



**CITY OF PHILADELPHIA GAS WORKS RETIREMENT RESERVE FUND**  
**Financial Statements**  
**June 30, 2018**  
**With Independent Auditors' Reports**

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**June 30, 2018**

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## INDEPENDENT AUDITORS' REPORT

To the Board of Directors,  
City of Philadelphia Gas Works Retirement Reserve Fund:

### Report on the Financial Statements

We have audited the accompanying financial statements of City of Philadelphia Gas Works Retirement Reserve Fund (the "Plan"), which comprise the statement of fiduciary net position as of June 30, 2018, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects information regarding the Plan's fiduciary net position as of June 30, 2018, and changes therein for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the schedules of net pension liability, employer contributions as a percentage of covered payroll and investment returns, and notes to required supplementary information be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the Government Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Management has omitted the management's discussion and analysis for the Plan, that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements is required by the Government Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by the missing information.

### Report on Other Legal and Regulatory Requirements

In accordance with *Government Auditing Standards*, we have also issued our report dated December 10, 2018 on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

A handwritten signature in blue ink that reads "Withum Smith + Brown, PC".

December 10, 2018

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Statement of Fiduciary Net Position**  
**June 30, 2018**

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**Assets**

Cash and cash equivalents		
Cash	\$ 14,705,061	
U.S. Treasury bills	<u>5,799,081</u>	
Total cash and cash equivalents		\$ 20,504,142
Interest and dividend receivable		1,538,911
Investments, at fair value		
Corporate bonds	74,073,037	
Common and preferred stock	364,948,023	
U.S. government securities	72,289,297	
Financial agreements	68,285	
Asset backed securities	8,728,885	
Bond mutual funds	2,954,161	
Municipal obligations	<u>3,390,668</u>	
Total investments		526,452,356
Receivables		
Due from brokers		<u>1,012,518</u>
		<u>549,507,927</u>

**Liabilities**

Advance from Philadelphia Gas Works		118,304
Due to brokers		5,939,079
Accounts payable		<u>204,759</u>
		<u>6,262,142</u>

**Fiduciary Net Position** **\$ 543,245,785**

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Statement of Changes in Fiduciary Net Position**  
**Year Ended June 30, 2018**

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**Additions**

Employer's contributions	\$ 29,143,382
Employees' contributions	<u>1,078,192</u>
	30,221,574

**Investment income**

Interest	5,383,229
Dividends	6,734,008
Net realized/unrealized gain	<u>33,473,758</u>
	45,590,995

**Investment expense**

(1,281,076)

Net investment gain	<u>44,309,919</u>
Total additions and net investment gain	74,531,493

**Deductions**

Administrative expenses paid	184,334
Benefits paid	<u>52,626,957</u>

Change in fiduciary net position	21,720,202
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**Fiduciary Net Position**

Beginning of year	<u>521,525,583</u>
End of year	<u><u>\$ 543,245,785</u></u>

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

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**1. PLAN DESCRIPTION**

The City of Philadelphia (the “City”), maintains two pension systems providing benefits for its employees and several of its component units: the City’s pension system includes the Municipal Pension (the “Fund”) and the Gas Works Plan (the “Plan”). Each pension system is a separate Public Employee Retirement System (“PERS”) with a separate oversight body and is financially independent of the other. In each case, the City is required by the Philadelphia Home Rule Charter to maintain an actuarially sound pension and retirement system.

There are no component units of the Plan. In determining its oversight responsibility, the Plan considers financial interdependency, selection of governing authority, designation of management, ability to significantly influence operations, and accountability of fiscal matters.

The Plan consists of Philadelphia Gas Works (“PGW” or the “Company”), a component unit of the City and is included in the City’s Comprehensive Annual Financial Report as a trust and agency fund.

The Plan is a single employer defined benefit PERS. The Plan provides pension benefits for all eligible employees of Philadelphia Gas Works, and other eligible class employees of Philadelphia Facilities Management Corporation (“PFMC”) and Philadelphia Gas Commission (“PGC”). The Plan is administered by the Sinking Fund Commission of the City of Philadelphia (the “Commission”). Certain administrative aspects of the Plan are delegated to PGW. The Commission acts in a fiduciary matter with regards to the assets of the Plan. The Commission was established by the City Charter and consists of the Director of Finance, the City Controller and an experienced banker or investment banker appointed by the Mayor. Alternates for these members are allowed by written authorization of the Mayor.

As of the latest available actuarial valuation (June 30, 2018), the Plan’s membership consisted of:

Active participants	1,213
Retired participants	2,193
Vested terminated participants	<u>323</u>
Total Plan participants	<u><u>3,729</u></u>
Total payroll	\$ 101,270,528
Average pay	\$ 83,488

The Plan is currently open to all employees of PGW.

The Plan provides retirement benefits as well as death and disability benefits. Retirement benefits are vested after 5 years of credited service. Employees who retire at or after age 65 are entitled to receive an annual retirement benefit, payable monthly, in an amount equal to the greater of:

- 1.25 percent of the first \$6,600 of Final Average Earnings plus 1.75 percent of the excess of Final Average Earnings over \$6,600, times years of credited service, with a maximum of 60 percent of the highest annual earnings during the last 10 years of credited service, applicable to all participants; or,
- 2 percent of total earnings received during the period of credited service plus 22.5 percent of the first \$1,200 of such amount, applicable only to participants who were employees on or prior to March 24, 1967.

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

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Final Average Earnings are the employees' average pay, over the highest five years of the last ten years of credited service. Employees with 15 years of credited service may retire at or after age 55 and receive a reduced retirement benefit. In addition, employees with 30 years of credited service are eligible to select early retirement with no reduction in benefits.

**Contributions**

In December 2011 the City of Philadelphia City Council approved Bill No. 110830 "An Ordinance" effecting PGW workers hired on or after May 21, 2011. The ordinance states, in part, that employees commencing employment on or after May 21, 2011 shall become a participant in the Plan only upon completion of an irrevocable written election to participate in the Plan. Such election must be made within thirty days after their employment commencement date, or if later, thirty days after the effective date of the ordinance. All such employees who elect to participate in the Plan are deemed contributing participants.

Contributing participants (Non-covered employees) in the Plan are required to make annual contributions totaling 6 percent of their compensation. Such contributions are made by means of periodic payroll deductions determined by the Company. Contributing participants are 100 percent vested in their employee contributions. All participants in the Plan, including contributing participants, have no vested interest in their accrued benefit from the Plan sponsor until they have 5 years of credited service, at which time they become 100 percent vested in their accrued benefit. Contributions from contributing participants for the Plan year ending June 30, 2018 totaled \$1,078,192.

In addition, newly hired employees who commence employment on or after May 21, 2011 who opt out of the Plan will enter into the newly formed Philadelphia Gas Works Employees' Defined Contribution Plan, a tax qualified defined contribution plan pursuant to Section 401(a) of the Internal Revenue Code of 1986 as amended. The defined-contribution plan provides for an employer contribution equal to 5.5 percent of applicable wages. Assets of this plan are not a part of the City of Philadelphia Gas Works Retirement Reserve Fund and are not reported on in these financial statements.

**Funding Policy**

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. Level percentages of payroll employer contributions rates are determined using the Projected Unit Credit actuarial funding method. The most recent annual actuarial valuation is as of June 30, 2018 and the contribution rate as of percentage of payroll was 28.04 percent.

Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance. Benefits under the Plan are guaranteed by statute. In the event employer contributions are not sufficient to pay required benefits, the City's General fund must provide any shortfall.

**Investments**

The Commission maintains a Statement of Investment Guidelines ("Policy") consistent with the needs of the Plan. The latest Policy was approved by the Commission at its meeting on December 2, 2016. The Policy serves as the chief communication tool of the Commission with vendors and investment managers. The Policy defines the need for the Policy, the investment goals of the Plan, the asset allocation, the investment guidelines, including prohibited investments, as well as the objectives for each manager and benchmarks for each type of investment. Additionally, it defines the necessary communication and responsibilities of each party, including the Commission, the investment managers, the custodian and any consultants. The Policy can only be revised or changed by a vote by the Commission.



**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

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For a more complete description of the Policy, see the online version at:  
<http://www.phila.gov/Treasurer/Documents/PGWPP.pdf>.

The Pension Plan utilizes both equity and fixed-income investments consistent with the Policy as described above. As of June 30, 2018, the Plan had investments of approximately \$526 million, comprised of \$365 million in equities and \$161 million in fixed-income investments. The ratio of equities to fixed income is 69 percent to 31 percent which is in line with the Policy guidelines of 60-70 percent equities and 30-40 percent fixed income.

For the year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of investment expense was 8.89 percent.

The Commission employs third-party vendors to manage the assets of the Plan as well as perform other needed services. As of June 30, 2018, the Commission employed the following investment managers and vendors:

<b>Manager</b>	<b>Mandate</b>	<b>Balance (millions)</b>
<u>Equity Managers</u>		
RhumbLine Asset Management	Domestic Large Cap Index	\$ 127.1
RhumbLine Asset Management	International Markets	20.0
PineBridge Investments	Domestic Large Cap Index	53.7
Northern Trust Company	Domestic Large Cap Index	24.1
Eagle Asset Management	Domestic Small Cap Growth	27.1
Harding-Loevner	International Growth (fund)	48.6
Mondarian International Equity	International Value (fund)	23.5
Dimensional Fund Advisors	Emerging Markets (fund)	18.6
Vaughan Nelson	Domestic Small Cap Value	<u>22.2</u>
		364.9

<b>Manager</b>	<b>Mandate</b>	<b>Balance (millions)</b>
<u>Bond Managers</u>		
Weaver Barksdale	Core	\$ 35.2
Logan Circle Partners	Core Plus	36.7
Logan Circle Partners	Investment Grade	15.0
Garcia Hamilton	Intermediate	31.1
Lazard Asset Management	Intermediate Plus	29.5
Sky Harbor Capital Management	High Yield	<u>14.0</u>
		<u>161.5</u>
<b>Total</b>		<b><u>\$ 526.4</u></b>

At its quarterly meetings, the Commission, with the assistance of PFM Asset Management LLC monitors the performance of the investment managers over various periods of time, and will change a manager when the Commission deems it necessary. Each of the managers and other vendors (except for those marked 'fund') are contracted for a period of one year, with one-year extensions at the discretion of the Commission.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Accounting**

Plan financial statements are prepared using the accrual basis of accounting. Employer contributions are recognized as revenues when due, pursuant to formal commitments, as well as statutory or contractual requirements. The pension benefits are paid monthly and recorded as paid. As a result, there are no pension benefits payable at June 30, 2018.

**Method Used to Value Investments**

The Plan reports investments at their fair value in the statement of fiduciary net position. Unrealized gains and losses are included in the statement of changes in fiduciary net position. Securities traded on national or international exchanges are recorded at the last reported sales price at current exchange rates.

Investment income is recognized as earned. Gains and losses on sales and exchanges are recognized on the transaction date. Net realized gains on sales amounted to \$18,729,456 for the year ended June 30, 2018. Net unrealized gains for the year ended June 30, 2018 totaled \$14,744,302.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

**Due From and To Brokers**

Due from brokers represents the value of investments sold by brokers prior to year-end, for which the settlement date of the sale occurred subsequent to year end. Similarly, due to brokers represents the value of investments purchased by brokers prior to year-end, for which the settlement date of the purchase occurred subsequent to year end.

**Fair Value of Financial Instruments**

The carrying values of financial instruments including interest and dividends receivable, due from brokers, accounts payable, and amounts due to PGW and brokers approximate their fair market value due to the relative short maturity of these instruments.

**Investment Advisors**

The Fund utilizes numerous investment advisors to manage debt and equity portfolios. The Sinking Fund Commission must approve all investment advisors.

**Income Taxes**

The Plan is not subject to Federal, state or local income taxes.

**Trend Information**

Historical trend information related to the Plan is presented in the Supplemental Information section. The information is presented to enable the reader to assess the progress made by the Plan in accumulating sufficient assets to pay pension benefits as they become due.

**Related Parties**

The Sinking Fund Commission is the trustee of the Plan. The City of Philadelphia Department of Finance provides bookkeeping services for the Plan. Philadelphia Gas Works makes monthly benefit payments to retirees on behalf of the Plan and incurs administrative expenses on behalf of the Plan. Benefits payments made by PGW and administrative costs incurred by PGW on behalf of the Plan amounted to \$52,626,957 and \$184,334, respectively for the year ended June 30, 2018.

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

**Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at June 30, 2018, and the reported amounts of revenues and expenses during the year then ended. Actual results could differ from those estimates. Significant estimates include the valuation of investments without quoted prices in an active market for identical assets and the actuarial estimates for Plan future benefit obligations.

**Risks and Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and those changes could materially affect the amounts reported in the statement of fiduciary net position.

Plan contributions are made and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

**3. CASH DEPOSITS AND INVESTMENTS**

The Plan is authorized to maintain a diversified portfolio in the following types of investments: U.S. Treasury or agency obligations, corporate debt and equity securities, and foreign debt and equity securities. City ordinances and sinking fund policies contain provisions which preclude the Plan from investing in organizations that conduct business in certain countries and industries and impose limitations on the amounts invested in certain types of securities.

**Interest Rate Risk**

Interest rate risk is the largest risk faced by an investor in the fixed income market. The price of a fixed income security generally moves in the opposite direction of the change in interest rates. Securities with long maturities are highly sensitive to interest rate changes. The Plan's fixed income investments are as follows:

	<b>Total Fair Value</b>	<b>Below 1 Year</b>	<b>1 to 5 Years</b>	<b>5 to 10 Years</b>	<b>10 Years and Over</b>
U.S. govt. treasuries	\$ 44,695,715	\$ 7,163,150	\$ 18,505,320	\$ 17,234,983	\$ 1,792,262
U.S. govt. agencies	33,392,663	5,715,397	22,491,458	4,142,042	1,043,766
Municipal bonds	3,390,668	308,100	2,498,249	249,255	335,064
Corporate bonds	74,073,037	12,576,937	29,873,508	18,617,507	13,005,085
Asset backed securities	8,728,885	2,432,663	3,065,121	2,517,959	713,142
	<u>\$ 164,280,968</u>	<u>\$ 28,196,247</u>	<u>\$ 76,433,656</u>	<u>\$ 42,761,746</u>	<u>\$ 16,889,319</u>

**Custodial Credit Risk**

In the event of counter-party failure, the Plan may not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities held by the counterparty or counterparty's trust department, are uninsured and are not registered in the name of the Plan. The Plan requires that all investments be clearly marked as to ownership, and to the extent possible, be registered in the name of the Plan. Certain investments may be held by the managers in the Plan's name.

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

**Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Fund's rated debt investments as of June 30, 2018 were rated by Moody's, a nationally recognized statistical rating agency and are presented below using Moody's rating scale:

<b>S&amp;P Credit Rating</b>	<b>U.S. Government Securities</b>	<b>U.S. Government Agency Securities</b>	<b>Municipal Bonds</b>	<b>Corporate Bonds</b>	<b>Asset-Backed Securities</b>	<b>Total</b>
AAA	\$ 14,925,154	\$ 32,077,917	\$ --	\$ 230,389	\$ 5,979,366	\$ 53,212,826
AA+	29,770,561	1,314,746	--	420,177	290,944	31,796,428
AA	--	--	--	497,140	464,009	961,149
AA-	--	--	2,059,667	1,671,798	184,797	3,916,262
A+	--	--	--	5,887,126	332,741	6,219,867
A	--	--	335,063	5,245,094	448,827	6,028,984
A-	--	--	420,249	14,120,555	159,533	14,700,337
BBB+	--	--	308,100	13,178,090	95,193	13,581,383
BBB	--	--	--	7,629,112	73,169	7,702,281
BBB-	--	--	267,589	7,299,533	92,137	7,659,259
BB+	--	--	--	2,699,222	164,497	2,863,719
BB	--	--	--	1,819,375	--	1,819,375
BB-	--	--	--	2,065,291	33,540	2,098,831
B+	--	--	--	2,207,534	--	2,207,534
B	--	--	--	2,387,086	--	2,387,086
B-	--	--	--	3,674,897	--	3,674,897
CCC+	--	--	--	1,563,300	--	1,563,300
CCC	--	--	--	1,207,434	--	1,207,434
CCC-	--	--	--	116,929	--	116,929
CC	--	--	--	33,425	--	33,425
NR/NA	--	--	--	119,530	410,132	529,662
	<u>\$ 44,695,715</u>	<u>\$ 33,392,663</u>	<u>\$ 3,390,668</u>	<u>\$ 74,073,037</u>	<u>\$ 8,728,885</u>	<u>\$ 164,280,968</u>

**Concentration of Credit Risk**

Concentration of credit risk is the risk of substantial loss if investments are concentrated in one issuer. As of June 30, 2018 no single investment, not guaranteed by the U.S. government exceeds 5 percent of the Plan's net fiduciary financial position.

**4. DISCLOSURE ABOUT FAIR VALUE OF FINANCIAL INSTRUMENTS**

The accounting pronouncement on fair value measurements establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

**Level 1** – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access. Such inputs include quoted prices in active markets for identical assets or liabilities.

**Level 2** - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

**City of Philadelphia Gas Works Retirement Reserve Fund**  
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**Level 3** - Unobservable inputs that are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant judgment or estimation.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of June 30, 2018:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Corporate bonds	\$ --	\$ 73,853,182	\$ 219,855	\$ 74,073,037
Common and preferred stock	353,535,256	11,411,161	1,606	364,948,023
U.S. government securities	38,896,633	33,392,664	--	72,289,297
Financial agreements	--	--	68,285	68,285
Asset backed securities	--	8,728,885	--	8,728,885
Bond Mutual Funds	2,954,161	--	--	2,954,161
Municipal obligations	--	3,390,668	--	3,390,668
	<u>\$ 395,386,050</u>	<u>\$ 130,776,560</u>	<u>\$ 289,746</u>	<u>\$ 526,452,356</u>

**5. ADVANCE FROM THE PHILADELPHIA GAS WORKS**

Payments to beneficiaries are made by PGW through its payroll system. The amount due to PGW at June 30, 2018 of \$118,304 represents the cumulative excess of payments made to the retirees and administrative expenses incurred by PGW, over the sum of the Company's required contribution, and reimbursements received from the Plan. Such amount will be settled in the subsequent Plan year.

**6. NET PENSION LIABILITY**

The components of the net pension liability of the City of Philadelphia Gas Works Retirement Reserve Fund at June 30, 2018, were as follows (dollar amounts in thousands):

Total pension liability	\$ 804,507
Plan fiduciary net position	<u>(543,246)</u>
Net pension liability	<u>\$ 261,261</u>

Plan fiduciary net position as a percentage of the total pension liability	67.53%
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**Actuarial Assumptions**

The total pension liability was determined by an actuarial valuation as of June 30, 2018 using the following actuarial assumptions:

Salary increases	4.5 percent for the current year and for subsequent years
General inflation	2 percent

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Financial Statements**  
**June 30, 2018**

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Investment rate of return 7.30 percent, net of pension plan investment expense, including inflation

Mortality rates were based on the RP-2014 Combined Mortality Table for Males and Females with adjustments for mortality improvements based on Scale MP-2017.

**Change in Assumptions**

The total pension liability reflects an increase of approximately \$10 million as a result of changes actuarial assumptions for the Plan year ended June 30, 2018. Approximately \$14 million of the increase was a result of demographic changes, and the major driver of this change was a 9.5 percent increase in average pay. The mortality table was changed from RP-2014 mortality table generationally projected with Scale MP-2016 to the RP-2014 mortality table generationally projected with Scale MP-2017 to better reflect actual and future mortality experience. The change from Scale MP-2017 from MP-2016 has decreased the liability by approximately \$4 million.

**Discount Rate**

The discount rate used to measure the total pension liability was 7.30 percent. The projection of cash flows used to determine the discount rate assumed the contributions from Plan members will be made at the current contribution rate and that contributions from PGW will be made based on the current, actuarially determined funding policy. The long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate remains the same as the prior valuation period.

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability. The net pension liability as of June 30, 2018 is calculated using the discount rate of 7.30 percent, as well as the Plan's net pension liability if it were calculated using a discount rate that is 1 percent lower (6.30 percent) or 1 percent higher (8.30 percent) than the current rate (dollar amounts in thousands):

	<b>1% Decrease 6.30%</b>	<b>Current Rate 7.30%</b>	<b>1% Increase 8.30%</b>
Total Pension Liability	\$ 897,271	\$ 804,507	\$ 727,158
Plan Fiduciary Net Position	<u>543,246</u>	<u>543,246</u>	<u>543,246</u>
Net Pension Liability	<u>\$ 354,025</u>	<u>\$ 261,261</u>	<u>\$ 183,912</u>

**7. SUBSEQUENT EVENTS**

The Plan has evaluated subsequent events occurring after the statement of fiduciary net position through the date of December 10, 2018 which is the date the financial statements were available to be issued.

Based on this evaluation the Plan has determined no subsequent event has occurred which requires disclosure in the financial statements.



**SUPPLEMENTARY INFORMATION**

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Schedule of Net Pension Liability (dollars in thousands)**  
**June 30, 2018**

Net pension liability for Plan year ended June 30, 2018 is reflected below (dollar amounts expressed in thousands). The 2014 Plan year is the first year this information has been made available. This information will be given prospectively for future Plan years.

	Actuarial Valuation				
	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$ 6,103	\$ 5,823	\$ 5,400	\$ 4,890	\$ 8,924
Interest cost	55,718	55,443	55,903	52,377	47,098
Change in benefit terms	--	--	--	--	--
Differences between expected and actual experience	15,706	2,182	(8,841)	17,960	59,326
Changes in assumptions	(3,864)	(7,952)	26,748	44,877	--
Benefit payments	<u>(52,627)</u>	<u>(51,376)</u>	<u>(50,447)</u>	<u>(46,917)</u>	<u>(42,913)</u>
Net change in total pension liability	21,036	4,120	28,763	73,187	72,435
Total pension liability, beginning	<u>783,471</u>	<u>779,351</u>	<u>750,588</u>	<u>677,401</u>	<u>604,966</u>
Total pension liability, ending	<u>\$ 804,507</u>	<u>\$ 783,471</u>	<u>\$ 779,351</u>	<u>\$ 750,588</u>	<u>\$ 677,401</u>
Plan fiduciary net position					
Contributions - employer	\$ 29,143	\$ 27,918	\$ 21,123	\$ 21,106	\$ 24,934
Contributions - employee	1,078	852	602	393	239
Net investment income	44,310	61,002	2,872	24,472	75,303
Benefit payments	(52,627)	(51,376)	(50,446)	(46,917)	(42,913)
Administrative expense	(184)	(129)	(1,611)	(1,480)	(732)
Other	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>
Net change in fiduciary net position	21,720	38,267	(27,460)	(2,426)	56,831
Plan fiduciary net position, beginning	<u>521,526</u>	<u>483,259</u>	<u>510,719</u>	<u>513,145</u>	<u>456,314</u>
Plan fiduciary net position, ending	<u>\$ 543,246</u>	<u>\$ 521,526</u>	<u>\$ 483,259</u>	<u>\$ 510,719</u>	<u>\$ 513,145</u>
Net pension liability, ending	<u>\$ 261,261</u>	<u>\$ 261,945</u>	<u>\$ 296,092</u>	<u>\$ 239,869</u>	<u>\$ 164,256</u>

Actuarial Valuation Date	Total Pension Liability	Covered Employer Payroll	Net Pension Liability as a Percentage of Payroll
June 30, 2018	\$ 804,507	\$ 101,271	257.98%
June 30, 2017	\$ 783,471	\$ 94,768	276.41%
June 30, 2016	\$ 779,351	\$ 90,860	325.88%
June 30, 2015	\$ 750,588	\$ 95,187	252.00%
June 30, 2014	\$ 677,401	\$ 103,530	158.66%

See Independent Auditors' Report.



**City of Philadelphia Gas Works Retirement Reserve Fund  
 Schedule of Employer Contributions as a Percentage of Covered Payroll  
 and Investment Returns  
 Ten Years Ended June 30, 2018**

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**Employer Contributions as a Percentage of Covered Payroll:**

<b>Year Ended June 30,</b>	<b>Annual Required Contribution (000)</b>	<b>Covered Payroll (000)</b>	<b>Contribution as a Percentage of Covered Payroll</b>
2009	\$ 15,437	\$ 108,474	14.23%
2010	23,099	106,125	21.77%
2011	22,936	106,308	21.58%
2012	23,802	106,308	22.39%
2013	23,673	105,985	22.34%
2014	24,385	103,530	23.55%
2015	21,526	95,187	22.61%
2016	26,476	90,860	29.14%
2017	29,260	94,768	30.88%
2018	28,395	101,271	28.04%

**Investment Returns:**

The 2014 Plan year is the first year this information has been made available. This information will be given prospectively for future Plan years.

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Annual money-weighted rate of return, net of investment expense	16.76%	4.33%	0.58%	13.04%	8.89%

**City of Philadelphia Gas Works Retirement Reserve Fund**  
**Notes to Required Supplementary Information**  
**Year Ended June 30, 2018**

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**Notes to Required Supplementary Information:**

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2018
Actuarial cost method	Projected unit credit
Amortization method	Contributions based on greater of 20-year level dollar open amortization method and 30-year level dollar closed amortization method
Asset valuation method	Actual fair market value
Salary increase	4.5 percent for current and subsequent years
General inflation	2 percent
Investment rate of return	7.30 percent
Cost of living	N/A
Mortality rates	RP-2014 static Mortality generationally projected with Scale MP-2017
Discount Rate	7.30 percent

## **REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

### **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors,  
City of Philadelphia Gas Works Retirement Reserve Fund:

We have audited, in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of City of Philadelphia Gas Works Retirement Reserve Fund which comprise the statement of fiduciary net position as of June 30, 2018, and the related statement of changes in fiduciary net position for the year then ended and the related notes to the financial statements, and have issued our report dated December 10, 2018.

#### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered City of Philadelphia Gas Works Retirement Reserve Fund's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of City of Philadelphia Gas Works Retirement Reserve Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of City of Philadelphia Gas Works Retirement Reserve Fund's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given those limitations, during our audit we did not identify any deficiencies in internal control that we considered to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether City of Philadelphia Gas Works Retirement Reserve Fund's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion.

The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Withum Smith + Brown, PC*

December 10, 2018