Industry & Local 338 Pension Plan

Actuarial Update

April 14, 2020

Mary Ann Dunleavy, ASA
Stanley I. Goldfarb, FSA
Dylan Nitta

Atlanta ■ Cleveland ■ Denver ■ Irvine ■ Los Angeles
Miami ■ San Diego ■ San Francisco ■ Washington, D.C.

Today's Discussion

- **July 1, 2019 Actuarial Valuation – Updated Results**
- **Funding Projections**
- **Appendix**

July 1, 2019 Actuarial Valuation: Updated Results

Summary of Key Results

Measurement Date	July 1, 2019	July 1, 2019	July 1, 2018
Interest Rate	7.25%	7.50%	7.50%
A. Normal Cost			
1. Cost of Benefit Accruals	$ 981,618	$ 941,158	$ 934,349
2. Assumed Operating Expenses	361,882	360,672	360,672
3. Total	$ 1,343,500	$ 1,301,830	$ 1,295,021
B. Actuarial Accrued Liability			
1. Active Participants	$ 14,533,932	$ 14,044,447	$ 14,874,320
2. Inactive Vested Participants	13,616,001	13,095,418	10,677,729
3. Retired Participants and Beneficiaries	77,651,828	76,170,513	76,840,869
4. Total	$ 105,801,761	$ 103,310,378	$ 102,392,918
C. Assets			
1. Market Value of Assets	$ 91,152,183	$ 91,152,183	$ 91,628,548
Prior Year Net Investment Return	4.8%	4.8%	7.8%
2. Actuarial Value of Assets	$ 92,690,276	$ 92,690,276	$ 92,666,162
Prior Year Net Investment Return	5.3%	5.3%	5.1%
D. Funded Percentages			
1. Market Value Funded Percentage (C.1. / B.4.)	86.1%	88.2%	89.4%
2. Actuarial Value Funded Percentage (C.2. / B.4.)	87.6%	89.7%	90.5%

Notes

1) Benefit changes made by the Rehabilitation Plan are reflected at July 1, 2018

Contribution Margin

Measurement Date	July 1, 2019		July 1, 2018		July 1, 2017	
Interest Rate	7.25%		7.50%		7.50%	
A. Unfunded Actuarial Accrued Liability						
1. Actuarial Accrued Liability	$ 105,801,761		$ 102,392,918		$ 113,387,634	
2. Actuarial Value of Assets	92,690,276		92,666,162		93,057,325	
3. Unfunded Liability	$ 13,111,485		$ 9,726,756		$ 20,330,309	
B. Actuarial Cost						
1. Normal Cost		Per Week		Per Week		Per Week
a. Cost of Benefit Accruals	$ 1,017,202	$ 91.64	$ 971,467	$ 83.03	$ 1,312,921	$ 112.22
b. Assumed Operating Expenses	375,000	33.78	375,000	32.05	375,000	32.05
c. Total	$ 1,392,202	125.42	$ 1,346,467	115.08	$ 1,687,921	144.27
2. Unfunded Liability Amortization Payment	1,824,584	164.38	1,370,554	117.14	2,864,653	244.84
3. Total Actuarial Cost for Plan Year	$ 3,216,786	289.80	$ 2,717,020	232.22	$ 4,552,574	389.11
Amortization Period	10		10		10	
C. Expected Employer Contributions						
1. Expected Weeks	11,100		11,700		11,700	
2. Average Contribution Rate per Week	$ 302.62		$ 274.36		$ 261.13	
3. Expected Contributions	$ 3,359,082		$ 3,210,012		$ 3,055,221	
Unfunded Amortization Contribution		$ 1,966,880		$ 1,863,545		$ 1,367,300
Unfunded Amortization Period (years)		8.65		6.26		Perpetuity
D. Contribution Margin						
1. Contribution Margin for Plan Year	$ 142,296		$ 492,992		$ (1,497,353)	
2. Contribution Margin per Week	$ 12.82		$ 42.14		$ (127.98)	

Notes

1) The actuarial costs in B. above include an include interest adjustments to reflect payments throughout the year.

Funding Projections

Projection Assumptions and Methods

- **Unless otherwise stated, the projection assumptions, methods, data and plan provisions used are the same as those used for the Preliminary July 1, 2019 actuarial valuation.**
  - No future expected gains or losses other than those attributable to investment returns, as applicable.
- **Investment Earnings**
  - Alternative scenarios
    - 7.50% per year, net of investment-related expenses, 7/2019+ unless otherwise noted
    - 7.25% per year, net of investment-related expenses, 7/2019+ unless otherwise noted
- **Operating Expenses**
  - $375,000 for the plan year beginning July 1, 2019, increasing 2.5% per year

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Assumptions and Methods (cont.)

- **Withdrawn Employers**
  - Culinart, withdrawn May 10, 2019
    - Withdrawal liability periodic payments plus settlement of $2.39M during 2019 -2020 Plan Year reflected
  - Active participants employed by the College of New Rochelle are assumed to terminate employment August 9, 2019 when the employer withdrew from the Plan
    - No collection of withdrawal liability

- **Contracts**
  - 54% of hours worked under contracts beginning that are expected to renew in PYB 2020
    - HP Hood / Crowley, Montefiore New Rochelle, Paraco
  - 31% of hours worked under contracts that are expected to renew in PYB 2021
    - FrieslandCampina
  - 15% of hours worked under contracts beginning that are expected to renew in PYB 2022
    - LP Transport (renewed in 2019-2020 plan year)

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Assumptions and Methods (cont.)

- **Work Levels**
  - Plan year beginning July 1, 2019 – 10,300 total weeks, unless otherwise noted
  - Each plan year beginning July 1, 2020 - 10,200 total weeks

- **Contribution Rates**
  - All contribution rate increases are benefit-bearing
  - Contracts adopted on or after October 15, 2019 must comply with the Plan's Funding Policy, requiring contribution rate increases as follows:

First 10 Years of Contribution Rate Increases

Year 1	$	8.76 per week	Year 6	$	10.16 per week
Year 2	$	9.02 per week	Year 7	$	10.46 per week
Year 3	$	9.29 per week	Year 8	$	10.77 per week
Year 4	$	9.57 per week	Year 9	$	11.10 per week
Year 5	$	9.86 per week	Year 10	$	11.43 per week

Contribution rate requirements for Year 11 and beyond will be provided by the Trustees.

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Projection Roadmap 7.25% Discount Rate

Scenario	Investment Return PYB 2019 / PYB 2020+	Weeks Worked PYB 2019 / PYB 2020+	Projected 6/30/2020 Market Value of Assets	Projected Zone Status 2020-2021	First Non-Green Year In Projection	Remediation Required - 10- year Temporary Contribution Increase Only
Certification Basis: Contribution Rates Included in Current Collective Bargaining Agreements						
1 Baseline July 1, 2019 Valuation	7.25% / 7.25%	10,300 / 10,200	$94.3M	**Green**	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 141% 7/1/2038
1A Low ROA PYE 2020	-7.50% / 7.25%	10,300 / 10,200	$81.1M	**Yellow &** **Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 1.5%/yr incr. needed
1B Low ROA That Results in Non-Green 2020	-7.00% / 7.25%	10,300 / 10,200	$81.6M	**Yellow &** **Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 1.0%/yr incr. needed
1C Low ROA + Low Weeks Worked	-7.50% / 7.25%	7,800 / 10,200	$80.4M	**Yellow &** **Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 1.5%/yr incr. needed
1D Low ROA+Low Weeks That Results in Non-Green 2020	-5.75% / 7.25%	7,800 / 10,200	$82.0M	**Yellow &** **Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 0.5%/yr incr. needed
1E Low ROA That Results in Non-Green in Future	-1.00% / 7.25%	10,300 / 10,200	$87.0M	**Green**	**7/2032** **Red w/in 15**	Funding Policy (3%/year) provides recovery, F% = 115% 7/1/2038

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

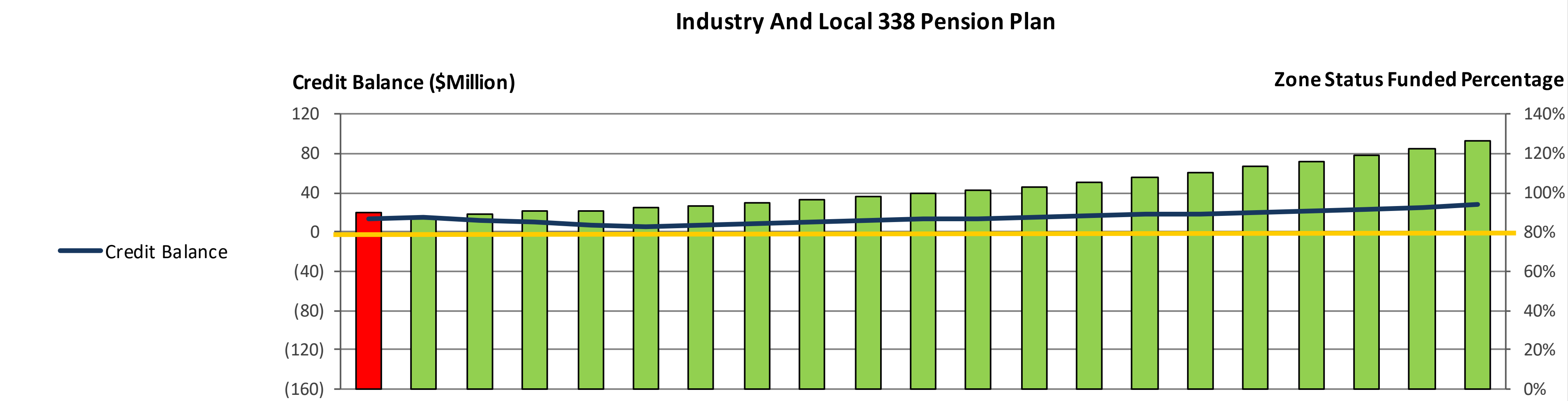
Projection Roadmap 7.50% Discount Rate

Scenario	Investment Return PYB 2019 / PYB 2020+	Weeks Worked PYB 2019 / PYB 2020+	Projected 6/30/2020 Market Value of Assets	Projected Zone Status 2020-2021	First Non-Green Year In Projection	Remediation Required – 10-year Temporary Contribution Increase Only
Certification Basis: Contribution Rates Included in Current Collective Bargaining Agreements						
2 Baseline July 1, 2019 Valuation	7.50% / 7.50%	10,300 / 10,200	$94.6M	**Green**	**N/A**	Funding Policy (3%/year) provides increasing F%, F% = 154% 7/1/2038
2A Low ROA PYE 2020	-7.50% / 7.50%	10,300 / 10,200	$81.1M	**Green**	**7/2024 Green & Red w/in 10**	Funding Policy (3%/year) provides recovery, F% = 104% 7/1/2038
2B Low ROA That Results in Non-Green 2020	-11.50% / 7.50%	10,300 / 10,200	$77.6M	**Yellow & Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 2%/yr incr. needed
2C Low ROA + Low Weeks Worked	-7.50% / 7.50%	7,800 / 10,200	$80.4M	**Green**	**7/2023 Green & Red w/in 5**	Funding Policy (3%/year) provides recovery, F% = 102% 7/1/2038
2D Low ROA+Low Weeks That Results in Non-Green 2020	-10.00% / 7.50%	7,800 / 10,200	$78.1M	**Yellow & Red w/in 5**	**7/2020**	Funding Policy (3%/year) does **NOT** provide recovery, Add'l 1.5%/yr incr. needed
2E Low ROA That Results in Non-Green in Future	-5.75% / 7.50%	10,300 / 10,200	$84.5M	**Green**	**7/2033 Green & Red w/in 15**	Funding Policy (3%/year) provides recovery, F% = 110% 7/1/2038

Other assumptions may be reasonable and could produce different results. Other risks can negatively impact the funded status of the plan such as participants living longer than assumed. Additional scenarios available upon request.

Scenario 1: Baseline

7.25% Return PYB 2019+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only



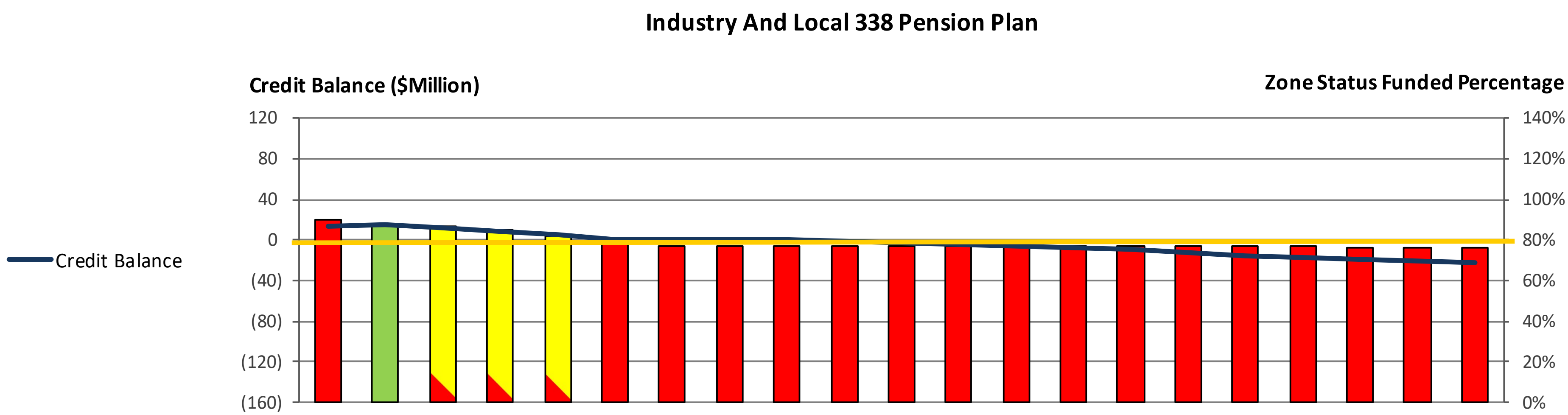
Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments($M)	3.4	5.6	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
(5) Actuarial Value of Assets ($M)	93	93	95	96	96	97	98	99	100	100	102	103	104	105	107	108	110	112	114	116	118
(6) Zone Status Liability ($M)	102	106	106	105	105	104	104	103	103	102	102	101	100	99	99	98	97	96	95	94	93
(7) Credit Balance ($M)	14	14	12	10	7	5	6	8	10	11	13	14	15	16	18	18	20	21	23	25	28
(8) Zone Status Funded Percentage	90%	87%	89%	91%	91%	92%	93%	95%	96%	98%	100%	101%	103%	105%	108%	110%	113%	116%	119%	122%	126%

Notes

1) Projected Market Value of Assets on 6/30/2020 = $94.3M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 1A: Low 2019 ROA

-7.50% Return PYB 2019; 7.25% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only



Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(7.50)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked (Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments ($M)	3.4	5.6	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
(5) Actuarial Value of Assets ($M)	93	93	92	90	87	83	80	80	79	79	78	78	77	77	76	76	75	74	73	73	72
(6) Zone Status Liability ($M)	102	106	106	105	105	104	104	103	103	102	102	101	100	99	99	98	97	96	95	94	93
(7) Credit Balance ($M)	14	14	12	9	5	1	1	0	(0)	(1)	(2)	(4)	(6)	(8)	(10)	(13)	(15)	(17)	(19)	(21)	(22)
(8) Zone Status Funded Percentage	90%	87%	87%	85%	82%	79%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	76%	76%	76%

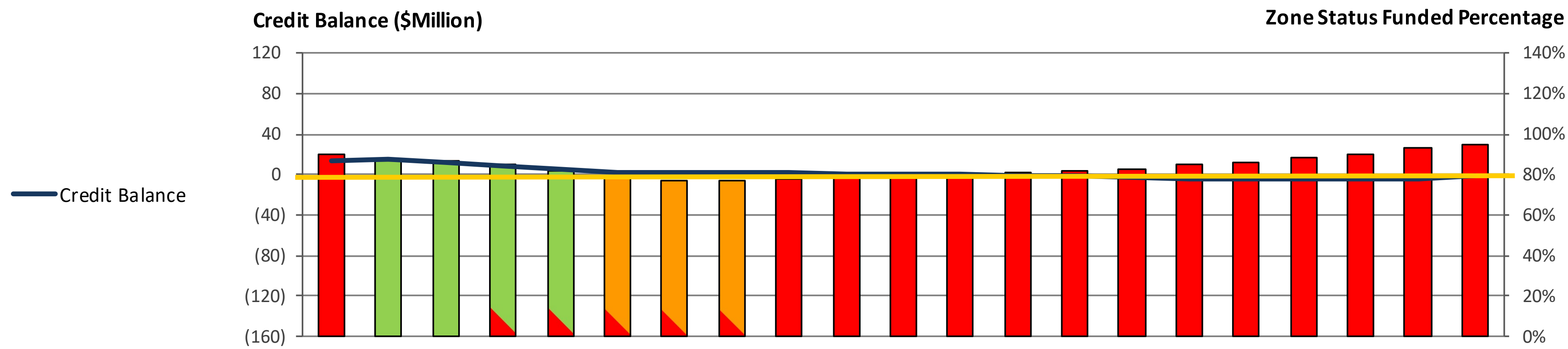
Notes

1) Projected Market Value of Assets on 6/30/2020 = **$81.1M**
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 1A-F: Low 2019 ROA with Funding Policy

-7.50% Return PYB 2019; 7.25% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 |
Funding Policy Contribution Increases

Industry And Local 338 Pension Plan



Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(7.50)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked(Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	317	328	337	346	356	366	376	387	397	409	420	432	444	457	470	483	497	511	526
(4) Contributions+EWL Payments($M)	3.4	5.6	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.4
(5) Actuarial Value of Assets ($M)	93	93	92	90	87	83	81	81	81	81	82	82	83	84	85	86	88	90	92	94	97
(6) Zone Status Liability ($M)	102	106	106	105	105	105	104	104	103	103	103	102	102	102	101	101	101	101	101	101	102
(7) Credit Balance ($M)	14	14	12	9	5	1	2	2	1	1	1	(0)	(1)	(2)	(2)	(4)	(4)	(5)	(5)	(4)	(2)
(8) Zone Status Funded Percentage	90%	87%	87%	85%	82%	79%	77%	77%	78%	79%	79%	80%	81%	82%	83%	85%	86%	88%	90%	93%	95%

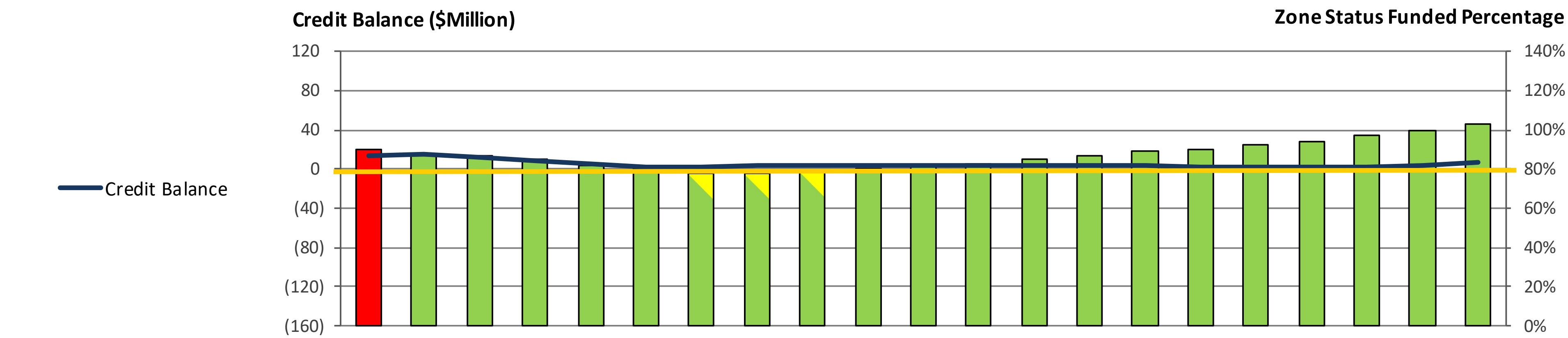
Notes

1) Projected Market Value of Assets on 6/30/2020 = $81.1M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 1A-R: Low 2019 ROA with Remediation

-7.50% Return PYB 2019; 7.25% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Funding Policy Contribution Increases + 1.5% Contribution Increases for 10 years (4.5% Total)

Industry And Local 338 Pension Plan



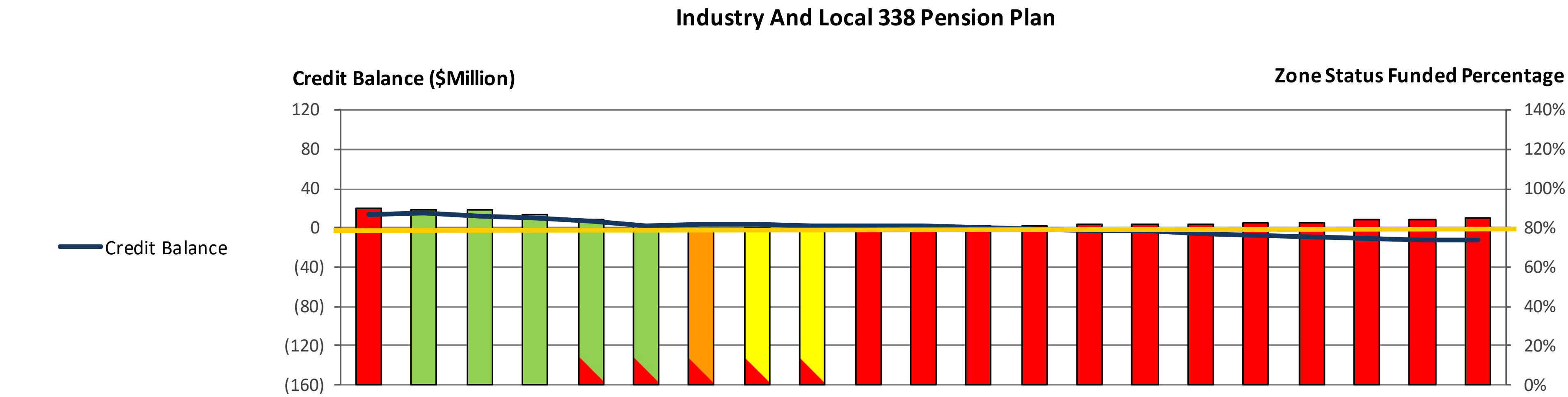
Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(7.50)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
(2) Weeks Worked (Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	321	341	359	377	396	416	435	456	476	497	467	432	444	457	470	483	497	511	526
(4) Contributions+EWL Payments ($M)	3.4	5.6	3.3	3.5	3.7	3.8	4.0	4.2	4.4	4.6	4.9	5.1	4.8	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.4
(5) Actuarial Value of Assets ($M)	93	93	92	90	87	84	82	82	83	84	85	87	89	91	92	94	96	99	102	105	108
(6) Zone Status Liability ($M)	102	106	106	105	105	105	104	104	104	104	104	104	104	104	104	104	104	104	104	105	105
(7) Credit Balance ($M)	14	14	12	9	6	2	2	3	3	4	4	4	4	3	3	2	2	2	3	4	7
(8) Zone Status Funded Percentage	90%	87%	87%	85%	82%	80%	78%	78%	79%	80%	82%	83%	85%	87%	89%	90%	92%	94%	97%	100%	103%

Notes

1) Projected Market Value of Assets on 6/30/2020 = $81.1M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 2A: Low 2019 ROA – 7.50% Discount Rate

-7.50% Return PYB 2019; 7.50% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only



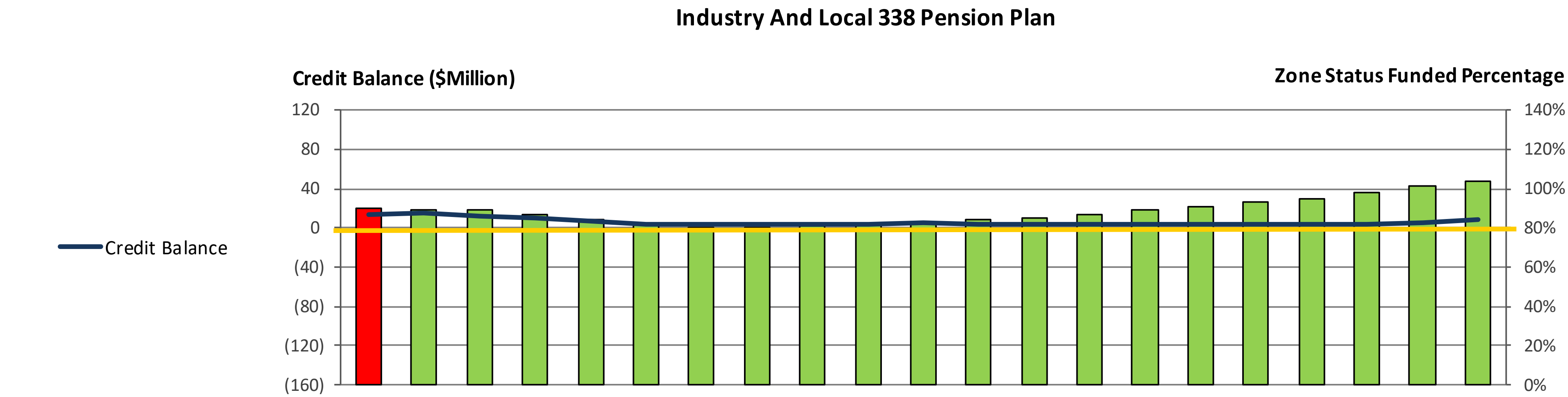
Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(7.50)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
(2) Weeks Worked (Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments ($M)	3.4	5.6	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
(5) Actuarial Value of Assets ($M)	93	93	92	90	87	84	81	81	81	81	80	80	80	80	80	79	79	79	79	78	78
(6) Zone Status Liability ($M)	102	103	103	103	103	102	102	101	101	100	99	99	98	97	97	96	95	94	93	92	91
(7) Credit Balance ($M)	14	15	12	10	6	3	3	3	2	2	1	0	(1)	(3)	(4)	(6)	(8)	(10)	(11)	(13)	(12)
(8) Zone Status Funded Percentage	90%	89%	89%	87%	84%	82%	79%	80%	80%	80%	81%	81%	81%	82%	82%	82%	83%	83%	84%	84%	85%

Notes

1) Projected Market Value of Assets on 6/30/2020 = $81.1M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 2A-F: Low 2019 ROA with Funding Policy

-7.50% Return PYB 2019; 7.50% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 |
Funding Policy Contribution Increases



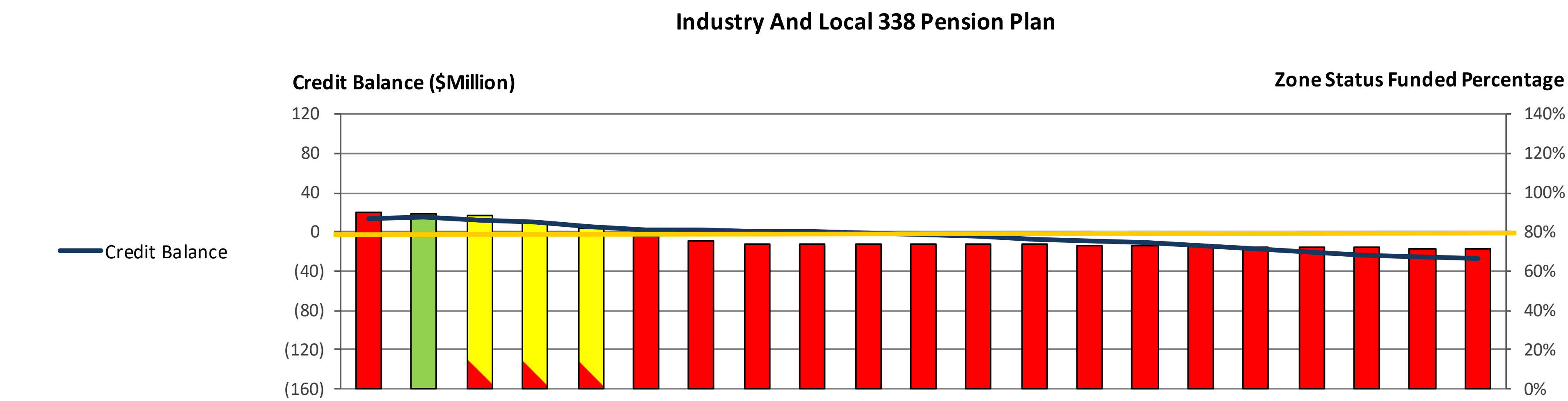
Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(7.50)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
(2) Weeks Worked (Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	317	328	337	346	356	366	376	387	397	409	420	432	444	457	470	483	497	511	526
(4) Contributions+EWL Payments ($M)	3.4	5.6	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.4
(5) Actuarial Value of Assets ($M)	93	93	92	90	87	84	82	82	82	83	84	85	86	87	88	90	92	94	97	100	103
(6) Zone Status Liability ($M)	102	103	103	103	103	102	102	101	101	101	100	100	100	99	99	99	99	98	98	98	98
(7) Credit Balance ($M)	14	15	12	10	7	3	4	4	4	4	5	4	4	4	4	3	3	3	4	5	8
(8) Zone Status Funded Percentage	90%	89%	89%	87%	84%	82%	80%	80%	81%	82%	83%	84%	85%	87%	89%	91%	93%	95%	98%	101%	104%

Notes

1) Projected Market Value of Assets on 6/30/2020 = $81.1M
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Scenario 2B: Low 2019 ROA – Endangered Status PYB 2020

-11.50% Return PYB 2019; 7.50% Return PYB 2020+ | 10.2 Thousand Weeks Worked beginning PYB 2020 | Current CBA Contribution Increases only



Plan Year Beginning 7/1	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
(1) Investment Return (%)	4.81	(11.50)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
(2) Weeks Worked (Thousands)	11.9	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
(3) Weekly Contribution Rate ($)	274	303	314	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
(4) Contributions+EWL Payments ($M)	3.4	5.6	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
(5) Actuarial Value of Assets ($M)	93	93	92	88	84	80	76	76	75	75	74	73	73	72	71	70	69	68	67	66	65
(6) Zone Status Liability ($M)	102	103	103	103	103	102	102	101	101	100	99	99	98	97	97	96	95	94	93	92	91
(7) Credit Balance ($M)	14	15	12	9	6	2	1	1	(0)	(1)	(3)	(5)	(7)	(9)	(11)	(15)	(18)	(21)	(23)	(26)	(27)
(8) Zone Status Funded Percentage	90%	89%	88%	85%	82%	78%	75%	74%	74%	74%	74%	74%	74%	73%	73%	73%	72%	72%	72%	71%	71%

Notes

1) Projected Market Value of Assets on 6/30/2020 = **$77.6M**
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing. See graph for detail regarding assumed rate increases.
3) Benefit changes made by the RP are reflected beginning in the July 1, 2018 plan year.

Observations

- **The Plan remains sensitive to both investment return and contribution levels**
  - Despite significant investment losses in the first quarter of 2020, the Fund still has a small amount of flexibility for upcoming zone certifications.
  - Long term funding improvement is compromised if investment returns are less than assumed or contribution levels fall.
- **The recently adopted Funding Policy helps mitigate some of the risk due to investment return**
  - In several scenarios, the increases anticipated by the Funding Policy provide for recovery from recent underperformance.
  - However, the Funding Policy cannot be included in the determination of PPA zone certification for non-bargained contribution increases.
- **Tools left to address adverse experience**
  - No adjustable benefits remaining in the Plan
  - Benefit accrual rate (future service)
  - Contribution increases

Appendix

Assumptions, Methods, Data, and Plan Provisions

- **Assumptions, methods, data and plan provisions are those used for the July 1, 2019 actuarial valuation.**
  - Please see our presentation from January 14, 2020 for additional detail.

Other assumptions may be reasonable and could produce different results.
Other risks can negatively impact the funded status of the plan such as participants living longer than assumed.
Additional information is available upon request.

Contribution Rate Summary

Employer	Contract Expiration Date	As of 7/1/2017 Active Count (Valn Data)	As of 7/1/2017 Total Wkly Contrib Rate	As of 7/1/2018 Active Count (Valn Data)	As of 7/1/2018 Total Wkly Contrib Rate	As of 7/1/2019 Active Count (Valn Data)	As of 7/1/2019 Total Wkly Contrib Rate
College of New Rochelle	8/31/2013	20	$ 174.00	17	$ 208.95	17	$ 269.04
Crowley LaFargeville	10/31/2020	96	286.43	92	303.98	91	322.98
Culinart	12/31/2016	21	226.91	20	267.15	0	267.15
Freisland Campina	12/31/2018	56	215.09	59	247.60	65	242.64
LP Transport	8/15/2019	25	290.80	29	322.75	32	322.75
Montefiore New Rochelle	11/5/2020	12	234.06	12	251.61	13	270.30
Paraco Gas	1/31/2021	7	227.60	8	245.15	7	263.84
Westchester L860	9/30/2013	1	205.21	1	243.28	1	243.28
Total		238		238		226	

Notes

1) Employer withdrawals: (1) College of New Rochelle 7/6/2019 and (2) Culinart 5/10/2019
2) All contributions are benefit-bearing, effective beginning July 1, 2016.
3) Contribution rates shown above are as reported by Plan Administrator.
4) Contribution rates as of 7/1/2018 include surcharges for College of New Rochelle, Culinart, Friesland Campina, Westchester L 860

Historical Contribution Rates by Contract

Employer	Base Rate	As of Plan Year Ending 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
College of New Rochelle	$ 110.44	$ 130.40	$ 143.60	$ 158.00	$ 174.00	$ 174.00	$ 174.00	$ 174.00	$ 174.00	$ 208.95	$ 269.04
Crowley LaFargeville	130.00	154.00	169.00	186.34	204.97	225.47	248.00	272.79	286.43	303.98	322.67
Culinart	108.44	128.08	141.08	154.98	170.48	187.53	206.28	226.91	226.91	267.15	267.15
Friesland Campina	100.12	121.13	133.25	146.57	161.23	177.35	195.09	205.09	215.09	247.60	242.64
LP Transport	160.00	160.00	176.00	192.00	208.00	228.80	251.60	276.80	290.80	322.75	322.75
Montefiore New Rochelle	120.12	145.33	159.86	175.85	193.44	212.78	234.06	234.06	234.06	251.61	270.30
Paraco Gas	124.00	140.00	148.00	156.00	172.00	188.00	206.80	227.60	227.60	245.15	263.84
Westchester L860	130.15	154.17	169.59	186.55	205.21	205.21	205.21	205.21	205.21	243.28	243.28

Notes

1) Employer withdrawals: (1) College of New Rochelle 7/6/2019 and (2) Culinart 5/10/2019
2) Effective July 1, 2016, all contributions (and future rate increases, if any) are benefit-bearing.
3) Contribution rates for 2018 include surcharges for College of New Rochelle, Culinart, Friesland Campina, Westchester L 860

Actuarial Certification

We have prepared this actuarial report for use by the **Industry & Local 338 Pension Plan** (the "Plan"). This report has been prepared solely for the benefit of the Plan, and it is not complete without the accompanying discussion with a representative of Horizon Actuarial Services, LLC. This report should not be distributed to others not affiliated with the Plan or relied upon by any other person without prior written consent from Horizon Actuarial Services, LLC.

In preparing this report, we have relied on all the information and data provided by the Plan, including plan provisions and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have reviewed the data for reasonableness to the extent that we believe appropriate based on the purpose for which it has been used.

The analysis contained in this report may involve actuarial calculations. Actuarial calculations require that we make assumptions about future events. We have used assumptions that we believe are reasonable and appropriate for the purpose for which they have been used. Other assumptions may also be reasonable and could result in substantially different results. Because it is not possible or practical to model all aspects of a situation, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are immaterial in our judgment.

We have not performed a detailed analysis of the potential effects of risk on the Plan's future financial condition, but have included a discussion of some risks that may significantly affect the Plan. A more detailed assessment of the risks could provide the Trustees with a better understanding of the risks inherent in the Plan and may include additional scenario testing, sensitivity testing, stress testing and stochastic modeling.

Future events and actual experience will vary from any assumptions we have used, and calculations prepared with actual data will vary from estimates or summaries used for modeling purposes. Actual future results will differ from our projections. As these differences arise, contributions and/or benefits may need to be adjusted to take these changes into account.

In our opinion, any methods, assumptions, and calculations are in accordance with the applicable provisions of the Internal Revenue Code and ERISA, and the procedures followed and presentation of results conform with generally accepted actuarial principles and practices. The undersigned consultants of Horizon Actuarial Services, LLC with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the Plan and Horizon Actuarial Services, LLC that affects our objectivity.

Mary Ann Dunleavy
Mary Ann Dunleavy, ASA, EA, MAAA
Consulting Actuary

Stanley I. Goldfarb, FSA, EA, MAAA
Actuary and Managing Consultant

Dylan Nitta
Dylan Nitta
Actuarial Analyst