



**Marin Municipal Water District
Retiree Healthcare Plan**

BARTEL
ASSOCIATES, LLC

June 30, 2018 GASBS 75 Accounting Information
As of Measurement Date June 30, 2017
Based on the June 30, 2017 Actuarial Valuation

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Bartel Associates, LLC

August 17, 2018

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Applicable Dates

Applicable Dates and Periods

	2017/18 Employer Fiscal Year
■ Measurement Date	June 30, 2017
■ Measurement Period	July 1, 2016 to June 30, 2017
■ Actuarial valuation date	June 30, 2017

Note Disclosures

Plan Information

Fiscal Year End	June 30, 2018
■ Plan Type	Single Employer
■ OPEB Trust	Yes
■ Special Funding Situation	No
■ Nonemployer Contribution Entities	None

Note Disclosures

Expected Long-Term Rate of Return

	Target Allocation*	Expected Real Rate of Return
<ul style="list-style-type: none"> ■ Asset Class Component <ul style="list-style-type: none"> ● Public Equity ● Fixed Income ● TIPS ● Commodities ● REITs 	57% 27% 5% 3% 8%	4.82% 1.47% 1.29% 0.84% 3.76%
■ Assumed Long-Term Rate of Inflation		2.75%
■ Assumed Long-Term Investment Expenses		n/a
■ Expected Long-Term Net Rate of Return		6.78%
■ Discount Rate**		6.75%

* Provided by CalPERS' Strategic Asset Allocation Analysis Overview in August 2014 – Strategy 1.

** The fiduciary net position is projected to be sufficient to make projected benefit payments, and the plan assets are expected to be invested using the strategy to achieve the expected return.

Note Disclosures

Covered Participants

At June 30, 2017, the measurement date, the following numbers of participants were covered by the benefit terms:

	Number of Covered Participants
■ Inactives currently receiving benefits	241
■ Inactives entitled to benefit payments	15
■ Active employees	228
■ Total	484

Note Disclosures

Net OPEB Liability/(Asset)

(Amounts in 000's)

	Fiscal Year Ending	
	6/30/18	6/30/17
■ Measurement Date	6/30/17	6/30/16
■ Total OPEB Liability (TOL)	\$ 58,247	\$ 55,623
■ Fiduciary Net Position (FNP)	24,269	20,638
■ Net OPEB Liability (NOL)	33,978	34,985
■ Funded status (FNP/TOL)	41.7%	37.1%

Note Disclosures

Changes in Net OPEB Liability/(Assets)

(Amounts in 000's)

	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability
■ Balance at 6/30/16	\$ 55,623	\$ 20,638	\$ 34,985
■ Changes for the year			
● Service Cost	1,589	-	1,589
● Interest	3,770	-	3,770
● Difference between actual and	-	-	-
● Assumption changes	-	-	-
● Contributions - employer*	-	4,135	(4,135)
● Contributions - employee	-	-	-
● Net investment income	-	2,242	(2,242)
● Benefit payments and refunds*	(2,735)	(2,735)	-
● Administrative expenses	-	(11)	11
■ Net Changes	2,624	3,631	(1,007)
■ Balance at 6/30/17	58,247	24,269	33,978

* Includes \$1,400,000 District contribution to trust, and \$2,314,000 cash benefit payments and \$421,000 Implied Subsidy benefit payments (both paid outside of trust).

Note Disclosures

Sensitivity of Net OPEB Liability

(Amounts in 000's)

■ **Changes in the Discount Rate**

	Discount Rate		
	5.75% (1% Decrease)	6.75% (Current Rate)	7.75% (1% Increase)
■ Net OPEB Liability	\$ 41,305	\$ 33,978	\$ 27,906

■ **Changes in the Healthcare Trend Rate**

	Healthcare Trend Rate		
	1% Decrease	Current Trend	1% Increase
■ Net OPEB Liability	\$ 27,327	\$ 33,978	\$ 42,084

Note Disclosures

OPEB Expense for Fiscal Year

(Amounts in 000's)

	2017/18
■ OPEB Expense	\$ 3,769

See slide 23 for OPEB expense detail, which is not required disclosure.

Note Disclosures

Deferred Outflows/Inflows Balances at June 30, 2018

(Amounts in 000's)

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	\$ -	\$ -
■ Changes of assumptions	-	-
■ Net difference between projected and actual earnings on plan investments*	-	(641)
■ Employer contributions made subsequent to the measurement date**	4,754	-
■ Total	4,754	(641)

* Combine Deferred Inflows and Outflows for footnote disclosure.

** Includes \$1,810 District contribution to trust and benefits paid directly by the District of \$2,459 cash benefit payments and \$485 Implied Subsidy benefit payments.

Note Disclosures

Recognition of Deferred Outflows and Inflows of Resources in Future OPEB Expense

(Amounts in 000's)

FYE June 30	Deferred Outflows/(Inflows) of Resources
■ 2019	\$ (160)
■ 2020	(160)
■ 2021	(160)
■ 2022	(161)
■ Thereafter	-

Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2017 Measurement Date
■ Actuarial Valuation Date	■ June 30, 2017
■ Contribution Policy	■ District contributes full ADC
■ Discount Rate	■ 6.75% at June 30, 2017
	■ 6.75% at June 30, 2016
■ Expected Long-Term Rate of Return on Investments	■ Same as discount rate - expected District contributions projected to keep sufficient plan assets to pay all benefits from trust.
■ General Inflation	■ 2.75% per annum
■ Mortality, Retirement, Disability, Termination	■ Same as June 30, 2017 actuarial valuation
■ Mortality Improvement	■ Projected fully generational with Scale MP-2017

Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2017 Measurement Date
■ Salary Increases	■ Aggregate -3%
	■ Merit - CalPERS 1997-2015 Experience Study
■ Medical Trend	■ Non-Medicare - 7.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 and later years
	■ Medicare - 6.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 and later years
■ Healthcare participation	■ Currently covered: 100%
	■ Currently Waived 50%
■ Cap Increases	■ Dollar Cap: Non-Medicare healthcare trend

Required Supplementary Information

Schedule of Changes in Net OPEB Liability/(Assets) and Related Ratios

(Amounts in 000's)

	Fiscal Year 2017/18
■ Changes in Total OPEB Liability	
● Service Cost	\$ 1,589
● Interest	3,770
● Difference between actual and expected experience	-
● Assumption changes	-
● Benefit payments including refunds	(2,735)
● Changes of benefit terms	-
■ Net Changes	<u>2,624</u>
■ Total OPEB Liability (beginning of year)	<u>55,623</u>
■ Total OPEB Liability (end of year)	58,247

Required Supplementary Information

Schedule of Changes in Net OPEB Liability/(Assets) and Related Ratios

(Amounts in 000's)

	Fiscal Year 2017/18
■ Changes in Plan Fiduciary Net Position	
● Contributions - employer	\$ 4,135
● Contributions - employee	-
● Net investment income	2,242
● Benefit payments and refunds	(2,735)
● Administrative expenses	(11)
● Other changes	-
● Net Changes	<u>3,631</u>
■ Plan Fiduciary Net Position (beginning of year)	<u>20,638</u>
■ Plan Fiduciary Net Position (end of year)	24,269

Required Supplementary Information

Schedule of Changes in Net OPEB Liability/(Assets) and Related Ratios

(Amounts in 000's)

	Fiscal Year 2017/18
■ Net OPEB Liability/(Asset)	\$ 33,978
■ Fiduciary Net Position as a percentage of the Total OPEB Liability	41.7%
■ Covered employee payroll*	26,020
■ Net OPEB Liability as a percentage of covered employee payroll	131%

* Determined for the 12 month period ending on June 30, 2017 (Measurement Date).

Required Supplementary Information

Schedule of Employer Contributions

(Amounts in 000's)

	Fiscal Year 2017/18
■ Actuarially Determined Contribution (ADC)	\$ 4,246
■ Contributions in relation to the actuarially determined contribution	4,754
■ Contribution deficiency/(excess)	(508)
■ Covered employee payroll*	25,366
■ Contributions as a percentage of covered employee payroll	19%

* Determined for the 12 months period ending on June 30, 2018 (fiscal year end).

Required Supplementary Information

Notes to Schedule of Employer Contribution
Methods and Assumptions for
Actuarially Determined Contribution

■ Valuation Date	■ June 30, 2015
■ Actuarial Cost Method	■ Entry Age Normal, Level Percentage of Payroll
■ Amortization Method	■ Level percentage of paryoll
■ Remaining Amortization Period	■ Approximately 18 years remaining as of June 30, 2017.
■ Asset Valuation Method	■ Investment gains and losses spread over 5-year rolling period
■ Discount Rate	■ 7.25%
■ General Inflation	■ 3.00%
■ Medical Trend	■ Non-Medicare – 7.0% for 2017, decreasing to an ultimate rate of 5.0% in 2021 and later years ■ Medicare – 7.2% for 2017, decreasing to an ultimate rate of 5.0% in 2021 and later years
■ Mortality Improvement	■ Mortality projected fully generational with Scale MP-14, modified to converge to ultimate rates in 2022.

Actuarial Certification

This report presents the Marin Municipal Water District Retiree Healthcare Plan 2017 disclosure under Governmental Accounting Standards Board Statement No. 75 (GASBS 75).

The report provides information intended for reporting under GASBS 75, but may not be appropriate for other purposes. Information provided in this report may be useful to the District for the Plan's financial management. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, and asset information provided by the District as summarized in this report, which we relied on and did not audit. We reviewed the participant data for reasonableness. As permitted under GASBS 75, the total OPEB liability has been calculated from the June 30, 2017 actuarial valuation. Additional information on participants included in the valuation, actuarial assumptions, and asset information can be found in the June 30, 2017 funding actuarial valuation report.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASBS 75. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein

Respectfully submitted,



Doug Pryor, ASA, EA, MAAA
 Vice President
 Bartel Associates, LLC
 August 17, 2018

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2018

Differences between Expected and Actual Experience

(Amounts in 000's)

Meas. Period	Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY					Balances Deferred June 30, 2018	
				17/18	18/19	19/20	20/21	21/22	Outflows	Inflows
16/17	17/18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total				-	-	-	-	-	-	-

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2018

Changes of Assumptions

(Amounts in 000's)

Meas. Period	Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY					Balances Deferred June 30, 2018	
				17/18	18/19	19/20	20/21	21/22	Outflows	Inflows
16/17	17/18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total				-	-	-	-	-	-	-

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2018

Projected Versus Actual Earnings on Investments

(Amounts in 000's)

Meas. Period	Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY					Balances Deferred June 30, 2018	
				17/18	18/19	19/20	20/21	21/22	Outflows	Inflows
16/17	17/18	\$(801)	5	\$(160)	\$(160)	\$(160)	\$(160)	\$(161)	\$ -	\$(641)
Total				(160)	(160)	(160)	(160)	(161)	-	(641)

* Calculation of initial amount for 2015/16 measurement period:

Projected earnings on investments (slide 24), less

Actual earnings on investments (net of investment income, slide 14), equals

Projected earnings less actual earnings

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2018

Grand Total

(Amounts in 000's)

Meas. Period	Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY					Balances Deferred June 30, 2018	
				17/18	18/19	19/20	20/21	21/22	Outflows	Inflows
16/17	17/18	\$(801)	n/a	\$(160)	\$(160)	\$(160)	\$(160)	\$(161)	\$ -	\$(641)
Total				(160)	(160)	(160)	(160)	(161)	-	(641)

Supporting Calculations

Components of GASBS 75 OPEB Expense

(Amounts in 000's)

	Fiscal Year 2017/18
■ Service Cost	\$ 1,589
■ Interest on Total OPEB Liability	3,770
■ Projected earning on investments	(1,441)
■ Employee contributions	-
■ Administrative expense	11
■ Change in benefits	
■ Recognition of deferred outflows/inflows	
● Experience	-
● Assumptions	-
● Asset returns	(160)
■ OPEB Expense	3,769

Supporting Calculations

Components of GASBS 75 OPEB Expense
Calculation of Projected Earnings on Investments

(Amounts in 000's)

	Dollar Amount	Expected Return	Portion of Year	Projected Earnings
■ Fiduciary Net Position (beginning of year)	\$ 20,638	6.75%	100%	\$ 1,393
■ Employer contributions	4,135	6.75%	50%	140
■ Employee contributions	-	6.75%	50%	-
■ Benefit payments	(2,735)	6.75%	50%	(92)
■ Administrative expenses	(11)	6.75%	50%	-
■ Projected earnings				1,441

Supporting Calculations

Components of GASBS 75 OPEB Expense
Calculation of Interest on Total OPEB Liability

(Amounts in 000's)

	Dollar Amount	Discount Rate	Portion of Year	Interest
■ Total OPEB Liability	\$ 55,623	6.75%	100%	\$ 3,755
■ Service Cost	1,589	6.75%	100%	107
■ Benefit payments	(2,735)	6.75%	50%	(92)
■ Total Interest				<u>3,770</u>



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Marin Municipal Water District

Supporting Calculations

GASBS 75 Balance Equation

(Amounts in 000's)

	Fiscal Year Ending	
	6/30/17	6/30/18
■ Measurement date	6/30/16	6/30/17
■ Total OPEB Liability	\$ 55,623	\$ 58,247
■ Fiduciary Net Position	20,638	24,269
■ Net OPEB Liability	<u>34,985</u>	<u>33,978</u>
■ Deferred inflows of resources	-	641
■ Deferred outflows of resources	-	-
■ Balance Sheet	<u>34,985</u>	<u>34,619</u>

Check:

■ Balance Sheet 6/30/17	\$ 34,985
● OPEB Expense	3,769
● Contributions	(4,135)
■ Balance Sheet 6/30/18	<u>34,619</u>



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Marin Municipal Water District