

CALPERS PENSION OUTLOOK USER MANUAL

Version 4 – Release Date February 2024

This user manual is intended to provide instructions on how to use the Pension Outlook tool in calpers.ca.gov. The contents are organized as follows:

Contents

Purpose of Pension Outlook	2
Accessing Pension Outlook	3
Register for an Account	8
Viewing Public Agency Plan Information.....	12
Viewing PERF, Aggregated Public Agency, California State Agency, and or Schools Pool Information	15
Modeling Assumptions.....	17
Years to Project / Projection Period.....	18
Discount Rate.....	20
PEPRA Transition Period	22
Changing PEPRA Transition Period	22
Turning Off PEPRA Transition Period.....	25
Additional Discretionary Payments (ADP's)	27
Investment Scenarios.....	30
Selecting a Random Investment Scenario.....	30
Entering a User Specified Investment Scenario.....	33
Section 115 Trust.....	35
Summary Results.....	38
Funding Results	40
Changing Displayed Funding Results	40
Cash Flow Results.....	42
Section 115 Trust.....	43
Budgeting Results.....	44
Microsoft Excel Spreadsheet.....	45
Appendix 1 – Terms and Conditions of Use.....	46

Purpose of Pension Outlook

The purpose of Pension Outlook is to assist contracting public agencies and stakeholders with planning and budgeting for pension costs into the future. Pension Outlook provides the baseline projections of funded status and employer rates based on the most recent annual actuarial valuation report prepared for a specific plan. You can vary financial parameters in the application to generate alternative cost scenarios. These variations provide an opportunity to understand the pension cost drivers and potential budget impacts by scenario for that plan.

Please read the disclaimer carefully upon opening the application as CalPERS wants to make sure that the random scenarios included in Pension Outlook or any scenarios developed by the User should not be relied upon to represent the actual future funded status nor the actual future employer contribution requirement. See Appendix 1 for a copy of the Terms and Conditions of Use.

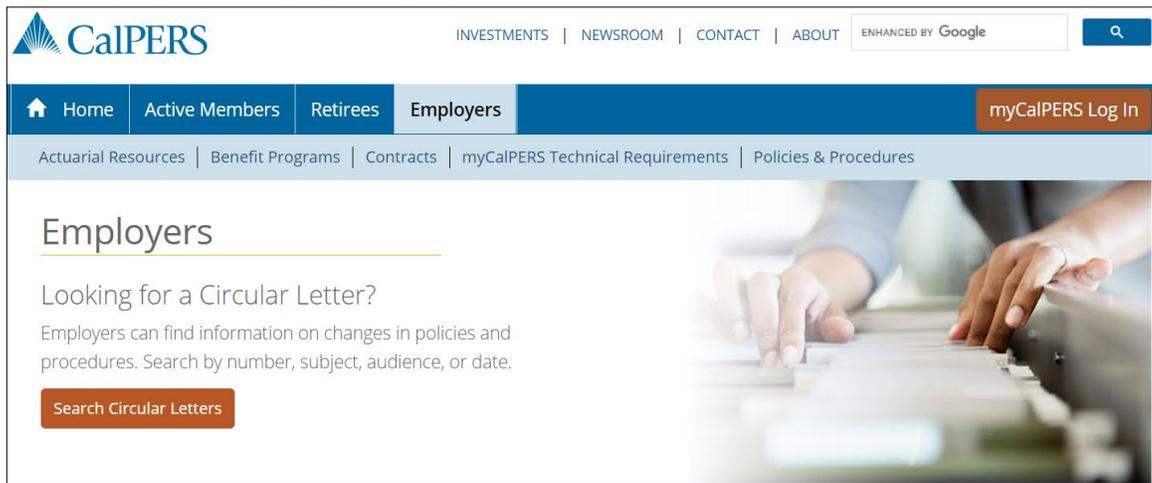
Accessing Pension Outlook

To navigate the Pension Outlook tool in calpers.ca.gov, follow the steps below:

1. Click the Employers tab on the top menu.



2. The Employers webpage displays.



3. Click the Actuarial Resources link.



Accessing Pension Outlook (Cont.)

4. The Actuarial Resources webpage displays.



5. Click the Pension Outlook Overview link.



Accessing Pension Outlook (Cont.)

6. The Pension Outlook Overview screen displays.

Home > Employers > Actuarial Resources > Pension Outlook Overview

Pension Outlook Overview

Pension Outlook is a tool to help plan and budget pension costs into the future with easy to understand results and charts.

You will be able to view the projected funded status and required employer contributions for pension plans in different potential scenarios for up to 30 years into the future — which will make budgeting more predictable. While Pension Outlook can't predict the future, it can provide valuable planning information based on a variety of possible future scenarios that you select.

Pension Outlook can help you answer specific questions about your plans, including:

- When is my plan expected to increase its funded status?
- What happens to my required contributions in a down market?
- How does the discount rate assumption affect my contributions?
- What is the impact of making an additional discretionary payment to my plan?

[How to Get Started](#)

Actuarial Resources

- [Employer Contributions](#)
- [Governmental Accounting Standards Board \(GASB\)](#)
- [Pension Outlook Overview](#)
- [Public Agency Actuarial Valuation Reports](#)
- [Risk Pooling](#)

Resources

- [Email Pension Outlook Support](#)
- [Pension Outlook Log In](#)
- [Pension Outlook User Manual \(PDF\)](#)

7. Click the Pension Outlook Login link.

Home > Employers > Actuarial Resources > Pension Outlook Overview

Pension Outlook Overview

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[How to Get Started](#)

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- [Risk Pooling](#)

Resources

- [Email Pension Outlook Support](#)
- [Pension Outlook Log In](#)
- [Pension Outlook User Manual \(PDF\)](#)

8. The Pension Outlook Login screen displays.

The screenshot shows the CalPERS website header with navigation links for Home, Active Members, Retirees, and Employers. The main navigation bar includes links for Actuarial Resources, Benefit Programs, Contracts, myCalPERS Technical Requirements, and Policies & Procedures. The breadcrumb trail reads: Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Login. The main heading is "Pension Outlook". Below it is the "Login" section with two input fields: "Email (required)" containing "email@domain.com" and "Password (required)" with masked characters. A "Log In" button is present, along with a "Forgot Password?" link. Below the login section is the "Need an Account?" section with a "Register" button.

Note: For instructions on registering for an account, see the Register for an Account section.

9. If you've already registered, provide your login information, and click the Login button.

This screenshot is identical to the previous one but includes three numbered callouts: a yellow box with the number "1" pointing to the email input field, a yellow box with the number "2" pointing to the password input field, and a yellow box with the number "3" pointing to the "Log In" button.

Accessing Pension Outlook (Cont.)

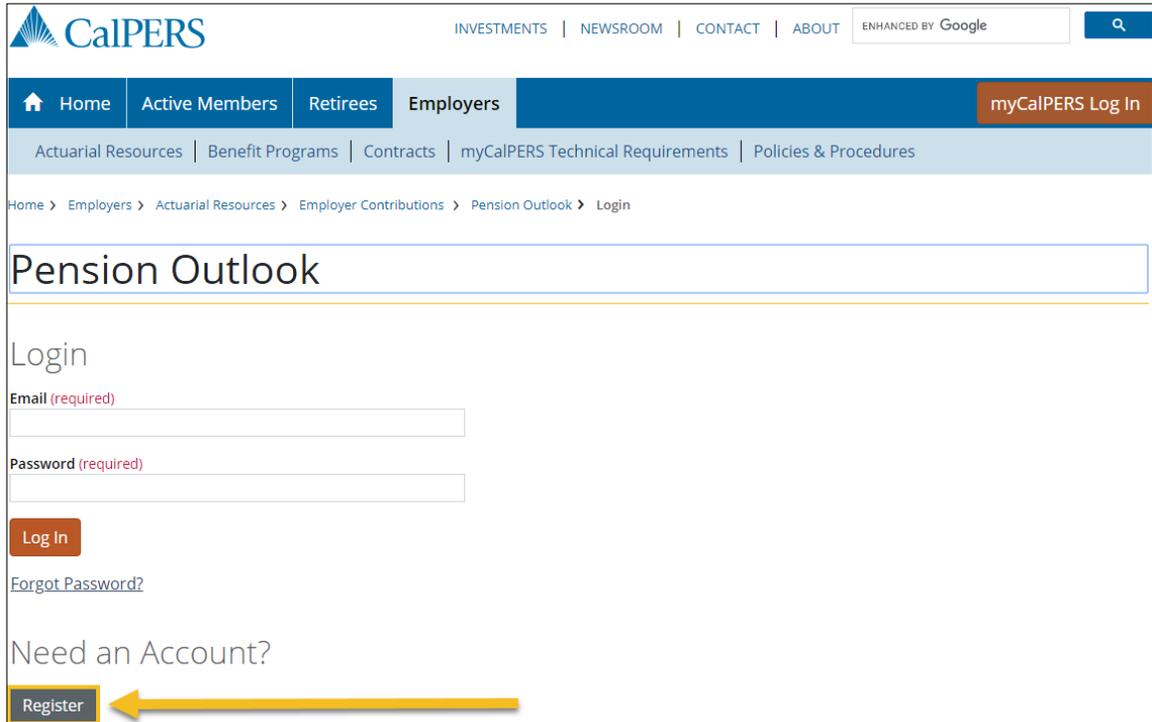
10. The Employer View of the Pension Outlook tool displays.

The screenshot shows the CalPERS website interface for the Employer View of the Pension Outlook tool. At the top, the CalPERS logo is on the left, and navigation links for INVESTMENTS, NEWSROOM, CONTACT, and ABOUT are on the right. A search bar with the text 'ENHANCED BY Google' and a magnifying glass icon is also present. Below the navigation is a blue header with tabs for Home, Active Members, Retirees, and Employers. The Employers tab is selected. To the right of the header is a 'myCalPERS Log In' button. Below the header is a light blue navigation bar with links for Actuarial Resources, Benefit Programs, Contracts, myCalPERS Technical Requirements, and Policies & Procedures. A breadcrumb trail reads: Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View. The main heading is 'Employer View' with a 'Terms & Conditions | Log Out' link to the right. Below the heading are two dropdown menus: 'Select View (required)' with 'Employer' selected, and 'Valuation Rate Plan' with 'Select a Valuation Rate Plan' selected. Below these are four tabs: Summary, Funding, Cash Flow, and Glossary. At the bottom, a disclaimer states: 'Use of this model is subject to acceptance of CalPERS' Terms and Conditions of Use. All projections are hypothetical and may differ significantly from actual experience.'

Register for an Account

To access the Pension Outlook tool, you must register for an account. Registration only needs to occur once. After registration, you can use the email address you provided and password you selected to login to the tool.

1. To register for an account, click the Register button.



The screenshot shows the CalPERS website interface. At the top, there is a navigation bar with the CalPERS logo on the left and links for INVESTMENTS, NEWSROOM, CONTACT, and ABOUT on the right. Below this is a secondary navigation bar with links for Home, Active Members, Retirees, and Employers. A search box labeled "ENHANCED BY Google" is located in the top right corner. The main content area is titled "Pension Outlook" and contains a "Login" section with input fields for "Email (required)" and "Password (required)", a "Log In" button, and a "Forgot Password?" link. Below the login section is a "Need an Account?" section with a "Register" button. A yellow arrow points to the "Register" button.

2. The Registration Information webpage displays.

CalPERS INVESTMENTS | NEWSROOM | CONTACT | ABOUT ENHANCED BY Google

Home Active Members Retirees Employers myCalPERS Log In

Actuarial Resources | Benefit Programs | Contracts | myCalPERS Technical Requirements | Policies & Procedures

Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Registration Information

Registration Information

Please provide all of the requested information.

First Name (required) Last Name (required)

Organization Name (required)

Title (required)
Active Employee

Email (required)

Password (required)
At least 8 characters.
No spaces, case sensitive.
Must have at least 1 uppercase letter, 1 lowercase letter, 1 number.

Confirm Password (required)

Submit Cancel

3. Populate the required fields to register.

Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Registration Information

Registration Information

Please provide all of the requested information.

1 **First Name (required)**

2 **Last Name (required)**

3 **Organization Name (required)**

4 **Title (required)**

5 **Email (required)**

6 **Password (required)**
At least 8 characters.
No spaces, case sensitive.
Must have at least 1 uppercase letter, 1 lowercase letter, 1 number.

7 **Confirm Password (required)**

4. Click the Submit button.

Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Registration Information

Registration Information

Please provide all of the requested information.

First Name (required)

Last Name (required)

Organization Name (required)

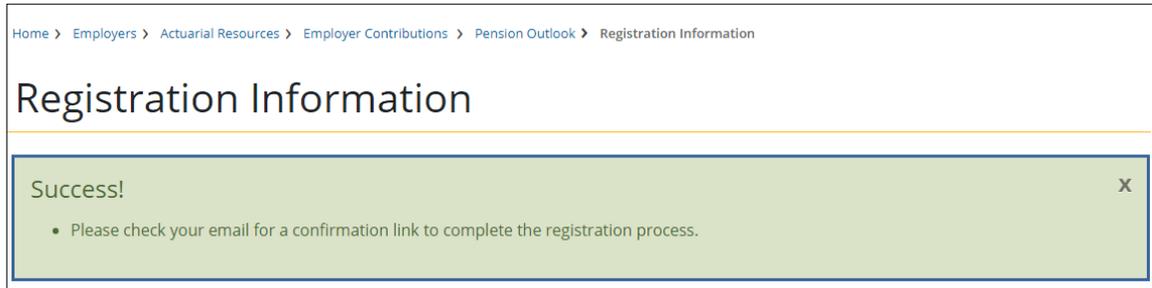
Title (required)

Email (required)

Password (required)
At least 8 characters.
No spaces, case sensitive.
Must have at least 1 uppercase letter, 1 lowercase letter, 1 number.

Confirm Password (required)

5. A banner appears at the top of the screen, showing that the information was submitted successfully. Check the email account provided for a confirmation email to complete the registration process.

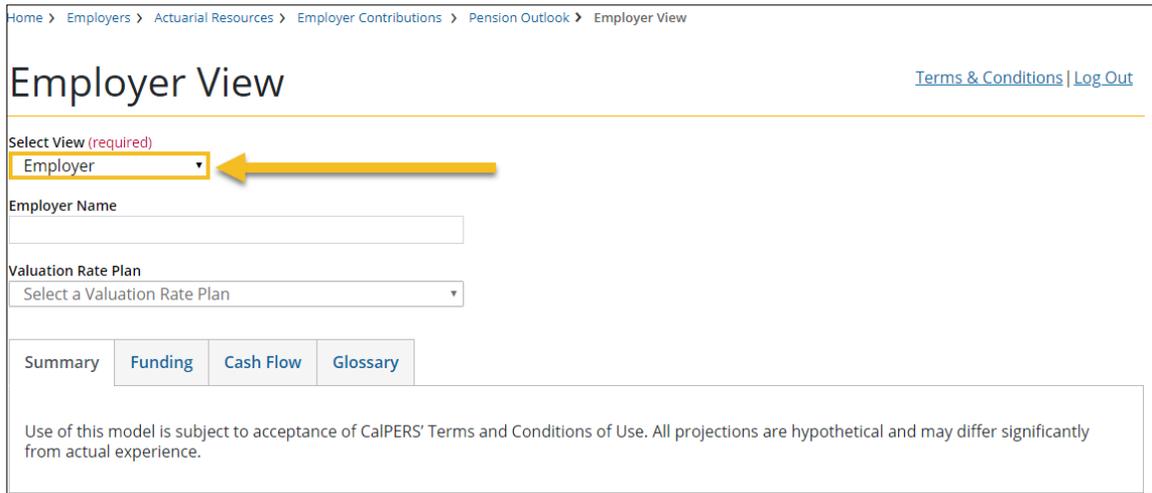


The screenshot shows a web page titled "Registration Information". At the top, there is a breadcrumb trail: Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Registration Information. Below the title, a green success banner is displayed with the text "Success!" and a close button (X). A bullet point below the banner reads: "Please check your email for a confirmation link to complete the registration process."

Viewing Public Agency Plan Information

After logging-in, you can select Public Agency plans in Employer View of the Pension Outlook tool. To select a specific Public Agency plan, follow the steps below:

1. Verify that Employer is selected in the Select View drop-down menu.



Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View

Employer View

[Terms & Conditions](#) | [Log Out](#)

Select View (required)
Employer

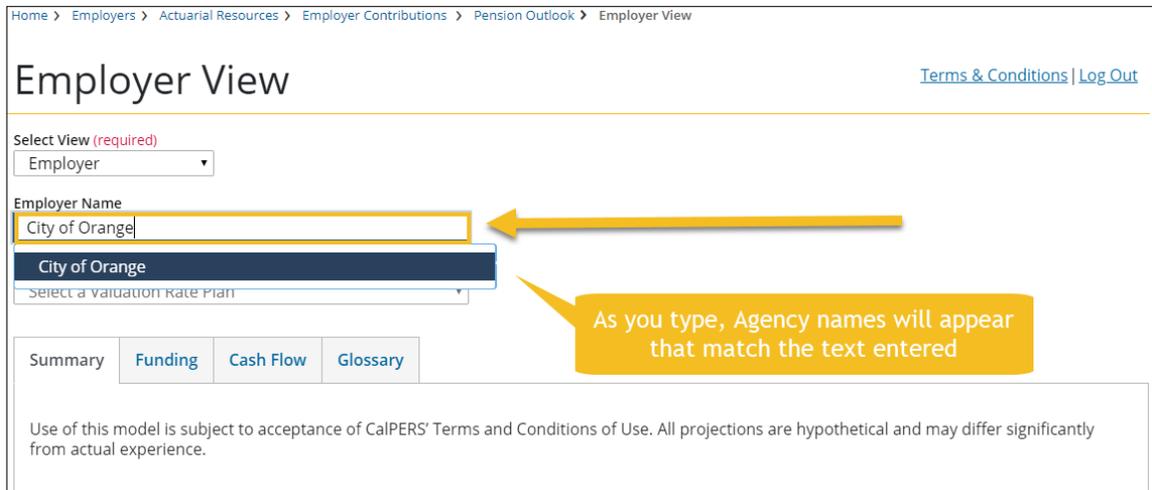
Employer Name

Valuation Rate Plan
Select a Valuation Rate Plan

Summary Funding Cash Flow Glossary

Use of this model is subject to acceptance of CalPERS' Terms and Conditions of Use. All projections are hypothetical and may differ significantly from actual experience.

2. Enter the Employer Name.



Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View

Employer View

[Terms & Conditions](#) | [Log Out](#)

Select View (required)
Employer

Employer Name
City of Orange

City of Orange

Select a valuation rate plan

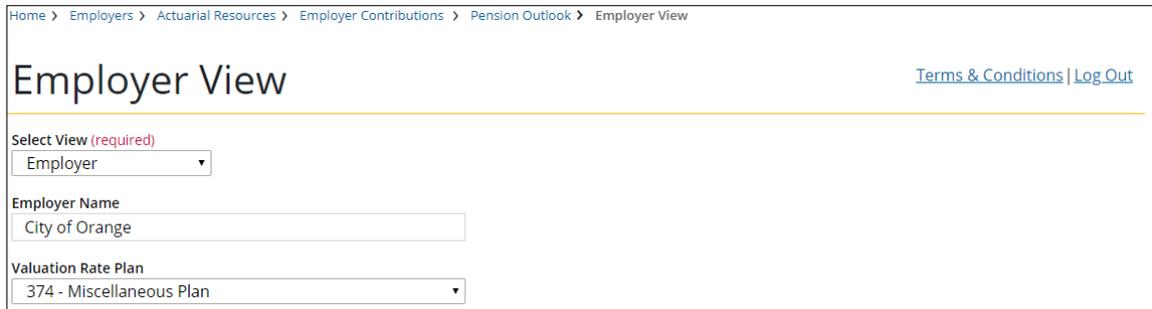
Summary Funding Cash Flow Glossary

As you type, Agency names will appear that match the text entered

Use of this model is subject to acceptance of CalPERS' Terms and Conditions of Use. All projections are hypothetical and may differ significantly from actual experience.

Viewing Public Agency Plan Information (Cont.)

3. The Valuation Rate Plan drop-down menu will populate based on the employer you select.



Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View

Employer View

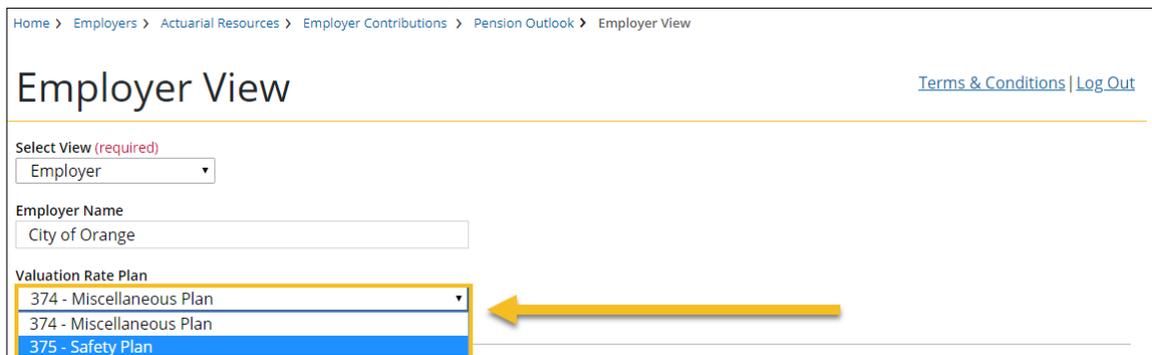
[Terms & Conditions](#) | [Log Out](#)

Select View (required)
Employer

Employer Name
City of Orange

Valuation Rate Plan
374 - Miscellaneous Plan

4. Select the Valuation Rate Plan you would like to view.



Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View

Employer View

[Terms & Conditions](#) | [Log Out](#)

Select View (required)
Employer

Employer Name
City of Orange

Valuation Rate Plan

- 374 - Miscellaneous Plan
- 374 - Miscellaneous Plan
- 375 - Safety Plan

Viewing Public Agency Plan Information (Cont.)

5. Information for the selected Valuation Rate Plan displays.

Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Employer View

[Terms & Conditions](#) | [Log Out](#)

Employer View

Select View (required)

Employer Name

Valuation Rate Plan

[+ Modeling Assumptions](#)

Modeling Assumptions

Economic Assumptions		Investment Scenario Chosen		Other Assumptions	
Details	Baseline	Rate	Period	Details	Baseline
Discount Rate	7.000%	7.000%	1	PEPRA	Yes
Payroll Growth	2.750%	7.000%	9	Transition Years	15
Inflation Rate	2.500%	7.000%	20	ADP	No

30 Year Budget
 Download the [Fiscal Year Cost and Annual Relative Increase in Cost](#).

Summary **Funding** Cash Flow Glossary

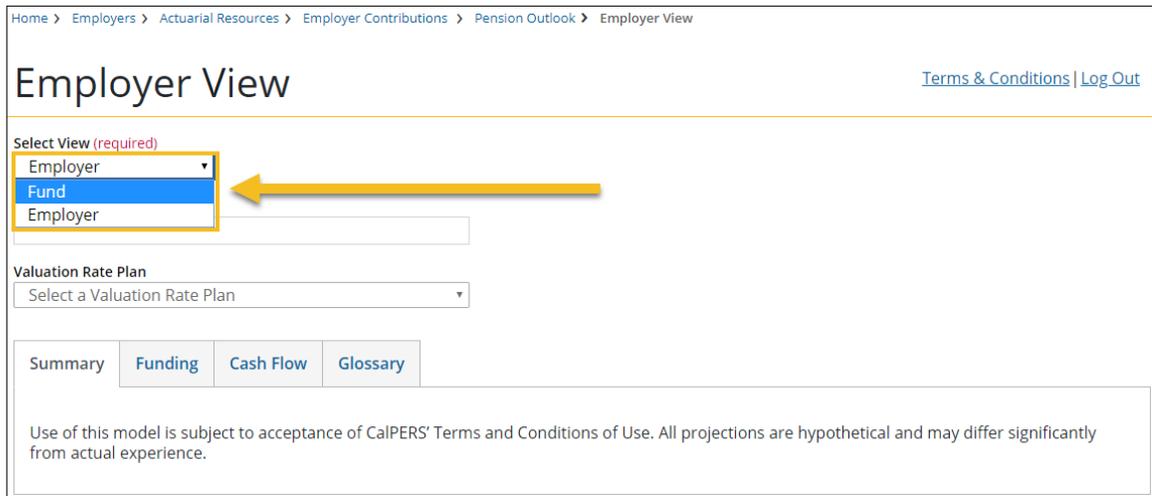
Funded Status and Employer Rates

Valuation Date	Base Funded Status (%)	Base Employer Rate (%)
6/30/18	67.70%	56.88%
6/30/19	69.00%	58.00%
6/30/20	70.50%	59.00%
6/30/21	72.00%	60.00%
6/30/22	73.50%	60.00%
6/30/23	75.00%	59.50%
6/30/24	76.50%	59.00%
6/30/25	78.00%	58.50%
6/30/26	79.50%	58.00%
6/30/27	81.00%	57.50%
6/30/28	82.50%	57.00%
6/30/29	84.00%	56.00%
6/30/30	85.50%	54.50%
6/30/31	87.00%	52.50%
6/30/32	88.50%	50.50%
6/30/33	90.00%	48.50%
6/30/34	91.50%	46.50%
6/30/35	93.00%	44.50%
6/30/36	94.50%	42.50%
6/30/37	96.00%	40.50%
6/30/38	97.50%	38.50%
6/30/39	99.00%	36.50%
6/30/40	100.00%	34.50%
6/30/41	100.50%	32.50%
6/30/42	101.00%	30.50%
6/30/43	101.50%	28.50%
6/30/44	102.00%	26.50%
6/30/45	102.50%	24.50%
6/30/46	103.00%	22.50%
6/30/47	103.50%	20.50%
6/30/48	104.00%	18.50%

Viewing PERF, Aggregated Public Agency, California State Agency, and or Schools Pool Information

After logging-in, you can view information for the Public Employees Retirement Fund (PERF), all Public Agency Miscellaneous plans, all Public Agency Safety plans, State of California Plans and or the Schools Pool in the Pension Outlook tool. To accomplish this, follow the steps below:

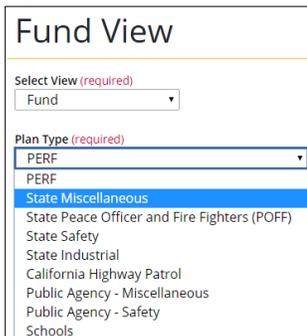
1. Select Fund from the Select View drop-down menu.



2. The Fund View displays, with the PERF as the default plan.



3. To change Plan Type, select which one you would like to view from the Plan Type drop-down menu.



Viewing PERF, Aggregated Public Agency, California State Agency, and Schools Pool Information (Cont.)

4. Information for the selected plan displays.

Home > Employers > Actuarial Resources > Employer Contributions > Pension Outlook > Fund View

[Terms & Conditions](#) | [Log Out](#)

Fund View

Select View (required)
Fund

Plan Type (required)
State Miscellaneous

[+ Modeling Assumptions](#)

Modeling Assumptions

Economic Assumptions

Details	Baseline
Discount Rate	7.000%
Payroll Growth	2.750%
Inflation Rate	2.500%

Investment Scenario Chosen

Rate	Period
7.000%	1
7.000%	9
7.000%	0

Other Assumptions

Details	Baseline
PEPRA	Yes
Transition Years	15
Committed Payment	No
ADP	No

Funded Ratio [Accrued/Assets/Unfunded Accrued Liability](#)

State Miscellaneous Funded Ratio Projected Over 10 Years

Valuation Date	Base Funded Ratio (%)
6/30/18	69.5%
6/30/19	70.5%
6/30/20	71.5%
6/30/21	72.5%
6/30/22	73.5%
6/30/23	74.5%
6/30/24	75.5%
6/30/25	76.5%
6/30/26	77.5%
6/30/27	78.5%
6/30/28	85.3%

Modeling Assumptions

By clicking on the Modeling Assumptions button, you can select the appropriate financial scenario or click the reset assumptions button to produce the Baseline Projections based on the most recent valuation report. Within this section are the following user specified entries:

Modeling Assumptions

1. Years to Project: 10, 20, 30

2. Discount Rate % (required): 6.800

3. PEPPRA: Yes, No

PEPPRA Transition Years: 10, 15, 20

4. Additional Discretionary Payment: Yes, No

5. Random Investment Scenario: Yes, No

Return % (required)	Number of Years (required)
6.800	2022-23
6.800	2023-24
6.800	1
6.800	7
6.800	20

6. Section 115 Trust: Yes, No

Submit Reset Modeling Criteria

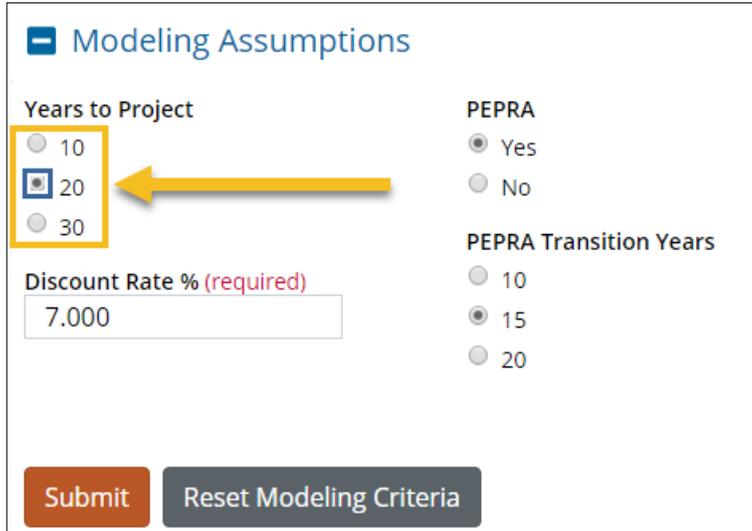
1. Years to Project
2. Discount Rate
3. PEPPRA Transition Period
4. Additional Discretionary Payment
5. Investment Scenarios
6. Section 115 Trust

Additional information about each of these user specified entries can be found in the other sections of this document.

Years to Project / Projection Period

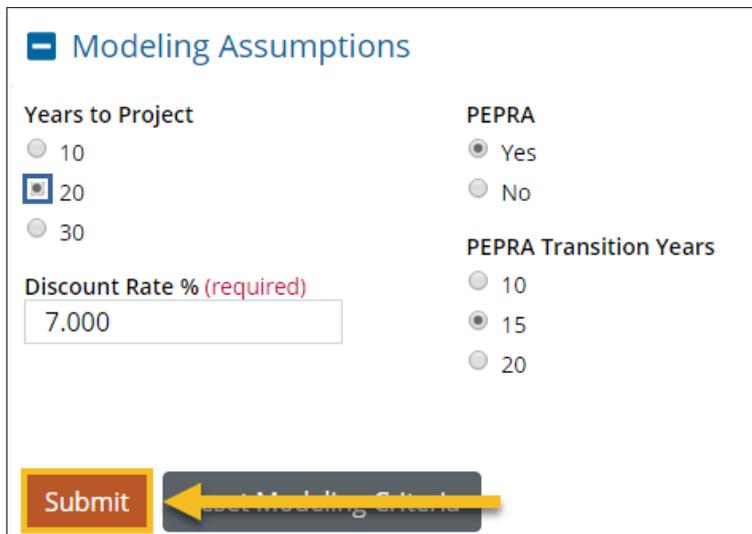
You can choose to project 10, 20 or 30 years. To change the number of years in the projection, follow the steps below:

1. Select the desired **Years to Project** radio button.



The screenshot shows the 'Modeling Assumptions' form. Under the 'Years to Project' section, there are three radio buttons: 10, 20, and 30. The '20' radio button is selected and highlighted with a yellow box and a yellow arrow pointing to it. To the right, the 'PEPRA' section has 'Yes' selected. Below that, the 'PEPRA Transition Years' section has '15' selected. A 'Discount Rate % (required)' field contains '7.000'. At the bottom, there are 'Submit' and 'Reset Modeling Criteria' buttons.

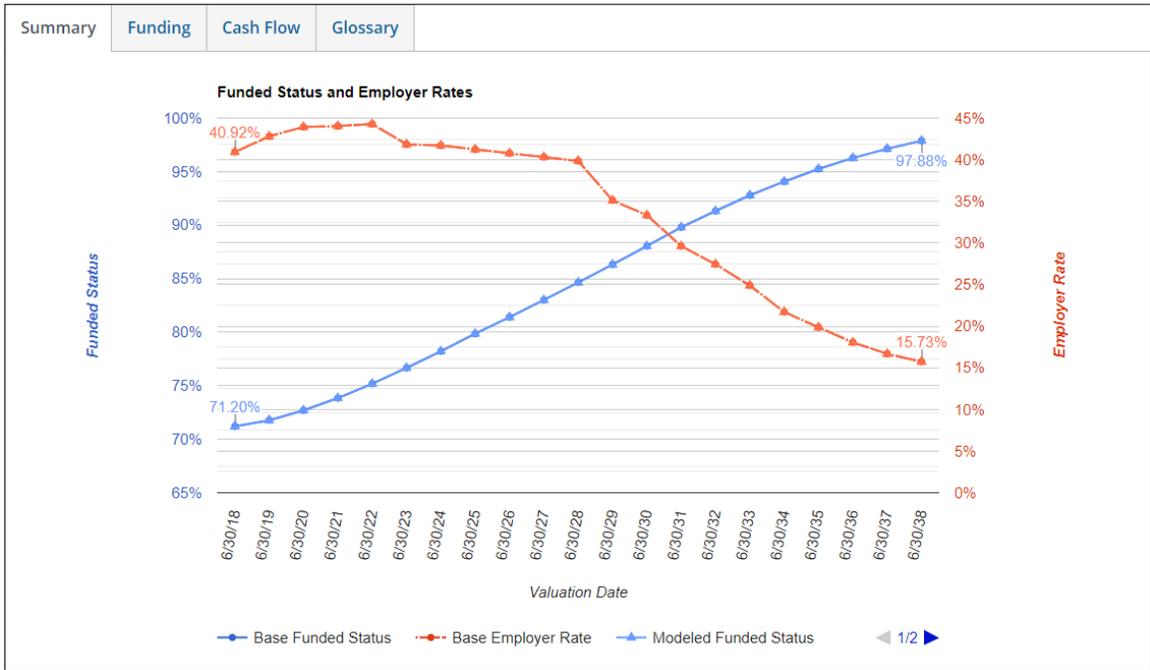
2. Click the **Submit** button.



The screenshot shows the same 'Modeling Assumptions' form. In this step, the 'Submit' button is highlighted with a yellow box and a yellow arrow pointing to it. The '20' radio button remains selected. The 'PEPRA' and 'PEPRA Transition Years' sections are unchanged. The 'Discount Rate % (required)' field still contains '7.000'.

Years to Project (Cont.)

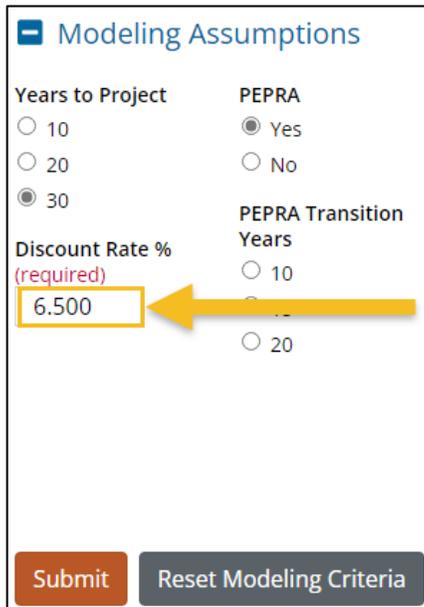
3. The desired number of years displays.



Discount Rate

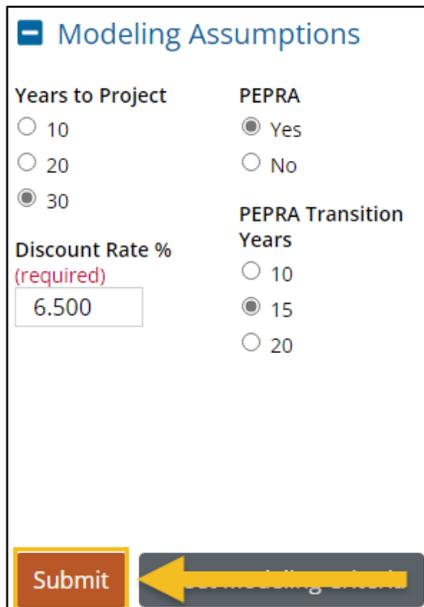
You can choose to model the impact of different discount rates on a plans funded status or employer contribution rates. Any discount rate between 6% and 8% is available for modeling based on the sensitivity results provided in the most recent actuarial valuation report. Inflation remains static even if a different discount rate is modeled. To model the impact of a different discount rate, follow the steps below:

1. Enter a discount rate into the **Discount Rate %** field.



The screenshot shows the 'Modeling Assumptions' form. The 'Discount Rate %' field is highlighted with a yellow box, and a yellow arrow points to it from the right. The field contains the value '6.500'. The 'PEPRA' section has 'Yes' selected. The 'PEPRA Transition Years' section has '10' selected. The 'Submit' button is highlighted in orange.

2. Click the **Submit** button.

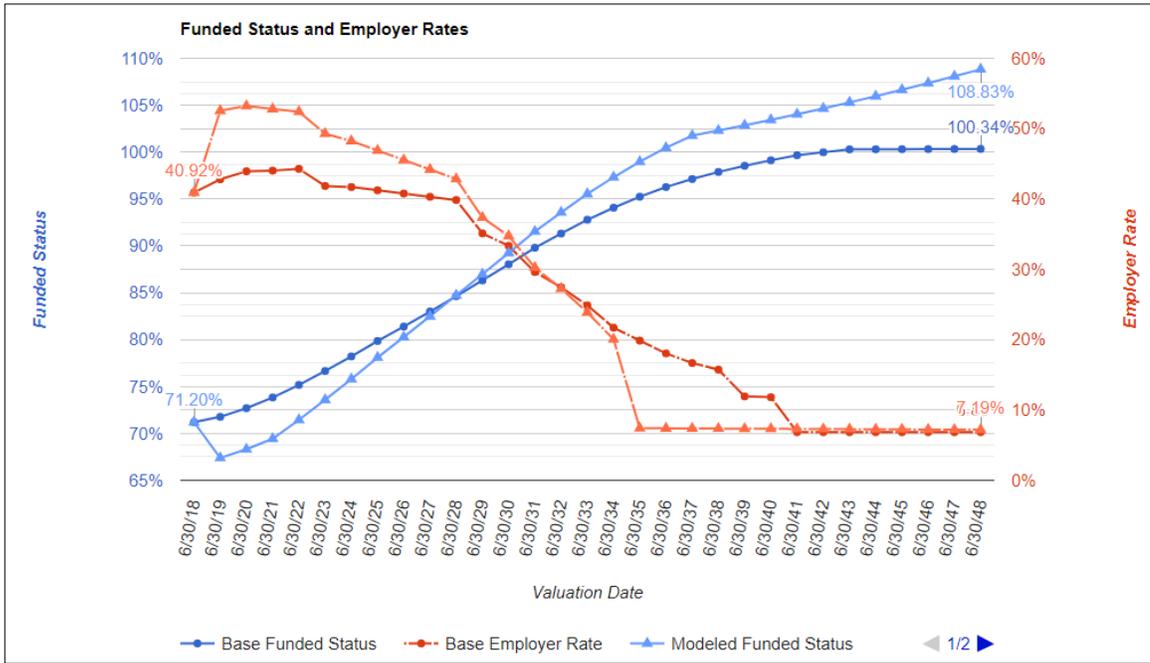


The screenshot shows the 'Modeling Assumptions' form. The 'Submit' button is highlighted with a yellow box, and a yellow arrow points to it from the right. The 'Discount Rate %' field contains the value '6.500'. The 'PEPRA' section has 'Yes' selected. The 'PEPRA Transition Years' section has '15' selected.

Discount Rate (Cont.)

3. The desired results display.

Note: Both the baseline and new scenario are displayed.



PEPRA Transition Period

You can model the reduction in employer normal cost due to the transition of active members in a plan from Classic status to PEPRA status. This reduction can be modeled using 10, 15, or 20 years for the full transition period.

The Baseline projection reflects a PEPRA transition period of 15 years which is roughly the level of turnover observed to date for a typical plan. If you have plans exhibiting a slower turnover you should select a PEPRA transition period of 20 years. For plans with a higher turnover, you would be advised to select a PEPRA transition period of 10 years. You can also turn off the PEPRA Transition Period.

Changing PEPRA Transition Period

To change the modeling of the PEPRA Transition Period, follow the steps below:

1. Verify the **Yes** radio button is selected in the PEPRA section.

The screenshot shows a web form titled "Modeling Assumptions". It contains several input fields and radio buttons. The "Years to Project" section has radio buttons for 10, 20, and 30, with 30 selected. The "Discount Rate % (required)" field contains the value "7.000". The "PEPRA" section has radio buttons for "Yes" and "No", with "Yes" selected and highlighted by a yellow box and a yellow arrow pointing to it. The "PEPRA Transition Years" section has radio buttons for 10, 15, and 20, with 15 selected. At the bottom, there are two buttons: "Submit" and "Reset Modeling Criteria".

Changing PEPRA Transition Period (Cont.)

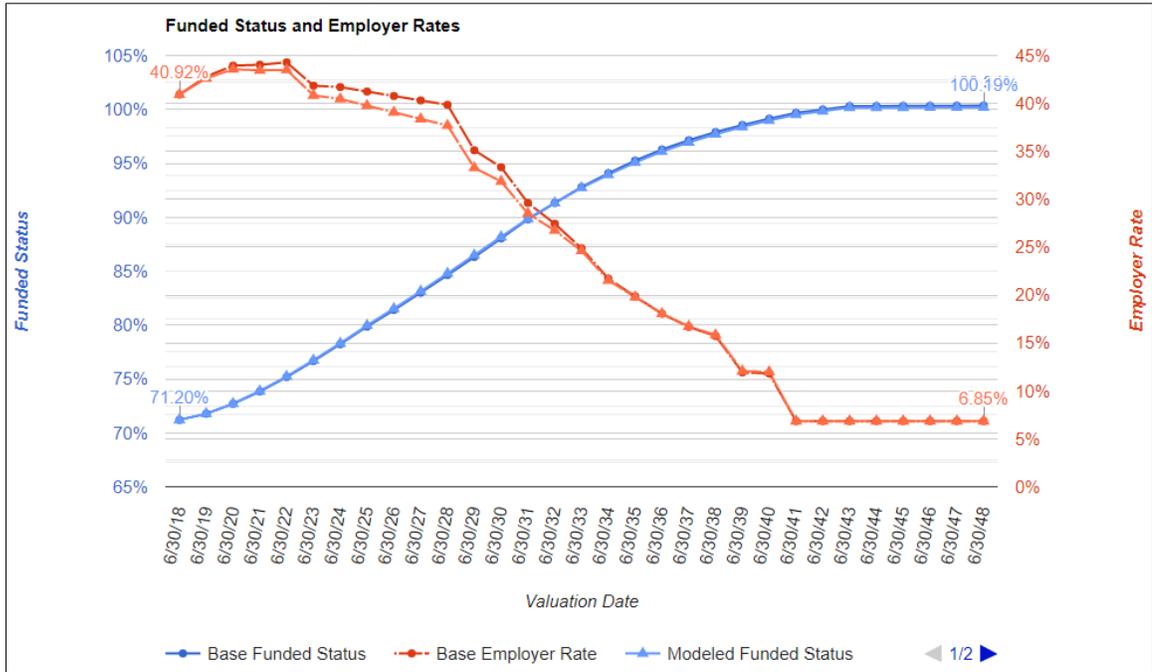
2. Select the desired **Transition Years** radio button (if applicable).

The screenshot shows the 'Modeling Assumptions' form. It includes a 'Years to Project' section with radio buttons for 10, 20, and 30 (30 is selected). A 'Discount Rate % (required)' text box contains '7.000'. The 'PEPRA' section has radio buttons for 'Yes' (selected) and 'No'. The 'PEPRA Transition Years' section is highlighted with a yellow box and has radio buttons for 10, 15, and 20 (10 is selected). A yellow arrow points from the 'Discount Rate %' text box to the 'PEPRA Transition Years' section. At the bottom are 'Submit' and 'Reset Modeling Criteria' buttons.

3. Click the **Submit** button.

This screenshot is identical to the previous one, but the 'Submit' button is highlighted in yellow, and a yellow arrow points to it from the right.

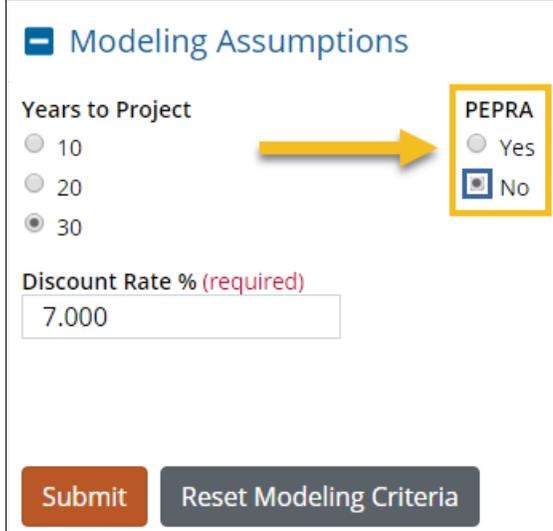
4. The desired results display.



Turning Off PEPRA Transition Period

To turn off PEPRA Transition Period, follow the steps below:

1. Click the **No** radio button in the PEPRA section.



Modeling Assumptions

Years to Project

10

20

30

PEPRA

Yes

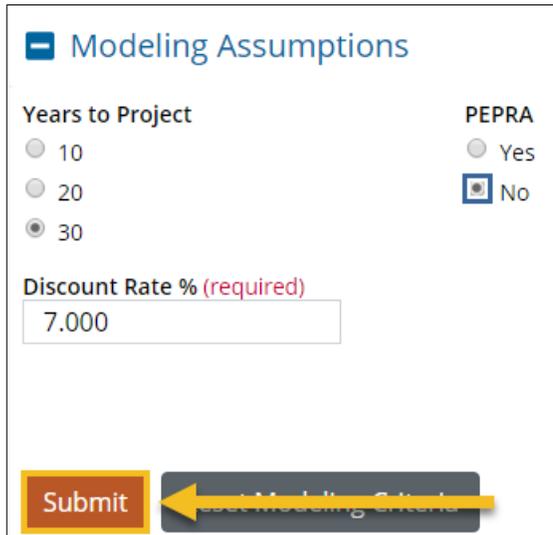
No

Discount Rate % (required)

7.000

Submit **Reset Modeling Criteria**

2. Click the **Submit** button



Modeling Assumptions

Years to Project

10

20

30

PEPRA

Yes

No

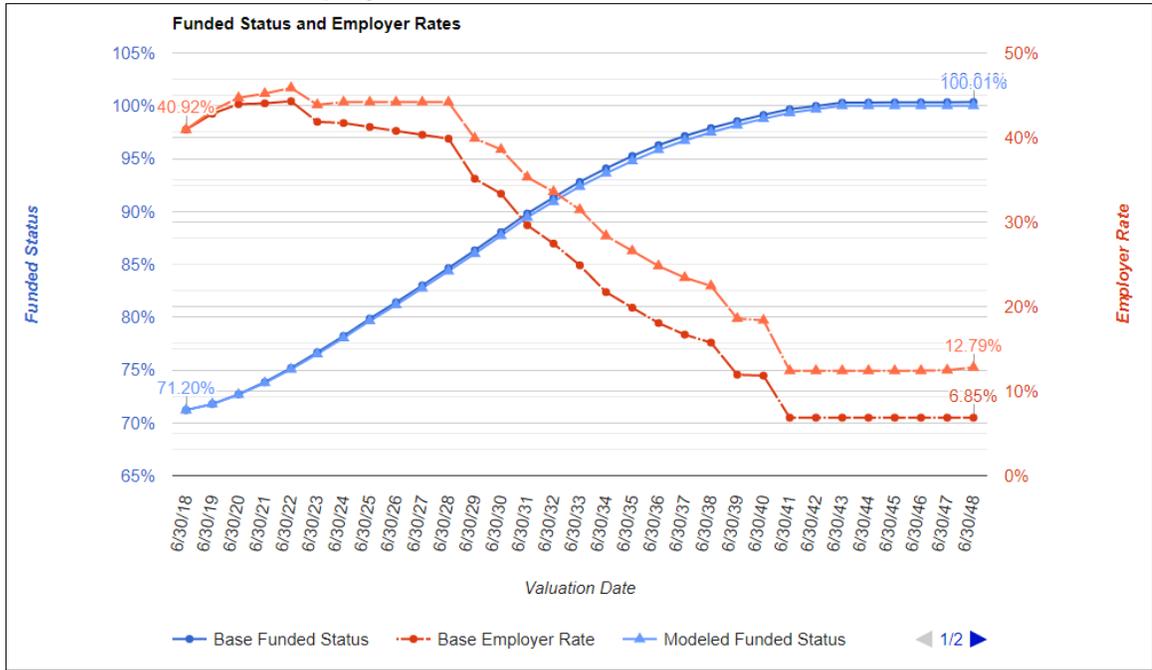
Discount Rate % (required)

7.000

Submit **Reset Modeling Criteria**

Turning Off PEPRA Transition (Cont.)

3. The desired results display.

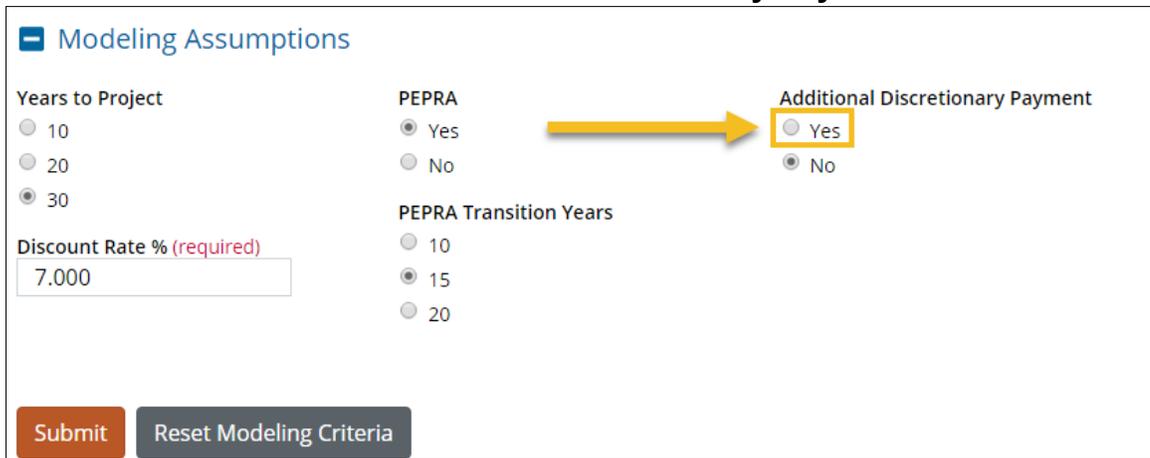


Additional Discretionary Payments (ADP's)

You can model ADP's using the Pension Outlook tool. For an agency with multiple plans, the same ADP's will be included in each plan on the Budget download. These ADP's are assumed to be made in the middle of the fiscal year (i.e. January 1st), and are applied to the amortization base with the longest period. More precise rate impacts with exact payments dates and applications to different amortization bases can be determined using the Managing Employer Contributions spreadsheet available from the Actuarial Office.

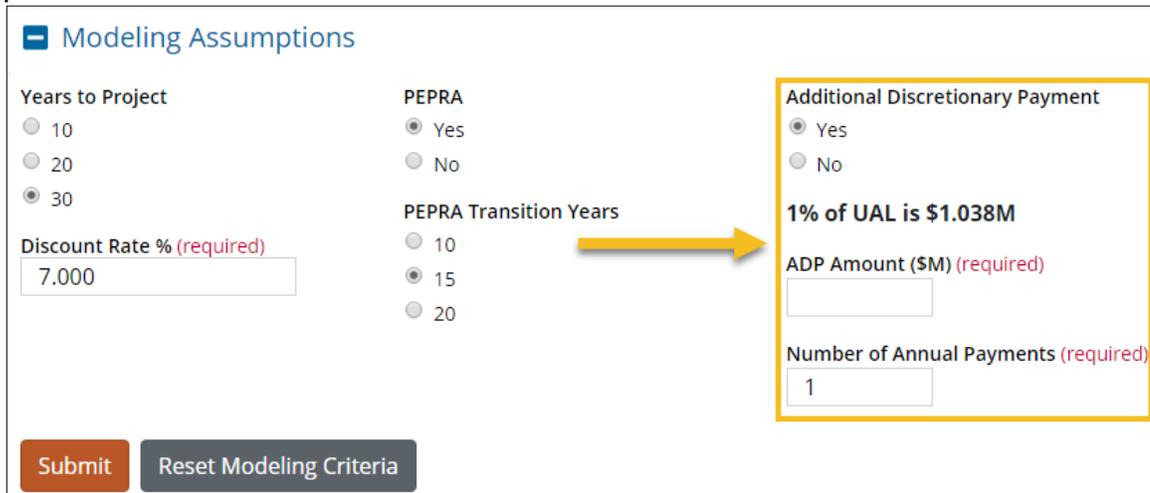
To model an ADP, perform the steps below:

1. Select the Yes button in the **Additional Discretionary Payment** section.



The screenshot shows the 'Modeling Assumptions' form. The 'Additional Discretionary Payment' section is highlighted with a yellow box, and a yellow arrow points to the 'Yes' radio button, which is selected. The 'PEPRA' section has 'Yes' selected. The 'PEPRA Transition Years' section has '15' selected. The 'Discount Rate % (required)' field contains '7.000'. The 'Submit' and 'Reset Modeling Criteria' buttons are visible at the bottom.

2. Additional fields appear with 1% of Unfunded Actuarial Liability (UAL) for the plan for reference.



The screenshot shows the 'Modeling Assumptions' form with the 'Additional Discretionary Payment' section highlighted by a yellow box. The 'Yes' radio button is selected. Below the 'Additional Discretionary Payment' section, the text '1% of UAL is \$1.038M' is displayed. The 'ADP Amount (\$M) (required)' field is empty, and the 'Number of Annual Payments (required)' field contains '1'. A yellow arrow points from the 'PEPRA Transition Years' section to the 'Additional Discretionary Payment' section. The 'Submit' and 'Reset Modeling Criteria' buttons are visible at the bottom.

Additional Discretionary Payment (Cont.)

3. Enter the amount of the anticipated ADP in \$ Millions (e.g. \$1.2 will give an ADP of \$1,200,000) and the number of annual payments desired.

Modeling Assumptions

Years to Project
 10
 20
 30

Discount Rate % (required)
7.000

PEPRA
 Yes
 No

PEPRA Transition Years
 10
 15
 20

Additional Discretionary Payment
 Yes
 No

1% of UAL is \$1.038M

ADP Amount (\$M) (required)
1.200

Number of Annual Payments (required)
2

Submit Reset Modeling Criteria

4. Click the **Submit** button

Modeling Assumptions

Years to Project
 10
 20
 30

Discount Rate % (required)
7.000

PEPRA
 Yes
 No

PEPRA Transition Years
 10
 15
 20

Additional Discretionary Payment
 Yes
 No

1% of UAL is \$1.038M

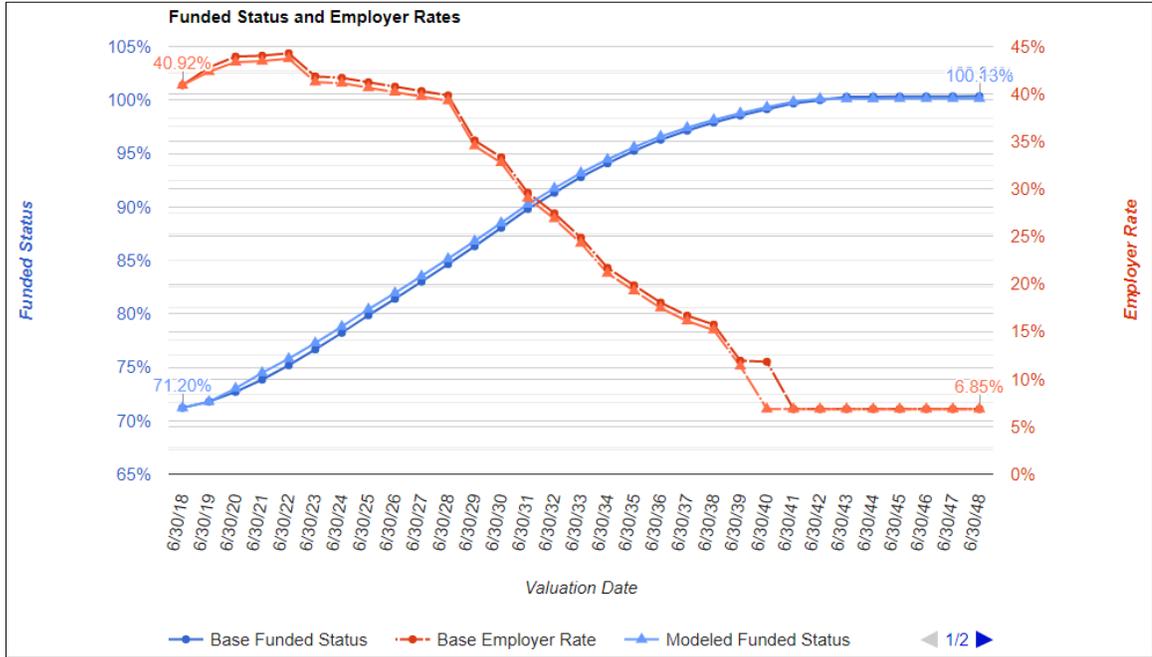
ADP Amount (\$M) (required)
1.200

Number of Annual Payments (required)
2

Submit Reset Modeling Criteria

Additional Discretionary Payment (Cont.)

- The desired results display with an ADP of \$1.2 M for each of the next two years.



Investment Scenarios

You can model future investment scenarios by selecting pre-loaded random scenarios provided for the most recent 2021 Asset Liability Management (ALM) Workshop, or by entering an investment scenario of your own choosing.

If you select a random scenario, you will have the option of selecting a random scenario grouped by percentiles. For example, if you are looking for a slightly pessimistic scenario you might select the 25-50% percentile. For a slightly optimistic scenario you would select the 50-75% percentile. Note that the number of the random scenario generated will be provided on the summary for future reference.

If you are interested in entering your own investment scenario, enter the investment return percentage and the associated period in the Investment table. For example, entering 21.3% for 1 year replicates the actual investment return for FY 2020-21. The total number of years in this section will default to the length of the chosen projected period.

Selecting a Random Investment Scenario

To select a Random Investment Scenario, follow the steps below:

1. Click the **Yes** radio button in the Random Investment Scenario section.

Rate % (required)	Number of Years (required)
7.000	1
7.000	1
7.000	1
7.000	7
7.000	20

Selecting a Random Investment Scenario (Cont.)

2. Additional selections appear in the Random Investment Scenario section.

Random Investment Scenario

Yes

No

Generate New Random Scenario

Percentile

75-100%

50-75%

25-50%

0-25%

3. Make selections as desired.

4. Click the **Submit** button.

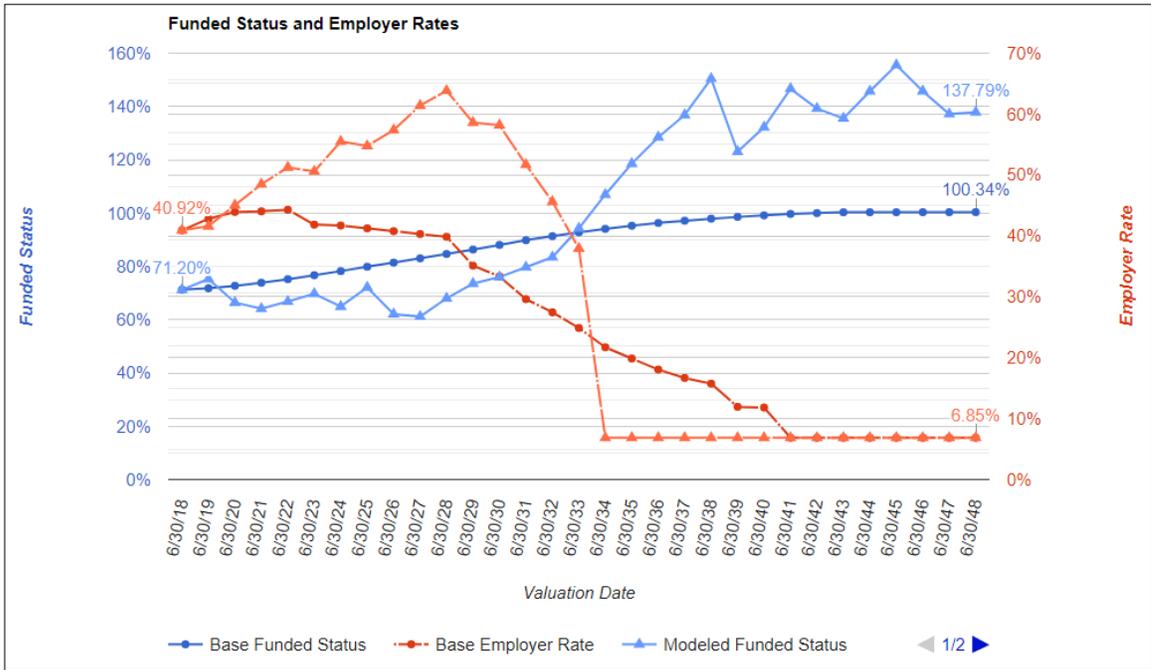
Modeling Assumptions

Years to Project	PEPRA	Additional Discretionary Payment	Random Investment Scenario
<input type="radio"/> 10	<input checked="" type="radio"/> Yes	<input type="radio"/> Yes	<input checked="" type="radio"/> Yes
<input type="radio"/> 20	<input type="radio"/> No	<input checked="" type="radio"/> No	<input type="radio"/> No
<input checked="" type="radio"/> 30			
Discount Rate % (required)	PEPRA Transition Years		Generate New Random Scenario <input checked="" type="checkbox"/>
<input type="text" value="7.000"/>	<input type="radio"/> 10		Percentile
	<input checked="" type="radio"/> 15		<input type="radio"/> 75-100%
	<input type="radio"/> 20		<input type="radio"/> 50-75%
			<input checked="" type="radio"/> 25-50%
			<input type="radio"/> 0-25%

Submit

Selecting a Random Investment Scenario (Cont.)

5. The desired results display.



Entering a User Specified Investment Scenario

To enter a User Specified Investment Scenario, follow the steps below:

1. Verify the **No** radio button is selected in the Random Investment Scenario section.

Random Investment Scenario

Yes

No

Return % (required)	Number of Years (required)
6.800	2022-23
6.800	2023-24
6.800	1
6.800	7
6.800	20

2. Enter desired **Rate(s)** and **Year(s)**.
Note: the first two years are specified for the user.

Random Investment Scenario

Yes

No

Return % (required)	Number of Years (required)
6.100	2022-23
6.800	2023-24
6.800	1
6.800	7
6.800	20

3. Click the **Submit** button.

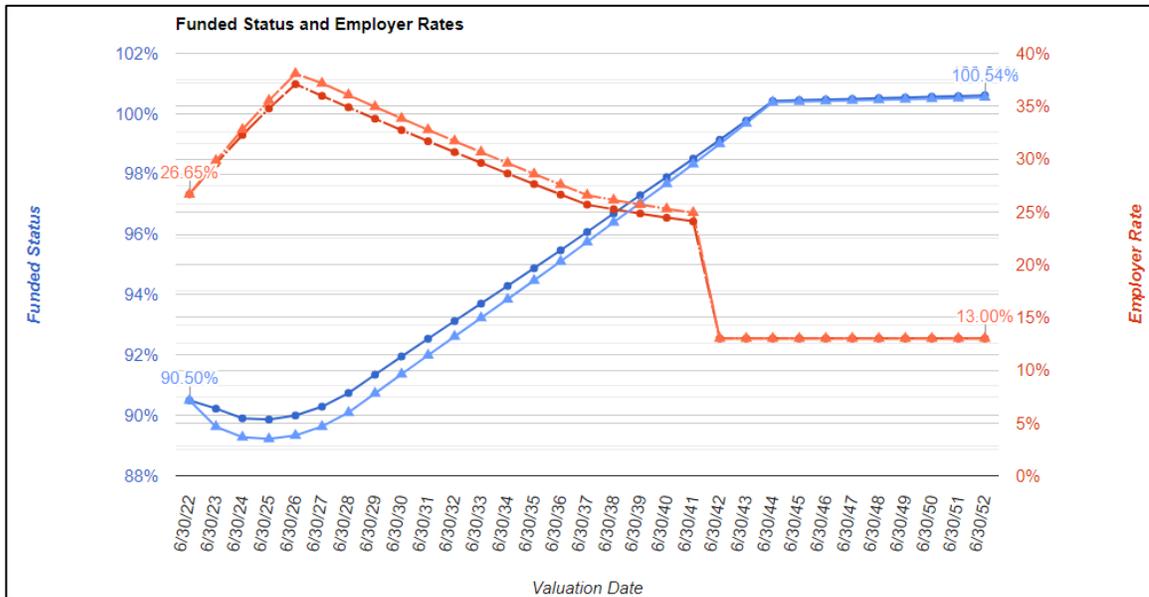
Modeling Assumptions

<p>Years to Project</p> <p><input type="radio"/> 10</p> <p><input type="radio"/> 20</p> <p><input checked="" type="radio"/> 30</p>	<p>PEPRA</p> <p><input checked="" type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<p>Additional Discretionary Payment</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p>	<p>Random Investment Scenario</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p>	<p>Section 115 Trust</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p>
---	---	--	--	---

<p>Discount Rate % (required)</p> <p><input type="text" value="6.800"/></p>	<p>PEPRA Transition Years</p> <p><input type="radio"/> 10</p> <p><input checked="" type="radio"/> 15</p> <p><input type="radio"/> 20</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Return % (required)</th> <th style="text-align: left;">Number of Years (required)</th> </tr> </thead> <tbody> <tr><td>6.100</td><td>2022-23</td></tr> <tr><td>6.800</td><td>2023-24</td></tr> <tr><td>6.800</td><td>1</td></tr> <tr><td>6.800</td><td>7</td></tr> <tr><td>6.800</td><td>20</td></tr> </tbody> </table>	Return % (required)	Number of Years (required)	6.100	2022-23	6.800	2023-24	6.800	1	6.800	7	6.800	20
Return % (required)	Number of Years (required)													
6.100	2022-23													
6.800	2023-24													
6.800	1													
6.800	7													
6.800	20													

Submit ←

4. The desired results display.



Section 115 Trust

You can model the balance of Section 115 Trust accounts by entering the starting balance, expected return and expected cashflows.

1. Select the **Yes** radio button in the Section 115 Trust section.

Random Investment Scenario		Section 115 Trust	
<input type="radio"/> Yes <input checked="" type="radio"/> No		<input type="radio"/> Yes <input checked="" type="radio"/> No	
Return % (required)	Number of Years (required)		
6.800	2022-23		
6.800	2023-24		
6.800	1		
6.800	7		
6.800	20		



2. Data entry fields for the Section 115 Trust section appear. Enter the desired **account balance**, **assumed return %**, **annual contributions** (or withdrawals with a negative number) and the **number of years**.

Random Investment Scenario		Section 115 Trust					
<input type="radio"/> Yes <input checked="" type="radio"/> No		<input checked="" type="radio"/> Yes <input type="radio"/> No					
Return % (required)	Number of Years (required)			6/30/2023	Assumed	Annual	Number
				Balance (\$M)	Return %	Contrib (\$M)	Years
6.800	2022-23	Account 1		1.250	6	0.250	15
6.800	2023-24	Account 2		0.250	4	0.100	3
6.800	1						
6.800	7						
6.800	20						



3. Click the **Submit** button.

Modeling Assumptions

Years to Project: 10, 20, 30

PEPRA: Yes, No

Additional Discretionary Payment: Yes, No

Random Investment Scenario: Yes, No

Section 115 Trust: Yes, No

Discount Rate % (required):

PEPRA Transition Years: 10, 15, 20

Return % (required)	Number of Years (required)
6.800	2022-23
6.800	2023-24
6.800	1
6.800	7
6.800	20

	6/30/2023 Balance (\$M)	Assumed Return %	Annual Contrib (\$M)	Number Years
Account 1	1,250	6	0.250	15
Account 2	0,250	4	0.100	3

Submit

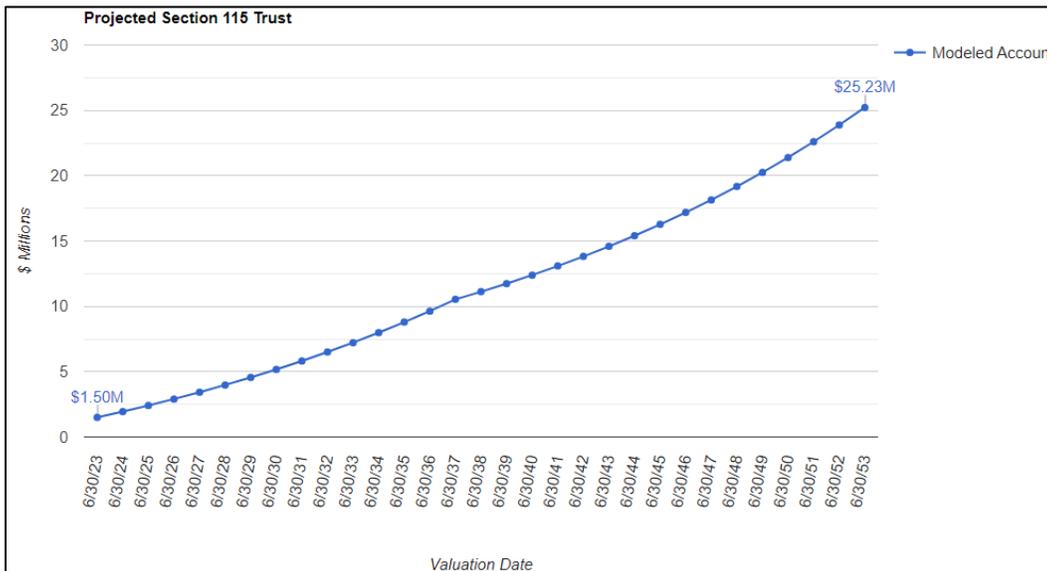
4. Select the **Section 115 Trust** tab.

30 Year Budget

Download the [Fiscal Year Cost and Annual Relative Increase in Cost \(XLSX\)](#).

Summary | Funding | Cash Flow | **Section 115 Trust** | Glossary

5. The desired results display.

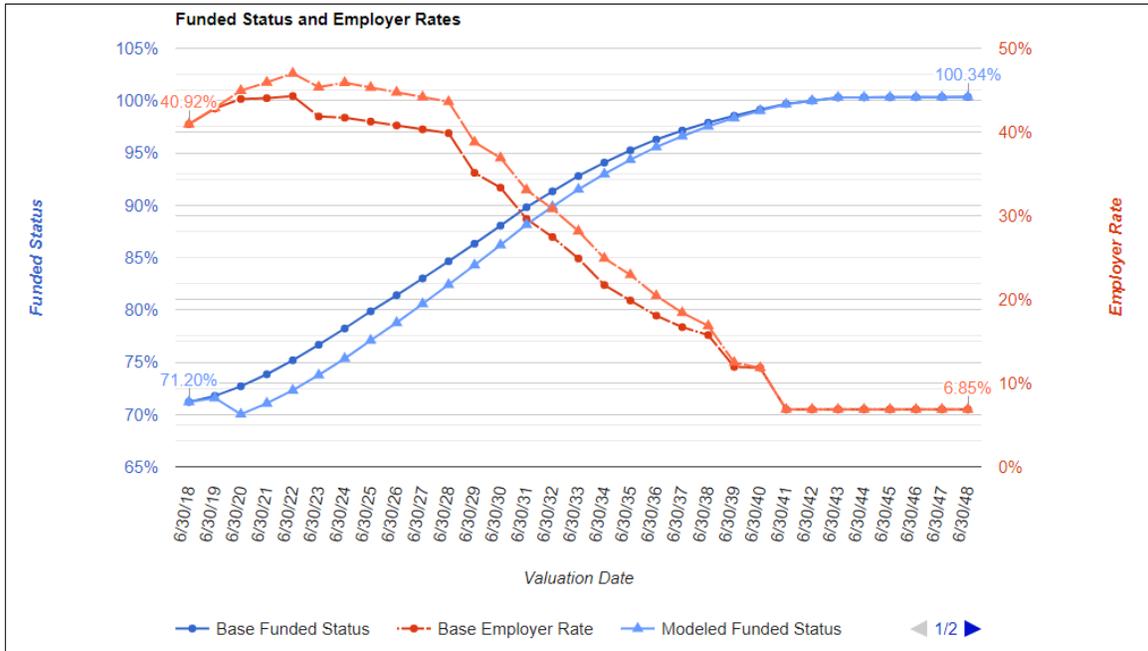


6. You can also view more details of the projected Section 115 Trust account balances on the Combined worksheet in the downloadable excel spreadsheet.

Fiscal Year Cost (in \$M)	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Combined	66.07%	67.53%	68.57%	69.79%	71.18%	72.69%	74.52%	76.44%	78.45%
Funded Ratio	66.07%	67.53%	68.57%	69.79%	71.18%	72.69%	74.52%	76.44%	78.45%
Impact on UAL	\$4.11	(\$2.82)	(\$3.01)	(\$3.32)	(\$3.57)	(\$3.76)	(\$3.89)	(\$3.94)	(\$3.82)
Section 115 Trust									
Acct1 - Opening Balance	\$1.25	\$1.58	\$1.94	\$2.31	\$2.70	\$3.12	\$3.57	\$4.04	\$4.54
Acct1 - Contribution	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Acct2 - Opening Balance	\$0.25	\$0.36	\$0.48	\$0.60	\$0.62	\$0.65	\$0.67	\$0.70	\$0.73
Acct2 - Contribution	\$0.10	\$0.10	\$0.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
115 Trust - Opening Balance	\$1.50	\$1.94	\$2.41	\$2.91	\$3.33	\$3.77	\$4.24	\$4.74	\$5.27
115 Trust Annual Cost Coverage									
Baseline	5.30%	6.20%	7.30%	8.30%	9.20%	9.60%	10.60%	11.60%	13.20%
Scenario	5.30%	6.20%	7.30%	8.30%	9.20%	9.60%	10.70%	11.80%	13.40%
Possible 115 Trust Funding Targets									
2 x ER NC	\$14.03	\$14.00	\$14.09	\$14.19	\$14.27	\$14.35	\$14.42	\$14.49	\$14.54
5% of AL	\$46.33	\$47.19	\$48.04	\$48.87	\$49.69	\$50.48	\$51.26	\$52.02	\$52.76

Summary Results

The Summary Results provide graphic projections of the plan’s funded status and the employer contribution rate under the Baseline assumptions and the modeled scenario for the Projection Period selected.



Key cost metrics are also displayed on this screen. See next page for more details.

Key cost metrics include:

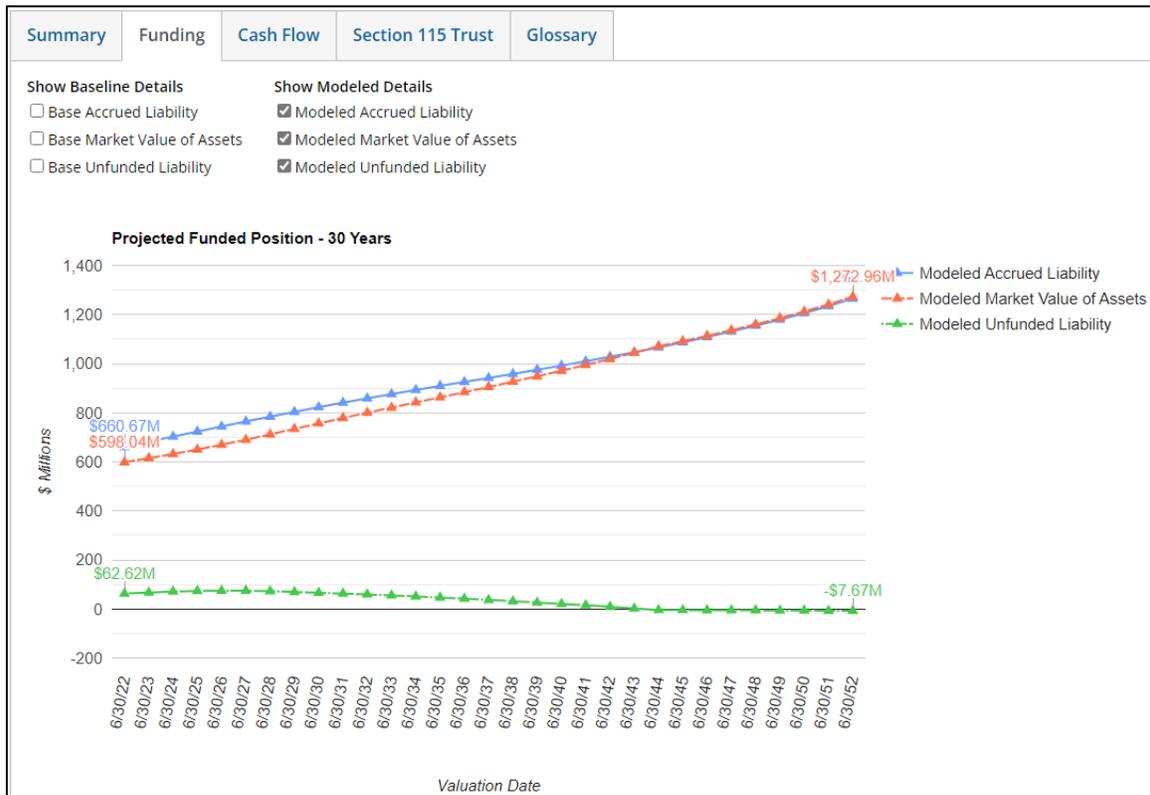
1. Cost Over the Projected Period (e.g. 30 Years)
2. Future Funded Status (including 3, 5 and 10 years into the future)
3. Employer Rates (average and maximum over projected period)
4. Plan Cost Diagnostics (comparisons to current and baseline)

Cost Over 30 Years (\$M) 1		Funded Status		Future Funded Status 2	
Details	Amount	Details	Percentage	Date	Percentage
Baseline	\$298.16	Current at 06/30/2018	71.20%	at 06/30/2022	72.31%
Scenario	\$320.09	Projected at 06/30/2019	71.57%	at 06/30/2024	75.35%
Change	\$21.93	Lowest Funded Status	70.02%	at 06/30/2029	84.28%
Increase/ Decrease	7.35%				

Employer Rates 3		Plan Cost Diagnostics 4	
Details	Percentage	Rate	Average
Current FY (at 06/30/2019)	36.74%	Average Rate Relative to Current Rate	-23.54%
Projected for next FY (at 06/30/2020)	40.92%	Maximum Rate Relative to Current Rate	27.93%
Average Over 30 Years	28.09%	Average Rate Relative to Baseline	7.17%
Increase Over Baseline Over 30 Years	1.88%	Maximum Rate Relative to Baseline	6.13%
Maximum Over 30 Years	47.00%	Cost Over 30 Years Relative to Baseline	7.35%
Increase Over Baseline Over 30 Years	2.72%		

Funding Results

The Funding tab provides graphic projections of the accrued liabilities (AL), market value of assets (MVA) and the unfunded actuarial liability (UAL). You can select the results you would like to display on the graph by choosing between the baseline results and/or the modeled scenario for the AL, MVA and UAL.



Changing Displayed Funding Results

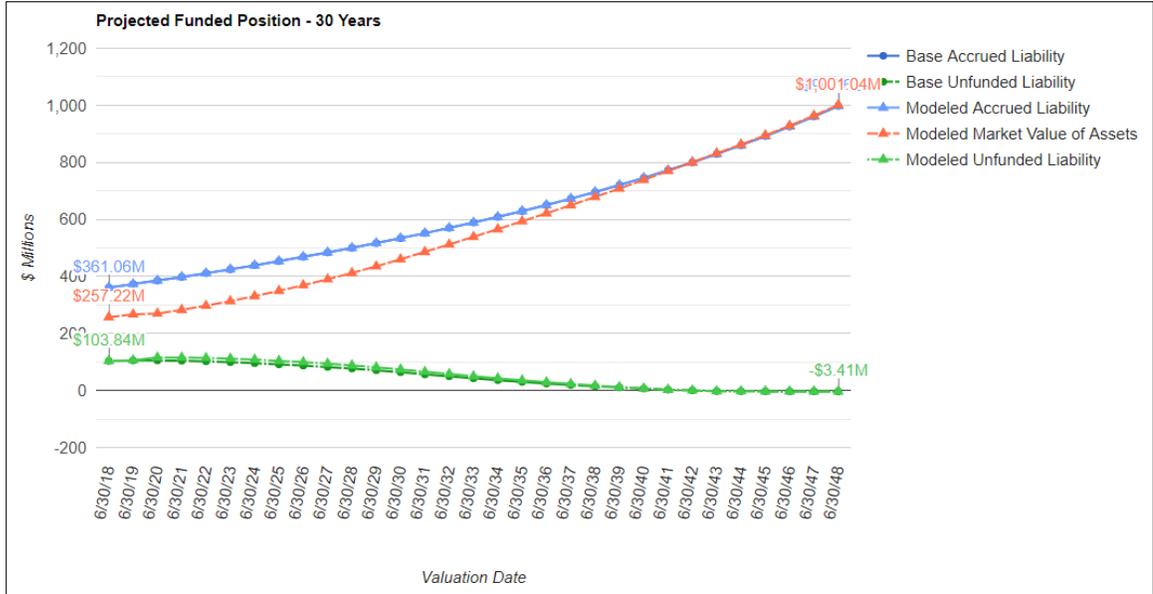
To change the results that are displayed, follow the steps below:

1. Select the checkboxes next to the desired details.

Show Baseline Details	Show Modeled Details
<input checked="" type="checkbox"/> Base Accrued Liability	<input checked="" type="checkbox"/> Modeled Accrued Liability
<input type="checkbox"/> Base Market Value of Assets	<input checked="" type="checkbox"/> Modeled Market Value of Assets
<input checked="" type="checkbox"/> Base Unfunded Liability	<input checked="" type="checkbox"/> Modeled Unfunded Liability

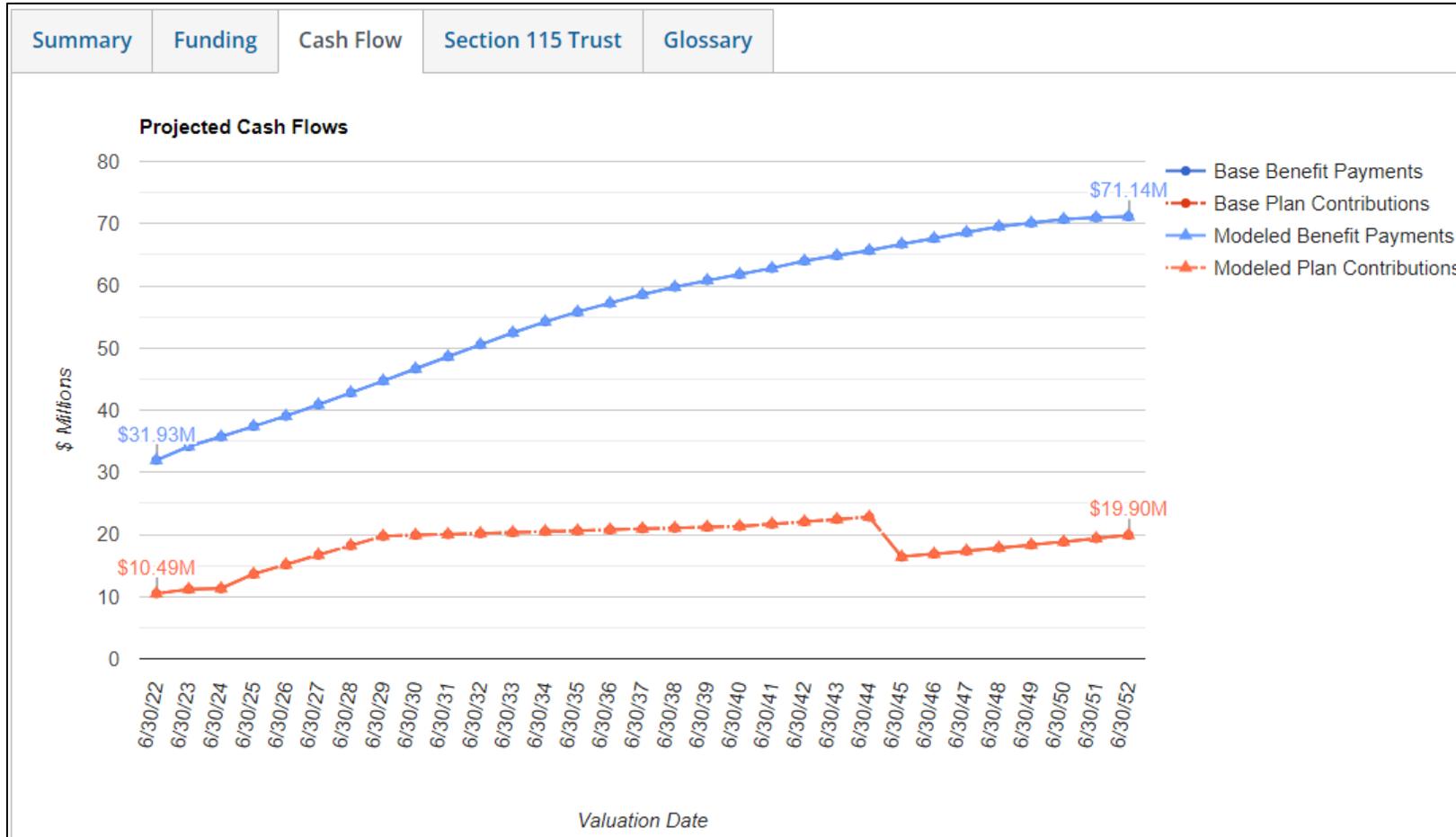
Changing Displayed Funding Results (Cont.)

2. Click outside of the dropdown menu, the desired results display.



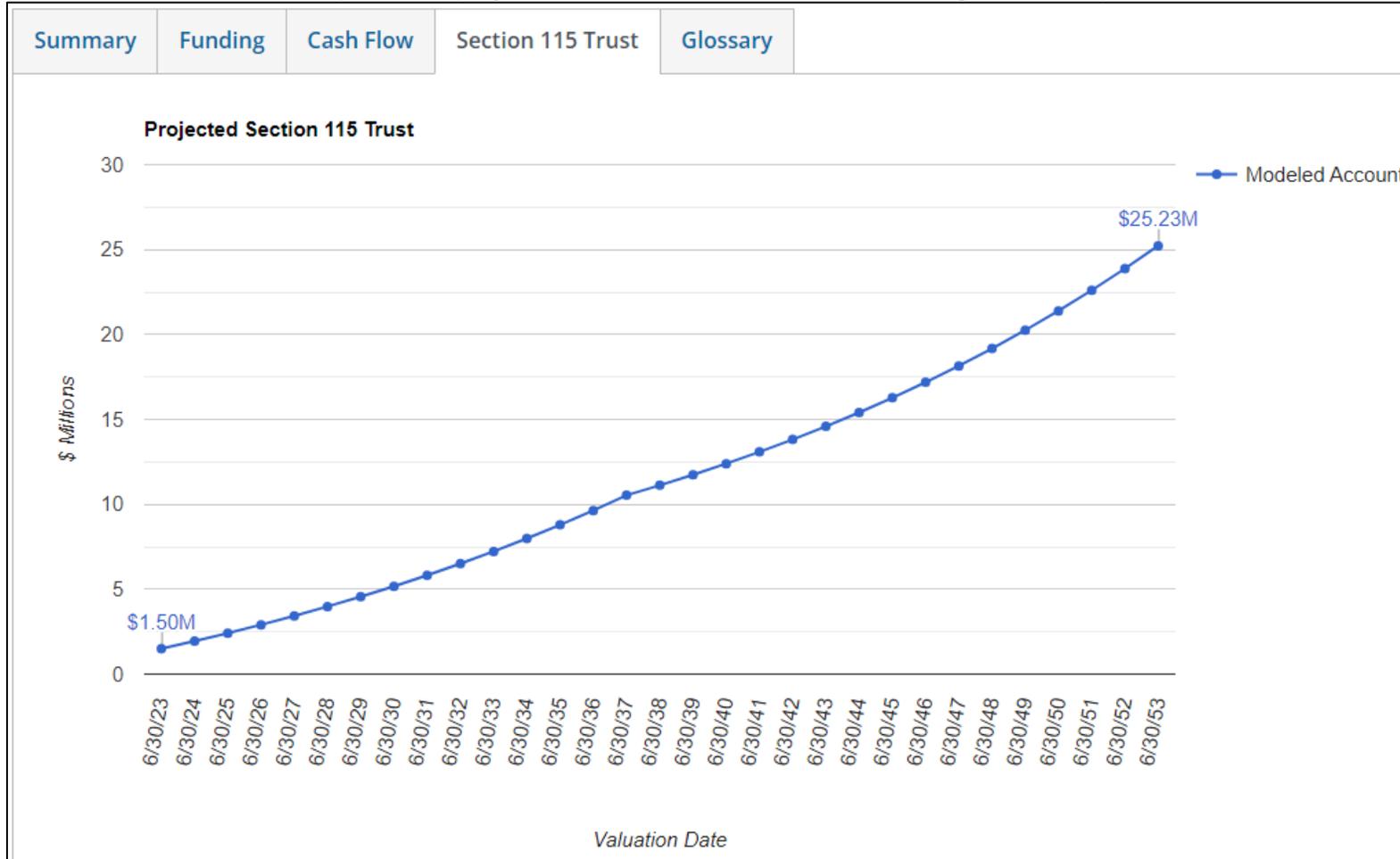
Cash Flow Results

The Cash Flow tab provides projections of the benefit payments (based on the most recent valuation report) and employer contributions based on the baseline and modeled scenario.



Section 115 Trust

The Section 115 Trust tab provides projections of the total account balance given the input account details.



Budgeting Results

This section contains year by year projections of the Employer Costs using the Baseline assumptions and any modeled scenarios. These results are provided for each plan that the Employer has along with the combined results of all the plans (if applicable). Annual relative increases in cost are provided in the tables along with an impact on costs in comparison with the Baseline projections based on the modeled scenario.

Click the **Fiscal Year Cost and Annual Relative Increase in Cost** link shown below to download and print a Microsoft Excel spreadsheet that contains the 30 years of projected cost information, plan assets, liabilities, and funded status.

Modeling Assumptions

Economic Assumptions			Investment Scenario Chosen		Other Assumptions		
Details	Baseline	Model	Rate	Period	Details	Baseline	Model
Discount Rate	7.000%	7.000%	6.700%	1	PEPRA	Yes	Yes
Payroll Growth	2.750%	2.750%	3.400%	1	Transition Years	15	15
Inflation Rate	2.500%	2.500%	7.000%	28	ADP	No	No

30 Year Budget

Download the [Fiscal Year Cost and Annual Relative Increase in Cost](#)

Microsoft Excel Spreadsheet

The Microsoft Excel spreadsheet contains the following information on separate worksheets:

1. Terms of Use
2. Assumptions
3. Plan Results
4. Combined Results

1	2	3		4
Terms of Use	Assumptions	374-Miscellaneous Plan	375-Safety Plan	Combined

Appendix 1 – Terms and Conditions of Use

Upon registering for a Pension Outlook account, you must agree to the following terms and conditions before gaining access to the tool:

Terms and Conditions of Use

Use of the model is subject to acceptance of these Terms and Conditions of Use.

The model is intended to be used solely for informational purposes. The hypothetical projections presented by the model are not intended to be actual estimates of future contribution rates or investment growth. Plan contribution rates and funded status will be based on actual experience, which may significantly differ from the hypothetical projections calculated using the model.

Hypothetical projections of plan results obtained using the model are based on the information contained in the plan's most recent valuation report, the assumptions used therein, and the information that you input into the model. The model will not automatically incorporate adjustments to the discount rate required under the CalPERS Funding Risk Mitigation Policy, which generally requires a reduction in the discount rate if CalPERS investment performance significantly outperforms the current discount rate.

The actuarial calculations performed by the model are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (e.g., termination, death, disability, retirement, salary growth, and investment return) are exactly realized each year, there will be differences between the hypothetical projections obtained using the model and your plan's actual required contribution rate and funded status on a year-to-year basis.

These year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise contribution rates from one year to the next. Actual contribution rates will inevitably fluctuate over time and may vary significantly from the hypothetical projections you obtained using the model.

Nothing contained herein or in the model is intended to constitute financial advice. CalPERS is not responsible for any hypothetical projections obtained using the model, or any decisions or actions taken in reliance upon such projections. CalPERS disclaims any and all liability for misrepresentations regarding the accuracy of the hypothetical projections obtained using the model. CalPERS does not guarantee the accuracy of any of the hypothetical projections obtained using the model.

By accepting below, I acknowledge that I have read, understand, and agree to, these Terms and Conditions of Use.

Terms and Conditions of Use (Cont.)

Terms and conditions can be accessed in Pension Outlook by clicking on the Terms and Conditions hyperlink:

