MCERA RETIREMENT BOARD MEETING AGENDA
THURSDAY, MARCH 12, 2020
MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
3199 M STREET, MERCED, CA 95348

Please turn your cell phone or other electronic device to non-audible mode.

CALL TO ORDER: 8:15 A.M.

- ROLL CALL.
- APPROVAL OF MINUTES – February 27, 2020

PUBLIC COMMENT

Members of the public may comment on any item under the Board's jurisdiction. Matters presented under this item will not be discussed or acted upon by the Board at this time. For agenda items, the public may make comments at the time the item comes up for Board consideration. Persons addressing the Board will be limited to a maximum of five (5) minutes in total. Please state your name for the record.

CLOSED SESSION

As provided in the Ralph M. Brown Act, Government Code sections 54950 et seq., the Board may meet in closed session with members of its staff, county employees and its attorneys. These sessions are not open to the public and may not be attended by members of the public. The matters the Board will meet on in closed session are identified below. Any public reports of action taken in the closed session will be made in accordance with Government Code sections 54957.1.

(1) **DISABILITY RETIREMENT APPLICATIONS: PERSONNEL EXCEPTION** (Govt. Code § § 54957, 31532; Cal Const. art. I, § 1)

1. Informal Hearing
    a. Burnett, Donald
    b. Leuchner, Adam
2. Formal Hearing
    a. None
3. Disability update and possible action:
    a. Arroyo, Elizabeth
    b. Cruz, Mary Kay
    c. Elias Jr, Robert C.
    d. Herrera, Yvonne
    e. Leyro, Domingo
    f. Ramirez, Amber
    g. Plascencia, Marcencia
    h. Salgado, Jose
    i. Sotelo, Maria

(2) **CONFERENCE WITH LEGAL COUNSEL – SIGNIFICANT EXPOSURE TO LITIGATION** (Govt. Code § 54956.9(d))
This closed session is authorized under Govt. Code § 54956.9(d), (2 and 3)
8 cases.

RETURN TO OPEN SESSION

Report on any action taken in closed session.

CONSENT CALENDAR

Consent matters are expected to be routine and may be acted upon, without discussion, as one unit. If an item is taken off the Consent Calendar for discussion, it will be heard as the last item(s) of the Board Action/Discussion as appropriate.

RETIREMENTS: Pursuant to Govt. Code § 31663.25 or § 31672
All items of earnable compensation for service or disability retirements listed below are in compliance with the pay code schedule approved by the Board of Retirement. The retirement is authorized; however, administrative adjustments may be necessary to alter the amount due to: audit, late arrival of data, court order, etc.

a.	Cummings, Richard	H.S.A	24 Yrs. Svc.	Eff. 2/15/2020
b.	Malta, Scott	Castle	18 Yrs. Svc.	Eff. 2/15/2020
c.	Tan, Doris	H.S.A	4 Yrs. Svc.	Eff. 2/27/2020
d.	Pitts, David	DPW	10 Yrs. Svc.	Eff. 2/18/2020
e.	Honeycutt, James	H.S.A	12 Yrs. Svc.	Eff. 2/15/2020
f.	Deanda, John	Sheriff	26 Yrs. Svc.	Eff. 2/21/2020

YTD fiscal year 2019/2020 retirees: 063
YTD fiscal year 2018/2019 retirees: 101
YTD fiscal year 2017/2018 retirees: 082

REFUND OF SERVICE PURCHASE: None
DEATH BENEFIT: None
MONTHLY BUDGET REPORT: Moved to March 26, 2020 Meeting

REGULAR CALENDAR

BOARD ACTION[1]/DISCUSSION

1. Discussion and possible action on presentation of bid and demo for new MCERA website from Digital Deployment – Rocky Martin, Digital Deployment.
2. Discussion and possible action on Segal's audit of MCERA Actuarial Valuation Report and experience study as of June 30, 2019 – Segal Consulting.
3. Discussion and possible action to adopt proposed recommendations from MCERA's Investment Committee – Staff.
4. Appointment of ad hoc budget committee to work with staff on FY 2020/2021 budget – Chair.
5. Discussion and possible action on upcoming Trustee election(s) for the MCERA Board of Retirement – Staff.

[1] "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.

6. Discussion and possible action on proposed draft building plans to determine feasibility for a single tenant building located at the vacant lot at 690 W. 19th Street, in Merced – Staff.
7. Discussion and possible action on MCERA and emergency preparedness – Staff.
8. Discussion and possible action on March Legislative Report from SACRS – Staff.
9. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MCERA's Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
   a. TCV Annual Investor Meeting, March 24, 2020, San Francisco, CA.
   b. Advanced Principles of Pension Management for Trustees, March 30–April 1, 2020, Los Angeles, CA.
   c. Pension Bridge Annual Conference, April 14-15, 2020, San Francisco, CA.
   d. NCPERS Trustee Educational Seminar, May 9-10, 2020, Las Vegas, NV.
   e. NCPERS Accredited Fiduciary Program (Modules 1&2 and 3&4), May 9-10, 2020, Las Vegas, NV.
   f. NCPERS Annual Conference & Exhibition, May 10-13, 2020, Las Vegas, NV.
   g. SACRS Spring Conference, May 12-15, 2020, San Diego, CA.
   h. 2020 PIMCO Institute, Newport Beach, CA: June 8-11, 2020 or October 19-22, 2020.
   i. KKR's 2020 Global Investor Meeting, July 29 – July 1, 2020, Rancho Palos Verdes, CA.
   j. SACRS Public Pension Investment Management Program, July 26-29, 2020, Berkeley, CA.
   k. Principles of Pension Governance for Trustees, August 25-28, 2020 Malibu, CA.
   l. Nossaman Fiduciary Forum, October 1-2, 2020, Los Angeles, CA.
   m. SACRS Fall Conference, November 10-13, 2020, Indian Wells, CA.

INFORMATION ONLY

MCERA Upcoming Board Meetings:

Please note: The MCERA Board Meeting and/or Education Day times and dates may be changed in accordance with the Ralph M. Brown Act by the MCERA Board as required.

- March 26, 2020 (meeting and half day education session)
- April 9, 2020

ADJOURNMENT

All supporting documentation is available for public review in the office of the Merced County Employees' Retirement Association, 3199 M Street, Merced, California, 95348 during regular business hours, 8:00 a.m. – 5:00 p.m., Monday through Friday.

The Agenda is available online at www.co.merced.ca.us/retirement

Any material related to an item on this Agenda submitted to the Merced County Employees' Retirement Association, after distribution of the Agenda packet is available for public inspection in the office of the Merced County Employees' Retirement Association.

Persons who require accommodation for a disability in order to review an agenda, or to participate in a meeting of the Merced County Employees' Retirement Association per the American Disabilities Act (ADA), may obtain assistance by requesting such accommodation in writing addressed to Merced County Employees' Association, 3199 M Street, Merced, CA 95348 or telephonically by calling (209) 726-2724. Any such request for accommodation should be made at least 48 hours prior to the scheduled meeting for which assistance is requested.

Minutes

MCERA INVESTMENT RETIREMENT BOARD AGENDA THURSDAY, FEBRUARY 27, 2020
MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
3199 M STREET, MERCED, CA 95348

CALL TO ORDER: 8:15 A.M.
Board Members Present: Scott Johnston, Al Peterson, David Ness, Darlene Ingersoll, Scott Silveira (arrived at 8:18am), Michael Rhodes, Janey Cabral (arrived 8:19am), Jason Goins. ***Counsel:*** Forrest Hansen. ***Staff*:** Kristen Santos, Alexis Curry, Mark Harman, Ninebra Maryoonani and Martha Sanchez. ***Absent:*** Ryan Paskin, Karen Adams and Kalisa Rochester.

APPROVAL OF MINUTES – February 13, 2020.
Motion to approve the February 13,2020 meeting minutes.
Ingersoll/ Rhodes U/A (5-0)

PUBLIC COMMENT

None.

CLOSED SESSION

Meeting went into closed session.

RETURN TO OPEN SESSION

No Action Taken.

BOARD ACTION1/DISCUSSION

Pursuant to Govt. Code § 31594 and MCERA's Investment Objectives & Policy Statement due diligence analysis requirement:

1. Discussion and possible action to approve MCERA's annual actuarial valuation and experience study as of June 30, 2019 - Cheiron.
   The MCERA Board voted to approve MCERA's annual actuarial valuation and experience study as of June 30, 2019. Cabral/ Peterson U/A (7-0)
2. Presentation and discussion of the 2019/2020 Quarterly and Monthly Investment Performance Report with update on capital markets and quarter lag reporting for private markets with possible board action on any item or funds/managers – Meketa.
   The MCERA board voted to approve the reporting of private alternative investments by Meketa and to convert to a quarter lag using "N/A's" instead of zeros. Ness/Ingersoll U/A (7-0)
3. Discussion and possible action to approve staff to execute contract with CPAS to enter the CPAS cloud – Staff.
   The MCERA Board voted to approve staff to execute contract pending legal review with CPAS to enter the CPAS Oracle cloud. Cabral/Rhodes U/A (7-0)

4. Discussion and possible action to approve MCERA's Investment Policy Statement with updated benchmarks per Meketa's recommendation at the January 23, 2020 Investment meeting – Staff.

   The MCERA Board voted to approve MCERA's Investment Policy Statement with updated benchmarks per Meketa's recommendation from the January 23, 2020 Investment meeting. Ingersoll/ Silveira U/A (7-0)
5. Discussion and possible action on update of property purchase located at 690 W. 19th Street, Merced, CA – Staff.
   No discussion.
6. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MCERA's Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
   a. Carmel Partners Annual Investors Conference, March 5-6, 2020, San Francisco, CA.
   b. CALAPRS General Assembly, March 7-10, 2020, Rancho Mirage, CA.
   c. TCV Annual Investor Meeting, March 24, 2020, San Francisco, CA.
   d. Advanced Principles of Pension Management for Trustees, March 30–April 1, 2020, Los Angeles, CA.
   e. Pension Bridge Annual Conference, April 14-15, 2020, San Francisco, CA.
   f. NCPERS Trustee Educational Seminal, May 9-10, 2020, Las Vegas, NV.
   g. NCPERS Accredited Fiduciary Program (Modules 1&2 and 3&4), May 9-10, 2020, Las Vegas, NV.
   h. NCPERS Annual Conference & Exhibition, May 10-13, 2020, Las Vegas, NV.
   i. SACRS Spring Conference, May 12-15, 2020, San Diego, CA.
   j. 2020 PIMCO Institute, Newport Beach, CA: June 8-11, 2020 or October 19-22, 2020.
   k. KKR's 2020 Global Investor Meeting, July 29 – July 1, 2020, Rancho Palos Verdes, CA.
   l. SACRS Public Pension Investment Management Program, July 26-29, 2020, Berkeley, CA.
   m. Principles of Pension Governance for Trustees, August 25-28, 2020 Malibu, CA.
   n. Nossaman Fiduciary Forum, October 1-2, 2020, Los Angeles, CA.
   o. SACRS Fall Conference, November 10-13, 2020, Indian Wells, CA.

No action taken.

INFORMATION

There is an Investment Subcommittee meeting immediately following the meeting.

ADJOURNMENT

The Meeting adjourned at 10:15 A.M.

Respectfully submitted,

____
Scott Johnston, Vice Chair

____
Al Peterson, Secretary

____
Date

Merced County Employees' Retirement Association

Website Redesign, Development, Implementation and Hosting RFP.

Questions may be addressed to:
Rocky Martin, VP Sales and Partnerships
+1 (916) 238-1812
rocky@digitaldeployment.com
www.digitaldeployment.com

Digital Deployment, Inc.
2321 P Street, First Floor
Sacramento, CA 95816
Federal EIN: 26-3341975
CA Small Business Certification: 1770310
CA Multiple Award Schedule (CMAS): 3-19-70-3077B

Table of Contents

Executive Summary

February 28, 2020

Kristen Santos
Merced County Employees' Retirement Association
3199 M St.
Merced, CA 95348

Dear Kristen,

Enclosed is Digital Deployment's response to the Merced County Employees' Retirement Association's Website Redesign, Development, Implementation and Hosting RFP.

Digital Deployment is a full service website development firm, located in Sacramento, California, focused on all facets of development including research and strategy, design, content strategy, technical implementation, and CMS platform training. We have produced and successfully deployed more than 300 websites since our founding in 2004. Our strong design track record is grounded in research methods including qualitative and quantitative activities to produce compelling online experiences that engage audiences to ultimately drive action.

As an industry leader in pension websites, we have helped over a dozen public pension systems maneuver the difficult website development process. We are also active members in the Public Retirement Information Systems Management (PRISM) Association and the National Pension Education Association (NPEA), and State Association of County Retirement Systems (SACRS). From CalSTRS to the NYCERS, we enjoy the challenge of creating robust yet clean self-service websites for entities that serve the public. We stand out from our competitors because of the ongoing support we provide clients post-launch. In fact, of the clients we had five years ago, more than **95%** are still active clients today.

We hope we have the opportunity for an interview so that we may learn more about you and share our unique approach to building sites.

Thank you for your consideration—we hope we can support Merced County Employees' Retirement Association in its comprehensive redesign.

Sincerely,

Mac Clemmens

Mac Clemmens
CEO/Founder, Digital Deployment

PROJECT APPROACH

Digital Deployment will implement the website redesign in a cohesive 5-phase development process. Our process instills confidence, taking projects from initiation to launch in a predictable, transparent way. The development process has yielded enormous results by way of happy clients who are aware of all project milestones and associated deliverables. Our goal is to ensure there is no guesswork on when items will be delivered. And, most importantly, the process eliminates surprise timeline adjustments.

Merced County Employees' Retirement Association will be provided a project team made up by individuals who will work with you on the planning and execution of the website redesign process.

The Merced County Employees' Retirement Association web project team will be provided a dedicated project manager, Amanda Benevento, who will be with you from project start to finish. Amanda is your primary point of contact for day-to-day communications and responsible for the allocation of resources, scheduling of meetings, and an on-time and on-budget delivery. She will also supply meeting agendas and post meeting notes, and next steps to keep both teams on track and accountable.

Below is our 5-phase process and a description of each phase:

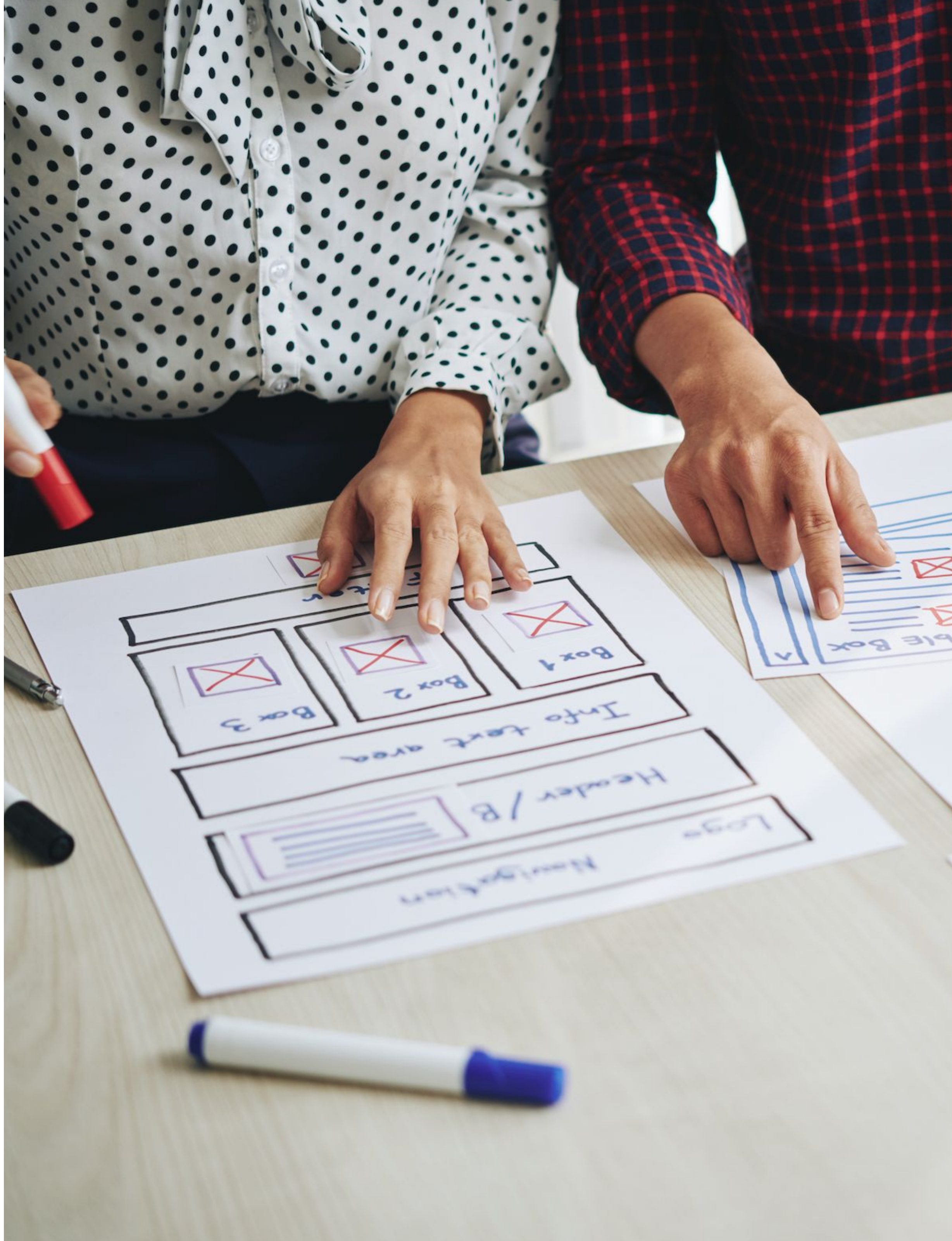
1. Discovery
2. Design
3. Implementation
4. Content Curation & Training
5. Launch

KICKOFF & CONTENT PLANNING

Intention: To define project expectations and review the scope of work, identify content leaders, and help Merced County Employees' Retirement Association's participants become familiar with the redesign process and the Digital Deployment team. In addition to the formal kickoff meeting, we will also host a Content Planning meeting to review content goals and discuss planning to develop and maintain fresh content on an ongoing basis.

Key meetings:

- One (1-hour) kickoff meeting with our team and your primary web project team.
- One (1-hour) meeting with our Content Specialist and your primary content contributors to discuss details in relation to content goals and migration planning.



1. DISCOVERY

Intention: The Discovery phase encompasses our research and strategic services. Our strategic approach is generated from a variety of research methodologies and thorough analysis of your existing website. See an outline of research activities are to the right.

Building upon the persona work that your team has already begun, we'll open this phase up with engagement from our team and yours to gain a deep understanding of your organization's objectives, challenges, and audiences, as well as what each audience needs from the website. We identify the gaps between what the website is now and what it needs to be, and develop strategic solutions to close those gaps by means of information architecture, design, and content strategy.

We then move into drafting the information architecture (IA). Drafting the IA early in the process gives us a place to start. IA is a process, not a solid plan; as content and navigation and design start to come together, we'll be able to make adjustments to better serve your sites' audiences.

Deliverables: The Discovery Digest houses the overarching digital strategy, and will include:

- Comprehensive findings from research activities, including the project overview, goals, audiences and challenges
- Highlight existing integration/tool evaluation, and seed future-thinking third party tools for consideration
- Summary of audience insights
- Key observations and takeaways
- Drafted information architecture via Slickplan, produced by our web and content strategist

Key meetings:

- One (2-hour) "Phase 1" meeting with your primary web team and desired stakeholders to review findings from stakeholder surveys, audience personas recap (user journeys), analytics report and visual design preferences
- Two (30-minute) meetings to review information architecture plan and perform iteration

RESEARCH ACTIVITY	INTENT
"Exploring your Purpose" exercises	Help you to articulate, and us to understand, who you are for the world. Builds consensus with stakeholders to embark upon the project with clear, unified goals and expected outcomes.
User stories (or personas)	Imagine site visitors and what they are trying to accomplish.
Analytics	Review existing web analytics to help understand current site visitor behavior, including: - Traffic engagement - Homepage performance - Mobile usage
Peer Analysis aka "Website Field Trip"	Determine your team's visual and design preferences.

2. DESIGN & Branding Refresh

Intention: To create powerful designs that listen to user needs and drive action. Our strategy team will closely partner with our designer to produce homepage and interior design options that reflect Merced County Employees' Retirement Association's strategic vision and user engagement goals.

The design options will incorporate a responsive design that is organized by the user journey and drives engagement with Merced County Employees' Retirement Association. We will hand off fully built out design files to our implementation team, including notation on breakpoints for the optimal user experience on any browser and device. You choose a direction, and we run design iteration until the design is approved by primary stakeholders.

Deliverables:

- A new approved logo with a Brand Standards document and full business systems.
- An approved homepage design with interior pages and desktop and mobile responsive

Key meetings:

- Brand Discovery Meeting with revisions to follow.
- Phase 2A meeting (2-hours) refers to the first design review meeting with your team and ours. Digital Deployment will showcase and walk through two homepage options
    - Feedback is gathered from your team for design iteration
    - Your team will narrow to one design direction
    - We will provide a link to the design for your team's review post meeting
- Phase 2B meeting (1-hour) refers to the second design review meeting with your team and ours. Digital Deployment will showcase and walk through the iterated design
    - At this meeting, we will showcase the mobile responsive version of the homepage design, and review interior pages

3. IMPLEMENTATION

Intention: Technical implementation takes 3-4 weeks and includes the build out of the design on a sandbox, which is what we call your site before it formally goes live. Implementation is taken care of by the Digital Deployment team, and requires no engagement or support by the Merced County Employees' Retirement Association web team.

Implementation includes quality assurance testing by our cross-functional team to ensure design is accurate and content follows the information architecture. We also perform cross-browser testing along with accessibility checks to follow the latest compliance standards.

- Design review
- Template/design alignment
- WCMS content regions
- Asset and font creation
- Theme implementation
- QC review
- Standards compliance testing / ADA

We deliver a sandbox ready for training with all required features and functionality.

Deliverables:
- Fully implemented website that is fully compliant with ADA Section 508 standards that is ready for training and associated content curation

No meeting needed.

4. CONTENT CURATION & TRAINING

Intention: To empower your team to manage your website content. Our Content Specialist will be working with you from project start to understand your content goals, determining which content will be migrated to the new CMS platform, and to identify what content, including imagery and video assets, will need curation prior to formal website launch. After running an analysis of your content through Deep Crawl, we found that it is not possible to get a current page count because of CivicPlus uses an odd URL structure. We manually found 111 pages and would need to confirm this along with a count for documents.

We have performed an initial audit of your content and we have provided some areas for consideration when planning for an audit and migration.

Content audit summary

There is opportunity for Merced County Employees' Retirement Association to organize content as part of the website redesign initiative. Digital Deployment recommends a comprehensive content migration and clean up strategy that includes:

1. Providing a secure site to host all content (HTTPS).
2. Increasing the level of accessibility site-wide.
3. Cleaning up past calendar, event, and news URLs.
4. Bringing primary pages up to higher level navigation to decrease the number of clicks users need to find main content (based on preliminary work performed on user journey data)
5. Updating or removing pages with duplicate titles and content
6. Identifying files that contain important information to get them into HTML format so that they are easily searchable, indexable, and mobile-friendly
7. Removing or updating failed URLs and broken links

Pages breakdown

Primary Pages (111): Based on your site map, we were able to find 111 current indexable pages. Due to a precueral URL structure, we were not able to run a scan with our spider tool so we will have to manually confirm all content.

Areas of opportunity

A few challenges will be to confirm all content due to not having an accurate crawl. It may take more time to 301 redirect current URLs because of the odd URL structure that CivicPlus uses. Finally, there may need to be additional content generation needed to complete our proposed Information Architecture.

Digital Deployment's content specialists provide comprehensive CMS platform training. Training is broken up into two parts, basic and advanced.

We provide education on content best practices, governance, and workflows. Your website contributor(s) will learn how to:

- Edit/add/delete content, including images and video assets
- Update the sitemap
- Manage authorized users
- Effectively maintain the site through content strategies, including accessibility best practices

At the end of training, your team will be responsible for content curation with our team to support you every step of the way!

Deliverables:

- Content migration from existing platform to our Drupal-based platform
- Training and hand off of the sandbox to your team.
- Support through Digital Deployment's Support portal for curation and functionality questions or needs.

Key meetings:

- All day (approx. 6-hour) training "retreat" at a Merced County Employees' Retirement Association preferred location.

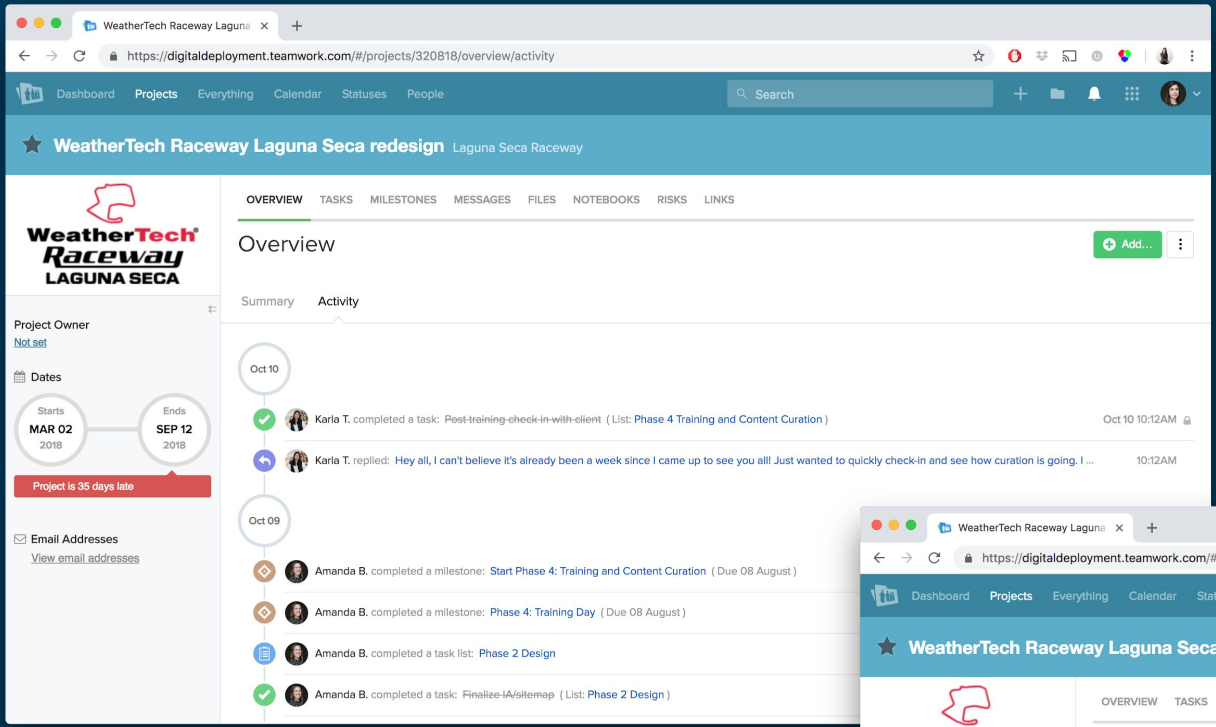
5. LAUNCH

Intention: To plan for, and later celebrate, the launch of your website. Once content curation is completed by your team and a launch date is determined, we will perform final left to right quality assurance checks. This includes our content specialist, strategist and front end developer reviewing your site and gathering a list that we work collectively on to address and resolve key issues. We also prepare for deployment, working with your IT team on DNS change settings.

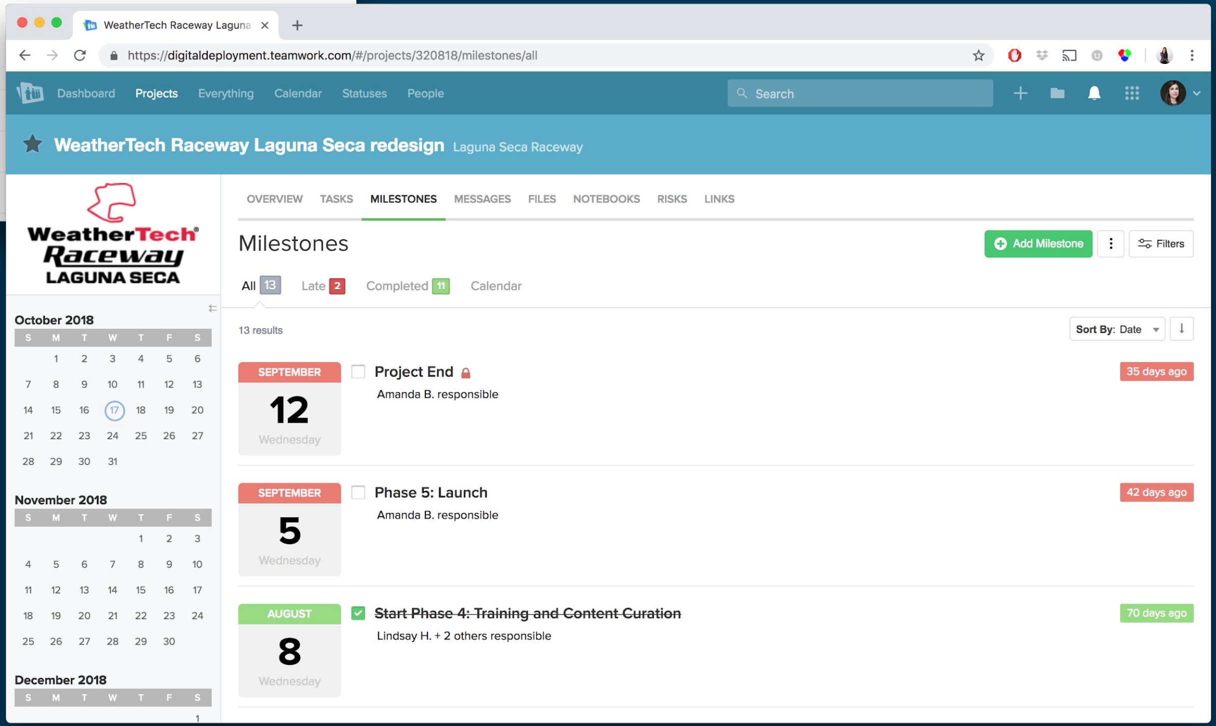
Deliverables:

- The smooth launch of your website that you can be proud of.

PROJECT MANAGEMENT & COMMUNICATION



TEAMWORK VIEWS



Our 5-phase process is complemented with use of project management tools that streamline team communication. We use an integrated communications platform called Teamwork. Teamwork houses all project communication, including messaging and shared files. The use of this platform avoids miscommunication by centralizing email threads.

TIMELINE & MILESTONES

Below is an overview of the overall development process, key milestones and month-to-month view. We anticipate development to take between seven to ten months from project kickoff to formal launch. The timeline primary includes a content strategy and technical implementation track. Post CMS training, the Merced County Employees' Retirement Association team will have access to the sandbox for content curation. Curation is the time period between training and when your site goes live. This is the timeframe when your team is responsible for the evaluation of content, editing existing content, or creation of net-new content. Curation for clients takes between two weeks to two months. The overall timeline will vary based upon your needs and availability.

PROJECT TEAM & EXPERIENCE

Since our founding in 2004, our people have been our greatest asset. By supporting the passions of our team and investing heavily in leadership and professional development, we have enjoyed a profound employee retention rate. For our clients, this means extraordinary operational continuity, deeper institutional memory, and an emphasis on productive, long-term relationships.

The Merced County Employees' Retirement Association project team has a broad array of skills and is deeply experienced. We've included bios and relevant experience for your reference. All team members, including your full-time project manager, Amanda Benevento, are located in Digital Deployment's Sacramento, California office.

Amanda Benevento is responsible for the end-to-end delivery of all services outlined in the RFP. She will lead day-to-day communications with the Merced County Employees' Retirement Association team and will coordinate internally with the Digital Deployment production team to allocate resources, schedule meetings, curate and share meeting agendas and post-meeting notes, facilitate invoicing, and keeps the project moving forward to adhere to the overarching project timeline.

AMANDA BENEVENTO Project & Account Manager

Amanda is your primary point of contact for day-to-day communications. She is responsible for the on-time and on-budget delivery of your website. Prior to joining Digital Deployment, Amanda worked at Google as the project manager of their Global Media Lab, managing the launch of the Pixel and Pixel 2.

Client experience:

- SCERS
- SBCERA
- Maryland State Retirement and Pension System
- OCERS
- Georgia Council on Economic Education

JASON MCWHORTER Lead Front end Developer

Jason is responsible for bringing your design come to life. He'll work with your team, Steph Bradley our content lead to produce a sandbox (the staging environment prior to the site going live). He will ensure compliance with ADA and site mobile-friendliness. Jason will perform quality assurance checks and will support your team on technical functionality needs throughout the process.

Jason has been with DD for over eight years. His first Digital Deployment project here was designing Google's exhibit at the Smithsonian.

Client experience:

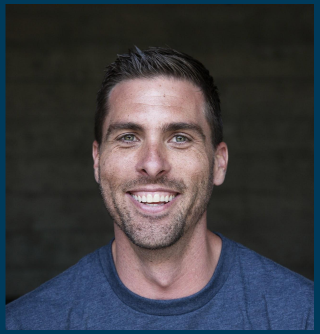
- New York City Employees' Retirement System
- CalSTRS
- VCERA
- SamCERA

STEPH BRADLEY Director of Content Services

Steph will be your lead content strategist, she will perform an audit of your current content and produce a plan to migrate and enhance the overall content to align with your new website design. She will lead training your project team on the CMS platform, including best practices.

Steph has championed content for our largest sites, including:

- CalSTRS
- VCERA
- OCERS
- Los Angeles Fire and Police Pension



LINDSAY HARDY Director of Strategy

Armed with a deep understanding of higher education, Lindsay will ensure the design translates to our frontend development team. His job is to make sure your site meets your technical needs, looks great, and works well for your users. He will also identify third party integrations for a seamless user experience. Prior to joining Digital Deployment, Lindsay was the Director of Web Marketing for the UC Davis Graduate School of Management.

Client experience:

- NYCERS
- OCERS
- SCERS

CAMERON EAGANS VP Engineering

Cameron leads Digital Deployment's product development, hosting and infrastructure, and front-end development capabilities. A leader in the open-source community, Cameron has served as a core contributor of Drupal 6, 7, and 8. He currently maintains 35 Drupal.org modules and his composer-patches project on Github has been downloaded nearly 5 million times and is widely considered to be a standard part of the Drupal 8 development workflow. Cameron manages our Drupal platform, and supports our entire client base.

HEATHER KING Customer Success Manager

Heather leads our SLA Program. Post launch, your team will engage with her on technical questions and needs, or if your team has requests for specific digital needs. She is our front line team member for all support tickets. Heather currently supports more than 200 clients, and triages 40-60 ticket requests per week.

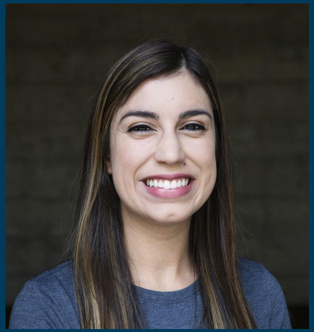
GINGER O'BRIEN Controller

Ginger works hard to ensure all financial and legal matters of Digital Deployment are in order. From coordinating health benefits for employees to tracking down lost receipts, she supports day-to-day operations. Ginger facilitates project payments and invoicing.

KRISTY PRINCE VP Client Services

As the person who coordinated this proposal, Kristy is committed to your satisfaction and available if you have any questions.

Kristy leads operations for Digital Deployment, and leads the Production team. Her passion for client success is nurtured by her drive to deeply understand complex online challenges, and how Digital Deployment's services and platform can solve them. Prior to joining Digital Deployment, Kristy led the Program Management function at Ancestry.com & AncestryDNA in San Francisco, California



MARIA VALENZUELA Lead Designer

Maria will be your dedicated design lead. She partners with our web strategist to produce compelling designs that meet user engagement needs and have a 'wow' factor. Maria continually pushes the envelope by producing design options that not only serve user engagement needs, but in the process, transform organizations and reframe their strategy to enhance their online presence. Maria has over 10 years of design experience at top agencies prior to working with DD.

TECHNOLOGY PLATFORM & SUPPORT

We use and have helped create open-source software including Drupal, which is currently the #1 enterprise content management system for public utilities, government, and large institutions. It's mobile-friendly, meets modern web standards, and supports Section 508 compliance for users with disabilities. We have created a usability layer that provides a uniquely user-friendly content management experience that puts your team in complete control of content. In responding to your organization's omni-channel needs, content through the platform can also be shared through email lists or social media, enabling your team to streamline workflows, and ensuring information about service is disbursed throughout your communication and marketing touchpoints to increase audience reach and visibility.

Drupal has had the reputation of being complicated compared to Wordpress and other platforms. This has less to do with Drupal as a platform and more to do with how it is configured. Its power and complexity are the inspiration behind our modules to aid in configuration and workflow for you—the site administrator. As a result, you will have a site that is more powerful than Wordpress and even easier to use. It also gives us more power to tailor it specifically for your needs.

The CMS platform addresses all functionality needs listed in the RFP. Below are highlights of some features that will streamline your web team's workflows and gain efficiencies.

Post once, display many ways

- Any piece of content can be "tagged" to multiple areas, yet there is only one master (making updating and syncing changes a breeze)
- Profiles can be leveraged in two way relationships, allowing contact information to be updated in one place, but visible in many areas

Content interface

- "WYSIWYG" editor makes formatting content easy
- Bulk image and file uploading with mobile-friendly photo gallery capability
- Embed YouTube videos by simply pasting the URL of the video
- Ability to embed HTML and widgets directly into site content
- Simply add event dates to any post and it appears in the sitewide calendar
- Basic translation plugins (Google Translate) and advanced translation capability

Access control and distributed administration of content

- Content dashboard with email notifications and one-click workflow approvals
- Ability to control access to navigation terms and individual posts based on role
- Ability for contributors to add content, administrators to approve before it goes live
- Revisions saved for all versions of content, and content can be reverted if necessary

Bundle & Blast® and social media features

- Any piece of content on the site can be email blasted out to your list with one click
- Multiple pieces of content can be bundled together to build newsletters with automatic TOC
- Commenting and/or Facebook integration; visitors can share or like content directly from the site
- Administrators can post content directly to Twitter or Facebook from within the website

Responsive web design

- Responsive capability built-in for visitors using any device
- Multiple breakpoints included for maximum versatility

Webforms and polls

- Easily create Survey-Monkey™-type forms to capture information from visitors
- Results can be emailed, viewed and analyzed on-site, and downloaded to Excel
- CAPTCHA discourages spamming
- Webforms can be used for site-wide contact forms and feedback forms
- Use polls to gather votes on issues and display results immediately to visitor
- Ability to send visitor to any URL or set custom confirmation pages for both webforms and polls

Other features

- Custom URLs and automatic "pretty" URLs created from post titles and navigation terms
- Advanced SEO capabilities, such as ability to set type-specific, or post-specific metadata
- Advanced search with ability to filter by attributes like type, date, author
- Emergency notifications placed on the site

Mobile-ready and fast
We employ multi-breakpoint responsive themes so your design will look good on any device. We also guarantee your site's readiness for events like "mobilegeddon" — the day Google started penalizing sites that were not mobile-friendly. Future penalties are expected for sites that load slowly and that do not use SSL (https), and we are constantly evolving the platform to meet such technical requirements before they are enforced.

Search engine specifications
All requirements listed in the RFP are carried out through Apache Solr. Its major features include full-text search, hit highlighting, faceted search, real-time indexing, dynamic clustering, database integration, NoSQL features and rich document handling.

Hosting
In partnership with Pantheon, the world leader in website hosting, Digital Deployment has created a powerful hosting environment specifically tailored to its technology. Currently hosting the World Bank, Tesla.com, and eight out of eight Ivy League schools, the hosting platform uses multiple data centers within the Google network and the Fastly content delivery network to ensure speed and reliability. We guarantee 99.9% uptime, seamless monthly updates, and fast operation for users worldwide.

Backup hosting arrangement
Digital Deployment can, upon request, establish an independent secondary provider for hosting and basic maintenance that the client can switch over to at any time for any reason. We have established this protocol with larger clients including universities who host their entire website on DD infrastructure. It will provide uninterrupted service and the ability to immediately establish a reasonable service contract directly with your organization in the unlikely event that Digital Deployment becomes insolvent or unresponsive.

HTTPS (SSL) included
HTTPS—commonly referred to as SSL—is the industry standard protocol for secure communication between a web server and a browser, allowing users to trust the web server they are connecting to and ensuring all data remains private and unchanged in transit. Full HTTPS configuration (including SSL certificate acquisition, issuance, renewal, and installation) is included with your hosting environment. Digital Deployment uses the Let's Encrypt certificate authority sponsored by Cisco, Google, and Facebook and uses only modern encryption standards, such as the TLS 1.2 protocol with SNI, AES ciphers, and 2048-bit keys.

Approach to security
Though Digital Deployment's SLA program, we continually monitor your website for threats or suspicious activity. We use the following programs and procedures to monitor.

During the design and development process, we rely heavily on Drupal's tried-and-true RBAC system to ensure that users are only able to perform actions that they are authorized to perform. We actively avoided building our own solution for this problem because a widely used, open, community supported and maintained security component is a much safer option. In our product, we have a collection of pre-defined roles that can be assigned to users of our websites. We can also create additional roles if necessary, but we've found that our standardized collection of roles is sufficient for most workflows.

For production operations, we rely on Pantheon, a managed Drupal hosting service. They have an excellent security track record, including proactive mitigation of CVE-2014-3704, CVE-2018-7600, and CVE-2018-7602 (also known as the Drupageddon vulnerabilities) for all sites without requiring customer intervention. The rest of Pantheon's business is similarly proactive and robust. They have a page detailing their security measures here: https://pantheon.io/security

Security threats mitigation
For malware and DDOS attack mitigation, we lean heavily on Pantheon's infrastructure. They regularly scan for malware, and anything that is found is quickly quarantined. DDOS attacks are mitigated at the CDN and no proactive mitigation is required on our part. SQL injection vulnerabilities are pretty rare in Drupal, but Pantheon has active protection against requests containing SQL queries. We also ensure that all applicable security patches are applied to our fleet of websites within 24 hours of the public disclosure of any vulnerability.

Regarding data breaches: we try to avoid retention of PII as much as possible, so if a breach does occur, the damage would be minimal. We are proud to say that we have not had a single data breach in the history of Digital Deployment, but in the interest of being prepared for potential problems, we have a procedure in place for handling breaches. The condensed version of that procedure are as follows: 1) Notify any affected clients, 2) Take immediate action in partnership with Pantheon to isolate and quarantine any affected resources, as well as ensure operational continuity of any affected websites, 3) Find and resolve any vulnerabilities that lead to the intrusion, and 4) Work with affected clients to craft communications directed at end-users.

Administrator controls
Because we operate our websites as a SaaS platform, we expose only a limited set of administrative controls to end users. These controls are typically comprehensive enough for our end users to completely manage their website without outside intervention. There are a few pieces of configuration that we specifically do not expose, and one of those items is the list of permissions assigned to each role. We have to rely on those permissions staying more or less the same across all of our sites so that we can continue to deliver new features in a reliable manner. If direct control over permissions assigned to each role is a requirement, we can certainly discuss how best to satisfy that requirement, but we generally encourage our clients to avoid that requirement altogether if possible.

Training for all exposed administrative controls is provided as part of our standard 5-phase process, and for controls that are not directly exposed, our support team is always happy to help!

Accessibility
Just as buildings need to have wheelchair ramps, modern websites must comply with various accessibility and web standards. This means making sure all images have alternative text, that certain color contrast ratios are met, and much more. We are committed to full Section 508 (ADA), W3C, and WCAG 2.1 AA, the gold standard for website accessibility. Not only is your website built to meet these standards, we also provide ongoing support to keep your website current with new standards as well as training your users how to add accessible content. To this end, Digital Deployment was awarded the access award in 2018 by Disability Rights California, the nation's largest disability rights group, for its work creating accessible websites.

Digital Deployment is a thought leader in the accessibility space, please visit our latest webinar series on the common questions and mitigation strategies: https://www.digitaldeployment.com/webinar/website-accessibility

Accessibility compliance
Digital Deployment has experience working with a number of different accessibility audit software platforms. In the case of an audit, we will work closely with your team on procedures and provide remediation strategies.

Post-Launch Support

Post-launch, the Digital Deployment team is here to support your team with all facets of the website. Our Service Level Agreement (SLA) program allows us to have an ongoing relationship with our clients to provide high-assurance support, security patches and updates, offer ongoing training, ensure ongoing Section 508 (ADA/WCAG 2.1 AA) accessibility support, and refresh your site with new features and the latest technology.

Below is what Merced County Employees' Retirement Association will receive through the program.

Hosting

An enterprise high-availability hosting environment with unlimited storage, off-site backups, 24/7 monitoring and more.

Security

Timely and comprehensive support for any issues you encounter with your site.

Upgrades

Major new features such as SSL and upgrade to Drupal 8 as well as minor enhancements and bugfixes

Support

Support from the team who produced your website.

Training

Help train new staff members or get a quarterly refresher and review, available in-person or remotely.

Strategic Reviews

In-depth analysis of your site, fit-and-finish, content quality check, and help with any problem sections.

Consulting

Strategic support for your organization's broader goals, including redesigns.

Accessibility

Helping you meet evolving standards from Section 508 to WCAG 2.0 AA.

Insurance

$1,000,000+ of liability coverage for data loss, theft, and security issues.

Service Level Agreement

Unlike other website development companies who conclude their partnership at the website at launch, Digital Deployment is unique in that we maintain ongoing relationships with every client we produce a site for.

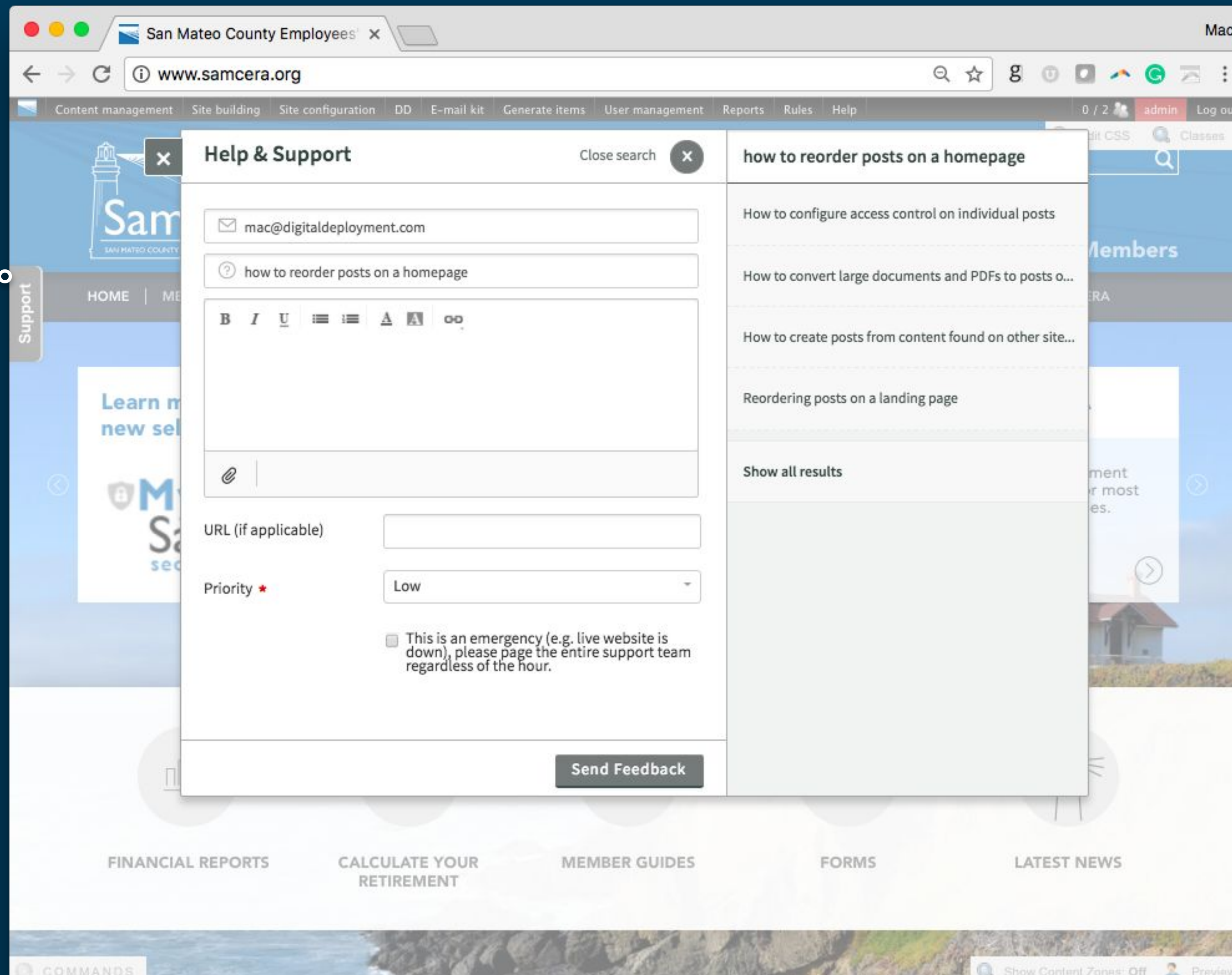
The goal of the SLA is to aid our clients by making our expertise affordable and available for a flat monthly fee. We have staff in multiple time zones to be able to address our customers' 24/7 technical support needs.

When you have a question or a site issue, you can submit a ticket directly through your website or through support.digitaldeployment.com. We guarantee a response and resolution time depending on the priority that you set on each ticket. We take this seriously: 99% of all tickets submitted are responded to and resolved within the defined timeframes.

If you set your priority level to:	You'll get a response within:	You'll have a resolution within:
LOW	2 days	2 days
MEDIUM	8 hours	1 week
HIGH	2 hours	1 day
URGENT	30 minutes	2 hours
EMERGENCY	Immediately	ASAP

Below is a example of how our support system is seamlessly integrated into your website pre and post launch. Content contributors can simply click on the Support tab on the left-side of the webpage and describe a question or a specific need, specify priority and submit. This is one of the many ways we offer to get fast help.

Users can submit a ticket from any page and access help articles.



- ✓ **After launch, support is integrated directly into your site.**
- ✓ **Users can submit a ticket from any page.**
- ✓ **There is also access to Help articles.**

Website Redesign and Technical Implementation Cost

Below is cost breakdown for the complete scope of services described in this Proposal.

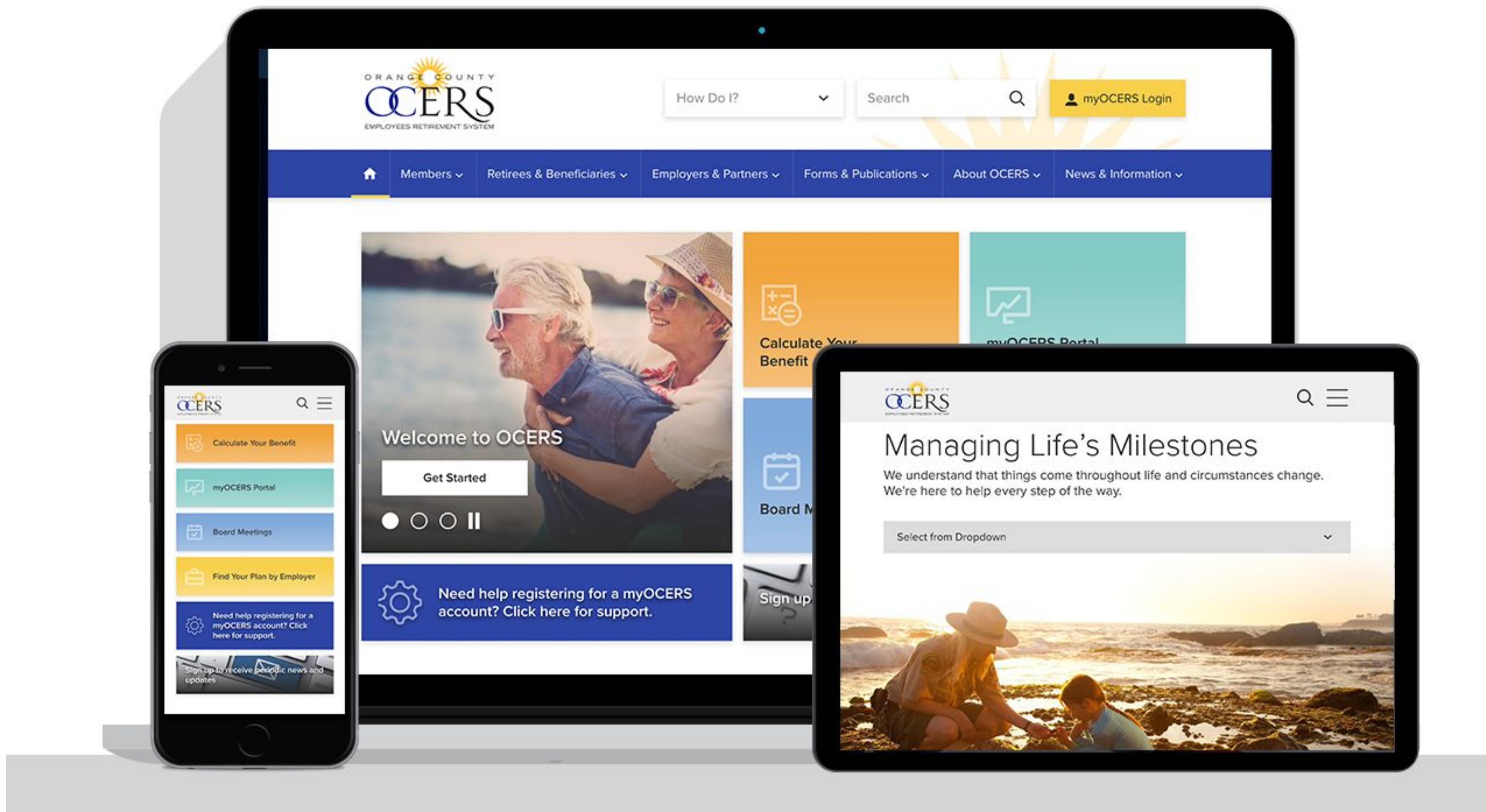
Description Details	Hours	Hourly Rate	Cost
PROJECT AND CONTENT KICK OFF - Project participants enrolled and instructed in the 5-phase process. Discussion, documentation, project timeline drafted and associated scheduling for key meetings. Content meeting to discuss content inventory and content plan produced. Content ***Resources:*** Project Manager, Strategist, Content Specialist, Front End Developer	30	$150	$4,500
DISCOVERY - Strategist to perform: - Exploration exercises, and stakeholder surveys (buildout, revisions, processing data) - Google analytics review and analysis - Discovery Digest document curation - Information Architecture development and iteration ***Resources:*** Project Manager, Strategist, Content Specialist, Designer	80	$150	$12,000
DESIGN - Brand Identity Designer to take client through logo discovery and branding exercises to establish brand identity and colors before moving in to website design needs. **Website Design -** Designer to produce and share two homepage options. Feedback is gathered from Shriners, design iteration. Share narrowed homepage design option for feedback, this round will also include interior designs and mobile responsive. Final iterations and design approval. ***Resources:*** Project Manager, Strategist, Content Specialist, Designer, Front End Developer	120	$150	$18,000
IMPLEMENTATION - Execute design and information architecture into the CMS. Implement templates. ***Resources:*** Project Manager, Strategist, Content Specialist, Front End Developer	100	$150	$15,000
TECHNOLOGY INFRASTRUCTURE - Infrastructure deployment of testing and production environments; hosting setup and configuration.		--	$5,500
TRAINING & CONTENT CURATION SUPPORT - Basic and advanced CMS training, support ticket responses and solutions, quality testing and review, fit-and-finish adjustments. ***Resources:*** Project Manager, Content Specialist, Front End Developer	60	$150	$9,000
CONTENT MIGRATION - Migration services, including migration of content from existing platform to Drupal, formatting and metadata. ***Resources:*** Content Specialist and Migrator	180	$90	$16,200
LAUNCH - Final quality checks and preparation for launch, DNS support, final launch, post launch support. ***Resources:*** Project Manager, Strategist, Content Specialist, Front End Developer	45	$150	$6,750
			Total: $86,950
- Ongoing Technical and Content Support, Hosting and Security - Note: Digital Deployment does not issue reimbursable expenses; all expenses are included in the project cost	--	--	$900.00 - Monthly Fee

EXPERIENCE & REFERENCES

Digital Deployment has worked with seven different 1937 CERL act systems along with a number of state systems throughout the USA. This experience has allowed our team to approach each organization with a unique perspective, and to find solutions for a myriad of technology challenges. Below is a list of a few CERL organizations we currently support:

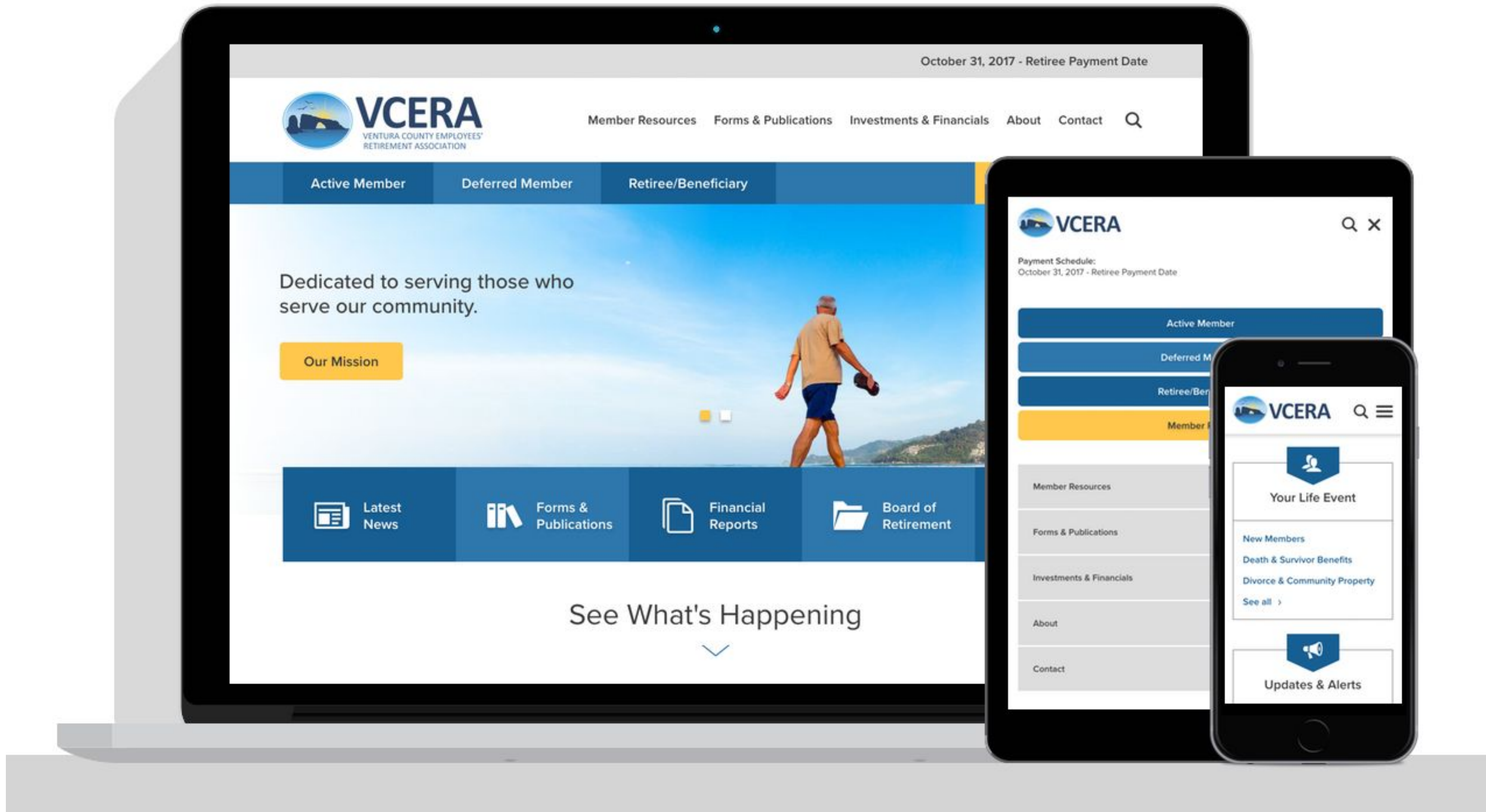
ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

www.ocers.org



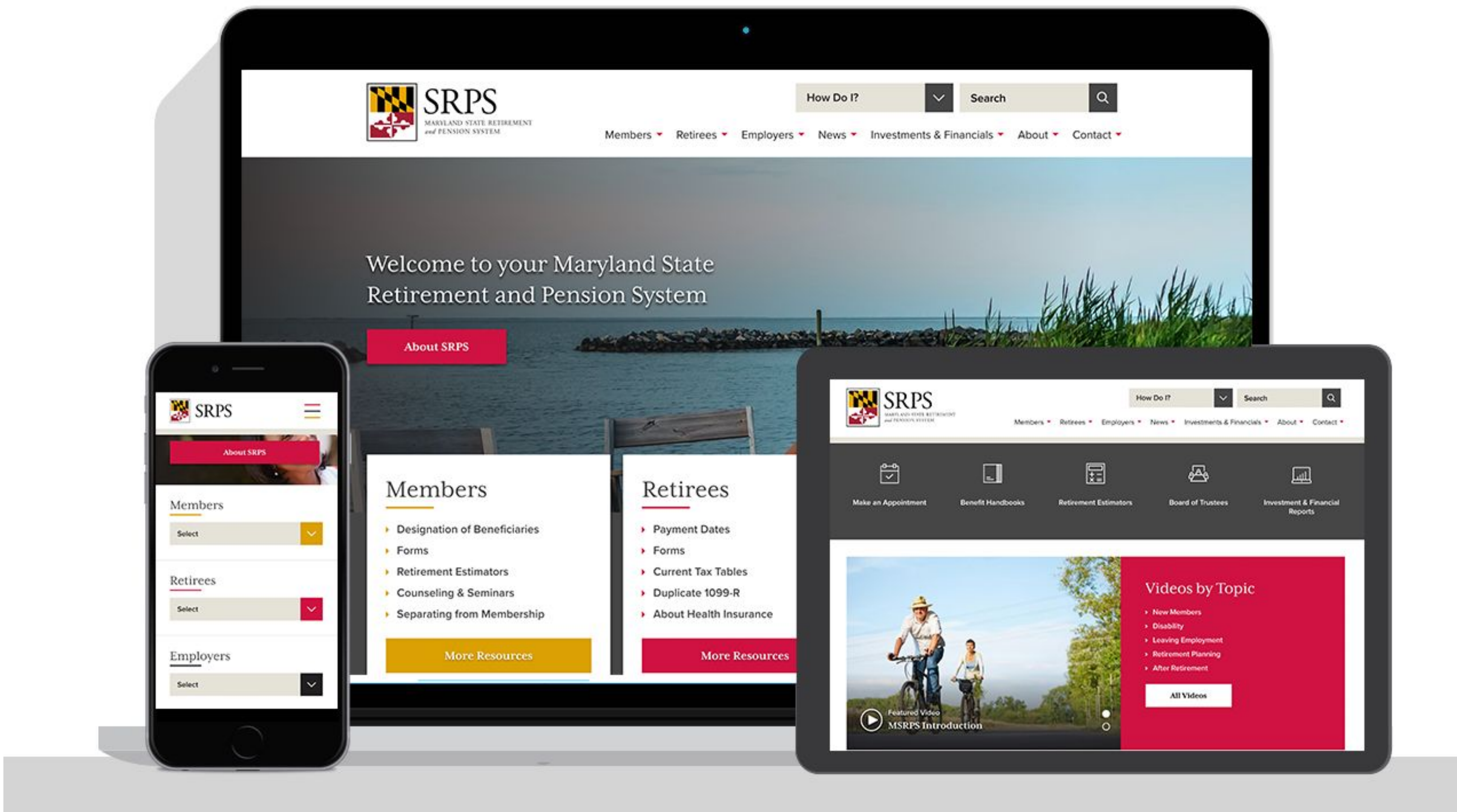
VCERA
VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

www.vcera.org



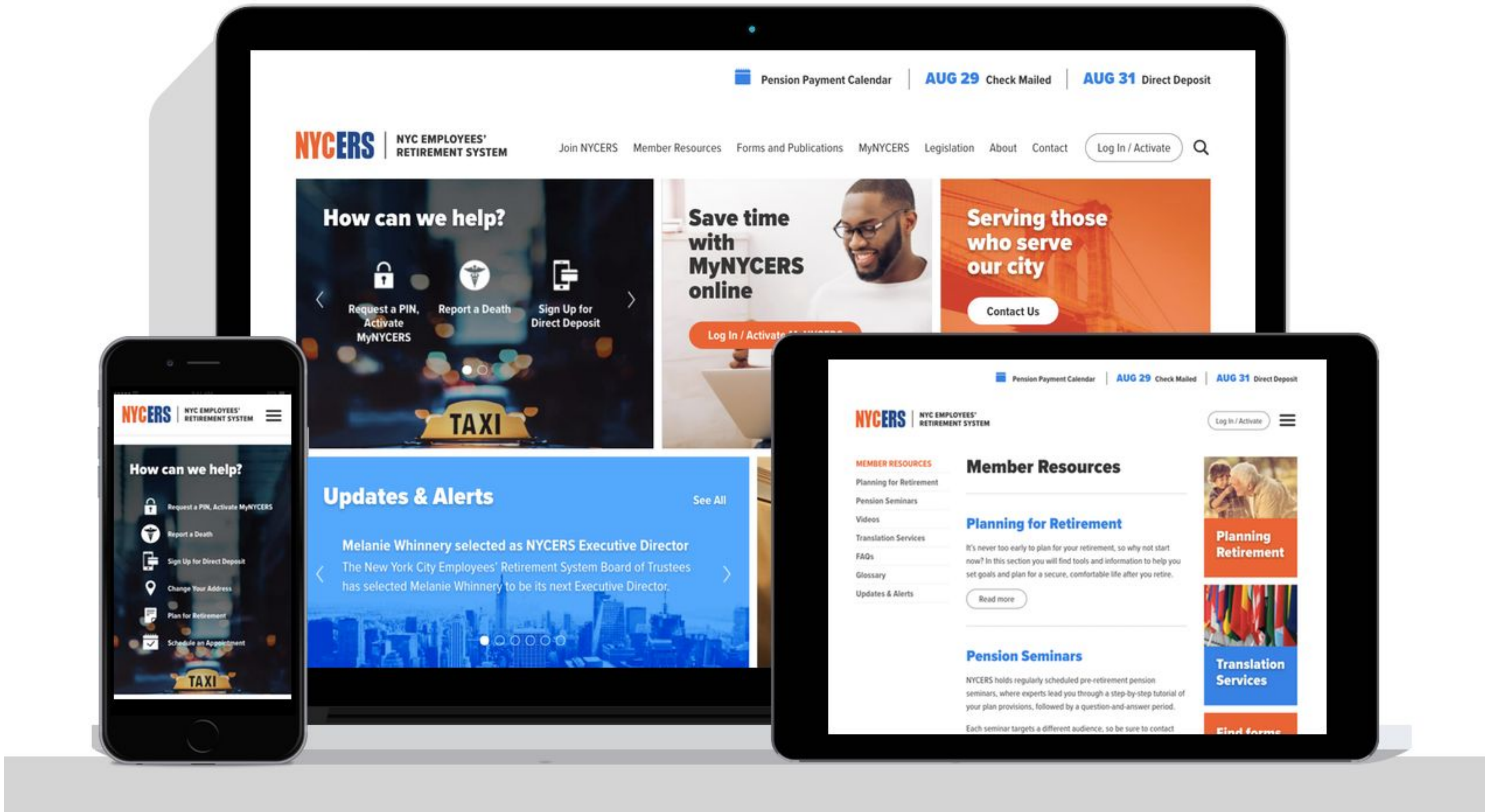
SRPS
MARYLAND STATE RETIREMENT
and PENSION SYSTEM

www.sra.maryland.gov



NYCERS | NYC EMPLOYEES' RETIREMENT SYSTEM

www.nycers.org



TERMS

Contract

All we need is this signature page of this proposal signed, scanned and emailed to sales@digitaldeployment.com to get started. However, if a separate, formal contract is required by your organization, no problem! If you have a standard contract we are happy to use yours; just reference this proposal as the list of deliverables, state that the contract supersedes this proposal in the event of a conflict, and our legal team will review and submit any questions. We can also send over a sample contract for you to use. Note that we do not require anything other than this signed proposal to begin work.

Timeline

The project timeline is typically between 7-10 months from contract execution to launch, but will vary based upon your needs and the availability of your team.

This proposal shall remain irrevocable for a period of sixty (60) calendar days from the original due date stated in the RFP.

Payments

Payments are made at three project milestones:

- Project kick-off (20% of project: $17,390)
- Post Phase 1 meeting $(25% of project: $21,737.50)
- Post Phase 2B meeting; SLA monthly agreement/fee begins. (20% of project: $17,390)
- Post Launch(35% of project: $30,432.50)

Acceptance: I wish to execute this website development agreement to provide the deliverables outlined in this proposal.

Acceptance: I wish to execute this website development agreement to provide the deliverables outlined in this proposal.

Signature: ____________________________ Signature: ____________________________

Print Name: __________________________ *Mac Clemmens, CEO*

Date: _______________________________ Date: _______________________________

Thank You

Digital Deployment is committed to creating a compelling online experience that brings the Merced County Employees' Retirement Association brand to life.

Thank you for your consideration. We hope we have the chance to formally meet your team for an in-person interview.

Item 2

Merced County Employees' Retirement Association

Audit of June 30, 2019 Actuarial Valuation

March 5, 2020

This report has been prepared at the request of the Board of Retirement to assist in administering the fund. This report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this report may not be applicable for other purposes.

© 2020 by The Segal Group, Inc.

Segal

180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8273 / pangelo@segalco.com
T 415.263.8283 / ayeung@segalco.com
T 415.263.8248 / eyum@segalco.com

March 5, 2020

Board of Retirement
Merced County Employees' Retirement Association
3199 M Street
Merced, CA 95348

Re: Audit of June 30, 2019 Actuarial Valuation

Dear Members of the Board:

We are pleased to present the results of this audit of the June 30, 2019 Actuarial Valuation for the Merced County Employees' Retirement Association (MCERA). The purpose of this audit was to verify the calculations completed by Cheiron and to offer comments on the methodology and the results of their actuarial valuation.

This review was conducted by Paul Angelo, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, Andy Yeung, an Associate of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, and Eva Yum, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA. This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

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.

The assistance of Cheiron and MCERA is gratefully acknowledged. We appreciate the opportunity to be of service to MCERA's Board of Retirement, and we are available to answer any questions you may have on this report.

Sincerely,

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

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

Eva Yum, FSA, MAAA, EA
Senior Actuary

JY/gxk

cc: Anne D. Harper, FSA, EA, MAAA
Graham A. Schmidt, ASA, EA, FCA, MAAA

Table of Contents

Executive Summary

This report has been prepared by Segal to present an audit of the June 30, 2019 Actuarial Valuation performed by Cheiron for MCERA.

This audit report includes an independent reproduction of the detailed valuation results that appear in the draft[1] June 30, 2019 valuation report prepared by Cheiron. This audit was based on actuarial reports, employee data and supplemental information provided by both MCERA and Cheiron.

We have performed this actuarial audit of MCERA's June 30, 2019 Actuarial Valuation to provide assurance to MCERA's Board of Retirement that the actuarial calculations are reasonable and that the actuarial process was conducted according to generally accepted actuarial principles and practices. **Our audit confirms that the actuarial calculations as of June 30, 2019 are reasonable and based on generally accepted actuarial principles and practices.**

Our findings and recommendations are summarized as follows:

- Segal's total present value of future benefits (PVB) as of June 30, 2019 is 101% of Cheiron's present value.
- A comparison of Segal's PVB to Cheiron's PVB by tier indicates that the total liabilities of each tier are reasonable as shown in the table below.

Tier	Ratio of Segal's PVB to Cheiron's PVB
General Tier 1	100%
General Tier 2	101%
General Tier 3	101%
General Tier 3R	101%
General Tier 4	100%
Safety Tier 1	100%
Safety Tier 2	101%
Safety Tier 3	100%
Safety Tier 3R	102%
Safety Tier 4	100%

- Segal's total Actuarial Accrued Liability (AAL) as of June 30, 2019 is 101% of Cheiron's liability.
- Segal's total employer contribution rate as of June 30, 2019 is 101% of Cheiron's rate.

[1] Throughout this report, our reference to the June 30, 2019 Cheiron valuation report is the draft report prepared by Cheiron dated February 17, 2020.

- As a percentage of projected payroll, Segal's net employer normal cost contribution rate is 102% of Cheiron's net employer normal cost rate and Segal's employer Unfunded Actuarial Accrued Liability (UAAL) contribution rate is 101% of Cheiron's UAAL rate.
- Our first focus was on matching the core numbers on which the tiers' ultimate costs depend: the present values of future benefits. The results of this analysis were shown on the previous page. We also focused on (i) the correct implementation of the actuarial assumptions as determined by the 2019 Experience Study and (ii) the determination of the UAAL contribution rate.
- As indicated in our Actuarial Review of 2019 Experience Study dated March 5, 2020, we recommended Cheiron propose a separate set of service retirement rates for the PEPRA tiers either before or at the time of the next triennial experience study and that the Board should take the higher cost that would result from implementing those service retirement rates into consideration. Subject to that recommendation, we found the actuarial assumptions and the methods used by Cheiron to be reasonable and in accordance with generally accepted actuarial standards and principles. The assumptions used in this valuation are those that MCERA's Board of Retirement directed Cheiron to use.
- Our comparison of the demographics of the 2019 data provided by MCERA with the valuation data used by Cheiron for the June 30, 2019 actuarial valuation indicates that Cheiron made relatively few changes to the original data before the valuation was performed. We also verified that Cheiron correctly made edits to the data based on responses they received from MCERA regarding questions Cheiron had about the data.
- Overall, we have verified that Cheiron's calculation of the UAAL and the total employer contribution rate as a percentage of payroll are reasonable and consistent with MCERA's funding policy. We have also verified that the member contribution rates determined by Cheiron are reasonable.
- We also reviewed the Cheiron actuarial report in detail. We followed up with them on two issues raised in the June 30, 2016 audit with respect to the last year the initial UAAL established on the June 30, 2013 valuation would be paid-off and the allocation of assets between the General and Safety membership groups. Most of our other comments were minor. We provided Cheiron with our comments when we reviewed their draft actuarial report, and we understand that Cheiron reflected most of our comments in their final report. We have confirmed that the Cheiron report contains content to comply with the recently approved Actuarial Standard of Practice on Assessment and Disclosure of Risk (ASOP 51), as well as most of the model disclosures recommended by the California Actuarial Advisory Panel (CAAP). A list of suggested changes for Cheiron to consider can be found in Exhibit D.

Purpose and Scope of the Actuarial Audit

Purpose of the Audit

Segal has performed an actuarial audit of MCERA's June 30, 2019 Actuarial Valuation to provide assurance to MCERA's Board of Retirement that the actuarial calculations are reasonable and that the actuarial process was conducted according to generally accepted actuarial principles and practices.

Scope of the Audit

The scope of the audit, as described in MCERA's Actuarial Audit Services Agreement with Segal, includes the following:

- Evaluation of the available data for the performance of such valuation, the degree to which such data is sufficient to support the conclusions of the valuation, and the use and appropriateness of any assumptions made regarding such data.
- Completion of a parallel valuation as of June 30, 2019 using the assumptions, methodologies and funding methods used by MCERA's consulting actuary in their performance of the June 30, 2019 valuation.
- Evaluation of the parallel valuation results and reconciliation of any discrepancies between the findings, assumptions, methodology, rates, and/or adjustments with MCERA's consulting actuary.

Results of the Audit

Several steps are involved in conducting an actuarial audit of a retirement benefits program. Outlined below are the primary steps we took to comply with the scope of the audit services. Following each step is a description of our observations.

Step 1: Data

Compare the demographics of the 2019 data provided by MCERA with the valuation data used by Cheiron for the June 30, 2019 actuarial valuation.

Results

Exhibit A provides a comparison, by tier, of the number of participants, their average ages, average salaries (active members), average service (active members) and average benefits (pensioners). This exhibit indicates that Cheiron did have to make a few adjustments, estimations or corrections to the data received from MCERA. In general though, the data received was "valuation ready."

Observations

1. After comparing the data provided to us by MCERA against that used by Cheiron, we noted that there were some differences in the salary information in Cheiron's scrubbed data compared to the Year-to-Date Earnable Salary in the original data provided by MCERA. We understand that Cheiron uses the following process to calculate annualized salary for purposes of the valuation: If the current year earnings is greater than the prior year valuation pay, Cheiron uses the current year earnings. If the current year earnings is less than prior year valuation pay, Cheiron uses the greater of current year pay rate times 26 or the current year earnings. Also, if the current year pay rate is under $100, Cheiron assumes that the current year pay rate is an hourly rate and multiplies the pay rate by 80 to estimate the biweekly pay rate. We agree that this method of annualizing salary is reasonable.
2. We noticed that the employee contribution balance in the final data provided by Cheiron for the valuation includes only the Basic contribution balance. The COLA contribution balance for Tier 1 members are not included in this field. We made a similar observation in the June 30, 2016 actuarial audit recommending Cheiron to include the COLA contribution balance in the valuation. We again recommend Cheiron review their data to ensure the COLA contribution balance is included in the valuation. Since Tier 1 members are on average very close to retirement eligibility, they should have very low probabilities of electing a refund. There are also very few Tier 1 active members and therefore, this will only have a minimal impact on the results of the valuation.
3. We also noticed that there is no indicator code that flags active members who are part-time. Cheiron should review with MCERA to ensure that part-time members (if any) can be identified so that their compensation can be annualized properly.

4. Cheiron is rolling forward historical compensation information for many terminated vested members. Cheiron should review with MCERA to ensure that proper compensation information is being used for these members. If possible, the data provided by MCERA each year should contain an estimate of the final average compensation at termination for these members.
5. We also verified that Cheiron correctly made edits to the data based on responses they received from MCERA regarding questions Cheiron had about the data.

Step 2: Valuation Program

Develop a valuation program based on the relevant provisions of the County Employees Retirement Law (CERL) as summarized in the Summary Plan Descriptions, using the actuarial methods and assumptions outlined in the most recent valuation report, and further defined by Cheiron.

Observations

We modified our valuation software so that it closely mimics the middle of the plan year timing of decrements (i.e., when members are expected to terminate, die, or go on to service or disability retirement from the Association) used by Cheiron.

Step 3: Test Lives

Run the valuation program with specific individuals (test lives) who illustrate particular benefit provisions and compare results to Cheiron's results.

Results

Exhibit B provides a comparison of Segal's and Cheiron's test life results for (i) the present value of future benefits, (ii) the present value of future normal costs, and (iii) the actuarial accrued liability.

- **Present Value of Future Benefits:** This liability represents the current value of the member's projected benefits, recognizing the time value of money (i.e., the investment return assumption), the salary increase assumption and the probabilities of retirement, death, disability and turnover. This value is the cornerstone for the entire valuation as it represents the amount expected to be needed to provide all future expected benefit payouts for current members, based on the valuation assumptions.

  The ratios of Segal's results to Cheiron's results, on a total present value of future benefits (PVB) basis, range from 98% to 102% for the active test lives, 95% to 101% for the terminated vested test lives, and 100% to 101% for the retired test lives. We believe our results are within an acceptable range of Cheiron's results to provide assurance that the significant plan liabilities are properly valued.

- **Present Value of Future Normal Costs and Actuarial Accrued Liability:** The funding method adopted by MCERA, the Entry Age Actuarial Cost Method, separates the present value of future benefits for active members into two components, the actuarial accrued liability and the present value of future normal costs. Simply stated, the Entry Age Actuarial Cost Method determines a level cost as a percentage of pay for each year of service, called the normal cost. For active members, the actuarial accrued liability is the accumulated value of past normal costs (less any expected benefits, and assuming all actuarial assumptions were exactly realized), while the present value of future normal costs represents the current value of future normal costs required to fully fund the member's projected benefits before the member is expected to retire.

  The method used to separate the present value of projected benefits into its two components can differ somewhat from valuation system to valuation system, even though the underlying funding method used in the systems is the same.

  For the active test lives, the ratios of Segal's results to Cheiron's range from 97% to 110% for the present value of future normal costs and from 54%[1] to 102% for the actuarial accrued liability (AAL). In most cases that we are lower on the present value of future normal costs, we are higher on the AAL and vice versa again because of differences in valuation systems. As previously noted, there is a very close match to the PVB for each testlife.

Observations

1. Segal's valuation system generally assumes active members decrement (i.e., retirement, termination, etc.) at the beginning of each plan year (July 1). The Cheiron system, in contrast, assumes decrements occur in the middle of the year (January 1). As part of this audit for the Association, we have changed our timing of the decrement to allow for the middle of the year timing for the decrements assumed by Cheiron. Either methodology is acceptable, with each actuarial firm establishing its own approach for the assumed timing of decrements.
2. Some differences in the results are expected due to differences between Segal and Cheiron's valuation systems. Differences could include such things as the rounding used in the calculations of ages or the assumed timing for salary increases or benefit payments. Various methodologies are acceptable, with each actuarial firm establishing its own standard. Given the differences in the valuation systems, we would not expect to match Cheiron's results exactly.
3. The new actuarial assumptions that the Board directed Cheiron to use in conjunction with the 2019 Experience Study were used to value the test lives.

[1] This member had very low service and therefore a low actuarial accrued liability. We believe this difference (which is more impacted by how the valuation systems account for such service) should not have a material impact on the overall results.

Step 4: Run the Valuation Program

Run the valuation program with all participant data, compile results, and compare to Cheiron's results.

Results

Exhibit C provides a comparison, by Tier, of Segal's results and Cheiron's results of (i) the present value of future benefits, (ii) the present value of future normal costs, (iii) the unfunded actuarial accrued liability (UAAL), (iv) the total (employer plus member) normal cost rate, (v) the member contribution rate and (v) the employer normal cost and UAAL contribution rates including the administrative expense contribution.

- The ratios of Segal's results to Cheiron's results, on a total present value of future benefits basis for each tier, range from 100% to 102% for active members and are 101% for all active members combined. For inactive vested and retired members, the ratios of Segal's results to Cheiron's results are 104% and 100%, respectively in total. Therefore, in total, our present value of future benefits is 101% of Cheiron's present value as shown in the row labeled "Total PVB" under the "Grand Total" column on page 20.
- As discussed earlier, the Segal and Cheiron valuation systems have slight differences and we would expect minor differences in the allocation the present value of future normal costs and the AAL. The ratios of Segal's results to Cheiron's results, on present value of future normal costs for each tier ranges from 99% to 105%, but the total present value of future normal costs determined by Segal is 101% of the amount determined by Cheiron. This is shown in the row labeled "PV Future NC Contributions" under the "Grand Total" column on page 23.
- The AAL depends in part on the valuation system's methodology for separating the present value of projected benefits into its two components—the actuarial accrued liability and the present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is simply the difference between the actuarial accrued liability and the market value of assets. Therefore, differences in the AAL due to the variations in the valuation systems impact the unfunded actuarial accrued liabilities.
- As a percentage of projected payroll, Segal's total (employer plus member) normal cost contribution rate (Item 1 on page 26) is 101% of Cheiron's total normal cost rate. Segal's net employer normal cost contribution rate (Item 3) is 102% of Cheiron's rate. Segal's UAAL amortization contribution rate (Item 4) is 101% of Cheiron's UAAL rate. Segal's total employer contribution rate (Item 6) as of June 30, 2019 is 101% of Cheiron's rate.
- In determining the UAAL contribution rate, Cheiron applied the UAAL funding policy of amortization over a closed 24-year period (22 years for assumption changes) with a five-year phase-in and phase-out of each layer of amortization payments (three years for assumption changes). We were able to verify their calculations of the UAAL amortization payment.
- In developing the UAAL contribution rate, Cheiron does not adjust the projected payroll for members who are expected to "decrement" (i.e. terminate, die, disable or retire) from the Association during the plan year following the valuation. As it is our understanding that the same UAAL rate (calculated using a level percent of payroll amortization approach) would be charged not just on payroll for current members but also on new members expected to join the plan after the date of the valuation, we believe that Cheiron's approach is appropriate.

Step 5: Valuation Results

Evaluate the valuation results and methodology as presented in the Cheiron actuarial valuation report.

Observations

1. Due to the changes in assumptions that were recommended as part of the 2019 Experience Study, new member contribution rates were calculated. We have verified that Cheiron's calculated member contribution rates are reasonable and consistent with the relevant provisions of the County Employees Retirement Law (CERL).
2. The projection of the employer contribution rate shown on page 10 of the valuation report is especially useful because of the direct rate smoothing method that is used. The projections help show how the phase-in and phase-out of the amortization payments for components of the UAAL will affect future employer contribution rates. The projection may also help satisfy requirements of the Actuarial Standards of Practice in regards to assessing the implications of the contribution allocation procedure.
3. We followed up with Cheiron on two issues raised in the June 30, 2016 audit with respect to the last year the initial UAAL established on the June 30, 2013 valuation would be paid-off and the allocation of assets between the General and Safety membership groups.

   We understand that Cheiron took the 12-month delay between the date of the valuation and the date of the contribution rate implementation into account in projecting when the initial UAAL established in the June 30, 2013 valuation would be paid off and we find their approach to be reasonable.

   We also understand that Cheiron discussed with the Board the current pooling arrangement between the General and Safety membership classes that essentially recalculates and redistributes the Association's assets between the two membership classes in each valuation. While we would favor maintaining such asset breakdown for each of General and Safety in order to avoid shifting cost between the two membership classes, we understand that such shift should only have a small impact on the primary employer, which is the County.
4. The Actuarial Standards Board approved the new Actuarial Standard of Practice No. 51 (ASOP 51) regarding risk assessment and disclosure when performing a funding valuation and is effective with MCERA's June 30, 2019 actuarial valuation for benefits provided by the Pension Plan. ASOP 51 requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition." Cheiron has appropriately included these disclosures in their valuation report on pages 12 through 20.
5. We reviewed the Cheiron actuarial report in detail. Most of our comments were minor. We have confirmed that the Cheiron report contains most of the model disclosures recommended by the California Actuarial Advisory Panel (CAAP). A list of suggested changes for Cheiron to consider can be found in *Exhibit D*.

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Actives

		Number	Annual Pay[1]	Average Age	Average Annual Pay[1]	Average Service[2]
General Members						
Tier 1	MCERA Data	82	$7,038,422	56.3	$85,834	25.3
	Cheiron Data	82	$7,038,550	56.3	$85,836	25.8
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**1.98%**
Tier 2	MCERA Data	814	$52,954,770	48.4	$65,055	15.2
	Cheiron Data	811	$52,816,881	48.4	$65,126	15.2
	% Difference	**-0.37%**	**-0.26%**	**0.00%**	**0.11%**	**0.00%**
Tier 3	MCERA Data	48	$3,640,933	41.5	$75,853	10.6
	Cheiron Data	48	$3,641,109	41.5	$75,856	10.6
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Tier 3R	MCERA Data	14	$1,163,815	44.9	$83,130	11.4
	Cheiron Data	14	$1,182,368	44.9	$84,455	11.0
	% Difference	**0.00%**	**1.59%**	**0.00%**	**1.59%**	**-3.51%**
Tier 4	MCERA Data	912	$46,910,891	37.6	$51,437	2.7
	Cheiron Data	906	$46,588,279	37.6	$51,422	2.8
	% Difference	**-0.66%**	**-0.69%**	**0.00%**	**-0.03%**	**3.70%**
Total	MCERA Data	1,870	$110,545,016	43.3	$59,115	9.4
	Cheiron Data	1,861	$111,267,187	43.3	$59,789	9.5
	% Difference	**-0.48%**	**0.65%**	**0.00%**	**1.14%**	**1.06%**

1 The annual pay is calculated using the same process Cheiron applies: If current year earnings is greater than prior year valuation pay, use current year earnings. If current year earnings is less than prior year valuation pay, use greater of current year pay rate times 26 or current year earnings. Also, pay rates under $100 are assumed to be hourly rates and are multiplied by 80 to estimate biweekly rates.

2 There are three rehired retiree records that do not have service information in the MCERA data but their service information is included in Cheiron's data.

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Actives

		Number	Annual Pay[1]	Average Age	Average Annual Pay[1]	Average Service[2]
Safety Members						
Tier 1	MCERA Data	18	$1,901,200	53.6	$105,622	23.3
	Cheiron Data	17	$1,820,435	53.4	$107,084	25.2
	% Difference[3]	**-5.56%**	**-4.25%**	**-0.37%**	**1.38%**	**8.15%**
Tier 2	MCERA Data	165	$12,501,672	42.4	$75,768	14.2
	Cheiron Data	164	$12,501,672	42.3	$76,230	14.2
	% Difference	**-0.61%**	**0.00%**	**-0.24%**	**0.61%**	**0.00%**
Tier 3	MCERA Data	6	$411,109	36.0	$68,518	9.5
	Cheiron Data	6	$414,150	36.0	$69,025	9.5
	% Difference	**0.00%**	**0.74%**	**0.00%**	**0.74%**	**0.00%**
Tier 3R	MCERA Data	1	$78,998	39.0	$78,998	13.3
	Cheiron Data	1	$78,998	39.0	$78,998	13.5
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**1.50%**
Tier 4	MCERA Data	128	$7,680,623	32.0	$60,005	2.9
	Cheiron Data	128	$7,682,968	32.0	$60,023	2.9
	% Difference	**0.00%**	**0.03%**	**0.00%**	**0.03%**	**0.00%**
Total	MCERA Data	318	$22,494,604	38.7	$70,738	10.1
	Cheiron Data	316	$22,498,224	38.6	$71,197	10.1
	% Difference	**-0.63%**	**0.02%**	**-0.26%**	**0.65%**	**0.00%**
Total	MCERA Data	2,188	$133,039,620	42.6	$60,804	9.5
	Cheiron Data	2,177	$133,765,412	42.6	$61,445	9.6
	% Difference	**-0.50%**	**0.55%**	**0.00%**	**1.05%**	**1.05%**

[1] The annual pay is calculated using the same process Cheiron applies: If current year earnings is greater than prior year valuation pay, use current year earnings. If current year earnings is less than prior year valuation pay, use greater of current year pay rate times 26 or current year earnings. Also, pay rates under $100 are assumed to be hourly rates and are multiplied by 80 to estimate bi-weekly rates.

[2] There are three rehired retiree records that do not have service information in the MCERA data but their service information is included in Cheiron's data.

[3] The difference is due to Cheiron adjusting one record based on MCERA's response to the data questions.

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Pensioners (Retirees, Beneficiaries, and Disableds)

		Number	Annual Total Benefit	Average Age	Average Annual Total Benefit
General Members					
Tier 1	MCERA Data	1,564	$52,938,682	73.1	$33,848
	Cheiron Data	1,540	$52,695,890	72.9	$34,218
	% Difference	**-1.53%**	**-0.46%**	**-0.27%**	**1.09%**
Tier 2	MCERA Data	454	$9,195,863	66.1	$20,255
	Cheiron Data	463	$9,409,164	66.1	$20,322
	% Difference	**1.98%**	**2.32%**	**0.00%**	**0.33%**
Tier 3	MCERA Data	4	$4,082	63.3	$1,021
	Cheiron Data	5	$9,872	61.9	$1,974
	% Difference[1]	**25.00%**	**141.84%**	**-2.21%**	**93.34%**
Tier 4	MCERA Data	0	$0	0.0	$0
	Cheiron Data	0	$0	0.0	$0
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Total	MCERA Data	2,022	$62,138,627	71.5	$30,731
	Cheiron Data	2,008	$62,114,926	71.3	$30,934
	% Difference	**-0.69%**	**-0.04%**	**-0.28%**	**0.66%**

[1] The difference is due to Cheiron adjusting one record based on MCERA’s response to the data questions.

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Pensioners (Retirees, Beneficiaries, and Disableds)

		Number	Annual Total Benefit	Average Age	Average Annual Total Benefit
Safety Members					
Tier 1	MCERA Data	315	$13,326,258	67.8	$42,306
	Cheiron Data	315	$13,219,606	67.4	$41,967
	% Difference	**0.00%**	**-0.80%**	**-0.59%**	**-0.80%**
Tier 2	MCERA Data	50	$1,338,753	55.1	$26,775
	Cheiron Data	50	$1,338,753	55.1	$26,775
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Tier 3	MCERA Data	0	$0	0.0	$0
	Cheiron Data	0	$0	0.0	$0
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Tier 4	MCERA Data	0	$0	0.0	$0
	Cheiron Data	0	$0	0.0	$0
	% Difference	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Total	MCERA Data	365	$14,665,010	66.0	$40,178
	Cheiron Data	365	$14,558,359	65.7	$39,886
	% Difference	**0.00%**	**-0.73%**	**-0.45%**	**-0.73%**
Total					
	MCERA Data	2,387	$76,803,638	70.7	$32,176
	Cheiron Data	2,373	$76,673,285	70.5	$32,311
	% Difference	**-0.59%**	**-0.17%**	**-0.28%**	**0.42%**

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Inactive Vested

		Number	Average Age
General Members			
Tier 1	MCERA Data	85	58.5
	Cheiron Data	91	58.2
	% Difference	**7.06%**	**-0.51%**
Tier 2	MCERA Data	425	48.4
	Cheiron Data	452	48.4
	% Difference	**6.35%**	**0.00%**
Tier 3	MCERA Data	26	40.7
	Cheiron Data	26	40.7
	% Difference	**0.00%**	**0.00%**
Tier 4	MCERA Data	222	37.4
	Cheiron Data	229	37.5
	% Difference	**3.15%**	**0.27%**
Total	MCERA Data	758	46.0
	Cheiron Data[1]	798	46.1
	% Difference	**5.28%**	**0.22%**

[1] In the Cheiron Data, there are 44 records that represent active and deferred members who have service accrued under a different membership Class/Tier. These members have additional deferred records that contain their service in the prior membership Class/Tier. There are also 9 active records that were moved to Inactive Vested status based on MCERA's responses to Cheiron's data questions.

Exhibit A: MCERA June 30, 2019 Valuation Analysis of Participant Data

Inactive Vested

		Number	Average Age
Safety Members			
Tier 1	MCERA Data	8	52.2
	Cheiron Data	8	52.2
	% Difference	**0.00%**	**0.00%**
Tier 2	MCERA Data	79	41.7
	Cheiron Data	95	42.5
	% Difference	**20.25%**	**1.92%**
Tier 3	MCERA Data	2	37.3
	Cheiron Data	2	37.3
	% Difference	**0.00%**	**0.00%**
Tier 4	MCERA Data	37	30.9
	Cheiron Data	39	31.3
	% Difference	**5.41%**	**1.29%**
Total	MCERA Data	126	39.2
	Cheiron Data[1]	144	40.0
	% Difference	**14.29%**	**2.04%**
Total			
	MCERA Data	884	45.1
	Cheiron Data[1]	942	45.2
	% Difference	**6.56%**	**0.22%**

[1] In the Cheiron Data, there are 44 records that represent active and deferred members who have service accrued under a different membership Class/Tier. These members have additional deferred records that contain their service in the prior membership Class/Tier. There are also 9 active records that were moved to Inactive Vested status based on MCERA's responses to Cheiron's data questions.

Exhibit B: MCERA June 30, 2019 Valuation Test Life Comparison

General

	Tier 1		Tier 2		Tier 3		Tier 4	
Actives	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
Total PVB	**$1,328,351**	**$1,342,674**	**$235,188**	**$238,823**	**$83,241**	**$81,804**	**$215,113**	**$210,891**
PV - Future Normal Costs	$294,921	$303,373	$54,151	$53,363	$47,618	$46,348	$108,224	$117,225
Actuarial Accrued Liability	$1,033,430	$1,039,301	$181,037	$185,459	$35,623	$35,456	$106,889	$93,667
Ratio of Segal/Cheiron								
Total PVB		**101%**		**102%**		**98%**		**98%**
PV - Future Normal Costs		103%		99%		97%		108%
Actuarial Accrued Liability		101%		102%		100%		88%

Safety

	Tier 1		Tier 2		Tier 3		Tier 4	
Actives	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
Total PVB	**$699,916**	**$683,704**	**$450,992**	**$455,419**	**$154,831**	**$156,091**	**$223,581**	**$219,617**
PV - Future Normal Costs	$0	$0	$167,944	$166,013	$122,105	$122,964	$177,832	$194,955
Actuarial Accrued Liability	$699,916	$683,704	$283,048	$289,406	$32,726	$33,128	$45,749	$24,662
Ratio of Segal/Cheiron								
Total PVB		**98%**		**101%**		**101%**		**98%**
PV - Future Normal Costs		100%		99%		101%		110%
Actuarial Accrued Liability		98%		102%		101%		54%[1]

[1] This member has very low service and therefore a low actuarial accrued liability. We believe this difference (which is more impacted by how the valuation systems account for such service) should not have a material impact on the overall results.

Exhibit B: MCERA June 30, 2019 Valuation Test Life Comparison

Test Life Comparison

Terminated Vested

	General		General		General		Safety	
	Tier 1		Tier 2		Tier 4		Tier 1	
Inactives	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$246,090	$246,960	$40,026	$40,549	$2,540	$2,569	$33,951	$34,064
Ratio of Segal/Cheiron	100%		101%		101%		100%	

	Terminated Vested		Reciprocal or Service Accrued Under Different Class/Tier					
	Safety		General		General		Safety	
	Tier 2		Tier 1		Tier 2		Tier 2	
Inactives	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$48,568	$48,958	$193,282	$183,696	$127,547	$124,184	$334,788	$330,261
Ratio of Segal/Cheiron	101%		95%		97%		99%	

Service Retirement

	General		General		General		General	
	Tier 1		Tier 1		Tier 1		Tier 1	
Pensioners[1]	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$198,637	$199,123	$183,001	$183,648	$292,702	$292,881	$678,662	$676,226
Ratio of Segal/Cheiron	100%		100%		100%		100%	

[1] Service Retirement test lives cover retired members with different optional forms of payment in order to review Cheiron's calculation for the various optional forms of payment.

Exhibit B: MCERA June 30, 2019 Valuation Test Life Comparison

Test Life Comparison

Service Retirement

	General		General		Safety		Safety	
	Tier 1		Tier 2		Tier 1		Tier 1	
Pensioners[1]	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$1,054,847	$1,057,033	$179,126	$180,417	$305,434	$306,223	$921,930	$923,513
Ratio of Segal/Cheiron	100%		101%		100%		100%	

	Service Retirement				Service Disabled			
	Safety		Safety		General		Safety	
	Tier 1		Tier 1		Tier 1		Tier 2	
Pensioners[1]	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$833,857	$832,192	$953,989	$955,187	$288,431	$288,712	$421,631	$424,334
Ratio of Segal/Cheiron	100%		100%		100%		101%	

	Non-Service Disabled		Beneficiary				QDRO	
	General		General		Safety		General	
	Tier 1		Tier 1		Tier 1		Tier 1	
Pensioners[1]	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Total PVB	$334,855	$335,641	$118,043	$118,757	$90,709	$91,567	$480,027	$480,887
Ratio of Segal/Cheiron	100%		101%		101%		100%	

[1] Service Retirement test lives cover retired members with different optional forms of payment in order to review Cheiron's calculation for the various optional forms of payment.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Present Value of Future Benefits (PVB)
($ shown in Thousands)

General

PVB	Tier 1 Cheiron	Tier 1 Segal	Tier 2 Cheiron	Tier 2 Segal	Tier 3 Cheiron	Tier 3 Segal	Tier 3R Cheiron	Tier 3R Segal	Tier 4 Cheiron	Tier 4 Segal	Total Cheiron	Total Segal
Actives	$75,193	$76,382	$290,002	$291,548	$8,176	$8,196	$1,947	$1,958	$78,845	$78,879	$454,163	$456,964
Retirees	632,145	634,139	105,014	105,800	131	132	0	0	0	0	737,290	740,071
Inactive Vesteds	14,606	14,843	30,048	31,303	252	275	0	0	968	1,023	45,873	47,444
Total PVB	**$721,943**	**$725,364**	**$425,064**	**$428,651**	**$8,559**	**$8,603**	**$1,947**	**$1,958**	**$79,813**	**$79,902**	**$1,237,327**	**$1,244,479**
Ratio of Segal/Cheiron												
Actives		102%		101%		100%		101%		100%		101%
Retirees		100%		101%		101%		N/A		N/A		100%
Inactive Vesteds[1]		102%		104%		109%		N/A		106%		103%
Total PVB		100%		101%		101%		101%		100%		101%

[1] The difference in the Inactive Vested PVB is mainly due to Segal's valuation software comparing and using the greater of the present value of deferred benefit and the member's contribution balance for each member. The liability for Inactive Vesteds is a relatively small liability (less than 4% of total PVB of the plan), and the difference has a very small impact on the total PVB of the plan.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Present Value of Future Benefits (PVB)
($ shown in Thousands)

Safety

PVB	Tier 1		Tier 2		Tier 3		Tier 3R		Tier 4		Total	
	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal	Cheiron	Segal
Actives	$23,598	$23,823	$74,369	$74,725	$1,128	$1,131	$186	$189	$20,473	$20,441	$119,754	$120,310
Retirees	178,553	178,973	17,066	17,176	0	0	0	0	0	0	195,619	196,149
Inactive Vesteds	963	1,144	9,079	9,326	49	49	0	0	266	268	10,358	10,786
Total PVB	**$203,114**	**$203,941**	**$100,514**	**$101,226**	**$1,177**	**$1,180**	**$186**	**$189**	**$20,739**	**$20,709**	**$325,731**	**$327,245**
Ratio of Segal/Cheiron												
Actives	101%		100%		100%		102%		100%		100%	
Retirees	100%		101%		N/A		N/A		N/A		100%	
Inactive Vesteds[1]	119%		103%		101%		N/A		100%		104%	
Total PVB	100%		101%		100%		102%		100%		100%	

[1] The difference in the Inactive Vested PVB is mainly due to Segal's valuation software comparing and using the greater of the present value of deferred benefit and the member's contribution balance for each member. The liability for Inactive Vesteds is a relatively small liability (less than 4% of total PVB of the plan), and the difference has a very small impact on the total PVB of the plan.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Present Value of Future Benefits (PVB)
($ shown in Thousands)

PVB	Grand Total Cheiron	Grand Total Segal
Actives	$573,917	$577,274
Retirees	932,909	936,220
Inactive Vesteds	56,231	58,231
Total PVB	**$1,563,057**	**$1,571,725**
Ratio of Segal/Cheiron		
Actives	101%	
Retirees	100%	
Inactive Vesteds	104%[1]	
Total PVB	101%	

[1] The difference in the Inactive Vested PVB is mainly due to Segal's valuation software comparing and using the greater of the present value of deferred benefit and the member's contribution balance for each member. The liability for Inactive Vesteds is a relatively small liability (less than 4% of total PVB of the plan), and the difference has a very small impact on the total PVB of the plan.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Unfunded Actuarial Accrued Liability (UAAL)
($ shown in Thousands)

General

	Tier 1		Tier 2		Tier 3		Tier 3R		Tier 4		Total	
UAAL	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
PVB	$721,943	$725,364	$425,064	$428,651	$8,559	$8,603	$1,947	$1,958	$79,813	$79,902	$1,237,327	$1,244,479
PV Future NC Contributions	(7,450)	(7,812)	(78,933)	(80,147)	(5,321)	(5,304)	(1,903)	(1,904)	(59,777)	(59,086)	(153,383)	(154,253)
Actuarial Accrued Liability	**$714,493**	**$717,551**	**$346,131**	**$348,504**	**$3,238**	**$3,299**	**$45**	**$54**	**$20,036**	**$20,817**	**$1,083,943**	**$1,090,226**
Market Value of Assets											$686,064	$686,064
Unfunded Actuarial Liability											$397,879	$404,161
Ratio of Segal/Cheiron												
PVB	100%		101%		101%		101%		100%		101%	
PV Future NC Contributions	105%		102%		100%		100%		99%		101%	
Actuarial Accrued Liability	**100%**		**101%**		**102%**		**121%**		**104%**		**101%**	
Market Value of Assets											100%	
Unfunded Actuarial Liability											102%	

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Unfunded Actuarial Accrued Liability (UAAL)
($ shown in Thousands)

Safety

	Tier 1		Tier 2		Tier 3		Tier 3R		Tier 4		Total	
UAAL	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
PVB	$203,114	$203,941	$100,514	$101,226	$1,177	$1,180	$186	$189	$20,739	$20,709	$325,731	$327,245
PV Future NC Contributions	(1,522)	(1,573)	(21,171)	(21,403)	(782)	(788)	(169)	(172)	(15,834)	(15,663)	(39,479)	(39,600)
Actuarial Accrued Liability	**$201,592**	**$202,368**	**$79,343**	**$79,823**	**$395**	**$392**	**$17**	**$18**	**$4,905**	**$5,046**	**$286,252**	**$287,646**
Market Value of Assets											$180,439	$180,439
Unfunded Actuarial Liability											$105,813	$107,207
Ratio of Segal/Cheiron												
PVB	100%		101%		100%		102%		100%		100%	
PV Future NC Contributions	103%		101%		101%		101%		99%		100%	
Actuarial Accrued Liability	**100%**		**101%**		**99%**		**104%**		**103%**		**100%**	
Market Value of Assets											100%	
Unfunded Actuarial Liability											101%	

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Unfunded Actuarial Accrued Liability (UAAL)
($ shown in Thousands)

	Grand Total	
UAAL	Cheiron	Segal
PVB	$1,563,057	$1,571,725
PV Future NC Contributions	(192,862)	(193,853)
Actuarial Accrued Liability	**$1,370,195**	**$1,377,871**
Market Value of Assets	$866,503	$866,503
Unfunded Actuarial Liability	$503,692	$511,368
Ratio of Segal/Cheiron		
PVB	101%	
PV Future NC Contributions	101%	
Actuarial Accrued Liability	**101%**	
Market Value of Assets	100%	
Unfunded Actuarial Liability	102%	

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Contribution Rates

	General									
	Tier 1		Tier 2		Tier 3		Tier 3R		Tier 4	
Employer Cost	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
1. Total Normal Cost Rate	27.50%	29.04%	19.98%	20.42%	15.24%	15.21%	17.62%	17.73%	13.47%	13.38%
2. Member Contribution Rate[1]	(12.65%)	(12.67%)	(9.27%)	(9.31%)	(6.45%)	(6.45%)	(6.69%)	(6.68%)	(6.73%)	(6.69%)
3. Employer Normal Cost Rate (1. - 2.)	**14.85%**	**16.37%**	**10.71%**	**11.11%**	**8.79%**	**8.76%**	**10.93%**	**11.05%**	**6.74%**	**6.69%**
4. Employer UAAL Amortization Rate	37.62%	38.05%	37.62%	38.05%	37.62%	38.05%	37.62%	38.05%	37.62%	38.05%
5. Administrative Expense Rate	1.50%	1.53%	1.38%	1.42%	1.32%	1.35%	1.38%	1.42%	1.26%	1.29%
6. Total Employer Contribution Rate (3. + 4. + 5.)	**53.97%**	**55.95%**	**49.71%**	**50.58%**	**47.73%**	**48.16%**	**49.93%**	**50.52%**	**45.62%**	**46.03%**
Ratio of Segal/Cheiron										
1. Total Normal Cost Rate	106%		102%		100%		101%		99%	
2. Member Contribution Rate[1]	100%		100%		100%		100%		99%	
3. Employer Normal Cost Rate (1. - 2.)	110%		104%		100%		101%		99%	
4. Employer UAAL Amortization Rate	101%		101%		101%		101%		101%	
5. Administrative Expense Rate	102%		103%		102%		103%		102%	
6. Total Employer Contribution Rate (3. + 4. + 5.)	**104%**		**102%**		**101%**		**101%**		**101%**	

[1] Not including member's share of administrative expenses.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Contribution Rates

	Safety									
	Tier 1[1]		Tier 2		Tier 3		Tier 3R		Tier 4	
Employer Cost	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**	**Cheiron**	**Segal**
1. Total Normal Cost Rate	34.38%	36.32%	23.61%	23.91%	22.29%	22.64%	24.81%	25.19%	20.75%	20.67%
2. Member Contribution Rate[2]	(12.07%)	(10.65%)	(8.96%)	(8.98%)	(8.69%)	(8.69%)	(10.86%)	(10.86%)	(10.38%)	(10.34%)
3. Employer Normal Cost Rate (1. - 2.)	**22.31%**	**25.67%**	**14.65%**	**14.93%**	**13.60%**	**13.95%**	**13.95%**	**14.33%**	**10.37%**	**10.33%**
4. Employer UAAL Amortization Rate	50.45%	50.04%	50.45%	50.04%	50.45%	50.04%	50.45%	50.04%	50.45%	50.04%
5. Administrative Expense Rate	2.07%	1.99%	1.86%	1.87%	1.83%	1.85%	1.84%	1.86%	1.73%	1.74%
6. Total Employer Contribution Rate (3. + 4. + 5.)	**74.83%**	**77.70%**	**66.96%**	**66.84%**	**65.88%**	**65.84%**	**66.24%**	**66.23%**	**62.55%**	**62.11%**
Ratio of Segal/Cheiron										
1. Total Normal Cost Rate	106%		101%		102%		102%		100%	
2. Member Contribution Rate[2]	88%		100%		100%		100%		100%	
3. Employer Normal Cost Rate (1. - 2.)	115%		102%		103%		103%		100%	
4. Employer UAAL Amortization Rate	99%		99%		99%		99%		99%	
5. Administrative Expense Rate	96%		101%		101%		101%		101%	
6. Total Employer Contribution Rate (3. + 4. + 5.)	**104%**		**100%**		**100%**		**100%**		**99%**	

[1] Safety Tier 1 only has 17 active members as of June 30, 2019. The normal cost rate can be more leveraged based on the timing of when member reaches 30 years of credited service and stops making member contribuitons.

[2] Not including member's share of administrative expenses.

Exhibit C: MCERA June 30, 2019 Valuation Comparison of Results

Contribution Rates

Employer Cost	Grand Total: Cheiron	Grand Total: Segal
1. Total Normal Cost Rate	18.46%	18.72%
2. Member Contribution Rate[1]	(8.39%)	(8.49%)
3. Employer Normal Cost Rate (1. - 2.)	10.07%	10.23%
4. Employer UAAL Amortization Rate	39.76%	40.07%
5. Administrative Expense Rate	1.42%	1.45%
6. Total Employer Contribution Rate (3. + 4. + 5.)	**51.25%**	**51.75%**
Ratio of Segal/Cheiron		
1. Total Normal Cost Rate		101%
2. Member Contribution Rate[1]		101%
3. Employer Normal Cost Rate (1. - 2.)		102%
4. Employer UAAL Amortization Rate		101%
5. Administrative Expense Rate		102%
6. Total Employer Contribution Rate (3. + 4. + 5.)		**101%**

[1] Not including member's share of administrative expenses.

Exhibit D: MCERA June 30, 2019 Valuation
Additional Suggestions to Consider for Future Valuation Reports

- On page 1 and a few other places in the valuation report, Cheiron is still referencing the “Entry Age Normal Cost” method instead of the nomenclature “Entry Age Cost” method used by Governmental Accounting Standard Board (GASB). Since the implementation of GASB Statements No. 67 and 68, Cheiron should consider updating this terminology.
- Throughout the valuation report, only contribution rates are shown, not estimated annual contribution amounts in dollars. Cheiron should consider also including estimated annual contribution amounts in dollars (possibly on page 30 and/or 31 of the valuation report). At a minimum, Cheiron should consider showing the total Normal Cost in dollars consistent with the model disclosure recommended by the California Actuarial Advisory Panel (CAAP).
- On page 26 of the valuation report, Cheiron mentions that the liabilities shown in the report are not applicable for settlement purposes. This statement satisfies requirements of the Actuarial Standards of Practice in regards to the liabilities shown in the report. Cheiron should also consider including a similar disclosure regarding the funded status measures shown in the report. Consideration should also be given to disclosing that the liabilities and funded status measures shown are appropriate for assessing the need for future contributions.
- On pages 37 to 39 of the valuation report, the average service shown for active and deferred participants appears to be service for purposes of determining eligibility for benefits. Cheiron should consider displaying the service used for purposes of determining benefit amounts.
- On page 51 of the valuation report, Cheiron discloses the methods and assumptions used for valuing current and future reciprocal transfers. Different methods and assumptions are used for current and future transfers. The methods used for current transfers are also used to value the portion of the benefit that is based on a prior membership Class/Tier for active members who have service accrued under multiple membership Class/Tiers. Cheiron should review the methods and assumptions to see if more consistency is warranted for valuing both current and future reciprocal transfers.
- On page 55 of the valuation report, Cheiron discloses the 2013 PEPRA compensation limits and mentions that they are increased with inflation each year. Cheiron should consider disclosing the most recent PEPRA limit in future valuation reports.

Item 2

Merced County Employees' Retirement Association

Actuarial Experience Study

Review of July 1, 2016 through June 30, 2019

March 5, 2020

This report has been prepared at the request of the Board of Retirement to assist in administering the fund. This report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this report may not be applicable for other purposes.

Segal

© 2020 by The Segal Group, Inc.

180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8273 / pangelo@segalco.com
T 415.263.8283 / ayeung@segalco.com
T 415.263.8248 / eyum@segalco.com

March 5, 2020

Board of Retirement
Merced County Employees' Retirement Association
3199 M Street
Merced, CA 95348

Re: Review of July 1, 2016 through June 30, 2019 Actuarial Experience Study

Dear Members of the Board:

We are pleased to present the results of this review of the July 1, 2016 through June 30, 2019 Actuarial Experience Study for the Merced County Employees' Retirement Association (MCERA). The purpose of this review was to verify the recommendations of Cheiron and to offer comments on the methodology and the results of their experience study. The assistance of Cheiron and MCERA is gratefully acknowledged.

This review was conducted by Paul Angelo, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, Andy Yeung, an Associate of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA and Eva Yum, a Fellow of the Society of Actuaries, member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA. This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

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.

Sincerely,

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

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

Eva Yum, FSA, MAAA, EA
Senior Actuary

JB/hy

cc: Graham A. Schmidt, ASA, EA, FCA, MAAA
Anne D. Harper, FSA, EA, MAAA

Table of Contents

Executive Summary

This report has been prepared by Segal to present a review of the July 1, 2016 through June 30, 2019 experience study performed by Cheiron for MCERA.

In our last review of the July 1, 2013 through June 30, 2016 experience study, we recommended Cheiron consider developing separate sets of retirement rates for the PEPRA[1] and non-PEPRA tiers. That recommendation was based on the fact that the benefit factors differ significantly at many ages between the PEPRA and non-PEPRA tiers (in particular for General). That recommendation was also consistent with the approach used by other actuaries in Caliornia when they had to provide contribution rates for PEPRA tiers before there was any actual retirement experience from members retiring under those tiers.

When we reviewed the draft July 1, 2016 through June 30, 2019 experience study, Cheiron continued to cite the lack of actual retirement experience from MCERA as the only reason to not developing a separate set of retirement rates for the PEPRA tiers. That was the case even though Cheiron recently switched to use the retirement rates developed by CalPERS for another 1937 Act retirement system client to address a similar recommendation provided by the actuarial auditor to that system.

We strongly recommend Cheiron propose a separate set of retirement rates for the PEPRA Tiers either at or before the next triennial experience study. In response to this recommendation from Segal, Cheiron included an additional analysis in the final July 1, 2016 through June 30, 2019 experience study that the contribution rate impact for using a separate set of retirement rates for the PEPRA tiers to be a small increase in the employer and employee rates.

With that additional disclosure on the contribution rates provided in the experience study for the PEPRA tiers and assuming such cost impact is fully considered by the Board, our overall assessment of Cheiron's actuarial work for MCERA is that all major actuarial functions are being appropriately addressed. Cheiron has employed generally accepted actuarial practices and principles in studying plan experience, selecting assumptions and presenting the results of their work. We believe that the actuarial assumptions as recommended by Cheiron, as well as those that the Board of Retirement directed Cheiron to use are reasonable for use in MCERA's actuarial valuation. The focus of our review is to comment on those other items besides the retirement rates for the PEPRA tiers which, in our opinion, are subject to improvement, so as to contribute to the improvement of the experience study process.

Our observations and recommendations are summarized as follows:

- For the investment rate of return assumption, Cheiron compared the probabilities of MCERA achieving the current assumption of 7.25% with the assumption adopted by the Board of 7.00%, net of investment related expenses. Cheiron estimated the probabilities based on returns provided by different investment consultants for various asset classes. Cheiron found the 7.00% assumption adopted by the Board to be a reasonable assumption. While Segal agrees with Cheiron's findings, we recommend that Cheiron include their recommended investment return assumption in the experience study report even though it is

[1] Benefits under the PEPRA tiers are those provided under the California Public Employees' Pension Reform Act of 2013.

ultimately the Board that makes the final decision on which assumption to use after considering its risk tolerance and other factors.

- For the inflation assumption, Cheiron found the 2.50% assumption adopted by the Board to be a reasonable assumption. While Segal agrees with Cheiron's findings, we recommend that Cheiron include their recommended inflation assumption in the experience study report (which should be 2.50% according to discussion included in their PowerPoint Presentation dated December 12, 2019).
- As an independent check of the 7.00% investment return assumption adopted by the Board, we have applied the model that we use for other California public retirement systems to review the investment return assumption. Based on the application of our model, we believe that the level of risk implicit in the 7.00% investment return assumption, along with a 2.50% price inflation assumption is comparable to the risk level implicit in recommendations we have made to other retirement systems and 7.00% investment return is a reasonable assumption.
- We note that Cheiron does not assume explicitly any investment expenses in their analysis of the investment return assumption as they do not recommend any significant adjustment to the passive returns used in their model to reflect the fees paid to the active managers. However, they point out that a slight margin (effectively reducing the probabilities of meeting either 7.00% or 7.25% investment return assumption) is appropriate for investment related expenses other than those paid to the investment managers[2] which would include investment advisor, custodian, etc.[3]

  Individual actuarial firms use different models with different criteria and parameters to determine the investment return assumption. With regard to investment expenses,[4] we would subtract the investment expenses from the indexed (or passively managed) returns in developing the investment return assumption which would lower the expected investment return assumption. Furthermore, in the development of the investment return assumption we generally would not recommend an explicit assumption that there would be additional returns ("alpha") from active management.[5] (We note that MCERA's actual market returns were lower than the policy benchmark before considering any investment expenses for the most recent 10-year period.) We recommend that Cheiron review their methodology in consideration of ASOP 27 guidance on active and passive investment expenses. We believe that ASOP 27 could, in fact, be interpreted as allowing for not subtracting active investment expenses, which is consistent with part of Cheiron's methodology. However, it may be appropriate to subtract passive investment expenses.
- MCERA's investment return assumption is currently developed net of investment expenses but not net of administrative expenses. There is a separate explicit administrative expense

[2] The expenses paid to the investment managers were about $2.2 million for the fiscal year ending June 30, 2019 or 0.25% of the net market value of assets as of that date.

[3] The expenses paid to the investment advisors, custodians, etc. were about $1.1 million for the fiscal year ending June 30, 2019 or 0.13% of the net market value of assets as of that date.

[4] For MCERA, the investment expense (including management, advisory, custodian fees, etc.) was about 0.38% for the fiscal year ending June 30, 2019.

[5] Our practice may be considered by some to be more conservative than that required under Actuarial Standard of Practice (ASOP) No. 27, which states in part in Section 3.8.3.d, "Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (pessimistic). The actuary should not assume that superior or inferior returns will be achieved, **net of investment expenses,** from an active investment management strategy compared to a passive investment management strategy unless the actuary believe, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period." (emphasis added). We believe that this means that assuming only enough superior return to cover related investment expenses would not require the relevant supporting data referenced in ASOP No. 27

loading that is added to contribution rates. We believe that this is a reasonable approach to handle these expenses. It is also consistent with financial reporting requirements under Governmental Accounting Standards Board (GASB) Statements 67 and 68. The assumption for administrative expenses of $2.369 million for the next year used in the June 30, 2019 valuation was comparable to the expenses paid during the last two fiscal years.

- Cheiron found the continuation of a 0.25% per year real wage growth assumption adopted by the Board to be a reasonable assumption. While Segal agrees with Cheiron's findings, we believe a 0.50% real wage growth assumption should be considered as part of the next experience study, in part due to the relatively higher 0.6% - 1.8% real wage growth projected by the Social Security Administration (referenced in Cheiron's experience study report) and the State and Local Government Workers Employment Cost Index produced by the Department of Labor that also provides evidence that real wage growth has averaged about 0.3% - 0.7% annually during the last ten to twenty years.
- Cheiron is recommending higher merit salary increases in virtually all years of service for both General and Safety members. Overall, we believe that Cheiron's merit salary increase recommendations are reasonable. We pointed out in our last review of the July 1, 2013 through June 30, 2016 experience study that the ultimate merit increase for General and Safety members with 20 or more years of service of 0.50% appeared to be lower than the then actual experience. We note that the increase made by Cheiron to increasing the ultimate rate of merit increase to 1% now more closely reflect MCERA's actual experience.
- For estimating life expectancy for General members and their beneficiaries, Cheiron is recommending the continuation of the 2009 base tables used by CalPERS that Cheiron has carried over from the July 1, 2013 through June 30, 2016 experience study and projecting those tables using the most up-to-date MP-2019 mortality improvement projection scales published by the Society of Actuaries. While Segal finds Cheiron's approach to be reasonable, the Board should be aware that there is a set of more up-to-date base tables used by CalPERS that were published in December 2017. We recommend Cheiron use the latest mortality base tables from CalPERS at MCERA's next experience study if they decide to use the life expectancy of General members at CalPERS as a proxy for the life expectancy of the General members at MCERA.
- Other recommended changes to demographic assumptions appear to be reasonable overall. In many cases, there is not a significant amount of data available for certain decrements due to the size of the retirement system membership. Sometimes, Cheiron includes data from six years prior to this experience study period in order to help set the assumptions and we agree with their approach. In those cases, we recommend Cheiron use data from nine years prior to the next experience in order to help set the assumptions in that study.

Purpose and Scope of the Actuarial Review

Purpose of the Review

The purpose of this review is to provide MCERA's Board of Retirement an independent opinion as to the reasonableness of the methods, analysis and recommendations of Cheiron in developing the actuarial assumptions presented in their experience study. The independent review of the reasonableness of Cheiron's calculation of employer and member contribution rates based on the new assumptions will be covered in the audit of the June 30, 2019 actuarial valuation. Toward these purposes, we used the guidelines of the relevant Actuarial Standards of Practice established by the Actuarial Standards Board as well as comparisons to recognized and accepted methods and principles as the gauge of reasonableness.

Scope of the Actuarial Review

The scope of the Actuarial Review, as described in MCERA's Actuarial Auditing Services Agreement with Segal, includes the following:

- Evaluation of the available data for the performance of the experience study, the degree to which such data is sufficient to support the conclusions of the study, and the use and appropriateness of any assumptions made regarding such data.
- Evaluation of the results and reconciliation of any discrepancies between the findings, assumptions, methodology, rates, and or adjustments with MCERA's consulting actuary.
- Evaluation of recommended economic and demographic assumptions as presented in MCERA's consulting actuary's experience study report.

Results of the Actuarial Review

Review of Economic Assumptions

The economic assumptions reviewed by Cheiron during the 2019 experience study are the price inflation, investment rate of return, expenses, wage growth (price inflation and real wage inflation), payroll growth and post-retirement Cost-of-Living Adjustment (COLA) increases.

Actuarial Standard of Practice No. 27 (ASOP 27) provides the actuary guidance in developing these assumptions. Among these guidelines is the consistency of the economic assumptions selected by the actuary.

Results

Cheiron has calculated probabilities of MCERA meeting either 7.00% or 7.25% investment return assumption by using returns on various asset classes provided by different investment consultants. Because the investment consultants use different inflation and time horizon when they develop the returns on various asset classes, the probabilities may not be directly comparable.

We believe that the set of economic assumptions that the Board ultimately directed Cheiron to use is internally consistent and reasonable for use in the June 30, 2019 valuation.

Details of Review

In order to demonstrate the interconnection and the consistency among the investment return, price inflation and wage growth assumptions, Segal utilizes a "building block" approach in developing and documenting our review of these three assumptions. Under this approach, the investment rate of return assumption is the combination of the inflation component and the real rate of return component (used by the investment consultants), less an expense component. Similarly, the wage growth assumption is the combination of the inflation component and the real wage increase component. (It should be noted that the salary increase assumption is developed using the wage growth assumption and the merit salary increase assumption.) In our experience, this is generally the preferred approach for documenting and developing these assumptions.

Inflation Assumption

The first "building block" to consider is the price inflation component assumption. This assumption underlies all other economic assumptions, including both the investment return and the projection of benefit liabilities (i.e., salary increase for actives and COLAs for retirees in Tier 1).

In their analysis, Cheiron cited the inflation expectations from the Federal Reserve Survey of Professional Economic Forecasters and those inflation assumptions used by different California public retirement plans in their valuations. They also included the inflation expectation of

Meketa, the investment consultant for the Association along with the expectation the Public Plan Database and from the survey conducted by Horizon Actuarial Services.

There was a wide disparity between the 50th percentile assumptions of 2.20% from the economic forecasters and 3.00% from the California retirement plan valuations. While we would find the 2.50% assumption used by Cheiron to be within the reasonable range for this assumption, it is important to acknowledge the different time horizons used by the economic forecasters (10 years as stated in the Cheiron experience study) and the much longer time period used by the California public retirement plans in their valuations. For example, the benefits for some members currently in their 30's and 40's will not commence until they retire at 60's and 70's and then be paid for 20 to 30 years after their retirement. Due to the difference in the time horizon, the inflation assumption adopted by Segal's California public retirement system clients (that have recently reviewed these assumptions) has been 2.75%.

After reviewing information provided by Cheiron, the Board directed Cheiron to maintain the 2.50% price inflation assumption. We believe that this assumption is reasonable, but note it is in the low end of the range used by comparable retirement plans. While Segal agrees with Cheiron's findings, we recommend Cheiron include their recommended inflation assumption in the experience study report (which should be 2.50% according to discussion included in their PowerPoint Presentation dated December 12, 2019).

Investment Expenses

The actual amount of investment expenses paid out of the Plan during fiscal year 2019 was around $3.3 million. (Of that amount, $2.2 million was paid out as investment manager fees and the remaining $1.1 million was paid out for investment advisory, custodian banking, and other expenses.)

We note that Cheiron does not assume explicitly any investment expenses in their analysis of the investment return assumption as they do not recommend a significant adjustment to the modeled passive returns used in their model for the fees paid to the active managers. However, they point out that a slight margin (effectively reducing the probabilities of meeting 7.00% or 7.25% investment return assumption) is appropriate for expenses other than those paid to the investment managers which would include investment advisor, custodian, etc.

We note that individual actuarial firms use different models with different criteria and parameters to develop the investment return assumption, and the model used by Segal is different from that used by Cheiron. In addition to accounting for the above expenses for investment advisory, custodian, etc. of $1.1 million or 0.13% of assets, Segal would generally subtract some portion of the other $2.2 million investment expenses or 0.25% of assets from the indexed (or passively managed) returns in developing the investment return assumption, which would lower the expected investment return assumption.[6] Furthermore, in the case of MCERA, it appears based

[6] Our practice may be considered by some to be more conservative than that required under the Actuarial Standard of Practice (ASOP) No. 27, which states in part in Section 3.8.3.d, "Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (pessimistic). The actuary should not assume that superior or inferior returns will be achieved, **net of investment expenses**, from an active investment management strategy compared to a passive investment management strategy unless the actuary believe, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period." (emphasis added). We believe this means that assuming only enough superior return to cover related investment expenses would not require the relevant supporting data referenced in ASOP No. 27.

on information provided in the June 30, 2019 CAFR that the average market return before netting out investment manager fees were already lower than the policy benchmark by about 0.2% before netting out the total of the above fees of 0.36% during the most recent 10-year period. This observation could be used to support some reduction in the investment return assumption for payment of those expenses.

For all these reasons, we recommend that Cheiron review their methodology in conjunction with ASOP 27 to consider making some provisions for payment of future investment expenses when they next review the investment return assumption.

Cheiron also compares Meketa and Verus capital market assumptions to those from the Horizon survey. It would be appropriate for Cheiron to ensure that investment expenses are appropriately accounted for in their comparison as the information from the other investment consultants may not already be net of investment expenses.

Administrative Expense Assumption

Cheiron recommended an explicit administrative expense assumption of $2.369 million for the June 30, 2019 valuation with increases in future years based on the Consumer Price Index (CPI). We believe that an explicit administrative expense loading is the preferable way to handle these expenses. Actual administrative expense were $2.3 million in fiscal year 2019 and $2.2 million in fiscal year 2018. We agree that this assumption is reasonable based on the most recent data.

Investment Rate of Return Assumption

For the investment rate of return assumption, based on alternatives presented by Cheiron to the Board in late 2019, the Board directed Cheiron to reduce the current assumption of 7.25% to 7.00%, net of investment related expenses. Cheiron derived the 7.00% investment return assumption by applying the Association's target asset allocation in a stochastic model developed using the capital market assumptions provided by Meketa, the Plan's investment consultant.

Cheiron also compares the results based on the Meketa capital market assumptions to those from Verus and Horizon Actuarial Services.

We observe the following:

- Cheiron has calculated probabilities of MCERA meeting either 7.00% or 7.25% investment return assumption by using returns on asset classes provided by different investment consultants. Because the investment consultants use different inflation and time horizon when they develop the returns on various asset classes, the probabilities may not be directly comparable.
- Since the probabilities calculated by Cheiron of meeting either 7.00% or 7.25% investment return assumption have not been explicity adjusted to account for the payment of at least some of the investment expenses, the probabilities would be smaller if those expenses have been taken into account.
- As an independent check, Segal has applied the model that we use for other California public retirement systems to review the 7.00% investment return assumption. While,

especially when first applied, our model does not generally produce an absolute investment return recommendation, it is very useful for comparing the level of risk inherent in the investment return assumptions adopted by a given retirement system at different points in time or with other retirement systems that have previously been analyzed using that model.

Based on the application of our model, in the last and the current review of the investment return assumption, we believe that the level of risk implicit in the current 7.00% investment return assumption, along with a 2.50% price inflation assumption, is generally comparable to the level of risk implicit in the 7.25% investment return assumption along with a 2.50% price inflation assumption in our last audit. The 7.00% assumption is also consistent with recommendations we have made to other retirement systems.

- We believe that the most significant difference between our model and Cheiron's model is that we develop a discount rate based on expected or mean arithmetic average returns, which correspond to an expected or mean level of future assets. In contrast, Cheiron is developing a discount rate based on median geometric average returns, which correspond to a median level of future assets.

  What is not commonly understood is that both of these approaches recognize that when returns are volatile, the compound or "geometric" historical returns will be less than the simple arithmetic average of the year-by-year historical returns. The difference is best understood by focusing on the assets that are expected to accumulate to fund the system's liabilities, rather than the average future investment returns. Because of the (small) possibility of very high returns, the expected value (probability weighted outcome) of future assets is higher than the median value (50/50 chance) of future assets. This means, somewhat counter-intuitively, that "expecting" to have future assets that match your future liabilities is not the same as there being a 50/50 chance of having future assets higher or lower than those liabilities.

  Put another way, if you (only) want to "expect" to have sufficient future assets to match your future liabilities you can use a higher discount rate than if you want to be at least 50% sure of having such sufficient future assets. The difference in these two discount rates depends on the volatility of the asset portfolio, and for MCERA would be estimated to be approximately 0.8% of which about half is offset by the difference in the treatment of investment expenses discussed earlier.

  Historically, Cheiron's recommendations and the Board's assumptions have been based on median geometric average returns and so on a median (50/50 chance) level of future assets. While both approaches are allowed under ASOP 27, we note that adoption of an investment return assumption under another basis, such as Segal's model, would be inconsistent with MCERA's past practice.

- Another test of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide. We note that an investment return assumption of 7.00%, is within the most common range for this assumption among most California public sector retirement systems. That range, with a few exceptions, is from 7.00% to 7.25%. As Cheiron has included two (7.00% and 7.25%) investment return assumptions to be considered by the Board, we recommend Cheiron include their recommended investment return assumption to be considered in the experience study report even though it is ultimately the Board that makes the final decision on which assumption to use after considering its risk tolerance and other factors.

Taking into account the above discussion and based on our own independent analysis, we believe that the 7.00% investment return assumption in combination with the 2.50% price inflation assumption is reasonable. However, we believe Cheiron should consider making an adjustment in their model to address the issues related to investment expenses discussed above.

Salary Increase Assumption

Cheiron uses a “building block” approach in developing the recommended salary increase assumption. Under this approach, the salary increase assumption is the combination of the price inflation component, the productivity or real wage increase component, and the merit and promotion increase component.

We believe this is the preferred approach for developing this assumption.

Inflation Component of the Salary Increase Assumption

For the inflation component of this assumption, please refer to our previous discussion on the 2.50% inflation assumption.

Productivity or Real Wage Increase Component

Real “across the board” pay increases are sometimes termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods or services in an efficient manner. As that occurs, some portion of the value of these improvements can provide a source for pay increases greater than price inflation. These increases are typically assumed to extend to all employees “across the board.” When these increases are combined with the price inflation component the result is the wage growth component, which reflects the average rate of increase in salaries regardless of the years of service or age of the member.

In reviewing this assumption, we refer to the State and Local Government Workers Employment Cost Index produced by the Department of Labor that provides evidence that real “across the board” pay increases have averaged about 0.3% – 0.7% annually during the last ten to twenty years. We also referred to the annual report on the financial status of the Social Security program published in June 2018. In that report, real “across the board” pay increases are forecast to be 1.2% per year under the intermediate assumptions.

The real pay increase assumption is generally considered a more “macroeconomic” assumption, that is not necessarily based on individual plan experience. However, recent salary experience with public systems in California as well as anecdotal discussions with plans and plan sponsors indicate lower future real wage growth expectations for public sector employees. For these reasons, we would generally recommend an across the board pay increase assumption of 0.50%.

Cheiron agress that the real wage increase component of 0.25% maintained by the Board, based on a review of national wage data over the last 20 years and information from the Social Security Administration. Note that historical real wage increases are generally lower in periods of higher price inflation and vice versa.

We note that the 0.25% assumed real wage increase is one of the lowest that we have seen for California retirement systems. We recommend that Cheiron monitor this assumption and consider an increase in the next review of this assumption. This is especially true if there is a recommendation to further decrease the assumption for price inflation.

Merit Increase Component

The last step or building block needed to complete the salary increase assumption is the merit increase component, which was reviewed by Cheiron as part of the demographic assumptions. Merit increases are the salary increases above the general wage increases due to the combination of promotions, longevity increases, bonuses and merit pay increases as applicable. We agree with Cheiron's findings concerning the correlation of service and merit increases. The methodology used by Cheiron is reasonable and develops reasonable results overall based upon the data.

Cheiron is recommending higher merit salary increases in virtually all years of service for both General and Safety members. Overall, we believe that Cheiron's merit salary increase recommendations are reasonable. We pointed out in our last review of the July 1, 2013 through June 30, 2016 experience study that the ultimate merit increase for General and Safety members with 20 or more years of service of 0.50% appeared to be lower than the then actual experience. We note that the recommendation made by Cheiron to increasing the ultimate rate of merit increase to 1% now more closely reflect MCERA's actual experience.

Payroll Growth Assumptions

The current payroll growth assumption used by Cheiron for the purposes of amortizing the Unfunded Actuarial Accrued Liability (UAAL) as a level percent of payroll is 2.75% and is directly tied to the wage growth component discussed above.

Post-retirement Cost-of-Living Adjustment (COLA) Increases

Tier 1 retired members and beneficiaries, are entitled to receive annual cost-of-living adjustments (COLA) of up to 3%, based on the annual increase in the Consumer Price Index (CPI) and the availability of individually accumulated COLA banks. The current assumption is that all eligible members will receive a COLA each year of 2.40%.

Cheiron performed stochastic simulations on inflation and based on their modeling, they developed results that show that for the General and Safety Tier 1 there will be years when inflation falls below the maximum 3.00% COLA level and this shortfall will not be made up in future years with the accumulated COLA banks. Cheiron recommended that the COLA increases assumptions be maintained at 2.40% (based on an inflation assumption of 2.50%).

We believe that the results of the stochastic modeling of the inflation assumption are significantly dependent on assuming that the lower levels of inflation will persist in the early years of the projections. If this is not assumed, then the stochastic modeling will produce results closer to the inflation assumption of 2.50%.

Since the difference between the inflation assumption (2.50%) and the COLA increase assumption (2.40%) is small, we concur with Cheiron's recommendations. However, we note that in years when the CPI increase matches exactly to the inflation assumption of 2.50%, there would be actuarial losses equal to the difference between the inflation assumption of 2.50% and the COLA increase assumption of 2.40%.

Review of Demographic Assumptions

The Actuarial Standards Board has adopted an Actuarial Standard of Practice (No. 35) which provides actuaries guidance in selecting demographic and other noneconomic assumptions. Reasonableness of each assumption and consistency among the assumptions are primary among the considerations for selecting assumptions in accordance with the ASOP. The Standard of Practice bases the evaluation of an assumption's reasonableness on two criteria. First, the "assumption is expected to appropriately model the contingency being measured." Second, the "assumption is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period."

The primary demographic assumptions reviewed by Cheiron during the 2019 experience study are retiree mortality, termination, and service retirement. Secondary assumptions reviewed include pre-retirement mortality, disability retirement (service and non-service related), probability of refund election, family composition, age of beneficiaries, retirement age for vested terminated members, reciprocity and terminal pay load.

For many demographic assumptions, the actuary must consider the factors affecting the variation in the rates of decrement. Often, the rate of terminations by active members will be highly correlated to their years of service. Alternatively, the variation in the rate of retirements may be better correlated to the participant's age. The type of assumption utilized determines how the data is to be grouped for analysis. Many large systems have analyzed the correlation of the variation in certain decrements to age and service simultaneously, which can result in a "select and ultimate" type of assumption. In some cases, this additional complexity does not affect results materially.

The prevalent method used to determine the appropriateness of a demographic assumption is to analyze the actual to expected ratios (AE ratios). An AE ratio is found by dividing, for any single contingency, the actual number to occur in the data by the number expected to occur based upon current assumptions. These ratios display how well the current assumptions anticipated actual experience. An AE ratio of 100% results when actual experience equals that expected under the assumption.

In reviewing the analysis of demographic assumptions completed by Cheiron, we reviewed for reasonableness the counts of actual occurrences by decrement type shown in Cheiron's experience study report with the change in the Plan membership as reported in the last six valuation reports prepared by Cheiron. We found that the counts are comparable. For the experience study, Cheiron utilized three to six years of experience in order to improve the credibility of the data for the analysis of most decrement. As there is insufficient data for setting some assumptions even after considering data from the last six years (such as in the incidence of post-retirement mortality for Safety members), we recommend Cheiron consider using nine years of experience where appropriate in their next experience study.

For each contingency, the actuary determines a reasonable range for the AE ratio. This reasonable range is based upon the materiality of the assumption, the effect of future trends, and the degree of conservatism or margin the actuary considers necessary. An AE ratio falling into this range would indicate the current assumption may still be appropriate. AE ratios not in the reasonable range may indicate the need to modify the assumption. In our opinion, Cheiron has performed accurate analyses overall of the reasonableness of the current assumptions through the use of AE ratios.

Overall, we believe Cheiron's recommendations for changes to the demographic assumptions are reasonable, but make the following observations for certain assumptions.

Service Retirement Rates

The data used for the analysis of the service retirement rates includes General and Safety counts for ages over 50 and Safety counts for ages over 40 with 20 or more years of service.

In our last review of the July 1, 2013 through June 30, 2016 experience study, we recommended Cheiron consider developing separate sets of retirement rates for the PEPRA and non-PEPRA tiers. That recommendation was based on the fact that the benefit factors differ significantly at many ages between the PEPRA and non-PEPRA tiers (in particular for General). That recommendation was also consistent with the approach used by other actuaries in Caliornia when they had to provide contribution rates for PEPRA tiers before there was any actual retirement experience from members retiring under those tiers.

When we reviewed the draft July 1, 2016 through June 30, 2019 experience study, Cheiron continued to cite the lack of actual retirement experience from MCERA as the only reason to not developing a separate set of retirement rates for the PEPRA tiers. That was the case even though they recently switched to use the retirement rates developed by CalPERS for another 1937 Act retirement system client to address a similar recommendation provided by the actuarial auditor to that system.

We strongly recommend Cheiron recommend a separate set of retirement rates for the PEPRA tiers either at or before the next experience study. In response to this recommendation from Segal, Cheiron included an additional analysis in the final July 1, 2016 through June 30, 2019 experience study that the contribution rate impact for using a separate set of retirement rates for the PEPRA tiers to be a small increase in the employer and employee rates.

Disability Retirement Rates

Since the amount of disability experience is fairly limited, Cheiron combined six years of experience for the analysis. Cheiron also combined the service-connected disability and non-service connected disability for the analysis. We believe that Cheiron's recommended assumptions are reasonable.

Due to the size of the Plan, Cheiron developed combined (service and non- service) disability rates for General and developed an assumed percentage of service-connected versus non-service connected for those who become disabled by fitting MCERA's experience to that of published disability tables provided by CalPERS. For Safety members, based on the actual disabilities in the last six years, there was only 1 who was non-service connected (as shown in the changes in plan membership based on actuarial valuation of the last six years). We recommend that Cheiron consider assuming that all Safety disabilities are service connected in order to simplify the assumption.

Mortality Rates

For estimating life expectancy for General members and their beneficiaries, Cheiron is recommending the continuation of the 2009 base tables used by CalPERS that Cheiron has carried over from the July 1, 2013 through June 30, 2016 experience study and projecting those tables using the most up-to-date MP-2019 mortality improvement projection improvement scales published by the Society of Actuaries. While Segal finds Cheiron's approach to be reasonable, the Board should be aware that there is a set of more up-to-date base tables used by CalPERS that were published in December 2017. We recommend Cheiron use the latest mortality base tables from CalPERS at MCERA's next experience study if they decide to use the life expectancy of General members at CalPERS as a proxy for the life expectancy of the General members at MCERA.

For estimating life expectancy for Safety members and their beneficiaries, Cheiron is recommending the Pub-2010 Safety member mortality tables published by the Society of Actuaries as the base tables. While we agree with their approach, we recommend Cheiron consider grouping the Safety beneficiaries with the General members and their beneficiaries in recommending mortality tables in future experience study as those other members/beneficiaries might provide a better prediction of life expectancy for the Safety beneficiaries.

Family Composition

Based on the Safety members who retired in the last three years, Cheiron recommended an assumption that 85% of future Safety retirees are married. Cheiron also recommended an assumption that 75% of male General members and 55% of female General members are married. Due to the relatively small number of Safety retirements, we recommend that Cheiron consider including all Safety retirees or at least those who retired over the last six to nine years in developing this assumption in order to have more credible experience. However, we do not believe this assumption will have a material impact to the valuation.

Other Demographic Assumptions

All other demographic assumptions recommended by Cheiron appear reasonable to us and we do not have any specific comments on them.

Overall Conclusion

With the additional disclosure of the potential impact of selecting a different set of retirement rates for the PEPRA tiers and assuming that such cost impact is fully considered by the Board, our overall assessment of Cheiron's actuarial work for MCERA is that all major actuarial functions are being appropriately addressed. Cheiron has employed generally accepted actuarial practices and principles in studying plan experience, selecting assumptions and presenting the results of their work. We believe that the actuarial assumptions as recommended by Cheiron, as well as those that the Board directed Cheiron to use are reasonable for use in MCERA's actuarial valuation.

Summary of Suggestions for Future Experience Studies

It is our opinion that in future experience studies, Cheiron should consider the following:

- For the service retirement assumption, recommend a different set of retirement rates for members in the PEPRA tiers.
- For the investment return assumption, review the methodology regarding the treatment of investment expenses in conjunction with ASOP 27.
- For the real wage growth assumption, consider increases in this assumption especially if future recommendations are made to decrease the price inflation assumption.
- For the post retirement mortality rates, consider using the most recent base table prepared by CalPERS. For the Safety beneficiaries, consider using the same mortality tables for General members and their beneficiaries.
- For the demographic assumptions, consider using nine years of data in the next experience study.
- For the disability retirement rates, consider assuming that all disabilities for Safety members as service-connected.

5629782v2/14392.001

Item 3

Merced County Employees' Retirement Association (MCERA)
RETIREMENT BOARD AGENDA ITEM

DATE: March 12, 2020

TO: MCERA Board of Retirement

FROM: Kristie Santos, Plan Administrator

SUBJECT: Investment Subcommittee Recommendations for full Retirement Board

ITEM NUMBER: 3

ITEM TYPE: Action

DISCUSSION:
The Investment Subcommittee met with Meketa on February 27, 2020 to discuss timelines and topics for discussion as well as proposed delegated authority and structure for the Investment Subcommittee. Below are the recommendations being proposed to the full Board of Retirement for consideration:

1. Subcommittee is recommending the following topics to the full Board of Retirement for the half day education session scheduled for March 26, 2020:
   i. MCERA Manager presentation - TBD
   ii. Private Debt (confirmed) – Cliffwater
   iii. Market overview – Meketa
   iv. Discussion Contingency Funds – Meketa

2. Next part of the portfolio to be reviewed with Meketa and the Investment Subcommittee – US Equities.

3. The MCERA Investment Subcommittee is recommending/proposing the following to the full Board of Retirement;
   i. Full Retirement Board has full decision-making authority on investment matters.
   ii. Purpose of the subcommittee will be to pre-vet topics and managers for the full Board of Retirement, consider timelines to be discussed (e.g. asset allocation timing discussions), assist in setting the education day agendas, and any other investment related discussion that will go before the full Board of Retirement.
   iii. Subcommittee meetings will be scheduled immediately following the MCERA Investment Meetings for convenience.
   iv. Subcommittee meetings will be scheduled quarterly or as needed (meetings could be called more often or less often depending on agenda items).
   v. Meketa will submit a monthly performance report which will be on the consent agenda of the Investment Board Meeting for review. Meketa will be present for a quarterly presentation performance

results, unless required to appear more often by the Board of Retirement (if possible with a minimum of two weeks notice given for preparation of materials).

Item 5

Merced County Employees' Retirement Association (MCERA)
RETIREMENT BOARD AGENDA ITEM

DATE: March 12, 2020

TO: MCERA Board of Retirement

FROM: Kristie Santos, Plan Administrator

SUBJECT: Dates for Upcoming MCERA Trustee Elections for 2020

ITEM NUMBER: 5

ITEM TYPE: Action

DISCUSSION:
In consultation with the Registrar of Voters for Merced County, the following election milestone dates will be scheduled for the MCERA Trustees, Seat 2 – Active General Membership and Seats 8 and 8A – Retired and Retired Alternate elections:

Notices	
August 19, 2020	Notice of Election Distributed
Candidate Filing	
August 19, 2020 – September 9, 2020	Candidate filing period
September 10, 2020	Random Alphabet Drawing at 9:00 am
General Information	
September 15, 2020	Distribution of Election Ballots
October 6, 2020	Last day to return Election Ballots to Election's Department
Canvass	
October 7, 2020	Official Canvass (Counting of Ballots)

Staff recommends adopting the proposed timeline for trustee elections for Seat 2, Seat 8 and 8A.

EDELSTEIN GILBERT ROBSON & SMITH LLC

Donald B. Gilbert Michael R. Robson Trent E. Smith Jason D. Ikerd Associate

Item 8

March 5, 2020

TO: State Association of County Retirement Systems

FROM: Mike Robson, Trent Smith, and Bridget McGowan, Edelstein Gilbert Robson & Smith, LLC

RE: **Legislative Update – March 2020**

Overview

The Legislature recently reached its first major legislative deadline of 2020, the bill introduction deadline on February 21. From January 6 to the February 21, over 2,200 bills were introduced between the Assembly and the Senate. A large proportion of the introduced bills are "spot bills," which are bills that are introduced as placeholders until the author can finalize language to amend into the bill. These bills must be amended with more substantive language in the coming weeks before being referred to committee for a hearing.

All bills need to be in print for 30 days before being heard in a Committee so that the public and stakeholders have ample time to review the bills. Because of this, we will expect to see committee hearings start to ramp up at the end of March. Spot bills, however, can be amended with substantive language right up until they are set for committee, leaving a shorter window for review.

The Legislative Committee will begin the bill review process of the bills with substantive language. Led by the Committee's co-chairs Eric Stern and Dave Nelsen, the Legislative Committee will read and analyze the bills that have been flagged for potential impact on CERL systems or indicate trends regarding retirement and pensions that could impact CERL systems down the road.

When the spot bills are amended with substantive language at the end of March, the Legislative Committee will complete another iteration of the bill review process and determine how or if any of the bills have an impact on SACRS members.

CERL Legislation

SB 783 (Committee on Labor, Public Employment and Retirement) – SACRS Sponsored Bill. This cleanup bill makes technical changes to withdrawn employer liabilities, service purchase for parental leave, military leave, board approval of retirements, 60-day advance application windows, reinstatement from retirement and lump sum payments for minimum age distribution.

This bill is in its second house and will likely be heard in the Spring.

AB 2937 (Fong) - Nonservice-Connected Disability. This bill would authorize a county board of supervisors to adopt a resolution that would remove the intemperate use of alcoholic liquor or drugs as a factor in the calculation of a nonservice-connected disability retirement allowance. The goal of the bill is to modernize the statute to reflect contemporary views of alcohol and drug addiction. If viewing alcohol and drug use from a disease perspective rather than a moral failure, the benefit limitation therefore would be discriminatory and financially punitive for that member.

The bill is authored by Assemblymember Vince Fong, a republican from the 34th Assembly District, which encompasses most of Kern County.

The bill was introduced on February 21.

Other Legislation

The Legislature is focused on worker classification and independent contractors. Dozens of bills have been introduced on the subject this year, most of them from Republicans who are hostile towards AB 5 (Gonzalez) from last year. In summary, AB 5 codified the 2018 California Supreme Court “Dynamex Decision” and exempted industries who do not fall neatly under the court decision’s “ABC test” that classifies workers as employees or independent contractors. The goal was to ensure that workers are not being misclassified as independent contractors when they are operating like employees. We expect this issue to remain extremely contentious and dominate the conversation in the Legislature this year.

Also big on the legislative agenda is climate change. The Legislature is planning for the creation of climate resiliency bonds to mitigate the impacts of climate change on the state’s resources. If passed out of the Legislature, these would be placed on the ballot and considered by the public for a final vote.