



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA
REGULAR CLOSED SESSION
Tuesday, February 25, 2025
11:00 a.m.
Boardroom
375 11th Street
Oakland, CA 94607**

*****Please see appendix for public participation instructions*****

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

ANNOUNCEMENT OF CLOSED SESSION AGENDA:

1. Initiation of litigation pursuant to Government Code section 54956.9(d)(4): one matter.
2. Threat to public services or facilities pursuant to Government Code section 54957:
Conference with Sophia D. Skoda, Director of Finance; Orlando W. Leon, Chief Information Officer; Barry N. Gardin, Internal Auditor Supervisor; William L. Johnson, Information System Division Manager; Kevin J. Fitzsimmons, Information Services Supervisor.
3. Conference with Labor Negotiators Keith Fleming and Stacey Cue from the Industrial Employers Distributors Association; Clifford C. Chan, General Manager; David A. Briggs, Director of Operations & Maintenance; Sophia D. Skoda, Director of Finance; Cindy R. Charan, Director of Human Resources; Samuel A. Feldman, Manager of Budget; Robert L. Hannay, Treasury Manager; Adam Smyer, Manager of Employee Relations; Lisa A. Sorani, Manager of Employee Services; Vincent L. James, Manager of Recruitment & Classification; Lori L. Worden, Senior Human Resources Analyst; and Valerie R. Weekly, Principal Management Analyst, pursuant to Government Code section 54957.6: American Federation of State, County and Municipal Employees, Locals 444 and 2019; International Union of Operating Engineers, Local 39; and International Federation of Professional and Technical Engineers, Local 21.

(The Board will discuss Closed Session agenda items in Conference Room 8)

REGULAR BUSINESS MEETING
1:15 p.m.

*****Please see appendix for public participation instructions*****

ROLL CALL:

BOARD OF DIRECTORS:

- Pledge of Allegiance
- Recognizing Women's History Month and EBMUD's Women Employees' Resource Opportunity Collaboration Community (WE ROCC) Affinity Group

ANNOUNCEMENTS FROM CLOSED SESSION:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

CONSENT CALENDAR: (Single motion and vote approving 8 recommendations.)

1. Approve the Regular Meeting Minutes of February 11, 2025 and the Special Meeting Minutes of February 13, 2025.
2. File correspondence with the Board.
3. Award a contract to the lowest responsive/responsible bidder, SAK Construction, LLC, in an amount not to exceed \$9,810,000 for the construction of North Interceptor Rehabilitation, Emeryville (N31 to N35) Project, under Specification SD-454.
4. Award a sole source contract beginning on or after February 25, 2025 to Shape, Inc., to supply a replacement pump for the Orinda Water Treatment Plant lift station for a total cost, after the addition of taxes, not to exceed \$108,167.
5. Authorize an agreement beginning on or after May 1, 2025 with California Department of Fish and Wildlife for a term of 20 years for the operations and maintenance of the Mokelumne River Fish Hatchery at a cost not to exceed \$481,000 for the period January 1 through June 30, 2025. Future annual budgets will be developed and approved based on the cost sharing criteria in the agreement.
6. Authorize an agreement beginning on or after February 25, 2025 with EETS, INC. in an amount not to exceed \$92,056 for final engineering design services for electrical system improvements at the Mokelumne River Fish Hatchery, located at 25800 North McIntire Rd, Clements, at the base of Camanche Dam on the Mokelumne River.
7. Authorize the purchase of Jira and Service Management software beginning on or after February 25, 2025, from SHI International Corp. for two years for a total amount not to exceed \$378,000. This purchase will be made under State of California contracts available for use by local governments.

CONSENT CALENDAR: (Continued)

8. Approve the January 2025 Monthly Investment Transactions Report.

DETERMINATION AND DISCUSSION:

9. Adopt the Actuarial Valuations of the Employees' Retirement System as of June 30, 2024 prepared by the Retirement System's actuary. In addition, set Retirement System Contribution Rates for Fiscal Year 2026 based on the actuarially determined contribution rates in the valuations.
(Resolution)

10. General Manager's Report.

- Water Supply Update – water production; precipitation to date; reservoir storage; and forecasted supply conditions for the remainder of water year 2025

REPORTS AND DIRECTOR COMMENTS:

11. Committee Reports:

- Planning
- Finance/Administration

12. Other Items for Future Consideration.

13. Director Comments.

ADJOURNMENT:

The next Regular Meeting of the Board of Directors will be held at 1:15 p.m. on Tuesday, March 11, 2025.

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

BOARD CALENDAR

Meeting dates, times, and locations are subject to change

Date	Meeting	Time/Location	Topics
Tuesday, February 25	Finance/Administration Committee	8:30 a.m. Boardroom	• Monthly Investments Reports • Quarterly Financial Reports for Quarter Ended December 31, 2024 • Fiscal Year 2025 Semi-Annual Budget Performance Report • Employees' Retirement System Fiscal Year 2024 Update, Actuarial Valuations, and Fiscal Year 2026 Employee and Employer Contribution Rates • Termination of California Shakespeare Theater Operations
	Long-Term Water Supply Workshop	9:15 a.m. Boardroom	
	Board of Directors	11:00 a.m. Boardroom	• Closed Session
		1:15 p.m. Boardroom	• Regular Meeting
Tuesday, March 11, 2025	Planning Committee	TBD Boardroom	
	Legislative/Human Resources Committee	TBD Boardroom	
	Board of Directors	11:00 a.m. Boardroom	• Closed Session
		1:15 p.m. Boardroom	• Regular Meeting
Tuesday, March 25, 2025	Finance/Administration Committee	TBD Boardroom	
	Budget Workshop No. 2	TBD Boardroom	
	Board of Directors	11:00 a.m. Boardroom	• Closed Session
		1:15 p.m. Boardroom	• Regular Meeting

2025 Board Committee Members

Finance/Administration	Katz {Chair}, Lewis, Oddie
Legislative/Human Resources	Gómez {Chair}, Oddie, Smith
Planning	Chan {Chair}, Gómez, Lewis
Sustainability	Smith {Chair}, Gómez, Katz

APPENDIX

**Closed Session and Regular Business Meetings
11:00 a.m. and 1:15 p.m.**

*EBMUD public Board meetings will be conducted in person and accessible via Zoom.
These meetings are recorded, live-streamed, and posted on the District's website.*

Online*

<https://ebmud.zoom.us/j/97065086667?pwd=eUdZSGh5SG82akZiRDF2UDg2b0IyUT09>

Webinar ID: 970 6508 6667

Passcode: 238500

By Phone*

Telephone: 1 669 900 6833

Webinar ID: 970 6508 6667

Passcode: 238500

International numbers available: <https://ebmud.zoom.us/u/adMXn1VnPp>

*To familiarize yourself with Zoom, please visit <https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting>

Providing public comment - *The EBMUD Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.*

- Each speaker is allotted 3 minutes to speak; the Board President has the discretion to amend this time based on the number of speakers
- The Secretary will track time and inform each speaker when the allotted time has concluded
- Comments on **non-agenda items** will be heard at the beginning of the meeting
- Comments on **agenda items** will be heard when the item is up for consideration
- The Secretary will call each speaker in the order received

In person

- Fill out and submit a blue speaker card which is available in the meeting room

Via Zoom

- Use the raise hand feature in Zoom to indicate you wish to make a public comment
<https://support.zoom.us/hc/en-us/articles/205566129-Raising-your-hand-in-a-webinar>
- If you participate by phone, press *9 to raise your hand
- When prompted by the Secretary, please state your name, affiliation if applicable, and topic

Submitting written comments or materials

- Email written comments or other materials for the Board of Directors to SecOffice@ebmud.com
- Please indicate the meeting date and agenda item number or non-agenda item topic in the subject line of the email. Contact information is optional.
- **Please email by 4 p.m. the day prior to the scheduled regular meeting;** written comments and other materials submitted to the Board of Directors will be filed in the record.

To view the livestream of Board meetings, please visit:
<https://www.ebmud.com/about-us/board-directors/board-meetings/>

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MINUTES

**Tuesday, February 11, 2025
East Bay Municipal Utility District
Board of Directors
375 Eleventh Street
Oakland, California**

Regular Closed Session Meeting

President Marguerite Young called to order the Regular Closed Session Meeting of the Board of Directors at 11:00 a.m. in the Administration Building Boardroom.

ROLL CALL

Directors April Chan, Luz Gómez, Valerie D. Lewis, Jim Oddie, Joey D. Smith and President Marguerite Young were present at roll call. Director Andy Katz arrived at 11:04 a.m.

Staff participants included General Manager Clifford C. Chan and General Counsel Derek T. McDonald.

PUBLIC COMMENT

- Addressing the Board were the following: 1) Eric Larsen, President, AFSCME Local 444, commented on Legislative/Human Resources Committee meetings being cancelled, Assembly Bill 1484; Local 444 representation for six-month temporary employees; and labor negotiations. He asked the Board to give management the authority to conclude negotiations by April 2025;
- 2) Eddie Cheung, Treasurer, AFSCME Local 444, commented on topics discussed in current and past labor negotiations, and asked the Board to direct management to engage with the union to negotiate a fair contract;
- 3) Kevin Amdahl, Shop Steward and Executive Board member, AFSCME Local 444, commented on the union's longevity wage proposal for 2013 Retirement Plan members;
- 4) Gilbert Laredo, 2nd Vice President, AFSCME Local 444 commented on the union's proposal regarding double time pay after working 12 hours; and
- 5) Michael Morgan, Chief Steward and Executive Board member, AFSCME Local 444, commented on the union's proposal regarding fatigue time.

President Young asked staff to calendar an update on the District's efforts to address Assembly Bill 1484 for a future Legislative/Human Resources Committee meeting.

- Director Oddie left the meeting at 11:23 a.m. and returned at 11:25 a.m.
- Director Smith left the meeting at 11:24 a.m. and returned at 11:28 a.m.

BROWN ACT BRIEFING

General Counsel Derek T. McDonald and Assistant General Counsel Lourdes M. Matthew provided the presentation. Mr. McDonald reviewed Policy 6.04 – Ethics of the EBMUD Board of Directors. Ms. Matthew reviewed recent legal developments in the Brown Act including new laws that take effect in 2025. Assembly Bill 2715 amends the Brown Act to clarify that a permitted closed session may include discussion on a threat to critical infrastructure controls or critical infrastructure information related to

cybersecurity. Assembly Bill 2302 amends the Brown Act to clarify limitations on the number of times a member of a legislative body may appear remotely in meetings. Attorney General (AG) Opinion 2024 WL 3627281 was issued in July 2024 and overturns a 2001 AG Opinion. It provides guidance that remote participation in a meeting is a reasonable accommodation that must be provided under the Americans with Disabilities Act. AG Opinion 2024 WL 1812958 was issued in April 2024 and clarifies events that constitute “conferences” and “community gatherings,” which are exempt as “meetings” for purposes of the Brown Act. Next, she highlighted the limited permissible use and prohibited use of social media in light of the Brown Act. Mr. McDonald concluded with a review of 2024 updates to Government Code section 1090 and the Political Reform Act. Senate Bill 1111, which becomes effective January 1, 2026, amends Government Code section 1091’s definition of a “remote interest” as it relates to a Board member’s financial interest in a contract while Senate Bill 1243 updates provisions in the Levine Act. There was considerable Board discussion and questions regarding the information presented. The Board requested information on options to streamline the process for addressing perceived violations by a Board member and clarification on multiple Board members attending a conference in light of AG Opinion 2024 WL 1812958. Staff was asked to calendar a discussion for a future Legislative/Human Resources Committee meeting to further discuss Assembly Bill 2302 and potentially establishing a policy on an alternative option for counting committee meetings attended by teleconference; and to provide updated guidance on the use of social media.

- Director Gómez left the meeting at 12:03 p.m. and returned at 12:05 p.m.

ANNOUNCEMENT OF CLOSED SESSION AGENDA

President Young announced the closed session agenda and the Board convened to Administration Building Conference Room 8 for discussion.

Regular Business Meeting

At 1:00 p.m., General Manager Clifford C. Chan informed Secretary of the District Rischa S. Cole that due to an extended Closed Session Meeting, the Regular Business Meeting would start at 1:45p.m. At 1:34 p.m., Mr. Chan informed Secretary Cole the meeting would start at 2:00 p.m. At 1:52 p.m., Mr. Chan informed Secretary Cole the meeting would start at 2:15 p.m. At 2:12 p.m., Mr. Chan informed Secretary Cole the meeting would start at 2:25 p.m. At 2:26 p.m., Mr. Chan informed Secretary Cole the meeting would start at 2:35 p.m. President Marguerite Young called to order the Regular Meeting of the Board of Directors at 2:36 p.m. in the Administration Building Boardroom.

Directors April Chan, Luz Gómez, Andy Katz, Valerie D. Lewis, Jim Oddie, Joey D. Smith, and President Marguerite Young were present at roll call.

Staff participants included General Manager Clifford C. Chan, General Counsel Derek T. McDonald, and Secretary of the District Rischa S. Cole.

BOARD OF DIRECTORS

President Young led the Pledge of Allegiance.

ANNOUNCEMENTS FROM CLOSED SESSION

President Young announced the Board met in closed session earlier to consider a request by the General Counsel to authorize litigation. All Directors were present, and all Directors voted to authorize the General Counsel to initiate litigation on one matter. The action, parties, and other particulars will be disclosed upon inquiry once the action is formally commenced. There were no other announcements required from closed session.

PUBLIC COMMENT

- Addressing the Board was Matthew Taylor who commented on formation of the Camanche Southshore Homeowners Association (HOA), HOA members' continued concern with the District's ban on personal watercraft and alcohol at Camanche Reservoir and requesting data to support the District's decision to implement the bans. HOA members are requesting an EBMUD Board member be assigned to represent Camanche Southshore and Northshore residents.

General Manager Clifford C. Chan confirmed an update on revisions to the Watershed Rules and Regulations which include the personal watercraft and alcohol bans at Camanche Reservoir will be presented at an upcoming Planning Committee meeting.

CONSENT CALENDAR

- Motion by Director Gómez, seconded by Director Chan, to approve the recommended actions for Items 1-6 on the Consent Calendar carried (7-0) by the following voice vote: AYES (Chan, Gómez, Katz, Lewis, Oddie, Smith, and Young); NOES (None); ABSTAIN (None); ABSENT (None).
1. **Motion No. 024-25** – Approved the Special and Regular Meeting Minutes of January 28, 2025.
 2. The following correspondence was filed with the Board: **1)** Presentation entitled, “Annual Ethics Policy Review and Brown Act Update,” dated February 11, 2025; **2)** Presentation entitled, “Water Supply Update,” dated February 11, 2025; and **3)** Speakers' Bureau and Outreach Record CY25, dated February 11, 2025.
 3. **Motion No. 025-25** – Authorized an agreement beginning on or after February 11, 2025, with Comprehensive Construction Services, Inc. in an amount not to exceed \$119,161 for access improvements to the Pardee Lodge.
 4. **Motion No. 026-25** – Rescheduled the Board meetings scheduled for Tuesday, November 11, 2025 to Wednesday, November 12, 2025 due to the Veteran's Day holiday being observed at the District on November 11.
 5. **Resolution No. 35437-25** – Resolution Of The Board Of Directors Of East Bay Municipal Utility District Ratifying Termination Of The Los Vaqueros Reservoir Joint Exercise Of Powers Agreement And Dissolution Of The Los Vaqueros Reservoir Joint Powers Authority.
 6. **Resolution No. 35438-25** – Authorizing An Application To The Wildlife Conservation Board For Grant Funds From The Wildlife Conservation Board For The Pinole Creek Tomato Stand Fish Passage Project.

DETERMINATION AND DISCUSSION

7. Legislative Update.

Manager of Legislative Affairs Kathy Viatella provided an overview of Legislative Report No. 01-25 which includes information on a series of executive orders and actions issued by the president between January 20 and January 24, 2025 that are relevant to EBMUD. The executive actions cover topics such as water and wildfire; federal regulations; federal funding; diversity, equity and inclusion; and climate change and energy. Staff will continue to monitor and evaluate executive orders and other executive actions, and report back to the Board, as appropriate. Ms. Viatella addressed Board questions regarding the executive orders and actions. The Board requested information on how potential changes to federal agencies may impact to the District and impacts to the District due to changes in the Environmental Protection Agency's equity initiatives. Staff was asked to track the Climate Superfund bill package. She concluded with an update on federal and state legislative activities.

8. General Manager's Report.

Water Supply Update

Manager of Maintenance and Construction/Water Operations Roberto C. Cortez presented the update on the District's current water supply including the following data as of February 5: gross water production; total system storage (607,550 acre-feet); precipitation in the East Bay (11.3 inches) and in the Mokelumne (19.2 inches); and the snow depth (48 inches) and snow water content (13.4 inches) at Caples Lake. He reviewed snowpack levels and snow water equivalent in the Sierras as of February 6; seasonal precipitation forecasts across the states for March through May 2025; projected Mokelumne precipitation for Rainfall Year 2025; and 2025 total system storage projections.

General Manager Clifford C. Chan announced the January 2025 Monthly Report was included in the agenda materials and the Speakers' Bureau and Outreach Record CY25 had been provided at Board places. Director Oddie asked that future main break reports in the General Manager's monthly report identify the ward where the break occurred.

REPORTS AND DIRECTOR COMMENTS

9. Committee Reports.

- Chair April Chan reported the Planning Committee met earlier and received updates on the Central Reservoir Replacement Project; the North Interceptor Rehabilitation, Emeryville (N31 to N35) Project; the Mokelumne River Fish Hatchery Operations and Maintenance Agreement; and Termination of California Shakespeare Theater Operations.
- Director Luz Gómez reported the FRWA Board met on February 6 and took action on the following: elections for FRWA Board officers (Director Gómez was elected Chair), a resolution honoring former Director Patterson's service to FRWA, a review of water supply conditions, a presentation on golden mussels monitoring, a review of the Treasurer's Report, adoption of 2025 Board meeting dates, an update on an adjacent U.S. Army Corps of

Engineers Levee Project, and FRWA staff appointments. Manager of Maintenance and Construction/Water Operations Roberto C. Cortez was appointed Program Manager for the next three years. Director Oddie also participated in the meeting.

- Director April Chan reported the DERWA Board met on February 3 and selected Board Officers and approved meeting minutes, Treasurer’s Reports, and the quarterly investment report.

10. **Other Items for Future Consideration.**

None.

11. **Director Comments.**

- Director Chan reported attending a meeting on emergency preparedness with PG&E and the City of San Leandro on February 8.
- Director Gómez reported attending bond disclosure training along with Director Chan in Oakland on January 28; presenting a District at a Sustainable Rossmore meeting in Walnut Creek on February 4; attending a Well UnTapped Fellowship session in San Diego February 7-8; and meeting with staff earlier to review a draft presentation for the San Ramon Valley Fire Prevention District.
- Director Katz reported presenting on the 29th United Nations Conference of the Parties at a recent Berkeley/Albany/Emeryville League of Women Voters meeting.
- Director Lewis reported that during the Planning Committee meeting earlier, staff was asked that all future project presentations to include information on whether the project is included in the approved budget. Director Lewis reported attending a constituent meet and greet for Ward 6 in Oakland on February 5 and plans to moderate a California Water Law Symposium panel on direct potable reuse at U.C. Berkeley on February 15.
- Director Oddie reported attending the FRWA Board meeting on February 6 and the Oakland Chinatown Lions Club dinner on February 8, both in Oakland.
- Director Smith reported participating on a panel for the Black Employee Network’s Black History Month kickoff luncheon on February 4. Director Smith thanked Community Affairs Representative I Gina M. Baker and staff for their dedication to the District’s Contract Equity Program and providing assistance to small business owners.
- President Young announced the following upcoming activities: Water Walk with Lindsay Wildlife Museum at Lafayette Reservoir on February 15; Water Wednesday webinar on the golden mussel on February 19; the Oakland Chinatown Chinese Lunar New Year Parade on February 22; and the Black Joy Parade in Oakland on February 23.

ADJOURNMENT

President Young adjourned the meeting at 3:36 p.m.

SUBMITTED BY:

Rischa S. Cole, Secretary of the District

APPROVED: February 25, 2025

Marguerite Young, President of the Board

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MINUTES

Thursday, February 13, 2025

**East Bay Municipal Utility District
Board of Directors
Joaquin Miller Community Center
3594 Sanborn Drive
Oakland, California**

Special Meeting

President Marguerite Young called to order the Special Meeting of Board of Directors at 9:05 a.m. in the Joaquin Miller Community Center Assembly Room 2, in Oakland, California. The Board met for a retreat to discuss Board governance, roles, communication and collaboration, and the working relationship among Board members.

ROLL CALL

Directors April Chan, Luz Gómez, Valerie D. Lewis, Jim Oddie, Joey D. Smith and President Marguerite Young were present at roll call. Director Andy Katz arrived at 9:40 a.m. (late arrival).

Staff participants included General Manager Clifford C. Chan, General Counsel Derek T. McDonald, Director of Customer and Community Services Andrew L. Lee, Director of Engineering and Construction Serge V. Terentieff, Director of Finance Sophia D. Skoda, Director of Human Resources Cindy R. Charan, Director of Operations and Maintenance David A. Briggs, Director of Wastewater Amit K. Mutsuddy, Director of Water and Natural Resources Michael T. Tognolini, Special Assistants to the General Manager Derry L. Moten, Kathy Viatella, and Kelly A. Zito, Assistant to the General Manager Janetta M. Johnson, Chief Information Officer Orlando W. Leon, Manager of Maintenance and Construction//Water Operations Crystal J. Yezman, and Secretary of the District Rischa S. Cole. Participants also included C. Marie Taylor and Ava Williams, facilitators with Equity Through Action.

PLEDGE OF ALLEGIANCE

President Young led the Pledge of Allegiance.

PUBLIC COMMENT

None.

DISCUSSION

- Filed with the Board were the following: 1) Document titled, "Board of Directors Retreat Agenda," dated February 13, 2025; and 2) Presentation entitled, "East Bay Municipal Utility District Board Retreat," dated February 13, 2025.

President Marguerite Young provided opening comments, highlighted the retreat objectives and introduced the facilitators. Facilitator C. Marie Taylor provided a land acknowledgment statement and reviewed the retreat agenda. During the first half of the retreat, Board members and Senior Management Team members participated in discussions and interactive exercises focused on exploring EBMUD's organizational culture as well as governance and role clarity. In the afternoon, Board members, General Manager Clifford C. Chan, General Counsel Derek T. McDonald, and Secretary of the District Rischa S. Cole participated in discussions and interactive exercises that focused on defining and building trust, communication, and collaboration. There was considerable Board discussion throughout the day regarding each agenda topic. The Board requested the following:

- Consider scheduling an annual meeting with Public Affairs staff and Board members
- Consider including additional information in the Alternatives section of the staff reports to help the public understand how staff arrived at a decision to be considered by the Board

ADJOURNMENT

President Young provided closing remarks and adjourned the Special Meeting at 4:15 p.m.

SUBMITTED BY:

Rischa S. Cole, Secretary of the District

APPROVED: February 25, 2025

Marguerite Young, President of the Board



BOARD ACTION

Agenda Number:	3.	Meeting Date:	February 25, 2025
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TITLE	NORTH INTERCEPTOR REHABILITATION, EMERYVILLE (N31 TO N35)
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ACTION	☒ Motion:	☐ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Award a contract to the lowest responsive/responsible bidder, SAK Construction, LLC (SAK), in an amount not to exceed \$9,810,000 for the construction of North Interceptor Rehabilitation, Emeryville (N31 to N35) Project, under Specification SD-454.
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SUMMARY	This project will rehabilitate 2,500 feet of the District's North Interceptor and five maintenance holes (MHs) in the City of Emeryville to address severe corrosion. These improvements will protect critical infrastructure, enhance public safety, and ensure reliable wastewater service for the service area from Emeryville to Richmond. This project was presented to and unanimously supported by the Planning Committee on February 11, 2025.
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DISCUSSION	The District has approximately 29 miles of large diameter interceptor pipelines that were constructed about 70 years ago. The interceptor pipelines are reinforced concrete pipe, and some segments are showing signs of severe internal corrosion. In 2022, the District completed risk assessments of sections of the interceptor system subject to high corrosion and identified the Emeryville segment of the North Interceptor as the highest priority in need of rehabilitation. This segment of the North Interceptor is critical to the District's overall interceptor system. It carries sewage from Emeryville, Berkeley, Richmond, and the collection agencies in between. It extends along the shoulder of Interstate 80 and crosses Powell Street in Emeryville before discharging to the Main Wastewater Treatment Plant located in Oakland at the foot of the Bay Bridge. Cured in place pipeline will be used to rehabilitate the pipelines while avoiding excavation and replacement of the existing piping to minimize community impacts. A temporary bypass system will divert flows through the interceptor system during the project. This project supports the District's Long Term Infrastructure Investment Strategic Plan goal.
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BID RESULTS	Bid documents were posted on the District's website and issued to 25 resource organizations and three prospective bidders. Three bids were received, ranging from \$8,792,800 to \$11,960,000. The bid summary is attached. The engineer's estimate for this work was \$9,000,000. The difference between the engineer's estimate and the highest bid is due to the higher costs associated with the new pipe liner.
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Originating Department: Wastewater	Department Director or Manager: Amit K. Mutsuddy	CEP Forms? Yes	Board Action Type: Construction
Funds Available: FY2025, CIP#7000328, Page 124	Budget Coding: 21-927-3100066-55610		Approved: 
Attachments: Bid Summary; P-035; P-061; Bid Rejection Letter dated January 22, 2025; Protest and Response Letter dated January 24, 2025; District Denial Letter dated January 29, 2025			

Title:	North Interceptor Rehabilitation, Emeryville (N31 to N35)	Meeting Date:	February 25, 2025
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The apparent low bidder, Insituform Technologies, LLC (Insituform), was deemed non-responsive because prior to bidding Insituform did not get the District's required pre-approval to self-perform the critical bypass pumping portion of the work. Additionally, Insituform failed to list one of the three pre-approved firms or subcontractors from the bid documents as the exclusive entity responsible for the bypass pumping system. Insituform submitted a bid protest letter to the District's recommendation to award the contract to SAK, the lowest responsive/responsible bidder. Staff reviewed the bid protest letter and found it did not have merit. The bid rejection letter, Insituform's response, and the District's denial letter are attached.

The lowest responsive/responsible bidder, SAK, is licensed to perform work in California and is not on the State Department of Industrial Relations (DIR) debarment list. SAK and its listed subcontractors are properly registered with the State DIR.

In the past five years, SAK has not filed a Government Code Claim nor initiated any litigation against the District.

SUSTAINABILITY**Economic**

Funding for this work is available in the Fiscal Year 2025 adopted capital budget for Interceptors and Pump Stations.

Social

Work under this contract is subject to the payment of current prevailing wages according to determinations for each craft as established by the Director of the DIR of the State of California.

Local 444 was notified of this contract on November 15, 2024, and did not raise any specific issues related to this contract.

Environmental

A California Environmental Quality Act Notice of Exemption was filed with the Alameda County Clerk on April 19, 2024.

ALTERNATIVES

Do not award this contract. This alternative is not recommended because this project provides necessary rehabilitation and improvements to infrastructure in critical condition.

Perform the work with District forces. This alternative is not recommended because District forces do not have the expertise, equipment, or staff to perform the full scope of work for this project.

EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1
SPECIFICATION SD-454
NORTH INTERCEPTOR
REHABILITATION, EMERYVILLE (N31 TO N35)

JANUARY 15, 2025

BID SUMMARY

BIDDER		TOTAL BID
1.	Insituform Technologies, LLC	\$8,792,800.00
2.	SAK Construction, LLC*	\$9,810,000.00
3.	Michels Trenchless, Inc.	\$11,960,000.00

*** Apparent Low/Responsive Bidder**

Number of Proposals sent to Contractors	15
Number of Proposals sent to Resource Orgs	25
Number of Proposals sent to MBEs	2
Number of Proposals sent to WBEs	0
Number of Proposals sent to SBs	0
Number of bids received	3

Engineer's Estimate	\$9,000,000
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CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE SPECIFICATION NO.: SD-454 North Interceptor Rehabilitation, Emeryville (N31 to N35)					DATE: January 28, 2025							
CONTRACTOR: SAK Construction, LLC O'Fallon, MO					PERCENTAGE OF CONTRACT DOLLARS							
BID/PROPOSER'S PRICE: \$9,810,000 *		FIRM'S OWNERSHIP			White Men		25%		59.2%			
		Ethnicity		Gender		White Women		9%		14.3%		
		White		Men		Ethnic Minorities		25%		5.0%		
CONTRACT EQUITY PARTICIPATION												
COMPANY NAME		ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
				M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: SAK Construction, LLC		\$5,691,137	White	X		58.0%						
SUBS: Summit Pipelines		\$71,500	White	X		0.7%						
Sunbelt Rentals		\$1,970,953	Foreign								20.1%	
JMB Construction, Inc.		\$1,402,890	White		X		14.3%					
Almendariz Consulting, Inc.		\$175,000	Hispanic	X				1.8%				
H&R Plumbing and Drain Cleaning, Inc.		\$119,412	Hispanic	X				1.2%				
dba H&R Underground		\$200,000	Asian	X				2.0%				
1 Cerberus Security		\$135,500	Publicly Held						1.4%			
USP Technologies		\$43,608	White	X		0.4%						
Behrens Associates, Inc.												
TOTAL		\$9,810,000				59.2%	14.3%	5.0%	0.0%	1.4%	0.0%	20.1%
CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)												
			White Men		White Women		Ethnic Minorities		Total Employees			
No. of Employees:			274		36		130		440			
Percent of Total Employees:			62.3%		8.2%		29.5%					
MSA Labor Market %:			45.6%		40.3%		14.1%					
MSA Labor Market Location:			Missouri									
COMMENTS												
Contract Equity Participation: 59.9% White Men, 14.3% White Women, and 5% Ethnic Minority participation. Contract Duration: NA *Total not to exceed: \$9,810,000												
Workforce Profile & Statement of Nondiscrimination Submitted					Good Faith Outreach Efforts Requirement Satisfied				Award Approval Recommended			
NA					YES							



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title:		Ethnic Minority Percentages From U.S. Census Data							
North Interceptor Rehabilitation, Emeryville (N31 to N35)			B	H	A/PI	AI/AN	TOTAL		
		National	10.5	10.7	3.7	0.7	27.3		
Spec. No.: SD-454		DATE:	9 Bay Area Counties		5.5	16.2	14.2	0.4	39.9
		1/28/2025	Alameda/CC Counties		10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime S=Sub	Composition of Ownership	Number of Ethnic Minority Employees							
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM	Company Wide	49	62	9	6	126	28.6%	14.1%
SAK Construction, LLC Angie Hirtz 864 Hoff Road O'Fallon, MO 63366 636-385-1020		Manager/Prof	6	12	1	1	20	15.3%	
		Technical/Sales	0	1	0	0	1	11.1%	
		Clerical/Skilled	9	11	2	0	22	19.3%	
		Semi/Unskilled	34	38	6	5	83	44.6%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
		AA Plan on File:	NA		Date of last contract with District:		NA		
		Co. Wide MSA:	Missouri		# Employees-Co. Wide:		440	Bay Area:	0
S	WM	Company Wide	0	0	0	0	0	0.0%	37.3%
Summit Pipelines Aaron Clark 21808 Golden Pines Ct. Auburn, CA 95602 530-320-4917		Manager/Prof	0	0	0	0	0	0.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	0	0	0	0	0.0%	
		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
		Co. Wide MSA:	Sacramento		# Employees-Co. Wide:		12	Bay Area:	0
S	Foreign	Company Wide	1,958	4,344	322	149	6,773	33.0%	27.3%
Sunbelt Rentals Inc. William Causey 1799 Innovation Point Fort Mill, SC 29715 803-578-5242		Manager/Prof	193	337	111	19	660	18.4%	
		Technical/Sales	204	697	67	23	991	22.5%	
		Clerical/Skilled	745	2,018	104	64	2,931	39.0%	
		Semi/Unskilled	816	1,292	40	43	2,191	43.8%	
		Bay Area	20	99	12	2	133	71.1%	39.9%
		Co. Wide MSA:	USA		# Employees-Co. Wide:		20,522	Bay Area:	187
S	WW	Company Wide	2	36	1	0	39	54.2%	47.9%
JMB Construction, Inc. Margaret Burke 132 South Maple Ave. South San Francisco, CA 94080 650-267-5300		Manager/Prof	0	0	0	0	0	0.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	6	0	0	6	28.6%	
		Semi/Unskilled	2	30	1	0	33	91.7%	
		Bay Area	2	36	1	0	39	54.2%	39.9%
		Co. Wide MSA:	San Mateo		# Employees-Co. Wide:		72	Bay Area:	72
S	EMM-H	Company Wide	7	51	3	0	61	62.9%	48.4%
Almendariz Consulting, Inc. Mateo Almendriz 1136 Suncastr Lane, Suite 9 El Dorado Hills, CA 95762 916-939-3392		Manager/Prof	0	8	0	0	8	72.7%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	0	2	0	2	50.0%	
		Semi/Unskilled	7	43	1	0	51	62.2%	
		Bay Area	1	30	0	0	31	91.2%	39.9%
		Co. Wide MSA:	California		# Employees-Co. Wide:		97	Bay Area:	34
S	EMM-H: L/SBE	Company Wide	0	13	0	0	13	100.0%	38.5%
H&R Plumbing and Drain Cleaning, Inc. dba H&R Underground Horacio Franco 4221 Appian Way El Sobrante, CA 94803 510-222-5556		Manager/Prof	0	2	0	0	2	100.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	3	0	0	3	100.0%	
		Semi/Unskilled	0	8	0	0	8	100.0%	
		Bay Area	0	13	0	0	13	100.0%	39.9%
		Co. Wide MSA:	Contra Costa		# Employees-Co. Wide:		13	Bay Area:	13

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: B=Black, H=Hispanic, A/PI=Asian/Pacific Islander, and AI/AN=American Indian/Alaskan Native)



AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title: North Interceptor Rehabilitation, Emeryville (N31 to N35)		Ethnic Minority Percentages From U.S. Census Data							
			B	H	A/PI	AI/AN	TOTAL		
		National	10.5	10.7	3.7	0.7	27.3		
Spec. No.: SD-454		DATE: 1/28/2025	9 Bay Area Counties		5.5	16.2	14.2	0.4	39.9
			Alameda/CC Counties		10.7	15.6	15.4	0.5	46.2
R=Recmmd P=Prime S=Sub	Composition of Ownership	Number of Ethnic Minority Employees							
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
S	EMM-A/PI: L/SBE	Company Wide	0	0	1	0	1	100.0%	48.4%
1 Cerberus Security Muhammad Rafique 15995 Brownstone Ave Lathrop, CA 95330 510-707-8422		Manager/Prof	0	0	1	0	0	0.0%	
		Technical/Sales	0	0	0	0	0	0.0%	
		Clerical/Skilled	0	0	0	0	0	0.0%	
		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
		Co. Wide MSA:	California				# Employees-Co. Wide: 1	Bay Area: 0	
S	PHC	Company Wide	3	5	4	0	12	18.8%	27.3%
U.S. Peroxide, LLC dba USP Technologies Ashley Bell 5640 Cox Road, Suite 300 Glen Allen, VA 23060 804-246-4511		Manager/Prof	2	2	3	0	7	18.9%	
		Technical/Sales	1	3	1	0	5	18.5%	
		Clerical/Skilled	0	0	0	0	0	0.0%	
		Semi/Unskilled	0	0	0	0	0	0.0%	
		Bay Area	2	0	0	0	2	66.7%	39.9%
		Co. Wide MSA:	USA				# Employees-Co. Wide: 64	Bay Area: 3	
S	WM: LBE	Company Wide	INFORMATION NOT PROVIDED						
Behrens Associates, Inc. Ryan Valentine 66 Franklin St, Ste 324 Oakland, CA 94607 310-771-0571		Manager/Prof							
		Technical/Sales							
		Clerical/Skilled							
		Semi/Unskilled							
		Bay Area							
		Co. Wide MSA:							
P	WM	Company Wide	228	136	18	3	385	43.5%	27.3%
Insituform Technologies, LLC Chris Sanders 580 Goddard Avenue Chesterfield, MO 63005 636-530-8000		Manager/Prof	19	27	7	2	55	21.6%	
		Technical/Sales	10	10	2	0	22	41.5%	
		Clerical/Skilled	120	2	2	0	124	46.4%	
		Semi/Unskilled	79	97	7	1	184	59.2%	
		Bay Area	0	0	0	0	0	0.0%	39.9%
		Co. Wide MSA:	USA				# Employees-Co. Wide: 886	Bay Area: 0	
P	Unclassified	Company Wide	INFORMATION NOT PROVIDED						
Michels Trenchless, Inc. Jamie Mielke 817 Main Street Brownsville, WI 53006 920-583-2984		Manager/Prof							
		Technical/Sales							
		Clerical/Skilled							
		Semi/Unskilled							
		Bay Area							
		Co. Wide MSA:							

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: **B**=Black, **H**=Hispanic, **A/PI**=Asian/Pacific Islander, and **AI/AN**=American Indian/Alaskan Native)



January 22, 2025

Terry R. Henry
Insituform Technologies, LLC
12607 Hiddencreek Way, Suite E
Cerritos, CA 90703

RE: Rejection of Apparent Low Bid for SD-454 North Interceptor Emeryville Rehabilitation (N31 to N35)

Dear Mr. Henry,

The East Bay Municipal Utility District (District) has reviewed Insituform Technologies, LLC's (Insituform) bid for the SD-454 North Interceptor Emeryville Rehabilitation (N31 to N35) project and determined that it does not meet the requirements outlined in the project specifications. As a result, the District must reject Insituform's bid as non-responsive.

This decision is based on the following:

1. Specification 33 31 14, Section 2.1.A:

This specification requires the Bypass Pumping System (BPS) supplier to be selected from an approved list of providers or to have been granted approval as an equal prior to the bid opening. Insituform's proposal did not meet this requirement, as it did not include a listed provider or request approval prior to bid opening.

2. Specification 33 31 14, Section 1.5.C:

The specification states that the BPS supplier shall be exclusively responsible for the ownership, operation, and maintenance of the system. The email response received from Insituform indicated reliance on equipment rental from Sunbelt Rentals, Inc., an approved provider, who was not listed as a subcontractor on Insituform's Designation of Subcontractors form.

We thank you for your interest and look forward to working with you on future District projects.

Sincerely,

A handwritten signature in black ink that reads 'Amit Mutsuddy'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Amit Mutsuddy, P.E.
Director of Wastewater



PROTEST AND RESPONSE LETTER

Terry R. Henry
Business Development Manager
562.413.1585
therry@azuria.com

January 24, 2025

VIA REGISTERED MAIL

Director of Wastewater
East Bay Municipal Utility District
P.O. Box 24055
Oakland, CA 94623-1055

VIA HAND-DELIVERY

Project and Construction Management Section (MS #59)
East Bay Municipal Utility District
2020 Wake Avenue
Oakland, CA 94607

VIA EMAIL

East Bay Municipal Utility District
ATTN: Amit Mutsuddy, P.E.
375 Eleventh Street
Oakland, CA 94607-4240
amit.mutsuddy@ebmud.com

VIA EMAIL

East Bay Municipal Utility District
ATTN: Adam, Mansour, P.E.
2020 Wake Ave. MS 59
Oakland, CA 94607
510-287-1162
adam.mansour@ebmud.com

RE: PROTEST & RESPONSE TO EBMUD'S LETTER DATED JANUARY 22, 2025

Project: SD-454 North Interceptor Emeryville Rehabilitation (N31 to N35)

Mr. Mutsuddy,

Please accept this letter as Insituform Technologies, LLC's ("Insituform") formal protest under Section 27 of the above-referenced Project's Instructions to Bidder.

Background

Prior to soliciting bids for the Project, East Bay Municipal Utility District's (the "District") engineering group consulted Insituform, a recognized expert in the cured-in-place pipe industry with its own dedicated bypass division and experts, for technical advice related to bypass systems for the Project. Insituform, which specializes in designing, setting up, and operating bypass systems on its projects, provided the District's engineers with expert advice, at no cost, that was subsequently incorporated into the Project specifications.

In December 2024, the District issued a solicitation for bids for the Project. The scope of work included, among other tasks, excavating and shoring for pits, design and installation of bypassing pumping systems, preparation and installation of cured-in-place pipe, traffic control, and site security. The District's engineers estimated the cost of the Project to range between \$7.0 million and \$9.0 million.

Bids were submitted on January 16, 2025. Insituform was the apparent low bidder, with a bid of \$8,792,800, which fell squarely within the District's estimate. The second-lowest bidder, SAK Construction, LLC, submitted a bid **more than \$1 million** higher than Insituform's bid and outside the Engineer's estimate.

On January 22, 2025, the District submitted a letter to Insituform stating its bid was being rejected as non-responsive for failing to comply with Specification 33 31 14, Sections 2.1.A and 1.5.C.

Insituform respectfully disagrees with the District's determination and asserts its bid is responsive, responsible and fully compliant with the specifications and financial interests of the District. For the reasons outlined below, Insituform respectfully requests the District reconsider its decision, withdraw its January 22, 2025 letter, and award the Project to Insituform. Should the District be unwilling or unable to do so, the District must rebid the Project.

1. Compliance with Specification 33 31 14, Section 2.1.A

In its January 22 letter to Insituform, the District argues Insituform is non-responsive under Specification 33 31 14, Section 2.1.A stating (**emphasis added**):

“This specification requires the Bypass Pumping System (BPS) **supplier** to be selected from an approved list of providers or to have been granted approval as an equal prior to the bid opening. Insituform's proposal did not meet this requirement, as it did not include a listed provider or request approval prior to bid opening.”

This assertion is incorrect, and Insituform's bid fully complies with Specification 33 31 14, Section 2.1.A.

First, it is essential to highlight the distinction between a **supplier** and a **subcontractor** as defined in the Contract Documents.

Section 1.2.1.28 of the General Conditions defines “**supplier**” as:

“A manufacturer, fabricator, distributor, or any person or organization who supplies materials or equipment for the contract Work, including that fabricated to a special design, but who does not ordinarily perform labor at the jobsite.”

In contrast, Section 1.2.1.26 defines “**subcontractor**” as:

“The person or persons, co-partnership, firm or entity in direct contract with the Contractor or with any other Subcontractor for the purpose of furnishing materials, equipment, and or/performing a part of the contract Work.”

Section 2.1.A expressly refers to a “**supplier**,” not a subcontractor. Here, Insituform is renting bypass equipment from Sunbelt Rentals, Inc. (“Sunbelt”) – an approved **supplier** listed in Section 2.1.A – while **self-performing** the BPS. Insituform's selection of Sunbelt as its BPS supplier (which is even acknowledged by the District in its January 22 letter) complies with Section 2.1.A.

The District further asserts Insituform is non-responsive for failing to request approval of an alternative provider prior to bid opening. As mentioned, Sunbelt is an approved **supplier** and Insituform is **self-performing** all aspects of the BPS. Since Sunbelt is an approved supplier and is not acting as a subcontractor or performing work on the jobsite, its role as an equipment provider does not trigger the pre-approval requirement. Accordingly, the pre-approval process is not applicable in this context, and Insituform's bid remains fully compliant.

2. Compliance with Specification 33 31 14, Section 1.5.C

In its January 22 letter to Insituform, the District argues Insituform is non-responsive under Specification 33 31 14, Section 1.5.C stating:

“The specification states that the BPS supplier shall be exclusively responsible for the ownership, operation, and maintenance of the system. The email response received from Insituform indicated reliance on equipment rental from Sunbelt Rentals, Inc., an approved provider, who was not listed as a subcontractor on Insituform's Designation of Subcontractors form.”

The District's determination that Insituform is non-responsive under Section 1.5.C is incorrect. The distinction between subcontractors and suppliers underscores that Insituform was not obligated to list Sunbelt on the Designation of Subcontractors form. Since Sunbelt's role is limited to providing equipment (a **supplier**), there was no obligation for Insituform to list them as a **subcontractor** on Designation of Subcontractors form. Renting equipment from Sunbelt does not transform Sunbelt into a subcontractor and rejecting Insituform's bid on the grounds of its **supplier** relationship is inconsistent with both the contract definitions, Section 2.1.A, and Section 1.5.C.

Further, the bid tabulation presented to contractors following bid opening listed “**subcontractors**,” not “suppliers.” Insituform did not list a subcontractor because it is self-performing the bypass pumping. It was not contracting with any entity to perform the BPS. Accordingly, Insituform was correct in not listing a subcontractor for the BPS.

3. Alignment with the District's Interests

As mentioned above, the District's estimate for the Project was between \$7.0 million and \$9.0 million. Insituform's bid fell squarely within this range. In contrast, the second-lowest bid was outside the District's estimate and **more than \$1 million higher** than Insituform's bid. Accepting the second-lowest bid would impose an unnecessary financial burden on the District, conflicting with its obligation to secure the best value for the community it serves.

4. The District's Right to Waive Technical Defects

Section 28 of the Instructions to Bidders states:

“The right is reserved to reject any or all proposals and to waive technical defects, as the interest of the District may require. Award of contract or rejection of bid proposals will usually be made by the District at the second Board meeting following the bid opening. District Board meetings are normally scheduled on 2nd and 4th Tuesdays of the month.”

This provision provides the District discretion to waive technical defects in the interest of securing the best outcome for the Project and the community it serves. Even if Insituform's bid was did not comply with Sections 2.1.A and 1.5.C (which it does), the issues cited by the District are minor and have no bearing on the overall quality or responsiveness of the bid. The District's ability to waive technical defects exists precisely for situations like this: to ensure the most responsive and responsible bidder, offering the best value for the Project, is awarded the contract. Recognizing Insituform's bid as compliant and awarding the contract accordingly aligns with the District's objectives to maximize fiscal responsibility while achieving a successful outcome. To do otherwise would result in an avoidable financial burden to the District and unnecessarily delay the award of the Project.

Conclusion

For the reasons outlined in this letter, Insituform respectfully requests the District reconsider its decision, withdraw its January 22, 2025 letter, and award the Project to Insituform. Should the District be unwilling or unable to do so, the District must rebid the Project. In the event, the District decides to proceed to award the Project to the second or third-lowest bidder – an event Insituform does not believe justifiable or permissible – Insituform respectfully requests the District provide Insituform with an audience with the appropriate representatives of the District to further discuss this matter.

We greatly appreciate your prompt attention to this matter and welcome the opportunity to discuss this information further, should that be necessary.

If you have any questions, please reach out to me at 562.413.1585 or thenry@azuria.com.

Very truly yours,

INSITUFORM TECHNOLOGIES, LLC

By:


Terry R. Henry
Business Development Manager



January 29, 2025

Terry R. Henry
Insituform Technologies, LLC
12607 Hiddencreek Way, Suite E
Cerritos, CA 90703

RE: Response to Insituform Protest Letter for SD-454 North Interceptor Emeryville
Rehabilitation (N31 to N35)

Dear Mr. Henry,

The District has reviewed the bid protest letter received from Insituform Technologies, LLC (Insituform) via email on Saturday, January 25, 2025 and has determined that it provides no basis to change the District's original determination that Insituform submitted a non-responsive bid for the SD-454 North Interceptor Emeryville Rehabilitation (N31 to N35) project. Therefore, the District intends to award the contract to the second low bidder, SAK Construction, LLC.

In its protest letter, Insituform claims:

“... Sunbelt is an approved supplier and Insituform is self-performing all aspects of the BPS.”

This violates the requirement under Specification 33 31 14, Section 1.5.C that:

“The BPS supplier shall be the exclusive firm responsible for the ownership, operation, and maintenance of the bypass, control, and monitoring equipment.”

This Specification Section lists Sunbelt as an approved bypass pumping system (BPS) supplier as an exclusive firm providing ownership, operation, and maintenance of the BPS. The specifications do not allow a bidder to use Sunbelt to only furnish equipment and another firm to provide operation and maintenance. This would contradict the requirement that the BPS supplier be “the exclusive firm” for the “ownership, operation, and maintenance of the bypass, control, and monitoring equipment.”

Had Insituform intended to qualify itself as an approved BPS supplier or request an exception to the requirements under Specification 33 31 14, Insituform must have done so prior to bid opening based on supporting documentation of qualifications in accordance with Section

January 29, 2025
Terry R. Henry
Page 2

2.1(A)(4). It did not. Moreover, awarding the contract without confirming Insituform's qualifications to self-perform the BPS supply prior to bid award would give Insituform an unfair advantage over other bidders.

Because Insituform did not request an "or-equal" substitution to self-perform this work, and because Insituform did not list Sunbelt as the firm exclusively responsible for the BPS, the District finds Insituform's bid non-responsive.

Thank you for your interest in working with the District.

A handwritten signature in black ink, appearing to read "Amit Mutsuddy", with a stylized flourish at the end.

Amit Mutsuddy, P.E.
Director of Wastewater

cc: G. Warren, B. Dunstan, A. Mansour

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BOARD ACTION

Agenda Number:	4.	Meeting Date:	February 25, 2025
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TITLE	LIFT STATION PUMP FOR ORINDA WATER TREATMENT PLANT
-------	---

ACTION	☒ Motion:	☐ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Award a sole source contract beginning on or after February 25, 2025 to Shape, Inc., to supply a replacement pump for the Orinda Water Treatment Plant lift station for a total cost, after the addition of taxes, not to exceed \$108,167.
--------------------	---

SUMMARY	The Orinda Water Treatment Plant lift station relies on four water pumps to support filter backwash operations. Replacement of Pump No. 2, which failed last year, is recommended to maintain uninterrupted operations.
---------	---

DISCUSSION	The Orinda Water Treatment Plant must be continuously operated to meet customer demand in the service area. Pumps transfer filter backwash water to storage basins for processing to maintain production levels at the plant. Pump No. 2 failed last summer, and, following an assessment and review of specifications, staff engineers recommended replacement with a pump manufactured by Shape, Inc. The existing pumps were manufactured by a different vendor and are no longer available. Rebuilding the failed pump is not cost effective. Shape Inc. is the sole source for providing a compatible pump that fits the existing mounting system. Replacement ensures system redundancy, avoids expensive reconfigurations, and minimizes operational disruptions. District staff will install the pump. This item supports the District's Long-Term Infrastructure Investment Strategic Plan Goal.
------------	--

VENDOR SELECTION	A request for quotations was sent to Shape, Inc., as they are the only factory-authorized distributor for compatible pumps.
------------------	---

SUSTAINABILITY	Economic Funding for this purpose is available in the FY 2025 adopted capital budget for Water Treatment Plant Capital Improvements.
----------------	--

Originating Department: Water Operations	Department Director or Manager: Roberto C. Cortez	CEP Forms? Yes	Board Action Type: Materials and Supplies
Funds Available: FY2025; Award# 7000197; Page 106	Budget Coding: 11.735.2012014.55110	Approved: 	
Attachment(s): P-035; P-061			

Title:	Lift Station Pump for Orinda Water Treatment Plant	Meeting Date:	February 25, 2025
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ALTERNATIVES

Do not perform the work. This alternative is not recommended because Pump No. 2 has failed, and Orinda Water Treatment Plant is operating with less redundancy for a critical lift station.

Rebid the contract. This alternative is not recommended because only one vendor can provide the needed pump. The bid meets all the specifications and is reasonable for the equipment being purchased.

I:\SEC\2025 Board Related Items\022525 Board Agenda Items\OMD – Lift Station Pump for Orinda Water Treatment Plant .docx



CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE						DATE:					
Materials and Supplies Agreement Lift Station Pump for Orinda Water Treatment Plant						February 5, 2025					
CONTRACTOR:				PERCENTAGE OF CONTRACT DOLLARS							
Shape, Inc. Pleasanton, CA				Sole Source/ Local Business		Availability Group		Contracting Objectives		Participation	
BID/PROPOSER'S PRICE:		FIRM'S OWNERSHIP		White Men		25%		100.0%			
		Ethnicity	Gender	White Women		2%		0.0%			
		White	Men	Ethnic Minorities		25%		0.0%			
CONTRACT EQUITY PARTICIPATION											
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
			M	W	White- Men	White- Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: Shape, Inc.		\$108,167	White	X		100.0%					
SUBS: None											
TOTAL		\$108,167				100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)											
			White Men		White Women		Ethnic Minorities		Total Employees		
No. of Employees:			INFORMATION NOT PROVIDED								
Percent of Total Employees:											
MSA Labor Market %:											
MSA Labor Market Location:											
COMMENTS											
Contract Equity Participation: 100% White Men participation. Contract Duration: NA											
*Total not to exceed: \$108,167											
Workforce Profile & Statement of Nondiscrimination Submitted				Good Faith Outreach Efforts Requirement Satisfied				Award Approval Recommended			
NA				NA							

AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title: Lift Station Pump for Orinda Water Treatment Plant			Ethnic Minority Percentages From U.S. Census Data						
					B	H	A/PI	AI/AN	TOTAL
			National	10.5	10.7	3.7	0.7	27.3	
Materials and Supplies Agreement - RFQ No. 2406A		DATE: 2/5/2025	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9	
			Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2	
R=Recmmnd P=Prime S=Sub	Composition of Ownership	Number of Ethnic Minority Employees							
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %
RP	WM: LBE	Company Wide	INFORMATION NOT PROVIDED						
Shape, Inc. Nick Chavez 3825 Hopyard Rd, STE 195 Pleasanton, CA 94588 925-485-9720		Manager/Prof							
		Technical/Sales							
		Clerical/Skilled							
		Semi/Unskilled							
		Bay Area							
		AA Plan on File:							
		Co. Wide MSA:							

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: **B**=Black, **H**=Hispanic, **A/PI**=Asian/Pacific Islander, and **AI/AN**=American Indian/Alaskan Native)



BOARD ACTION

Agenda Number:	5.	Meeting Date:	February 25, 2025
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ANNUAL TITLE **MOKEUMNE RIVER FISH HATCHERY 20-YEAR OPERATIONS AND MAINTENANCE AGREEMENT**

ACTION ☒ Motion: ☐ Resolution: ☐ Ordinance:

RECOMMENDED ACTION Authorize an agreement beginning on or after May 1, 2025 with California Department of Fish and Wildlife (CDFW) for a term of 20 years for the operations and maintenance of the Mokelumne River Fish Hatchery at a cost not to exceed \$481,000 for the period January 1 through June 30, 2025. Future annual budgets will be developed and approved based on the cost sharing criteria in the agreement.

SUMMARY CDFW is required to operate and maintain the Mokelumne River Fish Hatchery (MRFH), with mitigation operations funded by the District. There have been three amendments to the most recent 20-year agreements to extend the current agreement to April 30, 2025. This action will provide a new 20-year agreement that has been revised by both parties to meet and describe the current operational conditions and funding considerations of the partnership between EBMUD and CDFW. This agreement was discussed with and supported by the Planning Committee on February 11, 2025.

DISCUSSION Since 1961, EBMUD has held long-term agreements with the California Department of Fish and Game, now CDFW concerning operations of the District-owned MRFH located at 25800 North McIntire Rd, Clements below Camanche Dam on the Mokelumne River. Over the years, a number of amendments to the original agreement, and new agreements, were signed to provide updates on the specifics of operations, maintenance, and funding. The most significant changes occurred following the 1998 Joint Settlement Agreement (JSA) between EBMUD, CDFW and the U.S. Fish and Wildlife Service as part of a Federal Energy Regulatory Commission (FERC) proceeding. The JSA required a substantial upgrade of the MRFH, which necessitated a new agreement to cover operations of new added infrastructure. This agreement was signed in 2004 describing the details of operating the more sophisticated facility and outlining roles and responsibility for both CDFW and EBMUD for operations, maintenance, funding and permitting. EBMUD's annual operating cost under this agreement has averaged \$1.24 million over the previous five years.

The 2004 agreement expired in June 2024. Recent amendments between EBMUD and CDFW extended the existing agreement to April 30, 2025, while the parties negotiated new terms for the new agreement.

Originating Department: Water and Natural Resources	Department Director or Manager: Michael T. Tognolini	CEP Forms? No	Board Action Type: Professional Services
Funds Available: FY2025	Budget Coding: 11-483-1010898-05241	Approved: 	
Attachment(s): N/A			

Title:	Mokelumne River Fish Hatchery 20-Year Operations and Maintenance Agreement	Meeting Date:	February 25, 2025
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The new agreement builds on the 2004 agreement and refines the permitting roles of both parties, to include new requirements for regulatory permits. With the addition of chillers, and onsite fueling, the MRFH now has reporting requirements to the San Joaquin County Air Resources Board to cover these added facilities. The agreement clarifies the roles of EBMUD in maintaining certain capital infrastructure, while assigning the ongoing maintenance of such infrastructure to the CDFW and describes the operating and capital budgeting processes that will ensure the appropriate funding split. This is necessary because while EBMUD is responsible for the production of fish to mitigate for habitat loss due to the construction of Camanche Dam blocking access to historic habitat on the Mokelumne River, the CDFW also uses the facility to produce fish for ocean harvest and to increase production to address commitments in the California Salmon Strategy to increase production. The new agreement clearly defines each agencies' responsibilities, and also discusses the MRFH residence leases and describes the requirement of CDFW staff oversight of the facility on a 24 hour/7 day a week basis. This agreement supports EBMUD's Water Quality and Environmental Protection Strategic Plan goal.

CONSULTANT SELECTION

Operation and maintenance of the MRFH are provided by the CDFW, a government agency with the required technical abilities and legal authorities, in compliance with the state's water right decision D-858, and the JSA.

SUSTAINABILITY

Economic

The FY 2025 adopted operating budget includes funding for the initial term of this multi-year agreement. Funding for the additional years will be considered as part of the associated budget development processes.

Social

The CDFW, as a State of California Agency, is exempt from the Contract Equity Program process.

Environmental

CDFW operates the MRFH in compliance with the CDFW Hatchery Operations Final CDFW Environmental Impact Report (EIR) / Environmental Impact Statement (EIS) (2007)

There are no CEQA requirements associated with this agreement.

ALTERNATIVE

Hire a contractor to operate and maintain the MRFH. This alternative is not recommended because the 1998 JSA requires CDFW to continue to be responsible for the operation and maintenance of the MRFH and for the hatchery production.



BOARD ACTION

Agenda Number:	6.	Meeting Date:	February 25, 2025
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TITLE	MOKELUMNE RIVER FISH HATCHERY ELECTRICAL RETROFIT FINAL DESIGN SERVICES
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ACTION	☒ Motion:	☐ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Authorize an agreement beginning on or after February 25, 2025 with EETS, INC. in an amount not to exceed \$92,056 for final engineering design services for electrical system improvements at the Mokelumne River Fish Hatchery (Hatchery), located at 25800 North McIntire Rd, Clements, at the base of Camanche Dam on the Mokelumne River.
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SUMMARY	The final engineering design services will include engineering drawings and construction specifications and engineering design services during the contracting process and construction phase. The final engineering design services for this project will provide the electrical design, the civil engineering design for grading within the project area to prevent water pooling, and structural engineering design for equipment pads.
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DISCUSSION	The Hatchery was constructed in 1964 to provide mitigation for the construction of Camanche Dam, and associated loss of salmonid habitat. It has been subject to multiple modifications over the years. Several electrical systems at the Hatchery are nearing the end of their useful life and need to be replaced. This work will address recommendations made in the 2024 hatchery electrical assessment to develop two alternative configurations for updating the hatchery power distribution equipment and backup generator system and provide recommendations for a preferred implementation plan. The services contracted for in the agreement cannot be satisfactorily performed under the District civil service and therefore contracting out is proper. This project supports the District's Water Quality and Environmental Protection, Long-Term Infrastructure Investment, and Workforce Planning and Development Strategic Plan goals by helping to ensure effective and efficient hatchery operations.
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CONSULTANT SELECTION	The engineering design services are the second phase of the Mokelumne River Hatchery Electrical Retrofit Project. EETS, INC. completed the initial hatchery electrical assessment, and their recommendations are now guiding the final design phase. As such, EETS, INC. possesses critical project knowledge gained from the District and the California Department of Fish and Wildlife, which were used to develop recommendations for upgrading and retrofitting the electrical assets of the Hatchery. Phase I included preliminary engineering design drawings within the electrical assessment, which will be used in the final engineering designs to reduce
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Originating Department: Water and Natural Resources	Department Director or Manager: Michael T. Tognolini	CEP Forms? Yes	Board Action Type: Professional Services
Funds Available: FY2025, Award #7000240 Vol 2, Page 22	Budget Coding: 11-481-2015137-53120	Approved: 	
Attachment(s): P-035; P-061			

Title:	Mokelumne River Fish Hatchery Electrical Retrofit Final Design Services	Meeting Date:	February 25, 2025
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costs. EETS, INC. was originally selected for Phase I based on lower cost, knowledge of District upcountry facilities and operations, and shorter project timeline.

SUSTAINABILITY**Economic**

Funding for this project is available in the FY 2025 adopted capital budget for Mokelumne River Fish Hatchery.

Social

Locals 21 and 2019 were notified of this agreement on December 9, 2024, and did not raise any issues related to this agreement.

Environmental

The Hatchery produces fall-run Chinook salmon and federally threatened steelhead for the mitigation of lost spawning and rearing habitat due to the construction of Camanche Dam in 1964. Maintaining Hatchery infrastructure, including electrical systems, helps meet the District's regulatory requirements.

Since this is a design phase, no California Environmental Quality Act review is required.

ALTERNATIVES

Conduct the work with District Forces. This alternative is not recommended because District forces are unable to complete the work under the proposed timeline.

Do not perform the work. This alternative is not recommended due to the importance of the Hatchery to meet the District's mitigation requirements, and the improvement to worker safety provided by upgrading the electrical systems. This project is also being implemented to finalize the engineering design specifications to replace electrical assets at the Hatchery that are nearing the end of their useful life.



CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE Professional Services Agreement - PS Consultant Roster Mokelumne River Fish Hatchery Electrical Retrofit Final Design Services						DATE: January 27, 2025						
CONTRACTOR: EETS, INC. Citrus Heights, CA				Local/ Small Business/ Direct Award		PERCENTAGE OF CONTRACT DOLLARS						
BID/PROPOSER'S PRICE:		FIRM'S OWNERSHIP		White Men		25%		30.0%				
		Ethnicity	Gender	White Women		6%		0.0%				
		Asian	Men	Ethnic Minorities		25%		70.0%				
CONTRACT EQUITY PARTICIPATION												
COMPANY NAME	ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION							
			M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign	
PRIME: EETS, INC.	\$64,480	Asian	X					70.0%				
SUBS: ARCE	\$6,335	White	X		6.9%							
ADKO Engineering, Inc.	\$21,241	White	X		23.1%							
TOTAL		\$92,056				30.0%	0.0%	70.0%	0.0%	0.0%	0.0%	
CONTRACTOR'S WORKFORCES PROFILE (From P-025 Form)												
		White Men		White Women		Ethnic Minorities		Total Employees				
No. of Employees:		1		0		1		2				
Percent of Total Employees:		50.0%		0.0%		50.0%						
MSA Labor Market %:		32.7%		30.0%		37.3%						
MSA Labor Market Location:		Sacramento										
COMMENTS												
Contract Equity Participation - 30% White Men and 70% Ethnic Minority participation. Contract Duration: NA *Total not to exceed: \$92,056												
Workforce Profile & Statement of Nondiscrimination Submitted				Good Faith Outreach Efforts Requirement Satisfied				Award Approval Recommended				
NA				YES								

AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

Title: Mokelumne River Fish Hatchery Electrical Retrofit Final Design Services			Ethnic Minority Percentages From U.S. Census Data							
					B	H	A/PI	AI/AN	TOTAL	
			National		10.5	10.7	3.7	0.7	27.3	
Professional Services Agreement - PS Consultant Roster			DATE:	9 Bay Area Counties	5.5	16.2	14.2	0.4	39.9	
			1/27/2025	Alameda/CC Counties	10.7	15.6	15.4	0.5	46.2	
R=Recmmd P=Prime S=Sub		Composition of Ownership	Number of Ethnic Minority Employees							
Company Name, Owner/Contact Person, Address, and Phone Number			B	H	A/PI	AI/AN	TOTAL	PERCENT	MSA %	
RP	EMM-A/PI: L/SBE		Company Wide	0	0	1	0	1	50.0%	37.3%
EETS, INC. Koosha Toofan 6060 Sunrise Vista Drive, Suite 1450 Citrus Heights, CA 95610 916-339-9691			Manager/Prof	0	0	1	0	1	50.0%	
			Technical/Sales	0	0	0	0	0	0.0%	
			Clerical/Skilled	0	0	0	0	0	0.0%	
			Semi/Unskilled	0	0	0	0	0	0.0%	
			Bay Area	0	0	0	0	0	0.0%	39.9%
			AA Plan on File:	NA	Date of last contract with District: 7/23/2024					
			Co. Wide MSA:	Sacramento	# Employees-Co. Wide: 2 Bay Area: 0					
S	WM		Company Wide	INFORMATION NOT PROVIDED						
ARCE Kevin Mayol P.O. Box 564 Nevada City, CA 95959 530-559-7201			Manager/Prof							
			Technical/Sales							
			Clerical/Skilled							
			Semi/Unskilled							
			Bay Area							
			Co. Wide MSA:							
S	WM		Company Wide	INFORMATION NOT PROVIDED						
ADKO Engineering, Inc. 140 Diamond Creek Place Roseville, CA 95747 916-755-3707			Manager/Prof							
			Technical/Sales							
			Clerical/Skilled							
			Semi/Unskilled							
			Bay Area							
			Co. Wide MSA:							

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: **B**=Black, **H**=Hispanic, **A/PI**=Asian/Pacific Islander, and **A/AN**=American Indian/Alaskan Native)



BOARD ACTION

Agenda Number:	7.	Meeting Date:	February 25, 2025
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TITLE	JIRA AND SERVICE MANAGEMENT SOFTWARE
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ACTION	☒ Motion:	☐ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Authorize the purchase of Jira and Service Management software beginning on or after February 25, 2025, from SHI International Corp. for two years for a total amount not to exceed \$378,000. This purchase will be made under State of California contracts available for use by local governments.
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SUMMARY	The District uses Jira to track a variety of work requests across all departments and uses Jira Service Management to track work requests handled by the District's Service Desk.
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DISCUSSION	The District has used Jira for approximately 18 years and Jira Service Management for approximately three years. This software facilitates the creation, tracking, fulfillment, and documentation of work requests related to internal IT services and other types of work requests from various groups across the District. This software also serves as a knowledge base of solutions to past incidents which is used to assist in the resolution of current incidents. The District has configured the software to support internal business processes and work practices. This item supports the District's Long-Term Financial Stability Strategic Plan goal.
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VENDOR SELECTION	Under Public Contract Code, Section 10298, agencies such as the District may purchase products and services directly via State of California contracts without pursuing separate competitive bidding. The State of California, Department of General Services has certified contract CMAS #3-24-04-1038 for this software purchase.
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SUSTAINABILITY	Economic The FY 2025 adopted operating budget includes funding for the first year of this multi-year purchase. Funding for the additional year will be considered as part of the associated budget development process.
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Originating Department: Information Systems	Department Director or Manager: Orlando W. Leon	CEP Forms? Yes	Board Action Type: Materials and Supplies
Funds Available: FY 2025	Budget Coding: 11.251.1765.8876700.52430		Approved: 
Attachment(s): P-035; P-061			

Title:	Jira and Service Management Software	Meeting Date:	February 25, 2025
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ALTERNATIVES

Do not purchase the software. This alternative is not recommended because the District would no longer have the ability to efficiently manage project and incident workflows. Additionally, the District would lose its historical knowledge base of previously completed work.

Select an alternative product. This alternative is not recommended because implementing another product would require major rework and training without providing additional benefits to the District.

I:\Sec\2025 Board Related Items\022525 Board Agenda Items\ISD – Jira and Service Management Software.docx



CONTRACT EQUITY PROGRAM SUMMARY (P-035)

This summary contains information on the contractor's workforce and contract equity participation. (Completed by District)

TITLE Materials and Supplies Agreement Jira and Service Management Software					DATE: February 3, 2025							
CONTRACTOR: SHI International Corp. Somerset, NJ					PERCENTAGE OF CONTRACT DOLLARS							
State Contract					Availability Group		Contracting Objectives		Participation			
BID/PROPOSER'S PRICE:		FIRM'S OWNERSHIP			White Men		25%		0.0%			
		Ethnicity	Gender		White Women		2%		0.0%			
\$378,000 *		Asian	Women		Ethnic Minorities		25%		100.0%			
CONTRACT EQUITY PARTICIPATION												
COMPANY NAME		ESTIMATED AMOUNT	ETHNICITY	GENDER		CONTRACTING PARTICIPATION						
				M	W	White-Men	White-Women	Ethnic Minorities	Unclassified	Publicly Held Corp.	Gov't/Non Profit	Foreign
PRIME: SHI International Corp.		\$378,000	Asian		X			100.0%				
SUBS: None												
TOTAL		\$378,000				0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
CONTRACTOR'S WORKFORCE PROFILE (From P-025 Form)												
		White Men		White Women		Ethnic Minorities		Total Employees				
No. of Employees:		63		34		50		147				
Percent of Total Employees:		42.9%		23.1%		34.0%						
MSA Labor Market %:		28.0%		23.6%		48.4%						
MSA Labor Market Location:		California										
COMMENTS												
Contract Equity Participation: 100% Ethnic Minority participation. Contract Duration: Two years. *Total not to exceed: \$378,000												
Workforce Profile & Statement of Nondiscrimination Submitted				Good Faith Outreach Efforts Requirement Satisfied				Award Approval Recommended				
NA				NA								

AFFIRMATIVE ACTION SUMMARY (P-061)

(Completed by District)

This summarizes information provided by the contractor(s)' P-025 Form regarding their workforce.

[illegible]

WM=White Male, WW=White Women, EM=Ethnic Minority (Ethnicities: **B**=Black, **H**=Hispanic, **A/PI**=Asian/Pacific Islander, and **AI/AN**=American Indian/Alaskan Native)



BOARD ACTION

Agenda Number:	8.	Meeting Date:	February 25, 2025
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TITLE	MONTHLY INVESTMENT TRANSACTIONS REPORT
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ACTION	☒ Motion:	☐ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Approve the January 2025 Monthly Investment Transactions Report.
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SUMMARY	In accordance with Policy 4.07 – Investments, staff prepares a monthly transactions report for the Finance/Administration Committee to review and for the Board to consider each month. The January 2025 report is being brought to the Board for consideration. This report was presented at the February 25, 2025 Finance/Administration Committee meeting.
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DISCUSSION	Pursuant to Policy 4.07, staff generates a monthly report of investment transactions (buys, sales, deposits, withdrawals) as well as transactions that occur as a feature of the securities held (interest, calls, maturities). Information on portfolio performance, balances, and other factors is presented in the quarterly investment report. In January 2025, the portfolio increased from \$572.9 million to \$587.7 million. Net transactions increased the total by \$13.8 million. Interest received added \$1.0 million to the portfolio. Deposits into short-term liquidity funds totaled \$55.8 million, and the District withdrew \$29.0 million. The District purchased \$20.0 million in securities. No securities matured, and no securities were called or sold. Net transactions at the District's commercial bank resulted in a decrease of approximately \$32.9 million.
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I:\Sec\2025 Board Related Items\022525 Board Agenda Items\FIN - Monthly Investment Transactions Report January 2025.docx

Originating Department: Finance	Department Director or Manager: Sophia D. Skoda	CEP Forms? N/A	Board Action Type: Financial
Funds Available: N/A	Budget Coding: N/A		Approved: 
Attachment(s): January 2025 Monthly Investment Transactions Report			

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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Transactions Summary
January 2025

Portfolio	Beginning Balance*	Monthly Net Transaction Activity	Monthly Interest Activity	Ending Balance
001 - Water System Consolidated	388,718,484	42,679,992	426,574	431,825,050
007 - Wastewater Consolidated	89,558,214	11,780,008	146,180	101,484,402
049 - Ferc Partnership	2,162,265	-	25,146	2,187,411
009 - BACWA	2,446,173	-	28,447	2,474,620
015 - DERWA	1,081,135	-	12,573	1,093,708
002 - FRWA	1,081,135	-	12,573	1,093,708
014 - IICP	162,711	-	1,894	164,605
010 - UMRWA	69,190	-	805	69,995
003 - Employees Retirement	17,240,952	(7,679,000)	138,155	9,700,108
099 - Wells Fargo**	70,331,027	(32,946,385)	248,380	37,633,022
Total	572,851,285	13,834,615	1,040,727	587,726,628

* Portfolio balance presented at face value.

**Wells Fargo's month-end available balance per bank statement. Gross amount; not allocated by fund and not included in balances above.
 A portion of the balance in Wells Fargo is swept to a money market fund to increase investment earnings.

Sherry Sarcos
 Prepared by: Sherry Sarcos, Accounting Technician

02/06/2024
 Date

Kevin Ma
 Reviewed by: Kevin Ma, Accounting Supervisor

02/07/2025
 Date

David Glasser
 Approved by: David Glasser, Controller

02/07/2025
 Date

 Date



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio	Buys	Deposits	Matured	Calls	Sales	Withdrawals	Non-Investment Transactions*	Net Transaction Activity
001 - Water System Consolidated	16,000,000	26,679,992	-	-	-	-	-	42,679,992
007 - Wastewater Consolidated	4,000,000	7,780,008	-	-	-	-	-	11,780,008
049 - Ferc Partnership	-	-	-	-	-	-	-	-
009 - BACWA	-	-	-	-	-	-	-	-
015 - DERWA	-	-	-	-	-	-	-	-
002 - FRWA	-	-	-	-	-	-	-	-
014 - IICP	-	-	-	-	-	-	-	-
010 - UMRWA	-	-	-	-	-	-	-	-
003 - Employees Retirement	-	21,308,000	-	-	-	(28,987,000)	-	(7,679,000)
Investment Activity Total	20,000,000	55,768,000	-	-	-	(28,987,000)	-	46,781,000
099 - Wells Fargo	(20,000,000)	(55,768,000)	-	-	-	28,987,000	13,834,615	(32,946,385)
Total	-	-	-	-	-	-	13,834,615	13,834,615

*Non-investment transactions are net receipts and expenditures in Wells Fargo resulting from activities other than investment and interest transactions detailed in this report.

Reviewed by: Steven Goodman-Leibof, Principal Mgmt Analyst 02/07/2025 Date

Approved by: Robert L. Hannay, Treasury Manager 02/07/2025 Date



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Buys										
001 - Water System Consolidated	US Treasuries	T-Note 0 5/15/2026	912833LZ1	1/21/2025	1/22/2025	5/15/2026	16,000,000	15,136,139.20	-	15,136,139.20
					Total		16,000,000			
007 - Wastewater Consolidated	US Treasuries	T-Note 0 5/15/2026	912833LZ1	1/21/2025	1/22/2025	5/15/2026	4,000,000	3,784,034.80	-	3,784,034.80
					Total		4,000,000			
							20,000,000	18,920,174	-	18,920,174



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Deposits										
001 - Water System Consolidated	LAIF	LAIF LGIP	LGIP1001	1/2/2025	1/2/2025	N/A	10,679,992	10,679,992	-	10,679,992
001 - Water System Consolidated	Money Market Mutual Funds	Morgan Stanley MM	MVRXX	1/17/2025	1/17/2025	N/A	8,000,000	8,000,000	-	8,000,000
001 - Water System Consolidated	Money Market Mutual Funds	State Street MM	GVMXX	1/17/2025	1/17/2025	N/A	8,000,000	8,000,000	-	8,000,000
					Total		26,679,992			
007 - Wastewater Consolidated	LAIF	LAIF LGIP	LGIP1001	1/2/2025	1/2/2025	N/A	3,780,008	3,780,008	-	3,780,008
007 - Wastewater Consolidated	Money Market Mutual Funds	Morgan Stanley MM	MVRXX	1/17/2025	1/17/2025	N/A	2,000,000	2,000,000	-	2,000,000
007 - Wastewater Consolidated	Money Market Mutual Funds	State Street MM	GVMXX	1/17/2025	1/17/2025	N/A	2,000,000	2,000,000	-	2,000,000
					Total		7,780,008			
003 - Employees Retirement	LAIF	LAIF LGIP	LGIP1005	1/30/2025	1/30/2025	N/A	4,423,000	4,423,000	-	4,423,000
003 - Employees Retirement	LAIF	LAIF LGIP	LGIP1005	1/30/2025	1/30/2025	N/A	5,637,000	5,637,000	-	5,637,000
003 - Employees Retirement	LAIF	LAIF LGIP	LGIP1005	1/17/2025	1/17/2025	N/A	5,627,000	5,627,000	-	5,627,000
003 - Employees Retirement	LAIF	LAIF LGIP	LGIP1005	1/3/2025	1/3/2025	N/A	5,621,000	5,621,000	-	5,621,000
					Total		21,308,000			
							55,768,000	55,768,000	-	55,768,000



EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Matured										

No Transactions this Period

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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
Calls										

No Transactions this Period



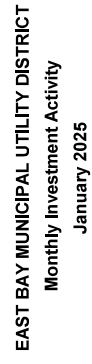
EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Investment Activity
January 2025

Portfolio Name	Asset Class	Description	CUSIP/Ticker	Trade Date	Settlement Date	Maturity Date	Face Amount/Shares	Principal	Interest/Dividends	Total
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Sales

No Transactions this Period

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EAST BAY MUNICIPAL UTILITY DISTRICT
Monthly Interest Activity
January 2025

Portfolio	Total Interest Received	Interest Transferred to Wells Fargo*	Net Interest Activity (Reinvested)**
001 - Water System Consolidated	593,012	(166,438)	426,574
007 - Wastewater Consolidated	176,154	(29,974)	146,180
049 - Ferc Partnership	25,146	-	25,146
009 - BACWA	40,983	(12,536)	28,447
015 - DERWA	31,068	(18,495)	12,573
002 - FRWA	20,999	(8,426)	12,573
014 - IICP	5,978	(4,085)	1,894
010 - UMRWA	9,231	(8,426)	805
003 - Employees Retirement	138,155	-	138,155
Interest Transactions Total	1,040,727	(248,380)	792,347
099 - Wells Fargo	-	248,380	248,380
Total	1,040,727	-	1,040,727

*Coupon and other interest received; reinvestment unavailable.

**Coupon and other interest payments reinvested in specific portfolio.

Sherry Sarcos

Prepared by: Sherry Sarcos, Accounting Technician

Kevin Ma

Reviewed by: Kevin Ma, Accounting Supervisor

David Glasser

Approved by: David Glasser, Controller

02/06/2024

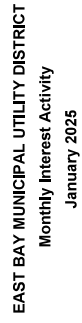
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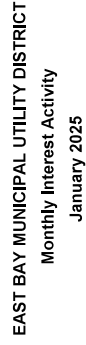
Date

02/07/2025

Date



-	248,380
-	248,380



	-	792.347
	-	792.347



BOARD ACTION

Agenda Number:	9.	Meeting Date:	February 25, 2025
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TITLE	ADOPT THE ACTUARIAL VALUATIONS OF THE RETIREMENT SYSTEM AS OF JUNE 30, 2024 AND SET THE FISCAL YEAR 2026 RETIREMENT SYSTEM EMPLOYER AND EMPLOYEE CONTRIBUTION RATES
-------	--

ACTION	☐ Motion:	☒ Resolution:	☐ Ordinance:
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RECOMMENDED ACTION	Adopt the Actuarial Valuations of the Employees' Retirement System as of June 30, 2024 prepared by the Retirement System's actuary. In addition, set Retirement System Contribution Rates for Fiscal Year 2026 (FY 2026) based on the actuarially determined contribution rates in the valuations.
--------------------	--

SUMMARY	Under Section 22 of Ordinance No. 40, as amended (the Retirement Ordinance), the District's Board of Directors commissions actuarial valuations of the pension and Health Insurance Benefit (HIB) funds of the Retirement System and, based on these reports, sets contribution rates to the Retirement System at least once every two years. It has been the practice of the District and Retirement System to adopt actuarial valuations and set rates annually. The Retirement System's actuary has prepared the attached actuarial valuations. The Retirement Board reviewed and adopted these actuarial valuations at its January 23, 2025 meeting. Additionally, the Retirement Board took action to recommend to the Board of Directors to adopt employer and employee contribution rates for FY 2026 that are equal to the actuarially determined rates in the valuations. This item was discussed at the February 25, 2025 Finance/Administration Committee meeting.
---------	---

DISCUSSION	The actuarial valuations provide the actuarially determined employer contribution rates for both the 1955/1980 and 2013 pension plan tiers and the HIB plan for FY 2026. These rates are presented below along with the rates adopted by the Retirement Board for FY 2025.
------------	--

Actuarially Determined Contribution Rates				
	FY 2026		FY 2025 (Adopted)	
Employer	1955/1980 Plan	2013 Tier	1955/1980 Plan	2013 Tier
Pension	45.43%	35.93%	44.59%	35.80%
HIB	4.43%	4.22%	4.43%	4.27%
Total	49.86%	40.15%	49.02%	40.07%

Originating Department: Finance	Department Director or Manager: Sophia D. Skoda	CEP Forms? N/A	Board Action Type: Financial
Funds Available: N/A	Budget Coding: N/A		Approved: 
Attachment(s): Supplemental Exhibits; Pension Plan Actuarial Valuation and Review; HIB Valuation Review of Contribution Rates and Funding Status; Resolution			

Title:	Adopt The Actuarial Valuations of The Retirement System as of June 30, 2024 and Set The Fiscal Year 2026 Retirement System Employer and Employee Contribution Rates	Meeting Date:	February 25, 2025
--------	---	---------------	-------------------

Member				
Pension	8.66%	10.08%	8.66%	9.41%
HIB	0.09%	0.09%	0.09%	0.09%
Total	8.75%	10.17%	8.75%	9.50%

Employer Contribution Rates

The FY 2026 actuarially determined employer contribution rates for the pension plan in the table above represent increases over those adopted in FY 2025. The increases are due largely to changes to actuarial assumptions and methodology, higher than expected salary increases for active employees, and higher than assumed cost of living adjustments for retirees. The FY 2026 employer contribution rates for the HIB represent a slight decrease from the FY 2025 rate for the 2013 Tier while the 1955/1980 Plan rate stayed the same.

Employee Contribution Rates

For members of the 1955/1980 Plan, the employee contribution rate is set in the Memoranda of Understanding (MOUs) between the District and its employee unions. Under the MOUs, the 1955/1980 Plan employee contribution rate is currently set at 8.75 percent of payroll. Included in this contribution rate is a 0.09 percent contribution to the HIB plan. The employee contribution rate for the 1955/1980 Plan remains unchanged for FY 2026.

For members of the 2013 Tier, the employee rate is calculated based on requirements in the California Public Employees' Pension Reform Act (PEPRA). PEPRA requires employees hired on or after January 1, 2013 (the 2013 Tier) to contribute at least 50 percent of the total Normal Cost to their pension plan. Once the employee contribution rate is set, it is not adjusted until the total Normal Cost rate deviates more than 1 percent (of payroll) from the last established rate. The rate was last changed in FY 2022 as part of the FY 2020 valuation, when the total Normal Cost rate increased to 18.81 percent and the employee contribution rate increased to 9.41 percent. In this valuation (FY 2024), the total Normal Cost rate for the 2013 Tier has increased to 20.16 percent. Because this represents an increase of greater than 1 percent, the employee contribution rate will increase to 50 percent of the Normal Cost, or to 10.08 percent. The 2013 Tier members contribute an additional 0.09 percent to the HIB plan.

Recommendation of the Retirement Board

At its January 23, 2025 meeting, the Retirement Board took action to adopt the attached actuarial valuations. In addition, the Retirement Board made a recommendation to the District's Board of Directors to set contribution rates for FY 2026 equal to the actuarially determined rates from the valuations. The table below provides the FY 2026 recommended employer and employee contribution rates, the FY 2026 actuarially determined rates (which match the recommended rates), and the currently adopted FY 2025 rates.

Title:	Adopt The Actuarial Valuations of The Retirement System as of June 30, 2024 and Set The Fiscal Year 2026 Retirement System Employer and Employee Contribution Rates	Meeting Date:	February 25, 2025
--------	---	---------------	-------------------

	Staff and Retirement Board Recommended Rates		Actuarially Determined Rates		Adopted Rates	
	FY 2026		FY 2026		FY 2025	
Employer	1955/1980 Plan	2013 Tier	1955/1980 Plan	2013 Tier	1955/1980 Plan	2013 Tier
Pension	45.43%	35.93%	45.43%	35.93%	44.59%	35.80%
HIB	4.43%	4.22%	4.43%	4.22%	4.43%	4.27%
Total	49.86%	40.15%	49.86%	40.15%	49.02%	40.07%
Member						
Pension	8.66%	10.08%	8.66%	10.08%	8.66%	9.41%
HIB	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%
Total	8.75%	10.17%	8.75%	10.17%	8.75%	9.50%

ALTERNATIVE

Choose alternative contribution rates. This alternative is not recommended because the contribution rates presented here are recommended by staff and the Retirement Board based on the actuarial valuations and the intent to provide stable funding for the Retirement System that covers retiree benefits accrued in the year and pays down the unfunded liabilities of the Retirement System over time.

I:\Sec\2025 Board Related Items\022525 Board Agenda Items\ FIN - Retirement System Contribution Rates.docx

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East Bay Municipal Utility District Employees' Retirement System

**Actuarial Valuation and Review of Pension Plan
and Health Insurance Benefit Plan
as of June 30, 2024**

Supplemental Exhibits



This valuation report should only be copied, reproduced, or shared with other parties in its entirety as necessary for the proper administration of the Plan.

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Segal



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January 14, 2025

Ms. Sophia Skoda
Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607-4240

Re: June 30, 2024 actuarial valuations – supplemental exhibits

Dear Sophia:

Enclosed please find two exhibits that provide supplemental information to the June 30, 2024 actuarial valuations for the Pension and Health Insurance Benefit (HIB) Plans.

Exhibit A provides a summary of the funding valuation results for both the Pension and HIB Plans. In particular, for the HIB Plan, this information is based on our HIB funding valuation report dated January 14, 2025 that includes a maximum monthly benefit of \$450 (\$550 benefit for a retiree with a spouse or EBMUD domestic partner). It does not include the accounting liability for the “implicit subsidy” associated with the pooling of the health care premium rate for actives and retirees under age 65.

In Exhibit B, we have included a comparison of the historical Projected Benefit Obligations with the market value of assets for both Plans. We look forward to discussing this information with you and the Board.

Sincerely,

Segal

A handwritten signature in dark ink, appearing to read "Andy Yeung", written in a cursive style.

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

A handwritten signature in dark ink, appearing to read "Emily Klare", written in a cursive style.

Emily Klare, ASA, MAAA, EA
Senior Actuary

A handwritten signature in dark ink, appearing to read "Mehdi Riazi", written in a cursive style.

Mehdi Riazi, FSA, MAAA, FCA, EA
Vice President and Actuary

DNA/jl

Summary of Significant Valuation Results for the Funding Valuations

Category	June 30, 2024	June 30, 2023	Change
1. Total membership			
a. Active members	1,974	1,955	1.0%
b. Pensioners and beneficiaries	2,176	2,117	2.8%
2. Valuation salary¹			
a. Total projected compensation	\$273,428,306	\$262,272,600	4.3%
b. Average projected compensation	138,515	134,155	3.2%
3. Total System assets			
a. Valuation value of Pension Plan assets	\$2,391,378,364	\$2,251,690,803	6.2%
b. Valuation value of HIB Plan assets	69,836,226	62,769,259	11.3%
c. Total valuation value (actuarial value)	\$2,461,214,590	\$2,314,460,062	6.3%
d. Market value of Pension Plan assets	\$2,445,611,000	\$2,194,142,000	11.5%
e. Market value of HIB Plan assets	71,420,000	61,165,000	16.8%
f. Total market value	\$2,517,031,000	\$2,255,307,000	11.6%
4. Unfunded actuarial accrued liability (UAAL) and funding ratio²			
a. Pension Plan UAAL	\$752,349,976	\$742,738,347	1.3%
b. Pension Plan funded ratio	76.1%	75.2%	0.9%
c. HIB Plan UAAL	\$64,920,252	\$68,858,196	-5.7%
d. HIB Plan funded ratio	51.8%	47.7%	4.1%
e. Pension Plan and HIB Plan UAAL	\$817,270,228	\$811,596,543	0.7%
f. Pension Plan and HIB Plan funded ratio	75.1%	74.0%	1.1%

Note: The HIB information is based on our HIB funding valuation report that includes a maximum monthly benefit of \$450 (\$550 for a retiree with a spouse or EBMUD domestic partner). It does not include the accounting liability for the "implicit subsidy" associated with the pooling of the health care premium rate for actives and retirees under age 65.

¹ Projected payroll.

² Based on valuation value of assets.

Summary of Significant Valuation Results

Category	June 30, 2024	June 30, 2023	Change
5. Projected benefit obligation (PBO) and funded ratio¹			
a. Pension Plan PBO	\$3,067,277,000	\$2,926,665,000	4.8%
b. Pension Plan funded ratio	79.7%	75.0%	4.7%
c. HIB Plan PBO	\$142,381,000	\$138,464,000	2.8%
d. HIB Plan funded ratio	50.2%	44.2%	6.0%
e. Pension Plan and HIB Plan PBO	\$3,209,658,000	\$3,065,129,000	4.7%
f. Pension Plan and HIB Plan funded ratio	78.4%	73.6%	4.8%

Budget Items ²	FY 2025–2026 1955/1980 Plan	FY 2025–2026 2013 Tier	FY 2025–2026 Combined ³	FY 2024–2025 1955/1980 Plan	FY 2024–2025 2013 Tier	FY 2024–2025 Combined ³	Difference 1955/1980 Plan	Difference 2013 Tier	Difference Combined ³
A. Pension Plan									
1. Total normal cost	28.24%	20.16%	23.79%	27.83%	19.79%	23.40%	0.41%	0.37%	0.39%
2. Employee contributions	8.66% ⁴	10.08%	9.44%	8.66% ⁴	9.41%	9.07%	0.00%	0.67%	0.37%
3. Employer normal cost (A1 – A2)	19.58%	10.08%	14.35%	19.17%	10.38%	14.33%	0.41%	-0.30%	0.02%
4. UAAL (paid by employer)	25.85%	25.85%	25.85%	25.42%	25.42%	25.42%	0.43%	0.43%	0.43%
5. Total employer contribution (A3 + A4)	45.43%	35.93%	40.20%	44.59%	35.80%	39.75%	0.84%	0.13%	0.45%
B. HIB Plan									
1. Total normal cost	0.97%	0.76%	0.85%	0.95%	0.79%	0.86%	0.02%	-0.03%	-0.01%
2. Employee contributions	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.00%	0.00%	0.00%
3. Employer normal cost (B1 – B2)	0.88%	0.67%	0.76%	0.86%	0.70%	0.77%	0.02%	-0.03%	-0.01%
4. UAAL (paid by employer)	3.55%	3.55%	3.55%	3.57%	3.57%	3.57%	-0.02%	-0.02%	-0.02%
5. Total employer contribution (B3 + B4)	4.43%	4.22%	4.31%	4.43%	4.27%	4.34%	0.00%	-0.05%	-0.03%
C. Total contribution									
1. Employee contribution (A2 + B2)	8.75%	10.17%	9.53%	8.75%	9.50%	9.16%	0.00%	0.67%	0.37%
2. Employer contribution (A5 + B5)	49.86%	40.15%	44.51%	49.02%	40.07%	44.09%	0.84%	0.08%	0.42%

¹ Based on market value of assets.

² Contribution rates, payable at the end of each pay period, are expressed as a percentage of projected payroll.

³ Aggregated based on June 30, 2024 projected annual payroll.

⁴ The rate of 8.66% payable during fiscal years 2024/2025 and 2025/2026 is calculated by taking the total employee rate payable beginning April 18, 2016 (i.e., 8.75%), less the HIB employee contribution rate of 0.09%.

Comparison of Projected Benefit Obligation with the Market Value of Assets
(\$ in thousands)

Actuarial Valuation Date	Projected Benefit Obligation	Market Value of Assets	Funded Ratio
06/30/2002	\$749,113	\$536,449	71.6%
06/30/2003	880,054	545,527	62.0%
06/30/2004	928,434	640,641	69.0%
06/30/2005	999,231	694,590	69.5%
06/30/2006	1,068,966	763,455	71.4%
06/30/2007	1,160,325	911,104	78.5%
06/30/2008	1,289,236	838,614	65.0%
06/30/2009	1,366,207	668,750	48.9%
06/30/2010	1,444,258	769,052	53.2%
06/30/2011	1,498,879	968,239	64.6%
06/30/2012	1,606,973	986,972	61.4%
06/30/2013	1,699,340	1,124,328	66.2%
06/30/2014	1,815,349	1,346,888	74.2%
06/30/2015	1,907,462	1,407,209	73.8%
06/30/2016	2,061,202	1,418,129	68.8%
06/30/2017	2,137,483	1,612,644	75.4%
06/30/2018	2,292,859	1,753,240	76.5%
06/30/2019	2,413,489	1,832,965	75.9%
06/30/2020	2,607,362	1,857,609	71.2%
06/30/2021	2,675,737	2,328,722	87.0%
06/30/2022	2,908,908	2,058,923	70.8%
06/30/2023	3,065,129	2,255,307	73.6%
06/30/2024	3,209,658	2,517,031	78.4%

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East Bay Municipal Utility District Employees' Retirement System

**Pension Plan Actuarial Valuation and Review
as of June 30, 2024**



This valuation report should only be copied, reproduced, or shared with other parties in its entirety as necessary for the proper administration of the Plan.

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Segal



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January 14, 2025

Ms. Sophia Skoda
Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607-4240

Dear Sophia:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2024 for only the Pension Plan. The Review of Contribution Rates and Funding Status for the Health Insurance Benefit (HIB) Plan is provided in a separate report. This report summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2025/2026.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Retirement Board to assist in administering the Plan. The census information and financial information on which our calculations were based was prepared by the East Bay Municipal Utility District Employees' Retirement System (EBMUDERS). That assistance is gratefully acknowledged.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

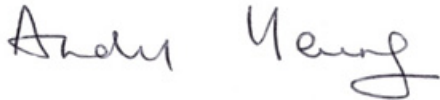
The actuarial calculations were directed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Retirement Board based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

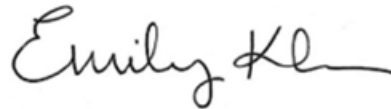
We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal



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



Emily Klare, ASA, MAAA, EA
Senior Actuary

BTS/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a Pension Plan valuation of the East Bay Municipal Utility District Employees' Retirement System ("the System") as of June 30, 2024. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Retirement Board;
- The characteristics of covered active members, inactive members, and retired members and beneficiaries as of June 30, 2024, provided by EBMUDERS;
- The assets of the Plan as of June 30, 2024, provided by EBMUDERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Retirement Board for the June 30, 2024 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Retirement Board for the June 30, 2024 valuation; and
- The funding policy adopted by the Retirement Board.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the System's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the System's liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the System's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with information from the prior year.

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding

Section 1: Actuarial Valuation Summary

policy last reviewed and adopted by the Retirement Board on September 22, 2022. Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 66.

A schedule of current amortization balances and payments may be found in *Section 3, Exhibit G* starting on page 54. A graphical projection of the UAAL amortization balances and payments has been included in *Section 3, Exhibit H* starting on page 56. In the aggregate, the total payment from all the UAAL layers was the same as amortizing the entire UAAL over a period of about 14 years.

The rates calculated in this report may be adopted by the Retirement Board for the fiscal year that extends from July 1, 2025 through June 30, 2026.

Section 1: Actuarial Valuation Summary

Valuation highlights

Funding measures

1. The results of this valuation reflect the changes in the economic and non-economic actuarial assumptions as well as the methodology used to calculate the normal cost rate for the 2013 Tier as recommended by Segal and adopted by the Board for the June 30, 2024 valuation. These changes were documented in our Actuarial Experience Study Report (dated November 13, 2024) and are also outlined in *Section 4, Exhibit 1* of this report. These changes resulted in an increase in the combined (1955/1980 Plan and 2013 Tier) employer contribution rate of 0.70% of payroll, and employee contribution rate of 0.37% of payroll. (The increase in the 2013 Tier employee rate is 0.67% of payroll.) These changes increased the UAAL by \$25.3 million.
2. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) increased from 75.2% to 76.1%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio increased from 73.3% to 77.8%. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions. A history of the Plan's funded ratios is provided in *Section 2, Subsection G* on pages 35 and 36.

In addition to the type of funded ratios noted above, Section 33 of the Employees' Retirement System Ordinance ("Ordinance") references a funded ratio based on the ratio of the market value of assets to the projected benefit obligation (PBO) for purposes of determining post-retirement cost-of-living adjustments (COLA). As noted in the plan provisions section of this report (*Section 4, Exhibit 2*), the basic minimum COLA benefit is the lesser of 3% and the actual change in the cost-of-living index. Any excess of the actual change in the cost-of-living index over 3% is accumulated in individual retiree COLA banks, and withdrawals from the bank are made in years when the index increases less than 3%. However, increases of up to 5% are granted in years when the Retirement Board determines that the System is more than 85% funded on a PBO basis. In those years when the System is more than 85% funded and the cost-of-living index exceeds 5%, any excess cost-of-living over 5% is accumulated in the COLA bank. Furthermore, effective October 1, 2000, in those years when the system is more than 85% funded on a PBO basis and the cost-of-living is less than 4%, withdrawals from the bank are made to allow cost-of-living increases up to 4%.

For the June 30, 2024 Pension Plan and HIB Plan valuations, we note that the funded ratio on the PBO (and market value) basis is 78.4% for both plans combined, as shown in the Supplemental Exhibits report dated January 14, 2025.

3. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) increased from \$742.7 million to \$752.3 million. The increase in unfunded actuarial accrued liability (UAAL) is primarily due to changes in actuarial assumptions and methodology, higher than expected salary increases for continuing actives, higher than expected cost-of-living adjustments (COLA), and the anticipated one-year delay in implementing the higher contribution rates

Section 1: Actuarial Valuation Summary

calculated in the prior valuation, offset somewhat by an investment return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 6.75% used in the June 30, 2023 valuation. A reconciliation of the System's UAAL from the prior year is provided in *Section 2, Subsection E* on page 29.

A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit G* starting on page 54. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit H* starting on page 56.

Actuarial experience

4. The net actuarial loss of \$3.0 million, or 0.10% of actuarial accrued liability, is due to a contribution experience loss of \$2.7 million (or 0.09% of the AAL) and a net experience loss from sources other than investments and contributions of \$9.2 million (0.29% of the AAL), offset somewhat by an investment gain of \$8.9 million (0.28% of the AAL), prior to reflection of assumption and methodology changes, if applicable. The loss from sources other than investment and contribution experience was primarily due to higher than expected salary increases for continuing actives and higher than expected cost-of-living adjustment (COLA) increases for payees, offset somewhat by miscellaneous actuarial gains.
5. The rate of return on the market value of assets was 12.44% for the year ending June 30, 2024. The return on the valuation value of assets was 7.15% for the same period after recognizing a portion of this year's investment gains and a portion of prior years' investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 6.75% used in the June 30, 2023 valuation. This actuarial investment gain (after asset smoothing) decreased the average employer contribution rate by 0.23% of payroll.

Contributions

6. The aggregate employer rate (if paid at the end of each pay period) calculated in this valuation has increased from 39.75% to 40.20% of payroll. This increase is primarily due to changes in actuarial assumptions and methodology, higher than expected salary increases for continuing actives, higher than expected COLA increases for current retirees and beneficiaries, and the anticipated one-year delay in implementing the higher contribution rates calculated in the prior valuation, offset somewhat by an investment return on the valuation value (i.e., after asset smoothing) greater than the 6.75% used in the June 30, 2023 valuation and higher than expected growth in the total payroll used to amortize the prior year's UAAL contribution amounts. A complete reconciliation of the System's aggregate employer rate is provided in *Section 2, Subsection F* on page 32.
7. There was an increase in the total normal cost rates for both the 1955/1980 Plan and 2013 Tier due to changes in actuarial assumptions and methodology. The portion of the total normal cost paid by 1955/1980 Plan employees remained level at 8.66% since that rate has been set based on bargaining unit contract negotiations in 2013.

Section 1: Actuarial Valuation Summary

For the June 30, 2023 valuation, the 2013 Tier employee contribution rate remained at 9.41% for the Pension Plan, because the total normal cost rate of 19.79% for this tier as determined in the 2023 valuation remained within 1% of payroll of the total normal cost rate of 18.81% for this tier as determined in the 2020 valuation. (We note that the 2020 valuation was the first time since the initial 2013 CalPEPRA valuation that the change in the total normal rate exceeded the 1% of payroll threshold.)

For the June 30, 2024 valuation, there was an increase in the total normal cost rate for the 2013 Tier to 20.16% due to changes in the assumptions and methodology. As 20.16% has exceeded the 1% of payroll threshold compared to the 18.81%, there is a need to allocate 10.08% (at least 50% of the total normal cost rate) to be paid by the 2013 Tier employees.

8. The aggregate member rate calculated in this valuation has increased from 9.07% to 9.44% of payroll due to the increase in the 2013 Tier employee rate. A complete reconciliation of the System's aggregate member rate is provided in *Section 2, Subsection F* on page 33.
9. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the UAAL and the principal balance. The funding policy adopted by the Retirement Board meets this standard.

Future expectations

10. The total unrecognized net investment **gain** as of June 30, 2024 is \$55.8 million as compared to an unrecognized net investment **loss** of \$59.2 million in the previous valuation. This net deferred gain of \$55.8 million will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years as shown in *Section 2, Subsection B* on page 22.

The net deferred gain of \$55.8 million represent about 2.2% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$55.8 million net market gain is expected to have an impact on the System's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

- a. If the Pension Plan portion of the net deferred gain was recognized immediately in the valuation value of assets, the funded percentage would increase from 76.1% to 77.8%.
For comparison purposes, if the Pension Plan portion of the net deferred loss in the June 30, 2023 valuation had been recognized immediately, the funded percentage would have decreased from 75.2% to 73.3%.
- b. If the Pension Plan portion of the net deferred gain was recognized immediately in the valuation value of assets, the average employer contribution rate would decrease from 40.20% to about 38.8% of payroll.
For comparison purposes, if the Pension Plan portion of the net deferred loss in the June 30, 2023 valuation had been recognized immediately, the average employer contribution rate would have increased from 40.14% to about 41.7% of payroll.

Section 1: Actuarial Valuation Summary

Risk

11. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2024. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2024. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
12. Because the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. This potential divergence may have a significant impact on the future financial condition of the plan. We prepared a standalone Risk Assessment report for the Pension Plan dated April 29, 2021 by using membership and financial information as provided in the actuarial valuation as of June 30, 2020. That report includes various deterministic projections of future results under different investment return scenarios based on the assumptions adopted in the quadrennial experience study for the June 30, 2020 valuation.

We understand that the next stand-alone risk assessment report will be performed in 2025 upon the completion of the June 30, 2024 valuation. In the meantime, we have also included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection I*, beginning on page 38.

13. The risk assessment in *Section 2, Subsection I* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found on page 41.

GASB

14. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution (ADC) under the System's funding policy and measuring the progress of that funding policy. The Net Pension Liability and Pension Expense under GASB Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of June 30, 2024, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Average Employer and Member Contributions Calculated as of June 30

Employer and Member Contributions	2024 Contribution Rate	2024 Annual Amount ¹	2023 Contribution Rate	2023 Annual Amount ¹
Employer contribution				
• 1955/1980 Plan	45.43%	\$55,824,550	44.59%	\$54,792,354
• 2013 Tier	35.93%	54,091,875	35.80%	53,896,164
• Combined	40.20%	\$109,916,425	39.75%	\$108,688,518
Member contribution				
• 1955/1980 Plan	8.66% ²	\$10,641,439	8.66% ²	\$10,641,439
• 2013 Tier	10.08%	15,175,233	9.41%	14,166,561
• Combined	9.44%	\$25,816,672	9.07%	\$24,808,000

Note: Contributions are payable at the end of each pay period.

¹ Estimated based on June 30, 2024 projected annual compensation of \$273,428,306 (that is, \$122,880,363 for the 1955/1980 Plan and \$150,547,943 for the 2013 Tier).

² The rate of 8.66% payable during the fiscal years 2024/2025 and 2025/2026 is calculated by taking the total employee rate payable beginning April 18, 2016 (i.e., 8.75%), less the HIB employee contribution rate of 0.09%.

Section 1: Actuarial Valuation Summary

Valuation Results as of June 30

Line Description	2024	2023
Actuarial accrued liability		
• Total actuarial accrued liability	\$3,143,728,340	\$2,994,429,150
– Retired members and beneficiaries	2,081,323,619	1,959,982,363
– Inactive members	63,313,175	59,125,354
– Active members	999,091,546	975,321,433
• Normal cost for plan year beginning June 30 ¹	65,051,880	62,314,596
Assets		
• Market value of Pension Plan and HIB Plan assets	\$2,517,031,000	\$2,255,307,000
• Actuarial value of Pension Plan and HIB Plan assets	2,461,214,590	2,314,460,062
• Actuarial value of assets as a percentage of market value of assets	97.8%	102.6%
• Market value of Pension Plan assets (MVA) ²	2,445,611,000	2,194,142,000
• Valuation value of Pension Plan assets (VVA) ²	2,391,378,364	2,251,690,803
Funded status		
• Unfunded actuarial accrued liability on market value of assets	\$698,117,340	\$800,287,150
• Funded percentage on MVA basis	77.8%	73.3%
• Unfunded actuarial accrued liability on valuation value of assets	\$752,349,976	\$742,738,347
• Funded percentage on VVA basis	76.1%	75.2%
Key assumptions		
• Net investment return	6.75%	6.75%
• Inflation rate	2.50%	2.50%
• Real across-the-board increase	0.50%	0.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments	2.75%	2.75%
• Amortization period ³	20 years	20 years

¹ Adjusted with interest to middle of the year assuming contributions would be paid at the end of each pay period.

² Net of HIB Plan assets.

³ Changes in UAAL as a result of gains or losses for each valuation are amortized over separate 20-year periods. Details on the funding policy are provided in *Section 4, Exhibit 1*.

Section 1: Actuarial Valuation Summary

Demographic Data as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number of members	1,974	1,955	1.0%
• Average age	46.9	47.1	-0.2
• Average service	10.9	11.0	-0.1
• Total projected compensation	\$273,428,306	\$262,272,600	4.3%
• Average projected compensation	\$138,515	\$134,155	3.2%
Retired members and beneficiaries			
• Number of members	2,176	2,117	2.8%
– Service retired	1,753	1,704	2.9%
– Disability retired	51	51	0.0%
– Beneficiaries	372	362	2.8%
• Average age	71.7	71.4	0.3
• Average monthly benefit	\$5,930	\$5,752	3.1%
Inactive members			
• Number of members ¹	407	381	6.8%
• Average age	48.0	48.4	-0.4
Total members	4,557	4,453	2.3%

¹ Includes inactive members due a refund of member contributions.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the System. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if applicable). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the System. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If EBMUDERS is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. The System should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Member information

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups. More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B, and C*.

Member Population

As of June 30	Active Members	Inactive Members ¹	Retired Members and Beneficiaries (Pay Status)	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Pay Status to Actives
2015	1,762	239	1,563	1,802	1.02	0.89
2016	1,789	248	1,630	1,878	1.05	0.91
2017	1,802	267	1,713	1,980	1.10	0.95
2018	1,828	284	1,779	2,063	1.13	0.97
2019	1,847	303	1,844	2,147	1.16	1.00
2020	1,903	312	1,905	2,217	1.17	1.00
2021	1,896	327	1,977	2,304	1.22	1.04
2022	1,895	360	2,048	2,408	1.27	1.08
2023	1,955	381	2,117	2,498	1.28	1.08
2024	1,974	407	2,176	2,583	1.31	1.10

¹ Includes inactive members due a refund of member contributions.

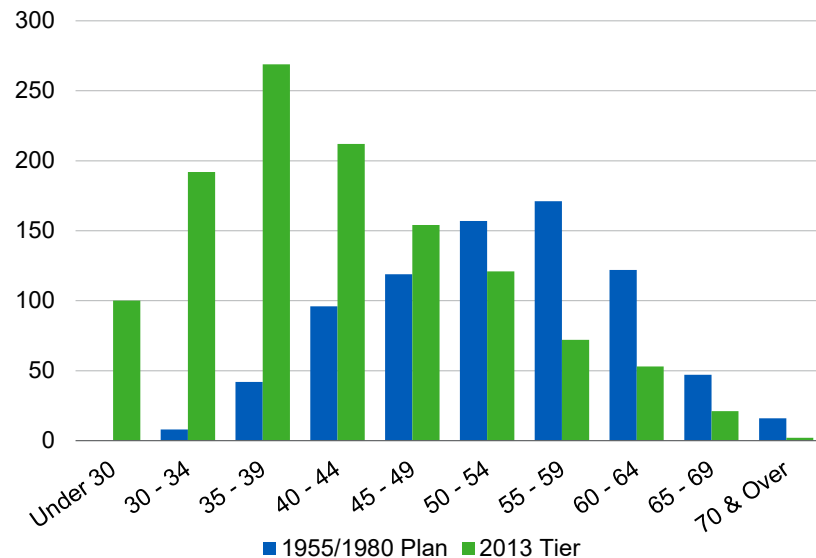
Section 2: Actuarial Valuation Results

Active members

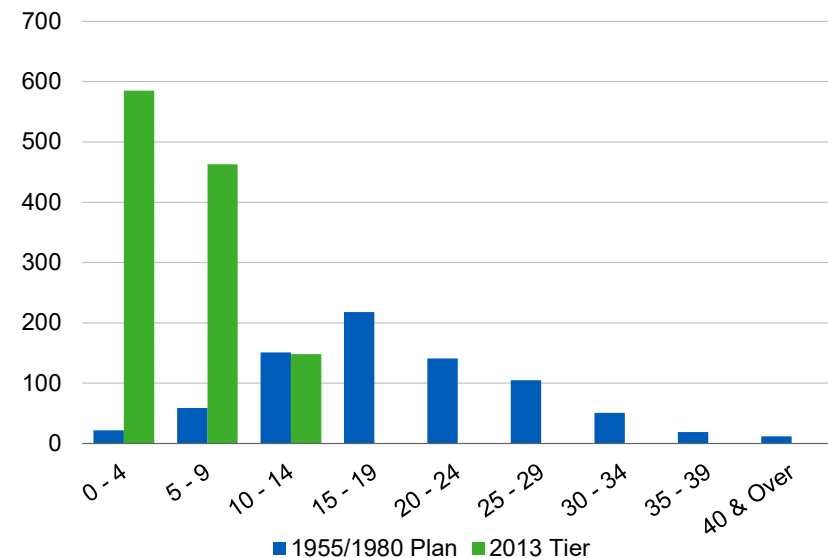
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Active members	1,974	1,955	1.0%
Average age ¹	46.9	47.1	-0.2
Average years of service	10.9	11.0	-0.1
Average compensation	\$138,515	\$134,155	3.2%

Distribution of Active Members as of June 30, 2024

Actives by Age



Actives by Years of Service



Inactive members

Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Inactive members ²	407	381	6.8%

¹ Among the active members, there were none with unknown age information.

² Includes inactive members due a refund of member contributions.

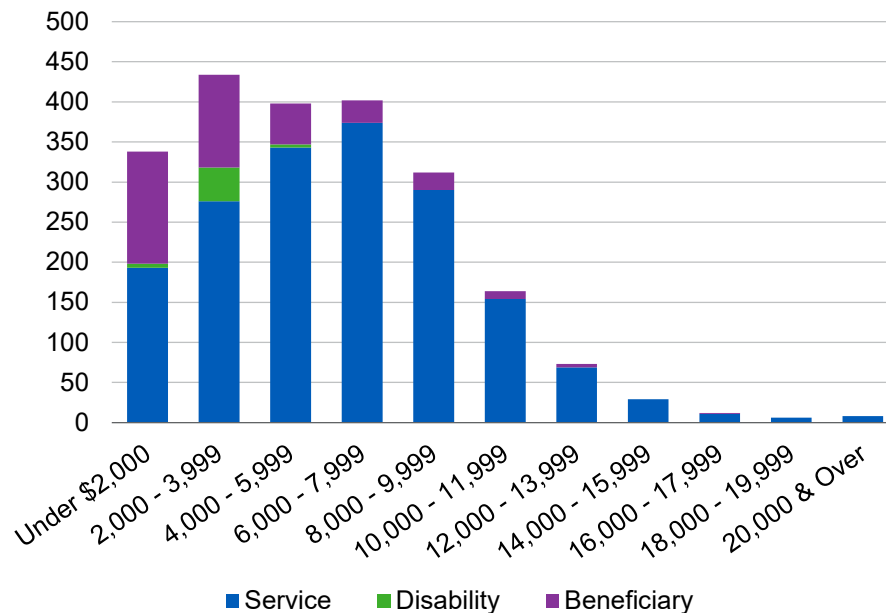
Section 2: Actuarial Valuation Results

Retired members and beneficiaries

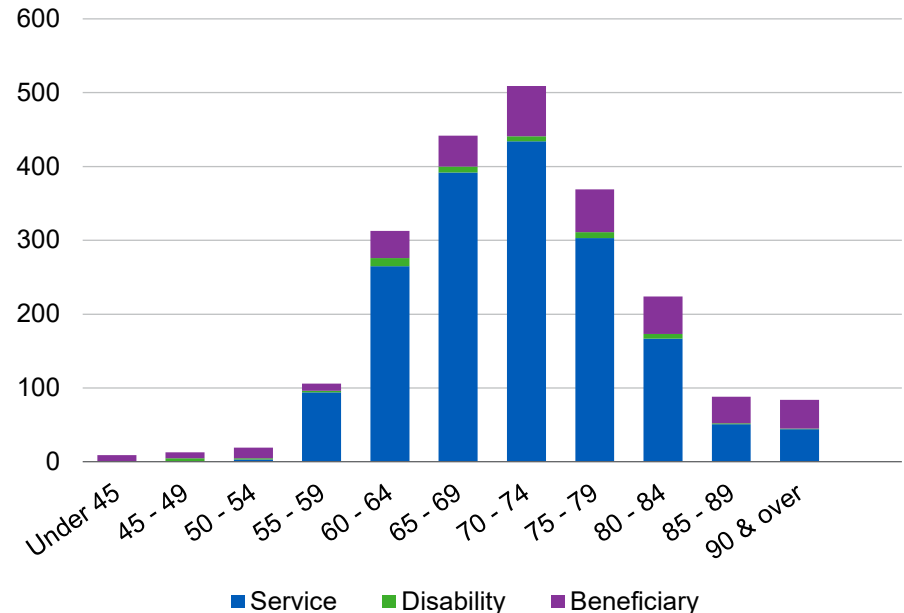
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Retired members	1,804	1,755	2.8%
Beneficiaries	372	362	2.8%
Average age	71.7	71.4	0.3
Average monthly amount	\$5,930	\$5,752	3.1%
Total monthly amount	\$12,903,119	\$12,176,254	6.0%

Distribution of Retired Members and Beneficiaries as of June 30, 2024

By Type and Monthly Amount



By Type and Age



Section 2: Actuarial Valuation Results

Historical plan population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics

Active Members versus Retired Members and Beneficiaries (Pay Status)

As of June 30	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount
2015	1,762	48.8	13.7	1,563	70.1	\$4,360
2016	1,789	48.5	13.3	1,630	70.1	4,499
2017	1,802	48.0	12.8	1,713	70.1	4,649
2018	1,828	47.8	12.4	1,779	70.2	4,841
2019	1,847	47.6	12.0	1,844	70.3	5,024
2020	1,903	47.3	11.7	1,905	70.6	5,211
2021	1,896	47.4	11.6	1,977	70.8	5,376
2022	1,895	47.2	11.4	2,048	71.0	5,592
2023	1,955	47.1	11.0	2,117	71.4	5,752
2024	1,974	46.9	10.9	2,176	71.7	5,930

Section 2: Actuarial Valuation Results

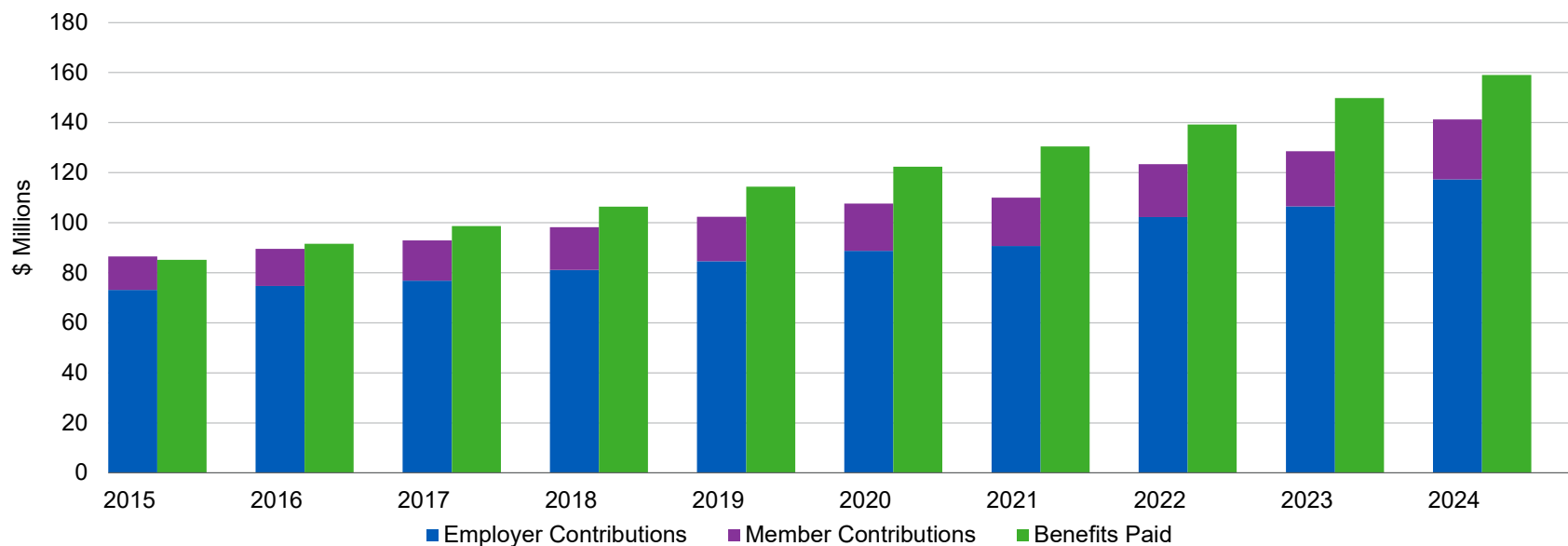
B. Financial information

Pension plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees) will be needed to cover benefit payments and administrative expenses. Pension plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E and F*.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the valuation asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits for Years Ended June 30



Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets for Year Ended June 30, 2024

Step	Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Amount
1. Market value of assets					
a. Pension Plan					\$2,445,611,000
b. HIB Plan					71,420,000
c. Total					\$2,517,031,000
2. Calculation of deferred return					
a. Year ended June 30, 2020	\$39,376,000	\$127,791,930	\$(88,415,930)	0%	\$0
b. Year ended June 30, 2021	491,625,000	129,314,710	362,310,290	20	72,462,058
c. Year ended June 30, 2022	(253,930,000)	162,455,125	(416,385,125)	40	(166,554,050)
d. Year ended June 30, 2023	217,559,000	138,262,646	79,296,354	60	47,577,813
e. Year ended June 30, 2024	279,545,000	151,631,764	127,913,236	80	102,330,589
f. Total deferred return¹					\$55,816,410
3. Preliminary actuarial value of assets: 1c – 2f					\$2,461,214,590
4. Adjustment to be within 30% corridor of market value					0
5. Final actuarial value of assets: 3 + 4:					\$2,461,214,590
6. Actuarial value of assets as a percentage of market value of assets: 5 ÷ 1c					97.8%
7. Valuation value of Pension Plan assets: 1a ÷ 1c × 5					\$2,391,378,364

¹ The total deferred return as of June 30, 2024 is recognized in each of the next four years as follows:

a. Amount recognized on June 30, 2025	\$30,626,951
b. Amount recognized on June 30, 2026	(41,835,107)
c. Amount recognized on June 30, 2027	41,441,918
d. Amount recognized on June 30, 2028	<u>25,582,648</u>
e. Total unrecognized return as of June 30, 2024	\$55,816,410

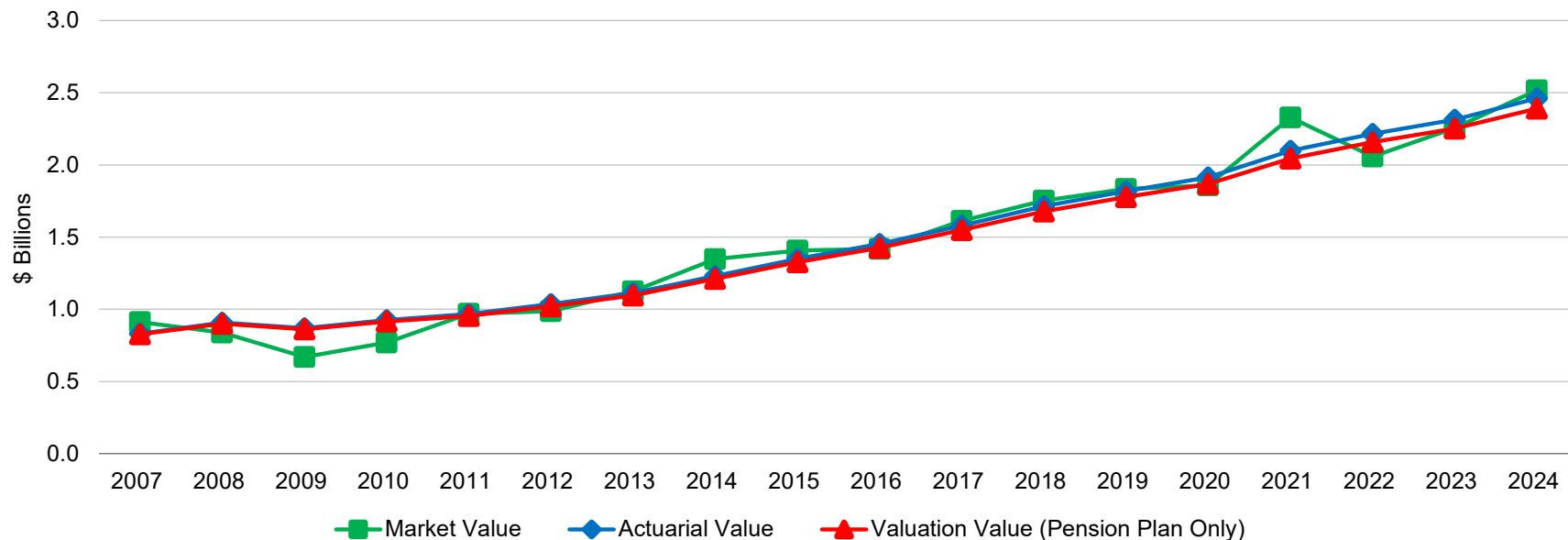
Section 2: Actuarial Valuation Results

Asset history

The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is generally the actuarial value, excluding HIB Plan assets.

The valuation value of assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

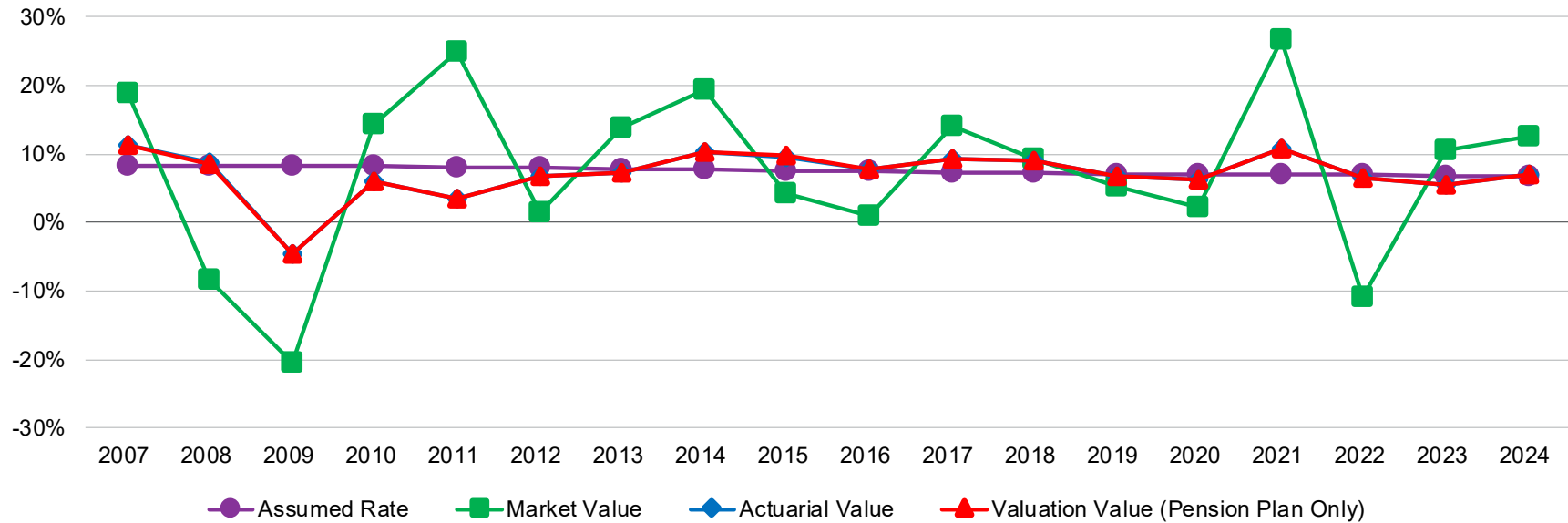
Market Value, Actuarial Value, and Valuation Value (Pension Plan Only) of Assets as of June 30



Section 2: Actuarial Valuation Results

Historical investment returns

Market, Actuarial and Valuation Rates of Return for Years Ended June 30



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	18.95%	(8.40)%	(20.47)%	14.27%	24.85%	1.57%	13.91%	19.41%	4.37%	0.92%	14.15%	9.25%	5.25%	2.16%	26.61%	(10.94)%	10.62%	12.44%
Actuarial rate	11.31%	8.69%	(4.47)%	5.96%	3.62%	6.76%	7.39%	10.19%	9.67%	7.74%	9.22%	9.00%	6.74%	6.16%	10.71%	6.43%	5.42%	7.14%
Valuation rate	11.33%	8.59%	(4.49)%	5.93%	3.62%	6.75%	7.40%	10.22%	9.68%	7.74%	9.23%	9.01%	6.74%	6.16%	10.74%	6.41%	5.42%	7.15%
Assumed rate	8.25%	8.25%	8.25%	8.25%	8.00%	8.00%	7.75%	7.75%	7.50%	7.50%	7.25%	7.25%	7.00%	7.00%	7.00%	7.00%	6.75%	6.75%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return	7.46%	7.16%	7.16%
Most recent 10-year geometric average return	7.07%	7.81%	7.82%
Most recent 15-year geometric average return	9.51%	7.46%	7.46%

Section 2: Actuarial Valuation Results

C. Actuarial experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. There are no changes in actuarial assumptions reflected in this valuation.

The actuarial experience for the year can be found below and a discussion of the major components can be found on the following pages.

Actuarial Experience for Year Ended June 30, 2024

Source	Amount
1. Net gain from investments ¹	\$(8,857,227)
2. Net loss from contributions	2,674,834
3. Net loss from other experience ²	9,223,629
4. Net experience loss³	\$3,041,236

¹ Details on next page.

² See *Subsection E* for further details. Does not include the effect of plan, method or assumption changes, if any.

³ The net loss is attributed to actual liability experience from July 1, 2023 through June 30, 2024 compared to the projected experience based on the actuarial assumptions as of June 30, 2023. It does not include the effect of plan or assumption changes as of June 30, 2024, if any.

Section 2: Actuarial Valuation Results

Investment experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy.

For valuation purposes, the assumed rate of return on the valuation value of assets is 6.75% based on the June 30, 2023 valuation. The actual rate of return on a valuation basis for the 2023–2024 plan year was 7.15% after recognizing a portion of this year's investment gains and a portion of prior years' investment gains and losses. Since the actual return for the year was more than the assumed return, the Plan experienced an actuarial gain during the year ended June 30, 2024 with regard to its investments.

Investment Experience for Year Ended June 30, 2024

Line Description	Valuation Value (Pension Plan assets only)	Actuarial Value (includes Pension and HIB Plan assets)	Market Value (includes Pension and HIB Plan assets)
1. Net investment income	\$160,155,561	\$164,575,528	\$279,545,000
2. Average value of assets	2,241,456,803	2,305,549,562	2,246,396,500
3. Rate of return: $1 \div 2$	7.15%	7.14%	12.44%
4. Assumed rate of return	6.75%	6.75%	6.75%
5. Expected investment income: 2×4	\$151,298,334	\$155,624,595	\$151,631,764
6. Investment gain/(loss): $1 - 5$	\$8,857,227	\$8,950,933	\$127,913,236

Section 2: Actuarial Valuation Results

Contributions

In last year's valuation report, expected contributions for the year ended June 30, 2024 were based on the contribution rates from the June 30, 2023 valuation. However, due to the anticipated one-year delay in implementing the higher contribution rates calculated in that valuation, actual contributions for fiscal year 2023/2024 were based on the contribution rates from the June 30, 2022 valuation. This anticipated delay resulted in a contribution loss of \$2.7 million for the year, when adjusted for timing.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among members
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected), and
- Cost-of-living adjustments (COLAs; higher or lower than anticipated)

The net loss from this other experience for the year ended June 30, 2024 amounted to \$9.2 million, which is 0.29% of the actuarial accrued liability. This loss was mainly due to the effect of higher than expected individual salary increases for actives and higher than anticipated COLA increases for current retirees and beneficiaries. See *Section 2, Subsection E* for a detailed development of the unfunded actuarial accrued liability.

Section 2: Actuarial Valuation Results

D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

This report reflects assumption and method changes based on the Actuarial Experience Study (dated November 13, 2024) covering the period July 1, 2020 through June 30, 2024.

- The changes in actuarial assumptions and method increased the actuarial accrued liability by \$25.3 million (a 0.81% increase) and increased the total normal cost by \$1.2 million (a 1.85% increase). The changes resulted in an increase in the combined (1955/1980 Plan and 2013 Tier) employer contribution rate of 0.70% of payroll and employee contribution rate of 0.37% of payroll (payable at the end of each pay period.) There was an increase in the 2013 Tier member rate of 0.67% of payroll (payable at the end of each pay period).

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

Plan provisions

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit 2*.

Section 2: Actuarial Valuation Results

E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2024

Line Description	Amount
1. Unfunded actuarial accrued liability at beginning of year	\$742,738,347
2. Total normal cost at beginning of year	60,312,330
3. Expected employer and member contributions at beginning of year	(124,828,990)
4. Interest to end of year	45,779,963
5. Expected unfunded actuarial accrued liability at end of year	\$724,001,650
6. Changes due to:	
a. Investment return greater than expected, after asset smoothing	\$(8,857,227)
b. Anticipated one-year delay in implementing the higher contribution rates calculated in the prior valuation	2,674,834
c. Individual salary increases greater than expected	3,546,248
d. Loss due to higher than expected COLA increases for current retirees and beneficiaries	6,707,822
e. Other gains on demographic experience	(1,030,441)
f. Increase due to change in actuarial assumptions	25,307,090
g. Total changes	\$28,348,326
7. Unfunded actuarial accrued liability at end of year: 5 + 6g	\$752,349,976

Note: The “net loss from other experience” of \$9,223,629 from *Subsection C* is equal to the sum of items 6c, 6d and 6e.

Section 2: Actuarial Valuation Results

F. Recommended contribution

The recommended contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of June 30, 2024, the average recommended employer contribution is 40.20% of payroll.

The Board sets the funding policy used to calculate the recommended contribution based on layered 20-year¹ amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization² and each amortization layer is fully funded in 20 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit H*, before taking into consideration the deferred investment gains and/or losses that will be recognized in the next several valuations, the UAAL of the Plan is expected to be fully amortized by 2045,³ assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions.

The contribution requirement as of June 30, 2024 is based on the data previously described, the actuarial assumptions and plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

¹ Changes in UAAL as a result of actuarial gains or losses or as a result of changes in actuarial assumptions or methods (on or after July 1, 2021) for each valuation are amortized over separate 20-year periods. Changes in UAAL as a result of plan changes are amortized over separate 15-year periods.

² Negative amortization means that the amortization payment towards the UAAL is less than the interest on the UAAL and therefore the outstanding balance of the UAAL would increase.

³ The UAAL is expected to be fully amortized later than the 20-year amortization period because of a prior change in assumptions base that was originally established with a 25 year amortization period and which has 21 years remaining as of June 30, 2024.

Section 2: Actuarial Valuation Results

Average Recommended Employer Contribution Calculated as of June 30

Line Description	2024 Amount	2024 % of Projected Compensation	2023 Amount	2023 % of Projected Compensation
1. Total normal cost	\$65,051,880	23.79%	\$62,314,596	23.76%
2. Expected member normal cost contributions	25,816,672	9.44%	23,708,690	9.04%
3. Employer normal cost: 1 – 2	\$39,235,208	14.35%	\$38,605,906	14.72%
4. Actuarial accrued liability	3,143,728,340		2,994,429,150	
5. Valuation value of assets	2,391,378,364		2,251,690,803	
6. Unfunded actuarial accrued liability: 4 – 5	\$752,349,976		\$742,738,347	
7. Payment on UAAL	70,681,217	25.85%	66,669,695	25.42%
8. Average recommended employer contribution: 3 + 7	\$109,916,425	40.20%	\$105,275,601	40.14%
9. Projected payroll	\$273,428,306		\$262,272,600	

Note: Contributions are assumed to be paid at the end of each pay period.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended employer contribution rate

Reconciliation from June 30, 2023 to June 30, 2024

Item	Contribution Rate	Estimated Annual Dollar Amount ¹
1. Average recommended employer contribution as of June 30, 2023	39.75%	\$108,688,518
2. Changes due to:		
a. Investment return greater than expected after asset smoothing	(0.23)%	(628,885)
b. Effect of anticipated one-year delay in implementing the higher contribution rates calculated in the prior valuation	0.07%	191,400
c. Individual salary increases greater than expected	0.09%	246,085
d. Amortizing prior year's UAAL over a larger than expected total payroll	(0.30)%	(820,285)
e. Higher than expected COLA increases for current retirees and beneficiaries	0.17%	464,828
f. Change in member demographics and other net experience gains	(0.05)%	(139,234)
g. Effect of changes in actuarial assumptions and methodology	0.70%	1,913,998
h. Total change	0.45%	\$1,227,907
3. Average recommended employer contribution as of June 30, 2024: 1 + 2h	40.20%	\$109,916,425

¹ Based on June 30, 2024 projected compensation of \$273,428,306.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended member contribution rate

Reconciliation from June 30, 2023 to June 30, 2024

Item	Contribution Rate	Estimated Annual Dollar Amount ¹
1. Average recommended member contribution as of June 30, 2023	9.07%	\$24,808,000
2. Changes due to:		
a. Change in member demographics and effect of changes in actuarial assumptions and methodology ²	0.37%	1,008,672
b. Total change	0.37%	\$1,008,672
3. Average recommended member contribution as of June 30, 2024: 1 + 2b	9.44%	\$25,816,672

¹ Based on June 30, 2024 projected compensation of \$273,428,306.

² There is no change in the 1955/1980 Plan member rate. There is an increase in the 2013 Tier member rate of 0.67% or \$1,008,672.

Section 2: Actuarial Valuation Results

Recommended employer contribution rate

Recommended Employer Contribution Calculated as of June 30
(% of Payroll; Payable at End of Each Pay Period)

Employer and Member Contributions	2024 Contribution Rate	2024 Estimated Annual Amount ¹	2023 Contribution Rate	2023 Estimated Annual Amount ¹
1955/1980 Plan				
Total normal cost	28.24%	\$34,701,415	27.83%	\$34,197,605
Expected employee contributions	-8.66%	-10,641,439	-8.66%	-10,641,439
Employer normal cost	19.58%	\$24,059,976	19.17%	\$23,556,166
UAAL	25.85%	31,764,574	25.42%	31,236,188
Total employer contribution	45.43%	\$55,824,550	44.59%	\$54,792,354
2013 Tier				
Total normal cost	20.16%	\$30,350,465	19.79%	\$29,793,438
Expected employee contributions	-10.08%	-15,175,233	-9.41%	-14,166,561
Employer normal cost	10.08%	\$15,175,232	10.38%	\$15,626,877
UAAL	25.85%	38,916,643	25.42%	38,269,287
Total employer contribution	35.93%	\$54,091,875	35.80%	\$53,896,164
Combined				
Total normal cost	23.79%	\$65,051,880	23.40%	\$63,991,043
Expected employee contributions	-9.44%	-25,816,672	-9.07%	-24,808,000
Employer normal cost	14.35%	\$39,235,208	14.33%	\$39,183,043
UAAL	25.85%	70,681,217	25.42%	69,505,475
Total employer contribution	40.20%	\$109,916,425	39.75%	\$108,688,518

¹ Amounts are based on the following June 30, 2024 projected annual payroll:

Projected Annual Payroll

Plan	Amount
1955/1980 Plan	\$122,880,363
2013 Tier	150,547,943
Combined	\$273,428,306

Section 2: Actuarial Valuation Results

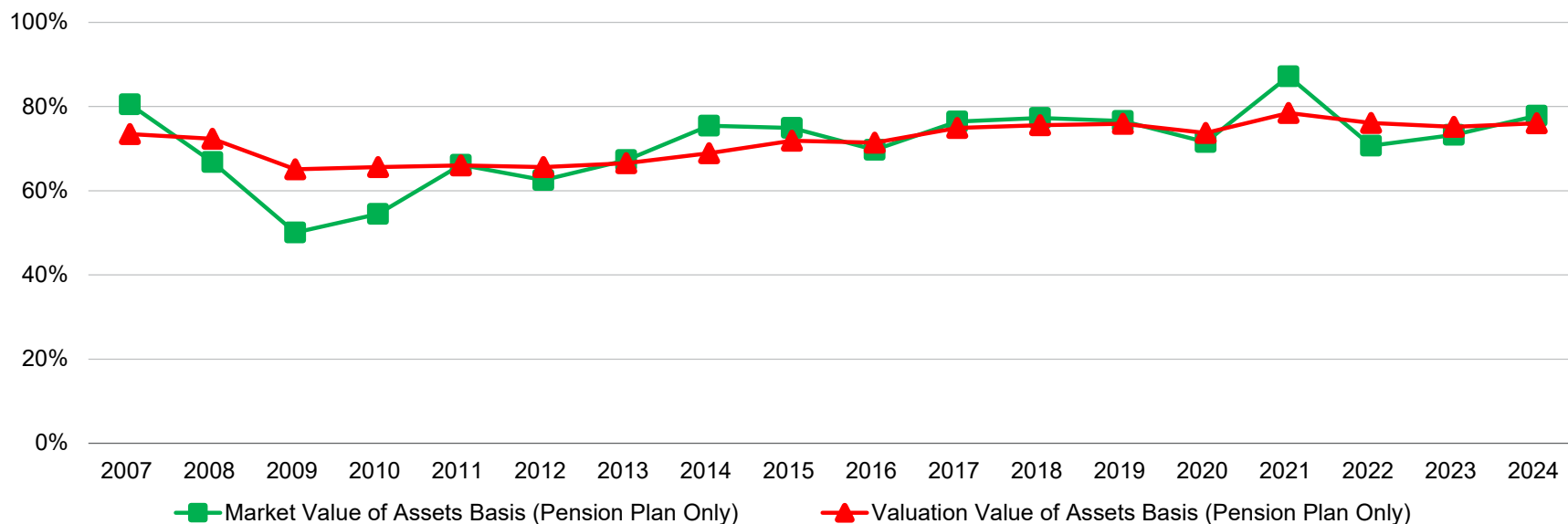
G. Funded status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the market and valuation value of assets to the actuarial accrued liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The chart below depicts a history of the funded ratio for the Plan. The chart on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the market or valuation value of assets is used.

Funded Ratio as of June 30



Section 2: Actuarial Valuation Results

Schedule of Funding Progress (Dollars in Thousands)

As of June 30	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) ÷ (b)	Projected Compensation (c)	UAAL as a % of Projected Compensation [(b) – (a)] ÷ (c)
2015	\$1,327,113	\$1,845,912	\$518,799	71.9%	\$174,899	296.6%
2016	1,425,785	1,995,863	570,078	71.4	183,971	309.9
2017	1,549,213	2,068,015	518,802	74.9	184,859	280.6
2018	1,678,417	2,220,977	542,560	75.6	202,995	267.3
2019	1,777,065	2,340,773	563,708	75.9	212,351	265.5
2020	1,868,917	2,535,238	666,321	73.7	224,412	296.9
2021	2,045,503	2,605,614	560,111	78.5	224,392	249.6
2022	2,158,463	2,835,771	677,308	76.1	241,538	280.4
2023	2,251,691	2,994,429	742,738	75.2	262,273	283.2
2024	2,391,378	3,143,728	752,350	76.1	273,428	275.2

Section 2: Actuarial Valuation Results

H. Actuarial balance sheet

An overview of the Plan's funding is given by an actuarial balance sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current members is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet as of June 30

Line Description	2024	2023
Liabilities		
Present value of benefits for retired members and beneficiaries	\$2,081,323,619	\$1,959,982,363
Present value of benefits for inactive members	63,313,175	59,125,354
Present value of benefits for active members	1,562,679,932	1,507,682,199
Total liabilities	\$3,707,316,726	\$3,526,789,916
Current and future assets		
Total valuation value of assets	\$2,391,378,364	\$2,251,690,803
Present value of future contributions by members	249,278,982	216,963,727 ¹
Present value of future employer contributions for:		
• Entry age normal cost	314,309,404	315,397,039 ¹
• Unfunded actuarial accrued liability	752,349,976	742,738,347
Total of current and future assets	\$3,707,316,726	\$3,526,789,916

¹ The present value of future contributions by members has been adjusted to exclude the 0.09% of payroll employee contributions allocated to the HIB Plan. The present value of future employer contributions for entry age normal cost has been adjusted accordingly so that the total of these two items remains unchanged. This reallocation of amounts is for display purposes only and has no effect on the employee and employer contribution rates developed in the June 30, 2023 valuation.

Section 2: Actuarial Valuation Results

I. Risk

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling. As noted in the valuation highlights section of this report the results of our more detailed risk assessment will be provided in a separate stand-alone report.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures:

Risk assessments

- **Asset/Liability Mismatch Risk** (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

The most significant asset/liability mismatch risk to the Plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first is evident in annual valuations; when asset values deviate from assumptions they are typically independent from liability changes. The second can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but has no impact on asset levels. This risk is also discussed below.

- **Investment Risk** (the risk that investment returns will be different than expected)

The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the valuation value of assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection J*,

Section 2: Actuarial Valuation Results

Volatility Ratios, on page 42, a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.9% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of (10.94)% to a high of 26.61%.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. The Board has adopted mortality tables based on this methodology.

- **Other Risks**

In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of other demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different plans.

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employer has a proven track-record of making at least the the actuarially determined contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of historical trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The funded percentage on the valuation value of assets basis has increased from 71.9% to 76.1%. This is primarily due to contributions made to amortize the UAAL under the Board's actuarial funding policy and average recent years' investment return on a smoothed basis greater than the assumption. For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 35.
- The average geometric investment return on the actuarial value of assets over the last 10 years was 7.81%. This includes a high of 10.71% and a low of 5.42%. The average over the last five years is 7.16%. For more details see *Section 2, Subsection B, Historical investment returns* on page 24.

Section 2: Actuarial Valuation Results

- The primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in:
 - 2016 included a change in the discount rate from 7.50% to 7.25%, adding \$52.6 million in unfunded liability;
 - 2018 included a change in the discount rate from 7.25% to 7.00%, adding \$12.5 million in unfunded liability;
 - 2020 included the use of amount-weighted mortality tables projected generationally to better reflect future mortality improvement, adding \$104.8 million in unfunded liability;
 - 2022 included a change in the discount rate from 7.00% to 6.75%, adding \$72.1 million in unfunded liability; and
 - 2024 includes changes in demographic assumptions and methodology, adding \$25.3 million in unfunded liability.
- The plan's funding policy effectively deals with these unfunded liabilities over time.¹ This can be seen most clearly in *Section 3, Exhibit H, Projection of UAAL balances and payments* starting on page 56.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.89 to 1.10. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member information* on page 17.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were \$20.5 million more than contributions received.² Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has a low level of negative cash flow. For more details on historical cash flows see *Section 2, Subsection B, Financial information* on page 21.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection J, Volatility ratios* on page 42.

¹ In addition, during the last ten years, the Board had on five occasions elected to continue to carry over the higher employer contribution rates in a previous valuation even though the employer contribution rates would have come down in the absence of such action. The Board made that election for the purpose of accelerating the payment of the UAAL.

² Under the Retirement Board's actuarial funding policy, current assets plus the present value of future (employer and member) contributions will always be equal to the present value of benefits expected to be paid by the System. Based on the understanding that the present value of future contributions includes both the amounts required to pay the ongoing normal cost and any unfunded liabilities, it appears that the minimum contribution limit pursuant to Section 12335 of the Public Utilities Code does not apply.

Section 2: Actuarial Valuation Results

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the AAL used for funding, except for the discount rate. The LDROM is required to be calculated using “a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.”

The LDROM is a calculation assuming a plan’s assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in June of the measurement period, by The Bond Buyer, is 3.93% for use effective June 30, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan’s funded status or actuarially determined contribution rates. The plan’s expected return on assets, currently 6.75%, is used for these calculations.

As of June 30, 2024, the LDROM for the Plan is \$4.560 billion.¹ The difference between the Plan’s AAL of \$3.144 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan’s diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of member benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the actuarially determined contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

¹ For comparison purposes, as of June 30, 2023, the LDROM was \$4.515 billion based on a discount rate of 3.65%, while the Plan’s actuarial accrued liability was \$2.994 billion.

Section 2: Actuarial Valuation Results

J. Volatility ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total projected compensation, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 8.9. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.9% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the actuarial accrued liability divided by total projected compensation, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current total Plan LVR is about 11.5. This is about 29% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Section 2: Actuarial Valuation Results

Volatility Ratios

Asset Volatility Ratio (AVR) versus Liability Volatility Ratio (LVR)

As of June 30	Asset Volatility Ratio	Liability Volatility Ratio
2015	7.9	10.6
2016	7.6	10.8
2017	8.6	11.2
2018	8.5	10.9
2019	8.4	11.0
2020	8.1	11.3
2021	10.1	11.6
2022	8.3	11.7
2023	8.4	11.4
2024	8.9	11.5

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan — Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	1,974	1,955	1.0%
• Average age	46.9	47.1	-0.2
• Average years of service	10.9	11.0	-0.1
• Total projected compensation	\$273,428,306	\$262,272,600	4.3%
• Average projected compensation	\$138,515	\$134,155	3.2%
• Account balances	\$263,198,027	\$248,277,401	6.0%
• Total active vested members	1,367	1,338	2.2%
Inactive members¹			
• Number	407	381	6.8%
• Average age	48.0	48.4	-0.4
Retired members			
• Number	1,753	1,704	2.9%
• Average age	71.4	71.0	0.4
• Average monthly benefit	\$6,531	\$6,332	3.1%
Disabled members			
• Number	51	51	0.0%
• Average age	68.0	67.4	0.6
• Average monthly benefit	\$2,699	\$2,653	1.7%
Beneficiaries			
• Number	372	362	2.8%
• Average age	73.9	73.8	0.1
• Average monthly benefit	\$3,538	\$3,456	2.4%

¹ Includes inactive members due a refund of member contributions.

Section 3: Supplemental Information

1955/1980 Plan — Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	778	856	-9.1%
• Average age	53.6	53.3	0.3
• Average years of service	19.5	18.9	0.6
• Total projected compensation	\$122,880,363	\$129,488,164	-5.1%
• Average projected compensation	\$157,944	\$151,271	4.4%
• Account balances	\$193,280,838	\$192,745,940	0.3%
• Total active vested members	756	825	-8.4%
Inactive members¹			
• Number	204	211	-3.3%
• Average age	53.2	52.9	0.3
Retired members			
• Number	1,742	1,694	2.8%
• Average age	71.4	71.1	0.3
• Average monthly benefit	\$6,564	\$6,363	3.2%
Disabled members			
• Number	51	51	0.0%
• Average age	68.0	67.4	0.6
• Average monthly benefit	\$2,699	\$2,653	1.7%
Beneficiaries			
• Number	372	362	2.8%
• Average age	73.9	73.8	0.1
• Average monthly benefit	\$3,538	\$3,456	2.4%

¹ Includes inactive members due a refund of member contributions.

Section 3: Supplemental Information

2013 Tier — Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	1,196	1,099	8.8%
• Average age	42.5	42.2	0.3
• Average years of service	5.3	4.9	0.4
• Total projected compensation	\$150,547,943	\$132,784,436	13.4%
• Average projected compensation	\$125,876	\$120,823	4.2%
• Account balances	\$69,917,190	\$55,531,461	25.9%
• Total active vested members	611	513	19.1%
Inactive members¹			
• Number	203	170	19.4%
• Average age	42.8	42.8	0
Retired members			
• Number	11	10	10.0%
• Average age	68.3	67.0	1.3
• Average monthly benefit	\$1,345	\$1,161	15.8%
Disabled members			
• Number	N/A	N/A	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
• Number	N/A	N/A	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A

¹ Includes inactive members due a refund of member contributions.

Section 3: Supplemental Information

Exhibit B: Distribution of active members

Total Plan

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	17	17	—	—	—	—	—	—	—	—
	\$95,015	\$95,015	—	—	—	—	—	—	—	—
25–29	83	73	10	—	—	—	—	—	—	—
	\$118,065	\$116,341	\$130,656	—	—	—	—	—	—	—
30–34	200	112	65	22	1	—	—	—	—	—
	\$125,758	\$118,413	\$133,340	\$139,771	\$147,299	—	—	—	—	—
35–39	311	148	116	38	9	—	—	—	—	—
	\$128,717	\$117,927	\$135,430	\$145,286	\$149,669	—	—	—	—	—
40–44	308	93	103	65	42	5	—	—	—	—
	\$138,227	\$120,859	\$132,681	\$151,553	\$163,223	\$192,326	—	—	—	—
45–49	273	65	75	56	46	27	4	—	—	—
	\$145,812	\$127,820	\$135,455	\$148,048	\$162,874	\$174,479	\$211,352	—	—	—
50–54	278	50	69	47	36	42	29	5	—	—
	\$145,307	\$129,936	\$135,238	\$144,821	\$153,319	\$161,144	\$158,640	\$174,461	—	—
55–59	243	27	43	35	47	31	35	22	3	—
	\$148,692	\$124,808	\$137,068	\$150,130	\$156,276	\$157,776	\$148,482	\$165,963	\$176,631	—
60–64	175	16	29	28	31	20	25	14	10	2
	\$147,640	\$128,639	\$127,037	\$151,811	\$158,148	\$149,833	\$159,750	\$139,135	\$150,810	\$247,520
65–69	68	5	11	8	4	14	5	9	5	7
	\$141,532	\$127,131	\$112,632	\$127,912	\$159,069	\$126,289	\$137,188	\$167,201	\$170,771	\$182,479
70 and over	18	1	1	—	2	2	7	1	1	3
	\$136,767	\$119,998	\$151,446	—	\$146,926	\$127,415	\$135,316	\$137,201	\$147,690	\$136,525
Total	1,974	607	522	299	218	141	105	51	19	12
	\$138,515	\$120,350	\$133,733	\$147,400	\$158,436	\$158,519	\$154,950	\$159,086	\$159,976	\$181,831

Section 3: Supplemental Information

1955/1980 Plan

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2024

Age	Total	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25-29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30-34	8	—	2	5	1	—	—	—	—	—
	\$142,055	—	\$120,369	\$149,680	\$147,299	—	—	—	—	—
35-39	42	4	10	19	9	—	—	—	—	—
	\$151,383	\$134,794	\$160,138	\$151,078	\$149,669	—	—	—	—	—
40-44	96	5	11	33	42	5	—	—	—	—
	\$162,206	\$153,018	\$139,612	\$165,270	\$163,223	\$192,326	—	—	—	—
45-49	119	5	12	25	46	27	4	—	—	—
	\$166,422	\$200,639	\$144,393	\$160,788	\$162,874	\$174,479	\$211,352	—	—	—
50-54	157	4	15	26	36	42	29	5	—	—
	\$156,569	\$191,066	\$142,703	\$150,617	\$153,319	\$161,144	\$158,640	\$174,461	—	—
55-59	171	3	7	23	47	31	35	22	3	—
	\$157,969	\$164,364	\$179,802	\$158,570	\$156,276	\$157,776	\$148,482	\$165,963	\$176,631	—
60-64	122	1	2	17	31	20	25	14	10	2
	\$156,774	\$238,871	\$140,608	\$162,485	\$158,148	\$149,833	\$159,750	\$139,135	\$150,810	\$247,520
65-69	47	—	—	3	4	14	5	9	5	7
	\$151,046	—	—	\$124,292	\$159,069	\$126,289	\$137,188	\$167,201	\$170,771	\$182,479
70 and over	16	—	—	—	2	2	7	1	1	3
	\$136,897	—	—	—	\$146,926	\$127,415	\$135,316	\$137,201	\$147,690	\$136,525
Total	778	22	59	151	218	141	105	51	19	12
	\$157,944	\$172,895	\$148,999	\$157,555	\$158,436	\$158,519	\$154,950	\$159,086	\$159,976	\$181,831

Section 3: Supplemental Information

2013 Tier

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	17	17	—	—	—	—	—	—	—	—
	\$95,015	\$95,015	—	—	—	—	—	—	—	—
25–29	83	73	10	—	—	—	—	—	—	—
	\$118,065	\$116,341	\$130,656	—	—	—	—	—	—	—
30–34	192	112	63	17	—	—	—	—	—	—
	\$125,079	\$118,413	\$133,751	\$136,856	—	—	—	—	—	—
35–39	269	144	106	19	—	—	—	—	—	—
	\$125,178	\$117,458	\$133,099	\$139,493	—	—	—	—	—	—
40–44	212	88	92	32	—	—	—	—	—	—
	\$127,369	\$119,031	\$131,852	\$137,406	—	—	—	—	—	—
45–49	154	60	63	31	—	—	—	—	—	—
	\$129,886	\$121,752	\$133,753	\$137,774	—	—	—	—	—	—
50–54	121	46	54	21	—	—	—	—	—	—
	\$130,694	\$124,621	\$133,165	\$137,644	—	—	—	—	—	—
55–59	72	24	36	12	—	—	—	—	—	—
	\$126,659	\$119,863	\$128,758	\$133,955	—	—	—	—	—	—
60–64	53	15	27	11	—	—	—	—	—	—
	\$126,617	\$121,290	\$126,032	\$135,315	—	—	—	—	—	—
65–69	21	5	11	5	—	—	—	—	—	—
	\$120,240	\$127,131	\$112,632	\$130,084	—	—	—	—	—	—
70 and over	2	1	1	—	—	—	—	—	—	—
	\$135,722	\$119,998	\$151,446	—	—	—	—	—	—	—
Total	1,196	585	463	148	—	—	—	—	—	—
	\$125,876	\$118,373	\$131,788	\$137,039	—	—	—	—	—	—

Section 3: Supplemental Information

Exhibit C: Reconciliation of member data

Line Description	Active Members	Inactive Members ¹	Retired Members	Disabled Members	Beneficiaries	Total
Number as of June 30, 2023	1,955	381	1,704	51	362	4,453
New members	151	0	0	0	25	176
Terminations with vested rights	-44	44	0	0	0	0
Contribution refunds	-14	-15	0	0	0	-29
Retirements	-71	-10	81	0	0	0
New disabilities	0	-1	0	1	0	0
Return to work	2	-2	0	0	0	0
Died with or without beneficiary	-4	-1	-32	-1	-15	-53
Data adjustments	-1	11 ²	0	0	0	10
Number as of June 30, 2024	1,974	407	1,753	51	372	4,557

¹ Includes inactive members due a refund of member contributions.

² These 11 members were hired and terminated during fiscal year 2023/2024.

Section 3: Supplemental Information

Exhibit D: Summary of income and expenses on a market value basis for all Pension Plan and HIB Plan assets

Line Description	Year Ended June 30, 2024	Year Ended June 30, 2023
Contribution income		
• Employer contributions	\$117,342,000	\$106,523,000
• Member contributions	23,877,000	22,088,000
– Net contribution income	\$141,219,000	\$128,611,000
Investment income		
• Interest, dividends and other income	\$44,490,000	\$38,553,000
• Asset appreciation	247,042,000	187,897,000
• Less investment and administrative fees	(11,987,000)	(8,891,000)
– Net investment income	\$279,545,000	\$217,559,000
Total income available for benefits	\$420,764,000	\$346,170,000
Less benefit payments		
• Benefits paid	\$(157,771,000)	\$(149,102,000)
• Refund of contributions	(1,269,000)	(684,000)
– Net benefit payments	\$(159,040,000)	\$(149,786,000)
Change in market value of assets	\$261,724,000	\$196,384,000
Net assets at market value at the beginning of the year	\$2,255,307,000	\$2,058,923,000
Net assets at market value at the end of the year	\$2,517,031,000	\$2,255,307,000

Note: Results may be slightly off due to rounding.

Section 3: Supplemental Information

Exhibit E: Summary statement of plan assets

Line Description	Year Ended June 30, 2024	Year Ended June 30, 2023
Cash equivalents	\$28,791,000	\$27,677,000
Accounts receivable		
• Brokers, securities sold	\$2,068,000	\$2,854,000
• Employer and member contributions	5,584,000	4,493,000
• Interest, dividends and recoverable taxes	5,115,000	4,833,000
– Total accounts receivable	\$12,767,000	\$12,180,000
Investments		
• Equities	\$1,824,973,000	\$1,581,310,000
• Fixed income investments	533,117,000	515,694,000
• Real estate	118,857,000	122,000,000
• Securities lending collateral	106,561,000	77,906,000
• Capital assets	4,240,000	1,692,000
• Prepaid expenses	598,000	575,000
– Total investments at market value	\$2,588,346,000	\$2,299,177,000
Total assets	\$2,629,904,000	\$2,339,034,000
Accounts payable		
• Accounts payable and accrued expenses	\$(2,772,000)	\$(3,224,000)
• Payables to brokers, securities purchased	(3,540,000)	(2,597,000)
• Securities lending collateral	(106,561,000)	(77,906,000)
– Total accounts payable	\$(112,873,000)	\$(83,727,000)
Net assets at market value	\$2,517,031,000	\$2,255,307,000
Net assets at actuarial value	\$2,461,214,590	\$2,314,460,062
Net assets at valuation value (Pension Plan only)	\$2,391,378,364	\$2,251,690,803

Note: Results may be slightly off due to rounding.

Section 3: Supplemental Information

Exhibit F: Development of the Plan through June 30, 2024 for all Pension Plan and HIB Plan assets

Year Ended June 30	Employer Contributions	Member Contributions	Net Investment Return ¹	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2015	\$73,141,000	\$13,427,000	\$58,937,000	\$85,184,000	\$1,407,209,000	\$1,350,292,296	96.0%
2016	74,672,000	14,925,000	12,894,000	91,571,000	1,418,129,000	1,452,786,717	102.4%
2017	76,860,000	16,018,000	200,254,000	98,617,000	1,612,644,000	1,580,665,009	98.0%
2018	81,096,000	17,079,000	148,798,000	106,377,000	1,753,240,000	1,714,363,843	97.8%
2019	84,551,000	17,865,000	91,744,000	114,435,000	1,832,965,000	1,817,562,986	99.2%
2020	88,734,000	18,885,000	39,376,000	122,351,000	1,857,609,000	1,914,278,036	103.1%
2021	90,624,000	19,336,000	491,625,000	130,472,000	2,328,722,000	2,097,712,454	90.1%
2022	102,285,000	21,127,000	(253,930,000)	139,281,000	2,058,923,000	2,216,123,725	107.6%
2023	106,523,000	22,088,000	217,559,000	149,786,000	2,255,307,000	2,314,460,062	102.6%
2024	117,342,000	23,877,000	279,545,000	159,040,000	2,517,031,000	2,461,214,590	97.8%

¹ On a market value basis, net of investment and administrative expenses.

Section 3: Supplemental Information

Exhibit G: Table of amortization bases

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment ¹
Experience Gain	2000	\$(10,871,830)	30	\$(7,758,087)	6	\$(1,411,304)
Change in Assumptions	2000	8,629,891	30	6,158,253	6	1,120,272
Plan Amendments	2000	13,607,265	30	9,710,082	6	1,766,398
3.5% Retiree COLA Assumption	2000	27,057,441	30	19,308,070	6	3,512,405
Experience Loss	2001	2,292,281	30	1,800,708	7	285,645
Experience Loss	2002	26,232,251	30	22,224,749	8	3,137,959
Plan Amendments	2002	5,111,914	30	4,330,964	8	611,498
Experience Loss	2003	43,692,270	30	39,305,164	9	5,017,415
Plan Amendments	2003	67,138,578	30	60,397,241	9	7,709,879
Experience Loss	2004	32,731,232	30	30,882,544	10	3,608,382
New Assumption / Domestic Partners	2004	(9,812,646)	30	(9,258,421)	10	(1,081,774)
Experience Loss	2005	26,910,233	30	26,367,324	11	2,848,088
Remove Limit Pension Base	2005	27,315,928	30	26,643,190	11	2,877,885
Experience Loss	2006	14,160,133	30	14,291,138	12	1,438,799
Experience Gain	2007	(3,098,126)	30	(3,198,741)	13	(302,231)
Experience Gain	2008	(7,800,585)	30	(8,191,579)	14	(730,610)
Change in Assumptions	2008	51,413,374	30	53,990,404	14	4,815,426
Experience Loss	2009	114,894,458	30	122,105,337	15	10,332,058
Experience Loss	2010	3,039,098	30	3,254,596	16	262,405
Change in Assumptions	2010	8,098,499	30	8,672,752	16	699,249
Experience Loss	2011	4,428,038	30	4,763,753	17	367,368
Experience Gain	2012	(15,668,764)	20	(11,397,941)	8	(1,609,299)

¹ Calculated as a level percentage of payroll, payable at the beginning of the year.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment ¹
Change in Assumptions	2012	\$53,400,521	25	\$50,171,332	13	\$4,740,406
Experience Loss	2013	10,858,322	20	8,413,720	9	1,074,035
Experience Gain	2014	(26,406,581)	20	(21,529,181)	10	(2,515,515)
Change in Assumptions	2014	18,421,049	25	17,926,571	15	1,516,874
Experience Gain	2015	(28,955,525)	20	(24,652,243)	11	(2,662,832)
Experience Gain	2016	(1,408,751)	20	(1,242,271)	12	(125,069)
Change in Assumptions	2016	52,595,760	25	52,346,541	17	4,036,827
Experience Gain	2017	(50,022,788)	20	(45,416,385)	13	(4,291,138)
Experience Loss	2018	14,053,082	20	13,060,113	14	1,164,837
Change in Assumptions	2018	12,484,391	25	12,557,625	19	894,604
Experience Loss	2019	26,728,885	20	25,359,871	15	2,145,849
Experience Loss	2020	5,281,313	20	5,093,424	16	410,662
Change in Assumptions	2020	104,813,640	25	105,919,511	21	7,045,774
Experience Gain	2021	(97,336,901)	20	(95,058,879)	17	(7,330,690)
Experience Loss	2022	56,034,517	20	55,227,826	18	4,087,400
Change in Assumptions	2022	72,119,593	20	71,081,335	18	5,260,715
Experience Loss	2023	80,817,915	20	80,341,240	19	5,723,504
Experience Loss	2024	3,041,236	20	3,041,236	20	209,106
Change in Assumptions	2024	25,307,090	20	25,307,090	20	1,740,040
Total				\$752,349,976		\$68,401,302

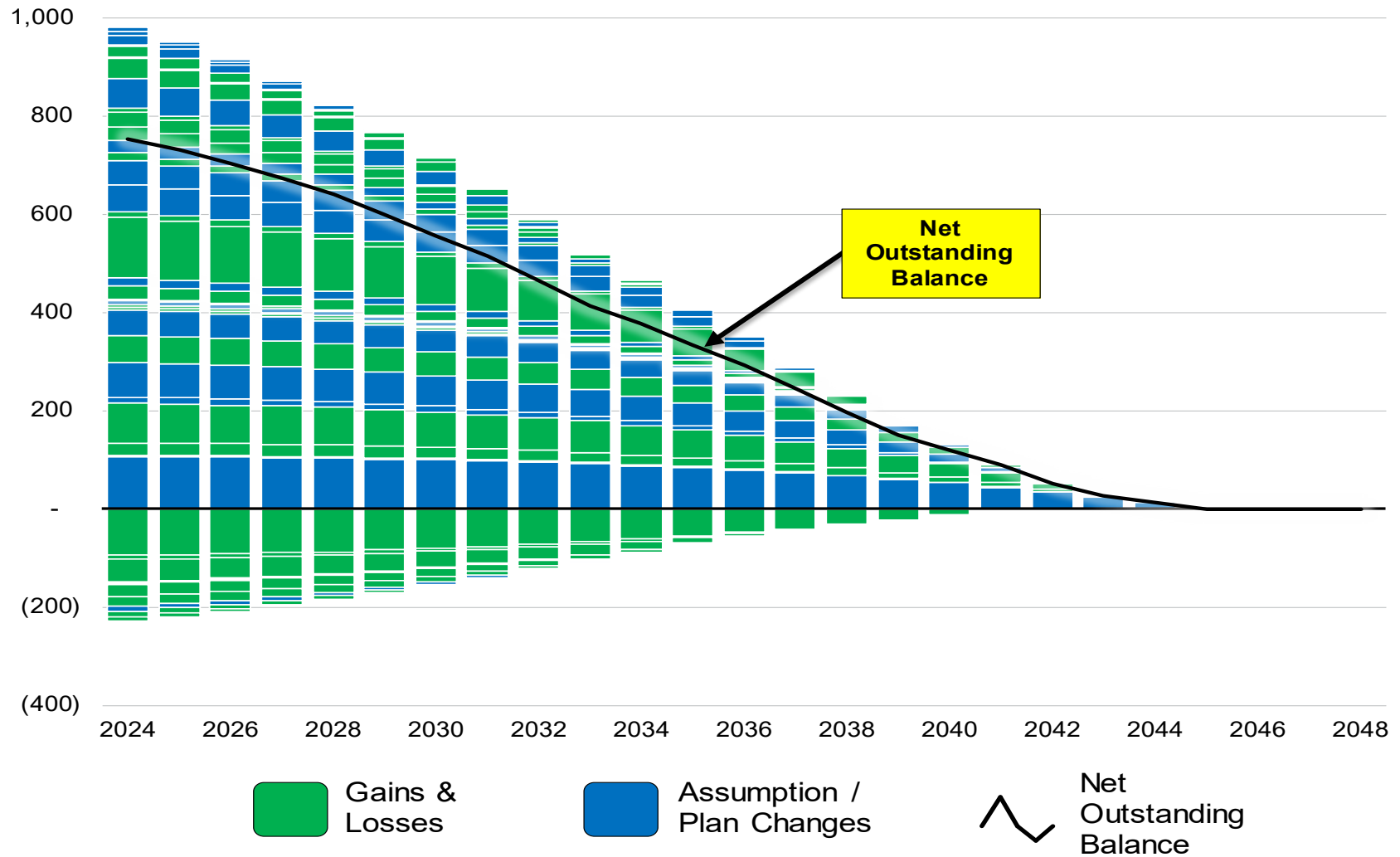
Note: The equivalent single amortization period is about 14 years.

¹ Calculated as a level percentage of payroll, payable at the beginning of the year.

Section 3: Supplemental Information

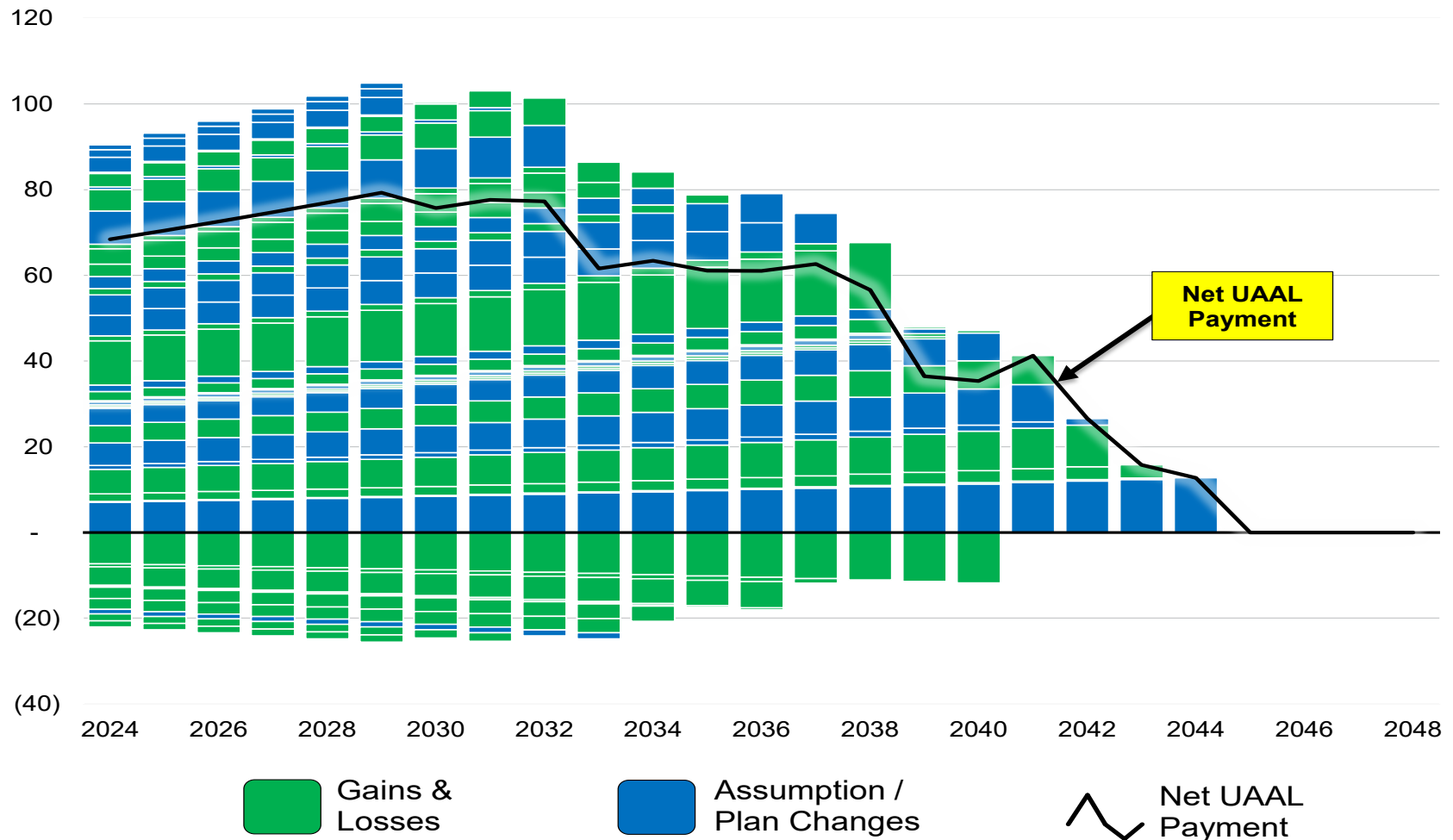
Exhibit H: Projection of UAAL balances and payments

Outstanding Balance of \$752.3 Million in Net UAAL as of June 30, 2024
(\$ in Millions)



Section 3: Supplemental Information

Annual Payments Required to Amortize \$752.3 Million in Net UAAL as of June 30, 2024
(\$ in Millions)



Note: Starting in 2030, the contribution rate for the UAAL would be expected to be somewhat non-level due to the pattern of recognition of the various layers of UAAL payments. We intend to bring back to EBMUDERS in the future a proposal that might be considered by the Board to levelized such UAAL payments.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2020 through June 30, 2024 Actuarial Experience Study report dated November 13, 2024. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both tiers. These assumptions were adopted by the Board.

Net investment return

6.75%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.15% of the beginning of year actuarial value of assets.

Employee contribution crediting rate

6.75%, compounded semi-annually.

Inflation

Increase of 2.50% per year.

Cost-of-Living Adjustment (COLA)

Retiree COLA increases of 2.75% per year. For members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3.00% per year.

Payroll growth

Inflation of 2.50% per year plus real “across-the-board” salary increase of 0.50% per year. The payroll growth assumption is used to amortize the unfunded actuarial accrued liability as a level percentage of payroll.

Section 4: Actuarial Valuation Basis

Increase in Internal Revenue Code Section 401(a)(17) compensation limit

Increase of 2.50% per year from the valuation date.

Increase in California Government Code Section 7522.10 compensation limit

Increase of 2.50% per year from the valuation date.

Salary increases

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across-the-board” salary increase of 0.50% per year, plus
- Merit and promotion increase based on time from hire:

Merit and Promotion Increases (%)

Time from Hire (Years)	1955/1980 Plan	2013 Tier
Less than 1	6.25	6.50
1–2	6.00	6.25
2–3	5.00	5.25
3–4	3.75	4.25
4–5	2.50	2.75
5–6	1.50	1.75
6–7	1.25	1.25
7–8	1.25	1.25
8–9	1.25	1.25
9–10	1.25	1.25
10–11	1.00	1.00
11–12	1.00	1.00
12–13	0.75	0.75
13–14	0.75	0.75
14–15	0.75	0.75
15 and over	0.75	0.75

Section 4: Actuarial Valuation Basis

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Disabled

Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Beneficiary

Not in pay status at the valuation

Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

In pay status at the valuation

Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Section 4: Actuarial Valuation Basis

Pre-retirement mortality rates

Pub-2010 General Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-Retirement Mortality Rates (%) — Before Generational Projection from 2010

Age	Male	Female
20	0.04	0.01
25	0.02	0.01
30	0.03	0.01
35	0.04	0.02
40	0.06	0.03
45	0.09	0.05
50	0.13	0.08
55	0.19	0.11
60	0.28	0.17
65	0.41	0.27

Section 4: Actuarial Valuation Basis

Disability

Disability Incidence Rates (%)

Age	Rate
25	0.000
30	0.006
35	0.016
40	0.080
45	0.126
50	0.136
55	0.146
60	0.156
65	0.166
70	0.170

Disabilities rates are applicable after eight years of service.

Section 4: Actuarial Valuation Basis

Termination

Termination Rates (%)

Years of Service	1955/1980 Plan	2013 Tier
Less than 1	11.30	8.00
1–2	6.00	4.00
2–3	6.00	3.75
3–4	3.00	3.25
4–5	3.00	3.00
5–6	2.50	2.70
6–7	2.50	2.60
7–8	2.50	2.50
8–9	2.50	2.30
9–10	1.80	2.20
10–11	1.80	2.10
11–12	1.80	2.00
12–13	1.80	1.90
13–14	1.80	1.80
14–15	1.60	1.70
15–16	1.60	1.60
16–17	1.60	1.60
17–18	1.60	1.60
18–19	1.60	1.60
19–20	1.60	1.60
20 and over	1.60	1.60

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is assumed).

Section 4: Actuarial Valuation Basis

Retirement rates

Retirement Rates (%)

Age	1955/1980 Plan: Unreduced Pension ¹	1955/1980 Plan: Reduced Pension	2013 Tier
52	0.00	0.00	2.00
53	0.00	0.00	2.00
54	50.00	7.00	2.00
55	16.00	7.00	3.00
56	16.00	7.00	3.00
57	16.00	8.00	4.00
58	16.00	8.00	4.00
59	16.00	8.00	6.00
60	16.00	10.00	6.00
61	16.00	10.00	6.00
62	20.00	N/A ²	10.00
63	20.00	N/A	10.00
64	20.00	N/A	10.00
65	20.00	N/A	20.00
66	24.00	N/A	20.00
67	24.00	N/A	20.00
68	24.00	N/A	20.00
69	24.00	N/A	20.00
70	40.00	N/A	35.00
71	40.00	N/A	35.00
72	40.00	N/A	35.00
73	40.00	N/A	35.00
74	40.00	N/A	35.00
75 and over	100.00	N/A	100.00

¹ For example, a 1955/1980 Plan member age 54 with 30 or more years of service would receive the full 2.60% per year of service accrual.

² For ages 62 and over, all 1955/1980 Plan members who are eligible for retirement receive the full 2.60% per year of service accrual.

Section 4: Actuarial Valuation Basis

Retirement age for inactive members

For current and future inactive vested members, the retirement age assumption is 59.

1955/1980 Plan non-reciprocal members who are currently terminated with less than five years of service and are not vested are assumed to retire at age 65 if they decide to leave their contributions on deposit.

Reciprocity

15% of members who terminate with a vested benefit are assumed to enter a reciprocal system. For reciprocals, 3.75% compensation increases are assumed per annum.

Future benefit accruals

1.0 year of service per year of employment, plus 0.040 years of additional service to anticipate conversion of unused sick leave for each year of employment. As directed by EBMUDERS, this assumption has been applied to active members in the 1955/1980 Plan and the 2013 Tier.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Percent married/domestic partnership

For all active and inactive members, 85% of male members and 65% of female members are assumed to be married or with domestic partner at pre-retirement death or retirement.

Age and gender of spouse/domestic partner

For all active and inactive members, male members are assumed to have a female spouse who is 2 years younger than the member and female members are assumed to have a male spouse who is 3 years older than the member.

Since birth dates for non-spouse/non-domestic partner contingent beneficiaries are not provided by EBMUDERS, the age differences noted above also apply to assumed contingent beneficiaries of retired members who chose an optional form of payment at retirement.

Section 4: Actuarial Valuation Basis

Form of payment

At retirement, members with spouses or domestic partners are assumed to elect the following form of payment (single members are assumed to elect the Unmodified option):

Election Percentage	
Form of Payment	Election Percentage
Unmodified or Option 1	55%
Option 2 (100% Continuance)	10%
Option 3 (50% Continuance)	20%
Option 4 (25% Continuance)	15%

Actuarial cost method

Entry age cost method. Entry age is the age at the member's hire date. Normal cost and actuarial accrued liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., "replacement life within a tier").

Actuarial value of assets

Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market returns and the expected returns on the market value, and are recognized over a five-year period. The actuarial value of assets (AVA) is limited by a 30% corridor; the AVA cannot be less than 70% of MVA, nor greater than 130% of MVA.

Valuation value of assets

The proportion of the actuarial value of assets allocated to the Pension Plan, based on the proportion of the MVA attributable to the Pension Plan.

Section 4: Actuarial Valuation Basis

Amortization policy

Prior to July 1, 2011, the UAAL from plan changes, assumption changes, and experience gains/losses were amortized over separate decreasing 30-year periods.

On or after July 1, 2011, any new UAAL resulting from plan changes are amortized over separate decreasing 15-year periods; assumption and method changes are amortized over separate decreasing 25-year periods (prior to July 1, 2021); and experience gains/losses are amortized over separate decreasing 20-year periods.

On or after July 1, 2021, assumption and method changes are amortized over separate decreasing 20-year periods.

Employer contributions

The recommended employer contributions are provided in *Section 2, Subsection F* and consist of two components:

Normal Cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution rate is expressed as a level percentage of the member's compensation.

Contribution to the Unfunded Actuarial Accrued Liability (UAAL)

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.00% (i.e., 2.50% inflation plus 0.50% across-the-board salary increase).

The amortization policy is described above.

Section 4: Actuarial Valuation Basis

Member contributions

The member contribution rates are provided in *Section 2, Subsection F*. Accumulation for all members includes crediting of interest at the assumed investment earnings rate.

1955/1980 Plan Members

Employee contribution rates for 1955/1980 Plan members are prescribed in the Ordinance. Effective April 17, 2006, the rate of member retirement contributions is 6.83%, and 6.74% of that rate is allocated to pay pension benefits. The rest, or 0.09%, is used to pay HIB benefits. The Board of Directors may adjust the employee rates solely pursuant to the terms of a negotiated collective bargaining agreement or memorandum of understanding with employee bargaining units.

Based on bargaining unit contract negotiations in 2013, members are contracted to pay the following employee rates (as a percentage of pay) beginning April 22, 2013:

Member Rate			
Effective Date	(a) Total	(b) HIB Plan	(c) = (a) – (b) Pension Plan
April 17, 2006 ¹	6.83% ¹	0.09%	6.74%
April 22, 2013	7.33%	0.09%	7.24%
April 21, 2014	7.83%	0.09%	7.74%
April 20, 2015	8.33%	0.09%	8.24%
April 18, 2016	8.75%	0.09%	8.66%

2013 Tier Members

Pursuant to Section 7522.30(a) of the California Government Code, 2013 Tier members are required to contribute at least 50% of the Normal Cost rate. In addition, Section 7522.30(c) requires that the initial employee contribution rate be rounded to the nearest quarter of 1 percent, unless a greater contribution rate has been agreed to pursuant to Section 7522.30(e). In preparing the initial Normal Cost rates, we assumed that exactly 50% of the Normal Cost would be paid by the new members and we took into account only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e). In particular, the total Normal Cost rate of 17.56% was determined in the first CalPEPRA valuation, and this total rate has been used through the June 30, 2019 valuation to determine the 50% of the Normal Cost (rounded to one quarter of 1 percent) paid by the employees, or 8.75%.

¹ Pursuant to the Ordinance.

Section 4: Actuarial Valuation Basis

Pursuant to Section 7522.30(d), each year we have compared the total Normal Cost rates between the current valuation and the initial CalPEPRA valuation since a rate increase (or decrease) of less than 1% of payroll would result in no change to the members' rate. Effective with the June 30, 2020 valuation, the total Normal Cost rate was determined to be 18.81%, which is a change of more than 1% of payroll compared to the rate of 17.56% that was determined in the first CalPEPRA valuation. This was the first time since the first CalPEPRA valuation that the change in the total Normal Cost rate has exceeded the 1% of payroll threshold. Consequently, the member contribution rate for 2013 Tier members was increased to 9.41%, which is 50% of the total Normal Cost rate.

For the June 30, 2024 valuation, the 2013 Tier member contribution rate has increased to 10.08% for the Pension Plan, because the total Normal Cost rate for this tier of 20.16% has exceeded 1% of payroll of the new 18.81% threshold noted above.

As stated in our Actuarial Experience Study Report dated November 12, 2020, once the 1% threshold has been exceeded an adjustment to the members' rate is required as was the case in the June 30, 2020 valuation. Upon consulting with the Retirement System, the final member contribution rate determined in that valuation was calculated without the quarter of 1 percent rounding based on the Retirement System's direction that the rounding does not apply after the initial calculation. However, the rate paid by the employee was rounded to the nearest one/one hundredth of one percent (two decimals) consistent with the rounding methods used throughout the June 30, 2020 valuation report to ensure that the employees would pay at least 50% of the Normal Cost. This practice has been followed for the adjustment in this valuation.

Internal Revenue Code Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active members could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$275,000 for 2024. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits for members in the non-CalPEPRA plan in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Section 4: Actuarial Valuation Basis

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions, methods or models

Based on the July 1, 2020 through June 30, 2024 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Salary increases

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- “Across-the-board” salary increase of 0.50% per year, plus
- Merit and promotion increase based on time from hire:

Section 4: Actuarial Valuation Basis

Merit and Promotion Increases (%)

Time from Hire (Years)	Rate (%)
Less than 1	6.25
1–2	6.00
2–3	5.00
3–4	3.75
4–5	2.50
5–6	1.50
6–7	1.25
7–8	1.25
8–9	1.00
9–10	1.00
10 and over	0.75

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2020.

Disabled

Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2020.

Section 4: Actuarial Valuation Basis

Beneficiary

Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2020.

Pre-retirement mortality rates

Pub-2010 General Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2020.

Pre-Retirement Mortality Rates (%) — Before Generational Projection from 2010

Age	Male	Female
20	0.04	0.01
25	0.02	0.01
30	0.03	0.01
35	0.04	0.02
40	0.06	0.03
45	0.09	0.05
50	0.13	0.08
55	0.19	0.11
60	0.28	0.17
65	0.41	0.27

Section 4: Actuarial Valuation Basis

Disability

Disability Incidence Rates (%)

Age	Rate (%)
25	0.000
30	0.006
35	0.022
40	0.084
45	0.150
50	0.170
55	0.182
60	0.220
65	0.288

Disabilities rates are applicable after eight years of service.

Section 4: Actuarial Valuation Basis

Termination

Less Than Five Years of Service

Years of Service	Rate (%)
Less than 1	6.75
1–2	4.25
2–3	4.00
3–4	3.50
4–5	2.50

Five or More Years of Service

Age	Rate (%)
25	2.34
30	2.24
35	2.14
40	2.04
45	1.85
50	1.60
55	1.35
60	1.10

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is assumed).

Section 4: Actuarial Valuation Basis

Retirement rates

Retirement Rates (%)

Age	1955/1980 Plan: Unreduced Pension ¹	1955/1980 Plan: Reduced Pension	2013 Tier
52	0.00	0.00	1.75
53	0.00	0.00	1.75
54	55.00	7.00	2.75
55	16.00	7.00	4.75
56	16.00	7.00	5.75
57	16.00	7.00	5.75
58	16.00	7.00	5.75
59	16.00	7.00	7.75
60	16.00	7.00	7.75
61	16.00	12.00	10.25
62	16.00	N/A ²	18.00
63	16.00	N/A	15.00
64	16.00	N/A	9.00
65	16.00	N/A	23.75
66	27.00	N/A	23.75
67	27.00	N/A	32.50
68	27.00	N/A	35.00
69	27.00	N/A	38.75
70 and over	100.00	N/A	100.00

¹ For example, a 1955/1980 Plan member age 54 with 30 or more years of service would receive the full 2.60% per year of service accrual.

² For ages 62 and over, all 1955/1980 Plan members who are eligible for retirement receive the full 2.60% per year of service accrual.

Section 4: Actuarial Valuation Basis

Future benefit accruals

1.0 year of service per year of employment, plus 0.038 years of additional service to anticipate conversion of unused sick leave for each year of employment. As directed by EBMUDERS, this assumption has been applied to active members in the 1955/1980 Plan and the 2013 Tier.

Percent married/domestic partnership

For all active and inactive members, 85% of male members and 60% of female members are assumed to be married or with domestic partner at pre-retirement death or retirement.

Form of payment

At retirement, members with spouses or domestic partners are assumed to elect the following form of payment (single members are assumed to elect the Unmodified option):

Election Percentage

Form of Payment	Election Percentage
Unmodified or Option 1	50%
Option 2 (100% Continuance)	10%
Option 3 (50% Continuance)	20%
Option 4 (25% Continuance)	20%

Section 4: Actuarial Valuation Basis

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so they can both be sure the proper provisions are valued.

Plan year

July 1 through June 30

Census date

June 30

Membership eligibility

Membership Tier	Plan Provision
1955/1980 Plan	All employees who first become members before January 1, 2013.
2013 Tier	All employees who first become members on or after January 1, 2013.

Final compensation and service for benefit determination

Final Compensation and Service	Plan Provision
Final average compensation	
1955/1980 Plan	Highest two consecutive years of compensation earnable (FAS2).
2013 Tier	Highest thirty-six consecutive months of pensionable compensation (FAS3).
Compensation limit	
1955/1980 Plan	IRC Section 401(a)(17) compensation limit applies to all employees who began membership in EBMUDERS on or after January 1, 1996.
2013 Tier	\$151,446 for 2024

Section 4: Actuarial Valuation Basis

Final Compensation and Service	Plan Provision
Service	
All members	Years of service (Yrs) are generally based on a member's employment during a period of time in which retirement contributions are deducted from their compensation.

Normal retirement benefits

Eligibility for unreduced benefits

Tier	Age and Service Requirement
1955/1980 Plan	Age 65; Age 62 with 5 years of service; Age 59 with 20 years of service; Age 54 with 30 years of service; Other combinations of age and service between ages 54 and 59.
2013 Tier	Age 67 with 5 years of service

Section 4: Actuarial Valuation Basis

Unreduced benefit formula

Tier	Benefit formula
1955/1980 Plan	
1955 Formula	2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service including all service extension credit.
1955/80 Formula	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service up to August 1, 1980 including all service extension credit, plus • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service after August 1, 1980. Applies to members who elected to convert to the 1980 Formula in 1980.
1955/90 Formula	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service up to January 1, 2000 including all service extension credit, plus • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service after January 1, 2000. Applies to members who elected to convert to the 1980 Formula in 1989.
1980 Formula	• 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service including all service extension credit. Applies to all members hired on or after January 1, 1980.
Service Extension Credit	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) for members with any service under the 1955 Formula times Final Compensation per year of Service Extension Credit., or • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) for members with service only under the 1980 Formula times Final Compensation per year of Service Extension Credit. Service extension credit is the number of unused sick leave days credited to a member at the time of retirement converted on a 260-day basis. The number of such days is then doubled for the benefit calculation and for service retirements to meet the early retirement provision of the Ordinance.
2013 Tier	$2.50\% \times \text{FAS3} \times \text{Yrs}$

Section 4: Actuarial Valuation Basis

Eligibility for early/reduced benefits

Tier	Age and Service Requirement
1955/1980 Plan	Age 54 with 5 years of service.
2013 Tier	Age 52 with 5 years of service.

Reductions to benefit formula for early retirement

Tier and Retirement Age	Reduction to benefit formula
1955/1980 Plan	Reduced by 3% per year under the age of eligibility for an unreduced benefit, based on service at retirement, for retirements before age 63 (before age 62 commencing November 1, 2000). Effective July 1, 1999, Service Extension Credit is included in the years of service calculation of service for determining eligibility for unreduced retirement.
2013 Tier	
Age 52	$1.00\% \times \text{FAS3} \times \text{Yrs}$
Age 55	$1.30\% \times \text{FAS3} \times \text{Yrs}$
Age 60	$1.80\% \times \text{FAS3} \times \text{Yrs}$
Age 62	$2.00\% \times \text{FAS3} \times \text{Yrs}$
Age 65	$2.30\% \times \text{FAS3} \times \text{Yrs}$

Disability benefits

Provision by Tier	Disability Benefit Plan Provision
Eligibility	
All members	Eight years of service (not available for Directors).
Benefit amount	
All members	Greater of: • 1.5% times Final Compensation per year of service. • One-third of Final Compensation.

Section 4: Actuarial Valuation Basis

Vesting

Five years of service; must leave contributions on deposit, reciprocal service counts for vesting purposes.

Pre-retirement death benefits

Provision by Vesting		Pre-Retirement Death Benefit Plan Provision
Eligibility		
All members		None.
Vested members		Eligible for retirement.
Benefit amount		
All members		Lump sum payment of accumulated retirement contributions.
Vested members		50% of the unmodified service retirement benefit to eligible surviving spouse/surviving domestic partner plus the lump sum payment of accumulated retirement contributions.

Post-retirement death benefit

50% of the unmodified service retirement benefit to surviving spouse or registered domestic partner (tied to the implementation of the AB 205 legislation).

Post-retirement cost-of-living benefits

Payable July 1 of each year, the basic minimum COLA benefit is the lesser of 3% and the actual change in the cost-of-living index.

Excess of the actual change of cost-of-living index over 3% is accumulated in individual retiree COLA banks.

Withdrawals from the bank are made in years when the index increases less than 3%.

Increases of up to 5% are granted in years when the Retirement Board determines that the System is more than 85% funded on a Projected Benefit Obligation basis. In those years when the System is more than 85% funded and the cost-of-living index exceeds 5%, any excess cost-of-living over 5% is accumulated in the COLA bank.

Effective October 1, 2000, in those years when the system is more than 85% funded on a Projected Benefit Obligation basis and the cost-of-living is less than 4%, withdrawals from the bank are made to allow cost-of-living increases up to 4%.

Section 4: Actuarial Valuation Basis

Member contributions

Provision by Tier	Plan Provision
1955/1980 Plan	Effective April 17, 2006, retirement system members contribute at a rate of 6.83% of pay, as prescribed in the Ordinance. Effective April 22, 2013, members are contracted to pay the employee rates (as a percentage of pay) as shown in the table below, based on bargaining unit contract negotiations in 2013
2013 Tier	Initial member contribution rate is set at 50% of the total 2013 Tier Normal Cost rate, rounded to the nearest quarter of 1%. Once established, the member contribution rate will be adjusted annually to reflect the change in the 2013 Tier Normal Cost rate, but only if the change is more than 1% of payroll. Effective with the June 30, 2024 valuation, the member contribution rate for the Pension Plan is 10.08% of pay.

1955/1980 Plan schedule of member contribution rates

Effective Date	(a) Total	(b) HIB Plan	(c) = (a) – (b) Pension Plan
April 17, 2006 ¹	6.83% ¹	0.09%	6.74%
April 22, 2013	7.33%	0.09%	7.24%
April 21, 2014	7.83%	0.09%	7.74%
April 20, 2015	8.33%	0.09%	8.24%
April 18, 2016	8.75%	0.09%	8.66%

Changes in plan provisions

There have been no changes in plan provisions since the prior valuation.

¹ Pursuant to the Ordinance.

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial present value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the actuarial present value of future benefits to various time periods; a method used to determine the normal cost and the actuarial accrued liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates. To the extent that actual experience differs from that assumed, actuarial accrued liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal actuarial present value, determined as of a given date and based on a given set of actuarial assumptions.
Actuarial present value	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The actuarial present value of benefit amounts expected to be paid at various future times under a particular set of actuarial assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The actuarial present value of future benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the normal cost, actuarial accrued liability, actuarial value of assets, and related actuarial present values for a plan. An actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial value of assets	The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
Actuarially determined contribution	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The actuarially determined contribution consists of the employer normal cost and the amortization payment.
Amortization method	A method for determining the amortization payment. The most common methods used are level dollar and level percentage of payroll. Under the level dollar method, the amortization payment is one of a stream of payments, all equal, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the amortization payment is one of a stream of increasing payments, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or actuarially determined contribution, that is intended to pay off the unfunded actuarial accrued liability.

Appendix A: Definition of Pension Terms

Term	Definition
Assumptions or actuarial assumptions	The estimates upon which the cost of the Fund is calculated, including: Investment return — the rate of investment yield that the Fund will earn over the long-term future; Mortality rates — the rate or probability of death at a given age for employees and retirees; life expectancy is based on these rates; Retirement rates — the rate or probability of retirement at a given age or service; Disability rates — the rate or probability of disability retirement at a given age; Withdrawal rates — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See “open amortization period.”
Decrements	Those causes/events due to which a member’s status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member’s compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan’s earnings are allocated to each account, and each member’s benefits are a direct function of the account balance.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the valuation value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the valuation value of assets.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Appendix A: Definition of Pension Terms

Term	Definition
Investment return	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Negative amortization	Negative amortization is a result of an increase in the unfunded actuarial accrued liability when the amortization payment is less than the interest accrued on the unfunded actuarial accrued liability.
Net pension liability	The net pension liability is equal to the total pension liability minus the plan fiduciary net position.
Normal cost	The portion of the actuarial present value of future benefits and expenses, if applicable, allocated to a valuation year by the actuarial cost method. Any payment with respect to an unfunded actuarial accrued liability is not part of the normal cost (see “amortization payment”). For pension plan benefits that are provided in part by employee contributions, normal cost refers to the total of member contributions and employer normal cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the amortization period.
Plan fiduciary net position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total pension liability	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the valuation value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	The actuarial value of assets reduced by the value of non-valuation reserves.

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East Bay Municipal Utility District Employees' Retirement System

Health Insurance Benefit Valuation

Review of Contribution Rates and Funding Status
as of June 30, 2024



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January 14, 2025

Ms. Sophia Skoda
Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, California 94607-4240

Dear Sophia:

We are pleased to submit our Health Insurance Benefit (HIB) Valuation as of June 30, 2024 for the prefunded \$450 (\$550 for a retiree with a spouse or EBMUD domestic partner) monthly health insurance subsidy. The Governmental Accounting Standards Board (GASB) requires employers, such as EBMUD, that pool health insurance premium rates for actives and retirees under age 65 to also calculate the liability associated with such pooled premiums for retirees under age 65 on an accrual basis. While that liability referred to as the implicit subsidy has to be disclosed, it is not required to be prefunded. The contribution rate developed in this report only includes the prefunding requirement for the \$450/\$550 benefit. The obligation required for financial disclosure purposes under GASB Statements No. 74 (plan reporting) and 75 (employer reporting) will be provided in separate reports.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the East Bay Municipal Utility District (EBMUD), based upon information provided by EBMUD.

This valuation is based on financial statements and census data furnished by East Bay Municipal Utility District Employees' Retirement System (EBMUDERS). Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

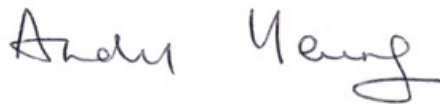
The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA and Mehdi Riazi, FSA, MAAA, FCA, EA. The health care trend and other related medical assumptions have been reviewed by Mary Kirby, FSA, MAAA, FCA. We, the undersigned, are members of the American Academy of Actuaries and we meet the qualification requirements to render the actuarial opinion contained herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this valuation were those adopted by the Retirement Board based on the results of the recent Actuarial Experience Study (Segal report dated November 13, 2024). We have also applied the medical trend assumptions as recommended in our letter dated November 14, 2024. In our opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal



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



Mehdi Riazi, FSA, MAAA, FCA, EA
Vice President and Actuary



Mary Kirby, FSA, MAAA, FCA
Senior Vice President and Chief Health Actuary

TTT/jl

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Section 1: Actuarial Valuation Summary

Contribution recommendations and funding status

1. The funded ratio measured on a valuation value of assets basis increased from 47.7% as of June 30, 2023 to 51.8% as of June 30, 2024. The funded ratio increased from 46.5% to 53.0% if measured on a market value of assets basis. The Unfunded Actuarial Accrued Liability (UAAL) decreased from \$68.86 million as of June 30, 2023 to \$64.92 million as of June 30, 2024, on a valuation value of asset basis. This valuation reflects the various assumptions that were adopted by the Retirement Board based on the results of the recent Actuarial Experience Study (Segal report dated November 13, 2024) for experience during the period July 1, 2020 through June 30, 2024. We have also applied the medical trend assumptions as recommended in our letter dated November 14, 2024. The new actuarial assumptions produced a relatively small increase in liabilities of \$1.4 million and an increase in the employer's contribution rate of 0.04% of payroll. Overall, the results of the June 30, 2024 valuation were consistent with the June 30, 2023 valuation results. On a net basis, the increase to the funded ratio and the reduction to the UAAL were both in-line with the expected changes based on the plan's funding policy, as contributions continue to pay down the UAAL.
2. The recommended aggregate employer contribution rate is 4.31% based on the June 30, 2024 valuation. The new rate is 0.03% lower than the 4.34% aggregate rate developed in the June 30, 2023 valuation. The decrease in the contribution rate was mainly attributable to higher payroll growth than expected. Note, the 4.34% aggregate/blended rate has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation. We have maintained the allocation of 0.09% of the member contribution to the HIB plan used in last year's valuation.
3. As indicated in Section 2, Subsection B of this report, the total unrecognized investment gain as of June 30, 2024 is \$55.8 million for the assets for the pension and HIB plans (in the previous valuation, this item was a deferred loss of \$59.2 million). This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This implies that earning the assumed rate of investment return of 6.75% per year (net of expenses) on a market value basis will produce investment gains on the actuarial value of assets after June 30, 2024.
The deferred gains of \$55.8 million represent 2.2% of the market value of assets as of June 30, 2024. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$55.8 million market gains is expected to have an impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:
 - If the HIB plan portion of the deferred gains were recognized immediately and entirely in the valuation value of assets, the funded percentage would increase from 51.8% to 53.0%.
 - If the HIB plan portion of the deferred gains were recognized immediately and entirely in the valuation value of assets, the aggregate recommended employer rate would decrease from 4.31% to about 4.27% of payroll.

Section 1: Actuarial Valuation Summary

4. This report assumes the HIB subsidy limit will remain at the current levels of \$450/\$550. Future increases in the HIB subsidy limit will increase the cost of the plan as a percent of pay.
5. The following tables summarizes the contribution rate recommendations for the employer and the employee:

Employer	June 30, 2024 Total Rate ¹	June 30, 2024 Estimated Annual Amount ²	June 30, 2023 Total Rate ¹	June 30, 2023 Estimated Annual Amount ²
1955/1980 Plan	4.43%	\$5,440,000	4.43%	\$5,444,000
2013 Tier	4.22%	6,351,000	4.27%	6,428,000
Combined	4.31%	\$11,791,000	4.34%	\$11,872,000

Member	June 30, 2024 Total Rate ¹	June 30, 2024 Estimated Annual Amount ²	June 30, 2023 Total Rate ¹	June 30, 2023 Estimated Annual Amount ²
1955/1980 Plan	0.09%	\$111,000	0.09%	\$111,000
2013 Tier	0.09%	135,000	0.09%	135,000
Combined	0.09%	\$246,000	0.09%	\$246,000

6. The following table compares the valuation value of assets and liabilities for the Health Insurance Benefit as of June 30, 2024 and June 30, 2023:

	June 30, 2024	June 30, 2023
1. Valuation Value of Assets	\$69,836,226	\$62,769,259
2. Actuarial Accrued Liabilities:		
a. Current Recipients	100,354,837	97,330,438
b. Future Recipients	34,401,641	34,297,017
c. Total	\$134,756,478	\$131,627,455
3. Liabilities minus Valuation Value of Assets: (2) – (1)	\$64,920,252	\$68,858,196
4. Funding Ratio (1) ÷ (2)	51.82%	47.69%

¹ Payable at the end of each pay period.

² Based on June 30, 2024 projected annual payroll of:

1955/1980 Plan	\$122,880,363
2013 Tier	<u>150,547,943</u>
Combined	\$273,428,306

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of an OPEB plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the System to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	This valuation is based on the market value of assets as of the valuation date, as provided by the System. For funding purposes, the System uses an “Actuarial Value of Assets” that differs from the market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discount to a present value based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

Input Item	Description
Models	Segal results are based on proprietary actuarial modeling software. The valuation models generate a comprehensive set of liability and cost calculations that are presented to meet actuarial standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared for use by the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. The System should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Introduction

Pursuant to Section 36 of the Ordinance, the Retirement Board is authorized to administer a Health Insurance Benefit (HIB) through an IRC Section 401(h) account. The HIB may be used for the payment of sickness, accident, hospitalization, and medical expenses as permitted under the IRC and as authorized by the Retirement Board. In particular, the Retirement Board has authorized the use of the HIB towards the payment of medical insurance premiums.

This report does not provide information required for disclosure under GASB Statements 74 and 75. Such information will be provided in separate reports.

In this valuation, we have used a layered amortization approach to determine the contribution rate to fund the Unfunded Actuarial Accrued Liability (UAAL).

Plan changes, assumption changes and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, through June 30, 2021, plan changes are amortized over separate decreasing 15-year periods; assumption changes from the experience study are amortized over separate decreasing 25-year periods; and experience gains/losses (including year-to-year health assumption changes) are amortized over separate decreasing 20-year periods. On or after July 1, 2021, assumption changes from the experience study or interim review of the economic assumptions are amortized over 20 years. The above payments would continue to be expressed as a level percent of a growing payroll base.

The cost of the HIB is funded by both employer and employee contributions. The contribution rates for the employer are calculated to provide for the ongoing normal cost, plus any amounts necessary to fund any shortfall between the valuation value of assets and the actuarial accrued liabilities.

A summary of the Health Insurance Benefit provisions is displayed in Section 4, Exhibit 2.

Section 2: Actuarial Valuation Results

B. Determination of actuarial value of assets

To minimize volatility in the calculation of the Actuarially Determined Contribution, the Board has approved an asset valuation method that gradually adjusts to market value over a five-year period. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended June 30, 2024 (for Pension and HIB plans)

Items	Actual Return	Expected Return	Investment Gain / (Loss)	Percent Deferred	Return
1. Market value of assets					
a. Pension plan					\$2,445,611,000
b. HIB plan					71,420,000
c. Total					\$2,517,031,000
2. Calculation of unrecognized return					
a. Year ended June 30, 2020	\$39,376,000	\$127,791,930	\$(88,415,930)	0%	\$0
b. Year ended June 30, 2021	491,625,000	129,314,710	362,310,290	20%	72,462,058
c. Year ended June 30, 2022	(253,930,000)	162,455,125	(416,385,125)	40%	(166,554,050)
d. Year ended June 30, 2023	217,559,000	138,262,646	79,296,354	60%	47,577,813
e. Year ended June 30, 2024	279,545,000	151,631,764	127,913,236	80%	102,330,589
f. Total unrecognized return ¹					\$55,816,410
3. Preliminary actuarial value: (1c) - (2f)					\$2,461,214,590
4. Adjustment to be within 30% corridor of market value					0
5. Final actuarial value of assets for pension and HIB plans: (3) + (4)					\$2,461,214,590
6. Actuarial value as a percentage of market value: (5) ÷ (1c)					97.8%
7. Valuation value of HIB plan assets: (1b) x (5) ÷ (1c)					\$69,836,226

¹ Deferred return as of June 30, 2024 that will be recognized in each of the next four years (amounts may not total exactly due to rounding):

(a) Amount recognized on June 30, 2025	\$30,626,951
(b) Amount recognized on June 30, 2026	(41,835,107)
(c) Amount recognized on June 30, 2027	41,441,918
(d) Amount recognized on June 30, 2028	<u>25,582,647</u>
(e) Total unrecognized return as of June 30, 2024	\$55,816,410

Section 2: Actuarial Valuation Results

C. Funding status

The funding of the Health Insurance Benefit comes from the following sources:

1. The valuation value of HIB assets, which equals \$69,836,226 as of June 30, 2024;
2. Contributions from the employer; and
3. Contributions from the employees.

The following table provides the funding status of the Health Insurance Benefit as of June 30, 2024 and June 30, 2023:

Item	June 30, 2024	June 30, 2023
1. Valuation Value of Assets	\$69,836,226	\$62,769,259
2. Actuarial Accrued Liabilities:		
• Current Recipients	100,354,837	97,330,438
• Future Recipients	34,401,641	34,297,017
• Total	\$134,756,478	\$131,627,455
3. Liabilities minus Valuation Value of Assets: (2) – (1)	\$64,920,252	\$68,858,196
4. Funding Ratio (1) ÷ (2)	51.82%	47.69%

The contribution requirements are determined based on the Entry Age Funding Method. The excess of the actuarial accrued liability over assets (Item 3 in the above table) is amortized as a level percentage of payroll for current active members. The employer contribution rates are derived on the following page.

Section 2: Actuarial Valuation Results

D. Recommended contribution

The amount of annual contribution required to fund the HIB is comprised of a net employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the contribution rate of 4.31% of payroll for this year's valuation compared to 4.34% of payroll recommended for last year's valuation. The 4.34% aggregate rate from June 30, 2023 has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation.

Recommended Contribution (% of Payroll) Calculated as of June 30

Item	2024 1955/1980 Plan	2024 2013 Tier	2024 Combined ¹	2023 1955/1980 Plan	2023 2013 Tier	2023 Combined ¹
1. Total Normal Cost	0.97%	0.76%	0.85%	0.95%	0.79%	0.86%
2. Expected employee contributions	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%
3. Employer normal cost: (1) - (2)	0.88%	0.67%	0.76%	0.86%	0.70%	0.77%
4. Unfunded actuarial accrued liability	3.55%	3.55%	3.55%	3.57%	3.57%	3.57%
5. Total recommended contribution, end of each pay period	4.43%	4.22%	4.31%	4.43%	4.27%	4.34%

¹ Based on June 30, 2024 projected annual payroll of:
1955/1980 Plan \$122,880,363
2013 Tier 150,547,943
Combined \$273,428,306

Section 2: Actuarial Valuation Results

E. Reconciliation of recommended employer contribution

The chart below details the changes in the recommended employer contribution from the prior valuation to the current year's valuation. The 4.34% aggregate rate from June 30, 2023 has been restated based on projected June 30, 2024 payrolls, which is why it is slightly lower than the 4.35% aggregate rate shown in the June 30, 2023 valuation.

Item	Contribution Rate
Average Recommended Employer Contribution Rate as of June 30, 2023	4.34%
Effect of actuarial experience during fiscal 2023/2024	
1. Effect of investment gain/loss (after smoothing) ¹	0.00%
2. Effect of higher than expected growth in total payroll to amortize the prior years' UAAL	(0.06)%
3. Effect of one-year lag in implementing contribution rates	(0.02)%
4. Effect of assumption changes	0.04%
5. Effect of demographic experience, including change to average HIB subsidy paid and HIB subsidy trend assumptions	0.01%
Total change	(0.03)%
Average Recommended Employer Contribution Rate as of June 30, 2024	4.31%

¹ The rate of return on the valuation value of assets was 6.90% for the OPEB and 7.15% for the Pension plans. While the 6.90% return was greater than the 6.75% net investment return assumption, the gain was not sufficient to reduce the employer's contribution rate by 0.01% of payroll.

Section 2: Actuarial Valuation Results

F. Table of amortization bases

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ¹
Initial HIB Base	6/30/1997	30	\$15,829,000	\$6,728,135	3	\$2,323,373
Combined Base	6/30/1998	30	(195,000)	(104,236)	4	(27,473)
Combined Base	6/30/1999	30	6,467,754	4,076,666	5	874,664
Combined Base	6/30/2000	30	5,543,694	3,955,952	6	719,642
Combined Base	6/30/2001	30	794,097	623,805	7	98,954
Combined Base	6/30/2002	30	18,413,242	15,600,252	8	2,202,633
Combined Base	6/30/2003	30	6,628,441	5,962,885	9	761,179
Combined Base	6/30/2004	30	1,942,176	1,878,459	10	219,483
Combined Base	6/30/2005	30	8,019,739	7,690,871	11	830,736
Combined Base	6/30/2006	30	(1,769,952)	(1,786,324)	12	(179,843)
Experience Loss	6/30/2007	30	2,878,105	2,971,577	13	280,768
Combined Base	6/30/2008	30	12,125,015	12,732,764	14	1,135,640
Combined Base	6/30/2009	30	(1,240,538)	(1,318,393)	15	(111,557)
Combined Base	6/30/2010	30	463,026	495,860	16	39,979
Combined Base	6/30/2011	30	(60,151)	(64,711)	17	(4,990)
Experience Gain	6/30/2012	20	(1,251,821)	(910,613)	8	(128,571)
Assumption Changes	6/30/2012	25	3,374,832	3,170,751	13	299,586
Experience Gain	6/30/2013	20	(1,155,658)	(895,478)	9	(114,310)
Experience Loss	6/30/2014	20	21,287	17,356	10	2,028
Assumption Changes	6/30/2014	25	2,555,790	2,487,185	15	210,455
Experience Gain	6/30/2015	20	(810,969)	(690,447)	11	(74,579)

¹ Beginning of year payment, reflecting level percentage of payroll.

Section 2: Actuarial Valuation Results

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ¹
Assumption Changes	6/30/2016	25	\$2,459,846	\$2,448,190	17	\$188,798
Experience Gain	6/30/2016	20	(1,569,600)	(1,384,110)	12	(139,349)
Assumption Changes	6/30/2017	25	(403,768)	(404,594)	18	(29,944)
Experience Gain	6/30/2017	20	(664,072)	(602,921)	13	(56,967)
Experience Gain	6/30/2018	20	(2,295,237)	(2,133,059)	14	(190,248)
Assumption Changes	6/30/2018	25	2,931,560	2,948,755	19	210,069
Experience Gain	6/30/2019	20	(504,689)	(478,841)	15	(40,518)
Assumption Changes	6/30/2020	25	1,899,682	1,919,725	21	127,700
Experience Gain	6/30/2020	20	(542,065)	(522,780)	16	(42,150)
Experience Gain	6/30/2021	20	(6,818,716)	(6,659,133)	17	(513,535)
Assumption Changes	6/30/2022	20	3,202,074	3,155,976	18	233,573
Experience Loss	6/30/2022	20	2,976,293	2,933,446	18	217,104
Experience Loss	6/30/2023	20	1,323	1,315	19	94
Assumption Changes	6/30/2024	20	1,350,349	1,350,349	20	92,846
Experience Gain	6/30/2024	20	(274,382) ¹	(274,382)	20	(18,866)
Total				\$64,920,252		\$9,396,404

Note: The equivalent single amortization period is about 8 years.

¹ The 2024 experience gain of \$274,382 or 0.2% of AAL was the result of gains due to (1) contributions being higher than expected, (2) actual FYE24 benefit payments being lower than expected, and (3) new starting costs and trends. The impact of these gains was mostly offset by a demographic loss of roughly 0.8% of AAL.

Section 3: Supplemental Information

Exhibit A: Summary of participant data

Participants	June 30, 2024	June 30, 2023
Retired Members		
• Number	1,693	1,653
• Average age	71.6	71.1
Surviving Spouses		
• Number	222	217
• Average age	79.1	78.9
Eligible for Deferred Benefit		
• Number ¹	407	381
• Average age	48.0	48.4
Active Participants		
• Number	1,974	1,955
• Average age	46.9	47.1
• Average years of service	10.9	11.0
• Average expected retirement age	63.4	62.4

¹ Includes inactive members due a refund of Pension Plan member contributions.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions and methods

Rationale for Assumptions and Methods:

The information and analysis used in selecting each assumption and method that has a significant effect on this actuarial valuation is shown in the July 1, 2020 through June 30, 2024 Actuarial Experience Study report dated November 13, 2024, the Retiree Health assumptions letter dated November 14, 2024, and the Actuarial Funding Policy review letter dated September 14, 2022. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both tiers.

Economic Assumptions:

Net Investment Return

6.75%, net of investment and administrative expenses.

Inflation

2.50%

Across the Board Salary Increases

0.50%

Payroll Growth

Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.

Section 4: Actuarial Valuation Basis

Salary Increases

The annual rate of compensation Increase includes inflation at 2.50%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotional increases:

Years of Service	1955/1980 Plan Rates (%)	2013 Tier Rates (%)
Less than 1	6.25	6.50
1 – 2	6.00	6.25
2 – 3	5.00	5.25
3 – 4	3.75	4.25
4 – 5	2.50	2.75
5 – 6	1.50	1.75
6 – 7	1.25	1.25
7 – 8	1.25	1.25
8 – 9	1.25	1.25
9 – 10	1.25	1.25
10 – 11	1.00	1.00
11 – 12	1.00	1.00
12 – 13	0.75	0.75
13 – 14	0.75	0.75
14 – 15	0.75	0.75
15 & Over	0.75	0.75

Section 4: Actuarial Valuation Basis

Demographic Assumptions:

Mortality

- **Pre-Retirement:**
 - Pub-2010 General Employee Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Post-Retirement Healthy Members:**
 - Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Post-Retirement Disabled Members:**
 - Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries:**
 - In pay status at time of valuation: Pub-2010 Contingent Survivor Headcount-Weighted Above-Median Mortality Tables with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
 - If not in pay status at time of valuation: same tables as for Post-retirement Healthy Members.

The Pub-2010 mortality tables and adjustments as shown above, with generational projection to the ages of members as of the measurement date, reasonably reflect the mortality experience of the Plan as of the measurement date. The additional generational projection is a provision made to reflect future mortality improvement.

Section 4: Actuarial Valuation Basis

Retirement

Age	1955/1980 Plan Unreduced Pension ¹ Rates (%)	1955/1980 Plan Reduced Pension Rates (%)	2013 Tier Rates (%)
52	0.00	0.00	2.00
53	0.00	0.00	2.00
54	50.00	7.00	2.00
55	16.00	7.00	3.00
56	16.00	7.00	3.00
57	16.00	8.00	4.00
58	16.00	8.00	4.00
59	16.00	8.00	6.00
60	16.00	10.00	6.00
61	16.00	10.00	6.00
62	20.00	N/A ²	10.00
63	20.00	N/A	10.00
64	20.00	N/A	10.00
65	20.00	N/A	20.00
66	24.00	N/A	20.00
67	24.00	N/A	20.00
68	24.00	N/A	20.00
69	24.00	N/A	20.00
70	40.00	N/A	35.00
71	40.00	N/A	35.00
72	40.00	N/A	35.00
73	40.00	N/A	35.00
74	40.00	N/A	35.00
75 & Over	100.00	N/A	100.00

¹ For example, a 1955/1980 Plan member age 54 with 30 or more years of service would be eligible for an unreduced pension benefit.

² For ages 62 and over, all 1955/1980 Plan members who are eligible for retirement are eligible for an unreduced pension benefit.

Section 4: Actuarial Valuation Basis

Disability Incidence

Disability rates are applicable after eight years of service.

Age	Rate (%)
25	0.000
30	0.006
35	0.016
40	0.080
45	0.126
50	0.136
55	0.146
60	0.156
65	0.166
70	0.170

Section 4: Actuarial Valuation Basis

Termination

Years of Service	1955/1980 Plan Rates (%)	2013 Tier Rates (%)
Less than 1	11.30	8.00
1 – 2	6.00	4.00
2 – 3	6.00	3.75
3 – 4	3.00	3.25
4 – 5	3.00	3.00
5 – 6	2.50	2.70
6 – 7	2.50	2.60
7 – 8	2.50	2.50
8 – 9	2.50	2.30
9 – 10	1.80	2.20
10 – 11	1.80	2.10
11 – 12	1.80	2.00
12 – 13	1.80	1.90
13 – 14	1.80	1.80
14 – 15	1.60	1.70
15 & Over	1.60	1.60

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is assumed).

Section 4: Actuarial Valuation Basis

Unknown Data for Participants

Same as those exhibited by members are similar known characteristics. If not specified, members are assumed to be male.

Retirement Age for Inactive Vested Participants

59

Percent Married/Domestic Partnership

For all active and inactive vested participants: 75% of male members and 50% of female members are assumed to elect spouse/domestic partner HIB coverage at retirement.

For retired participants: Actual data included in census.

Based on past practice this is not necessarily the same as the percent married/domestic partnership assumption used in the pension valuation. Some of those members may not elect HIB spouse/domestic partner coverage upon retirement due to the additional cost to the member.

Age of Spouse/Domestic Partner

For all active and inactive vested participants, male participants are assumed to have a female spouse who is 2 years younger than the participant and female participants are assumed to have a male spouse who is 2 years older than the participant.

Future Benefit Accruals

1.0 year of service per year.

We have not applied the 0.040 years of additional service for each year of employment, applied in the pension valuation to anticipate conversion of unused sick leave, based on our understanding of the HIB plan provisions.

Section 4: Actuarial Valuation Basis

Actuarial Funding Policy:

Actuarial Cost Method

Entry Age Cost Method. Entry Age is the age at the member's hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal Cost is calculated on an individual basis where the Entry Age Normal Cost is calculated as the sum of the individual Normal Costs.

Actuarial Value of Assets

Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market returns and the expected returns on the market value, and are recognized over a five-year period. The actuarial value of assets (AVA) is limited by a 30% corridor; the AVA cannot be less than 70% of MVA, nor greater than 130% of MVA.

Valuation Value of Assets

The proportion of the Actuarial Value of Assets allocated to the HIB plan, based on the proportion of the MVA attributable to the HIB plan.

Amortization Method

Level percent of payroll

Remaining Amortization Period

Plan changes, assumption changes, and experience gains/losses prior to July 1, 2011 are amortized over separate decreasing 30-year amortization periods. On or after July 1, 2011, through June 30, 2021, plan changes are amortized over separate decreasing 15-year periods; assumption changes are amortized over separate decreasing 25-year periods; and experience gains/losses and retiree health assumption changes are amortized over separate decreasing 20-year periods. On or after July 1, 2021, assumption changes from the experience study or interim review of the economic assumptions are amortized over 20 years.

Section 4: Actuarial Valuation Basis

Retiree Health Assumptions

Participation

95% of future eligible retirees are assumed to enroll in the HIB plan.

All current pensioners and beneficiaries with a retiree health insurance cash subsidy were valued.

For deferred vested members, we assume an election equal to 65% of the future retiree election percent.

Average HIB Subsidy

The enrollment percent of 70% is used to estimate the proportion of future retirees expected to participate in the EBMUD medical insurance plans (Kaiser, Blue Cross, Sutter Health Plus<65, and UHC Medicare Advantage PPO 65+). The difference between the 95% of all future retirees expected to be provided with an HIB subsidy and 70% (i.e. 25%) is what we used to anticipate future retirees who receive reimbursement for medical expenses through the HIB plan without being enrolled in an EBMUD medical insurance plan. The HIB subsidy may be used to defray any other allowed health benefits (e.g., Medicare Part B premiums, dental costs) in addition to medical premiums. For current retirees, we have used the HIB on record. For the expected 95% future retirees who received an HIB, we have assumed, based on the average HIB on record for current retirees at 100% vesting level, that:

- Retirees at 100% vesting level under age 65 with single HIB coverage will receive an average \$439 monthly benefit as of July 1, 2024,
- Retirees at 100% vesting level under age 65 with spouse HIB coverage will receive an average \$520 monthly benefit as of July 1, 2024,
- Retirees at 100% vesting level age 65 and over with single HIB coverage will receive an average \$439 monthly benefit as of July 1, 2024, and
- Retirees at 100% vesting level age 65 and over with spouse HIB coverage will receive an average \$539 monthly benefit as of July 1, 2024.

The maximum (100% vesting level) monthly HIB subsidy is \$450 for a retiree with single coverage and \$550 for a retiree with spouse/domestic partner coverage.

Projected HIB Subsidy Increase

We have projected the HIB medical benefit to increase with medical trend until it reaches the limits described in the Summary of Plan Provisions. The benefit limits are projected to remain unchanged at the current levels of \$450/\$550.

Section 4: Actuarial Valuation Basis

Health Care Cost Trend Rates

Trend is to be applied to premium for shown fiscal year to calculate next fiscal year's projected premium.

First Fiscal Year (July 1, 2024 through June 30, 2025):

Plan	Anthem Blue Cross PPO, Under Age 65	Sutter Health Plus HMO, Under Age 65	Kaiser HMO Under Age 65	Kaiser Senior Advantage	UHC Medicare Advantage PPO
Trend rate to be applied to 2024-2025 Fiscal Year premium	8.56%	10.50%	5.81%	9.08%	14.69%

The fiscal year trend rates are based on the following calendar year trend rates:

Approximate Trends for Fiscal Year	Non-Medicare Trend Rate (%)	Medicare Trend Rate (%)	Trend Rates Applied to Premium for Calendar Year	Non-Medicare Trend Rate (%)	Medicare Trend Rate (%)
2025-2026	7.125	6.875	2025	7.25	7.00
2026-2027	6.875	6.625	2026	7.00	6.75
2027-2028	6.625	6.375	2027	6.75	6.50
2028-2029	6.375	6.125	2028	6.50	6.25
2029-2030	6.125	5.875	2029	6.25	6.00
2030-2031	5.875	5.625	2030	6.00	5.75
2031-2032	5.625	5.375	2031	5.75	5.50
2032-2033	5.375	5.125	2032	5.50	5.25
2033-2034	5.125	4.875	2033	5.25	5.00
2034-2035	4.875	4.625	2034	5.00	4.75
2035-2036	4.625	4.500	2035	4.75	4.50
2036 and later	4.500	4.500	2036	4.50	4.50

Section 4: Actuarial Valuation Basis

Medical Carrier Election

Medical Carrier	Election (%)
Non-Medicare Medical Carrier	
• Kaiser HMO	70
• Anthem Blue Cross PPO	25
• Sutter Health Plus HMO	5
Medicare Medical Carrier	
• Kaiser Senior Advantage HMO (High Option)	67
• UHC Medicare Advantage PPO	33

Assumption Changes Since Prior Valuation:

The following assumptions were changed since the prior valuation:

- Salary scales, retirement rates, termination rates, disability rates, and mortality rates were updated per the 2024 experience study.
- The percentage of male participants who elect HIB coverage for their spouses/domestic partners was increased from 70% to 75%, while that for female participants was increased from 35% to 50%.
- The spouse age difference for male participants and their female spouses/domestic partners was decreased from 3 years to 2.
- The participation election for current vested terminated participants was increased from 50% to 65%.
- The average HIB subsidy for future retirees was updated.
- The future trend for projecting medical costs below the subsidy limit were updated.

Collectively, these assumption changes increased the Actuarial Accrued Liability by 0.94%.

Per the plan's funding policy, the impact of the year-to-year retiree healthcare assumption changes (such as updates to the average HIB subsidy and future trend assumptions) are amortized as part of the annual experience gain/loss.

Section 4: Actuarial Valuation Basis

Exhibit 2: Summary of plan

This exhibit summarizes the major benefit provisions as included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Normal or Unreduced Retirement Eligibility:

- **1955/1980 Plan**
 - Age 65;
 - Age 62 with 5 years of service;
 - Age 59 with 20 years of service;
 - Age 54 with 30 years of service;
 - Other combinations of age and service between ages 54 and 59.
- **2013 Tier**
 - Age 67 with 5 years of service (for unreduced benefit)

Early Retirement Eligibility:

- **1955/1980 Plan**
 - Age 54 with 5 years of service.
- **2013 Tier**
 - Age 52 with 5 years of service.

Covered Members:

All members with at least 5 years of service.

Member Contribution Rate:

0.09%

Section 4: Actuarial Valuation Basis

Employer Contribution Rate:

100% of total cost net of the 0.09% rate paid by the employee.

Benefit Formula:

For members entering the System prior to July 1, 1996, a monthly allowance of up to \$450 (\$550 for married retirees and retirees with EBMUD domestic partners) is paid to retirees with at least five years of full-time service to reimburse member-paid medical expenses.

For members entering the System after June 30, 1996, the members shall receive the full monthly allowance multiplied by the applicable percentage below based on years of full-time service.

Effective January 1, 1999, retired members who had separated from the District prior to their retirement and who had at least five years of service also become eligible for the post-employment healthcare benefits based on the same vesting schedule.

Years of Full-time Service	Percent of HIB
Less than 5	0%
5-9	25%
10-14	50%
15-19	75%
20 or more	100%

An eligible surviving spouse/domestic partner may receive a Health Insurance Benefit of up to \$450 per month.

Changes in Plan Provisions:

None since the prior valuation.

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RESOLUTION NO. _____

ADOPTING THE ACTUARIAL VALUATIONS OF THE EAST BAY MUNICIPAL UTILITY
DISTRICT EMPLOYEES' RETIREMENT SYSTEM AND SETTING THE PENSION AND
HEALTH INSURANCE BENEFIT EMPLOYER CONTRIBUTION AND 2013 TIER
EMPLOYEE CONTRIBUTION RATES FOR FISCAL YEAR 2026

Introduced by Director _____ ; Seconded by Director _____

WHEREAS, pursuant to Section 22 of East Bay Municipal Utility District Ordinance No. 40, as amended, the Board of Directors shall cause to be made an actuarial valuation of the assets and liabilities of the pension and Health Insurance Benefit (HIB) funds and, on the basis of such investigation and valuation, shall make revisions to the contribution rates to the East Bay Municipal Utility District Employees' Retirement System (Retirement System) at least once in each two-year period; and

WHEREAS, state law as established under the Public Employees' Pension Reform Act (PEPRA) requires employees who joined the system on or after January 1, 2013 (2013 Tier) to contribute at least 50 percent of the Normal Cost rate; and

WHEREAS, PEPRA further requires that the 2013 Tier employee contribution rate be adjusted if the total Normal Cost rate changes by more than one percent of payroll from the rate used to set the previous employee contribution rate; and

WHEREAS, the Retirement System's actuary, Segal, has prepared actuarial valuations for the pension plan and the HIB plan and has additionally prepared supplementary documentation based on measurement data through June 30, 2024; and

WHEREAS, Segal has determined in the actuarial valuations that the funded ratios of the pension plan and HIB plan are below one hundred percent as of June 30, 2024, leading to unfunded liabilities in each plan; and

WHEREAS, the actuarial valuations have set forth recommended employer contribution rates for the coming fiscal year beginning July 1, 2025; and

WHEREAS, a portion of the actuarially-recommended employer contribution rates is intended to pay down the unfunded liabilities of each plan over time; and

WHEREAS, the pension actuarial valuation has determined that the 2013 Tier Normal Cost rate has increased by more than one percent of payroll from the rate used to set the previous 2013 Tier employee contribution rate, thus, requiring an adjustment to the following year 2013 Tier employee contribution rate under state law; and

WHEREAS, the Retirement Board took action at its January 23, 2025 Retirement Board Meeting to recommend that the Board of Directors adopt the employer contribution rates for Fiscal Year 2026 as recommended in the actuarial valuations referenced in this Resolution in order to provide annual funding for the employer normal cost and unfunded liabilities; and

WHEREAS, the Retirement Board recommends that the Board of Directors adopt the 2013 Tier employee contribution rate provided in the pension valuation in order to comply with state law under PEPRA;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the East Bay Municipal Utility District adopts the actuarial valuations as of June 30, 2024 for the pension plan and HIB plan prepared by the Retirement System's actuary, Segal; and

BE IT FURTHER RESOLVED that the Board of Directors hereby sets the following Employer Contribution Rates for the Fiscal Year beginning July 1, 2025 as follows:

Employer Contribution Rates for Fiscal Year 2026		
	1955/1980 Plan	2013 Tier
Pension	45.43%	35.93%
HIB	4.43%	4.22%
Total	49.86%	40.15%

BE IT FURTHER RESOLVED that the Board of Directors hereby sets a 2013 Tier employee contribution rate for the pension plan of ten and eight hundredths of one percent (10.08%) for the Fiscal Year beginning July 1, 2025.

ADOPTED this 25th day of February, 2025 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

President

ATTEST:

Secretary

APPROVED AS TO FORM AND PROCEDURE:

General Counsel

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: February 25, 2025

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager *CCC*

FROM: Roberto C. Cortez, Manager of Water Operations *RCC*

SUBJECT: Water Supply Update – February 25, 2025

The attached presentation outlines water production, precipitation to date, reservoir storage, and forecasted supply conditions for the remainder of water year 2025 under various hydrology scenarios. A water supply update will be presented at the February 25, 2025 Board meeting.

CCC:RCC:sd

Attachment: Water Supply Update Presentation

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Water Supply Update

Board of Directors

February 25, 2025

Roberto C. Cortez, Manager of Water Operations

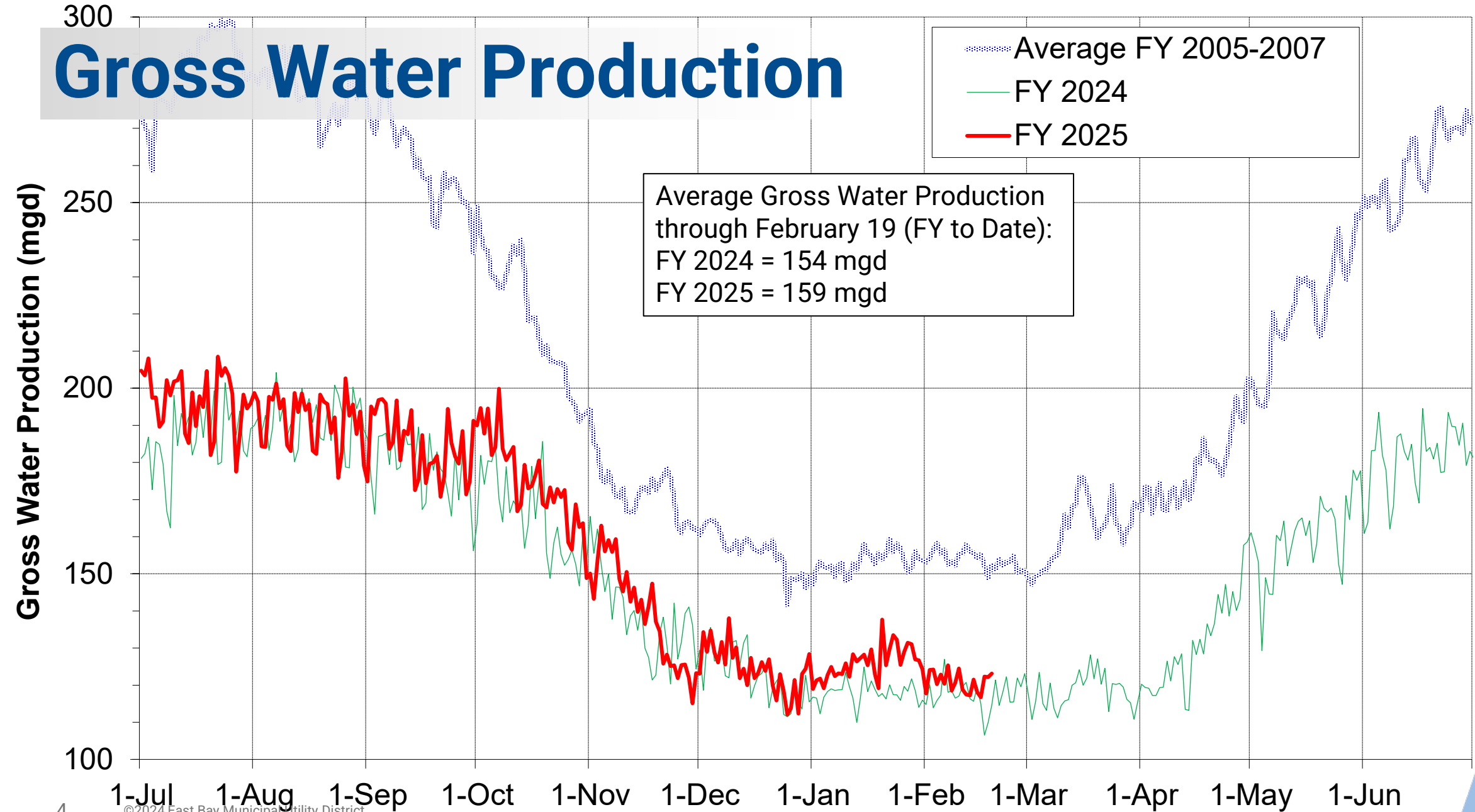


Briefing Topics

- Current Water Supply
- Water Supply Projections

Current Water Supply

Gross Water Production



Reservoir Storage

As of 2/19/2025	Current Storage	Percent of Average	Percent of Capacity
Pardee	184,480 AF	102%	91%
Camanche	309,000 AF	115%	74%
East Bay	135,930 AF	104%	90%
Total System	629,410 AF	108%	82%

AF: Acre-Feet



San Leandro Creek Operations

Winter Release Operations

- USL and Chabot Dams operated in conjunction
- USL spilled for 5-days (2/14-2/19). Max spill rate was 30-cfs.
- Current USL release: 60 cfs
- Current Chabot release: 100 cfs
 - Releases typically scheduled during dry forecasted weather*

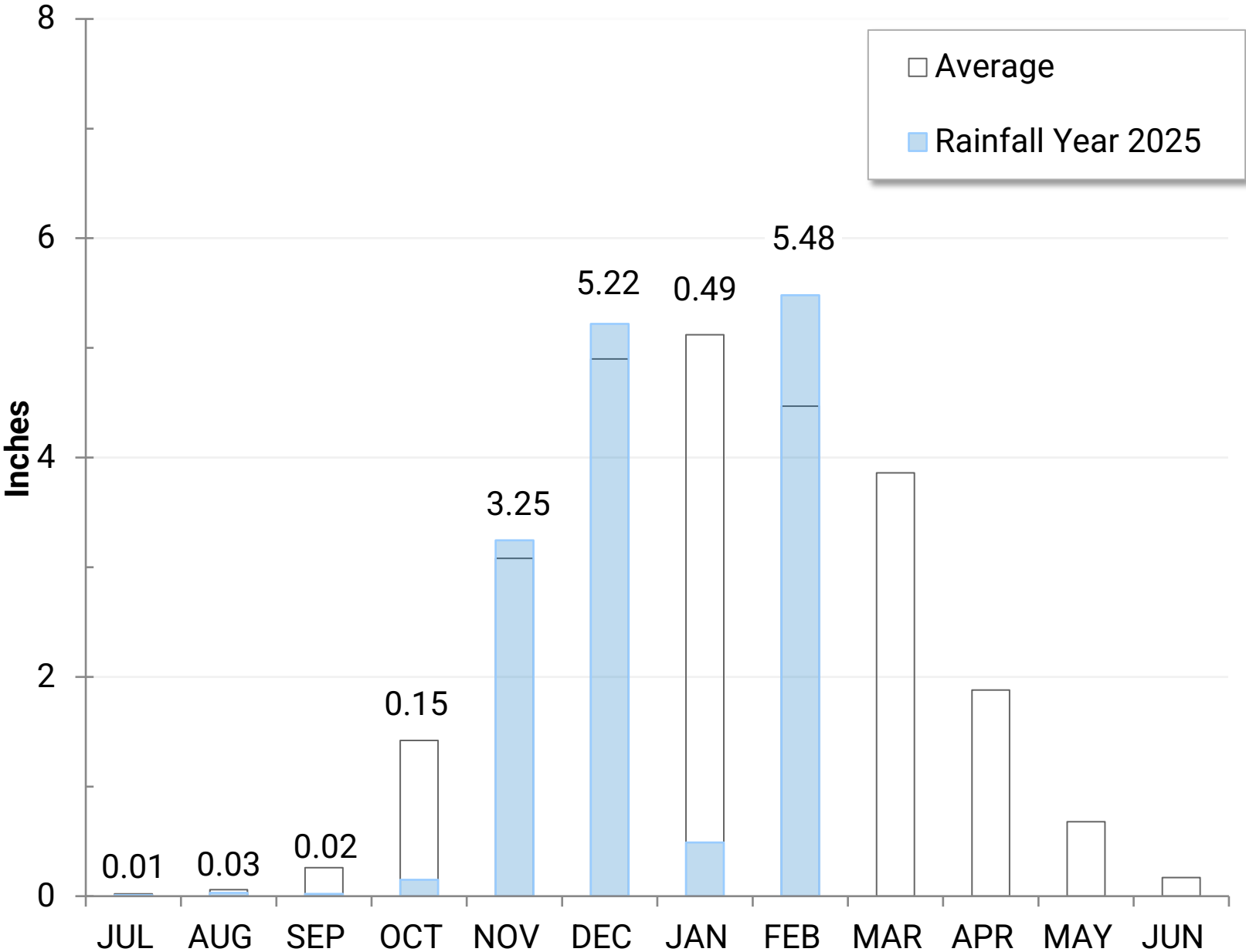
*Releases expected through mid-March

Precipitation as of February 19

East Bay: 14.6"
(79% of average)

Weather Station Details

- USL WTP
- Lafayette Reservoir
- Data collected since 1953

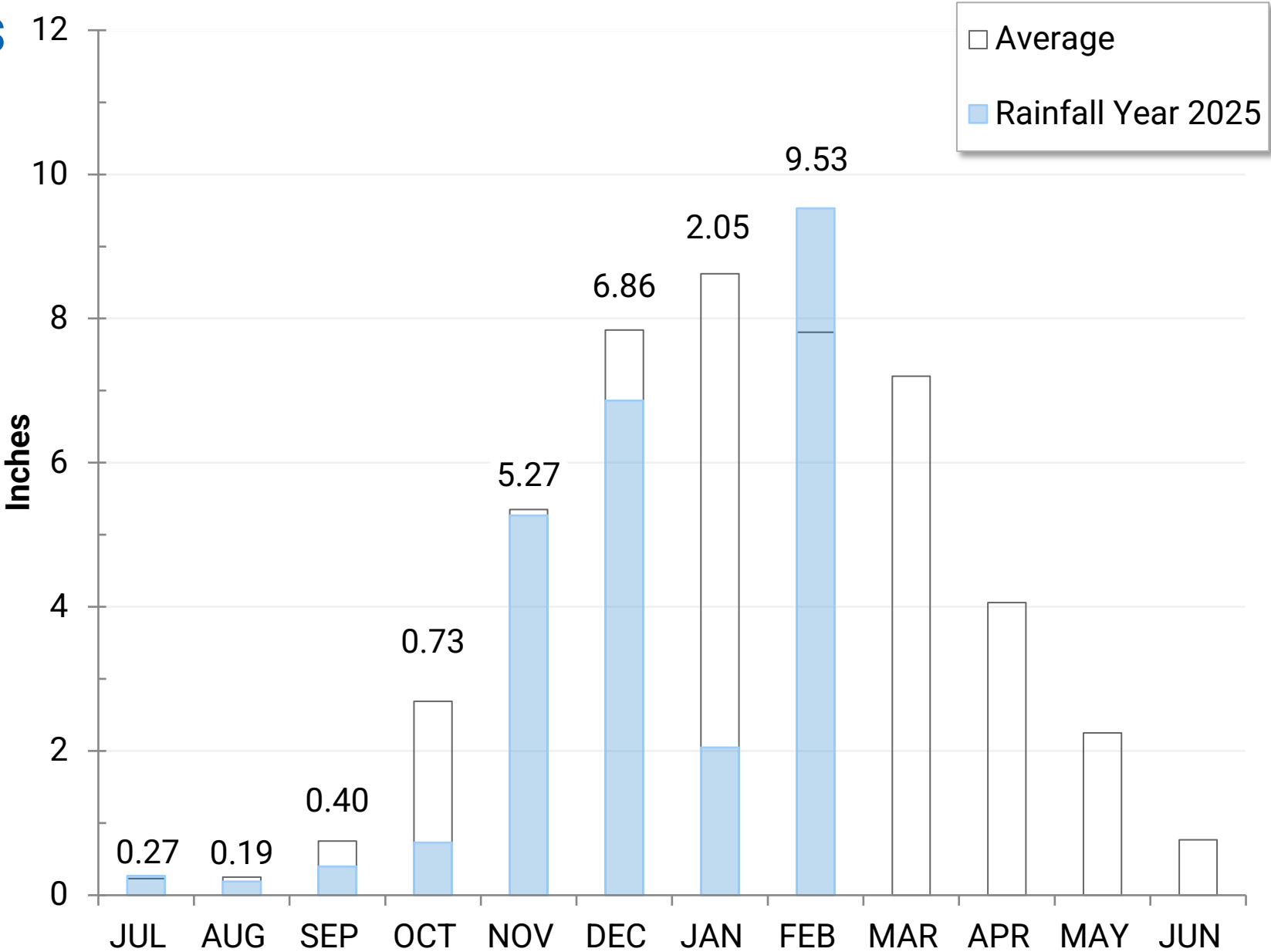


Precipitation as of February 19

Mokelumne: 25.1”
(80% of average)

Weather Station Details

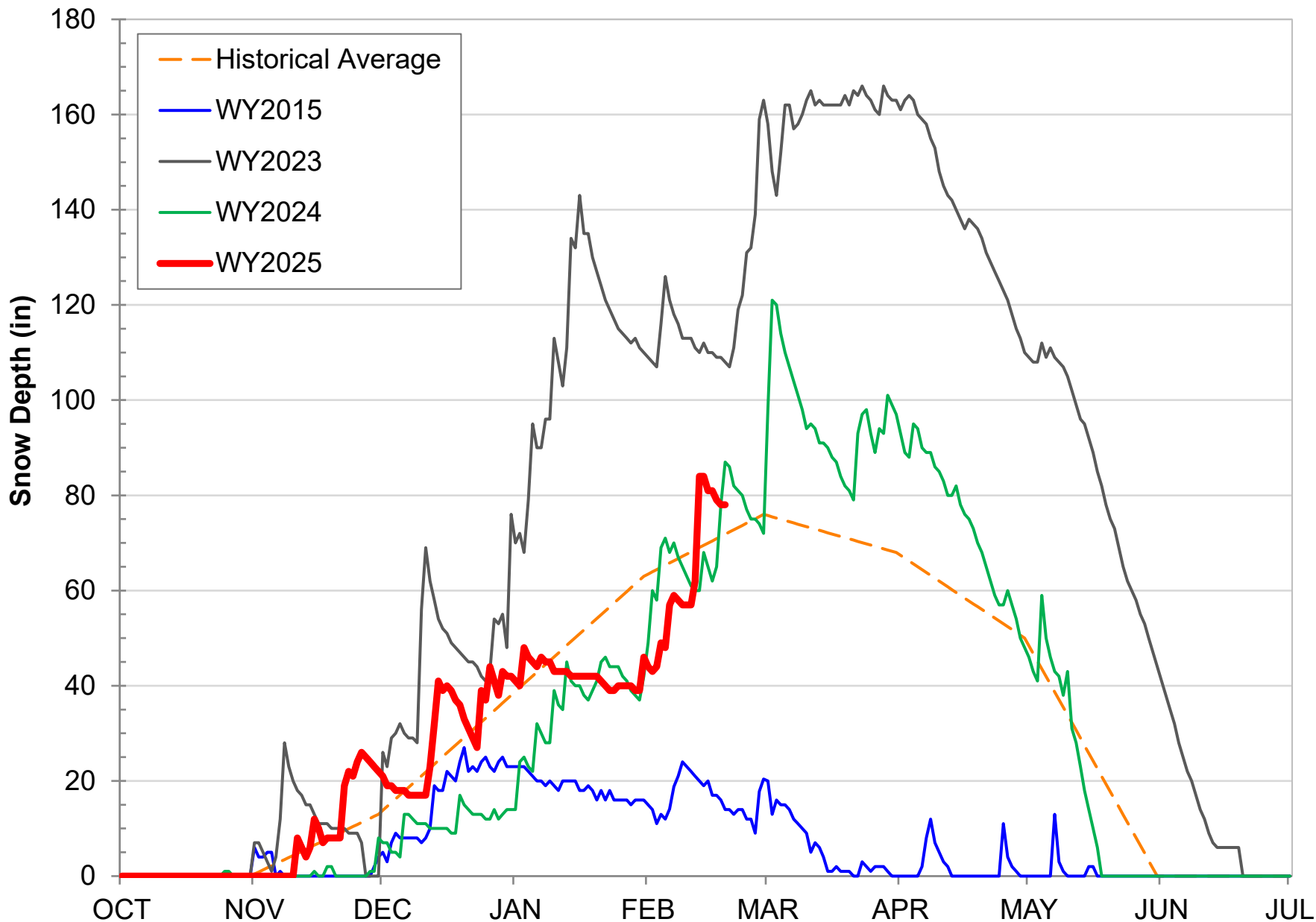
- Calaveras Big Trees
- Caples Lake
- Salt Spring Reservoir
- Tiger Creek Power Station
- Data collected since 1930



Caples Lake Snow as of February 19

Snow Depth – 78”
(109% of average)

Snow Water
Content – 21.4”
(86% of average)

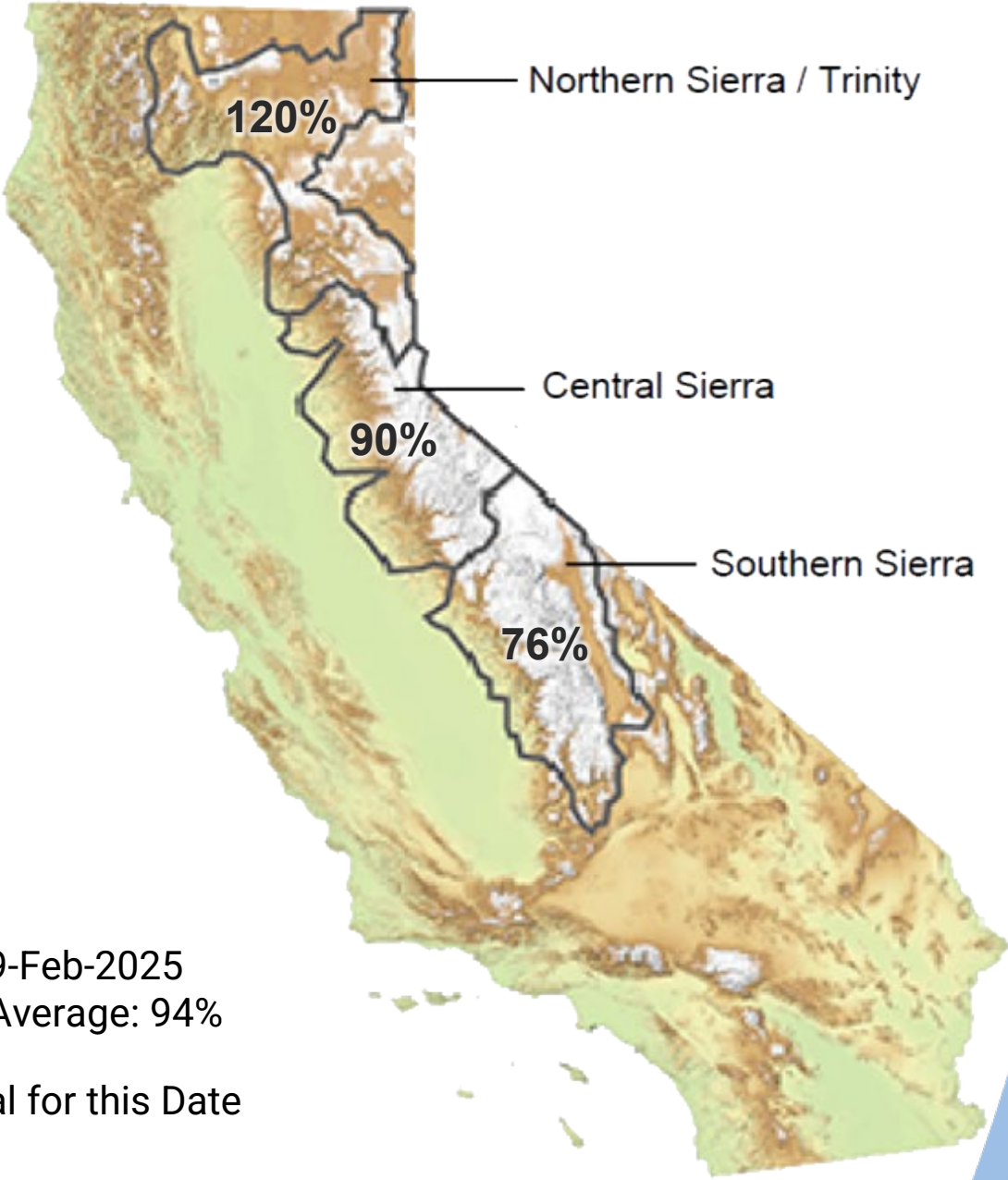




Snowpack as of February 19

Snow Water Equivalent:

90% of Normal in Central Sierra



Data for: 19-Feb-2025
Statewide Average: 94%

% of Normal for this Date

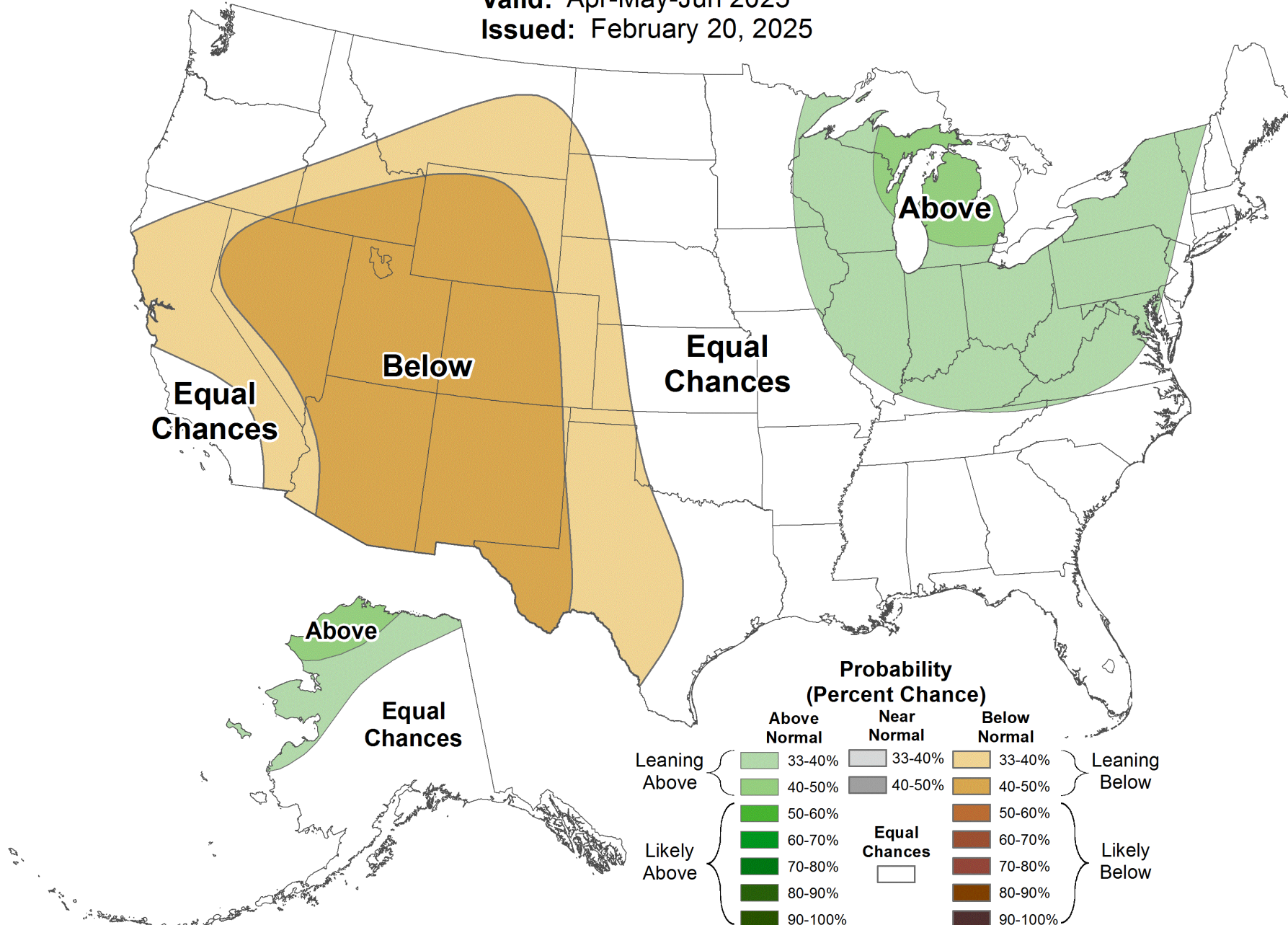
Water Supply Projections



Seasonal Precipitation Outlook

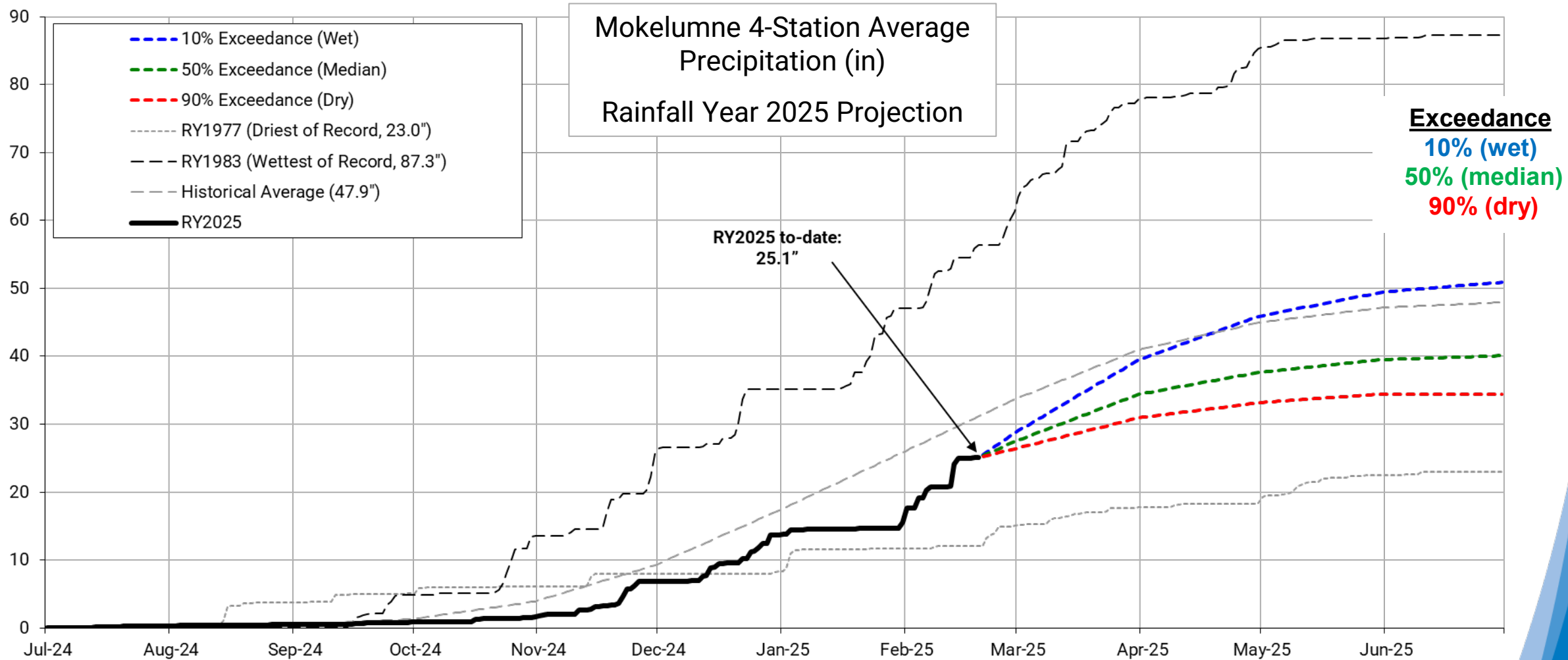


Valid: Apr-May-Jun 2025
Issued: February 20, 2025



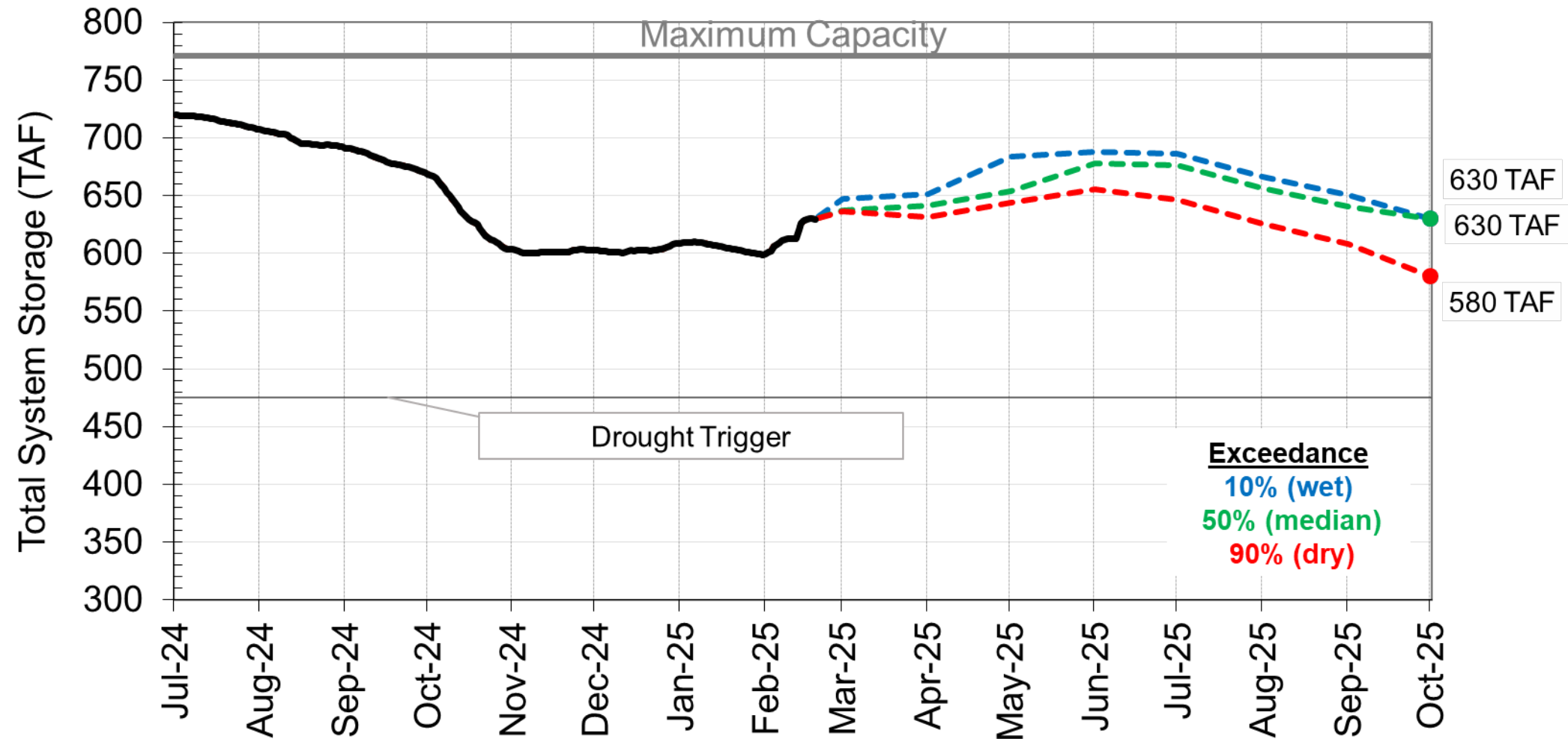
Projected Precipitation

Mokelumne Precipitation Rainfall Year 2025



End of Season Storage

2025 Total System Storage Projections





Questions?



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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: February 20, 2025

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager *CCC*

FROM: Rischa S. Cole, Secretary of the District *RC*

SUBJECT: Planning Committee Minutes – February 11, 2025

Chair April Chan called to order the Planning Committee meeting at 9:02 a.m. in the Administration Building Boardroom. Directors Luz Gómez and Valerie D. Lewis were present at roll call. Staff participants included General Manager Clifford C. Chan, General Counsel Derek T. McDonald, Director of Wastewater Amit K. Mutsuddy, Director of Water and Natural Resources Michael T. Tognolini, Director of Engineering and Construction Serge V. Terentieff, Associate Civil Engineer Roya Yazdani, Associate Civil Engineer Adam Mansour, Manager of Wastewater Engineering Garin D. Warren, Manager of Fisheries and Wildlife Michelle L. Workman, and Secretary of the District Rischa S. Cole.

Public Comment. None.

Presentations/Documentation. 1) Presentation entitled, “Central Reservoir Replacement Project Update” dated February 11, 2025; 2) Presentation entitled, “North Interceptor Rehabilitation, Emeryville,” dated February 11, 2025; 3) Presentation entitled, “Mokelumne River Fish Hatchery Operations and Maintenance Agreement,” dated February 11, 2025; 4) Presentation entitled, “Termination of California Shakespeare Theater Operations,” dated February 11, 2025; 5) Figure 2-2 Existing Reservoir Site (Central Reservoir Replacement Project); and 6) Figure ES-1 Proposed Site Plan (Central Reservoir Replacement Project).

Central Reservoir Replacement Project Update. Associate Civil Engineer Roya Yazdani presented the update. The District has 22 open-cut reservoirs and six have been replaced to date. The Central Reservoir is a 154 million gallon (MG) open-cut reservoir constructed in 1910 and located on a 27-acre site in Oakland near Interstate 580. The reservoir is at the end of its useful life and will be resized to address operational challenges and water quality conditions. The project will replace the current reservoir with three new 14 MG concrete tanks approximately 20 feet higher than the current reservoir, demolish and replace the existing Central Rate Control Station, improve perimeter access around the reservoir, and upgrade site security. Raising elevation at the reservoir will align it with other reservoirs to improve operational flexibility, reliability, and water quality. The Board adopted the project Environmental Impact Report (EIR) in April 2021 and authorized the design services agreement in September 2024. Ms. Yazdani reviewed the project history; the proposed site plan; reservoir sizing; and the reservoir outage plan. The reservoir will need to be out of service for six years during demolition and construction; outage mitigations include strategies to maintain water supply and system pressure during this time. Staff has held three workshops with District stakeholders and is planning 15 internal workshops to continue stakeholder collaboration. Project mitigation measures include installing noise barriers, nighttime lighting control, and lodging for affected residents as needed. Additionally, hazardous material handling plans will be implemented and if feasible, noisy work adjacent to Redwood Day School (RDS) will be scheduled during school breaks. Community outreach was conducted during development of the EIR and

will continue with a pre-construction meeting with neighbors, ongoing project website updates, and community notifications. The project includes a potential design feature for RDS to construct a private driveway along the northern end of the property to connect RDS to Ardley Avenue. If approved by the City of Oakland, RDS would be responsible for implementing a design that addresses all traffic control, security, safety, and permitting requirements. The project's Mitigation Monitoring and Reporting Program requires RDS to conduct an operational and safety analysis for the new driveway where it meets Ardley Avenue. Next steps include finalizing the memorandum of understanding with RDS; completing technical memos and design for the demolition contract by early FY 2027; and conducting pre-construction community outreach. Design is scheduled to be completed between FY 2025 and FY 2027 with demolition, construction, and site grading completed between FY 2027 and FY 2033. Ms. Yazdani addressed Committee questions regarding outreach to other stakeholders; the community outreach schedule; nighttime work and construction impacts to residents; community input on RDS's request to construct a private driveway; potential impacts to RDS students when materials containing PCBs are removed from the reservoir site; and outreach to the RDS PTA. The Committee asked staff to conduct outreach with neighbors including RDS on contaminated materials and to discuss a possible presentation to the RDS PTA. They also requested information on impacts to residents during public meetings for construction projects; how open-cut reservoirs are prioritized for rehabilitation/replacement; plans for the open space near the bioretention basin; and for future capital project updates to include the schedule for external or community outreach.

North Interceptor Rehabilitation, Emeryville (N31 to N35). Associate Civil Engineer Adam Mansour provided the presentation. The North Interceptor was constructed approximately 70 years ago and collects sewage from the cities of Richmond, El Cerrito, Albany, Berkeley, Emeryville, and parts of Oakland before discharging to the District's Main Wastewater Treatment Plant. The project will rehabilitate approximately 2,500 feet of 5.5-foot diameter pipeline using a cured-in-place-pipe (CIPP) liner and five maintenance holes to address the severe corrosion within this pipeline segment. Mr. Mansour discussed the scope of work and project location which begins at the intersection of 64th Street and La Coste Street in Emeryville and extends southbound, crossing Powell Street, to an area located behind the Powell Street Plaza Shopping Center. The project will require a temporary bypass pumping system; excavation and shoring; site restoration; and security measures. He reviewed mitigation measures for community impacts including noise, odor, and traffic control; required permits and temporary construction easements; the community outreach plan; and the project timeline. Mr. Mansour and Manager of Wastewater Engineering Garin D. Warren addressed Committee questions regarding potential impacts to retailers near the project site and Interstate 80 traffic; project costs; the amount of time and costs saved using CIPP in lieu of traditional pipeline replacement; the lifespan of CIPP; and outreach to businesses near the project sites. The Board will consider approving the construction contract at its meeting in the afternoon. If approved, construction is expected to be completed by the end of calendar year 2025. The Committee requested that future staff reports include project costs and if the project is included in the approved budget. It was moved by Director Gómez, seconded by Director Lewis, and carried (3-0) to accept the report.

Mokelumne River Fish Hatchery (Hatchery) Operations and Maintenance Agreement. Manager of Fisheries and Wildlife Michelle L. Workman provided the presentation. The existing agreement between the California Department of Fish and Wildlife (CDFW) and the District for operations and maintenance of the hatchery expired in June 2024 but was extended to April 30, 2025, while the parties negotiated new terms. The two agencies have negotiated a new agreement to cover the next 20 years of hatchery operations and maintenance. Ms. Workman discussed the history of Camanche Reservoir, hatchery

operations, and the agreement. In 1956, the State of California issued water right decision D-858, approving the District's water right permit for the Camanche Project on the Mokelumne River. The decision required that water could not be diverted under the permit until the District and CDFW agreed on bypass flows for fish. In January 1961, before Camanche Dam was built, the District and CDFW finalized an agreement that established downstream flow requirements, mandated the construction of a fish hatchery to support Chinook salmon runs, and required the District to fund CDFW's operation of the facility. A new agreement is needed to address regulatory and reporting updates, changes in hatchery production, and clarification of each party's roles and responsibilities. It will also incorporate infrastructure upgrades, marking and tagging programs, and operational changes from the past 20 years. Additionally, the agreement outlines the funding structure between the agencies and ensures the hatchery meets the District's Mokelumne River fishery mitigation requirements for the Camanche Project. She reviewed some of the key responsibilities and terms for the District and CDFW and Mokelumne River salmon monitoring data since 1940. The Board will be asked to consider approving the new agreement at its February 25, 2025 meeting. It was moved by Director Lewis, seconded by Director Gómez and carried (3-0) to accept the report.

Termination of California Shakespeare (Cal Shakes) Theater Operations. Director of Water and Natural Resources Michael T. Tognolini provided the update. Beginning in 1991, Cal Shakes leased land from the District on the Orinda watershed and constructed the Bruns Amphitheater performing arts venue and associated on-site facilities. In November 2024, Cal Shakes dissolved due to financial insolvency and returned the property to the District at the end of January 2025. They were unable to honor their lease agreement to return the site to its original natural state and left behind substantial structures and facilities. Mr. Tognolini reviewed the remaining structures and facilities noting it would cost the District approximately \$1 million to remove them. Continued leased occupancy of the venue is desirable to provide for security and maintenance of the facility and prevent unauthorized and unsanctioned activities on the property that may compromise protection of the watershed. The site does not have water or wastewater service connections. Potable water needs to be trucked to the site and stored in a 50,000-gallon tank. Restrooms are connected to a septic tank that will require pumping after venue use by the future tenant. Staff recommends preparing a request for proposals to identify potential parties qualified to secure, operate, and maintain the facilities. Input from community liaisons, including local elected officials will be solicited as part of the evaluation process. Staff will seek feedback from the Planning and Finance/Administration committees with a goal to negotiate a lease with a new tenant before summer 2025. The lease terms will include potential use of the facilities by the District for education, meetings, and events. Addressing the Committee were the following: 1) Tom Romary commented on attending Cal Shakes events, financial difficulties experienced by Cal Shakes management, and having a broader array of performing arts events at the facility; 2) Dr. Philippa Kelly commented on working at the theater for many years and being part of a group interested in assisting with future use of the site; 3) Krishna Oxenberg commented on producing concerts at Cal Shakes and some of the challenges using the venue; and 4) Lyle Barrera commented on discussions with staff and bringing together a group of performing arts companies to run the venue. It was moved by Director Gómez, seconded by Director Lewis, and carried (3-0) to support the staff recommendation.

Adjournment. Chair Chan adjourned the meeting at 10:40 a.m.

CCC:RSC

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