



City of South Burlington Retirement Income Plan

Funding Actuarial Valuation as of July 1, 2019

For the Plan Year of
July 1, 2019 to June 30, 2020



December 16, 2019

Thomas Hubbard
Deputy City Manager
City of South Burlington
575 Dorset Street
South Burlington, VT 05403

Via Email Delivery

**Re: City of South Burlington Retirement Income Plan
July 1, 2019 Actuarial Funding Valuation**

Dear Tom,

We are pleased to provide you with the July 1, 2019 actuarial valuation for the City of South Burlington Retirement Income Plan ("Plan"). Determinations for purposes other than plan funding requirements may be significantly different from the results reported herein. The use of this report for other than for funding purposes may not be appropriate.

We relied upon participant data supplied by City of South Burlington as of June 30, 2019 and financial information as of June 30, 2019. We reviewed the participant data for internal consistency and reasonableness and have no reason to doubt its substantial accuracy. We also used and relied upon plan information supplied by City of South Burlington. City of South Burlington is solely responsible for the validity and completeness of the information.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board.

The actuarial assumptions are described in the Actuarial Assumptions exhibit of this report. City of South Burlington selected the actuarial assumptions and prescribed them for funding purposes. We provided guidance to City of South Burlington on the support and selection of certain actuarial assumptions. We believe that the actuarial assumptions represent reasonable expectations of future experience of the Plan.

The undersigned is a Member of the American Academy of Actuaries and other actuarial organizations and meets the Qualification Requirements of the American Academy of Actuaries to render the actuarial opinion contained herein.

We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest that would impair the objectivity of our work.

We want to thank you again for the opportunity to continue serving City of South Burlington and the Plan.

Should you have any questions regarding the information contained in this report, please contact the undersigned.

Sincerely,

Certified by:



Erik Schait, EA, MAAA
Actuarial Consultant

Peer Reviewed by:



Brian R. West, EA, ASA, MSPA, MAAA
Consulting Actuary

CITY OF SOUTH BURLINGTON RETIREMENT INCOME PLAN

FUNDING ACTUARIAL VALUATION

July 1, 2019

Table of Contents

	Page
Summary of Actuarial Valuation	3
Reconciliation of Participant Count	4
Plan Asset Experience Since the Preceding Valuation Date	5
Development of Actuarial Value of Assets	6
Summary of Plan Asset Experience During the Plan Year	7
Determination of Recommended Employer Contribution	
Based on Actuarial Value of Assets	8
Based on Market Value of Assets	9
Reconciliation of Unfunded Liability	10
Risk and Duration Measures	11
Assumptions and Methods	12
Summary of Plan Specifications	13

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

SUMMARY OF ACTUARIAL VALUATION

	<i>PUBLIC SAFETY</i>	<i>NON-PUBLIC SAFETY</i>	<i>TOTAL</i>
ACTUARIAL VALUATION DATE	7/1/2019	7/1/2019	

MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE BASED ON MARKET VALUE OF ASSETS:

<i>MINIMUM BASED ON 10-YEAR AMORTIZATION OF UEAAL:</i>	1,297,333	379,811	1,677,144
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	26.3%	20.8%	24.8%
<i>MINIMUM BASED ON 20-YEAR AMORTIZATION OF UEAAL:</i>	1,029,788	324,418	1,354,206
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	20.9%	17.8%	20.1%

MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE BASED ON ACTUARIAL VALUE OF ASSETS:

<i>MINIMUM BASED ON 10-YEAR AMORTIZATION OF UEAAL:</i>	1,240,744	359,643	1,600,387
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	25.2%	19.7%	23.7%
<i>MINIMUM BASED ON 20-YEAR AMORTIZATION OF UEAAL:</i>	991,976	310,942	1,302,918
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	20.1%	17.1%	19.3%

PARTICIPANT DATA

Retired Participants currently receiving benefits:	41	38	79
Terminated vested or inactive but still employed participants:	19	27	46
Participants currently employed:	66	29	95
Total participants:	126	94	220
Ineligible Employees:	0	0	0
Aggregate compensation of active participants:	4,926,159	1,823,518	6,749,677
Average compensation per active participant:	74,639	62,880	71,049

ASSET DATA

Fair market value of Plan assets:	26,832,217	8,929,289	35,761,506
Approximate annual rate of return for the plan year (net of expenses):	4.97%	4.97%	4.97%
Actuarial asset value:	27,227,350	9,070,113	36,297,463
Approximate annual rate of return for Actuarial assets (net of expenses):	6.86%	6.84%	6.86%

SUMMARY OF ASSETS AND LIABILITIES

Present Value of Accrued Benefits at Valuation Date:	26,767,779	8,895,935	35,663,714
Fair market value of Plan assets:	26,832,217	8,929,289	35,761,506
Market Value Funded ratio:	100.24%	100.37%	100.27%
Entry Age Normal Accrued Liability at Valuation Date:	32,462,003	10,094,888	42,556,891
Fair market value of Plan assets:	26,832,217	8,929,289	35,761,506
Assets above/(below) Entry Age Normal Accrued Liability:	5,629,786	1,165,599	6,795,385
Market Value Funded ratio:	82.66%	88.45%	84.03%
Actuarial value of Plan assets:	27,227,350	9,070,113	36,297,463
Assets above/(below) total accumulated benefits:	5,234,653	1,024,775	6,259,428
Actuarial Value Funded ratio:	83.87%	89.85%	85.29%

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

RECONCILIATION OF PARTICIPANT COUNT

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
A. RETIREES AND BENEFICIARIES CURRENTLY RECEIVING BENEFITS:			
1. Retirees and beneficiaries at prior valuation date:	36	39	75
2. New retirees and beneficiaries:	5	3	8
3. Retirees Deceased:	0	4	4
4. Retirees and beneficiaries at current valuation date (1+2-3):	41	38	79
B. TERMINATED VESTED AND INACTIVE BUT STILL EMPLOYED PARTICIPANTS:			
1. Terminated vested participants at prior valuation date:	17	31	48
2. New terminated vested participants:	4	0	4
3. Participants moved to inactive status but not yet terminated:	0	0	0
4. Participants retired, cashed out or moved back to active status:	2	4	6
5. Terminated vested participants at current valuation date (1+2+3-4):	19	27	46
C. ACTIVELY EMPLOYED PARTICIPANTS:			
1. Active participants at prior valuation date:	74	30	104
2. New participants:	0	0	0
3. Participants retired:	4	1	5
4. Terminated without vested benefits:	0	0	0
5. Terminated with vested benefits due in future:	4	0	4
6. Terminated with vested benefits and cashed out:	0	0	0
7. Participants transferred out:	0	0	0
8. Active participants at current valuation date (1+2-3-4-5-6-7):	66	29	95
D. TOTAL PARTICIPANTS (A+B+C):	126	94	220
E. AVERAGE AGES:			
1. Retirees and Beneficiaries:	63.22	73.97	68.39
2. Terminated or Inactive participants with vested benefits:	37.30	51.38	45.56
3. Active participants:	39.33	55.76	44.35
F. AVERAGE MONTHLY BENEFITS:			
1. Retirees and Beneficiaries:	2,825.43	1,047.13	1,994.01
2. Terminated or Inactive participants with vested benefits:	848.91	714.68	770.12
G. AVERAGE YEARS OF SERVICE FOR ACTIVE PARTICIPANTS:	12.14	15.43	13.15
H. AVERAGE EXPECTED YEARS OF <u>FUTURE</u> SERVICE PARTICIPANTS:	9.82	8.42	9.40
I. ENTRY AGE ACCRUED LIABILITY BY STATUS:			
1. Retirees and Beneficiaries:	15,127,374	4,356,482	19,483,856
2. Terminated or Inactive participants with vested benefits:	1,458,539	1,148,599	2,607,138
3. Active participants:	15,876,090	4,589,806	20,465,896

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

PLAN ASSET EXPERIENCE SINCE THE PRECEDING VALUATION DATE

SUMMARY OF INCOME, EXPENSES AND RATE OF RETURN

Asset fair market value at July 1, 2018:		34,137,864
Employer contribution:		1,394,798
Mandatory Employee contributions:		349,543
Benefit Payments to Participants:		(1,816,072)
Investment income and expense:		
Interest and Dividends, other income:	800,863	
Realized gains and (losses):	1,760,364	
Unrealized appreciation/(depreciation) in market value:	(694,559)	
Expenses paid from Plan assets:	(171,292)	
Investment earnings on market value basis, net of expenses:		1,695,376
Asset fair market value at June 30, 2019:		35,761,509
Approximate annual rate of return for the plan year (net of expenses):		4.97%
Additional Employer Contributions received after year-end:		0
Asset Fair Market Value at June 30, 2019:		35,761,509

COMPOSITION OF ASSETS AT JUNE 30, 2019:

	<u>Market Value</u>	<u>Percent Total</u>
Employer Contribution Receivable:	0	--
Money Market Funds:	91	0.00%
Equity Mutual Funds:	21,823,149	61.02%
Fixed Income Mutual Funds:	11,158,253	31.20%
Other Assets:	2,755,893	7.71%
Accrued Income:	24,123	0.07%
Total:	<u>35,761,509</u>	<u>100.0%</u>

ALLOCATION OF ASSETS BETWEEN PUBLIC SAFETY AND NON-PUBLIC SAFETY GROUPS

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
Asset Fair Market Value at July 1, 2018:	25,495,439	8,642,422	34,137,861
Employer contributions:	1,061,913	332,885	1,394,798
Mandatory Employee contributions:	349,543	0	349,543
Benefit Payments to Participants:	(1,343,763)	(472,309)	(1,816,072)
Share of Investment Earnings (net of expenses):	1,269,085	426,291	1,695,376
Asset fair market value at June 30, 2019:	26,832,217	8,929,289	35,761,506
Employer contribution receivable:	0	0	0
Employee contribution receivable:	0	0	0
Asset fair market value at June 30, 2019:	26,832,217	8,929,289	35,761,506

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

DETERMINATION OF ACTUARIAL VALUE OF ASSETS

Actuarial Asset value at July 1, 2018 (excluding receivables):	34,203,530
Contributions less benefit payments and operating expenses:	(243,023)
Average Actuarial Value:	34,082,019
Assumed net investment income, at 7.25%:	2,470,946
Preliminary value of assets at the end of the year:	36,431,453
Asset fair market value at June 30, 2019 (excluding receivables):	35,761,509
Smoothing adjustment, 20%:	(133,989)
Actuarial Asset Value at June 30, 2019:	36,297,464
Contribution receivables:	0
Final Actuarial Value of Assets:	36,297,464
Approximate annual rate of return for the plan year (net of expenses):	6.86%
Actuarial Value of Assets as a percent of market value of assets:	101.50%

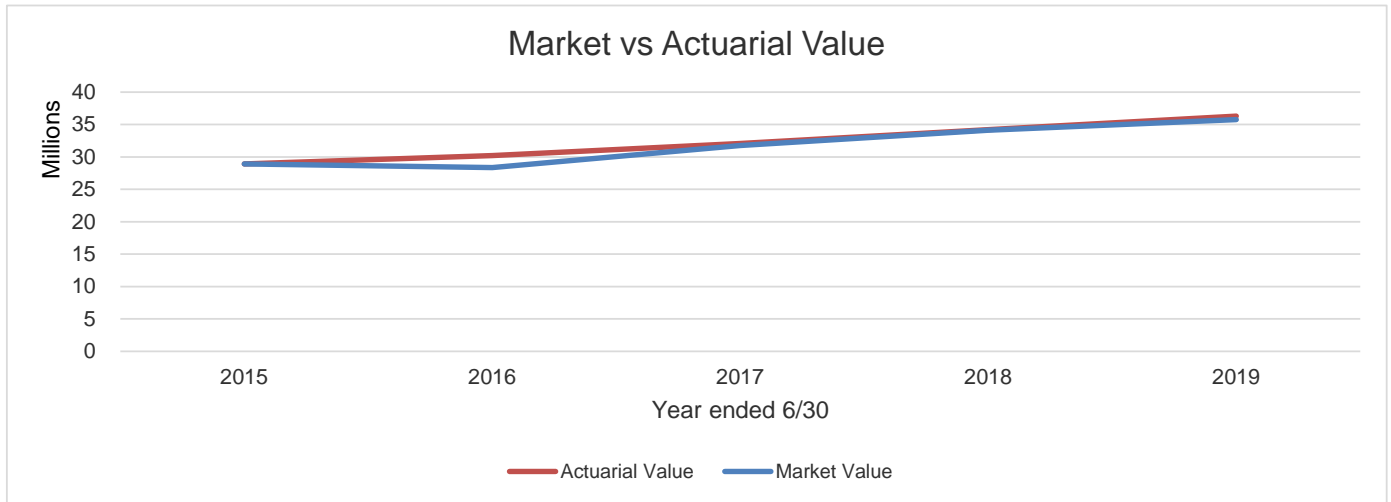
ALLOCATION OF ACTUARIAL VALUE OF ASSETS BETWEEN PUBLIC SAFETY AND NON-PUBLIC SAFETY GROUPS

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
Actuarial Asset value at July 1, 2018 (excluding receivables):	25,537,110	8,666,419	34,203,529
Contributions less benefit payments and operating expenses:	(60,234)	(182,789)	(243,023)
Average Actuarial Value:	25,506,993	8,575,025	34,082,018
Assumed net investment income, at 7.25%:	1,849,257	621,689	2,470,946
Preliminary value of assets at the end of the year:	27,326,133	9,105,319	36,431,452
Asset fair market value at June 30, 2019 (excluding receivables):	26,832,217	8,929,289	35,761,506
Smoothing adjustment, 20%:	(98,783)	(35,206)	(133,989)
Actuarial Asset Value at June 30, 2019:	27,227,350	9,070,113	36,297,463
Contribution receivables:	0	0	0
Final Actuarial Value of Assets:	27,227,350	9,070,113	36,297,463
Approximate annual rate of return for the plan year (net of expenses):	6.86%	6.84%	6.86%
Actuarial Value of Assets as a percent of market value of assets:	101.47%	101.58%	101.50%

**CITY OF SOUTH BURLINGTON
 RETIREMENT INCOME PLAN
 ACTUARIAL VALUATION AS OF
 JULY 1, 2019**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR

Year Ended 06/30	Employer Contributions	Employee Contributions	Net Investment Return	Benefit Payments	Market Value of Assets	Actuarial Value of Assets
2015	569,198	297,142	451,391	(1,247,876)	28,921,888	28,921,888
2016	765,860	305,476	(306,473)	(1,328,091)	28,358,661	30,216,436
2017	1,037,443	313,535	3,457,472	(1,413,887)	31,753,223	32,098,394
2018	1,246,468	337,958	2,415,936	(1,615,723)	34,137,861	34,203,530
2019	1,394,798	349,543	1,695,376	(1,816,072)	35,761,509	36,297,464



CITY OF SOUTH BURLINGTON
 RETIREMENT INCOME PLAN
 ACTUARIAL VALUATION AS OF
 JULY 1, 2019

DETERMINATION OF RECOMMENDED EMPLOYER CONTRIBUTION BASED ON ACTUARIAL VALUE OF ASSETS

<i>MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE</i>	<i>PUBLIC SAFETY</i>	<i>NON-PUBLIC SAFETY</i>	<i>TOTAL</i>
<i>Minimum based on 10-Year Amortization of Unfunded Entry Age Accrued Liability:</i>			
1. Total Normal Cost:	793,069	199,613	992,682
2. Unfunded Entry Age Accrued Liability:	5,234,653	1,024,775	6,259,428
3. 10-Year Amortization of Unfunded Accrued Liability:	702,968	137,618	840,586
4. Interest to Expected Payment Date:	99,424	22,412	121,836
5. Minimum Total Recommended Contribution (1+2+3+4):	1,595,461	359,643	1,955,104
6. Expected Employee Contributions:	354,717	0	354,717
7. Employer Recommended Contribution (5-6):	1,240,744	359,643	1,600,387
8. Employer Contribution as Percentage Payroll:	25.2%	19.7%	23.7%

Minimum based on 20-Year Amortization of Unfunded Entry Age Accrued Liability:

1. Total Normal Cost:	793,069	199,613	992,682
2. Unfunded Entry Age Accrued Liability:	5,234,653	1,024,775	6,259,428
3. 20-Year Amortization of Unfunded Accrued Liability:	469,703	91,953	561,655
4. Interest to Expected Payment Date:	83,922	19,377	103,299
5. Minimum Total Recommended Contribution (1+2+3+4):	1,346,693	310,942	1,657,635
6. Expected Employee Contributions:	354,717	0	354,717
7. Employer Recommended Contribution (5-6):	991,976	310,942	1,302,918
8. Employer Contribution as Percentage Payroll:	20.1%	17.1%	19.3%

Unfunded Entry Age Accrued Liability (Fresh Start):

1. Entry Age Normal Accrued Liability at Valuation Date:	32,462,003	10,094,888	42,556,891
2. <u>Actuarial Asset Value</u> at Valuation Date:	27,227,350	9,070,113	36,297,463
3. Unfunded EAN Accrued Liability at Valuation Date (1-2):	5,234,653	1,024,775	6,259,428

Employer Contribution amounts are anticipated to be paid on or before June 1, 2020. Mandatory Employee Contributions are payable during the year, deducted from employee earnings and deposited regularly into the Trust.

CITY OF SOUTH BURLINGTON
 RETIREMENT INCOME PLAN
 ACTUARIAL VALUATION AS OF
 JULY 1, 2019

DETERMINATION OF RECOMMENDED EMPLOYER CONTRIBUTION BASED ON MARKET VALUE OF ASSETS

<i>MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE</i>	<i>PUBLIC SAFETY</i>	<i>NON-PUBLIC SAFETY</i>	<i>TOTAL</i>
<i>Minimum based on 10-Year Amortization of Unfunded Entry Age Accrued Liability:</i>			
1. Total Normal Cost:	793,069	199,613	992,682
2. Unfunded Entry Age Accrued Liability:	5,629,785	1,165,597	6,795,382
3. 10-Year Amortization of Unfunded Accrued Liability:	756,030	156,529	912,560
4. Interest to Expected Payment Date:	102,951	23,669	126,619
5. Minimum Total Recommended Contribution (1+2+3+4):	1,652,050	379,811	2,031,861
6. Expected Employee Contributions:	354,717	0	354,717
7. Employer Recommended Contribution (5-6):	1,297,333	379,811	1,677,144
8. Employer Contribution as Percentage Payroll:	26.3%	20.8%	24.8%

Minimum based on 20-Year Amortization of Unfunded Entry Age Accrued Liability:

1. Total Normal Cost:	793,069	199,613	992,682
2. Unfunded Entry Age Accrued Liability:	5,629,785	1,165,597	6,795,382
3. 20-Year Amortization of Unfunded Accrued Liability:	505,158	104,588	609,746
4. Interest to Expected Payment Date:	86,278	20,217	106,495
5. Minimum Total Recommended Contribution (1+2+3+4):	1,384,505	324,418	1,708,923
6. Expected Employee Contributions:	354,717	0	354,717
7. Employer Recommended Contribution (5-6):	1,029,788	324,418	1,354,206
8. Employer Contribution as Percentage Payroll:	20.9%	17.8%	20.1%

Unfunded Entry Age Accrued Liability (Fresh Start):

1. Entry Age Normal Accrued Liability at Valuation Date:	32,462,003	10,094,888	42,556,891
2. <u>Market Asset Value</u> at Valuation Date:	26,832,217	8,929,289	35,761,506
3. Unfunded EAN Accrued Liability at Valuation Date (1-2):	5,629,786	1,165,599	6,795,385

Employer Contribution amounts are anticipated to be paid on or before June 1, 2020. Mandatory Employee Contributions are payable during the year, deducted from employee earnings and deposited regularly into the Trust.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

RECONCILIATION OF UNFUNDED LIABILITY

	<u>6/30/2016</u>	<u>6/30/2017</u>	<u>6/30/2018</u>	<u>6/30/2019</u>
1. Unfunded Liability Beginning of Year:	2,910,576	6,334,012	6,107,096	6,365,561
2. Normal Cost:	804,013	932,286	966,711	1,049,187
3. Interest:	178,118	652,457	493,147	511,223
4. Contributions - Employer:	(765,860)	(1,037,443)	(1,246,468)	(1,394,798)
5. Contributions - Employee:	(305,476)	(313,535)	(337,958)	(349,543)
6. Liability (Gain) or Loss:	1,046,656	1,100,317	536,515	(122,211)
<i>a. Participant Experience</i>	445,709	52,789	896,843	(288,542)
<i>b. Change in Discount Rate</i>	0	1,052,680	0	0
<i>c. Change in Mortality Tables</i>	68,609	(5,152)	(360,328)	(90,846)
<i>d. Other Assumption Changes</i>	532,338	0	0	257,177
<i>e. Plan Amendments</i>	0	0	0	0
7. Asset (Gain) or Loss:	2,465,987	(1,560,999)	(153,482)	735,966
8. Expenses:	0	0	0	0
9. Unfunded Liability End of Year:	6,334,012	6,107,096	6,365,561	6,795,385

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

RISK AND DURATION MEASURES

Risk is the potential that actual future measurements deviate from expected future measurements that result from actual experience deviating from actuarially assumed experience. Please see the Appendix to this report for a general discussion on pension plan risk. This section of the report contains additional information that in the judgement of the actuary who has signed this document, a more detailed assessment should be provided.

	<u>7/1/2016</u>	<u>7/1/2017</u>	<u>7/1/2018</u>	<u>7/1/2019</u>
Duration of the actuarial accrued liability	n/a	n/a	12.75	12.67
Ratio of retired liability to total accrued liability	42.17%	43.40%	44.11%	45.78%
Ratio of market value of assets to benefit payments	21.35	22.46	21.13	19.69
Ratio of benefit payments to contributions (cash basis)	1.24	1.05	1.02	1.04
Plan Asset Allocation	<i>See Asset Statements</i>			

Duration of actuarial liability - is another method of measuring the effects of interest rates on the plan liabilities. The smaller this number is, the less effect there will be from changing interest rates. A rough estimate is that for every 100 basis point change in interest rates, the liability changes in the opposite direction by the duration divided by 100. Duration is also the weighted average of time of future benefit payments which may also be used for assessing cash flow needs of the plan. This duration may be compared to the asset duration to assess asset/liability mismatch risk, see the Appendix for more risk assessment information.

Ratio of retired liability to total accrued liability - The larger this measure is, the more mature the plan is, and the less expected time there will be before the majority of benefits must be paid. The larger the measure, the less susceptible the plan may be to demographic and economic risks.

Ratio of market value of assets to benefit payments - is used as a predictor of the number of annual payments a plan can make with the current assets and rate of benefit payments. It is also useful for judging cash flow needs. The lower the number, the fewer years of benefit payments the current assets will support.

Ratio of benefit payments to contributions - a number over 1 indicates that the plan pays annual benefits greater than the contributions to the plan. Numbers over 1 indicate a negative cash flow.

Plan Asset Allocation - is used to assess the level of risk the underlying investment strategy may hold. Therefore, it is important to the Plan Sponsor to have regular discussions with the plan's investment advisor to ensure that the investment policy of the plan is designed to meet the goals of the Plan Sponsor to meet a specific liability and understand the volatility of the underlying asset returns as they relate to future required contribution levels and expected benefit payments.

If in the judgement of the actuary who has signed this document, a specific risk should have a more detailed assessment, the actuary will communicate and discuss this issue in a separate document.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

ACTUARIAL ASSUMPTIONS AND COST METHOD

ACTUARIAL VALUATION DATE:	July 1, 2019
VALUATION INTEREST (Pre and Post-retirement):	7.25%
COMPENSATION ANNUAL RATE OF INCREASE:	Public Safety: 5.00% Non-Public Safety: 4.00%
VALUATION COMPENSATION:	
Compensation paid during the plan year preceding the Valuation Date	Public Safety: Base compensation plus overtime not to exceed 25% of base pay Non-Public Safety: Total compensation
EMPLOYEE CONTRIBUTION RATE (Public Safety Only):	Police 7.00% Fire 7.50%
ASSUMED RETIREMENT AGE:	Public Safety: Age 53 Non-Public Safety: Normal Retirement Age Terminated Public Safety Participants: Age 50
MORTALITY (Pre and Post-retirement):	RP-2014 Static Annuitant and Nonannuitant adjusted to 2006 with scale MP-2014 and then projected generationally with scale MP2019 Police and Fire use blue collar base
EMPLOYEE TURNOVER:	Scale Crocker-Sarason T-3
ASSET VALUATION METHOD:	Actuarial Value and Fair Value of Assets

The actuarial value of assets is calculated as follows:

- (1) the actuarial value at the beginning of the year, plus contributions and expected investment earnings, less benefit payments; plus
- (2) 20% of the difference between the market value at the end of the year and the adjusted actuarial value in (1) above
- (3) Subject to corridor of 80-120% of the actual market value.

ACTUARIAL COST METHOD: Entry Age Normal

Under the Entry Age Normal Cost Method the Employer contribution is equal to Normal Cost plus amortization of Unfunded Entry Age Accrued Liability. Normal Cost is computed on an individual basis for all participants as follows:

Projected benefits of each individual included in an actuarial valuation are allocated on a level basis over the earnings of the individual between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is the normal cost.

Unfunded Entry Age Accrued Liability has been "fresh started" as of July 1, 2019 as the excess of Entry Age Accrued Liability over the Actuarial Value of Plan Assets. Unfunded Entry Age Accrued Liability is recommended to be amortized over a period of 10 to 20 years.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - PUBLIC SAFETY EMPLOYEES

PLAN EFFECTIVE DATE: December 1, 1972

ELIGIBILITY: Immediate at Employment. **Effective July 1, 2019 no new employees shall enter the plan.**

EMPLOYEE CONTRIBUTION RATE: Police: Mandatory 7.0% of Plan Compensation
Fire: Mandatory 7.5% of Plan Compensation

NORMAL RETIREMENT AGE:

	<u>Retirement * on or After</u>	<u>Age</u>
	Prior to July 1, 2001	60
* or other termination of service	July 1, 2001	55
	July 1, 2005	54
	July 1, 2007	53
	July 1, 2009	52
	July 1, 2010	51
	July 1, 2011	50

BENEFIT FORMULA: 2.5% of average annual compensation per Year of Service with Police or Fire departments up to 25 years.

POST-RETIREMENT COLA AND SOCIAL SECURITY OFFSET FOR PARTICIPANTS RETIRING ON OR AFTER NORMAL RETIREMENT DATE:

Participants who retire on or after Normal Retirement Date will receive an annual increase in their monthly benefit of 3% until Social Security benefits commence. Upon commencement of Social Security, the Plan benefit is reduced by a fraction of the Participant's Social Security Benefit based on the Participant's Years of Service at retirement.	<u>Years of Service at later of 6/30/02 or Retirement</u>	<u>PIA Offset Percentage</u>
		25 or Less
	26	45%
	27	40%
	28	35%
	29	30%
	30 or more	25%

AVERAGE ANNUAL COMPENSATION: Plan Compensation* is averaged over high three consecutive years of service. Compensation is annualized for years in which the Participant completes less than 2,000 Hours of Service but at least 1,000 Hours of Service.

* Effective July 1, 2009, Plan Compensation includes overtime up to 25% of Base Pay.

NORMAL ANNUITY FORM: Life Annuity

ACCRUED BENEFIT DEFINITION: Unit Credit Accrual, based on Years of Service completed at determination date

EARLY RETIREMENT: Age 50, Accrued Benefit reduced 10% per year for benefit commencement prior to Normal Retirement Date

DISABILITY: Actuarial Equivalent of Accrued Benefit

PRE-RETIREMENT DEATH BENEFIT: Actuarial Equivalent of Accrued Benefit

VESTING: 7-Year Graded - 20% after 3 years, 20% per year thereafter, 100% after 7 years.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2019**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - NON-PUBLIC SAFETY EMPLOYEES

<i>PLAN EFFECTIVE DATE:</i>	December 1, 1972
<i>ELIGIBILITY:</i>	Eligible Employees - 36 months of service, entry on July 1st of plan year in which service requirement met
<i>ELIGIBLE EMPLOYEES:</i>	Non-Public Safety Employees who meet age and service requirements <u>except the following classes of employee:</u> <ol style="list-style-type: none">(1) Employees who are members of the Water Pollution Control Employees Association (WPC) who are hired on or after 1/1/11; and(2) Employees who are not members of either the WPC or the South Burlington City Hall & Public Works Employees' Association (SBCH&PW) unless such employee was a Participant in the Plan on 6/30/10.(3) Employees who are members of SBCH&PW, unless such employee was a Participant in the plan on June 30, 2013.(4) Employees hired after June 30, 2019.
<i>NORMAL RETIREMENT AGE:</i>	Attainment of Age 65
<i>BENEFIT FORMULA:</i>	1.75% of Average Compensation times Years of Service completed with City Departments other than Police or Fire (Non-Public Safety Departments)
<i>AVERAGE COMPENSATION:</i>	Plan Compensation is averaged over high three consecutive years that produce highest average. Compensation is annualized for years in which the Participant completes less than 2,000 Hours of Service but at least 1,000 Hours of Service.
<i>PLAN COMPENSATION:</i>	SBCH&PW Members - effective 7/1/09, total compensation WPC Members - effective 7/1/07 total compensation, including scheduled and unscheduled overtime, on-call pager pay. For all other Non-Public Safety employees - Base pay
<i>NORMAL ANNUITY FORM:</i>	Life Annuity
<i>ACCRUED BENEFIT DEFINITION:</i>	Unit Credit Accrual, based on Years of Service completed at determination date
<i>EARLY RETIREMENT:</i>	Age 55, Accrued Benefit reduced by 1/15 per year for benefit commencement prior to 65
<i>DISABILITY:</i>	Actuarial Equivalent of Accrued Benefit
<i>PRE-RETIREMENT DEATH BENEFIT:</i>	Actuarial Equivalent of Accrued Benefit
<i>VESTING:</i>	7-Year Graded - 20% after 3 years, 20% per year thereafter, 100% after 7 years.