good, then one bad year

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVA return</td>
<td>13%</td>
<td>3%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Deferred</td>
<td>(5%)</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognized</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVA return</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
</tr>
</tbody>
</table>

* Using 8% as assumed return.
Note that the Board recently adopted a 7.25% assumption effective with the December 31, 2012 valuation. Results for 2012 based on preliminary market return of 11.80%.
Asset Smoothing Mechanics

- When MVA return is **greater** than assumed
  - Smoothing “defers gains”
  - Smoothed value (AVA) is **less** than MVA
  - UAAL and contributions are **larger**
- When MVA return is **less** than assumed
  - Smoothing “defers losses”
  - Smoothed value (AVA) is **greater** than MVA
  - UAAL and contributions are **smaller**
OCERS Actuarial Value of Assets as of Dec. 31, 2007

12/31/2007 Valuation ($ thousands)

<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value Gain/(Loss)</th>
<th>Percent not recognized</th>
<th>Amount not recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-07</td>
<td>$236,111</td>
<td>80%</td>
<td>$188,889</td>
</tr>
<tr>
<td>Dec-06</td>
<td>$324,132</td>
<td>60%</td>
<td>$194,479</td>
</tr>
<tr>
<td>Dec-05</td>
<td>$19,435</td>
<td>40%</td>
<td>$7,774</td>
</tr>
<tr>
<td>Dec-04</td>
<td>$181,713</td>
<td>20%</td>
<td>$36,343</td>
</tr>
</tbody>
</table>

Net total GAINS not yet recognized $427,485

Net Market value of assets $7,719,690
LESS GAINS not yet recognized ($427,485)
Actuarial value of assets (incl. non-val reserves) $7,292,205
AVA/MVA Ratio 94.5%
<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value</th>
<th>Percent not recognized</th>
<th>Amount not recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-08</td>
<td>($2,221,750)</td>
<td>80%</td>
<td>($1,777,400)</td>
</tr>
<tr>
<td>Dec-07</td>
<td>$236,111</td>
<td>60%</td>
<td>$141,667</td>
</tr>
<tr>
<td>Dec-06</td>
<td>$324,132</td>
<td>40%</td>
<td>$129,653</td>
</tr>
<tr>
<td>Dec-05</td>
<td>$19,435</td>
<td>20%</td>
<td>$3,887</td>
</tr>
</tbody>
</table>

Net total LOSSES not yet recognized  

($1,502,193)

Net Market value of assets  

$6,248,558

PLUS LOSSES not yet recognized  

$1,502,193

Actuarial value of assets (incl. non-val reserves)  

$7,750,751

AVA/MVA Ratio  

124.0%
### OCERS Actuarial Value of Assets as of Dec. 31, 2009

#### 12/31/2009 Valuation ($ thousands)

<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value</th>
<th>Percent not recognized</th>
<th>Amount not recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-09</td>
<td>$603,609</td>
<td>80%</td>
<td>$482,887</td>
</tr>
<tr>
<td>Dec-08</td>
<td>($2,221,750)</td>
<td>60%</td>
<td>($1,333,050)</td>
</tr>
<tr>
<td>Dec-07</td>
<td>$236,111</td>
<td>40%</td>
<td>$94,444</td>
</tr>
<tr>
<td>Dec-06</td>
<td>$324,132</td>
<td>20%</td>
<td>$64,826</td>
</tr>
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</table>

Net total LOSSES not yet recognized: ($690,893)

Net Market value of assets: $7,464,761

PLUS LOSSES not yet recognized: $690,893

Actuarial value of assets (incl. non-val reserves): $8,155,654

AVA/MVA Ratio: 109.3%
### OCERS Actuarial Value of Assets as of Dec. 31, 2010

#### 12/31/2010 Valuation ($ thousands)

<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value</th>
<th>Percent not recognized</th>
<th>Amount not recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-10</td>
<td>$204,594</td>
<td>80%</td>
<td>$163,675</td>
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<tr>
<td>Dec-09</td>
<td>$603,609</td>
<td>60%</td>
<td>$362,165</td>
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<td>Dec-08</td>
<td>($2,221,750)</td>
<td>40%</td>
<td>($888,700)</td>
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<tr>
<td>Dec-07</td>
<td>$236,111</td>
<td>20%</td>
<td>$47,222</td>
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</table>

Net total LOSSES not yet recognized: ($315,638)

Net Market value of assets: $8,357,835

PLUS LOSSES not yet recognized: $315,638

Actuarial value of assets (incl. non-val reserves): $8,673,473

AVA/MVA Ratio: 103.8%
### OCERS Actuarial Value of Assets as of Dec. 31, 2011

#### 12/31/2011 Valuation ($ thousands)

<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value</th>
<th>Percent not recognized</th>
<th>Amount not recognized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-11</td>
<td>($648,546)</td>
<td>80%</td>
<td>($518,837)</td>
</tr>
<tr>
<td>Dec-10</td>
<td>$204,594</td>
<td>60%</td>
<td>$122,756</td>
</tr>
<tr>
<td>Dec-09</td>
<td>$603,609</td>
<td>40%</td>
<td>$241,444</td>
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<tr>
<td>Dec-08</td>
<td>($2,221,750)</td>
<td>20%</td>
<td>($444,350)</td>
</tr>
</tbody>
</table>

Net total LOSSES not yet recognized: ($598,987)

Net Market value of assets: $8,465,593

PLUS LOSSES not yet recognized: $598,987

Actuarial value of assets (incl. non-val reserves): $9,064,580

AVA/MVA Ratio: 107.1%
OCERS Actuarial Value of Assets as of Dec. 31, 2012
Estimated based on preliminary market return of 11.80% for 2012

12/31/2012 Valuation ($ thousands)

<table>
<thead>
<tr>
<th>Year-end</th>
<th>Market Value</th>
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<th>Amount not recognized</th>
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</thead>
<tbody>
<tr>
<td>Dec-12</td>
<td>$345,840</td>
<td>80%</td>
<td>$276,672</td>
</tr>
<tr>
<td>Dec-11</td>
<td>($648,546)</td>
<td>60%</td>
<td>($389,128)</td>
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<tr>
<td>Dec-10</td>
<td>$204,594</td>
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<td>$81,838</td>
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<tr>
<td>Dec-09</td>
<td>$603,609</td>
<td>20%</td>
<td>$120,722</td>
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</table>

Net total GAINS not yet recognized $90,104

Net Market value of assets $9,620,557
LESS GAINS not yet recognized ($90,104)

Actuarial value of assets (incl. non-val reserves) $9,530,453
AVA/MVA Ratio 99.1%
Historical MVA andAVA

AVA to MVA Ratio

Assets ($ in Billions)

MVA
AVA

Valuation Date (12/31)

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012*

$0.0 $2.0 $4.0 $6.0 $8.0 $10.0 $12.0

* Estimated based on preliminary market return of 11.80% for 2012.
Asset Smoothing and “MVA Corridor”

- Many plans limit how far the AVA can get from the MVA by limiting the AVA ratio.
- A “20% MVA corridor” means the AVA must be between 80% and 120% of MVA.
  - Maximum deferred gain or loss is 20% of MVA.
  - Hitting the MVA corridor effectively stops smoothing.
- In 2009, some Boards (including OCERS) reaffirmed no MVA Corridor.
  - Others widened their MVA Corridors.
Actuarial Standards of Practice No. 44

- ASOP 44 focuses on two key features
  - How close does AVA stay to MVA
    - Ratio of AVA to MVA ("AVA Ratio")
  - How long before AVA returns to MVA
    - Smoothing period

- ASOP 44 also provides some structure
  - If "likely" to be "reasonable", both are required
  - If "sufficiently close" or "sufficiently short" then only one or the other is required
5-year Smoothing and MVA Corridor

- Under ASOP 44, 5 years is “sufficiently short”
  - Widespread use, industry opinions (ADDED)
  - Most California public retirement systems use 5 years
  - Sacramento CERS & two City of LA plans use 7 years
- Assumes employer ability to pay

- Other reasons to consider MVA corridor
  - Accelerates contribution increases
    - Market timing – more contributions in down market
    - Cash flow – avoid selling assets to pay benefits
  - Solvency – if contributions ever stop, increased plan assets could secure more benefits (extreme case)
Managing future asset volatility

- Possible reasons for longer smoothing period
  - Longer business/economic cycles
  - Greater actual market volatility (assets)
  - Greater sensitivity to contribution rate volatility
  - Greater asset volatility relative to payroll
    - Higher funded percentages
    - More mature plan
    - Larger benefit levels
- Recommend no change to asset smoothing method
  - Note: recommend continued use of same smoothing period for gains and losses
Amortization Policy

- Component of Annual Contribution
  - Normal cost plus amortization of unfunded liability

- Sources of Unfunded Liability
  - Plan changes
  - Assumption or method changes
  - Gains / losses

- Amortization policy includes:
  - Structure: Single UAAL or in layers
    - Also: fixed (closed) or rolling (open) amortization
  - Payment pattern: level dollar or level percent of pay
  - Periods: how long to fund the UAAL
Amortization Structure

- OCERS amortizes UAAL in layers
- Model approach: multiple amortization layers
  - First layer is the combined UAAL as of December 31, 2004
  - Each year, new layer of UAAL for gain/loss, assumption/method changes, plan amendments
- Can use different periods for different sources of UAAL
  - OCERS: 15 years for gains or losses and plan amendments
  - 30 years for assumption or method changes
- Key issue: current UAAL layers as of December 31, 2013 (proposed effective date)
  - Current net amortization payment equivalent to about 20 years
  - Could simply continue current declining amortization periods
  - Or adopt a shorter period – with immediate cost impact
### Illustration of Amortization Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>7.25% interest</th>
<th>3.75% salary incr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 years</td>
<td>30 years</td>
<td>25 years</td>
</tr>
<tr>
<td>Flat dollar</td>
<td>% of pay</td>
<td>% of pay</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase in AAL</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization amount</td>
<td>$82,620</td>
<td>$55,520</td>
<td>$62,088</td>
<td>$72,167</td>
<td>$89,272</td>
</tr>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 15</td>
<td>$82,620</td>
<td>$92,957</td>
<td>$103,954</td>
<td>$120,828</td>
<td>$149,469</td>
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<tr>
<td>Year 20</td>
<td>$82,620</td>
<td>$111,743</td>
<td>$124,963</td>
<td>$145,248</td>
<td>$0</td>
</tr>
<tr>
<td>Year 30</td>
<td>$82,620</td>
<td>$161,474</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total amount paid</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
<th>$1,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Interest</td>
<td>$1,478,589</td>
<td>$1,986,918</td>
<td>$1,500,357</td>
<td>$1,094,084</td>
<td>$754,709</td>
</tr>
<tr>
<td>Total</td>
<td>$2,478,589</td>
<td>$2,986,918</td>
<td>$2,500,357</td>
<td>$2,094,084</td>
<td>$1,754,709</td>
</tr>
</tbody>
</table>
Illustration of Amortization Periods – Annual Payment ($ in 000s)

Annual Payment on $1 Million UAAL
Negative Amortization

- $1,000,000 liability, 7.25% interest
- First year interest only is $72,500
- With level dollar payments, payments are always greater than interest
- With level percentage payments, early payments can be less than interest
  - UAAL increases (but not as a percentage of payroll!)
  - Eventually larger payments cover interest plus increased UAAL
Illustration of Amortization Periods – Outstanding UAAL Balance ($ in 000s)
Model Fixed Layer Periods

- Tradeoff between demographic matching and volatility management
  - Two aspects of “interperiod equity”
  - Constraint: consideration of negative amortization
  - Exception: volatility generally N/A for plan changes
- Under 15 years: too volatile
- Over 20 (25?) years: too much neg. amortization
  - 25 is the new 30: “out of bounds marker”
  - 30 years reserved for surplus
    - Normal Cost requires UAAL/surplus “asymmetry”
Model Amortization Periods

- Gains and losses: 15 to 20 years
  - Volatility management, but avoid too long a period
- Assumption and method changes: 20 to 25 years
  - Long term remeasurements, so could justify longer amortization
- Plan amendments: demographic (15 yrs. or less)
  - Avoid any negative amortization since changes are within control of plan sponsor
  - Demographic matching for actives or inactives
  - Much shorter for Early Retirement Incentives (< 5 yrs)
Contributions when Plan has surplus

- Usual contribution is NC plus UAAL amortization
- Surplus: contribute NC minus Surplus amortization
- Short surplus amortization periods means contribution holidays, even with modest surplus
  - See late 1990s for real life examples
- Recommended approach: minimum contribution
  - 30 year amortization of surplus
- CalPEPRA further limits amortization of surplus
  - Funded ratio has to be > 120%
Alternative Periods for Future UAALs

- Applies only to future changes in UAAL
- No immediate impact to contribution rates
- Any changes would be implemented in 12/31/2013 valuation and would apply to any new changes in UAAL on or after 1/1/2013

<table>
<thead>
<tr>
<th>Source</th>
<th>Current</th>
<th>Alt #1</th>
<th>Alt #2</th>
<th>Alt #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Gains or Losses</td>
<td>15</td>
<td>15</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Assumptions or Method Changes</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Plan Amendments</td>
<td>15</td>
<td>15 or less</td>
<td>15 or less</td>
<td>15 or less</td>
</tr>
<tr>
<td>ERIPs</td>
<td>15</td>
<td>Up to 5</td>
<td>Up to 5</td>
<td>Up to 5</td>
</tr>
<tr>
<td>Actuarial Surplus</td>
<td>15</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>
Alternative Periods for Future UAALs

- Option discussed at February 19 meeting (NEW)

<table>
<thead>
<tr>
<th>Source</th>
<th>Current</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Gains or Losses</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Assumptions or Method Changes</td>
<td>30</td>
<td>30</td>
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<tr>
<td>Plan Amendments</td>
<td>15</td>
<td>15 or less</td>
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<tr>
<td>ERIPs</td>
<td>15</td>
<td>Up to 5</td>
</tr>
<tr>
<td>Actuarial Surplus</td>
<td>15</td>
<td>30</td>
</tr>
</tbody>
</table>

- Balance policy objective 2 (demographic matching) vs objective 3 (volatility management)
- Need to consider balance between intergenerational and period-to-period IPE
Alternative Periods for **Current** UAAL

- Board may consider shorter amortization period for current UAAL
- Most clear and direct actuarial policy action to accelerate plan’s progression to 100% funding
- Impact of shorter amortization for current UAAL
  - Any change would not be implemented until 12/31/13 valuation
  - Re-amortize UAAL as of 12/31/11
  - Re-amortize change in investment return assumption
    - Would already have been included in UAAL as of 12/31/12, with 30 year amortization
Alternative Periods for **Current** UAAL

- Impact of shorter amortization for current UAAL on employer rate:

<table>
<thead>
<tr>
<th></th>
<th>UAAL</th>
<th>Change in ER Rate (% of Pay)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollar</td>
<td>10 Yrs</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td></td>
</tr>
<tr>
<td><strong>12/31/11 UAAL</strong></td>
<td>$4,458.6 M</td>
<td>+13.6%</td>
</tr>
<tr>
<td><strong>12/31/12</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumption Changes</td>
<td>$901.5 M</td>
<td>+3.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$5,360.1 M</td>
<td>+17.3%</td>
</tr>
</tbody>
</table>

* Does not include adjustment for 18-month delay in contribution rate implementation.
Alternative Periods for Current UAAL

Other amortization periods for current UAAL discussed at February 19 meeting – shorter than current: (NEW)

<table>
<thead>
<tr>
<th>Date</th>
<th>UAAL</th>
<th>16 Yrs</th>
<th>17 Yrs</th>
<th>18 Yrs</th>
<th>19 Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/11 UAAL</td>
<td>$4,458.6 M</td>
<td>+3.2%</td>
<td>+2.2%</td>
<td>+1.3%</td>
<td>+0.5%</td>
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<tr>
<td>12/31/12 Assumption Changes</td>
<td>$901.5 M</td>
<td>+1.6%</td>
<td>+1.4%</td>
<td>+1.2%</td>
<td>+1.0%</td>
</tr>
<tr>
<td>Total</td>
<td>$5,360.1 M</td>
<td>+4.8%</td>
<td>+3.6%</td>
<td>+2.5%</td>
<td>+1.5%</td>
</tr>
</tbody>
</table>

* Does not include adjust. for 18-month delay in contribution rate implementation.
Alternative Periods for Current UAAL

- Other amortization periods for current UAAL discussed at February 19 meeting – longer than current: (NEW)

<table>
<thead>
<tr>
<th></th>
<th>UAAL</th>
<th>Change in ER Rate (% of Pay)*</th>
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<tbody>
<tr>
<td></td>
<td>Dollar Amount</td>
<td>25 Yrs</td>
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<tr>
<td>12/31/11 UAAL</td>
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<td>-2.9%</td>
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<tr>
<td>12/31/12 Assumption Changes</td>
<td>$901.5 M</td>
<td>+0.4%</td>
</tr>
<tr>
<td>Total</td>
<td>$5,360.1 M</td>
<td>-2.5%</td>
</tr>
</tbody>
</table>

* Does not include adjust. for 18-month delay in contribution rate implementation.
Alternative Periods for **Current UAAL**

- Other amortization period for current UAAL discussed at February 19 meeting – future working lifetime: (NEW)
  - Funding the UAAL over the years the current active employees are expected to work before receiving benefit
  - Referred to as average future working lifetime, average future service years, average remaining service lifetime, etc.
  - No universal agreement on terminology or method of calculation
  - Under one definition used for corporate pension plan: About 11 years for OCERS

- Balance policy objective 2 (demographic matching) vs objective 3 (volatility management)
- Need to consider balance between intergenerational and period-to-period IPE
Alternative Periods for Current UAAL

- Reverse pickups by certain employees (NEW)
- Agreement between employer and employee to pay for the past and/or future cost of benefit enhancements
- Use at Orange County and some other California public retirement systems
- Terms of agreement not under purview of the board of retirement
Funding Policy Recommendations

- EAN Cost method
  - No changes recommended

- Asset smoothing method
  - No changes recommended

- UAAL amortization policy
  - For UAALs established prior to 12/31/2012
    - No changes recommended unless the Board wishes to accelerate plan’s progress to 100% funding
  - For UAALs established after 12/31/2012
    - Consider one of the alternative sets of amortization period (Alt #1, #2 or #3)
Future Discussion Topics (NEW)

- Aggregation of Tier 1 and Tier 2 normal cost
- Employer/member sharing of the cost of annual payoffs
- Anticipated COLA as an assumption in determining optional forms of retirement benefit
- GASB 67/68
QUESTIONS
TO: Budget and Finance Committee, Orange County Fire Authority

FROM: Dave Thomas, Assistant Chief
Operations Department

SUBJECT: Hazardous Materials Emergency Response Subscription Service

Summary:
This report is submitted to provide a recommendation to implement a Hazardous Materials Incidents Emergency Response Subscription Service to be made available to non-OCFA cities within the County of Orange.

Recommended Action:
Review the proposed agenda item and direct staff to place this item on the agenda for the Board of Directors’ meeting of May 23, 2013, with the Budget and Finance Committee’s recommendation that the Board of Directors take the following actions:

1. Approve and authorize the implementation of a Hazardous Materials Emergency Response subscription service for non-OCFA cities within the Orange County Operational Area, using the “fair-share” subscription cost methodology based on population and assessed value.

2. Approve the submitted Subscriber Contract as to form, and authorize the Fire Chief to execute these contracts with any non-OCFA cities that choose to subscribe for Hazardous Materials Emergency Response Services from OCFA.

Background:
The Orange County Fire Department (OCFD) established its Hazardous Materials Response Team (HMRT) in 1984 to address the growing number of hazardous materials incidents occurring within the OCFD response area. In 1993, it was determined that a regional approach to hazardous materials incidents response would best serve the needs of the Orange County Operational Area, and the OCFD joined the Orange County-Cities Hazardous Materials Emergency Response Authority-Joint Powers Authority (OCCHMER).

Previous Board Action
In November 2012, due to changes to OCCHMER Provider Agency staffing levels, the ability of Provider Agencies to respond in a timely manner, and the significant administrative costs charged, the OCFA Board of Directors approved staff’s recommendations to:

- Withdraw from the OCCHMER JPA, effective July 1, 2013
- Implement Hazardous Materials Response Unit 79, using former Santa Ana HMRT assets and explore a Hazardous Materials Emergency Response subscription service for non-OCFA cities within the Orange County Operational Area to offset some of the cost of the Hazardous Materials Response Team Program.
Current Staffing Levels:
Based on the November Board action, Haz Mat 79 (located in Santa Ana) is now configured with the required inventory and personnel to provide the OCFA with the capability of staffing two Type I Hazardous Materials Response Teams. The OCFA HMRT staffing level is ten (10) personnel per shift (24-hour period); seven (7) assigned at FS4 and three (3) assigned at FS79. A Type I HMRT, recognized by Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) and the California Emergency Management Agency (CalEMA), requires seven trained personnel along with the specified equipment and supplies. The additional staffing required to fully staff two Type I HMRTs is achieved through utilizing HM qualified on-duty personnel assigned to other OCFA stations. The two seven person teams would be made from the ten (10) on duty personnel assigned at fire stations 4 and 79 and four (4) HM qualified on-duty personnel from other OCFA stations. The second HMRT adds greater depth, flexibility, and response capability to the OCFA HMRT program.

Issue:
The overall viability and stability of the OCCHMERA after July 1, 2013 is unknown. Should OCCHMERA be unable to provide the services as described in the JPA agreement or to a current OCCHMERA subscriber agency (the Cities of Brea, Costa Mesa, Fountain Valley, Fullerton, Garden Grove, Laguna Beach, Newport Beach, and Orange), the cities may wish to explore other options for hazardous materials incident response within their jurisdiction. The OCFA will be positioned to provide this service. Hazardous materials incidents emergency response to these cities would typically not be considered under an “Automatic Aid Agreement” since these cities do not have a HMRT and would not be able to reciprocate with a like resource.

After July 1, 2013, OCFA is under no obligation to provide hazardous materials emergency response services to or within the jurisdiction of any public entity that is not a member agency with OCFA. However, OCFA is proposing to offer two types of programs to non-OCFA cities interested in having OCFA provide Hazmat responses within the city:

- The city may become a “subscriber agency” whereas the annual cost is based on OCFA’s estimated marginal cost of providing HMRT services. This would be a fixed amount per year, adjusted annually. The city would not be required to pay for any OCFA costs associated with responding to the incident. If applicable, the OCFA would seek and retain restitution from the responsible party.

- The city may request OCFA services on an “as needed basis.” The jurisdiction receiving services shall compensate the Agency providing the services for all specialized services and equipment. Such compensation shall be at the approved Assistance-by-Hire (ABH) rate that has been established and approved by the OCFA. The “Operating Plan” (Exhibit “A” of the OCFA Automatic Aid Agreement); specifically paragraph four (4) of the Dispatch Procedure section will be updated in each signed agreement to include Hazardous Materials Response Team. The jurisdiction receiving services would be required to seek restitution from the responsible party. This could become very expensive depending on the complexity of the incident. A contract for subscription service to provide hazardous materials incidents emergency response could provide non-OCFA cities with an alternative and cost-effective means to meet this need.
Subscribing Agency Cost Calculation:
OCFA will not actively solicit cities to leave OCCHMERA, but rather be prepared to provide an alternative by offering a subscription service for hazardous materials incidents emergency response. Subscription fees for hazardous materials emergency response would offset the cost of the OCFA HMRT. As proposed, subscription costs are determined by a “Fair Share Percentage” of the OCFA HMRT Program expenses. “Fair Share Percentage” is determined by averaging the percentage of County population and County assessed value (real property) of each city within the County as well as the unincorporated area of Orange County. Attachment 1 reflects the initial cost estimate and calculation methodology that would be charged to each jurisdiction upon joining the subscription program.

Any subscribing agency shall pay in advance for the service payment due in full by July 30. Subscribers joining within the fiscal year will have the fee prorated based on the number of months the agency will be participating. Partial months count as a full month for calculation purposes. Unless approved in advance by the OCFA Fire Chief or designee, agencies joining during the course of a fiscal year must pay for services within 30 days of the effective date.

Subscription service cannot be applied retroactively. The annual cost will be adjusted by the amount of annual adjustment to OCFA’s HMRT budget, not to exceed ten percent annually. Attachment 2 is a proposed draft subscriber contract that cities would need to sign and approve.

Fiscal Impact:
The fiscal impact would be based on the revenue generated by the subscription program participants and incident cost restitution. Expenses associated with the HMRT Program are already funded in OCFA’s budget.

Staff Contacts for Further Information:
Michael Moore, Division Chief/Division 2
mikemoore@ocfa.org
(949) 341-0294

Attachments:
1. Proposed HazMat Team Fair Share Contribution
2. Draft Contract
### Calculation of Proposed HazMat Team Fair Share Contribution

<table>
<thead>
<tr>
<th>County/City</th>
<th>Population (1/1/2012)</th>
<th>% of County Population</th>
<th>FY 12/13 Total Assessed Valuation</th>
<th>% of County AV</th>
<th>Fair Share % (average of population and A/V)</th>
<th>OCFA Cities</th>
<th>Subscriber Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliso Viejo</td>
<td>48,988</td>
<td>1.60%</td>
<td>7,605,524,301</td>
<td>1.78%</td>
<td>1.69%</td>
<td>$8,064.68</td>
<td></td>
</tr>
<tr>
<td>Anaheim</td>
<td>343,793</td>
<td>11.25%</td>
<td>35,896,658,193</td>
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<td>9.82%</td>
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<tr>
<td>Brea</td>
<td>40,932</td>
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<td>7,179,774,942</td>
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<td>1.51%</td>
<td>$7,198.42</td>
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<tr>
<td>Buena Park</td>
<td>81,460</td>
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<td>7,602,927,022</td>
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<td>2.22%</td>
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<tr>
<td>Costa Mesa</td>
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<td>14,379,537,747</td>
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<td>3.49%</td>
<td>$16,663.45</td>
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<tr>
<td>Cypress</td>
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<td>5,666,354,152</td>
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<td>1.45%</td>
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<td>Dana Point</td>
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<td>Fountain Valley</td>
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<td>Fullerton</td>
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<td>Garden Grove</td>
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<td>Huntington Beach</td>
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<td>Irvine</td>
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<td>Laguna Beach</td>
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<tr>
<td>Laguna Hills</td>
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<td>Laguna Woods</td>
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<td>La Habra</td>
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<td>La Palma</td>
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<td>Mission Viejo</td>
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<td>Newport Beach</td>
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<td>Orange</td>
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<td>16,538,150,330</td>
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<td>4.19%</td>
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<tr>
<td>Placentia</td>
<td>51,084</td>
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<td>Rancho Santa Margarita</td>
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<td>6,679,191,088</td>
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<td>1.57%</td>
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<td>San Clemente</td>
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<td>2.51%</td>
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<tr>
<td>San Juan Capistrano</td>
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<td>$5,986.31</td>
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<tr>
<td>Santa Ana</td>
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<td>Seal Beach</td>
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<td>Stanton</td>
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<td>Tustin</td>
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<tr>
<td>Villa Park</td>
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<td>1,398,666,415</td>
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<tr>
<td>Westminster</td>
<td>90,677</td>
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<td>Yorba Linda</td>
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<td>2.42%</td>
<td>$11,538.29</td>
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<tr>
<td>County Unincorporated</td>
<td>119,698</td>
<td>3.92%</td>
<td>21,332,071,633</td>
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<td>4.45%</td>
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<tr>
<td>County Total</td>
<td>3,055,792</td>
<td>100.00%</td>
<td>427,831,772,926</td>
<td>100.00%</td>
<td>100.00%</td>
<td>$477,085.45</td>
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</table>

* - Already paid through their Structural Fire Fund property tax or Cash Contract City payments.
Hazardous Materials Team Budget

Salaries & Employee Benefits (Org 1170)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Post Positions</th>
<th>HazMat Bonus</th>
<th>Total</th>
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<tbody>
<tr>
<td>FC T4</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
</tr>
<tr>
<td>FC E4</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
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<tr>
<td>FC E79</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
</tr>
<tr>
<td>FAE T4</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
</tr>
<tr>
<td>FAE E4</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
</tr>
<tr>
<td>FAE E79</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
</tr>
<tr>
<td>FF T4</td>
<td>6</td>
<td>10,212</td>
<td>61,272</td>
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<tr>
<td>FF E4</td>
<td>3</td>
<td>10,212</td>
<td>30,636</td>
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<tr>
<td>FF E79*</td>
<td>3</td>
<td>3,404</td>
<td>10,212</td>
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</table>

Sub-total 285,936

*This FF position requires dual qualification, both HM & PM; in this case the HM bonus is reduced.

Services & Supplies (Org 1170)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Clothing &amp; Personal Supplies</td>
<td>24,552</td>
</tr>
<tr>
<td>Medical Supplies</td>
<td>9,900</td>
</tr>
<tr>
<td>Small Tools</td>
<td>5,104</td>
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<tr>
<td>Trans/travel</td>
<td>34,540</td>
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<tr>
<td>Maintenance of Equip</td>
<td>20,218</td>
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<tr>
<td>Office Supplies</td>
<td>3,080</td>
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<tr>
<td>Special Dept Exp</td>
<td>18,480</td>
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</table>

Sub-total 115,874

Annual Costs Budgeted in Fleet Services

<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>Fuel</td>
<td>3,932</td>
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<tr>
<td>Vehicle Maintenance</td>
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</tr>
<tr>
<td>HM4</td>
<td>2,599</td>
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<tr>
<td>HM79</td>
<td>1,248</td>
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<tr>
<td>HM204</td>
<td>2,495</td>
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<tr>
<td>Vehicle Depreciation</td>
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</tr>
<tr>
<td>HM4</td>
<td>26,823</td>
</tr>
<tr>
<td>HM79</td>
<td>28,763</td>
</tr>
<tr>
<td>HM204</td>
<td>9,416</td>
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</table>

SubTotal 75,275

Grand Total 477,085
This Hazardous Materials Emergency Response Subscription Service Contract (“Agreement”) is entered into this ____ day of _______, 20__ by and between the Orange County Fire Authority (“Authority”) and the City of ______ (“Subscriber Agency”). Authority and Subscriber Agency have determined that the provisions of this Agreement are consistent with the Hazardous Waste Control Law, the Orange County Hazardous Waste Management Plan and the Orange County Hazardous Materials Area Plan.

1. DEFINITIONS

1.1 “Authority” means the Orange County Fire Authority.

1.2 “Board Members” mean those persons serving as members of the OCFA Board or their designated alternates.

1.3 “Board” means the governing Board of the Authority.

1.4 “County” means the geographic area within the boundaries of the County of Orange, including incorporated and unincorporated territory, but exclusive of the “County of Orange” as a political subdivision of the State of California.

1.5 “County of Orange” means the public entity which is a political subdivision of the State of California and is governed by the Board of Supervisors.

1.6 “Fiscal Year” means the period dating from July 1 in any given year to and including the 30th of June of the following year.
1.7 “Hazardous Materials” means any of the following substance(s) or material(s):
A. Any material listed in Subdivision B of Section 6382 of the Labor Code;
B. Any material or substance defined in Section 25501 (k), 25115, 25117 or 25316 of the Health and Safety Code;
C. Any material listed in Articles 9 (commencing with Section 66680) or 11 (commencing with Section 66693) of Chapter 30 of Title 22 of the California Code of Regulations;
D. Any material listed in Part 261 of Title 40 of the Code of Federal Regulations;
or
E. Any other material or substance the release of which is reasonable believed to pose a significant present or potential hazard to human health, safety, property, or the environment, or which is declared a hazardous waste pursuant to local, state or federal law.

1.8 "Hazardous Materials Emergency" means the release or threatened release of any hazardous material.


1.10 "Hazardous Materials Emergency Response Services" means the response to, assessment of, and stabilization of, any hazardous materials emergency.

1.11 "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment.

1.12 "Response Team" means personnel employed by the Authority and who are trained and equipped to respond to hazardous materials emergencies.

1.13 "Responsible party" means a person or entity who releases or threatens to release Hazardous Materials, or who owns property upon which Hazardous Materials are
1.14 "Revenue" means all funds received by the Authority for responding to Hazardous Materials Emergencies, including but not limited to, fair share contributions received from Subscriber Agencies, funds received from any person or entity responsible for a Hazardous Materials Emergency, fees for services, or funds received from any state or federal grant program for Hazardous Materials Emergency Response Services.

1.15 "Subscriber Agency" means the City executing this Agreement. “Subscriber Agencies” means the Subscriber Agency and each of the other public entities which has agreed to contribute toward the costs of providing Hazardous Materials Emergency Response Services by executing a Subscriber Agreement, as further described in Section 4.2.

2. GENERAL PURPOSE

2.1 Hazardous Materials Emergency Response Services. Subject to the terms and conditions set forth herein, the Authority will provide the following services to each Subscriber Agency:

A. Respond to, assess the nature of, and stabilize any emergency created by, the release, or threatened release, of Hazardous Materials;

B. Hire, train, and equip persons such that they are qualified to respond to, assess the nature and dangers of, and stabilize any emergency associated with, any release or potential release of Hazardous Materials; and

C. Direct the activities of persons qualified to assess the nature or danger of, stabilize any emergency associated with, control, and clean up any release, or threatened release, of Hazardous Materials.

2.2 General Purpose

A. The primary purpose of this Agreement is to provide for continuation of the Hazardous Materials Emergency Response System within the County and to partially offset the costs to Authority incurred in maintaining Response Teams, and responding to
Hazardous Materials Emergencies, with revenue derived from the public entities that use, or have access to, the services of the Authority and funds recovered from those responsible for emergencies. This Agreement also enables public entities to receive Hazardous Materials Emergency Responses and related services without incurring the direct costs required to establish and maintain Response Teams.

B. The Authority will coordinate responses to Hazardous Materials Emergencies and ensure efficient use of resources. This Agreement will enable an equitable sharing of risks associated with Hazardous Materials Emergencies and promote the recovery of costs from persons or entities responsible, in whole or in part, for any such emergency; and

C. To take all steps necessary to recover from the person or entity responsible, the costs incurred, or the value of the services performed, in responding to a Hazardous Materials Emergency or Release.

3. HAZARDOUS MATERIALS RESPONSE SERVICES

3.1 Basic Services

The Authority shall furnish all Subscribing Agencies with Hazardous Emergency Response services subject to the following:

A. Services will be performed by Authority personnel. The Authority shall determine the number, location and size of the Response Teams available to provide services pursuant to this Agreement.

B. The Authority Response Teams will generally provide services in accordance with the provisions of the current Hazardous Materials Emergency Response Plan. The Board shall adopt criteria and standards relating to the provision of Hazardous Materials Emergency Response Services by Response Teams. Such standards may include specific levels of training required of personnel, manpower needs and the type of equipment and supplies necessary for particular hazardous materials emergencies. The Authority and Response Teams retain sole and exclusive discretion as to the specific type, nature and timing of the services performed pursuant to this Agreement. Neither the Authority nor the Response Teams are responsible for the physical containment or cleanup of any Hazardous Materials, the control of pedestrian or vehicular traffic or the removal of persons or property from the area around
The Authority does not guarantee that a Response Team will be available at all times to respond to a Hazardous Materials Emergency. Circumstances may arise when the timing, number, size or location of a Hazardous Materials Emergency, or other emergencies, make it difficult or impossible for a Response Team to respond to any or all incident(s).

3.2 Preventative Measures

Each Subscribing Agency shall use its best efforts to do the following:

A. Require that all persons, business entities and public agencies within its jurisdiction comply with applicable state and federal laws regarding the storage and use of Hazardous Materials by establishing and implementing an inspection and citation program;

B. Maintain, and make accessible to the Authority and Response Teams copies of all plans and documents required to be submitted pursuant to law, including, without limitation, business inventories and emergency response plans;

C. If appropriate, declare a local emergency pursuant to the provisions of Sections 8630, et seq. of the Government Code of the State of California and/or any applicable charter provisions or ordinances. To the extent permitted by law, the Authority shall have the right to declare a local emergency in the event the public entity with jurisdiction over the scene of the hazardous materials emergency fails or refuses to do so; and

D. Immediately comply with any request of the Response Team or the Authority to provide police, fire or other personnel or services to assist the Response Team, control vehicular traffic and pedestrian access to the scene of the Hazardous Materials Emergency, or contain or cleanup any Hazardous Materials within the Subscribing Agency’s jurisdiction. These services shall be provided at no cost to the Authority. The Authority shall not be responsible to provide these services or for any costs or expenses related thereto. In the event these services are not provided, the Authority or the Response Team shall have the right, but not the obligation, to contract for such services as may be necessary, or in the alternative, the Response Team shall have the right to withdraw from the scene of the Hazardous Materials Emergency. If the
Authority of Response Team contracts for such services, the Subscribing Agency with jurisdiction over the area within which the request for such services was made shall reimburse Authority for the reasonable costs thereof.

4. FEE PROVISIONS

The following special provisions shall control the collection and disbursement of funds received or recovered from Subscribing Agencies, federal or state grant programs, and persons or entities who receive services and those responsible for a Hazardous Materials Emergency.

4.1 Orange County Fire Authority

A. The OCFA, in consideration of their right to receive funds as hereinafter provided, shall have available on a daily basis two or more seven (7) person Response Teams as well as related supplies, materials and equipment.

B. Each Subscriber Agency agrees to cooperate with the Authority in its efforts to recover money from any person or entity responsible for a Hazardous Materials Emergency, as well as any claim or litigation instituted by or against the Authority. This shall include providing all information and invoices necessary to initiate collection actions to the Authority.

C. Each Subscriber Agency waives and gives up any right it may have to receive or hold any funds collected by the Authority for Hazardous Materials Emergency Response Services within its jurisdiction.

D. Authority shall have the exclusive right to pursue efforts to collect and to retain funds recovered from the person or entity responsible for a Hazardous Materials Emergency, for all direct and indirect costs and expenses incurred by the Authority in providing services performed by a Response Team. Nothing in this section shall prevent a Subscriber Agency from pursuing efforts to collect, from the person or entity responsible for the Hazardous Materials Emergency, costs and expenses incurred by the Subscriber Agency in providing services other than those performed by a Response Team.

E. Equipment, materials and supplies owned or maintained by Authority to assist in providing services pursuant to this Agreement shall remain the property of the
4.2 Services to and Reimbursement from Subscriber Agencies

A. Cities in Orange County may, upon approval by Authority, receive Hazardous Materials Emergency Response Services from Authority by executing this Agreement and paying the annual fair share contribution as determined by the Board pursuant to this Agreement. Agencies must sign this Agreement prior to receiving Hazardous Materials Emergency Response Services, and must pay their fair share contribution by July 30 of the fiscal year (July 1 – June 30) for which subscription is desired. (Subscriptions will not cover services provided prior to acceptance of the executed Agreement by OCFA.) This Subscription Agreement shall renew automatically from year to year unless terminated in accordance with the Agreement or otherwise specified in this Agreement. Agencies which subscribe for an entire fiscal year may, at their option, elect to pay their fair share contribution in four equal installments due and owing on or before July 30th, October 1st, January 1st, and April 1st. If an agency chooses to become a Subscriber Agency after the commencement of a fiscal year, the fair share contributions for existing Subscriber Agencies will be adjusted pro rata to reflect the additional contribution, and those Agencies will receive a reimbursement for any excess contribution made. Agencies which choose to become Subscriber Agencies after the commencement of the fiscal year must sign this Agreement and pay the full amount of the fair share contribution prior to seeking services. Fair share contributions for subsequent fiscal years shall be revised to reflect any changes in population or assessed value as more fully specified in Section 5.1. Fair share contributions, once established by the Board for any specific fiscal year, shall be increased or decreased during that fiscal year only as necessary to reflect the participation of additional or fewer Subscriber Agencies during that fiscal year.

B. Authority may, at Authority’s sole discretion, attempt to collect from the person or entity responsible for any Hazardous Materials Emergency within the jurisdiction of a Subscriber Agency, the costs and reasonable value of all services performed by a Response Team. Each Subscriber Agency agrees to cooperate with the Authority in its collection efforts. If the person or entity responsible for the hazardous materials emergency does not pay to the Authority the amount billed within the regular billing cycle, the Subscriber Agency within whose jurisdiction the emergency occurred shall reimburse the Authority for
the costs of repairing or replacing all materials and supplies damaged or destroyed in the course of providing services or which must be disposed of following the emergency, and the Subscriber Agency may then pursue claims for such expenses from the person or entity responsible.

C. If the Subscriber Agency is potentially responsible for, but did not cause, the Hazardous Materials Emergency, as in the case of Hazardous Materials abandoned on property belonging to the Subscriber Agency, and an otherwise Responsible Party cannot be located, the Subscriber Agency shall reimburse the Authority for the costs of repairing or replacing all materials and supplies damaged or destroyed in the course of providing services. If the Subscriber Agency caused the Hazardous Materials Emergency, the Subscriber Agency shall pay the Authority the hourly/ABH rates for the applicable level of service established by the Board pursuant to Section 5.2 and the cost of repairing or replacing any equipment damaged or destroyed in the course of providing services. All fees and costs owing from Subscriber Agencies pursuant to this Section C shall be due within thirty (30) days of billing.

5. FEES

5.1 Calculation of Annual Fair Share Contribution.

Each Subscriber Agency’s annual fair share contribution shall be calculated by the Board concurrently with the adoption of the Authority’s annual budget, as follows:

A. Step 1: Calculate the “Fair Share Percentage” for each Subscriber Agency by adding that agency’s Population Percentage to its Assessed Value Percentage and then dividing by two (2). (“Population Percentage” means the percentage determined by dividing the population within the jurisdiction of the Subscriber Agency by the total population of the County (including unincorporated areas). “Assessed Value Percentage” is the percentage determined by dividing the total assessed value of real property in the Subscriber Agency’s jurisdiction by the total assessed value of all real property in the County (including unincorporated areas).)

B. Step 2: Multiply the Subscriber Agency’s Fair Share Percentage calculated in Step 1 by the total annual Hazardous Materials Emergency Response Services program costs.

C. Attachment 1 reflects the estimated initial cost estimate and calculation
methodology that would be charged to each jurisdiction upon joining the subscription program. Except as otherwise provided in this Agreement, each Subscriber Agency shall pay its Fair Share Contribution on or before July 31.

5.2  Hourly Rate

The Board shall establish, and from time to time update, its schedule of fees for services provided on an Assistance-by-Hire (ABH) basis (the “ABH Rates”). Notice of the costs of services shall be issued to all Subscriber Agencies within ten (10) days of adoption or amendment, and shall take effect thirty (30) days after adoption or amendment. Adjustments in the ABH Rates shall reflect estimates of the operating expenses of Authority, the administrative expenses to be incurred by the Authority associated with providing services in the upcoming fiscal year, estimates of the amount of time Authority is likely to devote to providing services pursuant to this and related agreements, the cost of supplies expended in responding to an emergency, and such other factors as the Board considers relevant. The ABH Rates shall also include a surcharge for administrative costs in an amount established by the Board.

6. LIABILITIES

6.1  Liabilities

A.  Introduction

The provisions of this section control the extent to which Subscribing Agencies receiving services pursuant to this or related agreements are obligated to defend, indemnify and hold harmless the Authority and its Board members, employees, officers, agents, and representatives with respect to any claim, litigation, liability, damage, injury, cost, or expense that is in any way related to the performance of Hazardous Materials Emergency Response Services pursuant to this Agreement or the existence of a Hazardous Materials Emergency. Hazardous Materials Emergencies, by their nature, create a risk of serious injury to persons or property damage over a wide area. The risk of liability and/or litigation exists irrespective of the skill and competence displayed by those attempting to resolve the emergency. Persons who have suffered injury or property damage as the result of a release of Hazardous Materials are prone to sue all persons and entities present at the scene of the emergency and even non-
negligent parties may incur substantial liability given the toxic nature of the materials involved, the large number of people likely to be affected, and the perceived "deep pockets" of public entity defendants. Accordingly, the Authority and its officers and employees deserve substantial protection from liability and litigation that is in any way related to the services provided pursuant to this Agreement or related agreements. Moreover, since Authority provides, in advance, the personnel, equipment and funds necessary to provide services pursuant to this Agreement, it is appropriate to minimize their risks and obligations while increasing the protection required from other public entities which do not make the same financial commitment.

B. General Provisions

1. Each Subscribing Agency (the “Releasing Subscriber Agency”) shall defend, indemnify, hold harmless and waive (collectively “Indemnification”) all claims against the Authority and any other Subscribing Agency, and their respective Board members, Council members, officers, employees and representatives, for any claim, litigation, loss, damage, death, personal injury, bodily injury, illness, cost, expense, court order, administrative directive, or claim of any other variety (collectively “Claims”) to person or property that arises out of, or is in any way related, to the performance of services rendered, or the failure to perform services, pursuant to this Agreement within the jurisdictional territory of the Releasing Subscribing Agency. This Indemnification extends to Claims brought by any source, including but not limited to Claims sustained by the Subscribing Agency, or its officers, employees, contractors or agents, or by third parties. This Indemnification extends to, and includes, Claims proximately caused, in whole or in part, by the negligent act, conduct or omission of the Authority, any other Subscribing agency, and/or their respective Board members, officers, employees, agents, contractors, representatives, or any third party. However, this Indemnification does not extend to liability for bodily injury or property damage caused by the fraudulent or willful conduct of a party seeking the protection of this Section, nor to any willful or negligent act of an individual which constitutes a violation of a penal statute.

2. The Indemnification shall not require a Subscribing Agency to defend, indemnify or hold harmless Authority with respect to any Workers’ Compensation claim filed against the Authority that arises out of, or is in any way related to, the performance of services pursuant to this Agreement.
3. This Section 6.1 shall survive termination of the Agreement with regard to occurrences during the effective period of the Agreement which occurrences relate to a Claim asserted prior to or after termination.

4. The Subscriber Agency within whose jurisdiction a Hazardous Materials Emergency occurs shall Indemnify the Authority and its Board members, officers, employees, and representatives with respect to any Claim that arises out of, or is in any way related to, the acts or omissions of the Subscriber Agency or their respective officers, employees, agents or representatives, in the course of providing police and fire services, containment or cleanup services, or any other support service or activity related to the Hazardous Materials Emergency.

7. ADMISSION AND WITHDRAWAL OF SUBSCRIBING AGENCY

7.1 New Subscribing Agencies
Subject to all terms and conditions set forth in this Agreement, any city located within Orange County may become a Subscribing Agency upon: (1) execution of this Agreement, (2) acceptance of the executed Agreement by the Authority, and (3) timely payment of the Subscriber Agency’s Fair Share Contribution.

7.2 Termination of Agreement
A. Subscriber Agencies may terminate services with or without cause, effective on the last day of any fiscal year by giving written notice of termination to Authority not less than 180 days prior to the end of that fiscal year.

B. Authority may terminate this Agreement on ten (10) days written notice to any Subscriber Agency that has breached this Agreement. Authority may terminate this Agreement with any or all Subscriber Agencies, with or without cause, effective on the last day of any fiscal year by giving written notice of termination to the Subscriber Agency or Subscriber Agencies not less than 180 days prior to the end of that fiscal year.

C. Subsequent to termination, the Authority and Subscribing Agencies shall have a continuing responsibility to perform the duties and obligations required by
this Agreement and which are based on facts, events, or occurrences that predate termination.

8. GENERAL PROVISIONS

8.1 Partial Invalidity

If one or more of the sections, paragraphs or provisions of this Agreement is determined to be invalid or unenforceable by a Court of competent jurisdiction, each and all of the remaining provisions, sections and paragraphs shall not be affected and shall continue to be valid and enforceable to the fullest extent permitted by law, unless the invalidity affects the substantial rights or duties of the parties, and provided that such remaining portions or provisions can be construed in substance to constitute the Agreement that the parties intended in the first instance.

8.2 Non-Assignment; Collection of Restitution

The rights and obligations set forth in this Agreement may not be assigned by any party. However, subject to the terms and conditions set forth herein, this Agreement shall not preclude a party from retaining on a contingent fee or percentage-of-recovery basis one or more agencies or law firms for collection of restitution or other recovery from those responsible for a Release.

8.3 Venue.

This Agreement shall be construed pursuant to the laws of the State of California. All disputes arising under or related to this Agreement shall be determined by a court of competent jurisdiction located within the County of Orange, California.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed and attested by their duly executed officers, and to have their official seals affixed hereto, as of the date first stated above.

“Subscriber Agency”

CITY OF __________

By: _______________________________

(Name)
(Title)

ATTEST:

By: ______________________________________
    (Name)
    City Clerk

APPROVED AS TO FORM:

By: ______________________________________
    (Name)
    City Attorney

“Authority”

ORANGE COUNTY FIRE AUTHORITY

By: ______________________________________
    Keith Richter
    Fire Chief

ATTEST:

By: ______________________________________
    Sherry A.F. Wentz, CMC
    Clerk of the Board

APPROVED AS TO FORM:

By: ______________________________________
    David Kendig
    General Counsel