CITY OF FREEPORT

ACCOUNTING FOR POST-EMPLOYMENT BENEFIT PLANS UNDER GASB #45 FOR FISCAL YEAR ENDING APRIL 30, 2017

JUNE 2017

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SECTION ONE: BACKGROUND

Retiree Medical Plan

The City of Freeport sponsors health benefit plans for employees and retired former employees. The provisions of the programs are summarized in the appendices of this report, but in general, the City subsidizes a portion of the cost for medical coverage for eligible retired employees and their dependents.

GASB 43/45

The Government Accounting Standards Board has released two statements (GASB #43 and #45) detailing rules as to how governmental employers must account for postretirement benefit plans other than pension plans. The acronym *OPEB* refers to Other Post-Employment Benefits and an OPEB plan refers to retirement plans other than pensions.

Funding Versus Accounting

Accounting standards affect the definition, measurement and allocation of liabilities and expenses that are published by employers in their annual financial statements. The accounting statements require employers to accrue costs on their books, but do not require employers to make contributions.

Nonetheless, accounting liabilities under GASB standards are impacted by the level of employer funding. In general, pre-funded programs earn investment income on accumulated assets which pay as you go programs do not. The investment income from pre-funded plans lowers the amount of contributions required from the employer and is reflected and anticipated in the accounting liabilities via the assumed rate of return (discount rate).

Funding Patterns

An employee hired at age 20 will not begin to receive retiree health benefits for decades, although the employee earns these benefits during his working years, before retirement. An employer with young employees and no retirees has no cash disbursements for retiree health benefits for many years, although the obligation for these benefits begins to accumulate with the first employee. Putting more money aside than will be paid out currently in anticipation of payouts in the future is called *pre-funding* an obligation. Whereas making payments only as each benefit amount comes due is called *pay-as-you-go* or *terminal* funding.

Systematic prefunding patterns for retirement benefits are developed according to various actuarial methodologies, which can call for increasing, decreasing or level patterns of annual contributions depending upon the demographics of the group and the financial considerations of an employer.

Actuarial Funding Method and Assumptions

The Annual Required Contribution (ARC) can be determined under any of six acceptable actuarial methods defined under the GASB standards. For this report, liabilities and annual costs were developed under the most common actuarial methodology – *the entry age normal method.* This method is currently used for many governmental pension plans and is a fairly stable method that is consistent with level percentage of payroll funding.

The actuarial assumptions were selected to be consistent with assumptions disclosed in the pension plan valuations of similarly situated governmental employers. Two of the most significant assumptions affecting the measurement of retiree medical obligations are economic assumptions: the interest rate (also called discount rate), and the trend rate (the annual rate of increases in future health care costs). Two other very important assumptions are non-economic and both of which greatly affect the magnitude of retiree liabilities - the assumption regarding the ages at which employees will retire and commence benefits under the program, and the assumed level of participation (percentage of retirees electing to take coverage) in the plan. A description of each of the assumptions used is provided in Section Four of this report.

Substantive Plan (Benefit Plan Provisions)

Under GASB, the benefit program to be valued is referred to as the *Substantive Plan*, which may or may not be set forth in a written document, but which includes the benefits which are understood by the employer, employees and other participants to be provided for under the program.

The City's retiree medical plan provides continuation of employer subsidized health coverage (for the retiree and their dependents, if any) upon the retirement from the City after meeting the age and service requirements for retirement. Retirees and dependents pay 70% of the cost (blended) of coverage. The City pays 100% of the cost of coverage for officers disabled in the line of duty and their dependents.

Data

The calculations in this report are based upon data submitted by the City of Freeport for active and retired employees and their dependents.

Claims Costs

The costs of the benefit programs measured were based upon the premium rates and costs in effect at April 30, 2017.

GASB Statement Valuation Components

The Statement requires several measurements. An **Actuarial Accrued Liability** (AAL) must be calculated and an **Annual Required Contribution** (ARC) must be developed. The Actuarial Accrued Liability is the portion of the total actuarial present value of plan benefits which is allocated (based upon the Actuarial Cost Method) to prior periods and not to be provided for by future **Normal Costs**. The Normal Cost represents the portion of benefit costs assigned to the current year.

THE ANNUAL REQUIRED CONTRIBUTION

The Normal Cost represents the value of benefits under the Actuarial Cost Method being allocated to the valuation year. In addition to the Normal Cost, the current value of benefits attributable to accruals in prior years, the Unfunded Liability (UAL), must also be reflected. The Unfunded Actuarial Liability is the Actuarial Accrued Liability less any assets accumulated under a dedicated trust or fund for payment of the retiree health plan benefit liabilities. Under the GASB rules, the Unfunded Actuarial Liability costs may be amortized (spread) over a period of years not to exceed 30 years.

The Annual Required Contribution (ARC) is the sum of the Normal Cost for the valuation year, plus the Amortization Payment Cost of the Unfunded Accrued Liability.

ACCOUNTING VALUATION

An accounting valuation is determined for the sole purpose of meeting Plan and employer financial accounting requirements as prescribed under GASB Statements and may not be appropriate for the determination of the contribution level or the Plans' funding requirements for other purposes.

ACTUARIAL CERTIFICATION

This is to certify that MWM Consulting Group has prepared an Actuarial Valuation of the Plan as of April 30, 2017 for the primary purpose of providing financial accounting information required for compliance with GASB Statement No. 45. The results of this valuation have been prepared in conformance with our understanding of the relevant provisions of the GASB Statements Nos. 43 and 45.

The information and valuation results shown in this report are prepared with reliance upon information and data provided to us, which we believe to the best of our knowledge to be complete and accurate and include:

- Employee census data submitted by the City. This data was not audited by us but appears to be consistent with prior information, and sufficient and reliable for purposes of this report.

- Financial and Insurance data submitted by the City

- Illinois statutory code provisions and Plan summaries as supplied by the City

Actuarial valuations involve calculations that require assumptions about future events. We believe the assumptions and methods used are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. Results shown in this report could be materially different from the actual outcome if actual plan experience differs from the assumptions used.

In our opinion, all methods, assumptions and calculations are in accordance with requirements of GASB Statements Nos. 43 and 45 and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices. The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between the City of Freeport and MWM Consulting Group that impacts our objectivity.

MWM CONSULTING GROUP

Kathleen E Manning, FSA	Daniel W. Colby, FSA	7/14/2017 Date
Enrolled Actuary (No. 17-03050)	Enrolled Actuary (No. 17-07115)	
55 East Jackson Blvd., Suite 1000	55 East Jackson Blvd., Suite 1000	
Chicago, IL 60604	Chicago, IL 60604	
(312) 987-9097	(312) 987-9097	

SECTION TWO:
RESULTS AND ANALYSIS

Liabilities are summarized by participant status (active-fully eligible, active not yet eligible, retired) and departmental categories.

Closed Group Valuation

This valuation has been prepared on a closed group valuation basis, meaning only the existing population has been considered.

Substantive Plan

The current plan of benefits valued is a continuation of coverage of the employee group health care plan. Retirees pay 70% of the cost (blended) of coverage. Retirees and dependents pay 70% of the cost (blended) of coverage. The City pays 100% of the cost of coverage for officers disabled in the line of duty and their dependents.

Actuarial Cost Method

The Annual Required Contribution (ARC) and actuarial accrued liabilities were developed under the Entry Age Normal method.

Change in Assumptions

The mortality table was changed to the RP2000 projected to 2017 with scale AA from the RP2000 table projected to 2015 with scale AA.

The healthcare trend rate assumption was changed to 8.5% grading down to 4.5% over eight years from 9% grading down to 5% over five years.

Annual Required Contributions

The ARC for the fiscal year ending April 30, 2017 is $1,494,244 (19.0% of payroll). The ARC can be compared with the related actual cash outlay on a pay as you go basis. The related cash outlay for the plan also represents the minimum employer contribution if the plan remains unfunded. For the April 30, 2017 fiscal year, the pay-as-you-go cost is approximately $423,878 (5.4% of payroll) versus the ARC amount of 19.0% of payroll.

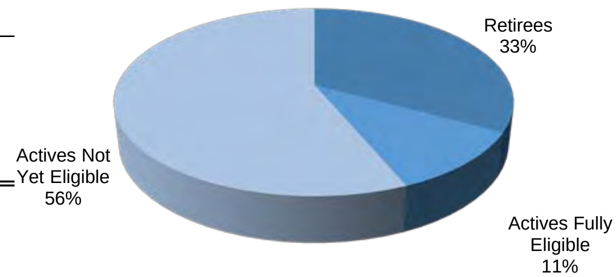
Exhibits

Exhibits 1, 2 and 3 display liability amounts and selected valuation results including the Annual Required Contribution amounts.

Exhibit 1

Present Value of Future Benefits as of April 30, 2017 for Fiscal Year Ending April 30, 2017

By Employee Status		
Retirees	$	7,676,733
Actives Fully Eligible		2,495,006
Actives Not Yet Eligible		13,106,458
Total	**$**	**23,278,197**



By Category		
Police	$	10,448,354
Fire		7,142,315
Municipal		5,687,528
Total	**$**	**23,278,197**

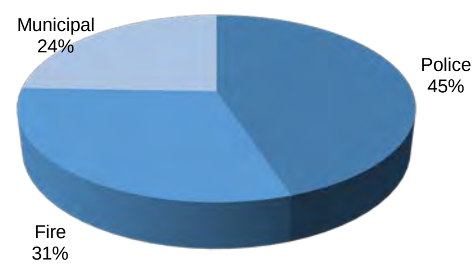
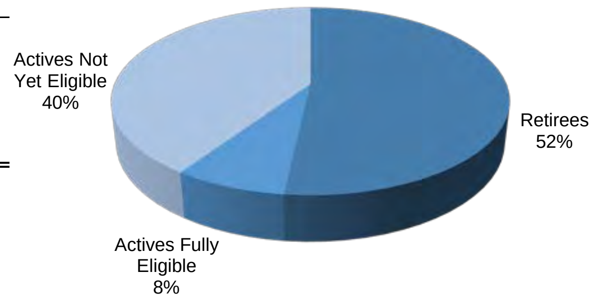


Exhibit 2

Actuarial Accrued Liability (AAL)
as of April 30, 2017 for
Fiscal Year Ending April 30, 2017

By Employee Status		
Retirees	$	7,676,733
Actives Fully Eligible		1,143,352
Actives Not Yet Eligible		6,006,115
Total	**$**	**14,826,200**



By Category		
Police	$	6,801,311
Fire		4,418,830
Municipal		3,606,059
Total	**$**	**14,826,200**

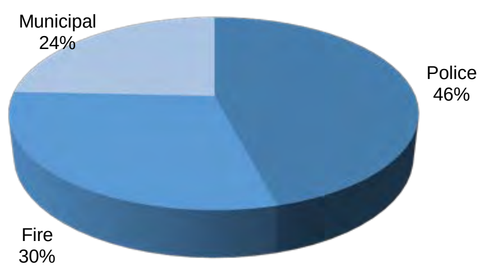


Exhibit 3

Annual Required Contribution
Summary of Fiscal Year Ending
April 30, 2017

Discount Rate: 4.00%
Health Care Trend Rates 8.5% in 2017 to 4.5% in 2025 and later

Item	Police	Fire	Municipal	Total
1. Accrued Liability	$ 6,801,311	$ 4,418,830	$ 3,606,059	$ 14,826,200
2. Actuarial Value of Assets	$ 0	$ 0	$ 0	$ 0
3. Unfunded Liability (1) – (2)	$ 6,801,311	$ 4,418,830	$ 3,606,059	$ 14,826,200
4. Normal Cost	$ 282,791	$ 201,618	$ 185,411	$ 669,820
5. Amortization Payment (30 Years, level dollar)	$ 378,193	$ 245,713	$ 200,518	$ 824,424
6. Interest on (4) and (5)	$ 0	$ 0	$ 0	$ 0
7. Annual Required Contribution (4) + (5) + (6)	$ 660,984	$ 447,331	$ 385,929	$ 1,494,244
8. Valuation Payroll	$ 3,004,976	$ 1,923,875	$ 2,916,846	$ 7,845,697
AL % of Payroll	226.3%	229.7%	123.6%	189.0%
ARC % of Payroll	22.0%	23.3%	13.2%	19.0%
Pay as you go % of Payroll	6.3%	6.6%	3.8%	5.4%

SECTION THREE:
ANNUAL REPORTING UNDER GASB 45

ANNUAL OPEB COST

The GASB 45 Annual OPEB Cost has these three components:

1) **The Annual Required Contribution Amount is the sum of a, b, and c.**

   a) **Normal Cost** is the portion of the Actuarial Present Value of benefits allocated to the valuation year according to the actuarial cost method.
   b) **Amortization of the Unfunded Actuarial Accrued Liability** is the amount to be amortized over thirty years, of the excess of the Actuarial Accrued Liability over the fair value of assets, both measured at the valuation date.
   c) **Amortization of Gains or Losses** in subsequent years, of the unfunded actuarial accrued liability which may be amortized separately or as part of the annual amortization of the unfunded actuarial accrued liability.

2) **The ARC Adjustment Amount,** an amount which is added / subtracted from the ARC to adjust the annual cost for amounts already accrued and reflected in the beginning of year Net OPEB Obligation.

3) **Interest** for the year at the valuation discount rate on the beginning of year Net OPEB Obligation.

NET OPEB OBLIGATION

The Net OPEB Obligation is accrued on the financial statement as the amount of accumulated OPEB costs which remain unfunded as of the reporting date. For the first reporting period, the OPEB Cost is the ARC, and the yearend Net OPEB liability is the OPEB Cost less employer contributions. Exhibits on the following pages illustrate:

EXHIBIT 4	Components of Net Annual Obligation and Expense
Exhibit 5	Schedule of Contributions, OPEB Costs and Obligations
EXHIBIT 6	Schedule of Funded Status and Funding Progress
EXHIBIT 7	Required Supplementary Information

Plan Description

The City provides the continuation of health care benefits and life insurance to employees, who retire from the City. Employees who terminate after reaching retirement eligibility in the plan are eligible to elect to continue their health care coverage by paying the monthly premium rate. Because the actuarial cost of health benefits for retirees exceeds the average amount paid by retirees, the additional cost is paid by the City and is the basis for the other post-employment benefit (OPEB) obligation accounted for under GASB 45.

Annual OPEB Cost and Net OPEB Obligation

The City's annual other post-employment benefit (OPEB) cost is calculated based on the annual required contribution. The ARC (Annual Required Contribution) represents the normal cost each year and an amount to amortize the unfunded actuarial liability as a level dollar amount over thirty years.

Exhibit 4 Components of Net OPEB Obligation and Expense

The following table shows the annual OPEB costs for the year, the amount contributed to the plan and changes in the net OPEB obligation. The *Net OPEB Obligation* is the amount entered as of yearend as the net liability for other post-employment benefits.

Item	Amount as of 4/30/2017			
	Police	Fire	Municipal	Total
a. Annual Required Contribution:	$ 660,984	$ 447,331	$ 385,929	$1,494,244
b. Interest on net OPEB obligation:	103,490	73,927	42,428	219,845
c. Adjustment to annual required contribution	(143,866)	(102,770)	(58,981)	(305,617)
d. Annual OPEB cost (expense) (a + b - c)	$ 620,608	$ 418,488	$ 369,376	$1,408,472
e. Contributions made	(188,158)	(126,292)	(109,428)	(423,878)
f. Increase in net OPEB obligation	432,450	292,196	259,948	984,594
g. Net OPEB obligation – beginning of year	2,587,247	1,848,181	1,060,698	5,496,126
h. Net OPEB obligation – end of year (f + g)	**$ 3,019,697**	**$ 2,140,377**	**$ 1,320,646**	**$6,480,720**

Exhibit 5 Schedule of Contributions, OPEB Costs and Net Obligations

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
4/30/17	$ 1,408,472	30.09%	$ 6,480,720
4/30/16	$ 1,251,829	54.47%	$ 5,496,126
4/30/15	$ 1,261,759	49.58%	$ 4,926,154
4/30/14	$ 1,018,841	45.40%	$ 4,289,952
4/30/13	$ 594,375	50.59%	$ 3,733,617
4/30/12	$ 629,646	50.21%	$ 3,439,962

Funded Status and Funding Progress

As of April 30, 2017, the actuarial accrued liability for benefits was $14,826,200. The covered payroll was approximately $7,845,697, and the ratio of the unfunded actuarial accrued liability to the covered payroll was 189.0%.

Actuarial Method and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the employer and plan members) and include the benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members.

In the actuarial valuation for the fiscal year ended April 30, 2017, the entry age normal cost method was used. A discount rate of 4.0% and a rate of salary increase of 3.0% was used. Also, included in the actuarial assumptions is an annual healthcare cost trend rate of 8.5% initially, reduced to an ultimate rate of 4.5% after eight years. Rates include a 2.5% general inflation assumption. The Unfunded Accrued Actuarial Liability is being amortized as a level dollar amount over 30 years.

Exhibit 6 Schedule of Funded Status and Funding Progress

The funded status of the plan as of April 30, 2017:

	Police	Fire	Municipal	Total
1. Actuarial Accrued Liability (AAL)	$ 6,801,311	$ 4,418,830	$ 3,606,059	$ 14,826,200
2. Actuarial Value of Assets	0	0	0	0
3. Unfunded Actuarial Accrued Liability (UAAL)	$ 6,801,311	$ 4,418,830	$ 3,606,059	$ 14,826,200
4. Funded Ratio (2) / (1)	0%	0%	0%	0%
5. Covered Payroll (Active Plan Members)	$ 3,004,976	$ 1,923,875	$ 2,916,846	$ 7,845,697
6. UAAL as a Percentage of Covered Payroll (3) / (5)	226.3%	229.7%	123.6%	189.0%

Exhibit 7 Required Supplementary Information

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll
4/30/17	$0	$14,826,200	$14,826,200	0%	$7,845,697
4/30/16	$0	$14,350,845	$14,350,845	0%	$8,711,138
4/30/15	$0	$13,898,662	$13,898,662	0%	$8,457,416
4/30/14	$0	N/A	N/A	0%	N/A
4/30/13	$0	$14,793,816	$14,793,816	0%	$10,359,107

SECTION FOUR:
SUMMARY OF ACTUARIAL ASSUMPTIONS AND COST METHOD

Item	4/30/2017 Valuation
Actuarial Cost Method	The Actuarial Cost Method used in this valuation is the Entry Age Normal Actuarial Cost Method. Under this Method, a Normal Cost is developed by spreading the actuarial value of benefits expected to be received by each active participant over the total working lifetime of that participant, from hire to termination, as a level percentage of pay. To the extent that current assets and future Normal Costs do no support participants' expected future benefits, an Unfunded Actuarial Accrued Liability ("UAAL") develops. The UAAL is amortized as a level dollar amount over 30 years on an open basis.
Discount (Interest) Rate	A discount rate of 4.0% was used.
Salary Progression	3.0% per year.
Monthly Blended Group Premium Costs	See table below.
Mortality	Probabilities of death for participants were according to the RP-2000 projected to 2017 Combined Table for Males and Females, with no mortality improvements projected beyond 2017.
Retirement	Representative retirement rates by age are: (see table below)

Monthly Blended Group Premium Costs

Coverage	Premium
Single	$ 819.01
Single Plus One	$ 1,863.16
Family	$ 2,010.47

** For valuation calculations, blended rates are adjusted to reflect the individual participant age through actuarial rate factors.*

Retirement

Representative retirement rates by age are:

Age	Police	Fire	Municipal	Age	Police	Fire	Municipal
50	0.12	0.05	N/A	60	0.25	0.20	0.10
51	0.12	0.03	N/A	61	0.25	0.25	0.10
52	0.12	0.03	N/A	62	0.40	0.40	0.15
53	0.12	0.03	N/A	63	1.00	1.00	0.25
54	0.16	0.03	N/A	64	1.00	1.00	0.20
55	0.16	0.08	0.05	65	1.00	1.00	0.40
56	0.16	0.08	0.05	66	1.00	1.00	0.25
57	0.16	0.08	0.05	67	1.00	1.00	0.30
58	0.16	0.08	0.05	68	1.00	1.00	0.30
59	0.16	0.12	0.05	69	1.00	1.00	0.30

Item	4/30/2017 Valuation
Withdrawal	Representative withdrawal rates by age are:
Disability	Sample rates by age are:
Participation	80% of Employees were assumed to participate in the plan for all employee groups.
Spouse Information	50% of employees were assumed to have participating spouses. Females were assumed to be 3 years younger than males.
Health Care Cost Inflation Rates	

Withdrawal

Age	Police	Fire	Municipal
20	0.0450	0.0450	0.3000
30	0.0190	0.0190	0.0500
40	0.0060	0.0060	0.0300
50	0.0005	0.0005	0.0100
60	0.0005	0.0005	0.0001

Disability

Age	Police	Fire	Municipal
25	0.0013	0.0009	0.001
35	0.0044	0.0046	0.002
45	0.0108	0.0097	0.002
55	0.0159	0.0314	0.002
65	0.0159	0.0314	0.002

**25% of Police and Fire disabilities are assumed to occur in the line of duty*

Health Care Cost Inflation Rates

Period	Rates
2017	8.5%
2018	8.0%
2019	7.5%
2020	7.0%
2021	6.5%
2022	6.0%
2023	5.5%
2024	5.0%
2025 and after	4.5%

SECTION FIVE:
PARTICIPANT DATA

SUMMARY AS OF APRIL 30, 2017

	Police	Fire	Municipal	Total
Active Participants	55	40	62	157
Disabled Participants	4	2	0	6
Retired Participants	9	4	10	23
Total	**68**	**46**	**72**	**186**

AGE AND SERVICE DISTRIBUTION AS OF APRIL 30, 2017

POLICE

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24	5									5
25 - 29	9	3								12
30 - 34		4	2							6
35 - 39	1	3	2	3						9
40 - 44				5	2					7
45 – 49				2	1	2				5
50 - 54			1	3	2					6
55 - 59	1	1				1				3
60 - 64				1		1				2
65 & Over										0
Total	**16**	**11**	**5**	**14**	**5**	**4**	**0**	**0**	**0**	**55**

Average Age: 38.9 years
Average Length of Service: 11.8 years

FIRE

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24										0
25 - 29	6									6
30 - 34	1	3	4							8
35 - 39	1	1	2							4
40 - 44		1	2							3
45 – 49			1	1						2
50 - 54				3	3	3				9
55 - 59				1	1	4				6
60 - 64						2				2
65 & Over										0
Total	**8**	**5**	**9**	**5**	**4**	**9**	**0**	**0**	**0**	**40**

Average Age: 44.1 years
Average Length of Service: 14.6 years

AGE AND SERVICE DISTRIBUTION AS OF APRIL 30, 2017

MUNICIPAL

Age Group	Service									Total
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20										0
20 - 24	1									1
25 - 29	1									1
30 - 34	8	2	1							11
35 - 39	3	1								4
40 - 44	2	2	2		1					7
45 – 49	1	2		3	1					7
50 - 54	2	3	1	3	2	1	4			16
55 - 59	2	2	1			2	2	1		10
60 - 64	2				2					4
65 & Over			1							1
Total	**22**	**12**	**6**	**6**	**6**	**3**	**6**	**1**	**0**	**62**

Average Age: 47.0 years
Average Length of Service: 12.3 years

SECTION SIX: SUMMARY OF PRINCIPAL PLAN PROVISIONS

Item	Provision
ELIGIBILITY	Employees are eligible to retire from the City and continue their health coverage after meeting the age and service requirements for retirement. **Retirement Benefits** Police Tier 1: Age 50 and 20 years of service. Tier 2: Age 55 and 10 years of service. Fire Tier 1: Age 50 and 20 years of service. Tier 2: Age 55 and 10 years of service. **PSEBA Disability Benefits** Police and Fire officers that become disable in the line of duty are eligible for PSEBA disability benefits after 1 year of service. Other City Departments IMRF Tier 1 Age 55 and 8 years of service IMRF Tier 2 Age 62 and 10 years of service
BENEFIT AMOUNT	The City of Freeport provides the continuation of health care benefits to employees who retire from the City. Retirees pay 70% of the cost (blended) of coverage. The City pays 100% of the cost of coverage for disabled officers for life.