§501-c-9 Post-Retirement Medical Plan & Trust

A single employer plan sponsored by
Truckee Meadows Water Authority

AGENDA
§501-c-9 Post-Retirement Medical Plan & Trust
Tuesday, April 17, 2018 at 1:00 p.m.
Truckee Meadows Water Authority
Independence Room
1355 Capital Boulevard, Reno, NV 89502

1. Roll call*
2. Public comment — limited to no more than three minutes per speaker*
3. Approval of the agenda **(For Possible Action)**
4. Approval of the January 16, 2018 minutes **(For Possible Action)**
5. Discussion of Trustee appointment to the TMWA §501-c-9 Post-Retirement Medical Trust (due to pending retirement of current Trustee effective April 27, 2018) –Jessica Atkinson
6. Review and approval of Post-Retirement Medical Trust benefit calculation for TMWA Retiree Greg Bates—Jessica Atkinson **(For Possible Action)**
7. Discussion and review of reimbursement request format—Jessica Atkinson **(For Possible Action)**
8. Presentation of the Budget for calendar year 2018—Michele Sullivan **(For Possible Action)**
9. Presentation of GASB 74 Update, and actuarial report–Michele Sullivan **(For Possible Action)**
10. Trustee comments and requests for future agenda items*
11. Public comment — limited to no more than three minutes per speaker*
12. Adjournment **(For Possible Action)**

NOTES:
1. The announcement of this meeting has been posted at the following locations: Truckee Meadows Water Authority (1355 Capital Blvd., Reno), Reno City Hall (1 E. First St., Reno), Sparks City Hall (431 Prater Way, Sparks), Sparks Justice Court (1675 E. Prater Way, Sparks), Washoe County Courthouse (75 Court St., Reno), Washoe County Central Library (301 South Center St., Reno), Washoe County Administration (1001 East Ninth St., Reno), and at http://www.tmwa.com.
2. In accordance with NRS 241.020, this agenda closes three working days prior to the meeting. We are pleased to make reasonable accommodations for persons who are disabled and wish to attend meetings. If you require special arrangements for the meeting, please call 834-8002 before the meeting date.
3. The Board may elect to combine agenda items, consider agenda items out of order, remove agenda items, or delay discussion on agenda items. Arrive at the meeting at the posted time to hear item(s) of interest.
4. Asterisks (*) denote non-action items.
5. Public comment is limited to three minutes and is allowed during the public comment periods. The public may sign-up to speak during the public comment period or on a specific agenda item by completing a “Request to Speak” card and submitting it to the clerk. In addition to the public comment periods, the Chairman has the discretion to allow public comment on any agenda item, including any item on which action is to be taken.

Post-Retirement Medical Plan & Trust

A single employer plan sponsored by
Truckee Meadows Water Authority

DRAFT JANUARY 16, 2018 MINUTES

The meeting of the TMWA Post-Retirement Medical Plan and Trust (Trust) Trustees was held on Wednesday, January 16, 2018 in the Truckee Meadows Water Authority Independence Room, 1355 Capital Blvd., Reno, Nevada.

Michele Sullivan, Chairman, called the meeting to order at 12:59 P.M.

1. ROLL CALL AND DETERMINATION OF PRESENCE OF A QUORUM.

A quorum was present.

Voting Members Present:	Voting Members Absent
Michele Sullivan	
Michael Nevarez*arrived at 1:04 P.M. during item #6	
Juan Esparza	
Steve Enos	

Members Present	Members Absent:
Rosalinda Rodriguez	Pat Waite
Gus Rossi	Jessica Atkinson

2. PUBLIC COMMENT

There was no public comment.

3. APPROVAL OF THE AGENDA

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the agenda.

4. APPROVAL OF THE NOVEMBER 21, 2017 MINUTES

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the November 21, 2017 minutes.

5. DISCUSSION AND ACTION ON SIGNING 501-C-9 POST-RETIREMENT MEDICAL PLAN AND TRUST BOARD OF TRUSTEES ANNUAL PLEDGE OF PERSONAL COMMITMENT/DISCLOSURE FORM

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the signing of the Annual Pledge of Personal Commitment/Disclosure form.

6. REVIEW AND CONSIDERATION FOR APPROVAL OF REQUEST FOR REIMBURSEMENT OF PREMIUMS FOR UNITED HEALTHCARE PAID BY RETIREE.

In Ms. Atkinsons absence, Rosalinda Rodriguez, HR Coordinator presented the reimbursement requests to the Trustee's for approval.

Trustee Steve Enos, asked about the process for reimbursement requests, and why the information presented to Trustees is redacted except for the dollar amount, and why they could not review the information of the retiree submitting requests for reimbursements. Trustee Enos said that they would like to see more information as well as balance the retiree still might have eligible before approving the requests so there is no over payment occurring. Legal Counsel Gus Rossi advised he had also posed the question whether the name of the retiree should be redacted as well or if there was another identifier we could use when the requests were submitted to the Trustee's. Sr. Accountant Sandra Tozi, advised Trustee's that if the request is approved, she has a spreadsheet she uses to verify the amount the retiree has available before processing a check. Trustee Nevarez arrived, and advised he was in agreement with Trustee Enos in that they should have more than just the amount being requested for reimbursement to review. Trustee Enos argued that if the Trustees approve for the retiree to receive the benefit, then they should also have the ability to review the retiree's information to know who is requesting what, how much, and if they are still eligible. Ms. Sullivan suggested that perhaps a spreadsheet be reviewed by Trustee's only to verify what they are approving. Ms. Rodriguez advised that redacting the protected sensitive information, such as bank account information, social security numbers, and other potential information from being released as the packets are public documents. Ms. Rodriguez suggested that an alternate identifier could be the retiree's former employee numbers to use in the requests. Ms. Sullivan suggested that perhaps using a spreadsheet that contained the employee numbers, and eligible balances, could be used in conjunction with the requests for review in the future. It was determined that this would be reviewed further, but in the meantime requests submitted for this meeting would, if eligible be approved to avoid holding up reimbursements to retiree's.

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the reimbursement request, but requested that the presentation of the requests be revised and suggestions brought to the next meeting.

7. REVIEW AND CONSIDERATION FOR APPROVAL OF REQUEST FOR REIMBURSEMENT OF PREMIUMS FOR UNITED HEALTH CARE PAID BY RETIREE.

Discussion ensued after Trustee's reviewed the packed and advised there was not sufficient documentation.

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the reimbursement request pending verification that proof of payment from the retiree has been received by Jessica Atkinson.

8. REVIEW AND CONSIDERATION FOR APPROVAL FOR REQUEST FOR REIMBURSMENT OF PREMIUMS FOR MEDICARE PAID THROUGH SOCIAL SECURITY.

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the reimbursement request pending verification that proof of payment from the retiree has been received by Jessica Atkinson.

9. REVIEW AND CONSIDERATION FOR APPROVAL OF REQUEST FOR REIMBURSEMENT OF PREMIUMS PAID FOR AARP UNITED HEALTH CARE PAID FOR BY RETIREE.

Upon motion made and seconded, and carried by unanimous consent of the Trustees present, the Trustees approved the reimbursement request pending verification that proof of payment from the retiree has been received by Jessica Atkinson.

10. PRESENTATION OF GASB 74 UPDATE, AND HIRING OF ACTUARIAL SERVICES

Ms. Sullivan advised that she had put out a Request for Proposal and received two. One came from a company based in Georgia, and the other, whom was selected, Bickmore, while not local, had other local entities such as the City of Reno that they work with, which have a Post Retirement Plan similar to TMWA's. The first-year rate will be a little more expensive $2000 more than the original, then after the rate is reasonable. Overall this company had more experience and were a better fit, which is why they were selected. Ms. Sullivan also advised that if there is an actuary report completed by the next meeting she would bring an update.

11. REVIEW OF RETIREMENT BENEFITS INVESTMENT FUND(RBIF) PERFORMANCE REVIEW

Ms. Sullivan advised there was no new report since the November meeting and would provide an update at the next scheduled meeting.

12. TRUSTEE COMMENTS AND REQUEST FOR FUTURE AGENDA ITEMS*

Ms. Sullivan distributed copies of the budget for Trustees to review and advised that this would be revised and brought to the next meeting for formal approval, as this was not added to the Agenda for the January meeting. This was just informational.

Approval of the Budget

GASB 74 update

Trustee Nevarez advised that he is part of labor negotiations and can't share more than that, but this brought up a question for him which is, how employee's post-retirement medical benefits are calculated if they change from IBEW to MPAT or vice versa? Mr. Nevarez, shared concerns that this should be further clarified, as this could come up in the future. Mr. Nevarez also advised he has done research and has found other entities have encountered this problem and believes that being proactive in clarifying this matter is important. Discussion ensued and it was agreed to be discussed further after more research has been conducted.

RBIF performance

13. PUBLIC COMMENT

There was no public comment.

14. ADJOURNMENT

With no further business to discuss, Chairman Sullivan adjourned the meeting at 1:31 p.m.

Minutes were approved by the Trustees in session on _____________.

Respectfully Submitted,

____

Rosalinda Rodriguez, Recording Secretary

TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.

STAFF REPORT

TO: Board of Trustees of the Post-Retirement Medical Plan & Trust
THRU: Jessica Atkinson, TMWA Human Resources Manager
DATE: April 5, 2018
SUBJECT: **Discussion of Trustee appointment to the TMWA §501-c-9 Post-Retirement Medical Trust**

Summary

- Michael Nevarez, one of the two trustees appointed by TMWA at the direction of IBEW Local 1245 is retiring.
- IBEW Local 1245 has directed TMWA to appoint James Weingart to fill this vacancy.
- The General Manager has appointed James Weingart as a trustee to the §501-c-9 TMWA Post-Retirement Medical Plan and Trust through December 31, 2018.
- Trust provisions required a final confirmation of trustee appointments by the TMWA Board, which occurred on March 21, 2018.

Background

The §501-c-9 Trust document approved by the Board of Directors requires the Employer to appoint four individuals to serve as Trustees (two from the MPAT classification and two from IBEW). The two Trustees who are appointed from TMWA management are to be appointed by the Employer at the direction of the General Manager and the two Trustees who are appointed from IBEW are to be appointed by the Employer at the direction of IBEW Local 1245.

A vacancy exists due to the retirement of trustee Michael Nevarez. James Weingart was appointed as his replacement through the remainder of Mr. Nevarez's two year term ending on December 31, 2018. Mr. Weingart's appointment has been made by the General Manager at the direction of IBEW consistent with the Trust provisions and confirmed by the TMWA Board effective March 21, 2018.

TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.

STAFF REPORT

TO: Board of Trustees of the Post-Retirement Medical Plan & Trust
THRU: Jessica Atkinson, TMWA Human Resources Manager
DATE: March 27, 2018
SUBJECT: **Review and approval of Post-Retirement Medical Trust benefit calculations for TMWA Retiree(s)**

Recommendation

TMWA staff recommends the Post-Retirement Medical Plan and Trust (PRMPT) approve the retirement health insurance benefit calculation for the following TMWA retiree:

CY2018: Greg Bates

Summary

Trustees move to approve the benefit calculation(s), as presented.

Background

Based on the PRMPT plan document, TMWA Human Resources has completed the benefit calculation for the declared retiree. Please refer to the enclosed benefit calculation worksheet for specific details.

TMWA Human Resources has met to discuss calculation(s) with retiree(s) and provided a copy of the PRMPT Plan Document and applicable PRMPT Policies. Retiree(s) are aware that these calculations are based on current plan year (CY18) medical costs. These costs are subject to change (increase or decrease) in accordance with annual open enrollment periods.

Retiree(s) have been made aware that in order to qualify for the Post-Retirement Medical Benefits, they must enroll in and pay the cost of Medicare A and Medicare Part "B" or Medicare Part "C."

Post Retirement Medical Plan & Trust - Medical Premium Expense Reimbursement Request

DATE RANGE From ______
To ______

RETRIEE INFORMATION:

Name: ______ Employee #: ______

Address: ______ Phone #: ______

Expenses

Date Paid	Description (example: Monthly Premium)	Name of Provider (example: Anthem Blue Cross)	Cost	Total
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
			$0.00	
Medicare Eligible?	_____YES _____NO		**Total**	$ -

Attach copies of Proof of Insurance and Payment of Premium. See back of form for examples of acceptable documentation.

I certify that the above information is correct. I understand that I will not be reimbursed for medical insurance premiums for any period during which I was not eligible for participation or failed to maintain coverage. I further understand that if I receive reimbursement for premiums for which I was not eligible or did not meet eligibility criteria, the Trust may recover these payments from my future benefit award(s) and I will be liable for all related taxes. I also authorize the Trust, and its designees to contact the insurance company I have listed above to verify coverage and premium amounts paid. I certify that all expenses for which reimbursement or payment is claimed were incurred by myself, my spouse, my eligible dependents, or a spouse beneficiary (after the participant's death only) while eligible to receive benefits under the trust. I also certify as follows: 1.) The premium expenses have not been reimbursed or will not be reimbursed by any other plan, 2.) The premium expenses were not paid by an employer of a participant or an employer of a participant's spouse on a "pre-tax" basis, including, without limitation, a policy or plan offered by an employer under a Code Section 125 plan (commonly referred to as a "Cafeteria Plan"). I understand that I am fully responsible for the sufficiency, accuracy, and veracity of all information relating to this reimbursement request.

Retiree Signature: ______ **Date:** ______

PRMPT Approval*: ______ **Date:** ______

* Indicates the reimbursement request & back up are sufficient and expenses qualify as eligible for reimbursement under the trust.

Accounting Approval:** ______ **Date:** ______

** Indicates the trust accountant has ensured any amounts reimbursed are within the participants available trust balance.

Return completed form to: PRMPT c/o TMWA Human Resources, PO Box 30013, Reno, NV 89520

Post Retirement Medical Plan & Trust - Medical Premium Expense Reimbursement Request

In order for an eligible recipient to receive reimbursement of medical insurance premiums from the Post Retirement Medical Plan & Trust, the eligible participant must submit at least one of the following as proof of payment for the medical insurance premiums:

- A copy of the invoice from the insurance company and copy of the receipt of payment;
- A copy of the invoice from the insurance company and copy of the front and back of the cancelled check made out to the insurance company;
- A copy of a pay stub if the pay stub clearly shows a deduction for medical insurance on a post-tax basis;
- A statement from the eligible recipient's employer listing dates and amounts of premiums deducted from wages on a post-tax bas
- A copy of a bank statement showing deductions for medical insurance if the statement clearly indicates payment to a company that provides only medical insurance;
- A copy of a bank statement showing deductions to an insurance company along with a statement from the insurance company listing dates and amounts of premiums; or
- Other documentation which the Trust, or its designees, determines is sufficient to prove payment for medical insurance.

Truckee Meadows Water Authority
Post-Retirement Medical Plan & Trust
Budget for Calendar Year 2018

Additions	
Contributions	
Employer	$ 180,555
Plan Members	124,300
Total Contributions	**304,855**
Investment Income	
Net appreciation (depreciation) in fair value of investment	-
Investment income	212,000
Less investment expenses	(2,100)
Net investment income	**209,900**
Total Additions	**514,755**
Deductions	
Benefits paid	389,000
Administrative expenses	19,500
Total Deductions	**408,500**
Net Increase (Decrease)	**$ 106,255**

Attachment A

Post Retirement Medical Plan & Trust

a single employer plan sponsored by
Truckee Meadows Water Authority

TRUCKEE MEADOWS WATER AUTHORITY
Quality. Delivered.

TO: Board of Trustees of the TMWA Post Retirement Medical Trust
FROM: Michele Sullivan, TMWA CFO and Trust Chairperson
DATE: April 11, 2018
SUBJECT: **Presentation of GASB 74 Update, and actuarial report**

Recommendation/Suggested Motion

The Board of Trustees accepts the Actuarial Valuation Report as of January 1, 2018.

Discussion

Attached are/is the following statement(s):

- Truckee Meadows Water Authority Post-Retirement Medical Plan and Trust Actuarial Valuation of the Other Post-Employment Benefit Programs as of January 1, 2018.

Some highlights from this report include:

A discount rate of 6% was used, and is consistent with prior Actuarial Valuations. This rate is conservative.

The actuarial value of plan assets is $10,926,894 as of January 1, 2018 and the plan actuarial accrued liability as of January 1, 2018 is $10,694,672. The funded ratio of the plan is 102.2%. In the prior valuation as of July 1, 2016 the funding ratio was 85.98%.

The actuarial determined contribution, (formerly the annual required contribution) is $284,882 for 6/30/2018 and $298,076 for 6/30/2019. The required cash contribution will be $182,885 and $178,224 for each of those years. These amounts will be reflected in the budget for the PRMPT based on a calendar year.

GASB Update

Measurement of the Trust is in accordance with the new GASB74 requirements with this new actuarial valuation. The audit of the trust begins April 23rd, and all Disclosure and financial statement requirements related to GASB74 will be addressed.

Bickmore

April 9, 2018

Michele Sullivan CPA
Chief Financial Officer, Treasurer
Truckee Meadows Water Authority
1355 Capital Blvd.
Reno, NV 89502

Re: January 1, 2018 Actuarial Valuation: Determination of OPEB Funding Contributions for the TMWA Post-Retirement Medical Plan and Trust (PRMPT)

Dear Ms. Sullivan:

We are pleased to enclose our report providing the results of the January 1, 2018 actuarial funding valuation of other post-employment benefit (OPEB) liabilities for the Truckee Meadows Water Authority (TMWA) Post-Retirement Medical Plan and Trust (PRMPT). The report's text describes our analysis and assumptions in detail.

The primary purposes of the report are to develop the value of future OPEB expected to be provided by TMWA and to develop annual amounts to be contributed by TMWA for the fiscal years ending June 30, 2018 and June 30, 2019 toward prefunding the OPEB plan liability. This report does not provide the information needed for financial reporting requirements under GASB 75. That information will be developed and presented in a separate report each year.

Actuarially Determined Contributions (ADC) were developed on the same basis as the Annual Required Contribution previously developed under GASB 45. We believe these satisfy the requirements of an ADC as described under GASB 75. It is our understanding that TMWA's current OPEB Funding Policy anticipates contributing 100% or more of the ADC each year.

The majority of OPEB trust assets are assumed to remain invested in the Retirement Benefit Investment Fund (RBIF). The assumed return on trust assets and basis for selection of the discount rates used to value the OPEB liability are discussed in the report.

We have based our valuation on employee data and plan information provided by TMWA. Please review Table 3 to ensure that we have summarized the plan's benefit provisions correctly.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of TMWA employees who provided valuable information and assistance to enable us to perform this valuation. Please let us know if we can be of further assistance.

Sincerely,

Catherine L. MacLeod

Catherine L. MacLeod, FSA, FCA, EA, MAAA
Director, Postemployment Benefit Actuarial Services

Bickmore

Truckee Meadows Water Authority Post-Retirement Medical Plan and Trust

Actuarial Valuation of the Other Post-Employment Benefit Programs As of January 1, 2018

Submitted April 2018

Table of Contents

A. Executive Summary

This report presents the results of the January 1, 2018 actuarial valuation of the Truckee Meadows Water Authority (TMWA) Post-Retirement Medical Plan and Trust (PRMPT). The PRMPT provides other post-employment benefit (OPEB) programs to all qualifying TMWA retirees with the exception of a closed group of employees who transferred from Washoe County. This report does not provide information relating to:

- The OPEB liabilities for TMWA employees who transferred from Washoe County. Their benefits are funded and administered through a separate 115 trust and liabilities for these members are summarized in a separate report.
- The Information to be reported in financial statements regarding the PRMPT under GASB 74 or 75. This information will be provided in separate reports.

The primary purpose of this PRMPT valuation is to assess the OPEB liability and develop contribution levels for the funding of these benefits. This report reflects the valuation of two distinct types of OPEB liability:

- An "explicit subsidy" exists when the employer contributes directly toward retiree healthcare premiums. In this program, benefits include a monthly subsidy toward medical, dental, vision and life insurance premiums for eligible retirees. Future excise taxes expected to be paid for "high cost" retiree coverage are also explicit costs and are included with explicit liabilities.
- An "implicit subsidy" exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. TMWA's OPEB program includes implicit subsidy liabilities for retiree medical coverage.

Trust assets are primarily invested (99%) in the Retirement Benefit Investment Fund (RBIF). Limited additional assets (1%) are held in a US Bank checking account to facilitate retiree premium payments. Based on information provided by TMWA, the combined Trust assets are expected to yield 6.0% per year over the long term, net of trust and investment fees.

The Actuarially Determined Contributions (ADC) in this report are calculated as the sum of the current year's Normal Cost plus amortization of the current Unfunded Actuarial Accrued Liability over a remaining fixed period, adjusted with interest to fiscal year end. This ADC development is the same as the Annual Required Contribution (ARC) was developed under GASB 45 in prior fiscal years and TMWA indicated to Bickmore that it expects to contribute 100% of the ADC each year. Based on the current trust value, the expected trust rate of return and expected continuing contribution levels, with TMWA's approval, this valuation was prepared using a 6.0% discount rate. This is the same discount rate used in the prior valuation. Please recognize that use of this rate is an assumption, however, and is not a guarantee of future investment performance.

The liabilities shown in the report reflect assumptions regarding continued future employment, rates of retirement and survival, and elections by future retirees to elect coverage for themselves and their dependents. Please note that this valuation has been prepared on a closed group basis; no provision is generally made for new employees until the valuation date following their employment.

Executive Summary
(Continued)

The Actuarial Accrued Liability and Plan Assets as of January 1, 2018 are shown below:

Subsidy	Explicit	Implicit	Total
Discount Rate	6.0%	6.0%	6.0%
Actuarial Accrued Liability	$ 8,048,238	$ 2,646,434	$ 10,694,672
Actuarial Value of Assets			10,926,894
Unfunded Actuarial Accrued Liability			(232,222)
Funded Ratio			102.2%

TMWA confirmed to Bickmore that the results of this January 1, 2018 valuation will be applied in developing Actuarially Determined Contributions for its fiscal years ending June 30, 2018 and 2019. These ADC and the contribution sources expected to satisfy these funding levels are shown below. Details are provided beginning on page 13 and historical information is provided in Appendices.

Fiscal Year Ending	6/30/2018	6/30/2019
Actuarially Determined Contribution	**$ 284,882**	**$ 298,076**
Expected employer paid benefits for retirees*	-	-
Current year's implicit subsidy credit	101,997	119,852
Expected contribution to OPEB trust	182,885	178,224
Total OPEB Contributions	**284,882**	**298,076**

* All explicit retiree benefit payments are paid directly by the Trust.

Current valuation results are compared to prior valuation results on page 7, followed by a discussion of changes. An actuarial valuation is a projection and to the extent that actual experience is not what we assumed, future results will be different. Future differences may arise from:

- A significant change in the number of covered or eligible plan members;
- A significant increase or decrease in the future premium rates;
- A change in the subsidies provided by TMWA toward retiree healthcare costs;
- Longer life expectancies of retirees;
- Significant changes in expected retiree healthcare claims by age, relative to healthcare claims for active employees and their dependents; and/or
- Higher or lower returns on plan assets or contribution levels other than were assumed.

Details of our valuation process are provided on the following pages. Information required for financial reporting under GASB 75 will be provided in a separate report once the data needed to develop those results becomes available.

The next actuarial valuation is scheduled to be prepared as of January 1, 2020. If there are any significant changes in the employee data, benefits provided or the funding policy, please contact us to discuss whether an earlier valuation is appropriate.

Executive Summary
(Concluded)

Important Notices

This report is intended to be used only to present the actuarial information relating to TMWA's other postemployment benefits relating to the PRMPT and to provide the annual contribution information with respect to TMWA's current OPEB funding policy. The results of this report may not be appropriate for other purposes, including financial reporting purposes under GASB 75, where other assumptions, methodology and/or actuarial standards of practice may be required or more suitable. Some issues in this report may involve analysis of applicable law or regulations. TMWA should consult counsel on these matters; Bickmore does not practice law and does not intend anything in this report to constitute legal advice.

B. Sources of OPEB Liabilities

General Types of OPEB

Post-employment benefits other than pensions (OPEB) comprise a part of compensation that employers offer for services received. The most common OPEB are medical, prescription drug, dental, vision, and/or life insurance coverage. Other OPEB may include outside group legal, long-term care, or disability benefits outside of a pension plan. OPEB does not generally include COBRA, vacation, sick leave (unless converted to defined benefit OPEB), or other direct retiree payments.

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. Upcoming excise tax exposure under the Affordable Care Act for retirees covered by high cost plans is another potential source of explicit subsidy liability for TMWA.

In addition, if claims experience of employees and retirees are pooled when determining premiums, the retirees pay a premium based on a pool of members that, on average, are younger and healthier. For certain types of coverage, such as medical insurance, this results in an “implicit subsidy” of retiree premiums by active employee premiums since the retiree premiums are lower than they would have been if retirees were insured separately. Actuarial Standards of Practice generally require an implicit subsidy of retiree premium rates be valued as an OPEB liability.

This chart shows the sources of funds needed to cover expected medical and/or life insurance claims

<table>
<tr><td colspan="3">Expected retiree claims</td></tr>
<tr><td colspan="2">Premium charged for retiree coverage</td><td>Covered by higher active premiums</td></tr>
<tr><td>Retiree portion of premium</td><td>Agency portion of premium
Explicit subsidy</td><td>Implicit subsidy</td></tr>
</table>

The implicit subsidy is not affected by how much or little of the premium is paid by TMWA.

Nevada Legislative Environment

Nevada has legislated certain unique rights to retiree medical coverage. Nevada Revised Statutes (NRS) 287.023 provide that, prior to December 1, 2008, (most) local agency retirees could elect to continue in their employer’s health plan after retirement, or join PEBP, Nevada’s health plan for non-State public agency employees (section 1). However*, it is our understanding that no TMWA retirees have elected to receive benefits through PEBP.*

Further, under the NRS, the claims data of actives and retirees is required to be actuarially “commingled” (section 5), so that the premium rates for actives and (at least pre-65) retirees are the same. For those retirees that elect to continue coverage through TMWA, because per capita retiree medical and life insurance claims are expected to exceed per capita active member claims, the requirement to provide this coverage at the same premium as is charged for actives will generally create an implicit subsidy.

OPEB Obligations of TMWA

TMWA provides continuation of medical, dental, vision and life insurance coverage to its retiring employees, which may create one or more of the following types of OPEB liabilities:

Sources of OPEB Liability
(Concluded)

- **Explicit subsidy liabilities**: TMWA contributes directly toward retiree medical, dental, vision and life insurance premiums for qualifying retirees, as described in Table 3. Liabilities for these benefits provided through PRMPT have been included in this valuation.
- **Implicit subsidy liabilities**: Where applicable, as described below, we determine the difference between projected retiree claim costs by age and premiums expected to be charged for retirees (see Addendum 1: Bickmore Age Rating Methodology).
    - The claims experience of active and retired members is co-mingled in setting premium rates for the plans in which TMWA employees and retirees participate. We believe an implicit subsidy of retiree premiums exists with respect to the medical and life insurance plans because we expect retiree claims to exceed retiree premiums. We have valued the implicit subsidy liability relating to this coverage and included it in the overall results of the valuation.
    - We believe no implicit liability exists with respect to dental or vision benefits provided to retirees, or that it is insignificant.
- **Excise tax liability for retirees in "high cost" plans:** The Patient Protection and Affordable Care Act (ACA) includes a 40% excise tax on high-cost employer-sponsored health coverage. The tax was to be effective in 2018, however, implementation has been delayed by subsequent legislation until 2022. The tax applies to the aggregate cost of an employee's applicable coverage that exceeds a dollar limit. While there are discussions in Congress of eliminating or again delaying this tax, this report assumes that it will take effect as current law provides.

  For those current and future retirees assumed to retain coverage in TMWA's medical program, we determined the excess, if any, of projected annual plan premiums for the retiree and his or her covered dependents over the projected applicable excise tax threshold beginning in 2022. The excise tax burden will ultimately fall on either TMWA, a combination of TMWA and retired participants, or be entirely borne by the affected retirees. *This report assumes that 100% of any excise tax liability for high cost retiree coverage will be borne by TMWA*. No legal obligation with regard to the TMWA's current or future liability to absorb this potential tax is to be construed from this treatment. See the footnote under the exhibit in Section D for an estimate of the projected future excise tax liability included in this valuation.

C. Valuation Process

The valuation of the PRMPT has been based on employee census data and benefits initially submitted to us by TMWA in February 2018 and clarified in various related communications. A summary of the employee data is provided in Table 2 and a summary of the benefits provided under the Plan is provided in Table 3. While individual employee records have been reviewed to verify that they are reasonable in various respects, the data has not been audited and we have otherwise relied on TMWA as to its accuracy. The valuation described below has been performed in accordance with the actuarial methods and assumptions described in Table 4.

In projecting benefit values and liabilities, we first determine an expected premium or benefit stream over the employee's future retirement. Benefits may include both direct employer payments (explicit subsidies) and/or an implicit subsidy, arising when retiree premiums are expected to be subsidized by active employee premiums. The projected benefit streams reflect assumed trends in the cost of those benefits and assumptions as to the expected date(s) when benefits will end. We then apply assumptions regarding:

- The probability that each individual employee will or will not continue in service with TMWA to receive benefits.
- To the extent assumed to retire from TMWA, the probability of various possible retirement dates for each retiree, based on current age, service and employee group; and
- The likelihood that future retirees will or will not elect retiree coverage (and benefits) for themselves and/or their dependents.

We then calculate a present value of these benefits by discounting the value of each future expected benefit payment, multiplied by the assumed expectation that it will be paid, back to the valuation date using the discount rate. These benefit projections and liabilities have a very long time horizon. Final payments for currently active employees may not be made for 70 years or more.

The resulting *present value of projected benefits* for each employee is allocated as a level percent of payroll each year over the employee's career using the entry age normal cost method and the amounts for each individual are then summed to get the results for the entire plan. This creates a cost expected to increase each year as payroll increases. Amounts attributed to prior fiscal years form the *actuarial accrued liability* (AAL). The amount of future OPEB cost allocated for active employees in the current year is referred to as the *normal cost*. The remaining active cost to be assigned to future years is called the *present value of future normal costs*. In summary:

Actuarial Accrued Liability	Past Years' Cost Allocations	Actives and Retirees
plus Normal Cost	Current Year's Cost Allocation	Actives only
plus Present Value of Future Normal Costs	Future Years' Cost Allocations	Actives only
equals Present Value of Projected Benefits	Total Benefit Costs	Actives and Retirees

Where contributions have been made to an irrevocable OPEB trust, the accumulated value of trust assets is applied to offset the AAL. In this valuation, we set the Actuarial Value of Assets equal to the combined market value of assets invested in the RBIF and US Bank checking account which comprise the PRMPT VEBA trust. The December 31, 2017 market value of assets in this report was $10,926,894. The portion of the AAL not covered by assets is referred to as the *unfunded actuarial accrued liability* (UAAL).

D. Basic Valuation Results

The following chart compares the results of the January 1, 2018 valuation of OPEB liabilities to the results of the July 1, 2016 valuation.

Funding Policy	**Prefunding Basis**					
Valuation date	**7/1/2016**			**1/1/2018**		
Subsidy	Medical	Life Insurance	Total	Medical	Life Insurance	Total
Discount rate	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Number of Covered Employees						
Actives	173	173	173	184	184	184
Retirees	31	31	31	39	39	39
Total Participants	204	204	204	223	223	223
Actuarial Present Value of Projected Benefits						
Actives	$ *Not provided*	$ *Not provided*	$ *Not provided*	$ 9,166,392	$ 827,714	$ 9,994,106
Retirees	3,349,841	193,044	3,542,885	3,128,091	286,583	3,414,674
Total APVPB	*Not provided*	*Not provided*	*Not provided*	12,294,483	1,114,297	13,408,780
Actuarial Accrued Liability (AAL)						
Actives	6,424,824	439,860	6,864,684	6,731,540	548,457	7,279,997
Retirees	3,349,841	193,044	3,542,885	3,128,091	286,583	3,414,674
Total AAL	9,774,665	632,904	10,407,569	9,859,631	835,040	10,694,671
Actuarial Value of Assets			8,948,929			10,926,894
Unfunded AAL (UAAL)			1,458,640			(232,223)
Normal Cost	262,221	29,221	291,442	265,950	29,486	295,436
Percent funded			86.0%			102.2%
Reported covered payroll			13,944,136			15,993,551
UAAL as percent of payroll			10.5%			-1.5%

Note: The Medical AAL as of January 1, 2018 includes about $140,000 in projected excise tax liability for retirees expected to be covered by "high cost" plans under the Affordable Care Act.

Basic Valuation Results
(Concluded)

Changes Since the Prior Valuation

Even if all of the previous assumptions were met exactly as projected, liabilities often increase over time as active employees get closer to the date their benefits are expected to begin. Given the uncertainties involved and the long term nature of these projections, the prior assumptions are not likely ever to be exactly realized. Nonetheless, it is helpful to review why results are different than may have been anticipated.

This is Bickmore's first valuation for TMWA and we are limited on historical data and some of the finer details of the prior valuation data and assumptions. However, in comparing results shown in the exhibit on the preceding page, we observe the Unfunded Actuarial Accrued Liability (UAAL) decreased by roughly $1,691,000 between July 1, 2016 and January 1, 2018, from $1,459,000 to $(232,000).

Some of this difference would have been expected based on the assumptions made in the prior valuation. Some of the difference was not anticipated, such as premium changes or employee decisions affecting coverage that were different than previously assumed (referred to as "plan experience"). The balance of the difference is due to changes in actuarial methodology or assumptions**.** The chart below summarizes the factors that we believe most likely account for the difference between the July 2016 and January 2018 valuations:

Reconciliation of Unfunded Actuarial Accrued Liability and Normal Cost				
	AAL	Assets	UAAL	Normal Cost
As of July 1, 2016	**$10,408,000**	**$ 8,949,000**	**$ 1,459,000**	**$ 291,000**
Change in methodology from Projected Unit Credit to Entry Age Normal; increase in assumed salary growth	798,000	-	798,000	(55,000)
Changes in assumed medical trend and subsidy cap increases	273,000	-	273,000	5,000
Increase in the % of future retirees assumed to elect coverage in the HHP	179,000	-	179,000	7,000
Recognized potential Excise Tax liability	140,000	-	140,000	13,000
Change in % of future retirees assumed to cover a spouse in retirement	(308,000)	-	(308,000)	(23,000)
Changed demographic assumptions to match most recent NV PERS valuation; applied mortality projection scale	(897,000)	-	(897,000)	38,000
Passage of time, plan experience and change in age-based claims model*	102,000	1,978,000	(1,876,000)	19,000
As of January 1, 2018	**$10,695,000**	**$10,927,000**	**$ (232,000)**	**$ 295,000**

* Passage of time refers to expected changes in the UAAL between valuation dates as additional cost accruals are 'absorbed' into the AAL, contributions are made, liabilities released as benefits are paid to retirees and remaining benefit values increased by the reversal of discounting since they are closer to their eventual payment dates. Plan experience refers to the impact on the current liability from differences between what was previously assumed to occur over the past two years and what actually occurred.

E. Funding Policy

Actuarially Determined Contributions and TMWA Funding Policy

The Actuarially Determined Contribution (ADC) for the PRMPT consists of two basic components, which have been adjusted with interest to TMWA's fiscal year end:

- The amounts attributed to service performed in the current fiscal year (the normal cost) and
- Amortization of the unfunded actuarial accrued liability (UAAL).

The ADC developed in this report includes amortization of the unfunded AAL over a closed 30-year period initially effective for fiscal year ending July 1, 2014. The remaining period applicable in determining the ADC for the fiscal year ending June 30, 2018 is 27 years. Amortization payments are determined on a level dollar basis.

TMWA's Funding Policy is to contribute 100% or more of the ADC each year. The amounts calculated for the fiscal years ending June 30, 2018 and June 30, 2019 are shown in Tables 1A and 1B.

Paying Down the UAAL

Once an entity decides to prefund, a decision must be made about how to pay for benefits already earned that have not yet been funded (the UAAL). This is most often, though not always, handled through structured amortization payments. The period and method chosen for amortizing this unfunded liability can significantly affect the Actuarially Determined Contribution.

Much like paying off a mortgage, choosing a longer amortization period to pay off the UAAL means initial payments will be smaller, but the payments will be required for a longer period. In general, the longer the amortization period, the less time investments will work toward helping reduce required contribution levels.

There are several ways the amortization payment can be determined. The most common methods are calculating the amortization payment as a level dollar amount or as a level percentage of payroll.

Funding of the Implicit Subsidy

The implicit subsidy liability created when expected retiree medical claims exceed the retiree premiums was described earlier in Section B. In practical terms, when TMWA pays the premiums for active employees each year, their premiums include an amount expected to be transferred to cover the portion of the retirees' claims not covered by their premiums. This transfer represents the current year's implicit subsidy and is illustrated in the example below.

Hypothetical Illustration Of Implicit Subsidy Recognition	For Active Employees	For Retired Employees	Total
Annual Agency Contribution Toward Premiums	$ 331,000	$ 305,000	$ 636,000
Current Year's Implicit Subsidy Adjustment	$ (102,000)	$ 102,000	$ -
Adjusted contributions reported in Financial Stmts	$ 229,000	$ 407,000	$ 636,000

Please see the Expected Employer Contributions Section in Tables 1A and 1B for the estimated implicit subsidy amounts which should be applied to offset against the ADC for the years shown.

F. Choice of Actuarial Funding Method and Assumptions

The ultimate real cost of an employee benefit plan is the value of all benefits and other expenses of the plan over its lifetime. These expenditures are dependent only on the terms of the plan and the administrative arrangements adopted, and as such are not affected by the actuarial funding method. The actuarial funding method attempts to spread recognition of these expected costs on a level basis over the life of the plan, and as such sets the "incidence of cost". Methods that produce higher initial annual (prefunding) costs will produce lower annual costs later. Conversely, methods that produce lower initial costs will produce higher annual costs later relative to the other methods.

Factors Impacting the Selection of a Cost Allocation Method

While the goal is to match recognition of retiree medical expense with the periods during which the benefit is earned, cost allocation methods differ because they focus on different financial measures in attempting to level the incidence of cost. Appropriate selection of a cost allocation method for funding purposes contributes to creating intergenerational equity between generations of taxpayers.

We believe it is most appropriate for the plan sponsor to adopt a theory of funding and consistently apply the best cost allocation method representing that theory. This valuation was prepared using the entry age normal cost method with normal cost determined on a level percent of pay basis. The entry age normal cost method was one of the most commonly used of the cost allocation methods permitted by GASB 45. It is the only cost allocation method permitted for financial reporting purposes under GASB 75.

Factors Affecting the Selection of Assumptions

Special considerations apply to the selection of actuarial funding methods and assumptions for the PRMPT. The actuarial assumptions used in this report were chosen, for the most part, to be the same as the actuarial assumptions used for the most recent actuarial valuations of the retirement plans covering TMWA employees. Other assumptions, such as healthcare trend, age related healthcare claims, Medicare eligibility, retiree participation rates and spouse coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. We will continue to gather information and monitor these assumptions for future valuations, as more experience develops.

In selecting an appropriate discount rate for funding purposes it is most common to use the expected long-term yield on investments expected to be deployed to pay the benefits. Other strategies could include using a long term debt rate to calculate contribution levels even if TMWA hopes their long term investment strategy will yield higher returns. In this way, required contributions may be reduced if those higher returns are actually realized, but only *as* they are actually realized. If returns are less than expected, then the difference between the debt rate and what is actually earned acts as a safety margin so that larger contributions than planned are less likely to occur.

TMWA has chosen to fund based on an assumed 6.0% discount rate. This rate is believed to be a somewhat conservative estimate of the long term return on trust assets and, as such, is expected to provide some margin against lower than market rate returns.

G. Certification

This report presents the results of our actuarial valuation of the other post-employment benefits provided by the Truckee Meadows Water Authority Post-Retirement Medical Plan and Trust. The purpose of this valuation was to determine the plan's funded status as of the valuation date and to develop actuarially determined contribution levels to be used by TMWA toward funding plan benefits.

We certify that, to the best of our knowledge, the report is complete and accurate, based upon the data and plan provisions provided to us by TMWA. We believe the assumptions and method used are reasonable and appropriate for purposes of this report. The results may not be appropriate for other purposes.

Each of the undersigned individuals is a Fellow in the Society of Actuaries and Member of the American Academy of Actuaries who satisfies the Academy Qualification Standards for rendering this opinion.

Signed: April 9, 2018

Catherine L. MacLeod

Catherine L. MacLeod, FSA, FCA, EA, MAAA

J. Kevin Watts, FSA, FCA, MAAA

Table 1

Actuarially Determined Contributions for fiscal years 2018 and 2019: The basic results of our January 1, 2018 valuation of OPEB liabilities for TMWA were summarized in Section D. Those results are applied to develop the actuarially determined contribution (ADC) for the fiscal years ending June 30, 2018 and June 30, 2019.

As noted earlier in this report, the development of the ADC reflects the assumption that TMWA will contribute at least 100% of this amount each year, with contributions comprising:

- Contributions to the OPEB trust, and
- Each current year's implicit subsidy

GASB 75 Calculations: While the underlying actuarial liability calculations are applied for both funding and financial reporting, the specific development of the amounts to be reported as OPEB expense and in the Statement of Net Position under GASB Statement 75 is quite different than the development of the ADC. Accordingly, the information required for financial reporting under GASB 75 will be provided in a separate report for TMWA for each fiscal year.

Employees reflected in future years' costs: The counts of active employees and retirees shown in the report reflect the status of plan members reported to us for the valuation. While we do not adjust these counts for any future years shown in this report, the liabilities and costs developed for those years do anticipate the likelihood that some active employees may leave employment forfeiting benefits, some may retire and elect benefits and coverage for some of the retired employees may cease. We will reflect employment status changes in the next valuation. In addition, because this valuation has been prepared on a closed group basis, no potential future employees are included. We will incorporate any new employees in the next valuation, in the same way we included new employees hired after July 2016 in this January 2018 valuation.

Liabilities for TMWA employees and retirees *not* covered by the TMWA PRMPT are valued in a separate report.

Table 1A
Actuarially Determined Contribution for Fiscal Year End 2018

This table develops the ADC for TMWA's fiscal year ending June 30, 2018, based on the results of the January 1, 2018 valuation and on the funding policy described earlier in this report.

Funding Policy	**Prefunding Basis**		
Valuation date	**1/1/2018**		
Subsidy	Explicit	Implicit	Total
For fiscal year ending	6/30/2018	6/30/2018	6/30/2018
Expected long-term return on assets	6.00%	6.00%	6.00%
Discount rate	6.00%	6.00%	6.00%
Number of Covered Employees			
Actives	184	184	184
Retirees	39	39	39
Total Participants	223	223	223
Actuarial Present Value of Projected Benefits			
Actives	$ 6,259,568	$ 3,734,538	$ 9,994,106
Retirees	3,003,122	411,552	3,414,674
Total APVPB	9,262,690	4,146,090	13,408,780
Actuarial Accrued Liability (AAL)			
Actives	5,045,116	2,234,882	7,279,998
Retirees	3,003,122	411,552	3,414,674
Total AAL	8,048,238	2,646,434	10,694,672
Actuarial Value of Assets	8,280,460	2,646,434	10,926,894
Unfunded AAL (UAAL)	(232,222)	-	(232,222)
UAAL Amortization method	Level Dollar	Level Dollar	Level Dollar
Remaining amortization period (years)	21	21	21
Amortization Factor	12.4699	12.4699	12.4699
Actuarially Determined Contribution (ADC)			
Normal Cost	$ 153,003	$ 142,433	$ 295,436
Amortization of UAAL	(18,623)	-	(18,623)
Interest to fiscal year end	3,917	4,152	8,069
Total ADC	138,297	146,585	284,882
Projected covered payroll	$ 15,993,551	$ 15,993,551	$ 15,993,551
Normal Cost as a percent of payroll	1.0%	0.9%	1.8%
ADC as a percent of payroll	0.9%	0.9%	1.8%
Expected Employer OPEB Contributions			
TMWA benefit payments directly to retirees	$ -	$ -	$ -
Estimated current year's implicit subsidy	-	101,997	101,997
Estimated contribution to OPEB trust	138,297	44,588	182,885
Total Expected Employer Contribution	138,297	146,585	284,882

Bickmore

Table 1B
Actuarially Determined Contribution for Fiscal Year End 2019

This table develops the ADC for TMWA's fiscal year ending June 30, 2019, based on the results of the July 1, 2017 valuation and on the funding policy described earlier in this report.

Funding Policy	**Prefunding Basis**		
Valuation date	**1/1/2018**		
Subsidy	Explicit	Implicit	Total
For fiscal year ending	6/30/2019	6/30/2019	6/30/2019
Expected long-term return on assets	6.00%	6.00%	6.00%
Discount rate	6.00%	6.00%	6.00%
Number of Covered Employees			
Actives	184	184	184
Retirees	39	39	39
Total Participants	223	223	223
Actuarial Present Value of Projected Benefits			
Actives	$ 6,586,001	$ 3,934,820	$ 10,520,821
Retirees	2,927,866	358,038	3,285,904
Total APVPB	9,513,867	4,292,858	13,806,725
Actuarial Accrued Liability (AAL)			
Actives	5,460,865	2,496,164	7,957,029
Retirees	2,927,866	358,038	3,285,904
Total AAL	8,388,731	2,854,202	11,242,933
Actuarial Value of Assets	8,606,016	2,851,145	11,457,161
Unfunded AAL (UAAL)	(217,285)	3,057	(214,228)
UAAL Amortization method	Level Dollar	Level Dollar	Level Dollar
Remaining amortization period (years)	20	20	20
Amortization Factor	12.1581	12.1581	12.1581
Actuarially Determined Contribution (ADC)			
Normal Cost	$ 159,123	$ 148,130	$ 307,253
Amortization of UAAL	(17,872)	251	(17,621)
Interest to fiscal year end	4,118	4,326	8,444
Total ADC	145,369	152,707	298,076
Projected covered payroll	$ 16,633,293	$ 16,633,293	$ 16,633,293
Normal Cost as a percent of payroll	1%	1%	2%
ADC as a percent of payroll	1%	1%	2%
Expected Employer OPEB Contributions			
Estimated payments on behalf of retirees	$ -	$ -	$ -
Estimated current year's implicit subsidy	-	119,852	119,852
Estimated contribution to OPEB trust	145,369	32,855	178,224
Total Expected Employer Contribution	145,369	152,707	298,076

Table 2
Summary of Employee Data

TMWA reported 184 active employees in the data provided to us for the January 2018 valuation. Age and service values as of the valuation date are summarized in the chart below, first in total and then separately for the IBEW and MPAT bargaining units.

Distribution of Benefits-All Eligible Active Employees								
	Years of Service							
Current Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up	**Total**	**Percent**
Under 25	3	4					7	4%
25 to 29	1	7					8	4%
30 to 34	3	10	6	3			22	12%
35 to 39	1	13	3	5	3		25	14%
40 to 44		6	2	5	4	1	18	10%
45 to 49	2	5	4	8	8	2	29	16%
50 to 54		4	2	5	7	8	26	14%
55 to 59		7	2	4	6	15	34	18%
60 to 64	1	1			3	5	10	5%
65 to 69			1		1	1	3	2%
70 & Up				1	1		2	1%
Total	11	57	20	31	33	32	**184**	**100%**
Percent	6%	31%	11%	17%	18%	17%	**100%**	

Valuation	July 2016	January 2018
Annual Covered Payroll	$13,944,136	$15,993,551
Average Attained Age for Actives	46.4	46.0
Average Years of Service	12.3	11.8

MPAT: Distribution of Benefits-Eligible Active Employees								
	Years of Service							
Current Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up	**Total**	**Percent**
Under 25							0	0%
25 to 29	1	4					5	3%
30 to 34	3	5	2	1			11	6%
35 to 39		5	2	1	2		10	5%
40 to 44		4	1	3			8	4%
45 to 49		1	3	3	6	2	15	8%
50 to 54		3	1	1	5	3	13	7%
55 to 59		6		3	2	3	14	8%
60 to 64	1	1			2	2	6	3%
65 to 69			1				1	1%
70 & Up				1	1		2	1%
Total	5	29	10	13	18	10	**85**	**46%**
Percent	3%	16%	5%	7%	10%	5%	**46%**	

Summary of Employee Data

(Continued)

IBEW: Distribution of Benefits-Eligible Active Employees								
	Years of Service							
Current Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up	**Total**	**Percent**
Under 25	3	4					7	4%
25 to 29		3					3	2%
30 to 34		5	4	2			11	6%
35 to 39	1	8	1	4	1		15	8%
40 to 44		2	1	2	4	1	10	5%
45 to 49	2	4	1	5	2		14	8%
50 to 54		1	1	4	2	5	13	7%
55 to 59		1	2	1	4	12	20	11%
60 to 64					1	3	4	2%
65 to 69					1	1	2	1%
70 & Up							0	0%
Total	6	28	10	18	15	22	**99**	**54%**
Percent	3%	15%	5%	10%	8%	12%	**54%**	

The chart below summarizes the census data for active employees by bargaining unit and hire date:

Bargaining Unit	**Number**	**Average Age**	**Average Service**	**Payroll**
MPAT	85	47.2	10.4	$ 8,466,911
Hired before 1/1/1998	10	55.3	28.9	$ 1,232,704
Hired after 12/31/1997	75	46.2	8.0	$ 7,234,207
IBEW	99	45.0	13.0	$ 7,526,640
Hired before 1/1/1998	22	56.4	30.3	$ 1,889,448
Hired after 12/31/1997	77	41.7	8.1	$ 5,637,192
All	184	46.0	11.8	$ 15,993,551
Hired before 1/1/1998	32	56.1	29.9	$ 3,122,152
Hired after 12/31/1997	152	43.9	8.0	$ 12,871,399

Summary of Employee Data

(Concluded)

There are also 39 retirees receiving benefits under this program, including 2 former MPAT employees who are temporarily deferring their benefit. Ages and service values for the current retirees are summarized in the chart below:

Retirees by Age								
	MPAT			IBEW				
Current Age	Hired before 2008	Hired after 2007	Total MPAT	Hired before 2008	Hired after 2007	Total IBEW	All Retirees	Percent
Below 55	*None currently*						0	
55 to 59		2	2	1		1	3	8%
60 to 64	5	2	7	4		4	11	28%
65 to 69	2	5	7	5	1	6	13	33%
70 to 74		2	2	6	2	8	10	26%
75 to 79			0	2		2	2	5%
80 & up			0			0	0	0%
Total	**7**	**11**	**18**	**18**	**3**	**21**	**39**	**100%**
Average Age:								
On 1/1/2018	64.0	65.2	64.8	68.4	71.5	68.8	67.0	
At retirement	62.0	61.1	61.5	62.3	65.0	62.7	62.1	
Average Service at Retirement	29.7	12.2	19.0	31.9	10.1	28.8	24.3	

The chart below compares the numbers of active and retired employees included in the July 2016 and January 2018 valuations:

Change in Number Included in Valuation			
Status	**Actives**	**Retirees**	**Total**
Number included in July 1, 2016 valuation	**173**	**31**	**204**
MPAT	85	13	98
IBEW	88	18	106
Number included in January 1, 2018 valuation	**184**	**39**	**223**
MPAT	85	18	103
IBEW	99	21	120
Increase (decrease) from 2016 to 2018	**11**	**8**	**19**
MPAT	0	5	5
IBEW	11	3	14
% change from 2016 to 2018	**6%**	**26%**	**9%**
MPAT	0%	38%	5%
IBEW	13%	17%	13%

Table 3
Summary of Retiree Benefit Provisions

PRMPT OPEB provided: TMWA reported that the following OPEB are provided: retiree medical, dental, vision and life insurance coverage.

Access to coverage: Employees who retire from TMWA are eligible to continue their coverage under the health plans offered by TMWA to its active employees. The only conditions to be eligible for coverage are satisfaction of the service and retirement guidelines consistent with eligibility for receiving retirement benefits from Nevada PERS.

Healthcare Subsidies under the PRMPT: Employees who retire from TMWA on or after age 55 with at least 10 years of service are eligible for a subsidy toward the cost of their health and life insurance premiums. Service at Sierra Pacific Resources (SPR) may be applied toward OPEB eligibility if the employee elected to have assets transferred from the SPR VEBA to the TMWA VEBA Trust.

Surviving spouses of (a) IBEW retirees hired before 1998 and (b) MPAT retirees are eligible to continue coverage for 12 months following the retiree's death. No other survivors are permitted to retain coverage in TMWA plans, except as required by COBRA.

Benefits vary by bargaining unit as follows:

IBEW

- **Hired before 1998:** The PRMPT pays a percentage of the retiree and eligible dependents' premiums for TMWA-sponsored medical, dental and vision coverage, based on the retiree's age and years of service at retirement as shown below:

PRMPT Paid % for IBEW Pre-1998 Hires					
Years of Service	% Paid by PRMPT		Years of Service	% Paid by PRMPT	
	Under 65	Over 65		Under 65	Over 65
< 10	0%	0%	15	60%	65%
10	40%	45%	16	64%	69%
11	44%	49%	17	68%	73%
12	48%	53%	18	72%	77%
13	52%	57%	19	76%	81%
14	56%	61%	20+	80%	85%

  A surviving spouse is eligible to continue coverage and receive the same level of subsidy provided to the retiree for the first 12 months following the retiree's death.

- **Hired after 1997:** Upon retirement, the PRMPT makes a one-time deposit equal to $1,250 times years of service to the employee's Retiree Health Savings (RHS) account. The RHS funds may be applied, at the retiree's discretion, toward qualifying healthcare expenses not paid by TMWA, including dependent premiums, whether covered by TMWA-sponsored plans or other coverage.

  The retiree may continue coverage on TMWA plans after the RHS is exhausted, provided he or she makes timely payment of all premiums, for the retiree and any covered dependents.

Summary of Retiree Benefit Provisions
(Concluded)

MPAT: The PRMPT makes an annual contribution to retiree's Retiree Health Savings (RHS) account. RHS funds may be applied, at the retiree's discretion, toward qualifying healthcare expenses, including TMWA-sponsored medical, dental and vision plans. The amount of the annual contribution varies by age and service at follows:

- If employee retires on or after age 62:
  - Prior to age 65, PRMPT provides an annual allowance equal to $235 times years of service, up to $7,050 per year (30 years of credited service).
  - For ages 65 and above, PRMPT provides an annual allowance equal to $105 times years of service, up to $3,675 per year (35 years of credited service).
- If employee retires before age 62, the PRMPT reduces the amount of the annual allowances described above by 5% for each full year retirement precedes age 62. For example, an employee retiring at age 60 would receive 90% of $235 times years of service; upon reaching age 65 the retiree would receive 90% of $105 times years of service. However, the reduction factor is waived for retirees who elect to defer their benefits until age 62 or later.

A surviving spouse is eligible to continue coverage and receive the same level of subsidy provided to the retiree for the first 12 months following the retiree's death.

Current premium rates: The 2018 monthly healthcare premiums for plans available to TMWA retirees are shown in the chart below:

2018 Healthcare Rates for TMWA Retirees						
	Active & Pre-Medicare Retiree Rates				Medicare Rates	
Plan	Retiree Only	Retiree & Spouse	Retiree & Child(ren)	Retiree & Family	Retiree Only	Retiree & Spouse
The Reno Plan	$ 716.10	$ 1,253.62	$ 1,189.15	$ 1,591.17	$ 545.35	$ 965.45
Hometown Health Plan	747.54	1,307.61	1,240.53	1,630.27	524.97	918.15
Vision	6.56	10.50	10.72	17.30	6.56	10.50
Dental	77.46	130.34	123.00	168.52	77.46	130.34

Life Insurance: Both MPAT and IBEW retirees who qualify for healthcare subsidies are eligible for fully-subsidized life insurance coverage. The face amount of the policy varies by age as follows:

- Before age 70: 100% of life insurance coverage on retirement date (100% of annual salary)
- Ages 70-74: 50% of life insurance coverage on retirement date
- Ages 75+: $2,000

The premium rate for $1,000 in coverage is $0.24 plus an additional $0.03 for AD&D coverage.

Dependents may elect coverage in TMWA's life insurance plan but they must pay 100% of the applicable premium. The monthly premium for dependent life insurance is $0.48 for a face amount of $1,500.

Table 4
Actuarial Methods and Assumptions

Valuation Date	January 1, 2018
Funding Method	Entry Age Normal Cost, level percent of pay[1]
Asset Valuation Method	Market value of assets
Long Term Return on Assets	6.0%
Discount Rate	6.0%
Participants Valued	Only current TMWA active employees and retired participants and covered dependents are valued, excluding those who transferred to TMWA from Washoe County. No future entrants are considered in this valuation.
Salary Increase	4.0% per year
Assumed Wage Inflation	3.0% per year; a component of assumed average annual payroll increases
General Inflation Rate	2.75% per year

The demographic actuarial assumptions used in this valuation are based on the most recently published report of the Nevada Public Employees Retirement System, dated June 30, 2016, except for a different basis used to project future mortality improvements.

Mortality:

The rates referenced here were described in the June 30, 2016 actuarial valuation of the Nevada PERS program as being reasonably representative of mortality experience as of that measurement date.

<u>Non-disabled life rates for Regular employees:</u>

Males: RP-2000 Combined Healthy Table
Females: RP-2000 Combined Healthy Table set back 1 year

The rates described above were then adjusted to anticipate future mortality improvement by applying Bickmore Scale 2017 on a generational basis from 2015 forward (see Addendum 2 for additional details). In laymen's terms, this means mortality is projected to improve each year until the payments anticipated in any future year occur.

[1] The level percent of pay aspect of the funding method refers to how the normal cost is determined. Use of level percent of pay cost allocations in the funding method is separate from and has no effect on a decision regarding use of a level percent of pay or level dollar basis for determining amortization payments.

Table 4 - Actuarial Methods and Assumptions
(Continued)

Termination Rates

Years of Service	Regular Employees	Years of Service	Regular Employees
0	16.50%	8	3.25%
1	12.50%	9	3.00%
2	9.70%	10	2.75%
3	7.30%	11	2.50%
4	6.60%	12	2.25%
5	5.00%	13	2.00%
6	4.00%	14	1.75%
7	3.50%	15 & Over	1.50%

Retirement Rates

Regular Employees					
	Years of Service				
Age	5-9	10-19	20-24	25-29	30 or more
45-49	0%	0%	1%	7%	20%
50-54	1%	2%	2%	10%	20%
55-59	2%	4%	6%	13%	25%
60-61	8%	12%	18%	25%	25%
62-64	10%	14%	18%	25%	25%
65-69	20%	20%	22%	25%	25%
70-74	40%	40%	60%	60%	60%
75 & Over	100%	100%	100%	100%	100%

Healthcare Trend

TMWA plan medical premiums and per capita claims costs are assumed to increase at the following rates:

Effective January 1	Premium Increase	Effective January 1	Premium Increase
2019	6.25%	2023	5.25%
2020	6.00%	2024	5.00%
2021	5.75%	2025	5.00%
2022	5.50%	& later	5.00%

Dental and vision premiums are assumed to increase by 4% per year.

The rate per $1,000 in life insurance coverage is assumed to remain fixed at the current rate.

Medicare Eligibility

All individuals are assumed to be eligible for Medicare Parts A and B at age 65.

Table 4 - Actuarial Methods and Assumptions
(Continued)

Employer Cost Sharing	**IBEW Pre-1998 Hires:** Increases in the PRMPT-paid portion of healthcare premiums are assumed to increase at the same rates as medical trend (described above). **IBEW Post-1997 Hires:** The $1,250 service multiplier is assumed to remain fixed at its current level in all future years. Retirees are expected to exhaust the lifetime allowance 4 years following retirement. **MPAT:** The $235 (pre-65) and $105 (post-65) service multipliers are assumed to remain fixed at their current level in all future years.
Participation Rates and Medical Plan Elections	*Future retirees*: 100% of qualifying future retirees are assumed to receive benefits. MPAT employees retiring before age 62 are assumed to defer their benefits until reaching age 62. All other retirees are assumed to receive benefits immediately upon retirement. Future retirees are assumed to elect coverage in TMWA plans as follows: **IBEW Pre-1998 Hires:** All future retirees are assumed to elect coverage in TMWA-sponsored coverage. Coverage is assumed to be continued for the retiree's lifetime. **MPAT and Post-1997 IBEW:** The percentage of future retirees assumed to elect TMWA coverage in retirement is as follows: • **Prior to age 65:** If eligible for subsidies from the PRMPT, the percentage of future retirees assumed to elect TMWA coverage is 40% with 10 years of service, increasing by 3% per year of service until reaching 100% at 30 years of service. If not eligible for subsidies from PRMPT, only 15% are assumed to elect coverage and self-pay the full cost. • **Ages 65 and older:** All are assumed to elect coverage in non-TMWA plans upon reaching age 65. For both IBEW and MPAT*, of those assumed to elect TMWA coverage*, 2/3 (66.7%) of retirees are assumed to elect coverage in the Reno Plan; the remaining 1/3 (33.3%) are assumed to elect coverage in the Hometown Health Plan. *Retired participants*: Existing medical plan elections are assumed to be continued until retiree's death.

Table 4 - Actuarial Methods and Assumptions
(Continued)

Spouse Coverage

Active employees: 75% of pre-1998 IBEW employees and 50% of all other employees are assumed to be married and elect coverage for their spouse in retirement. Surviving spouses are assumed to retain coverage until their death. Husbands are assumed to be 3 years older than their wives.

Retired participants: Existing elections for spouse coverage are assumed to be continued until the spouse's death. Actual spouse ages are used, where known; if not, husbands are assumed to be 3 years older than their wives.

Development of Age-related Medical Premiums

Actual premium rates for retirees and their spouses were adjusted to an age-related basis by applying medical claim cost factors developed from the data presented in the report, "Health Care Costs – From Birth to Death", sponsored by the Society of Actuaries. A description of the use of claims cost curves can be found in Bickmore's Age Rating Methodology provided in Addendum 1 to this report.

Representative claims costs appear below:

Retiree	**Reno Plan**		**Hometown Health**		Retiree	**Reno Plan**		**Hometown Health**	
Age	Males	Females	Males	Females	Age	Males	Females	Males	Females
55	$ 692	$ 759	$ 865	$ 949	77	$ 469	$ 451	$ 586	$ 564
57	762	796	952	995	79	477	459	597	573
59	833	840	1,041	1,049	81	482	464	603	580
61	907	894	1,134	1,118	83	481	466	601	583
63	988	959	1,235	1,199	85	474	466	592	582
65	377	361	471	451	87	465	463	581	578
67	396	382	494	477	89	455	458	569	573
69	413	400	517	500	91	451	454	564	568
71	431	416	539	520	93	450	451	562	564
73	446	431	558	538	95	449	449	561	561
75	459	442	573	552	97	449	447	561	558

While determined on a plan by plan basis, the overall average number of children assumed per employee (subscriber) covering children is 1.8 and the average age of children covered is 11.7.

Excise tax on high-cost plans

The expected value of excise taxes for high cost plan coverage for retirees, now expected to be effective in the year 2022, was included in this valuation. Annual threshold amounts for 2018 under the Affordable Care Act (ACA) are shown below. A 40% excise tax rate was applied to the portion of premiums projected to exceed the threshold.

Table 4 - Actuarial Methods and Assumptions
(Continued)

Excise tax on high-cost plans
(continued)

2018 Thresholds	Ages 55-64	All Other Ages
Single	11,850	10,200
Other than Single	30,950	27,500

Note: Thresholds for disability retirements are assumed to be set at a level high enough to prevent taxation on disabled retiree benefits.

Actual limits may be higher, depending on cost increases prior to the effective date. The thresholds are scheduled to increase by CPI plus 1% in 2019 and by CPI annually thereafter.

Changes Since the Prior Valuation:

Funding Method — Changed from Projected Unit Credit to the Entry Age Normal Level Percent of Pay Cost Method

Demographic Assumptions — Rates of mortality, termination and retirement were updated to the assumptions used for the most recent valuation of Nevada PERS.

Mortality Improvement — We introduced an assumption that future mortality rates would “improve”, i.e., that mortality would be lower in future years than in the valuation year and accordingly that retiree life expectancy would gradually increase over time. The rate of improvement is assumed to vary by age and year of birth and is projected based on Bickmore Scale 2017 (see Addendum 2).

Salary Increase — Increased from 3% to 4% per year.

Healthcare trend — Prior to 2024, medical plan premium rates are assumed to increase at higher rates than were assumed in the prior valuation.

Retiree Plan Elections — Future retirees are assumed to have a 66.7% likelihood of electing coverage in the Reno Plan and a 33.3% likelihood of electing Hometown Health coverage, rather than 75% and 25% assumed to elect coverage in the Reno Plan and Hometown Health plans, respectively, in the 2016 valuation.

Age-Related Medical Premiums — We implemented Bickmore’s model for developing age-related medical premiums, based on recent research and data sponsored by the Society of Actuaries.

Table 4 - Actuarial Methods and Assumptions
(Concluded)

Spouse coverage

The percentage of future retirees assumed to cover their spouse in retirement was modified as follows:

Spouse Coverage Assumption		
Valuation	**2016**	**2018**
Tier 1		
Pre-65	75%	75%
Post-65	60%	75%
Tier 2		
Pre-65	75%	50%
Post-65	60%	50%

Excise Tax Impact

We directly reflected the potential impact of the excise tax attributable to retirees for high cost healthcare plans for retirees, as provided by the Affordable Care Act.

Table 5
Projected Benefit Payments

The following is an estimate of other post-employment benefits to be paid by the PRMPT on behalf of current retirees and current employees expected to retire from TMWA. Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Table 4.

These projections do not include any benefits expected to be paid on behalf of current active employees *prior to* retirement, nor do they include any benefits for potential *future employees* (i.e., those who might be hired in future years).

Projected Annual Benefit Payments							
Fiscal Year Ending June 30	Explicit Subsidy			Implicit Subsidy			Total
	Current Retirees	Future Retirees	Total	Current Retirees	Future Retirees	Total	
2018	$ 255,443	$ 49,141	$ 304,584	$ 78,207	$ 23,790	$ 101,997	$ 406,581
2019	250,732	73,306	324,038	80,423	39,429	119,852	443,890
2020	247,078	119,700	366,778	74,270	66,662	140,932	507,710
2021	249,140	165,608	414,748	60,694	95,288	155,982	570,730
2022	247,688	214,644	462,332	53,590	134,641	188,231	650,563
2023	244,051	263,155	507,206	52,150	169,680	221,830	729,036
2024	241,996	304,815	546,811	46,810	201,968	248,778	795,589
2025	239,802	340,523	580,325	32,896	235,624	268,520	848,845
2026	237,262	380,205	617,467	17,381	253,832	271,213	888,680
2027	232,510	420,231	652,741	8,683	267,078	275,761	928,502
2028	226,565	445,133	671,698	8,258	260,794	269,052	940,750
2029	222,416	459,343	681,759	8,514	249,454	257,968	939,727
2030	218,687	474,742	693,429	8,534	245,727	254,261	947,690
2031	214,145	485,242	699,387	8,815	232,808	241,623	941,010
2032	208,471	501,923	710,394	7,828	245,427	253,255	963,649

The amounts shown in the Explicit Subsidy section reflect the expected payment by the PRMPT toward retiree medical, dental, vision and life insurance premiums in each of the years shown. The amounts are shown separately, and in total, for those retired on the valuation date ("current retirees") and those expected to retire after the valuation date ("future retirees").

The amounts shown in the Implicit Subsidy section reflect the expected excess of retiree medical (including prescription drug) and life insurance claims over the premiums expected to be charged during the year for retirees' coverage. These amounts are also shown separately and in total for those currently retired on the valuation date and for those expected to retire in the future.

Appendix 1A: Results by Bargaining Unit & Hire Date for FYE 2018

The chart below develops the ADC for MPAT and IBEW employees for the fiscal year ending June 30, 2018. Trust assets as of the valuation date were allocated to each group based on the ratio of each group's Actuarial Accrued Liability (AAL) to the total AAL.

	MPAT Pre 98	MPAT Post 97	All MPAT	IBEW Pre 98	IBEW Post 97	All IBEW	Grand Total
Approach	Prefunding Basis						
For fiscal year ending	6/30/2018	6/30/2018	6/30/2018	6/30/2018	6/30/2018	6/30/2018	6/30/2018
Discount Rate	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Amortization method	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining amortization period (in years)	21	21	21	21	21	21	21
Number of Covered Employees							
Actives	10	75	85	22	77	99	184
Retirees	7	11	18	18	3	21	39
Total Participants	17	86	103	40	80	120	223
Actuarial Present Value of Projected Benefits							
Actives	$ 677,305	$ 2,069,210	$ 2,746,515	$ 5,032,125	$ 2,215,466	$ 7,247,591	$ 9,994,106
Retirees	394,371	250,838	645,209	2,768,300	1,165	2,769,465	3,414,674
Total APVPB	1,071,676	2,320,048	3,391,724	7,800,425	2,216,631	10,017,056	13,408,780
Actuarial Accrued Liability							
Actives	611,880	1,050,567	1,662,447	4,546,032	1,071,519	5,617,551	7,279,998
Retirees	394,371	250,838	645,209	2,768,300	1,165	2,769,465	3,414,674
Total AAL	1,006,251	1,301,405	2,307,656	7,314,332	1,072,684	8,387,016	10,694,672
Actuarial Value of Assets	1,028,101	1,329,663	2,357,764	7,473,154	1,095,976	8,569,130	10,926,894
Unfunded Actuarial Accrued Liability	(21,850)	(28,258)	(50,108)	(158,822)	(23,292)	(182,114)	(232,222)
Amortization Factor	12.4699	12.4699	12.4699	12.4699	12.4699	12.4699	12.4699
Actuarially Determined Contribution (ADC)							
Normal Cost	$ 12,881	$ 91,972	$ 104,853	$ 94,170	$ 96,413	$ 190,583	$ 295,436
Amortization of UAAL	(1,752)	(2,265)	(4,017)	(12,738)	(1,868)	(14,606)	(18,623)
Interest to 6/30	324	2,615	2,939	2,374	2,756	5,130	8,069
ADC at Fiscal Year End	11,453	92,322	103,775	83,806	97,301	181,107	284,882
Expected Employer OPEB Contributions							
Estimated current year's implicit subsidy	22,881	15,808	38,689	60,273	3,035	63,308	101,997
Estimated contribution to OPEB trust	(11,428)	76,514	65,086	23,533	94,266	117,799	182,885
Total Expected Employer Contribution	11,453	92,322	103,775	83,806	97,301	181,107	284,882

Appendix 1B: Results by Bargaining Unit & Hire Date for FYE 2019

The chart below summarizes develops the ADC for MPAT and IBEW employees for the fiscal year ending June 30, 2019, based on the results of the July 1, 2017 valuation and on the funding policy described earlier in this report.

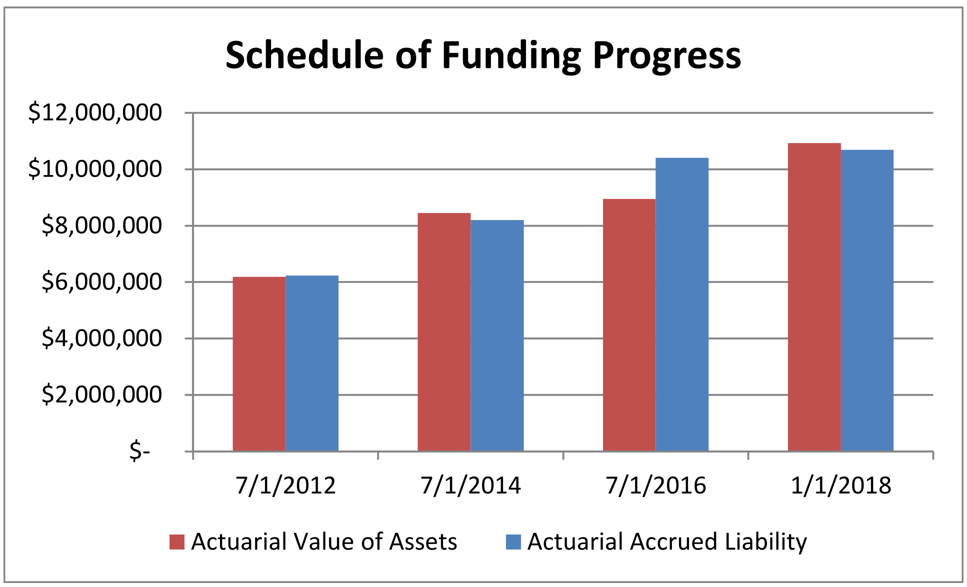
	MPAT Pre 98	MPAT Post 97	All MPAT	IBEW Pre 98	IBEW Post 97	All IBEW	Grand Total
Approach	Prefunding Basis						
For fiscal year ending	6/30/2019	6/30/2019	6/30/2018	6/30/2019	6/30/2019	6/30/2018	6/30/2018
Discount Rate	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Amortization method	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining amortization period (in years)	20	20	20	20	20	20	20
Number of Covered Employees							
Actives	10	75	85	22	77	99	184
Retirees	7	11	18	18	3	21	39
Total Participants	17	86	103	40	80	120	223
Actuarial Present Value of Projected Benefits							
Actives	$ 711,506	$ 2,188,434	$ 2,899,940	$ 5,277,248	$ 2,343,633	$ 7,620,881	$ 10,520,821
Retirees	366,872	235,120	601,992	2,689,505	(5,593)	2,683,912	3,285,904
Total APVPB	1,078,378	2,423,554	3,501,932	7,966,753	2,338,040	10,304,793	13,806,725
Actuarial Accrued Liability							
Actives	655,809	1,206,162	1,861,971	4,861,811	1,233,247	6,095,058	7,957,029
Retirees	366,872	235,120	601,992	2,689,505	(5,593)	2,683,912	3,285,904
Total AAL	1,022,681	1,441,282	2,463,963	7,551,316	1,227,654	8,778,970	11,242,933
Actuarial Value of Assets	1,042,258	1,467,765	2,510,023	7,697,121	1,250,017	8,947,138	11,457,161
Unfunded Actuarial Accrued Liability	(19,577)	(26,483)	(46,060)	(145,805)	(22,363)	(168,168)	(214,228)
Amortization Factor	12.1581	12.1581	12.1581	12.1581	12.1581	12.1581	12.1581
Actuarially Determined Contribution (ADC)							
Normal Cost	$ 13,396	$ 95,651	$ 109,047	$ 97,936	$ 100,270	$ 198,206	$ 307,253
Amortization of UAAL	(1,610)	(2,178)	(3,788)	(11,994)	(1,839)	(13,833)	(17,621)
Interest to 6/30	344	2,725	3,069	2,505	2,870	5,375	8,444
ADC at Fiscal Year End	12,130	96,198	108,328	88,447	101,301	189,748	298,076
Expected Employer OPEB Contributions							
Estimated current year's implicit subsidy	29,909	16,081	45,990	69,997	3,865	73,862	119,852
Estimated contribution to OPEB trust	(17,779)	80,117	62,338	18,450	97,436	115,886	178,224
Total Expected Employer Contribution	12,130	96,198	108,328	88,447	101,301	189,748	298,076

Appendix 2
Historical Information

The chart and graph below provide a review of the plan's funded ratio on the current and recent prior valuation dates.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/2012	$ 6,181,506	$ 6,228,631	$ 47,125	99.2%	$ 11,618,408	0.4%
7/1/2014	$ 8,443,923	$ 8,196,010	$ (247,913)	103.0%	$ 12,941,448	-1.9%
7/1/2016	$ 8,948,929	$ 10,407,569	$ 1,458,640	86.0%	$ 13,944,136	10.5%
1/1/2018	$ 10,926,894	$ 10,694,671	$ (232,223)	102.2%	$ 15,993,551	-1.5%



Addendum 1: Bickmore Age Rating Methodology

Both accounting standards (e.g., GASB 75) and actuarial standards (e.g., ASOP 6) require that expected retiree claims, not just premiums paid, be reflected in most situations where an actuary is calculating retiree healthcare liabilities. Unfortunately the actuary is often required to perform these calculations without any underlying claims information. In most situations, the information is not available, but even when available, the information may not be credible due to the size of the group being considered.

Actuaries have developed methodologies to approximate healthcare claims from the premiums being paid by the plan sponsor. Any methodology requires adopting certain assumptions and using general studies of healthcare costs as substitutes when there is a lack of credible claims information for the specific plan being reviewed.

Premiums paid by sponsors are often uniform for all employee and retiree ages and genders, with a drop in premiums for those participants who are Medicare-eligible. While the total premiums are expected to pay for the total claims for the insured group, on average, the premiums charged would not be sufficient to pay for the claims of older insureds, and would be expected to exceed the expected claims of younger insureds. An age-rating methodology takes the typically uniform premiums paid by plan sponsors and spreads the total premium dollars to each age and gender intended to better approximate what the insurer might be expecting in actual claims costs at each age and gender.

The process of translating premiums into expected claims by age and gender generally follows the steps below.

1. *Obtain or Develop Relative Medical Claims Costs by Age, Gender, or other categories that are deemed significant*. For example, a claims cost curve might show that, if a 50 year old male has $1 in claims, then on average a 50 year old female has claims of $1.25, a 30 year male has claims of $0.40, and an 8 year old female has claims of $0.20. The claims cost curve provides such relative costs for each age, gender, or any other significant factor the curve might have been developed to reflect. Table 4 provides the source of information used to develop such a curve and shows sample relative claims costs developed for the plan under consideration.
2. *Obtain a census of participants, their chosen medical coverage, and the premium charged for their coverage.* An attempt is made to find the group of participants that the insurer considered in setting the premiums they charge for coverage. That group includes the participant and any covered spouses and children. When information about dependents is unavailable, assumptions must be made about spouse age and the number and age of children represented in the population. These assumptions are provided in Table 4.
3. *Spread the total premium paid by the group to each covered participant or dependent based on expected claims.* The medical claims cost curve is used to spread the total premium dollars paid by the group to each participant reflecting their age, gender, or other relevant category. After this step, the actuary has a schedule of expected claims costs for each age and gender for the current premium year. It is these claims costs that are projected into the future by medical cost inflation assumptions when valuing expected future retiree claims.

The methodology described above is dependent on the data and methodologies used in whatever study might be used to develop claims cost curves for any given plan sponsor. These methodologies and assumptions can be found in the referenced paper cited as a source in the valuation report.

Addendum 2: Bickmore Mortality Projection Methodology

Actuarial standards of practice (e.g., ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, and ASOP 6, Measuring Retiree Group Benefits Obligations) indicate that the actuary should reflect the effect of mortality improvement (i.e., longer life expectancies in the future), both before and after the measurement date. The development of credible mortality improvement rates requires the analysis of large quantities of data over long periods of time. Because it would be extremely difficult for an individual actuary or firm to acquire and process such extensive amounts of data, actuaries typically rely on large studies published periodically by organizations such as the Society of Actuaries or Social Security Administration.

As noted in a recent actuarial study on mortality improvement, key principals in developing a credible mortality improvement model would include the following:

(1) Short-term mortality improvement rates should be based on recent experience.

(2) Long-term mortality improvement rates should be based on expert opinion.

(3) Short-term mortality improvement rates should blend smoothly into the assumed long-term rates over an appropriate transition period.

The **Bickmore Scale 2017** was developed from a blending of data and methodologies found in two published sources: (1) the Society of Actuaries Mortality Improvement Scale MP-2016 Report, published in October 2016 and (2) the demographic assumptions used in the 2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, published June 2016.

Bickmore Scale 2017 is a two-dimensional mortality improvement scale reflecting both age and year of mortality improvement. The underlying base scale is Scale MP-2016 which has two segments – (1) historical improvement rates for the period 1951-2012 and (2) an estimate of future mortality improvement for years 2013-2015 using the Scale MP-2016 methodology but utilizing the assumptions obtained from Scale MP-2015. The Bickmore scale then transitions from the 2015 improvement rate to the Social Security Administration (SSA) Intermediate Scale linearly over the 10 year period 2016-2025. After this transition period, the Bickmore Scale uses the constant mortality improvement rate from the SSA Intermediate Scale from 2025-2039. The SSA's Intermediate Scale has a final step down in 2040 which is reflected in the Bickmore scale for years 2040 and thereafter. Over the ages 100 to 115, the SSA improvement rate is graded to zero.

Scale MP-2016 can be found at the SOA website and the projection scales used in the 2016 Social Security Administrations Trustees Report at the Social Security Administration website.

Glossary

Actuarial Accrued Liability (AAL) – Total dollars required to fund all plan benefits attributable to service rendered as of the valuation date for current plan members and vested prior plan members; see "Actuarial Present Value".

Actuarial Funding Method – A procedure which calculates the actuarial present value of plan benefits and expenses, and allocates these expenses to time periods, typically as a normal cost and an actuarial accrued liability.

Actuarial Present Value Projected Benefits (APVPB) – The amount presently required to fund all projected plan benefits in the future, it is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Actuarial Value of Assets – The actuarial value of assets is the value used by the actuary to offset the AAL for valuation purposes. The actuarial value of assets may be the market value of assets or may be based on a methodology designed to smooth out short-term fluctuations in market values.

Actuarially Determined Contribution (ADC) – A contribution level determined by an actuary that is sufficient, assuming all assumptions are realized, to (1) fully fund new employee's expected benefits by their expected retirement date(s), (2) pay off over a sufficiently short period any unfunded liabilities current as of the date funding commences, and (3) adequately fund the trust so that the trust can meet benefit payment obligations.

Defined Benefit (DB) – A pension or OPEB plan which defines the monthly income or other benefit which the plan member receives at or after separation from employment.

Defined Contribution (DC) – A pension or OPEB plan which establishes an individual account for each member and specifies how contributions to each active member's account are determined and the terms of distribution of the account after separation from employment.

Discount Rate – The rate of return that could be earned on an investment in the financial markets; typically, the discount rate is based on the expected long-term yield of investments used to finance the benefits. The discount rate is used to adjust the dollar value of future projected benefits into a present value equivalent as of the valuation date.

Entry Age Normal Cost (EANC) – An actuarial funding method where, for each individual, the actuarial present value of benefits is levelly spread over the individual's projected earnings or service from entry age to the last age at which benefits can be paid.

Excise Tax – The Affordable Care Act created a 40% excise tax on the value of "employer sponsored coverage" that exceeds certain thresholds. The tax is first effective is 2022.

Explicit Subsidy – The projected dollar value of future retiree healthcare costs expected to be paid directly by the Employer, e.g., the Employer's payment of all or a portion of the monthly retiree premium billed by the insurer for the retiree's coverage.

Glossary
(Continued)

Funding Policy Contribution (FPC)– The contributions determined in accordance with the entity's adopted funding policy. The FPC may range from "pay-go" (i.e. only paying benefits as they come due), to prefunding all projected liabilities expected for current and former employees. An entity's FPC may be: (1) less than the Actuarially Determined Contribution (ADC) indicating that the entity has chosen not to prefund part of the liabilities reflected in the ADC; (2) more than the ADC indicating that the entity wants to prefund benefits faster than a typical ADC; or (3) based on contributions equal to 100% of an ADC, indicating that the entity desires to prefund over the period indicated by the ADC.

Government Accounting Standards Board (GASB) – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments; like FASB, it is part of the Financial Accounting Foundation (FAF), which funds each organization and selects the members of each board

Health Care Trend – The assumed rate(s) of increase in future dollar values of premiums or healthcare claims, attributable to increases in the cost of healthcare; contributing factors include medical inflation, frequency or extent of utilization of services and technological developments.

Implicit Subsidy – The projected difference between future retiree claims and the premiums to be charged for retiree coverage; this difference results when the claims experience of active and retired employees are pooled together and a 'blended' group premium rate is charged for both actives and retirees; a portion of the active employee premiums subsidizes the retiree premiums.

Nevada PERS – Many state governments maintain a public employee retirement system; Nevada PERS is the Nevada program, covering all eligible state government employees as well as other employees of other governments within Nevada who have elected to join the system

Non-Industrial Disability (NID) – Unless specifically contracted by the individual Agency, PAM employees are assumed to be subject to only non-industrial disabilities.

Normal Cost – Total dollar value of benefits expected to be earned by plan members in the current year, as assigned by the chosen funding method; also called current service cost.

Other Post-Employment Benefits (OPEB) – Post-employment benefits other than pension benefits, most commonly healthcare benefits but also including life insurance if provided separately from a pension plan.

Pay-As-You-Go (PAYGO) – Contributions to the plan are made at about the same time and in about the same amount as benefit payments and expenses coming due.

Plan Assets – The value of cash and investments considered as 'belonging' to the plan and permitted to be used to offset the AAL for valuation purposes. To be considered a plan asset, (a) the assets should be segregated and restricted in a trust or similar arrangement, (b) employer contributions to the trust should be irrevocable, (c) the assets should be dedicated to providing benefits to retirees and their beneficiaries, and (d) that the assets should be legally protected from creditors of the employer and/or plan administrator. See also "Actuarial Value of Assets".

Glossary
(Continued)

Public Agency Miscellaneous (PAM) – Non-safety public employees.

Select and Ultimate – Actuarial assumptions which contemplate rates which differ by year initially (the select period) and then stabilize at a constant long-term rate (the ultimate rate).

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the actuarial value of plan assets.

Vesting – As defined by the plan, requirements which when met make a plan benefit nonforfeitable on separation of service before retirement eligibility.