

**MASTER OF SCIENCE IN  
FINANCE**

**MASTERS FINAL WORK  
PROJECT**

EQUITY RESEARCH:  
YORK WATER COMPANY

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L52673

SEPTEMBER 2021

**MASTER OF SCIENCE IN  
FINANCE**

**EQUITY RESEARCH  
INDIVIDUAL ASSIGNMENT**

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YORK WATER COMPANY**

**YURI CAVALCANTE DA CUNHA**

**SUPERVISOR:  
JOÃO CARVALHO DAS NEVES**

**SEPTEMBER 2021**

## Abstract

York Water Company has functioned continuously since 1816 - the oldest investor-owned water utility in the United States. YORW's primary business is to impound, purify, and distributing water and collecting and treating wastewater within its franchised territory to meet or exceed safe drinking water standards. The company serves 50 municipalities located in south-central Pennsylvania, attending over 200,000 people through over 72,000 water and wastewater connections.

YORW has a solid financial position, and it is committed to its stakeholders, having a market capitalization of \$604 million and institutional ownership of 42%. Dividends have been consecutively paid since the beginning in 1816, for 205 years, and have been increased for 24 consecutive years – the longest uninterrupted dividend record in America. Dividend Yield of 1.57%.

YORW present a Reduce recommendation for York Water Company (YORW) with a 2022YE price target of \$ 44.86 using the DCF model, implying a 4.34% downside potential against the closing price of \$ 46.81 on September 14th, 2021, with a low risk.

The current overvaluation of York Water Company shares is due to the good results obtained in the previous years and especially due to the performance during the pandemic. For instance, manly explained by i) growth in revenues, ii) expanding service territory, iii) consecutively dividend payments, iv) increase in demand for water and wastewater treatment, v) importance of water usage for the future, vi) population growth, vii) high expectation from the board members.

Regarding the water and wastewater industry forthcoming trends, YORW has a strategy focused in expanding its territory service by aggregating more customers in other municipalities as well as investing in structure improvements to increase efficiency in the water and wastewater treatments.

Keywords: YORW; Valuation; Performance; Dividends; Water and Wastewater; Recommendation; Strategy; M&A; Industry; Price Target; Investment.

## Resumo

York Water Company tem funcionado continuamente desde 1816 - a mais antiga empresa de abastecimento de água de propriedade de investidores nos Estados Unidos. O principal negócio da YORW é purificar e distribuir água e coletar e tratar águas residuais dentro de seu território franqueado para atender ou exceder os padrões de água potável. A empresa atende a 50 municípios localizados no centro-sul da Pensilvânia, atendendo a mais de 200.000 pessoas por meio de mais de 72.000 conexões de água e esgoto.

YORW possui uma sólida posição financeira e está comprometida com seus investidores, tendo uma capitalização de mercado de \$ 604 milhões e participação institucional de 42%. Os dividendos foram pagos consecutivamente desde o início de 1816, por 205 anos, e aumentaram por 24 anos consecutivos - o mais longo registro de dividendo ininterrupto na América. Rendimento de dividendos de 1,57%.

YORW apresenta uma recomendação de Redução para York Water Company (YORW) com uma meta de preço 2022YE de \$ 44,86 usando o modelo DCF, implicando uma potencial desvalorização de 4,34% contra o preço de fechamento de \$ 46,81 em 14 de setembro de 2021, com um risco baixo .

A atual supervalorização das ações da York Water Company deve-se aos bons resultados obtidos nos anos anteriores e, principalmente, ao desempenho durante a pandemia. Por exemplo, principalmente explicado por i) crescimento nas receitas, ii) expansão do território de serviços, iii) pagamentos consecutivos de dividendos, iv) aumento na demanda por tratamento de água e esgoto, v) importância do uso da água para o futuro, vi) crescimento populacional, vii) grande expectativa dos membros do conselho.

No que diz respeito às tendências do setor de água e esgoto, a YORW tem uma estratégia focada em expandir seu atendimento territorial, agregando mais clientes em outros municípios, bem como investindo em melhorias de estrutura para aumentar a eficiência no tratamento de água e esgoto.

Palavras-chave: YORW; Avaliação; Atuação; Dividendos; Água e Esgoto; Recomendação; Estratégia; M&A; Indústria; Alvo de preço; Investimento.

## Acknowledgements

*"The true sign of intelligence is not knowledge but imagination - Logic will get you from A to B. Imagination will take you everywhere." Albert Einstein*

*"Those who have the courage to go into the storm are those destined for glory." Y.C.*

My deepest thanks,

To my beloved family;

To my colleagues;

To all the professors at ISEG;

To Professor João Carvalho das Neves, for all orientation and support.

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# List of Abbreviations

|          |        |  |          |      |  |
|----------|--------|--|----------|------|--|
| <b>A</b> | APV    | Adjusted Present Value   | <b>M</b> | M&A  | Mergers & Acquisitions                                 |
| <b>B</b> | BPS    | Basis Point  |          | MGD  | Million Gallons per Day                                |
| <b>C</b> | CAGR   | Compound Annual Growth Rate                                    | <b>N</b> | NWR  | Non-Revenue Water                                      |
|          | CFO    | Cash Flow from Operating Activities                            | <b>O</b> | OECD | Organization for Economic Co-operation and Development |
|          | CAPEX  | Capital Expenditure  | <b>P</b> | PPUC | Pennsylvania Public Utility Commission                 |
|          | CAPM   | Capital Asset Pricing Model                                    |          | PUC  | Public Utility Commission                              |
|          | CEO    | Chief Executive Officer  |          | PE   | Price to Earnings                                      |
|          | CPA    | Certified Public Accountant                                    |          | PE   | Professional Engineer                                  |
|          | CPR    | Country Risk Premium   |          | PT   | Price Target   |
|          | CO2    | Carbon Dioxide   | <b>R</b> | R&D  | Research & Development                                 |
| <b>D</b> | DCF    | Discounted Cash Flow   |          | ROA  | Return on Assets                                       |
| <b>E</b> | EBITDA | Earnings Before Interest, Taxes, Depreciation and Amortization |          | ROE  | Return on Equity                                       |
|          | EBIT   | Earnings Before Interest and Taxes                             |          | ROIC | Return on Capital Invested                             |
|          | EPS    | Earnings per Share   |          | ROCE | Return on Capital Employed                             |
|          | ESG    | Environmental, Social and Governance                           |          | RFR  | Risk Free Rate   |
|          | EV     | Enterprise Value   | <b>U</b> | US   | United States of America                               |
|          | ERP    | Equity Risk Premium  |          | UN   | United Nations   |
|          | EU     | European Union   |          | UK   | United Kingdom   |
| <b>F</b> | F      | Forecast   | <b>Y</b> | YORW | York Water Company                                     |
|          | FY     | Fiscal Year  |          | YE   | Year End   |
|          | FCFF   | Free Cash Flow to the Firm                                     | <b>W</b> | WACC | Weight Average Cost of Capital                         |
| <b>G</b> | GDP    | Gross Domestic Product   |          | WW   | Water Withdrawal                                       |
|          | GPCD   | Gallons per Capita per Day                                     |          |      |  |
|          | GHG    | Green-House Gases  |          |      |  |
| <b>I</b> | IMF    | International Monetary Fund                                    |          |      |  |

## Equity Research: York Water Company

### 1. Research Snapshot

We present a **Reduce recommendation** for York Water Company (YORW) with a 2022YE price target of \$ 44.86 using the DCF model, implying a **4.34% downside potential** against the closing price of \$ 46.81 on September 14<sup>th</sup>, 2021, with low risk – (Figure 1).

Through difficult times, COVID-19 pandemic, YORW has been investing and creating value for its shareholders, however, considering the company's future and the deep analysis of its numbers, the current share price seems to have a slight downside potential.

#### Strategy for the future

As the level of water and wastewater has become a topic discussed worldwide due to the necessity to be better managed by the people and industries, to preserve the future of the population, YORW has seen that as an opportunity to expand its territory by providing high-quality water service.

YORW expects to expand its territory service by aggregating more water systems and providing safe dependable, high-quality water and wastewater services, and consequently reaching more customers. **The company already provides services for 50 municipalities.**

To achieve this strategy, the company is regularly seeking new opportunities for water and wastewater acquisitions and expansion, both within and outside its current service territory. Also, the company looks for new opportunities to enter a bulk water contract with other entities and municipalities to supply water.

YORW's revenues have increased at **+3.14% CAGR in 2016-2020** period and it is expected to increase at a +5.5% CAGR for the projected period until 2027F – **CFO 2020-2027F CAGR + 7.84%**, from \$20,235 to 34,317 thousand in 2027F (Figure 2).

#### Dividend Policy

The history proves YORW's commitment to its dividend policy with a historical milestone of the 24<sup>th</sup> consecutive year of dividend growth. It showed a **\$0.7280 in dividends per common share** in 2020FY, **an increase of 4%** compared to 2019FY or a **+3.8% CAGR 2016-2020**, divided into quarterly payments. Also, YORW expects a +7.33% CAGR for the projected period regarding its dividend paid.

#### Industry Overview

**Global water demand is expected to grow over the next 30 years.** However, it is not expected that natural supplies will be enough to meet that necessity in some parts of the world. In addition to that, **a decline in water quality has become a global matter over the world.** That is why water and wastewater treatment has become essential to the population. Water and wastewater treatment is expected to increase at a **6.5% CAGR** from 2019 to 2025. As consequence, **technological improvements will always be a part of the water and wastewater industry**, principally due to the current necessity of having a more efficient way to treat, utilize and reuse water. Rapid urbanization, rising customer demand, severe climate changes are some of the factors that make those improvements **necessary and indispensable.**

|  |                   |
|--|-------------------|
| <b>Price Target</b>                    | <b>\$44.86</b>    |
| Current Price (Sep. 14 <sup>th</sup> ) | \$46.81           |
| Downside potential                     | ↓4.34%            |
|  | <b>Low risk</b>   |
| Bloomberg                              |                   |
| Market cap                             | \$596.52M         |
| # Shares outstanding                   | 13.09M            |
| YTD performance (%)                    | 9.41%             |
| 52-week range                          | \$40.57 - \$53.77 |

Figure 1. 52-week stock price vs PT



Source: Author Analysis

Figure 2. Financial highlights

(\$Thousands)

|               | 2020      | 2022F    | 2027F    |
|---------------|-----------|----------|----------|
| Revenues      | \$ 53,852 | \$59,939 | \$78,337 |
| EBITDA        | \$ 32,608 | \$36,689 | \$47,951 |
| EBITDA Mg.    | 60.6%     | 61.2%    | 61.2%    |
| Net Income    | \$ 16,598 | \$15,858 | \$20,725 |
| NPM           | 30.82%    | 26.46%   | 26.46%   |
| CFO           | \$ 20,235 | \$26,505 | \$34,317 |
| Capex         | \$ 33,299 | \$25,878 | \$33,821 |
| Debt Ratio    | 64.80%    | 63.23%   | 61.68%   |
| Debt/EBITDA   | 3.81      | 3.43     | 2.64     |
| Int. Coverage | 3.86      | 3.52     | 3.52     |
| ROIC          | 9.1%      | 9.8%     | 11.2%    |
| ROCE          | 6.2%      | 6.6%     | 7.2%     |
| ROE           | 11.6%     | 9.8%     | 10.3%    |

Source: Author Analysis

## 2. Business Description

### The Company

York Water Company has functioned continuously since 1816 - **the oldest investor-owned** water utility in the United States. YORW's primary business is to impound, purify, and distributing water and collecting and treating wastewater within its franchised territory to meet or exceed safe drinking water standards. The company serves **50 municipalities** located in south-central Pennsylvania, attending over 200,000 people through over 72,000 water and wastewater connections (Appendix 9).

YORW has a **market capitalization of \$604 million** and institutional ownership of 42%. Dividends have been consecutively paid since the beginning in 1816, **for 205 years**, and have been increased for 24 consecutive years – **the longest uninterrupted dividend record in America**. Dividend Yield of 1.57% (Figure 3).

### History

The fire was **the greatest fear** in the late 1700s and 1800s. During that period, businesses and homes were heated and lit with flames which on several events caused significant accidents. Due to the necessity of handling this issue, on February 23, 1816, local businesses issued stock and formed the company – York Water Company. **By the end of 1816, 35 homes had already water on their premises** (Figure 4).

In 1840, YORW used cast iron as a new piping material to reduce leaks coming from old wooden and to improve the maintenance of water pressure. In 1849, a new pumping station was built, used steam power to pump water due to the growing community. **In 1899, YORW constructed its first filtration plant**. The plant was the first successfully operated water treatment plant in Pennsylvania to act against the typhoid spread on water due to the unprotected water supplies.

The company, in 1910, purchased land in York and Spring Townships to build a dam to impound water supply for periods of drought, and, in 1913, was constructed the first dam – Lake Williams. In 1954, due to the need to store more water, were ordered 4-foot-tall bascule gates to increase the capacity of Lake Williams from 600 million to 800 million gallons.

The second dam, Lake Redman, was completed in 1967, totalizing 2.3 billion gallons for both lakes. In 2004 was constructed the Susquehanna River pumping station adding 12 million more gallons of water per day.

**For the 5th anniversary of its stock traded at NASDAQ, in 2016, YORW “rang the bell” at NASDAQ’s marketplace**. After nearly 200 years of drinking water, the company acquired its first wastewater system in 2012. In 2020, YORW obtained the Letterkenny Township Municipal Authority wastewater treatment plant and reached 50 municipalities of services – over 74 thousand customers (Figure 5) (Appendix 10).

### Financial Performance Highlights

YORW reached in 2020FY **\$53.852 of revenues** (Figure 6) **(+3.49% CAGR 2017-20)** and an **EBITDA value of \$32.608**. The net income and earnings per share (Eps) value achieved of **\$16.598 and \$1.27**. YORW's long-term performance has a three-year average annual total shareholder return of 15.1% and 11% regarding three-year annual return on equity (Appendix 1, 2 and 4).

Figure 3. YORW 2020 major figures



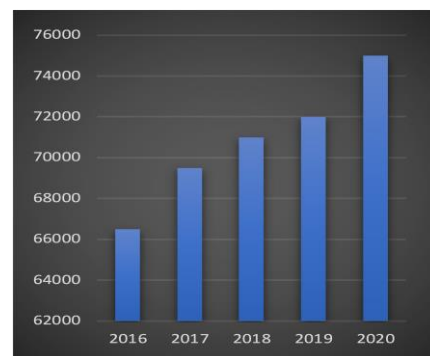
Source: YORW's Annual Report 2020.

Figure 4. History

|      |                                      |
|------|--------------------------------------|
| 1816 | 35 homes with access to water        |
| 1849 | Cast iron as a new piping material   |
| 1849 | New pumping station                  |
| 1899 | First filtration plant               |
| 1910 | Purchase of land - York and Spring   |
| 1913 | First dam - Lake Williams            |
| 1954 | Increase capacity - Lake Williams    |
| 1967 | Second dam                           |
| 2004 | Susquehanna River pumping station    |
| 2012 | First wastewater system              |
| 2016 | Rang the Bell - Nasdaq's marketplace |
| 2020 | Reached 50 municipalities            |

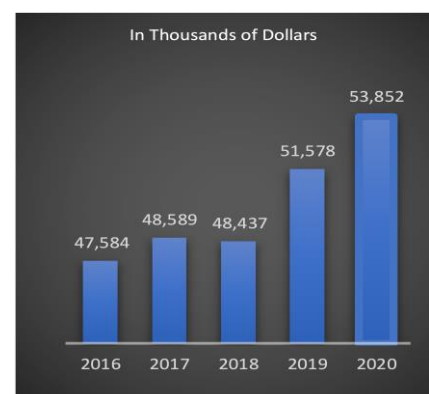
Source: YORW's Annual Report 2020.

Figure 5. Water & Wastewater Customers



Source: YORW's Annual Report 2020.

Figure 6. Revenues



Source: YORW's Annual Report 2020.

**Business Segments**

YORW has **two main segments, water utility service** that counts for **94.6%** of its business and **wastewater utility service** that counts for **3.8%**. Also, YORW provides billing and revenue collection services, collection services and other revenue that counts for 0.56%. Additionally, YORW obtains revenues from rents from regulated properties that represents 1.03% of its revenues (Figure 7 and Figure 8).

**Utility Service – Water and Wastewater**

YORW’s utility services follow two services. Firstly, water utility service divides into three areas: **(i) residential that corresponds to 63%** or \$33,987 thousand in revenues, **(ii) commercial and industrial that represents 26%** or \$13,764 thousand and **(iii) fire protection that counts for 6%** or \$3,191 thousand. Secondly, wastewater utility service divides into two areas: (i) residential that represents 3.2% or \$1,746 thousand and (ii) commercial and industrial that corresponds to 0.5% or \$304 thousand in revenues (Figure 9).

The company’s distribution systems supply its water service. For instance, water comes from its **73 million gallons** from the east and south branch of the Codorus Creek and **2.2 billion gallons** of water from its two reservoirs – Lake Williams and Lake Redman.

YORW offers utility service as a unique performance obligation to each of its customers.

**“The transaction price is detailed in the tariff pursuant to an order by the PPUC and made publicly available – YORW’s Annual Report 2020”**

**Billing and Revenue Collection Service**

Another type of income is the billing and revenue collection service that counts for approximately **0.5% or \$266 thousand in revenues**. YORW offers this service as a distinct performance obligation to three municipalities within its service territory, and each one provides wastewater service. **YORW acts as the collection agent for the municipalities.**

“No revenue is recognized from performance obligations satisfied in prior periods and no performance obligations remain unsatisfied as of the end of the reporting period – YORW’s Annual Report 2020”

**Collection Service**

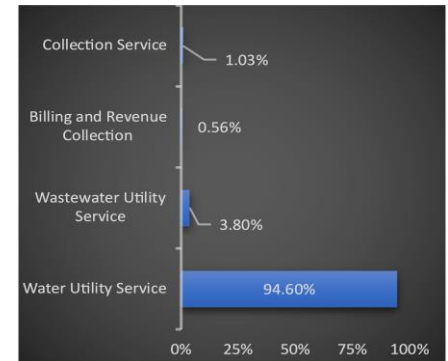
Collection service represents a small portion of the total revenue of YORW, counting for only **0.03% approximately or \$15 thousand**. YORW is responsible for **shutting off the supply of water** to the premises for those residents that are delinquent in paying their obligations. When the customers fill their debt, the services will be restored.

“A contract asset for unbilled revenue is recognized for postings, shut offs, and restorations that have been completed from the last billing to the end of the accounting period – YORW’s Annual Report 2020”.

**Company Resources**

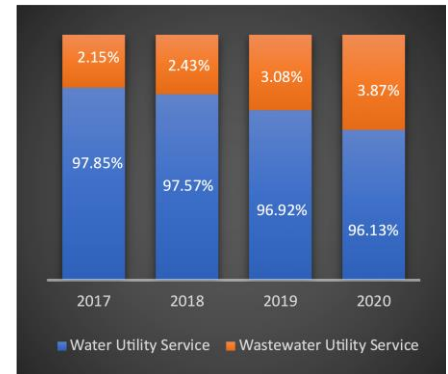
The company provides water and wastewater services in approximately 50 municipalities. Also, the company owns two impounding dams. **The Lake Williams**, the lower dam, creates a reservoir covering **165 acres containing about 870 million gallons of water**. **The Lake Redman**, the upper dam, creates a reservoir covering **290 acres containing about 1.3 billion gallons of water**. YORW also owns a **15-mile pipeline** which provides access to a **supply of an additional 12 million gallons of water per dam**. In addition, YORW has three satellite water systems in Pennsylvania.

**Figure 7. Business Segments in Percentage of Revenues**



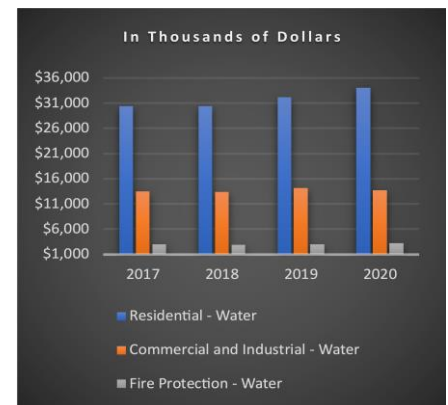
Source: Author Analysis

**Figure 8. Utility Service.**



Source: Author Analysis

**Figure 9. Water Utility Service in Revenues.**



Source: Author Analysis

## Key Drivers of Profitability

Water revenues coming from YORW's utility services and customer growth are the main factor that affects the company's profitability. Additionally, weather conditions, particularly rainfall, economic and market conditions can have a negative effect on revenues.

One strategy to mitigate this adversity is to **diversify its service and territory**, in other words, reaching more customers outside of its service territory and offering new complimentary services. Revenues are especially **vulnerable to the weather conditions**, in the summer months, because of the **long period of dry and hot weather**, which cause a considerable increase in water usage. The diversified portfolio and the different territory of services can help **offset the negative impact on revenues** from the drought restrictions that would cause a cut back on water usage.

In addition to that, YORW also focuses on minimizing costs without decreasing its customer and water quality (e.g. expanding online service, paperless billing, banking and others).

## Strategy

YORW aimed to **reach more customers by expanding its service territory** by providing safe, dependable, high-quality water and wastewater services. In order to do that, the company regularly **seeks opportunities for water and wastewater acquisitions and expansion both within and outside its current service territory**. Also, the company looks for new opportunities to enter a bulk water contract with other entities and municipalities to supply water (Figure 10).

Main actions taken:

- ◆ **Infrastructure improvements** – (e.g. in 2020, the Company invested over **\$32 million in construction expenditures** for several replacements, infrastructure improvements, and routine improvements to water and wastewater pipes, service lines, and other facilities) (Figure 10).
- ◆ **Increase water and wastewater rates** - YORW's increase in revenues is mainly a result of customer growth and water and wastewater rates (Figure 10).
- ◆ **Growth in the number of customers** – due to the acquisition of new water and wastewater systems and organic growth (e.g. in 2013, in Pennsylvania, **acquisition of wastewater collection and treatment assets** of SYC WWTP, L.P. in Shrewsbury and Springfield, in 2020, YORW signed an agreement to purchase the Albright Trailer Park water and wastewater collection assets of R.T. Barclay. **The company will add 90 combined wastewater and 60 water customers** throughout a liaison with its current water distribution system - closing is expected in 2021. Wastewater customers are served by SYC WWTP, L.P and water customers are served by YORW throughout a single connection to the park. In 2019, **the acquisition of West Manheim Township** wastewater collection approximately added 1,800 new wastewater customers. In 2020, **the addition of the water and wastewater collection and treatment assets** of Country View Manor Community, LLC. This acquisition is expected to close in 2021, **adding 50 water and wastewater customers** (Figure 10).
- ◆ **Increase water distribution and wastewater collection system** – (e.g. in 2017, the company agreed on an emergency interconnect agreement with Dallastown – Yoe Water Authority to start the construction of a new water extension to a single point of interconnection and also supply a minimum agreed upon amount of water to the authority. The approval is expected to be granted in 2021.) During 2020, YORW additionally increased 14,950 feet of water distribution mains - **reaching 987 miles of water mains**, and 32,593 feet of wastewater collection mains – **reaching 36 miles of wastewater mains** (Figure 10).

Figure 10. Strategy



Source: Author Analysis

**Shareholder Structure**

YORW structure can be breakdown into three different types of investors: institutional investors holding 41.6%, inside investors holding 1.3% and individual shareholder (mostly retail investors) holding approximately 57.1% of shares (Figure 11 and Figure 12).

YORW has a total of **13,054,238 shares outstanding**, as of December 3, 2020, trading under the symbol “YORW” on the NASDAQ stock exchange.

All directors, director nominees and executive officers represent approximately **1.05% of the shares outstanding, in a total of 135,370 shares.**

Regarding the voting rights, **each share of common stock entitles the holder to one vote only** on each matter presented at the meeting. Therefore, **cumulative voting** in an election of directors is **not permitted** under YORW’s by-laws.

**Dividend Policy**

YORW has declared **\$0.7280 in dividends per common share** in 2020FY, an increase of **4%** compared to 2019FY or a **+3.8% CAGR 2016-20**, divided into quarterly payments(Figure 13).

The **payout ratio for 2020FY was 56.6%**, which shows a **sign of stability and capability, especially in 2020**, to keep growing its dividends. Therefore, considering this ratio, YORW becomes an attractive company for future and current investors.

With a **payout ratio varying between 56.6% and 67.1%** over the past 5 years, which shows not only **stability** but an interesting investment for **income-oriented investors.**

The history proves YORW’s commitment to its dividend policy with a historical milestone of **24<sup>th</sup> consecutive year of dividend growth.**

**Figure 11. Shareholder Structure**



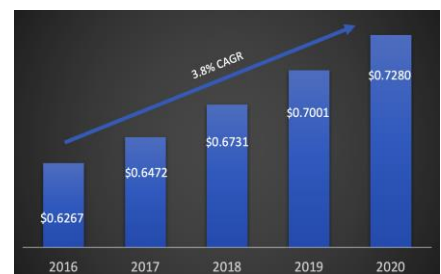
Source: YORW’s Annual Report 2020.

**Figure 12. Top 10 Shareholders**

| Name                              | Investor Type      | %   |
|-----------------------------------|--------------------|-----|
| The Vanguard Group, Inc.          | Investment Advisor | 6.5 |
| BlackRock Inc.                    | Investment Advisor | 6.2 |
| Dimensional Fund Advisors         | Investment Advisor | 3.3 |
| State Street Global Advisors (US) | Investment Advisor | 2   |
| Renaissance Technologies LLC      | Hedge Fund         | 1.9 |
| Geode Capital Management          | Investment Advisor | 1.6 |
| Gabelli Funds, LLC                | Mutual Fund        | 1.4 |
| ProShare Advisors LLC             | Investment Advisor | 1.3 |
| Northern Trust Inv., Inc.         | Investment Advisor | 1.2 |
| First Trust Advisors L.P.         | Investment Advisor | 1.1 |

Source: YORW’s Annual Report 2020.

**Figure 13. Dividend Policy**



Source: Author Analysis

### 3. Management and Corporate Governance

#### Governance Model

YORW's leadership has the preference for **the Chairman to be an independent director**. Yorw believes that an independent director offers more objective leadership and input to the board and shareholders' best interest. The President and CEO is Mr. Joseph T. Hand (Figure 14).

#### The Board of Directors

The Board and its Committees have the responsibility of overseeing the company's risk management process.

**The Board consist of no less than eight and no more than twelve members**, segregated into three classes, and elected to staggered three-year terms of office. **The current Board is composed of 12 Directors**, of which **9 are independent**. There is a **mandatory retirement age of 75 for all members of the Board**. Moreover, each director-class is composed of three or four Directors (Figure 15).

The recommendations to the Board are based on the appropriate size, function and needs, so that the Board collectively **possesses a broad range of different skills**, industry knowledge, and business and any other valid experiences to the management of the Company. These skills include crisis management, accounting and finance, corporate governance, merger and acquisition, business development and risk management.

**“In 2020, the Board of Directors approved a 4% increase in the quarterly dividend to an annualized rate of \$0.75 per share – Yorw’s Annual Report 2020.”**

#### Board Committees and Functions

The Board relies on four key Committees: the **Executive Committee**, the **Audit Committee**, the **Nomination and Corporate Governance Committee** and the **Compensation Committee**, all of which are composed of members of the Board of Directors.

Firstly, **the Executive Committee**, delegated by the Board of Directors, **is responsible for focusing on rate-making, budgeting, and equity financing and debt**.

As of August 2020, the members of Yorw's Executive Committee were as follows:

- ◆ **George W. Hodges, Chairperson;**
- ◆ **Joseph T. Hand, CEO;**
- ◆ Cynthia A. Dotzel, CPA;
- ◆ Michael W. Gang, Esq.;
- ◆ Jeffrey R. Hines, P.E.;
- ◆ Robert P. Newcomer;
- ◆ Ernest J. Waters.

Secondly, **the Audit Committee** is empowered to **monitor the risks** regarding the company's financial processes and compliance with the company's ethics policies and the audit functions of the independent public accountants.

Thirdly, **the Compensation Committee** is responsible for making **recommendations** to the Board regarding the appropriate compensation package for the corporate officers and the performance review of the CEO. **Also, this committee considers subjective topics such as the value of the position to the company.**

Lastly, **the Nomination and Corporate Governance Committee** provide a **recommendation regarding the appropriate Board structure**, as well as its members and

**Figure 14.** Mr. Joseph T. Hand profile.

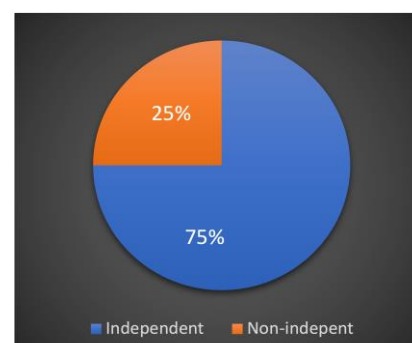


**President and CEO**  
**Term of office: 2023**

- Graduate at University of Vermont;
- MBA degree at York College Of Pennsylvania;
- Prior to 2006, held various positions in the army, as example, as Chief, Facilities and Construction;
- Between 2003 and 2006, held position as Deputy Commander and Deputy District Engineer for the Corps of Engineers;
- Between 2006 and 2008, was Chief of Navigation Branch in Baltimore District – U.S.;
- Director of the National Association of Water Companies at both the state and national levels;
- Past chairman of the Pennsylvania Chapter of the National Association of Water Companies;
- Director or committee member of various community and non-profit organizations;
- Joined The York Water Company in 2008 as Chief Operation Officer;
- Became CEO and President in 2020.

**Source:** Yorw's Annual Report 2020.

**Figure 15.** Independent Directors proportion in the Board



**Source:** Yorw's Annual Report 2020.

oversees the Board's performance and other committees and review the company's succession planning.

**All the committees, except the Executive Committee, have their members considered independent directors.**

For comparability purposes, a comparison of compensations among peer companies is made. **YORW's compensation goal should be between 80% and 120% of the projected base compensation.**

**The compensation for named executive officers is composed of 5 components** such as salary, stock awards, non-equity incentive plan compensation, nonqualified deferred compensation earnings and all other compensation (Figure 16).

In 2016, long-term incentive plan was approved by the shareholders aiming **to boost the long-term success and increase shareholder value** by offering incentive of long-term stock-based compensation awards to key employees. In 2020, the Compensation Committee established that the cash incentive award for 2020 would be 5% of the base salary.

In January 2021, YORW's management achieved 75% of the performance objectives established for 2020.

The company also offers retirement benefits such as a defined benefit pension plan, supplemental executive retirement plan, deferred compensation plan and 401(k) plan.

### Sustainability and ESG metrics

YORW is committed to its community, customer, employees, shareholders, and the environment. Currently, YORW **produces the same 18 MGD**, million gallons per day, as it did in 1970, **but YORW serves, now, over 70,000 customers, an increase of approximately 100%**. The GPCD, gallons per capita per day, **index has decreased to under 100 GPDC, about 58%**, which shows remarkable conservation of its resources (Figure 17).

The company has established an environmental strategy and operating objectives as part of its goal to contribute to environmental issues. For instance, **(i) environmental policy:** encourage the employees and customers to assume responsibility to the environment, increase standards for discharge water quality, and upgrade and maintain the company wastewater collection treatment, **(ii) regulation:** contribute to shape the future directions of legislation and regulation, **(iii) operating objectives;** comply with the standards of the **Safe Drinking Water Act, Clean Water Act**, and other applicable regulations.

**In addition, the company encourages the use of tap water and refillable bottles as environmental safety measures.**

**YORW complies with all PUC, Public Utility Commission, requirements regarding the mitigation or reduction of GHG**, green-house gases, or carbon emissions. Also, YORW's active water conservation have reduced customer consumption by 50% over the past 50 years.

The majority of YORW's fuel consumptions come from electricity received from a local regulated supplier, Met-Ed, that meets several PUC criteria, which contribute for reducing carbon-based emissions and peak loads.

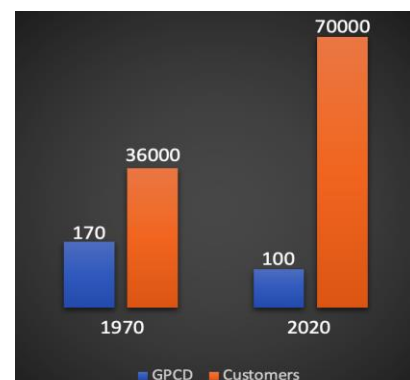
Regarding the **ESG metrics to its peers**, YORW shows improvements regarding the **Social** and **Governance** parameters and neutral position regarding **Environmental** parameter (Figure 18).

**Figure 16. Mr. Joseph T. Hand compensation in 2020**



Source: YORW's Annual Report 2020.

**Figure 17. GPCD improvements**



Source: YORW's Annual Report 2020.

**Figure 18. ESG comparison to peers.**

| Peers         |         |
|---------------|---------|
| Environmental | Neutral |
| Social        | Better  |
| Governance    | Better  |

Source: Bloomberg.

## 4. Industry Overview and Competitive Positioning

### World Economic Outlook

#### World GDP Growth

The global economy is slowly getting back from the shock the pandemic brought to the world in March – 2020. The global growth, in 2020, declined to, at current prices, \$83,844.99 billion from \$87,552.44 billion in 2019, a 4.23% decrease. Nowadays, the expectations are very uncertain. The global economy is expected to grow approximately 6% in 2021 and about 4% in 2022 (Figure 19).

New vaccines have been approved, which have raised hopes of a turnaround in the current crises. Additionally, several sectors (e.g. technology sector) **has partially adjusted to the pandemic restrictions**, and with the vaccine rollout gaining momentum, especially in major countries, it is likely to contribute to a significant boost to the global economy.

#### World Population

The world population increased from 7,041 million in 2011 to 7,794 million in 2020, **at a 1.02% CAGR for the last ten years**. In the following years, it is expected to grow slower with a **0.92% CAGR by 2030F** reaching 8,548 million and **0.73% CAGR by 2040F** reaching 9,198 people (Figure 20).

#### World Water Demand

**Global water demand is expected to grow over the next 30 years**. However, it is not expected that natural supplies will be enough to meet that necessity in some parts of the world. Most of the water consumption comes from **agriculture – about 69%, industrial – 19% and household – 12%**. This last one is expected to grow at a faster pace due to the consequences created by the pandemic and all of them due to the world's population growth (Figure 21).

Agriculture, especially in developing countries, contributes more to the domestic economy than in developed countries. However, water consumption is expected to decrease over the next 30 years due to the improvements in efficiency by this sector. Household consumption increased more than 600% between 1960 and 2014. Despite that, most of the growth of water consumption is most likely to come from industry.

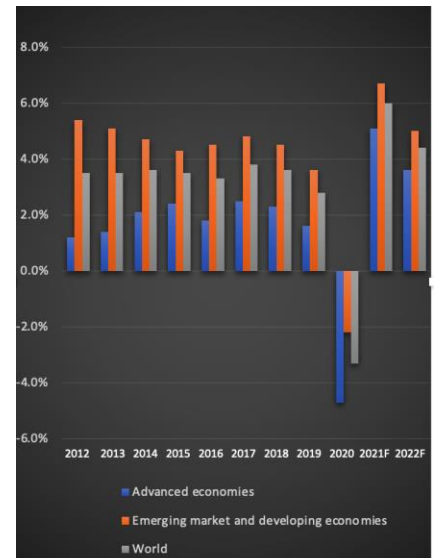
It is essential to mention that **approximately 20% of the global groundwater**, which supplies drinkable water to more than 50% of the world, **is already over-exploited** and that most of the surface water will be over-utilized by 2050.

Additionally, water resources **are not equally distributed** around the world, thus, it leads to a **faster scarcity** in some parts. Most of the people that live in such condition are those residing in **Yemen, Saudi Arabia, Egypt, Indian, Mexico and Pakistan** totaling approximately 500 million people.

**Water consumption has grown more than twice the rate of population growth**, more than tripled since 1950. Thus, more than half of the population could experience extreme water scarcity by 2050. Annual water utilization rocket from 1.22 trillion cubic meters in 1950 to 4 trillion cubic meters in 2014 – 1 cubic meters is equal to 1,000 liters. A study carried out by OECD forecasts that if water demand prevails increase at a similar pace, global water consumption will reach 6 trillion cubic meters by 2050.

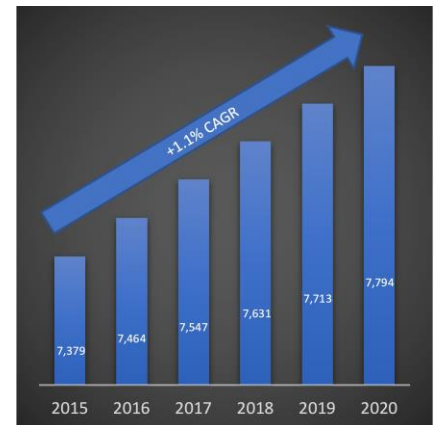
Wastewater is also a security challenge. **Approximately more than 80% of the global wastewater is released into the environment without being treated**, in other words, wasting renewable resources and, worse than that, polluting the environment.

**Figure 19. World GDP Growth (Annual Percentage)**



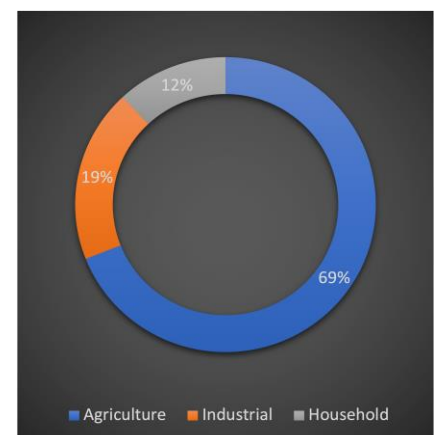
Source: IMF 2020.

**Figure 20. World Population (In Million)**



Source: United Nations 2020.

**Figure 21. Most Water Consumption**



Source: Future Directions, Australia

## World Water Supply

Water supply infrastructure is vital for companies and customers. It is proved that well preserved urban water system loses 10% - 30% of the water during transportation. In developing countries, **70% of the water supplied through water pipe may be lost.**

About 71% of the earth's surface is covered by water, and 3% of that is freshwater, and **2.5% of that freshwater is unavailable** (e.g. polar ice caps, atmosphere or the extraction is too expensive) (Figure 22).

## Water Price

Generally, an average U.S family, **four people**, pays approximately \$72.93 monthly, for water. Cities that increase the price usually use the increased rate to improve infrastructure and services (Figure 23).

Families pay a **fixed charge** independent of the amount of water consumption and a **variable fee** directly related to the water consumption. The use of high fixed rates is a standard action due to the pipe repair costs and to ensure stability, but, on the other hand, it is prejudicial for those that have less consumption.

**Across the countries, water prices have different rates due to the several distinct processes used to set a price.** Generally, companies establish a tariff based on costs of the services such as transport, wastewater treatment and collection, water treatment, general operations, and others. However, **water from lakes is not usually charged.**

## Global Water & Wastewater Industry Overview

### Industry Structure

The water and wastewater industry core activities are **focused on developing equipment, technologies, and delivering services that aim to supply, treat, and control clean water and wastewater** through a network of infrastructures. This industry has several water solutions that fit a wide range of consumers, from massive public institutions to unique residential customers.

The market structure is an **oligopoly market** due to a small set of huge players, companies with access to a large sum of capital that may influence the direction of the market, and the difficulty in exiting the market because of high investments.

**A decline in water quality has become a global matter over the world.** That is why water and wastewater treatment has become essential to the population. Water and wastewater treatment is expected to increase at a **6.5% CAGR** from 2019 to 2025 (Figure 24).

### Increasing Awareness and Water Use Efficiency

Water withdrawals, WW per capita, have been steadily decreasing. This can be explained by **increased awareness** of the importance of water as a limited and indispensable resource. Also, an increased efficiency while using it in the industrial and agriculture spheres.

### M&A Activity

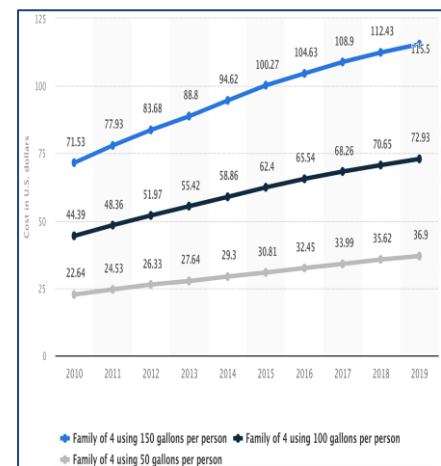
Companies from several industries frequently use M&A strategies to expand their business. The water and wastewater industry are not different. M&A is a good strategy against the vastly fragmented market. For instance, it is used to expand its services territory, reach more customers, and strengthen its operations, etc. Usually, **key players**, huge investment capital available, **acquire small companies due to their overall systems**, aiming to diversify and improve its services.

Figure 22. Water Location

|                  |         |
|------------------|---------|
| Oceans           | 97.20%  |
| Ice Caps         | 2%      |
| Ground water     | 0.62%   |
| Freshwater lakes | 0.009%  |
| Salt lakes       | 0.008%  |
| Atmosphere       | 0.001%  |
| Rivers           | 0.0001% |

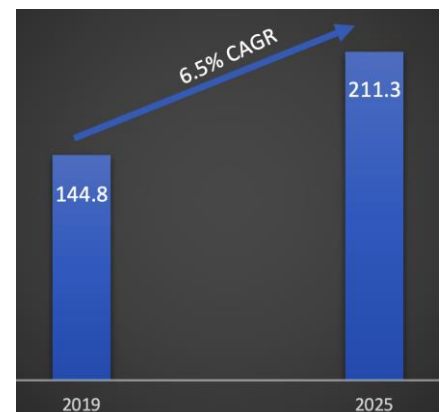
Source: Central California Office, 2020.

Figure 23. Water Price



Source: Statista. 2020.

Figure 24. Water & Wastewater Treatment (In Billion \$)



Source: United Nations 2020.

## Industry Trends

**Technological improvements will always be a part of the water and wastewater industry**, principally due to the current necessity of having a more efficient way to treat, utilize and reuse water. Rapid urbanization, rising customer demand, severe climate changes are some of the factors that make those improvements **necessary and indispensable**.

## Extreme Weather Events

Most climate change effects are related to water in some way. **By 2050**, with more than half of the **global population living within 200 km of the coast**, they will be widely affected by the **extreme rise in sea levels and severe storms**. Therefore, strong engineering structures such as dikes and seawalls will be necessary to protect the communities.

Additionally, sophisticated water technologies may help identify new vulnerabilities and provide innovative alternatives to solve the current ones.

## Customer Expectations

Nowadays, **customers are more empowered due to the advance in technology**. Therefore, they expect more innovative and effective ways to be served. Customers want to improve their quality of life through the services provided by the companies, especially regarding health standards. To manage the customer expectations, companies must **invest in R&D, infrastructure, supply chain, customer services and other areas**. In addition to that, co-create solutions with customers to reach strong long-term relationships while solving challenges within the industry.

## Wastewater Reuse – Efficiently

Innovation, planning, design is constantly stated when wastewater is mentioned. Usually, water is extracted from the source, verified, and treated in a receiving water body. On the other hand, wastewater's discharged sludge **contains good resources** such as energy, nutrients, nitrogen and others that can be reused to preserve scarce resources. **The objective is to achieve resource efficiency by reducing water consumption and take advantage of the wastewater components**.

## Agricultural Production

Based on the UN – United Nations, **the world's population is expected to grow to more than 9 billion by 2050**. Also, it is estimated that global food production needs to be increased by 70%. Those factors will lead to **an increase in water consumption**. Efficient irrigation management such as precision farming systems, water application systems, and flood warning systems are fundamental to optimize water consumption.

## Network Technologies

It is a huge opportunity to improve customer relationships, data analysis regarding the water properties, reliability of infrastructure and reduce non-revenue water losses. Also, **it gives support to change how water service is managed**.

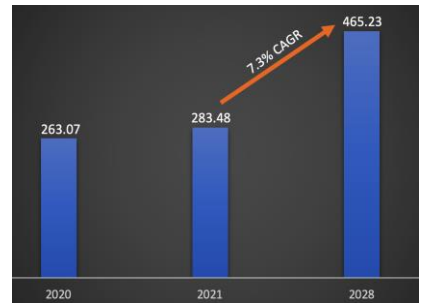
Additionally, **the effectiveness of old methods has become limited over the last decade**. The increase in knowledge regarding the consequences of excess consumption, contaminants in the water, levels for wastewater discharge and demand for better quality **have established intense regulations**.

**Key Drivers of Industry Profitability**

**Population Growth - Revenue**

Water is an essential asset for humans, and with a **world population CAGR rate of around 1.02% in the last ten years**, along with industrial expansion, increased agricultural development, water consumption is growing more and more. As a result, the **demand for water treatment services** tend to increase with those factors, leading to an expected **market size growing at a CAGR of 7.3% 2021-2028** (Figure 25). In 2020, the global water and wastewater market size was valued at \$263 billion dollars

**Figure 25. Water & Wastewater Treatment Market Size (In Billion \$)**



Source: Statista 2020.

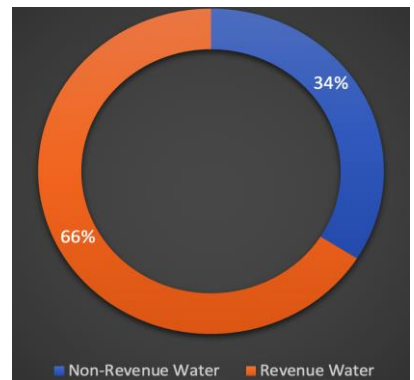
**Innovation - Need for Sustainable Water Solutions**

Growing issues related to water stress and water scarcity due to natural physical shortage, and inefficiency in providing alternatives to problems combined with increasing government incentives to invest in renewal and environmentally friendly sources, **will boost the demand for innovative wastewater treatment services**. Through the development of new water treatment technologies, this industry increasingly plays a more **crucial role in society**, working to solve the population’s water issues.

**Reducing “Non-Revenue Water” (NWR)**

**Due to ageing infrastructures**, the water industry currently faces a preponderant problem coming from NWR losses. NWR is water that is lost due to leaks in the pipes, unauthorized use, corruption, or inefficiencies. Globally, **34% of all the water supplied becomes NWR**, and losses from leaks are accounted for lost amounts up to \$39 billion per year (Figure 26). Consequently, water treatment companies need to improve their operational efficiency, by modernizing the infrastructures, optimizing their distribution channels, and developing new measurement & control technologies. **Allowing companies to reduce their operational expenses and supply chain inefficiencies will create higher operating margins and higher revenues**.

**Figure 26. Reducing NWR**



Source: Author Analysis

**Competitive Positioning**

**Peers Identification**

The industry uses **several financial classification systems** to identify industry peers. Taking into consideration that the peer group should contemplate companies in the same industry, **with similar characteristics**, among the US-Based companies (chosen by the group as target market), the following companies were chosen: California Water Service Group, America States Water Company, American Water Worker Co, Essential Utilities, SJW Group and York Water Company(Figure 27).

**Figure 27. Peers ranked by Market Cap.**

|                                |                   |
|--------------------------------|-------------------|
| American Water Works Co Inc    | \$ 28,468,887,468 |
| Essential Utilities Inc        | \$ 11,599,278,656 |
| American States Water Co       | \$ 2,984,417,424  |
| California Water Service Group | \$ 2,878,277,700  |
| SJW Group                      | \$ 1,905,659,071  |
| York Water Co/The              | \$ 596,523,819    |

Source: Author Analysis and Bloomberg

**Peers Strategy**

Given the arising of new technologies due to the necessity of new ways of water treatment, adaptability to population growth, increase in water consumption and strong climate change companies are, **constantly investing in R&D**, seeking innovative techniques that allow them to implement **a business model driven by not only the supply of purer water but also to offer a more sustainable way**. The projections are not inspiring if the governments, companies, and population do not change their current actions. In addition, the increase in their efficiency to reduce costs in the process to reach more customers.

## SWOT Analysis

Figure 28. SWOT Analysis

| Strengths  | Weaknesses  |
|--|---|
| <ul style="list-style-type: none"> <li>• <b>Customer services:</b> award-winning.</li> <li>• <b>Lead in Strategic reinvestments:</b> recognized by the Pennsylvania Public Utility Commission – PAPUC.</li> <li>• <b>Huge network</b> – oldest investor owned utility in the nation.</li> <li>• <b>Regular investments:</b> process to make improvements in the quality of the water.</li> <li>• <b>Reducing leads:</b> constantly reducing leads on its services lines.</li> <li>• <b>Own Distribution System:</b> water services supplied through its distribution system.</li> <li>• <b>Customer review:</b> excellent customer review.</li> <li>• <b>Strong Customer Relationship:</b> committed to its customers and its community.</li> <li>• <b>York Water Cares Program:</b> a program designed to provide limited funding, which is payable through community agencies to help those who need an assistance to pay their York Water Company Bills.</li> </ul>   | <ul style="list-style-type: none"> <li>• <b>Exposure to changes in regulations.</b></li> <li>• <b>Foreign, federal, state, and local environmental, health and safety laws and regulations:</b> impose strong requirements regarding water quality. Therefore, hefty fines or operating costs could be significantly increased to comply with new or stricter regulatory standards imposed.</li> <li>• <b>Contracts with governments:</b> may be terminated or modified before the expiration date due to changes in regulations.</li> <li>• <b>Lack of information on annual reports.</b></li> <li>• <b>Contaminants on water:</b> contaminants that may be present in the source water.</li> <li>• <b>Power Outage:</b> extended power outage may occur due to weather conditions.</li> </ul>   |
| Opportunities  | Threats   |
| <ul style="list-style-type: none"> <li>• <b>New Lifestyle:</b> people around the world are getting more worried about health and quality of life.</li> <li>• <b>Climate Changes:</b> new solutions to at least reduce the impact of those changes. For instance, new structures, new software to simulate the impact of those changes and then analyse the vulnerabilities and others.</li> <li>• <b>New Technologies:</b> opportunities of implementing new and better solutions to its customers. Also, it brings better and more reliable ways to analyse data.</li> <li>• <b>Growing Population:</b> United Nation has stated that the world population is expected to reach more than nine billion people in 2050. Therefore, it will increase the necessity of important elements in the agricultural field and then it will consequently draw an increase in demand for water resources.</li> <li>• <b>Long Term Relationships:</b> the more people need water more they want better and modern solutions.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Covid 19:</b> impact not only on the customers but on the resources of the companies like employees, partners, and others.</li> <li>• <b>Climate Changes:</b> affecting directly agricultural production, wildfires, extreme weather etc.</li> <li>• <b>Customer expectation:</b> people are even more adopt at technologies than ever were, they are always expecting new and better ways to optimize their way of life, so water companies need to deal with those high expectations.</li> <li>• <b>Competitors' technology:</b> competitors get access to new technologies.</li> <li>• <b>New Contaminants:</b> the appearance of new elements in the source water.</li> <li>• <b>Accelerated global population.</b></li> <li>• <b>Water - Limited Resource:</b> lacking drinkable water in some places in the world. People are dying and getting diseases because they do not have access to a drinkable source of water.</li> </ul> |

*Source: Author analysis*

## Porter's 5 Forces

Considering Porter's 5 Forces Framework, the highest threat identified in the industry is the rivalry among existing competitors (Figure 29).

### The threat of new entrants | LOW (2)

New entrants bring innovation, new ways of doing things and put pressure on existing companies through lower pricing strategy, reducing costs, and providing new value propositions to the customers. However, the threat of new entrants in the Water & Wastewater Treatment industry is considerably low, given that:

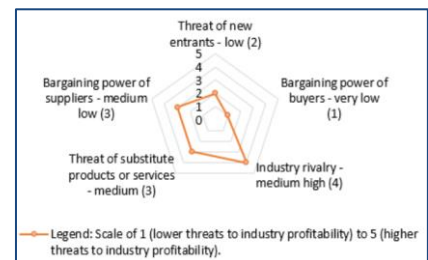
- **Severe laws and regulations:** that apply and impose substantial compliance requirements.
- **Need of high initial investment.**
- **High capital requirements needed:** given the core business of the industry and due to the technologies and R&D needs (for new technologies and products).
- **Huge infrastructure:** necessary to operate in the industry since traditional water treatment is very energy-intensive.
- **Huge players in the market:** with strong M&A tendency, usually acquire smaller players with new technologies as a growth strategy.

### Bargaining power of suppliers | MEDIUM-LOW (3)

The overall impact of higher supplier bargaining power is that it lowers the overall profitability of Water Utility companies. Below, some factors regarding the bargaining power of suppliers:

- **Existence of numerous suppliers:** from which players in the industry can buy raw materials.
- **Few suppliers have dominant positions:** this can decrease the margins that one firm can earn in the market. Besides, significant, or prolonged disruptions in the supply of goods or services could materially adversely affect business.
- **Negotiating power:** some suppliers might be able to extract higher prices from the companies in the field.
- **Market Growth:** with growing water demand, new suppliers may enter the market.
- **Switching Costs:** with a notable number of suppliers, switching costs are not high for buyers.

Figure 29. Porter's 5 Forces



Source: Author Analysis; Michael E. Porter framework

### **Bargaining power of buyers | VERY LOW (1)**

The bargaining power of buyers is considered very low because of the following factors:

- **Large, growing, and fragmented customers' market:** companies in this industry offer products and services for industrial, municipal, and recreational customers among several sectors.
- **No single customer accounts for a big part of the company's revenues.**
- **Small number of significant competitors:** there is a big geographic dispersion in the industry.
- **Long term contracts:** common and may diminish the bargaining power of buyers due to the high costs that come with it.
- **Generally, no price sensitivity:** due to expensive and complex products and services, which makes it hard to be substituted. Nevertheless, there might be some pricing sensitivity regarding service fees once competitors might differentiate their service costs.

### **The threat of substitute products or services | MEDIUM (3)**

The threat of substitute products or services can be considered from low to medium, given that:

- **New technologies:** arising number of innovations regarding more efficient solutions for water treatment can substitute existing options. As an example, new software to analyze and collect data, that is, more precise information to effectively treat the water.
- **Cost differentiation:** competitors may be capable of offering similar solutions at cheaper costs.
- **Better water qualities:** with new technologies coming up, the water treatment becomes more and more precise, in other words, the possibility to deliver purer water (less impure substances) to the final customer becomes a differential among the competitors.
- **Water Consumption:** new ways of providing water to the people. For example, awareness regarding the future of the planet made some customers change their consumption of water in plastic bottle for paper bottles.

### **Industry rivalry | MEDIUM-HIGH (4)**

The intensity of rivalry in the industry can be considered medium-high, because:

- **Market is moderately fragmented:** the market share is divided among many players, which means it is a highly competitive market. Industry includes several regional and niche offering focused competitors.
- **Competition is largely based on product performance,** reliability and innovativeness of products, services and solutions, application expertise and process knowledge, brand reputation, energy and water efficiency, product compliance with regulatory and environmental requirements, product lifecycle cost, scalability, timeliness of delivery, the proximity of service centers to customers, effectiveness of distribution channels and price.
- **Within segments, there is competition with a fragmented range of companies, but there are no individual key competitors.**
- **Growing industry:** new players may enter the market and intensify competition for market share.
- **Presence of huge players:** that may try to increase their market share and have access to more capital and better technologies.
- **Difficult to exit the market due to the high investments and costs of the process.**

## 5. Investment Summary

YORW has a **Reduce recommendation**, \$ 44.86/share in 2022YE, which means downside potential of 4.34%, against the closing price of \$ 46.81 on September 14<sup>th</sup>, 2021, with a low risk (Figure 30).

The current overvaluation of YORW can be explained due to the increase of revenue growth rate from 2019-2020 and the good results achieved during the COVID-19 pandemic, also, due to the historical dividends paid consecutively. **The YORW revenue has increased at 3.14% CAGR in the 2016-2020 period and, it is expected to increase at 5.5% CAGR in the projected years.**

### Valuation methods

The price target values were obtained throughout different valuation methods, absolute and relative methods, varying from **\$ 37.08/share to \$ 46.61/share – absolute/ relative values** (Figure 31).

The APV method showed the lowest price target among the absolute methods, which is consonant with the amount of debt York Water Company maintains. However, **the recommendation is based on the business following a price target of \$ 44.86/share in the DCF method.**

The market-based valuation methods showed a price target of **\$ 39.17/share EV/EBITDA** and **\$ 37.59/share P/E**, which are consonant with the absolute methods. However, the **EV/EBIT showed a value of \$ 46.61/share**, which reinforces the conclusion of the share price be overvalued.

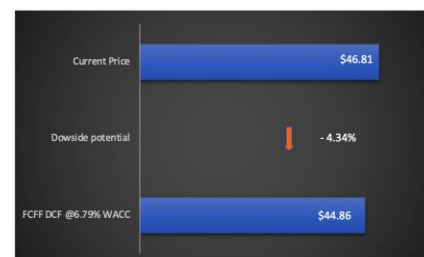
### Investment risks

As in any business, risks are always present, so investors must be aware that certain risks cannot be directly managed or avoided by the company's management.

**YORW's water business is dependent on weather conditions, mainly regarding the amount and timing of rainfall.** Additionally, revenues are sensitive to weather conditions in the summer months. On the other hand, the company does not depend on any single customer or few customers for a material portion of its business.

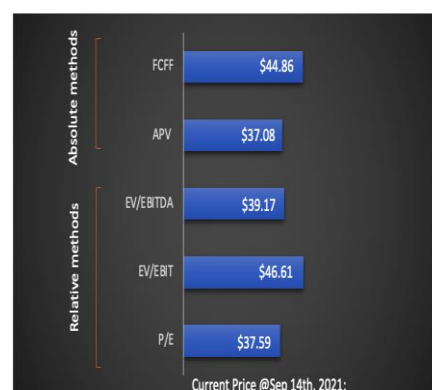
In addition to that, **YORW is subjected to strong requirements regarding water quality by the federal, state, local environment, and healthy regulations.** Another variable that may affect YORW's business is the contaminants that may be present in the water, which can be affected by the changes in regulations regarding the percentage permitted.

**Figure 30.** YORW 2021 vs 2022F PT (\$/Share)



Source: Author Analysis

**Figure 31.** Valuation methods vs Current price (\$/Share)



Source: Author Analysis

## 6. Valuation

### WACC Method Approach

The first method chosen to compute YORW's Price Target was a two-stage DCF, with a comprehensive FCFF projection from 2021-2027 and a stable growth rate for the perpetual period. This approach yields a 2022YE PT of \$ 44.86/share (Appendix 19), which means **downside potential of 4.34% against the closing price of \$ 46.81** (Figure 32).

The major factors that influence this valuation are **i) WACC rate assumption, ii) the long-run sustainable growth rate and terminal value and iii) the business revenue growth.**

### WACC rate assumptions

The discount of the FCFF followed the WACC method, given that it assumed a stable capital structure for YORW.

The estimated Cost of Equity comprises a **1.2% RFR considered through the 10-year maturity yields of US Treasury** (Appendix 11) and **7.7% ERP** computed by historical premium based on rating default spread through CPR approach. (Appendix 13). The beta was considered based on the industry average benchmark, and **the selected beta was 0.89** – estimated by Orbis as August 2021 (Appendix 12). The **Cost of Debt of 6.5%** was estimated based on the historical average interest rate - i.e. dividing the projected Interest Expense by Debt (Appendix 14). Thus, the **WACC estimated was 6.79%** (Appendix 14).

### The long-run sustainable growth rate and terminal value

The second stage from the DCF model consists of perpetuity based on: **i) Normalized FCFF for the terminal period, to flatten the business cycle effect** (Appendix 19) **ii) Long-run sustainable growth rate calculated through a stable growth model taking into consideration YORW's Reinvestment Rate and ROE** (Appendix 17 and 18).

### Business revenue growth

Given the current expectations by the YORW's leaderships, strategic goals to expand its service territory through acquisitions of new water systems and improvement of current processes, and due to its performance during the pandemic with an increase in revenues of 4.4% from 2019 to 2020, **it is fair to assume revenue growth of 5.5% for the forecasted years from 2021-2027** (Appendix 8).

### Adjusted Present Value Approach

For this approach, the tax shield, based on interest on debt with a **tax rate of 21%**, was added to the equity value and the discounted rate used was **pre-tax a WACC of 7.4%**. Therefore, this approach yields a 2022YE PT of \$37.08/share, with an Equity Value of \$483,942 thousand (Figure 33) (Appendix 20).

### Relative Valuation Approach

In addition to the previous model, a relative valuation was carried out through the peer group comparison of market multiples (Figure 34).

For this methodology, the following multiples were considered (Appendix 21):

- The EV/EBITDA, with a peer average of 17.07X, occurring in a YORW EV of \$ 511,204 thousand, or a price target of \$ 39.17/share in 2022YE;
- The EV/EBIT, with a peer average of 25.78X, resulting in a YORW EV of \$ 608,298 thousand, an Equity value of \$ 614,655 thousand, or a price target of \$ 46,61/share in 2022YE;
- The P/E, with a peer average of 30.9X, corresponding to a YORW Equity value of \$ 490,540 thousand, or a price target of \$ 37.59/share in 2022YE.

**Figure 32.** 2022YE PT with FCFF DCF (\$/Share)



Source: Author Analysis

**Figure 33.** 2022YE PT with APV (\$/Share)



Source: Author Analysis

**Figure 34.** Market-Based valuation (\$/Share)



Source: Author Analysis

## 7. Financial Analysis

### Operation Efficiency

The YORW's increase in sales from \$ 47,584 to \$ 53,852 thousand over the 2016-2020 period, means a 3.14% CAGR after an upward trend to \$ 78,337 thousand in 2027F, with a 5.5% CAGR due to the expectations for the company growth for the next years. YORW has an average asset turnover of 0.15, since the utility industry has an asset turnover between 0.25 and 0.5, it means YORW should increase sales performance from its assets(Appendix 4).

Regarding EBIT Margin, it decreased from 48.1% to 45.4% in the 2016-2020 period, however, it is expected to increase to 46.8%, a 3% increase, in the forecasted years – 2021-2027 period (Figure 35) (Appendix 5, 6 and 7).

### Solvency and Capital Structure

Given the business performance, YORW kept good solvency ratios, with an interest coverage ratio from 4X to 3.8X in 2016-2020 and it is expected to maintain around 3.5X in the forecasted years. The Debt to EBITDA ratio increased from 2.9X to 3.8X in 2016-2020, especially due to infrastructure investments in 2020, however, it is expected to improve to 2.64X by 2027F (Figure 36).

YORW's capital structure is expected to be stable. After a slight increase from 64.4% to 64.8% in the 2016-2020 period, the Debt Ratio is expected to decrease from 63.9% to 61.8% in the 2021F-2027F period (Appendix 7).

### Profitability Ratios

Regarding profitability ratios, YORW has stable figures.

From 2016-2020, the Net Profit Margin increased from 24.9% to 30.8% and it is expected to decrease to 26.5% in 2027F. The Gross Profit Margin went from 83.1% to 80% in the 2016-2020 period, and it is expected to remain stable at around 80.9% in the forecasted years.

Regarding YORW's ROE, it rose from 10.4% to 11.6% in the 2016-2020 period, and it is expected to slightly decrease to 10.3% until 2027F. Both ROCE and ROIC decreased in the 2016-2020 period, however, both showed improvements in the forecasted years (Figure 37) (Appendix 7).

### Cash Generation

YORW's Cash Ratio decreased from 0.5X to 0.4X in the 2016-2020 period, however, it has shown considerable improvements, between 0.82X and 0.59X, in the 2021F-2024F period and a strong decrease to 0.1X until 2027F. The Cash Cycle increase from 86.54 to 105.3 days in the 2017-2020 period, and it is expected to remain stable around 88.71 days in the projected period (Appendix 7).

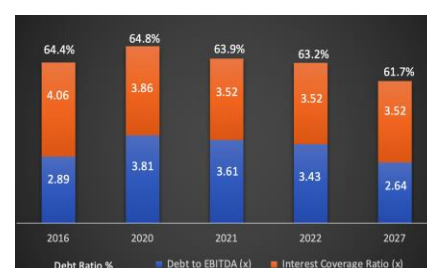
The Net Cash provided from operating activities went from \$ 19,365 to \$ 20,235 thousand in the 2016-2020 period and it is expected to reach \$ 34,317 thousand in 2027F, which means a 7.84% CAGR in the projected period (Appendix 3).

Figure 35. YORW's margins



Source: Author Analysis

Figure 36. YORW's solvency



Source: Author Analysis

Figure 37. NPM and ROE



Source: Author Analysis

## 8. Investment Risks

YORW encounters both internal and external risks, which could directly impact its business. Firstly, macroeconomic risk, an external risk that is not controlled by the company. Therefore, it is possible to include YORW's situation after Covid-19, political and regulatory risks, financial and market risks, and natural risks. Secondly, the internal risk which the company has a field of action. It is reasonable to consider operational risks (Figure 38).

### Macroeconomic Risks

#### World GDP (ME01)

According to the latest World Economic Outlook report released by the IMF, world gross domestic product is expected to shrink 4.4% this year (2020). Global economic and financial market conditions affect the demand for clean water and the demand for water technology products. Consequently, this will have an impact on the revenues, operating results, cash flow, and financial condition of the firms in the Water & Wastewater Treatment industry.

#### Inflation and Tariffs (ME02)

Operating costs and financial results are directly impacted by fluctuations in the prices of raw materials, commodity, and related utilities. If the inflation rate increases, this will negatively impact the firm's financial health. Moreover, freight cost is also an important variable to consider. An increase in tariffs will also cause a negative impact on the firm's results. The pandemic had a direct effect on inflation because of the many restrictions imposed and due to the downturns, for example, as demand outpaces supply.

### Political and Regulatory Risks

#### Geopolitical Instability (PR01)

Due to the globalization of the firms acting in the Water & Wastewater Treatment industry, economic nationalism, protectionism, populism, and anti-global sentiment are risks that may create instability and uncertainties in the market. An example of that is the retaliatory tariffs imposed by China and other countries after the United States put in place tariffs on imported goods coming from China. Another example is volatility in the foreign exchange rate caused by the exit of the UK from the EU and its uncertainties relating to agreements regarding trade in the future.

Furthermore, by having business in emergent and developing markets, firms incur the risk of not being able to enforce agreements, collect receivables, protect intellectual property and so on.

#### Laws, Regulations and Environmental Policies (PR02)

Due to the firm's global operations, they are subject to changing US and non-US laws, regulations, and policies related to export and import compliance, privacy and data protection, product design and specification, and others. Moreover, increasing environmental regulations imposed by regulatory agencies like the United States Environmental Protection Agency and similar state and foreign environmental agencies is an important risk to consider in this industry of interest. Such regulations may be related to the discharge of pollutants, hazardous substances, and CO2 emission.

### Environmental and Natural Risks

#### Weather Conditions and Climate Change (EN01)

The weather is becoming more and more unpredictable because of climate change. More frequent droughts, flooding, wildfires, and strong temperature fluctuations may positively or negatively impact firms in the Water Treatment industry. It may be the case that such events will benefit some portions of their business whilst and at the same time affecting others. These

Figure 38. Risk Matrix

|              |   | SEVERITY → |                      |              |
|--------------|---|------------|----------------------|--------------|
|              |   | 1          | 2                    | 3            |
| LIKELIHOOD ↓ | 1 |            | OP01<br>ME01<br>FI02 | OP02         |
|              | 2 |            | PR01<br>FI01         | EN01<br>EN02 |
|              | 3 |            | ME01<br>PR02         |              |

Source: Author analysis and estimation

environmental concerns may also cause volatility for customers and suppliers' operations. These could affect financial results and cause increasing uncertainty on its prediction.

### **COVID-19 (EN02)**

The outbreak of the coronavirus in March 2020 initiated a considerable economic disruption, uncertainty, and volatility. Moreover, the pandemic increased forecasting uncertainty regarding financial statements. The magnitude, geographic reach, duration, and impact on the world's economy caused by the coronavirus affects the current and future growth, projections, operation, cash flows, and liquidity of the market participants in this industry.

## **Financial and Investment Risks**

### **Foreign Exchange Rates (FI01)**

Whilst doing business in multiple countries, the firms acting in this industry are exposed to fluctuations in foreign exchange rates. The change in the value of the currencies where these firms do business with relative to the U.S Dollar may affect the firm's ability to be competitive by adversely affecting its sales growth or cost structure.

### **M&A's (FI02)**

If the firm's growth strategy includes growth through acquisitions, it may happen that they cannot identify suitable candidates or lose an acquisition to a competitor. Moreover, acquisitions involve numerous risks. Examples are time associated with identifying and evaluating potential acquisitions, using inaccurate estimates to evaluate credit, liquidity, management and market risks, and an adverse impact on the existing business resulting from the acquisition.

## **Operational Risks**

### **Cyber Threats (OP01)**

Businesses are increasingly relying on information technology and communication networks to operate efficiently. Much of the infrastructure is owned by third parties in which confidential business information is transmitted, creating then a leaking risk. Furthermore, even with protection measures in place, these systems are susceptible to disruption due to cyber-attacks or security breaches.

### **Supply Chain and Material Availability (OP02)**

Firms rely on third party suppliers and their availability of specific components and specific materials. Changes, interruptions, or the exit of these suppliers, may decrease the availability of key components on which the firm may rely. The firm's facilities and operations rely on complex supply chain and logistics networks. Therefore, disruptions in these areas are an operational risk.

## Price Target Sensitivity

To assess the Price Target sensitivity, it was conducted a simulation combining effects, taking into consideration the previous risks stated, and the investment recommendation against the benchmark (Figure 39).

### Cost of Capital – WACC vs Long-run sustainable growth rate – G

The long-run sustainable growth rate, that is **set at 4.5% in the base case**, could lead to an increase (decrease) of PT in **~\$1.61-2.9/share for each decrease (increase) of 10bps** (all other things equal). PT and WACC rate however do not have a linear relationship. For every **addition of 10bps** in the WACC rate, that is **set at 6.79% in the base case**, PT will **decrease ~\$1.78-2.28/share**, and for every **decrease of 10bps**, the PT will **increase from ~\$2.49-3.33/share** - all other things equal – Scenario 2 used in the FCFF DCF(Figure 40).

Figure 39. Investment recommendation

| Level of Risk | High Risk   | Medium Risk | Low Risk    |
|---------------|-------------|-------------|-------------|
| SELL          | 0%≤         | -5%≤        | -10%≤       |
| REDUCE        | >0% & ≤10%  | >-5% & ≤5%  | >-10% & ≤0% |
| HOLD/NEUTRAL  | >10% & ≤20% | >5% & ≤15%  | >0% & ≤10%  |
| BUY           | >20% & ≤45% | >15% & ≤30% | >10% & ≤20% |
| STRONG BUY    | >45%        | >30%        | >20%        |

Source: Author Analysis

Figure 40. Sensitivity Analysis

| Sensitivity Analysis of Equity value to the long-run sustainable growth rate and WACC |          |                                  |          |          |          |          |          |          |          |          |
|---|----------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
|   |          | Long-run Sustainable Growth rate |          |          |          |          |          |          |          |          |
|   |          | 4.1%                             | 4.2%     | 4.3%     | 4.4%     | 4.5%     | 4.6%     | 4.7%     | 4.8%     | 4.9%     |
| WACC  | \$ 44.86 |                                  |          |          |          |          |          |          |          |          |
|   | 6.39%    | \$ 45.21                         | \$ 47.49 | \$ 49.98 | \$ 53.02 | \$ 56.42 | \$ 59.15 | \$ 62.93 | \$ 67.19 | \$ 72.02 |
|   | 6.49%    | \$ 42.93                         | \$ 45.01 | \$ 47.28 | \$ 50.03 | \$ 53.09 | \$ 55.53 | \$ 58.90 | \$ 62.67 | \$ 66.91 |
|   | 6.59%    | \$ 40.84                         | \$ 42.75 | \$ 44.82 | \$ 47.31 | \$ 50.08 | \$ 52.28 | \$ 55.30 | \$ 58.65 | \$ 62.40 |
|   | 6.69%    | \$ 38.91                         | \$ 40.66 | \$ 42.56 | \$ 44.84 | \$ 47.35 | \$ 49.34 | \$ 52.06 | \$ 55.06 | \$ 58.41 |
|   | 6.79%    | \$ 37.13                         | \$ 38.74 | \$ 40.48 | \$ 42.57 | \$ 44.86 | \$ 46.67 | \$ 49.13 | \$ 51.84 | \$ 54.83 |
|   | 6.89%    | \$ 35.47                         | \$ 36.96 | \$ 38.57 | \$ 40.49 | \$ 42.58 | \$ 44.23 | \$ 46.47 | \$ 48.92 | \$ 51.62 |
|   | 6.99%    | \$ 33.93                         | \$ 35.31 | \$ 36.80 | \$ 38.56 | \$ 40.49 | \$ 42.00 | \$ 44.04 | \$ 46.27 | \$ 48.71 |
|   | 7.09%    | \$ 32.49                         | \$ 33.77 | \$ 35.15 | \$ 36.79 | \$ 38.56 | \$ 39.95 | \$ 41.82 | \$ 43.85 | \$ 46.07 |
|   | 7.19%    | \$ 31.14                         | \$ 32.34 | \$ 33.62 | \$ 35.14 | \$ 36.78 | \$ 38.06 | \$ 39.78 | \$ 41.64 | \$ 43.66 |

Source: Author Analysis

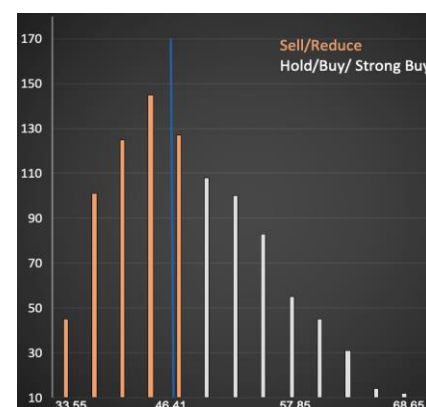
For comparison, other two scenarios were tested: i) scenario 1, where the long-run sustainable growth rate is set on 4.2% and WACC is set at 6.63%, reaching a PT of \$41.95 and ii) scenario 3, where the long-run sustainable growth rate is set at 4.9% and WACC is set on 7.04%, reaching a PT of \$48.35. All values are within the 52-week range. To get to these values, G and WACC, were used other assumptions to RFR, ERP, Tax and ROE (Appendix 15,16, 23 and 24).

### Monte Carlo Simulation

To complement the price target sensitivity analysis, a Monte Carlo Simulation with **1000 interactions** was carried out. It took into consideration the changes in the following key-value drivers: i) long-run sustainable growth rate, ii) Cost of Capital – WACC, iii) corporate tax rate, and iv) revenues growth rate.

From this analysis results a **mean value of \$ 47.12**, consistent with the previously estimated price targets, and **51% of Sell/Reduce probability**, supporting the stated Reduce recommendation – (Figure 41).

Figure 41. Monte Carlo Simulation



Source: Author Analysis



## Appendix 2: Statement of Financial Position

| Period Reference<br>End of Period                        | Type | PROJECTED STATEMENTS |               |               |               |               |               |               |               |               |               |               |               | CAGR 2020 -2022 |
|--|------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|
|  |      | 1<br>2016            | 2<br>2017     | 3<br>2018     | 4<br>2019     | 5<br>2020     | 6<br>2021F    | 7<br>2022F    | 8<br>2023F    | 9<br>2024F    | 10<br>2025F   | 11<br>2026F   | 12<br>2027F   |                 |
| <b>NON-CURRENT ASSETS</b>                                |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Utility Plant, at original cost                          |      | \$ 343,412.00        | \$ 365,767.00 | \$ 380,784.00 | \$ 401,383.00 | \$ 438,670.00 | \$ 455,012.12 | \$ 472,253.07 | \$ 490,442.26 | \$ 509,631.86 | \$ 529,876.89 | \$ 551,235.39 | \$ 573,768.61 | 3.91%           |
| Plant acquisition adjustments                            |      | \$ 3,667.00          | \$ 3,234.00   | \$ 3,108.00   | \$ 3,318.00   | \$ 3,707.00   | \$ 3,874.19   | \$ 4,087.27   | \$ 4,312.07   | \$ 4,549.44   | \$ 4,799.44   | \$ 5,063.41   | \$ 5,341.89   | 5.36%           |
| Accumulated depreciation                                 |      | \$ 66,838.00         | \$ 73,748.00  | \$ 78,519.00  | \$ 84,841.00  | \$ 91,340.00  | \$ 93,538.55  | \$ 97,082.83  | \$ 100,822.06 | \$ 104,766.99 | \$ 108,928.78 | \$ 113,319.53 | \$ 117,951.77 | 3.72%           |
| Total Net utility plant                                  |      | \$ 270,907.00        | \$ 288,789.00 | \$ 299,157.00 | \$ 313,224.00 | \$ 343,623.00 | \$ 357,599.39 | \$ 371,082.96 | \$ 385,308.14 | \$ 400,315.70 | \$ 416,148.67 | \$ 432,852.46 | \$ 450,474.95 | 3.94%           |
| <b>PHYSICAL PROPERTY net of accumulated depreciation</b> |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
|  |      | \$ 745.00            | \$ 737.00     | \$ 714.00     | \$ 769.00     | \$ 742.00     | \$ 843.72     | \$ 890.13     | \$ 939.09     | \$ 990.74     | \$ 1,045.23   | \$ 1,102.71   | \$ 1,163.36   | 6.64%           |
| <b>OTHER LONG-TERM ASSETS:</b>                           |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Prepaid pension cost                                     |      | \$ -                 | \$ -          | \$ -          | \$ 1,819.00   | \$ 2,209.00   | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          |                 |
| Note receivable  |      | \$ 255.00            | \$ 255.00     | \$ 255.00     | \$ 255.00     | \$ 255.00     | \$ 290.33     | \$ 306.30     | \$ 323.14     | \$ 340.91     | \$ 359.67     | \$ 379.45     | \$ 400.32     | 6.65%           |
| Deferred regulatory assets                               |      | \$ 33,027.00         | \$ 30,331.00  | \$ 32,353.00  | \$ 34,189.00  | \$ 39,893.00  | \$ 38,518.70  | \$ 40,637.23  | \$ 42,872.27  | \$ 45,230.25  | \$ 47,717.91  | \$ 50,342.40  | \$ 53,111.23  | 4.17%           |
| Other assets   |      | \$ 2,940.00          | \$ 3,309.00   | \$ 3,650.00   | \$ 3,889.00   | \$ 3,945.00   | \$ 4,021.28   | \$ 4,242.45   | \$ 4,475.79   | \$ 4,721.95   | \$ 4,981.66   | \$ 5,255.65   | \$ 5,544.71   | 4.98%           |
| Total other long-term assets                             |      | \$ 36,222.00         | \$ 33,895.00  | \$ 36,258.00  | \$ 40,152.00  | \$ 46,302.00  | \$ 42,830.31  | \$ 45,185.97  | \$ 47,671.20  | \$ 50,293.12  | \$ 53,059.24  | \$ 55,977.50  | \$ 59,056.26  | 3.54%           |
| Total Non-Current Assets                                 |      | \$ 307,874.00        | \$ 323,419.00 | \$ 336,129.00 | \$ 354,145.00 | \$ 390,667.00 | \$ 401,273.42 | \$ 417,159.07 | \$ 433,918.43 | \$ 451,599.55 | \$ 470,253.13 | \$ 489,932.67 | \$ 510,694.57 | 3.90%           |
| <b>CURRENT ASSETS</b>                                    |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Cash and cash equivalents                                |      | \$ 4,209.00          | \$ 2.00       | \$ 2.00       | \$ 2.00       | \$ 2.00       | \$ 10,153.55  | \$ 10,826.54  | \$ 9,962.73   | \$ 8,504.49   | \$ 6,626.87   | \$ 3,884.63   | \$ 1,731.36   | 162.80%         |
| Restricted Cash  |      | \$ -                 | \$ -          | \$ -          | \$ -          | \$ -          | \$ 5,000.00   | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          |                 |
| Accounts receivable net of reserves                      |      | \$ 4,296.00          | \$ 4,547.00   | \$ 4,811.00   | \$ 4,421.00   | \$ 5,184.00   | \$ 5,285.59   | \$ 5,576.29   | \$ 5,882.99   | \$ 6,206.55   | \$ 6,547.91   | \$ 6,908.05   | \$ 7,287.99   | 4.99%           |
| Unbilled revenues  |      | \$ 2,429.00          | \$ 2,459.00   | \$ 2,427.00   | \$ 2,276.00   | \$ 2,847.00   | \$ 2,826.55   | \$ 2,982.01   | \$ 3,146.02   | \$ 3,319.05   | \$ 3,501.60   | \$ 3,694.19   | \$ 3,897.37   | 4.59%           |
| Recoverable income taxes                                 |      | \$ 282.00            | \$ -          | \$ -          | \$ 547.00     | \$ 721.00     | \$ 681.59     | \$ 719.08     | \$ 758.63     | \$ 800.35     | \$ 844.37     | \$ 890.81     | \$ 939.81     | 3.86%           |
| Net Receivables  |      | \$ 7,007.00          | \$ 7,006.00   | \$ 7,238.00   | \$ 7,246.00   | \$ 13,752.00  | \$ 8,793.73   | \$ 9,277.38   | \$ 9,787.64   | \$ 10,325.96  | \$ 10,893.89  | \$ 11,493.05  | \$ 12,125.17  | 1.78%           |
| Materials and supplies                                   |      | \$ 746.00            | \$ 906.00     | \$ 876.00     | \$ 1,007.00   | \$ 1,010.00   | \$ 988.83     | \$ 1,119.94   | \$ 1,242.30   | \$ 1,333.90   | \$ 1,439.26   | \$ 1,549.26   | \$ 1,672.58   | 4.53%           |
| Prepaid expenses   |      | \$ 658.00            | \$ 697.00     | \$ 895.00     | \$ 1,131.00   | \$ 1,526.00   | \$ 1,101.23   | \$ 1,161.80   | \$ 1,225.69   | \$ 1,293.11   | \$ 1,364.23   | \$ 1,439.26   | \$ 1,518.42   | -0.07%          |
| Total current assets                                     |      | \$ 12,620.00         | \$ 8,611.00   | \$ 9,011.00   | \$ 9,384.00   | \$ 16,290.00  | \$ 21,037.33  | \$ 22,385.65  | \$ 22,080.88  | \$ 21,365.86  | \$ 20,118.89  | \$ 18,195.43  | \$ 16,752.53  | 0.40%           |
| <b>TOTAL ASSETS</b>                                      |      | \$ 320,494.00        | \$ 332,030.00 | \$ 345,140.00 | \$ 363,529.00 | \$ 406,957.00 | \$ 422,310.75 | \$ 439,544.72 | \$ 455,999.30 | \$ 472,965.40 | \$ 490,372.02 | \$ 508,128.09 | \$ 527,447.11 | 3.77%           |
| <b>SHAREHOLDERS' FUNDS</b>                               |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Common stock   |      | \$ 78,513.00         | \$ 79,201.00  | \$ 81,305.00  | \$ 83,976.00  | \$ 85,935.00  | \$ 89,954.71  | \$ 93,756.86  | \$ 96,160.32  | \$ 98,508.04  | \$ 100,796.83 | \$ 103,023.32 | \$ 105,183.95 | 2.93%           |
| Retained earnings  |      | \$ 35,548.00         | \$ 40,204.00  | \$ 44,890.00  | \$ 50,209.00  | \$ 57,317.00  | \$ 62,461.72  | \$ 67,845.86  | \$ 73,406.69  | \$ 79,075.81  | \$ 84,735.73  | \$ 90,295.66  | \$ 96,936.06  | 7.80%           |
| Total common stockholders' equity                        |      | \$ 114,061.00        | \$ 119,405.00 | \$ 126,195.00 | \$ 134,185.00 | \$ 143,252.00 | \$ 152,416.43 | \$ 161,602.72 | \$ 169,567.01 | \$ 177,575.85 | \$ 185,532.56 | \$ 193,318.98 | \$ 202,120.00 | 5.04%           |
| PREFERRED STOCK  |      | \$ -                 | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          |                 |
| <b>NON-CURRENT LIABILITIES</b>                           |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Customers' advances for construction                     |      | \$ 7,102.00          | \$ 6,324.00   | \$ 6,849.00   | \$ 7,844.00   | \$ 10,326.00  | \$ 8,688.35   | \$ 9,166.21   | \$ 9,670.35   | \$ 10,202.22  | \$ 10,763.34  | \$ 11,355.33  | \$ 11,979.87  | 2.15%           |
| Deferred income taxes                                    |      | \$ 54,169.00         | \$ 34,754.00  | \$ 36,962.00  | \$ 40,426.00  | \$ 43,538.00  | \$ 47,825.96  | \$ 50,456.39  | \$ 53,231.49  | \$ 56,159.22  | \$ 59,247.98  | \$ 62,506.62  | \$ 65,944.48  | 6.11%           |
| Deferred employee benefits                               |      | \$ 8,990.00          | \$ 7,075.00   | \$ 4,715.00   | \$ 4,317.00   | \$ 4,793.00   | \$ 6,869.74   | \$ 7,247.57   | \$ 7,646.19   | \$ 8,066.73   | \$ 8,510.40   | \$ 8,978.47   | \$ 9,472.29   | 10.22%          |
| Deferred regulatory liabilities                          |      | \$ -                 | \$ 24,372.00  | \$ 24,710.00  | \$ 24,790.00  | \$ 25,444.00  | \$ 22,326.18  | \$ 23,554.12  | \$ 24,849.60  | \$ 26,216.33  | \$ 27,658.23  | \$ 29,179.41  | \$ 30,784.30  | 2.76%           |
| Other deferred credits                                   |      | \$ 6,725.00          | \$ 2,196.00   | \$ 1,815.00   | \$ 2,747.00   | \$ 2,731.00   | \$ 3,616.47   | \$ 3,815.38   | \$ 4,025.23   | \$ 4,246.61   | \$ 4,480.18   | \$ 4,726.59   | \$ 4,986.55   | 8.98%           |
| Total deferred credits (NON - CURRENT LIABILITIES)       |      | \$ 76,886.00         | \$ 74,721.00  | \$ 75,051.00  | \$ 78,624.00  | \$ 86,832.00  | \$ 89,326.71  | \$ 94,239.68  | \$ 99,422.86  | \$ 104,891.11 | \$ 110,660.13 | \$ 116,746.43 | \$ 123,167.49 | 5.12%           |
| Contributions in aid of construction                     |      | \$ 36,654.00         | \$ 38,661.00  | \$ 39,725.00  | \$ 40,029.00  | \$ 41,307.00  | \$ 44,647.12  | \$ 47,102.72  | \$ 49,693.37  | \$ 52,426.50  | \$ 55,309.96  | \$ 58,352.01  | \$ 61,561.37  | 5.87%           |
| LONG-TERM DEBT excluding current portion                 |      | \$ 84,609.00         | \$ 90,098.00  | \$ 93,328.00  | \$ 94,535.00  | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 | \$ 123,573.00 |                 |
| <b>CURRENT LIABILITIES</b>                               |      |                      |               |               |               |               |               |               |               |               |               |               |               |                 |
| Short-term borrowings                                    |      | \$ -                 | \$ 1,000.00   | \$ 1,000.00   | \$ -          | \$ 555.00     | \$ 585.55     | \$ 617.75     | \$ 651.73     | \$ 687.58     | \$ 725.39     | \$ 765.29     | \$ 807.38     | 5.50%           |
| Current portion of long-term debt                        |      | \$ 44.00             | \$ 44.00      | \$ 30.00      | \$ 6,500.00   | \$ -          | \$ 1,459.80   | \$ 1,540.09   | \$ 1,624.80   | \$ 1,714.16   | \$ 1,808.44   | \$ 1,907.90   | \$ 2,012.84   | 13.63%          |
| Accounts payable   |      | \$ 3,669.00          | \$ 3,136.00   | \$ 3,030.00   | \$ 3,452.00   | \$ 6,540.00   | \$ 4,344.99   | \$ 4,583.96   | \$ 4,836.08   | \$ 5,102.06   | \$ 5,382.68   | \$ 5,678.72   | \$ 5,991.05   | 1.24%           |
| Dividends payable  |      | \$ 1,803.00          | \$ 1,892.00   | \$ 1,999.00   | \$ 2,096.00   | \$ 2,192.00   | \$ 2,266.21   | \$ 2,390.85   | \$ 2,522.35   | \$ 2,661.08   | \$ 2,807.43   | \$ 2,961.84   | \$ 3,124.74   | 5.20%           |
| Accrued compensation and benefits                        |      | \$ 1,233.00          | \$ 1,134.00   | \$ 1,191.00   | \$ 1,247.00   | \$ 1,417.00   | \$ 1,412.72   | \$ 1,490.42   | \$ 1,572.40   | \$ 1,658.88   | \$ 1,750.12   | \$ 1,846.37   | \$ 1,947.92   | 4.65%           |
| Accrued income taxes                                     |      | \$ -                 | \$ 531.00     | \$ 150.00     | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          | \$ -          |                 |
| Accrued interest   |      | \$ 921.00            | \$ 989.00     | \$ 992.00     | \$ 914.00     | \$ 959.00     | \$ 1,087.63   | \$ 1,147.45   | \$ 1,210.56   | \$ 1,277.14   | \$ 1,347.38   | \$ 1,421.49   | \$ 1,499.67   | 6.60%           |
| Deferred regulatory liabilities                          |      | \$ -                 | \$ 123.00     | \$ 2,104.00   | \$ 609.00     | \$ 525.00     | \$ 767.38     | \$ 809.48     | \$ 854.00     | \$ 900.97     | \$ 950.52     | \$ 1,002.80   | \$ 1,057.96   | 10.53%          |
| Other accrued expenses                                   |      | \$ 514.00            | \$ 296.00     | \$ 345.00     | \$ 338.00     | \$ 360.00     | \$ 423.32     | \$ 446.60     | \$ 471.16     | \$ 497.08     | \$ 524.41     | \$ 553.26     | \$ 583.69     | 7.15%           |
| Total current liabilities                                |      | \$ 8,184.00          | \$ 9,145.00   | \$ 10,841.00  | \$ 15,156.00  | \$ 11,993.00  | \$ 12,347.49  | \$ 13,026.60  | \$ 13,743.07  | \$ 14,498.94  | \$ 15,296.38  | \$ 16,137.68  | \$ 17,025.25  | 5.13%           |
| <b>TOTAL LIABILITIES</b>                                 |      | \$ 206,433.00        | \$ 212,625.00 | \$ 218,945.00 | \$ 229,344.00 | \$ 263,705.00 | \$ 269,894.32 | \$ 277,942.00 | \$ 286,432.29 | \$ 295,389.55 | \$ 304,839.46 | \$ 314,809.12 | \$ 325,327.10 | 3.05%           |
| <b>TOTAL SHAREHOLDERS' FUNDS AND LIABILITIES</b>         |      | \$ 320,494.00        | \$ 332,030.00 | \$ 345,140.00 | \$ 363,529.00 | \$ 406,957.00 | \$ 422,310.75 | \$ 439,544.72 | \$ 455,999.30 | \$ 472,965.40 | \$ 490,372.02 | \$ 508,128.09 | \$ 527,447.11 | 3.77%           |

## Appendix 3: Cash Flow Statement

| Period Reference<br>End of Period   | Type | PROJECTED STATEMENTS |              |              |              |              |              |              |              |              |              |              |              | CAGR 2020-2027 |
|---|------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|   |      | 1<br>2016            | 2<br>2017    | 3<br>2018    | 4<br>2019    | 5<br>2020    | 6<br>2021F   | 7<br>2022F   | 8<br>2023F   | 9<br>2024F   | 10<br>2025F  | 11<br>2026F  | 12<br>2027F  |                |
| <b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>  |      |                      |              |              |              |              |              |              |              |              |              |              |              |                |
| Net income  |      | \$ 11,846.00         | \$ 12,974.00 | \$ 13,376.00 | \$ 14,402.00 | \$ 16,589.00 | \$ 15,031.00 | \$ 15,857.71 | \$ 16,729.88 | \$ 17,650.03 | \$ 18,620.78 | \$ 19,644.92 | \$ 20,725.39 | 3.23%          |
| Adjustments to reconcile net income to net cash provided by operating activities:   |      |                      |              |              |              |              |              |              |              |              |              |              |              |                |
| Gain on sale of land  |      | \$ 36.00             | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Gain on life insurance  |      | \$ -                 | \$ -         | \$ -         | \$ -         | \$ 515.00    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Depreciation and amortization   |      | \$ 6,422.00          | \$ 6,769.00  | \$ 7,010.00  | \$ 7,688.00  | \$ 8,177.00  | \$ 8,186.31  | \$ 8,636.56  | \$ 9,111.57  | \$ 9,612.71  | \$ 10,141.41 | \$ 10,699.18 | \$ 11,287.64 | 4.71%          |
| Stock-based compensation  |      | \$ 22.00             | \$ 46.00     | \$ 80.00     | \$ 166.00    | \$ 154.00    | \$ 158.62    | \$ 163.38    | \$ 168.28    | \$ 173.33    | \$ 178.53    | \$ 183.88    | \$ 189.40    | 3.00%          |
| Increase in deferred income taxes   |      | \$ 1,644.00          | \$ 2,484.00  | \$ 58.00     | \$ 641.00    | \$ 88.00     | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | 41.17%         |
| Other   |      | \$ 331.00            | \$ 54.00     | \$ 295.00    | \$ 251.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    |                |
| Changes in assets and liabilities:  |      |                      |              |              |              |              |              |              |              |              |              |              |              |                |
| (Increase) decrease in accounts receivable and unbilled revenue   |      | \$ 867.00            | \$ 572.00    | \$ 483.00    | \$ 282.00    | \$ 1,948.00  | \$ 116.47    | \$ 462.14    | \$ 487.55    | \$ 514.37    | \$ 542.66    | \$ 572.50    | \$ 603.99    | 15.40%         |
| (Increase) decrease in receivable income taxes  |      | \$ 767.00            | \$ 282.00    | \$ -         | \$ 547.00    | \$ 174.00    | \$ 39.41     | \$ 37.49     | \$ 39.55     | \$ 41.72     | \$ 44.02     | \$ 46.44     | \$ 48.99     | 16.56%         |
| Increase in materials and supplies, prepaid expenses, regulatory and other assets   |      | \$ 3,098.00          | \$ 507.00    | \$ 6,094.00  | \$ 5,903.00  | \$ 8,205.00  | \$ 1,607.05  | \$ 2,838.05  | \$ 2,840.70  | \$ 3,150.38  | \$ 3,170.21  | \$ 3,498.01  | \$ 3,536.96  | 11.33%         |
| Increase in accounts payable, accrued compensation and benefits, accrued expenses, deferred employee benefits, regulatory liabilities, and other deferred credits |      | \$ 2,387.00          | \$ 2,018.00  | \$ 4,508.00  | \$ 2,129.00  | \$ 5,463.00  | \$ 5,356.48  | \$ 3,589.33  | \$ 3,786.74  | \$ 3,995.01  | \$ 4,214.74  | \$ 4,446.55  | \$ 4,691.11  | 2.15%          |
| (Increase) decrease in accrued interest and taxes   |      | \$ 55.00             | \$ 599.00    | \$ 378.00    | \$ 238.00    | \$ 45.00     | \$ 128.63    | \$ 59.82     | \$ 63.11     | \$ 66.58     | \$ 70.24     | \$ 74.11     | \$ 78.18     | 8.21%          |
| Net cash provided by operating activities   |      | \$ 19,365.00         | \$ 20,111.00 | \$ 18,372.00 | \$ 18,881.00 | \$ 20,235.00 | \$ 31,926.44 | \$ 26,504.52 | \$ 28,027.18 | \$ 29,326.58 | \$ 31,004.21 | \$ 32,467.08 | \$ 34,317.17 | 7.84%          |
| <b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>  |      |                      |              |              |              |              |              |              |              |              |              |              |              |                |
| Utility plant additions, including debt portion of allowance for funds used during construction   |      | \$ 13,158.00         | \$ 24,602.00 | \$ 16,882.00 | \$ 18,425.00 | \$ 32,123.00 | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          |                |
| Acquisition of wastewater system  |      | \$ 50.00             | \$ 472.00    | \$ -         | \$ 2,112.00  | \$ 1,176.00  | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          | N/A          |                |
| Capital expenditure   |      | \$ 13,208.00         | \$ 25,074.00 | \$ 16,882.00 | \$ 20,537.00 | \$ 33,299.00 | \$ 24,528.44 | \$ 25,877.50 | \$ 27,300.76 | \$ 28,802.31 | \$ 30,386.43 | \$ 32,057.69 | \$ 33,820.86 |                |
| Proceeds of sale of land  |      | \$ 40.00             | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Cash received from surrender of life insurance policies   |      | \$ 642.00            | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Other investing activities  |      | \$ -                 | \$ -         | \$ 108.00    | \$ -         | \$ 672.00    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Net cash used in investing activities   |      | \$ 12,526.00         | \$ 25,074.00 | \$ 16,774.00 | \$ 20,537.00 | \$ 32,627.00 | \$ 24,528.44 | \$ 25,877.50 | \$ 27,300.76 | \$ 28,802.31 | \$ 30,386.43 | \$ 32,057.69 | \$ 33,820.86 |                |
| <b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>  |      |                      |              |              |              |              |              |              |              |              |              |              |              |                |
| Customers' advances for construction and contributions in aid of construction   |      | \$ 1,769.00          | \$ 1,642.00  | \$ 1,998.00  | \$ 1,695.00  | \$ 3,155.00  |              |              |              |              |              |              |              |                |
| Repayments of customer advances   |      | \$ 443.00            | \$ 413.00    | \$ 409.00    | \$ 396.00    | \$ 419.00    |              |              |              |              |              |              |              |                |
| Proceeds of long-term debt issues   |      | \$ -                 | \$ 22,878.00 | \$ 28,762.00 | \$ 94,043.00 | \$ 62,156.00 |              |              |              |              |              |              |              |                |
| Debt issuance costs   |      | \$ -                 | \$ -         | \$ -         | \$ 613.00    | \$ 162.00    |              |              |              |              |              |              |              |                |
| Repayments of long-term debt  |      | \$ 53.00             | \$ 17,533.00 | \$ 25,691.00 | \$ 85,906.00 | \$ 39,628.00 |              |              |              |              |              |              |              |                |
| Repayments under short-term line of credit agreements   |      | \$ -                 | \$ 1,000.00  | \$ -         | \$ 1,000.00  | \$ -         | \$ 5,834.83  | \$ 7,368.56  | \$ 7,773.83  | \$ 8,201.39  | \$ 8,652.47  | \$ 9,128.35  | \$ 9,630.41  |                |
| Changes in cash overdraft position  |      | \$ -                 | \$ 769.00    | \$ 301.00    | \$ 314.00    | \$ 121.00    | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Repurchase of common stock  |      | \$ 1,339.00          | \$ 1,263.00  | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         | \$ -         |                |
| Issuance of common stock  |      | \$ 2,513.00          | \$ 1,905.00  | \$ 2,024.00  | \$ 2,505.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  | \$ 1,805.00  |                |
| Dividends paid  |      | \$ 7,956.00          | \$ 8,279.00  | \$ 8,583.00  | \$ 8,986.00  | \$ 9,394.00  | \$ 9,886.28  | \$ 10,473.57 | \$ 11,169.05 | \$ 11,988.91 | \$ 12,952.86 | \$ 14,084.99 | \$ 14,084.99 |                |
| Net cash provided by (used in) financing activities   |      | \$ 5,509.00          | \$ 756.00    | \$ 1,598.00  | \$ 1,656.00  | \$ 17,392.00 | \$ 2,246.45  | \$ 1,300.01  | \$ 1,590.22  | \$ 1,982.51  | \$ 2,495.39  | \$ 3,151.64  | \$ 2,649.58  |                |
| Net change in cash and cash equivalents   |      | \$ 1,330.00          | \$ 4,207.00  | \$ -         | \$ -         | \$ 5,000.00  | \$ 5,151.55  | \$ 672.99    | \$ 863.80    | \$ 1,458.24  | \$ 1,877.62  | \$ 2,742.24  | \$ 2,153.27  |                |
| Cash and cash equivalents at beginning of period  |      | \$ 2,879.00          | \$ 4,209.00  | \$ 2.00      | \$ 2.00      | \$ 2.00      | \$ 5,002.00  | \$ 10,153.55 | \$ 10,826.54 | \$ 9,962.73  | \$ 8,504.49  | \$ 6,626.87  | \$ 3,884.63  |                |
| Cash and cash equivalents at end of period  |      | \$ 4,209.00          | \$ 2.00      | \$ 2.00      | \$ 2.00      | \$ 5,002.00  | \$ 10,153.55 | \$ 10,826.54 | \$ 9,962.73  | \$ 8,504.49  | \$ 6,626.87  | \$ 3,884.63  | \$ 1,731.36  |                |

## Appendix 4: Common-Size Income Statement

| Common Size<br>Period Reference<br>End of Period | PROJECTED STATEMENTS |               |               |               |               |               |               |               |               |               |               |               |
|--|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|  | 1<br>2016            | 2<br>2017     | 3<br>2018     | 4<br>2019     | 5<br>2020F    | 6<br>2021F    | 7<br>2022F    | 8<br>2023F    | 9<br>2024F    | 10<br>2025F   | 11<br>2026F   | 12<br>2027F   |
| <b>Total Sales and Services Rendered</b>         |                      |               |               |               |               |               |               |               |               |               |               |               |
| Residential                                      | 63.34%               | 62.60%        | 62.65%        | 62.27%        | 63.11%        | 62.80%        | 62.80%        | 62.80%        | 62.80%        | 62.80%        | 62.80%        | 62.80%        |
| Commercial and industrial                        | 28.92%               | 27.86%        | 27.56%        | 27.46%        | 25.56%        | 27.47%        | 27.47%        | 27.47%        | 27.47%        | 27.47%        | 27.47%        | 27.47%        |
| Fire Protection                                  | 0.00%                | 6.11%         | 6.05%         | 5.96%         | 5.93%         | 4.81%         | 4.81%         | 4.81%         | 4.81%         | 4.81%         | 4.81%         | 4.81%         |
| <b>Water Utility Service</b>                     | <b>0.00%</b>         | <b>96.57%</b> | <b>96.27%</b> | <b>95.69%</b> | <b>94.60%</b> | <b>95.08%</b> | <b>95.08%</b> | <b>95.08%</b> | <b>95.08%</b> | <b>95.08%</b> | <b>95.08%</b> | <b>95.08%</b> |
| Residential                                      | 0.00%                | 1.73%         | 1.88%         | 2.50%         | 3.24%         | 1.88%         | 1.88%         | 1.88%         | 1.88%         | 1.88%         | 1.88%         | 1.88%         |
| Commercial and industrial                        | 0.00%                | 0.39%         | 0.47%         | 0.54%         | 0.56%         | 0.39%         | 0.39%         | 0.39%         | 0.39%         | 0.39%         | 0.39%         | 0.39%         |
| <b>Wastewater Utility Service</b>                | <b>0.00%</b>         | <b>2.12%</b>  | <b>2.39%</b>  | <b>3.05%</b>  | <b>3.81%</b>  | <b>2.27%</b>  | <b>2.27%</b>  | <b>2.27%</b>  | <b>2.27%</b>  | <b>2.27%</b>  | <b>2.27%</b>  | <b>2.27%</b>  |
| Billing and revenue collection services          | 0.00%                | 0.13%         | 0.13%         | 0.14%         | 0.49%         | 0.18%         | 0.18%         | 0.18%         | 0.18%         | 0.18%         | 0.18%         | 0.18%         |
| Collection Services                              | 0.00%                | 0.13%         | 0.11%         | 0.10%         | 0.03%         | 0.07%         | 0.07%         | 0.07%         | 0.07%         | 0.07%         | 0.07%         | 0.07%         |
| Other Revenue                                    | 7.74%                | 0.08%         | 0.05%         | 0.03%         | 0.04%         | 1.59%         | 1.59%         | 1.59%         | 1.59%         | 1.59%         | 1.59%         | 1.59%         |
| <b>Revenue from Contracts with Customers</b>     | <b>100.00%</b>       | <b>99.03%</b> | <b>98.95%</b> | <b>98.99%</b> | <b>98.97%</b> | <b>99.19%</b> | <b>99.19%</b> | <b>99.19%</b> | <b>99.19%</b> | <b>99.19%</b> | <b>99.19%</b> | <b>99.19%</b> |
| Rents from regulated property                    | 0.00%                | 0.97%         | 1.05%         | 1.01%         | 1.03%         | 1.01%         | 1.01%         | 1.01%         | 1.01%         | 1.01%         | 1.01%         | 1.01%         |
| <b>Total Revenue</b>                             | <b>100%</b>          | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   | <b>100%</b>   |
| Cost of Revenue                                  | 16.88%               | 18.30%        | 19.96%        | 20.14%        | 20.02%        | 19.06%        | 19.06%        | 19.06%        | 19.06%        | 19.06%        | 19.06%        | 19.06%        |
| <b>Total Cost of Revenue</b>                     | <b>16.88%</b>        | <b>18.30%</b> | <b>19.96%</b> | <b>20.14%</b> | <b>20.02%</b> | <b>19.06%</b> | <b>19.06%</b> | <b>19.06%</b> | <b>19.06%</b> | <b>19.06%</b> | <b>19.06%</b> | <b>19.06%</b> |
| <b>Gross Profit</b>                              | <b>83.12%</b>        | <b>81.70%</b> | <b>80.04%</b> | <b>79.86%</b> | <b>79.98%</b> | <b>80.94%</b> | <b>80.94%</b> | <b>80.94%</b> | <b>80.94%</b> | <b>80.94%</b> | <b>80.94%</b> | <b>80.94%</b> |
| Selling General and Administrative               | 19.19%               | 16.68%        | 16.71%        | 16.51%        | 17.19%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        |
| Other Taxes                                      | 2.34%                | 2.33%         | 2.36%         | 2.33%         | 2.24%         | 2.33%         | 2.33%         | 2.33%         | 2.33%         | 2.33%         | 2.33%         | 2.33%         |
| <b>EBITDA</b>                                    | <b>61.60%</b>        | <b>62.69%</b> | <b>60.96%</b> | <b>61.02%</b> | <b>60.55%</b> | <b>61.21%</b> | <b>61.21%</b> | <b>61.21%</b> | <b>61.21%</b> | <b>61.21%</b> | <b>61.21%</b> | <b>61.21%</b> |
| Depreciation Amortization Depletion              | 13.50%               | 13.99%        | 14.47%        | 14.91%        | 15.18%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        |
| <b>Total Operating Expense</b>                   | <b>35.02%</b>        | <b>33.00%</b> | <b>33.55%</b> | <b>33.75%</b> | <b>34.61%</b> | <b>34.14%</b> | <b>34.14%</b> | <b>34.14%</b> | <b>34.14%</b> | <b>34.14%</b> | <b>34.14%</b> | <b>34.14%</b> |
| <b>Operating Income</b>                          | <b>48.10%</b>        | <b>48.76%</b> | <b>46.49%</b> | <b>46.12%</b> | <b>45.37%</b> | <b>46.80%</b> | <b>46.80%</b> | <b>46.80%</b> | <b>46.80%</b> | <b>46.80%</b> | <b>46.80%</b> | <b>46.80%</b> |
| Interest on Debt                                 | 11.06%               | 11.01%        | 11.37%        | 9.93%         | 8.74%         | 10.42%        | 10.42%        | 10.42%        | 10.42%        | 10.42%        | 10.42%        | 10.42%        |
| Allowance for funds used during construction     | 0.48%                | 1.78%         | 0.47%         | 0.71%         | 0.98%         | 0.88%         | 0.88%         | 0.88%         | 0.88%         | 0.88%         | 0.88%         | 0.88%         |
| Gain on pension funds                            |                      |               |               |               |               |               |               |               |               |               |               |               |
| Other pension costs                              | 0.00%                | 2.51%         | 2.65%         | 2.81%         | 2.53%         | 2.63%         | 2.63%         | 2.63%         | 2.63%         | 2.63%         | 2.63%         | 2.63%         |
| Other income (expenses) net                      | 1.33%                | 0.97%         | 0.18%         | 1.81%         | 1.47%         | 1.15%         | 1.15%         | 1.15%         | 1.15%         | 1.15%         | 1.15%         | 1.15%         |
| <b>Total Interest Expense</b>                    | <b>11.84%</b>        | <b>12.71%</b> | <b>13.73%</b> | <b>13.85%</b> | <b>11.75%</b> | <b>13.31%</b> | <b>13.31%</b> | <b>13.31%</b> | <b>13.31%</b> | <b>13.31%</b> | <b>13.31%</b> | <b>13.31%</b> |
| <b>EBT</b>                                       | <b>36.26%</b>        | <b>36.05%</b> | <b>32.76%</b> | <b>32.27%</b> | <b>33.61%</b> | <b>33.49%</b> | <b>33.49%</b> | <b>33.49%</b> | <b>33.49%</b> | <b>33.49%</b> | <b>33.49%</b> | <b>33.49%</b> |
| Income Taxes                                     | 11.37%               | 9.35%         | 5.14%         | 4.34%         | 3.75%         | 7.03%         | 7.03%         | 7.03%         | 7.03%         | 7.03%         | 7.03%         | 7.03%         |
| <b>Net Income(Loss)</b>                          | <b>24.89%</b>        | <b>26.70%</b> | <b>27.62%</b> | <b>27.92%</b> | <b>30.82%</b> | <b>26.46%</b> | <b>26.46%</b> | <b>26.46%</b> | <b>26.46%</b> | <b>26.46%</b> | <b>26.46%</b> | <b>26.46%</b> |

## Appendix 5: Common-Size Statement of Financial Position

| Common Size<br>Period Reference<br>End of Period Type     | PROJECTED STATEMENTS |                |                |                |                |                |                |                |                |                |                |                |
|---|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|   | 1                    | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             |
|   | 2016                 | 2017           | 2018           | 2019           | 2020           | 2021F          | 2022F          | 2023F          | 2024F          | 2025F          | 2026F          | 2027F          |
| <b>NON-CURRENT ASSETS</b>                                 |                      |                |                |                |                |                |                |                |                |                |                |                |
| Utility plant, at original cost                           | 107.15%              | 110.16%        | 110.33%        | 110.41%        | 107.79%        | 107.74%        | 107.44%        | 107.55%        | 107.75%        | 108.06%        | 108.48%        | 108.78%        |
| Plant acquisition adjustments                             | 1.14%                | 0.97%          | 0.90%          | 0.91%          | 0.91%          | 0.92%          | 0.93%          | 0.95%          | 0.96%          | 0.98%          | 1.00%          | 1.01%          |
| Accumulated depreciation                                  | 21.48%               | 22.21%         | 22.75%         | 23.34%         | 22.44%         | 22.15%         | 22.09%         | 22.11%         | 22.15%         | 22.21%         | 22.30%         | 22.36%         |
| <b>Total Net utility plant</b>                            | <b>84.53%</b>        | <b>86.98%</b>  | <b>86.68%</b>  | <b>86.16%</b>  | <b>84.44%</b>  | <b>84.68%</b>  | <b>84.42%</b>  | <b>84.50%</b>  | <b>84.64%</b>  | <b>84.86%</b>  | <b>85.19%</b>  | <b>85.41%</b>  |
| <b>PHYSICAL</b>   | <b>0.23%</b>         | <b>0.22%</b>   | <b>0.21%</b>   | <b>0.21%</b>   | <b>0.18%</b>   | <b>0.20%</b>   | <b>0.20%</b>   | <b>0.21%</b>   | <b>0.21%</b>   | <b>0.21%</b>   | <b>0.22%</b>   | <b>0.22%</b>   |
| <b>OTHER LONG-TERM ASSETS:</b>                            |                      |                |                |                |                |                |                |                |                |                |                |                |
| Prepaid Pension cost                                      | 0.00%                | 0.00%          | 0.00%          | 0.50%          | 0.54%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          |
| Note receivable   | 0.08%                | 0.08%          | 0.07%          | 0.07%          | 0.06%          | 0.07%          | 0.07%          | 0.07%          | 0.07%          | 0.07%          | 0.07%          | 0.08%          |
| Deferred regulatory assets                                | 10.31%               | 9.14%          | 9.37%          | 9.40%          | 9.80%          | 9.12%          | 9.25%          | 9.40%          | 9.56%          | 9.73%          | 9.91%          | 10.07%         |
| Other assets  | 0.92%                | 1.00%          | 1.06%          | 1.07%          | 0.97%          | 0.95%          | 0.97%          | 0.98%          | 1.00%          | 1.02%          | 1.03%          | 1.05%          |
| <b>Total other long-term assets</b>                       | <b>11.30%</b>        | <b>10.21%</b>  | <b>10.51%</b>  | <b>11.05%</b>  | <b>11.38%</b>  | <b>10.14%</b>  | <b>10.28%</b>  | <b>10.45%</b>  | <b>10.63%</b>  | <b>10.82%</b>  | <b>11.02%</b>  | <b>11.20%</b>  |
| <b>Total Non-Current Assets</b>                           | <b>96.06%</b>        | <b>97.41%</b>  | <b>97.39%</b>  | <b>97.42%</b>  | <b>96.00%</b>  | <b>95.02%</b>  | <b>94.91%</b>  | <b>95.16%</b>  | <b>95.48%</b>  | <b>95.90%</b>  | <b>96.42%</b>  | <b>96.82%</b>  |
| <b>CURRENT ASSETS</b>                                     |                      |                |                |                |                |                |                |                |                |                |                |                |
| Cash and cash equivalents                                 | 1.313%               | 0.001%         | 0.001%         | 0.001%         | 0.000%         | 2.404%         | 2.463%         | 2.185%         | 1.798%         | 1.351%         | 0.764%         | 0.328%         |
| Restricted cash   | 0.00%                | 0.00%          | 0.00%          | 0.00%          | 1.23%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          |
| Accounts receivable net of reserves                       | 1.34%                | 1.37%          | 1.39%          | 1.22%          | 1.27%          | 1.25%          | 1.27%          | 1.29%          | 1.31%          | 1.34%          | 1.36%          | 1.38%          |
| Unbilled revenues   | 0.76%                | 0.74%          | 0.70%          | 0.63%          | 0.70%          | 0.67%          | 0.68%          | 0.69%          | 0.70%          | 0.71%          | 0.73%          | 0.74%          |
| Recoverable income taxes                                  | 0.09%                | 0.00%          | 0.00%          | 0.15%          | 0.18%          | 0.16%          | 0.16%          | 0.17%          | 0.17%          | 0.18%          | 0.18%          | 0.18%          |
| <b>Net Receivables</b>                                    | <b>2.19%</b>         | <b>2.11%</b>   | <b>2.10%</b>   | <b>1.99%</b>   | <b>3.38%</b>   | <b>2.08%</b>   | <b>2.11%</b>   | <b>2.15%</b>   | <b>2.18%</b>   | <b>2.22%</b>   | <b>2.26%</b>   | <b>2.30%</b>   |
| Materials and supplies                                    | 0.23%                | 0.27%          | 0.25%          | 0.28%          | 0.25%          | 0.23%          | 0.25%          | 0.24%          | 0.26%          | 0.25%          | 0.27%          | 0.26%          |
| Prepaid expenses  | 0.21%                | 0.21%          | 0.26%          | 0.31%          | 0.37%          | 0.26%          | 0.26%          | 0.27%          | 0.27%          | 0.28%          | 0.28%          | 0.29%          |
| <b>Total current assets</b>                               | <b>3.94%</b>         | <b>2.59%</b>   | <b>2.61%</b>   | <b>2.58%</b>   | <b>4.00%</b>   | <b>4.98%</b>   | <b>5.09%</b>   | <b>4.84%</b>   | <b>4.52%</b>   | <b>4.10%</b>   | <b>3.58%</b>   | <b>3.18%</b>   |
| <b>TOTAL ASSETS</b>                                       | <b>100.00%</b>       | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |
| <b>SHAREHOLDERS' FUNDS</b>                                |                      |                |                |                |                |                |                |                |                |                |                |                |
| Common stock  | 68.83%               | 66.33%         | 64.43%         | 62.58%         | 59.99%         | 59.02%         | 58.02%         | 56.71%         | 55.47%         | 54.33%         | 53.29%         | 52.04%         |
| Retained earnings   | 31.17%               | 33.67%         | 35.57%         | 37.42%         | 40.01%         | 40.98%         | 41.98%         | 43.29%         | 44.53%         | 45.67%         | 46.71%         | 47.96%         |
| <b>Total common stockholders' equity</b>                  | <b>100.00%</b>       | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |
| PREFERRED STOCK authorized 500000 shares no sha           | 0.00%                | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          |
| <b>NON-CURRENT LIABILITIES</b>                            |                      |                |                |                |                |                |                |                |                |                |                |                |
| Customers' advances for construction                      | 3.44%                | 2.97%          | 3.13%          | 3.42%          | 3.92%          | 3.22%          | 3.30%          | 3.38%          | 3.45%          | 3.53%          | 3.61%          | 3.68%          |
| Deferred income taxes                                     | 26.24%               | 16.35%         | 16.88%         | 17.63%         | 16.51%         | 17.72%         | 18.15%         | 18.58%         | 19.01%         | 19.44%         | 19.86%         | 20.27%         |
| Deferred employee benefits                                | 4.35%                | 3.33%          | 2.15%          | 1.88%          | 1.82%          | 2.55%          | 2.61%          | 2.67%          | 2.73%          | 2.79%          | 2.85%          | 2.91%          |
| Deferred regulatory liabilities                           | 0.00%                | 11.46%         | 11.29%         | 10.81%         | 9.65%          | 8.27%          | 8.47%          | 8.68%          | 8.88%          | 9.07%          | 9.27%          | 9.46%          |
| Other deferred credits                                    | 3.26%                | 1.03%          | 0.83%          | 0.98%          | 1.04%          | 1.34%          | 1.37%          | 1.41%          | 1.44%          | 1.47%          | 1.50%          | 1.53%          |
| <b>Total deferred credits (NON - CURRENT LIABILITIES)</b> | <b>37.29%</b>        | <b>35.14%</b>  | <b>34.28%</b>  | <b>34.72%</b>  | <b>32.93%</b>  | <b>33.10%</b>  | <b>33.91%</b>  | <b>34.71%</b>  | <b>35.51%</b>  | <b>36.30%</b>  | <b>37.08%</b>  | <b>37.86%</b>  |
| Contributions in aid of construction                      | 17.76%               | 18.18%         | 18.14%         | 17.45%         | 15.66%         | 16.54%         | 16.95%         | 17.35%         | 17.75%         | 18.14%         | 18.54%         | 18.92%         |
| <b>LONG-TERM DEBT excluding current portion</b>           | <b>40.99%</b>        | <b>42.37%</b>  | <b>42.63%</b>  | <b>41.22%</b>  | <b>46.86%</b>  | <b>45.79%</b>  | <b>44.46%</b>  | <b>43.14%</b>  | <b>41.83%</b>  | <b>40.54%</b>  | <b>39.25%</b>  | <b>37.98%</b>  |
| <b>CURRENT LIABILITIES</b>                                |                      |                |                |                |                |                |                |                |                |                |                |                |
| Short-term borrowings                                     | 0.00%                | 0.47%          | 0.46%          | 0.00%          | 0.21%          | 0.22%          | 0.22%          | 0.23%          | 0.23%          | 0.24%          | 0.24%          | 0.25%          |
| Current portion of long-term debt                         | 0.02%                | 0.02%          | 0.01%          | 2.83%          | 0.00%          | 0.54%          | 0.55%          | 0.57%          | 0.58%          | 0.59%          | 0.61%          | 0.62%          |
| Accounts payable  | 1.78%                | 1.47%          | 1.38%          | 1.51%          | 2.48%          | 1.61%          | 1.65%          | 1.69%          | 1.73%          | 1.77%          | 1.80%          | 1.84%          |
| Dividends payable   | 0.87%                | 0.89%          | 0.91%          | 0.91%          | 0.83%          | 0.84%          | 0.86%          | 0.88%          | 0.90%          | 0.92%          | 0.94%          | 0.96%          |
| Accrued compensation and benefits                         | 0.60%                | 0.53%          | 0.54%          | 0.54%          | 0.54%          | 0.52%          | 0.54%          | 0.55%          | 0.56%          | 0.57%          | 0.59%          | 0.60%          |
| Accrued income taxes                                      | 0.00%                | 0.25%          | 0.07%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.00%          |
| Accrued interest  | 0.45%                | 0.47%          | 0.45%          | 0.40%          | 0.36%          | 0.40%          | 0.41%          | 0.42%          | 0.43%          | 0.44%          | 0.45%          | 0.46%          |
| Deferred regulatory liabilities                           | 0.00%                | 0.06%          | 0.96%          | 0.27%          | 0.20%          | 0.28%          | 0.29%          | 0.30%          | 0.31%          | 0.31%          | 0.32%          | 0.33%          |
| Other accrued expenses                                    | 0.25%                | 0.14%          | 0.16%          | 0.15%          | 0.14%          | 0.16%          | 0.16%          | 0.16%          | 0.17%          | 0.17%          | 0.18%          | 0.18%          |
| <b>Total current liabilities</b>                          | <b>3.96%</b>         | <b>4.30%</b>   | <b>4.95%</b>   | <b>6.61%</b>   | <b>4.55%</b>   | <b>4.57%</b>   | <b>4.69%</b>   | <b>4.80%</b>   | <b>4.91%</b>   | <b>5.02%</b>   | <b>5.13%</b>   | <b>5.23%</b>   |
| <b>TOTAL LIABILITIES</b>                                  | <b>100.00%</b>       | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |

## Appendix 6: Common-Size Cash Flow Statement

| Common Size  |      | PROJECTED STATEMENTS |               |               |               |               |               |               |               |               |               |               |               |
|--|------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Period Reference   |      | 1                    | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | 11            | 12            |
| End of Period  | Type | 2016                 | 2017          | 2018          | 2019          | 2020          | 2021F         | 2022F         | 2023F         | 2024F         | 2025F         | 2026F         | 2027F         |
| <b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>   |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| Net income   |      | 24.89%               | 26.70%        | 27.62%        | 27.92%        | 30.80%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        |
| <b>Adjustments to reconcile net income to net cash provided by operating activities:</b>                       |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| Gain on sale of land   |      | 0.08%                |               |               |               |               |               |               |               |               |               |               |               |
| Gain on life insurance   |      | 0.00%                |               |               |               | 0.96%         |               |               |               |               |               |               |               |
| Depreciation and amortization  |      | 13.50%               | 13.93%        | 14.47%        | 14.91%        | 15.18%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        | 14.41%        |
| Stock-based compensation   |      | 0.05%                | 0.09%         | 0.17%         | 0.32%         | 0.29%         | 0.28%         | 0.27%         | 0.27%         | 0.26%         | 0.25%         | 0.25%         | 0.24%         |
| Increase in deferred income taxes  |      | 3.46%                | 5.11%         | 0.12%         | 1.24%         | 0.16%         | 1.73%         | 1.64%         | 1.56%         | 1.47%         | 1.40%         | 1.32%         | 1.26%         |
| Other  |      | 0.70%                | 0.11%         | 0.61%         | 0.49%         | 1.03%         | 0.97%         | 0.92%         | 0.87%         | 0.83%         | 0.78%         | 0.74%         | 0.70%         |
| <b>Changes in assets and liabilities:</b>  |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| (Increase) decrease in accounts receivable and unbilled reven  |      | 1.82%                | 1.18%         | 1.00%         | 0.55%         | 3.62%         | 0.20%         | 0.77%         | 0.77%         | 0.77%         | 0.77%         | 0.77%         | 0.77%         |
| Increase in recoverable income taxes   |      | 1.61%                | 0.58%         | 0.00%         | 1.06%         | 0.32%         | 0.07%         | 0.06%         | 0.06%         | 0.06%         | 0.06%         | 0.06%         | 0.06%         |
| Increase in materials and supplies, prepaid expenses, regulatory and other assets                              |      | 6.51%                | 1.04%         | 12.58%        | 11.44%        | 15.24%        | 2.83%         | 4.73%         | 4.49%         | 4.72%         | 4.50%         | 4.71%         | 4.52%         |
| Increase in accounts payable, accrued compensation and benefits, accrued expenses, deferred employee benefits, |      | 5.02%                | 4.15%         | 9.31%         | 4.13%         | 10.14%        | 9.43%         | 5.99%         | 5.99%         | 5.99%         | 5.99%         | 5.99%         | 5.99%         |
| Decrease in accrued interest and taxes   |      | 0.12%                | 1.23%         | 0.78%         | 0.44%         | 0.08%         | 0.23%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         | 0.10%         |
| <b>Net cash provided by operating activities</b>   |      | <b>40.70%</b>        | <b>41.39%</b> | <b>37.93%</b> | <b>36.61%</b> | <b>37.58%</b> | <b>56.19%</b> | <b>44.22%</b> | <b>44.32%</b> | <b>43.96%</b> | <b>44.05%</b> | <b>43.72%</b> | <b>43.81%</b> |
| <b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>   |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| Utility plant additions, including debt portion of allowance for funds used during construction                |      | 27.65%               | 50.63%        | 34.85%        | 35.72%        | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           |
| Acquisition of wastewater system   |      | 0.11%                | 0.97%         | 0.00%         | 4.09%         | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           |
| Capital Expenditure  |      | 27.76%               | 51.60%        | 34.85%        | 39.82%        | 61.83%        | 43.17%        | 43.17%        | 43.17%        | 43.17%        | 43.17%        | 43.17%        | 43.17%        |
| Proceeds of sale of land   |      | 0.08%                |               |               |               |               |               |               |               |               |               |               |               |
| Cash received from surrender of life insurance policies  |      | 1.35%                |               |               |               |               |               |               |               |               |               |               |               |
| Other Investing Activities   |      |                      |               | 0.22%         |               | 1.25%         |               |               |               |               |               |               |               |
| <b>Net cash used in investing activities</b>   |      | <b>26.32%</b>        | <b>51.60%</b> | <b>34.63%</b> | <b>39.82%</b> | <b>60.59%</b> | <b>43.17%</b> | <b>43.17%</b> | <b>43.17%</b> | <b>43.17%</b> | <b>43.17%</b> | <b>43.17%</b> | <b>43.17%</b> |
| <b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>   |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| Customer advances for construction and contributions in aid of construction                                    |      | 3.72%                | 3.38%         | 4.12%         | 3.29%         |               |               |               |               |               |               |               |               |
| Repayments of customer advances  |      | 0.93%                | 0.85%         | 0.84%         | 0.77%         |               |               |               |               |               |               |               |               |
| Proceeds of long-term debt issues  |      | 0.00%                | 47.08%        | 59.38%        | 182.33%       |               |               |               |               |               |               |               |               |
| Debt issuance costs  |      | 0.00%                | 0.00%         | 0.00%         | 1.19%         |               |               |               |               |               |               |               |               |
| Repayments of long-term debt   |      | 0.11%                | 36.08%        | 53.04%        | 166.56%       |               |               |               |               |               |               |               |               |
| Repayments under short-term line of credit agreements  |      | 0.00%                | 2.06%         | 0.00%         | 1.94%         | 5.86%         | 10.27%        | 12.29%        | 12.29%        | 12.29%        | 12.29%        | 12.29%        | 12.29%        |
| Changes in cash overdraft position   |      | 0.00%                | 1.58%         | 0.62%         | 0.61%         | 0.22%         |               |               |               |               |               |               |               |
| Repurchase of common stock   |      |                      |               |               |               |               |               |               |               |               |               |               |               |
| Issuance of common stock   |      | 5.28%                | 3.92%         | 4.18%         | 4.86%         | 3.35%         | 3.18%         | 3.01%         | 2.85%         | 2.71%         | 2.56%         | 2.43%         | 2.30%         |
| Dividends paid   |      | 16.72%               | 16.94%        | 17.72%        | 17.42%        | 17.44%        | 17.40%        | 17.47%        | 17.66%        | 17.97%        | 18.40%        | 18.97%        | 17.98%        |
| <b>Net cash provided by (used in) financing activities</b>   |      | <b>11.58%</b>        | <b>1.56%</b>  | <b>3.30%</b>  | <b>3.21%</b>  | <b>32.30%</b> | <b>3.95%</b>  | <b>2.17%</b>  | <b>2.51%</b>  | <b>2.97%</b>  | <b>3.55%</b>  | <b>4.24%</b>  | <b>3.38%</b>  |
| Net change in cash and cash equivalents  |      | 2.80%                | 8.66%         | 0.00%         | 0.00%         | 9.28%         | 9.07%         | 1.12%         | 1.37%         | 2.19%         | 2.67%         | 3.69%         | 2.75%         |
| Cash and cash equivalents at beginning of period   |      | 6.0504%              | 8.6625%       | 0.0041%       | 0.0039%       | 0.0037%       | 8.8042%       | 16.9399%      | 17.1210%      | 14.9337%      | 12.0833%      | 8.9247%       | 4.9588%       |
| Cash and cash equivalents at end of period   |      | 8.8454%              | 0.0041%       | 0.0041%       | 0.0039%       | 9.2884%       | 17.8716%      | 18.0627%      | 15.7550%      | 12.7478%      | 9.4155%       | 5.2316%       | 2.2101%       |

## Appendix 7: Key Financial Ratios

|                                      | 2016          | 2017          | 2018          | 2019          | 2020          | 2021F         | 2022F         | 2023F         | 2024F         | 2025F         | 2026F         | 2027F         |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Efficiency Ratios</b>             |               |               |               |               |               |               |               |               |               |               |               |               |
| Total Assets Turnover (x)            | N/A           | 0.15          | 0.14          | 0.15          | 0.14          | 0.14          | 0.14          | 0.14          | 0.14          | 0.15          | 0.15          | 0.15          |
| Accounts Receivables Turnover (x)    | N/A           | 6.93          | 6.80          | 7.12          | 5.13          | 5.04          | 6.63          | 6.63          | 6.63          | 6.63          | 6.63          | 6.63          |
| Collection Period (days)             | N/A           | 52.63         | 53.67         | 51.25         | 71.16         | 72.42         | 55.02         | 55.02         | 55.02         | 55.02         | 55.02         | 55.02         |
| Inventory Turnover (x)               | N/A           | 10.76         | 10.85         | 11.03         | 10.69         | 10.83         | 10.83         | 10.83         | 10.83         | 10.83         | 10.83         | 10.83         |
| Days in Inventory (days)             | N/A           | 33.91         | 33.63         | 33.08         | 34.14         | 33.69         | 33.69         | 33.69         | 33.69         | 33.69         | 33.69         | 33.69         |
| Payables Turnover (x)                | N/A           | 2.66          | 3.13          | 3.25          | 2.16          | 1.99          | 2.59          | 2.56          | 2.59          | 2.56          | 2.59          | 2.56          |
| Payables Period (days)               | N/A           | 137.21        | 116.73        | 112.47        | 169.10        | 183.81        | 141.02        | 142.82        | 141.11        | 142.73        | 141.20        | 142.65        |
| Operating Cycle or Cash Cycle (days) | N/A           | 86.54         | 87.30         | 84.33         | 105.30        | 106.11        | 88.71         | 88.71         | 88.71         | 88.71         | 88.71         | 88.71         |
| <b>Solvency Ratios</b>               |               |               |               |               |               |               |               |               |               |               |               |               |
| Debt Ratio (%)                       | 64.4%         | 64.0%         | 63.4%         | 63.1%         | 64.8%         | 63.9%         | 63.2%         | 62.8%         | 62.5%         | 62.2%         | 62.0%         | 61.7%         |
| Debt to Equity Ratio (x)             | 0.74          | 0.76          | 0.75          | 0.75          | 0.87          | 0.82          | 0.78          | 0.74          | 0.71          | 0.68          | 0.65          | 0.63          |
| Equity Multiplier (x)                | 2.81          | 2.78          | 2.73          | 2.71          | 2.84          | 2.77          | 2.72          | 2.69          | 2.66          | 2.64          | 2.63          | 2.61          |
| LTD to Capitalization Ratio (%)      | 43%           | 43%           | 43%           | 41%           | 46%           | 45%           | 43%           | 42%           | 41%           | 40%           | 39%           | 38%           |
| Debt to EBITDA (x)                   | 2.89          | 2.99          | 3.20          | 3.21          | 3.81          | 3.61          | 3.43          | 3.25          | 3.08          | 2.93          | 2.78          | 2.64          |
| Interest Coverage Ratio (x)          | 4.06          | 3.84          | 3.39          | 3.33          | 3.86          | 3.52          | 3.52          | 3.52          | 3.52          | 3.52          | 3.52          | 3.52          |
| <b>Liquidity Ratios</b>              |               |               |               |               |               |               |               |               |               |               |               |               |
| Current Ratio (x)                    | 1.54          | 0.94          | 0.83          | 0.62          | 1.36          | 1.70          | 1.72          | 1.61          | 1.47          | 1.32          | 1.13          | 0.98          |
| Quick Ratio (x)                      | 1.45          | 0.84          | 0.75          | 0.55          | 1.27          | 1.62          | 1.63          | 1.53          | 1.39          | 1.23          | 1.04          | 0.90          |
| Cash Ratio (x)                       | 0.51          | 0.00          | 0.00          | 0.00          | 0.42          | 0.82          | 0.83          | 0.72          | 0.59          | 0.43          | 0.24          | 0.10          |
| <b>Profitability Ratios</b>          |               |               |               |               |               |               |               |               |               |               |               |               |
| Gross Profit Margin (%)              | 83.1%         | 81.7%         | 80.0%         | 79.9%         | 80.0%         | 80.9%         | 80.9%         | 80.9%         | 80.9%         | 80.9%         | 80.9%         | 80.9%         |
| EBITDA Margin (%)                    | 61.6%         | 62.7%         | 61.0%         | 61.0%         | 60.6%         | 61.2%         | 61.2%         | 61.2%         | 61.2%         | 61.2%         | 61.2%         | 61.2%         |
| EBIT Margin (%)                      | 48.1%         | 48.8%         | 46.5%         | 46.1%         | 45.4%         | 46.8%         | 46.8%         | 46.8%         | 46.8%         | 46.8%         | 46.8%         | 46.8%         |
| Net Profit Margin (%)                | 24.9%         | 26.7%         | 27.6%         | 27.9%         | 30.8%         | 26.5%         | 26.5%         | 26.5%         | 26.5%         | 26.5%         | 26.5%         | 26.5%         |
| ROA (%)                              | 3.7%          | 3.9%          | 3.9%          | 4.0%          | 4.1%          | 3.6%          | 3.6%          | 3.7%          | 3.7%          | 3.8%          | 3.9%          | 3.9%          |
| ROIC (%)                             | 11.5%         | 11.3%         | 10.2%         | 10.1%         | 9.1%          | 9.6%          | 9.8%          | 10.0%         | 10.3%         | 10.6%         | 10.9%         | 11.2%         |
| NOPAT (€T)                           | \$ 22,888.00  | \$ 23,693.00  | \$ 22,517.00  | \$ 23,786.00  | \$ 24,431.00  | \$ 26,589.87  | \$ 28,052.32  | \$ 29,595.20  | \$ 31,222.93  | \$ 32,940.19  | \$ 34,751.90  | \$ 36,663.26  |
| Invested Capital (€T)                | \$ 198,714.00 | \$ 210,547.00 | \$ 220,553.00 | \$ 235,220.00 | \$ 267,380.00 | \$ 278,034.78 | \$ 287,333.57 | \$ 295,416.54 | \$ 303,550.59 | \$ 311,639.39 | \$ 319,565.17 | \$ 328,513.22 |
| ROCE (%)                             | 7.3%          | 7.3%          | 6.7%          | 6.8%          | 6.2%          | 6.5%          | 6.6%          | 6.7%          | 6.8%          | 6.9%          | 7.1%          | 7.2%          |
| Capital Employed (€T)                | \$ 312,310.00 | \$ 322,885.00 | \$ 334,299.00 | \$ 348,373.00 | \$ 394,964.00 | \$ 409,963.26 | \$ 426,518.11 | \$ 442,256.24 | \$ 458,466.47 | \$ 475,075.64 | \$ 491,990.42 | \$ 510,421.86 |
| ROE (%)                              | 10.4%         | 10.6%         | 10.6%         | 10.7%         | 11.6%         | 9.9%          | 9.8%          | 9.9%          | 9.9%          | 10.2%         | 10.3%         | 10.3%         |
| ROE (%) - DuPont Approach            | 10.4%         | 10.9%         | 10.6%         | 10.7%         | 11.6%         | 9.9%          | 9.8%          | 9.9%          | 9.9%          | 10.0%         | 10.2%         | 10.3%         |
| NI / S (%)                           | 24.89%        | 26.70%        | 27.62%        | 27.92%        | 30.82%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        | 26.46%        |
| S / A (%)                            | 14.85%        | 14.63%        | 14.03%        | 14.19%        | 13.23%        | 13.45%        | 13.64%        | 13.87%        | 14.11%        | 14.35%        | 14.61%        | 14.85%        |
| A / E (%)                            | 280.98%       | 278.07%       | 273.50%       | 270.92%       | 284.08%       | 277.08%       | 271.99%       | 268.92%       | 266.35%       | 264.31%       | 262.84%       | 260.96%       |
| SG&A/Sales (%)                       | 19.19%        | 16.68%        | 16.71%        | 16.51%        | 17.19%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        | 17.40%        |
| Payout Ratio                         | 67.16%        | 63.43%        | 64.17%        | 62.39%        | 56.60%        | 65.77%        | 66.05%        | 66.76%        | 67.93%        | 69.56%        | 71.70%        | 67.96%        |

# Appendix 8: Forecasting Assumptions

| Period Reference<br>End of Period                   | Assumptions |        |        |        |        |        |        |        |        |        |        |        | Comments |   |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|---|
|   | 2016        | 2017   | 2018   | 2019   | 2020   | 2021F  | 2022F  | 2023F  | 2024F  | 2025F  | 2026F  | 2027F  |          |   |
| <b>Total Sales and Services Rendered</b>            |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Residential</i>                                  | 63.34%      | 62.60% | 62.65% | 62.27% | 63.11% | 62.80% | 62.80% | 62.80% | 62.80% | 62.80% | 62.80% | 62.80% | 62.80%   | Based on average %Trev from previous years  |
| <i>Commercial and industrial</i>                    | 28.92%      | 27.86% | 27.56% | 27.46% | 25.56% | 27.47% | 27.47% | 27.47% | 27.47% | 27.47% | 27.47% | 27.47% | 27.47%   | Based on average %Trev from previous years  |
| <i>Fire Protection</i>                              | 0.00%       | 6.11%  | 6.05%  | 5.96%  | 5.93%  | 4.81%  | 4.81%  | 4.81%  | 4.81%  | 4.81%  | 4.81%  | 4.81%  | 4.81%    | Based on average %Trev from previous years  |
| <b>Water Utility Service</b>                        |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Residential</i>                                  | 0.00%       | 1.73%  | 1.93%  | 2.50%  | 3.24%  | 1.88%  | 1.88%  | 1.88%  | 1.88%  | 1.88%  | 1.88%  | 1.88%  | 1.88%    | Based on average %Trev from previous years  |
| <i>Commercial and industrial</i>                    | 0.00%       | 0.39%  | 0.47%  | 0.54%  | 0.56%  | 0.39%  | 0.39%  | 0.39%  | 0.39%  | 0.39%  | 0.39%  | 0.39%  | 0.39%    | Based on average %Trev from previous years  |
| <b>Wastewater Utility Service</b>                   |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Billing and revenue collection services</i>      | 0.00%       | 0.13%  | 0.13%  | 0.14%  | 0.49%  | 0.18%  | 0.18%  | 0.18%  | 0.18%  | 0.18%  | 0.18%  | 0.18%  | 0.18%    | Based on average %Trev from previous years  |
| <i>Collection Services</i>                          | 0.00%       | 0.13%  | 0.11%  | 0.10%  | 0.03%  | 0.07%  | 0.07%  | 0.07%  | 0.07%  | 0.07%  | 0.07%  | 0.07%  | 0.07%    | Based on average %Trev from previous years  |
| <i>Other Revenue</i>                                | 7.74%       | 0.08%  | 0.05%  | 0.03%  | 0.04%  | 1.59%  | 1.59%  | 1.59%  | 1.59%  | 1.59%  | 1.59%  | 1.59%  | 1.59%    | Based on average %Trev from previous years  |
| <b>Revenue from Contracts with Customers</b>        | 100.00%     | 99.03% | 98.35% | 98.99% | 98.97% | 99.19% | 99.19% | 99.19% | 99.19% | 99.19% | 99.19% | 99.19% | 99.19%   | Based on average %Trev from previous years  |
| <i>Rents from regulated property</i>                |             | 0.97%  | 1.05%  | 1.01%  | 1.03%  | 1.01%  | 1.01%  | 1.01%  | 1.01%  | 1.01%  | 1.01%  | 1.01%  | 1.01%    | Based on average %Trev from previous years  |
| <b>Total Revenue</b>                                |             | 2.11%  | -0.31% | 6.48%  | 4.41%  | 5.50%  | 5.50%  | 5.50%  | 5.50%  | 5.50%  | 5.50%  | 5.50%  | 5.50%    | Growth rate based on annual report where they expect to keep the good results of previous 2 years in the future, which is between 4.4% and 6.5%, so an increase of 5.5% is reasonable |
| <i>Cost of Revenue</i>                              | 16.88%      | 18.30% | 19.96% | 20.14% | 20.02% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06%   | Based on average %Trev from previous years  |
| <b>Total Cost of Revenue</b>                        | 16.88%      | 18.30% | 19.96% | 20.14% | 20.02% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06% | 19.06%   | Based on average %Trev from previous years  |
| <b>Gross Profit</b>                                 |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Selling General and Administrative</i>           | 113.67%     | 91.14% | 83.71% | 82.00% | 85.87% | 91.28% | 91.28% | 91.28% | 91.28% | 91.28% | 91.28% | 91.28% | 91.28%   | Based on average %Tcosts from previous years  |
| <i>Other Taxes</i>                                  | 13.87%      | 12.74% | 11.84% | 11.55% | 11.18% | 12.24% | 12.24% | 12.24% | 12.24% | 12.24% | 12.24% | 12.24% | 12.24%   | Based on average %Tcosts from previous years  |
| <b>EBITDA</b>                                       | 13.50%      | 13.99% | 14.47% | 14.91% | 15.18% | 14.41% | 14.41% | 14.41% | 14.41% | 14.41% | 14.41% | 14.41% | 14.41%   | Based on average %Trev from previous years  |
| <b>Total Operating Expense</b>                      |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Interest on Debt</i>                             | 11.06%      | 11.01% | 11.37% | 9.93%  | 8.74%  | 10.42% | 10.42% | 10.42% | 10.42% | 10.42% | 10.42% | 10.42% | 10.42%   | Based on average %Trev from previous years  |
| <i>Allowance for funds used during construction</i> | 0.48%       | 1.78%  | 0.47%  | 0.71%  | 0.98%  | 0.88%  | 0.88%  | 0.88%  | 0.88%  | 0.88%  | 0.88%  | 0.88%  | 0.88%    | Based on average %Trev from previous years  |
| <i>Gain on life insurance</i>                       |             |        |        |        |        |        |        |        |        |        |        |        |          |   |
| <i>Other pension costs</i>                          |             | 2.51%  | 2.65%  | 2.81%  | 2.53%  | 2.63%  | 2.63%  | 2.63%  | 2.63%  | 2.63%  | 2.63%  | 2.63%  | 2.63%    | Based on average %Trev from previous years  |
| <i>Other income (expenses) net</i>                  | 1.30%       | 0.97%  | 0.18%  | 1.81%  | 1.47%  | 1.15%  | 1.15%  | 1.15%  | 1.15%  | 1.15%  | 1.15%  | 1.15%  | 1.15%    | Based on average %Trev from previous years  |
| <b>Total Interest Expense</b>                       |             |        |        |        |        |        |        |        |        |        |        |        |          | Sum previous 4 lines  |
| <b>EBT</b>  |             |        |        |        |        | 21%    | 21%    | 21%    | 21%    | 21%    | 21%    | 21%    | 21%      | EBIT - Total interest Expense   |
| <b>Net Income</b>                                   |             |        |        |        |        |        |        |        |        |        |        |        |          | Based on statutory tax rate 21%   |

| Period Reference<br>End of Period                         | Type    | Assumptions |         |         |         |         |         |         |         |         |         |         |         | Comments  |
|---|---------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|
|   |         | 2016        | 2017    | 2018    | 2019    | 2020    | 2021F   | 2022F   | 2023F   | 2024F   | 2025F   | 2026F   | 2027F   |   |
| <b>NON-CURRENT ASSETS</b>                                 |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <b>Utility Plant, at original cost</b>                    |         |             |         |         |         |         |         |         |         |         |         |         |         | PP&E+1 = PP&E - D&A+1 + CAPEX+1   |
| <i>Plant acquisition adjustments</i>                      | 7.71%   | 6.66%       | 6.42%   | 6.43%   | 6.88%   | 6.82%   | 6.82%   | 6.82%   | 6.82%   | 6.82%   | 6.82%   | 6.82%   | 6.82%   | Based on average %Trev  |
| <i>Accumulated depreciation</i>                           | 20.05%  | 20.16%      | 20.62%  | 21.14%  | 20.82%  | 20.56%  | 20.56%  | 20.56%  | 20.56%  | 20.56%  | 20.56%  | 20.56%  | 20.56%  | Based on average %Trev  |
| <b>Total Net utility plant</b>                            |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>depreciation</i>                                       | 1.57%   | 1.52%       | 1.47%   | 1.49%   | 1.38%   | 1.49%   | 1.49%   | 1.49%   | 1.49%   | 1.49%   | 1.49%   | 1.49%   | 1.49%   | Based on average %Trev  |
| <b>OTHER LONG-TERM ASSETS:</b>                            |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Prepaid pension cost</i>                               |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Note receivable</i>                                    | 0.54%   | 0.52%       | 0.53%   | 0.49%   | 0.47%   | 0.51%   | 0.51%   | 0.51%   | 0.51%   | 0.51%   | 0.51%   | 0.51%   | 0.51%   | Based on average %Trev  |
| <i>Deferred regulatory assets</i>                         | 69.41%  | 62.42%      | 66.79%  | 66.29%  | 74.08%  | 67.80%  | 67.80%  | 67.80%  | 67.80%  | 67.80%  | 67.80%  | 67.80%  | 67.80%  | Based on average %Trev  |
| <i>Other assets</i>                                       | 6.18%   | 6.81%       | 7.54%   | 7.54%   | 7.33%   | 7.08%   | 7.08%   | 7.08%   | 7.08%   | 7.08%   | 7.08%   | 7.08%   | 7.08%   | Based on average %Trev  |
| <b>Total other long-term assets</b>                       |         |             |         |         |         |         |         |         |         |         |         |         |         | Sum previous 3 lines  |
| <b>Total Non-Current Assets</b>                           |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <b>CURRENT ASSETS</b>                                     |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Cash and cash equivalents</i>                          |         |             |         |         |         |         |         |         |         |         |         |         |         | same as cash and cash equivalent end of period  |
| <i>Restricted Cash</i>                                    |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Accounts receivable net of reserves</i>                | 9.03%   | 9.36%       | 9.93%   | 8.57%   | 9.63%   | 9.30%   | 9.30%   | 9.30%   | 9.30%   | 9.30%   | 9.30%   | 9.30%   | 9.30%   | Based on average %Trev  |
| <i>Unbilled revenues</i>                                  | 5.10%   | 5.06%       | 5.01%   | 4.41%   | 5.29%   | 4.98%   | 4.98%   | 4.98%   | 4.98%   | 4.98%   | 4.98%   | 4.98%   | 4.98%   | Based on average %Trev  |
| <i>Recoverable income taxes</i>                           | 0.59%   | 0.00%       | 0.00%   | 1.06%   | 1.34%   | 1.20%   | 1.20%   | 1.20%   | 1.20%   | 1.20%   | 1.20%   | 1.20%   | 1.20%   | Based on average %Trev  |
| <i>Net Receivables</i>                                    |         |             |         |         |         |         |         |         |         |         |         |         |         | sum 3 terms (above)   |
| <i>Materials and supplies</i>                             |         | 10.76%      | 10.85%  | 11.03%  | 10.69%  | 10.83%  | 10.83%  | 10.83%  | 10.83%  | 10.83%  | 10.83%  | 10.83%  | 10.83%  | Based on historical average Inventory turnover of 10.83                               |
| <i>Prepaid expenses</i>                                   | 1.38%   | 1.43%       | 1.85%   | 2.19%   | 2.83%   | 1.94%   | 1.94%   | 1.94%   | 1.94%   | 1.94%   | 1.94%   | 1.94%   | 1.94%   | Based on average %Trev  |
| <b>Total current assets</b>                               |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <b>TOTAL ASSETS</b>                                       |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <b>SHAREHOLDERS' FUNDS</b>                                |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Common stock</i>                                       |         |             |         |         |         |         |         |         |         |         |         |         |         | Total common stockholders equity - Retained Earnings                                  |
| <i>Retained earnings</i>                                  |         |             |         |         |         |         |         |         |         |         |         |         |         | RE-RE(previous year)+Net Profit - DIV paid  |
| <b>Total common stockholders' equity</b>                  |         |             |         |         |         |         |         |         |         |         |         |         |         | Total Assets - Total Liabilities  |
| <b>PREFERRED STOCK</b>                                    |         |             |         |         |         |         |         |         |         |         |         |         |         | N/A   |
| <b>NON-CURRENT LIABILITIES</b>                            |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Customers' advances for construction</i>               | 14.93%  | 13.02%      | 14.14%  | 15.21%  | 19.17%  | 15.29%  | 15.29%  | 15.29%  | 15.29%  | 15.29%  | 15.29%  | 15.29%  | 15.29%  | Based on average %Trev  |
| <i>Deferred income taxes</i>                              | 113.84% | 71.53%      | 76.31%  | 78.38%  | 80.85%  | 84.18%  | 84.18%  | 84.18%  | 84.18%  | 84.18%  | 84.18%  | 84.18%  | 84.18%  | Based on average %Trev  |
| <i>Deferred employee benefits</i>                         | 18.89%  | 14.56%      | 9.73%   | 8.37%   | 8.90%   | 12.09%  | 12.09%  | 12.09%  | 12.09%  | 12.09%  | 12.09%  | 12.09%  | 12.09%  | Based on average %Trev  |
| <i>Deferred regulatory liabilities</i>                    | 0.00%   | 50.16%      | 51.01%  | 48.06%  | 47.25%  | 39.30%  | 39.30%  | 39.30%  | 39.30%  | 39.30%  | 39.30%  | 39.30%  | 39.30%  | Based on average %Trev  |
| <i>Other deferred credits</i>                             | 14.13%  | 4.52%       | 3.79%   | 4.36%   | 5.07%   | 6.37%   | 6.37%   | 6.37%   | 6.37%   | 6.37%   | 6.37%   | 6.37%   | 6.37%   | Based on average %Trev  |
| <b>Total deferred credits (NON - CURRENT LIABILITIES)</b> |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Contributions in aid of construction</i>               | 77.03%  | 79.57%      | 82.01%  | 77.61%  | 76.70%  | 78.58%  | 78.58%  | 78.58%  | 78.58%  | 78.58%  | 78.58%  | 78.58%  | 78.58%  | Based on average %Trev  |
| <b>LONG-TERM DEBT excluding current portion</b>           |         |             |         |         |         |         |         |         |         |         |         |         |         | As of previous year because the company expect to maintain its levels over the years. |
| <b>CURRENT LIABILITIES</b>                                |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <i>Short-term borrowings</i>                              | 0.00%   | 2.06%       | 2.06%   | 0.00%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | 1.03%   | Based on average %Trev  |
| <i>Current portion of long-term debt</i>                  | 0.09%   | 0.09%       | 0.06%   | 0.00%   | 0.00%   | 2.57%   | 2.57%   | 2.57%   | 2.57%   | 2.57%   | 2.57%   | 2.57%   | 2.57%   | Based on average %Trev  |
| <i>Accounts payable</i>                                   |         | 128.7%      | 114.37% | 121.30% | 221.42% | 146.46% | 146.46% | 146.46% | 146.46% | 146.46% | 146.46% | 146.46% | 146.46% | Based on historical average DPO of 146.46   |
| <i>Dividends payable</i>                                  | 3.79%   | 3.89%       | 4.13%   | 4.06%   | 4.07%   | 3.99%   | 3.99%   | 3.99%   | 3.99%   | 3.99%   | 3.99%   | 3.99%   | 3.99%   | Based on average %Trev  |
| <i>Accrued compensation and benefits</i>                  | 2.59%   | 2.33%       | 2.46%   | 2.42%   | 2.63%   | 2.49%   | 2.49%   | 2.49%   | 2.49%   | 2.49%   | 2.49%   | 2.49%   | 2.49%   | Based on average %Trev  |
| <i>Accrued income taxes</i>                               |         |             |         |         |         |         |         |         |         |         |         |         |         | same as previous year   |
| <i>Accrued interest</i>                                   | 1.94%   | 2.04%       | 2.05%   | 1.77%   | 1.78%   | 1.91%   | 1.91%   | 1.91%   | 1.91%   | 1.91%   | 1.91%   | 1.91%   | 1.91%   | Based on average %Trev  |
| <i>Deferred regulatory liabilities</i>                    | 0.00%   | 0.25%       | 4.34%   | 1.18%   | 0.97%   | 1.35%   | 1.35%   | 1.35%   | 1.35%   | 1.35%   | 1.35%   | 1.35%   | 1.35%   | Based on average %Trev  |
| <i>Other accrued expenses</i>                             | 1.08%   | 0.61%       | 0.71%   | 0.66%   | 0.67%   | 0.75%   | 0.75%   | 0.75%   | 0.75%   | 0.75%   | 0.75%   | 0.75%   | 0.75%   | Based on average %Trev  |
| <b>Total current liabilities</b>                          |         |             |         |         |         |         |         |         |         |         |         |         |         |   |
| <b>TOTAL LIABILITIES</b>                                  |         |             |         |         |         |         |         |         |         |         |         |         |         |   |



## Appendix 11: Risk Free Rate Evaluation

| Risk Free Rate   |       |
|--|-------|
| U.S. Treasury Yield 10-Year (U.S Department of Treasury) | 1.20% |
| US RFR (Fernandez,2020)                                  | 1.90% |
| U.S. Treasury Yield 10-Year (Bloomberg)                  | 1.40% |

## Appendix 12: Beta Estimation

| Betas     |      |
|-----------|------|
| Orbis     | 0.89 |
| Bloomberg | 0.96 |
| NYSE      | 0.97 |

## Appendix 13: Equity Risk Premium Estimation

| Equity Risk Premium      |      |
|--------------------------|------|
| ERP (bloomberg)          | 7.7% |
| USA MRP (Damodaram,2020) | 5.7% |

## Appendix 14: Cost of Debt Estimation, Cost of Equity (CAPM) and Cost of Capital WACC (Scenario 2 - used in FCFF DCF)

| WACC-Variables                | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Risk Free Rate (RFR)          | 1.2%          | 1.2%          | 1.2%          | 1.2%          | 1.2%          | 1.2%          | 1.2%          |
| Tax                           | 21%           | 21%           | 21%           | 21%           | 21%           | 21%           | 21%           |
| Beta (β)                      | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          |
| Risk Premium                  | 7.7%          | 7.7%          | 7.7%          | 7.7%          | 7.7%          | 7.7%          | 7.7%          |
| <b>Cost of Equity</b>         | <b>8.1%</b>   | <b>8.1%</b>   | <b>8.1%</b>   | <b>8.1%</b>   | <b>8.1%</b>   | <b>8.1%</b>   | <b>8.1%</b>   |
| Interest Expense              | \$ 7,563.29   | \$ 7,979.27   | \$ 8,418.13   | \$ 8,881.12   | \$ 9,369.59   | \$ 9,884.91   | \$ 10,428.58  |
| Debt                          | \$ 125,618.35 | \$ 125,730.84 | \$ 125,849.53 | \$ 125,974.73 | \$ 126,106.83 | \$ 126,246.19 | \$ 126,393.22 |
| <b>Cost of Debt</b>           | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   |
| <b>After tax cost of Debt</b> | <b>5.2%</b>   | <b>5.2%</b>   | <b>5.2%</b>   | <b>5.2%</b>   | <b>5.2%</b>   | <b>5.2%</b>   | <b>5.2%</b>   |
| Weight of Debt                | 45%           | 44%           | 43%           | 42%           | 40%           | 40%           | 38%           |
| Weight of Equity              | 55%           | 56%           | 57%           | 58%           | 60%           | 60%           | 62%           |
| Capital                       | \$ 278,034.78 | \$ 287,333.57 | \$ 295,416.54 | \$ 303,550.59 | \$ 311,639.39 | \$ 319,565.17 | \$ 328,513.22 |
| Equity                        | \$ 152,416.43 | \$ 161,602.72 | \$ 169,567.01 | \$ 177,575.85 | \$ 185,532.56 | \$ 193,318.98 | \$ 202,120.00 |
| <b>Pre-tax WACC</b>           | <b>7.36%</b>  | <b>7.39%</b>  | <b>7.40%</b>  | <b>7.42%</b>  | <b>7.44%</b>  | <b>7.45%</b>  | <b>7.47%</b>  |
| <b>WACC</b>                   | <b>6.75%</b>  | <b>6.79%</b>  | <b>6.82%</b>  | <b>6.85%</b>  | <b>6.88%</b>  | <b>6.91%</b>  | <b>6.94%</b>  |

## Appendix 15: Cost of Debt Estimation, Cost of Equity (CAPM) and Cost of Capital WACC (Scenario 1 – for comparison in the scenario analysis)

| Scenario 1 -WACC-Variables    | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Risk Free Rate (RFR)          | 1.0%          | 1.0%          | 1.0%          | 1.0%          | 1.0%          | 1.0%          | 1.0%          |
| Tax                           | 19%           | 19%           | 19%           | 19%           | 19%           | 19%           | 19%           |
| Beta (β)                      | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          |
| Risk Premium                  | 7.5%          | 7.5%          | 7.5%          | 7.5%          | 7.5%          | 7.5%          | 7.5%          |
| <b>Cost of Equity</b>         | <b>7.7%</b>   | <b>7.7%</b>   | <b>7.7%</b>   | <b>7.7%</b>   | <b>7.7%</b>   | <b>7.7%</b>   | <b>7.7%</b>   |
| Interest Expense              | \$ 7,563.29   | \$ 7,979.27   | \$ 8,418.13   | \$ 8,881.12   | \$ 9,369.59   | \$ 9,884.91   | \$ 10,428.58  |
| Debt                          | \$ 125,618.35 | \$ 125,730.84 | \$ 125,849.53 | \$ 125,974.73 | \$ 126,106.83 | \$ 126,246.19 | \$ 126,393.22 |
| <b>Cost of Debt</b>           | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   |
| <b>After tax cost of Debt</b> | <b>5.3%</b>   | <b>5.3%</b>   | <b>5.3%</b>   | <b>5.3%</b>   | <b>5.3%</b>   | <b>5.3%</b>   | <b>5.3%</b>   |
| Weight of Debt                | 45%           | 44%           | 43%           | 42%           | 40%           | 40%           | 38%           |
| Weight of Equity              | 55%           | 56%           | 57%           | 58%           | 60%           | 60%           | 62%           |
| Capital                       | \$ 278,034.78 | \$ 287,333.57 | \$ 295,416.54 | \$ 303,550.59 | \$ 311,639.39 | \$ 319,565.17 | \$ 328,513.22 |
| Equity                        | \$ 152,416.43 | \$ 161,602.72 | \$ 169,567.01 | \$ 177,575.85 | \$ 185,532.56 | \$ 193,318.98 | \$ 202,120.00 |
| <b>Pre-tax WACC</b>           | <b>7.16%</b>  | <b>7.17%</b>  | <b>7.19%</b>  | <b>7.20%</b>  | <b>7.21%</b>  | <b>7.22%</b>  | <b>7.23%</b>  |
| <b>WACC</b>                   | <b>6.60%</b>  | <b>6.63%</b>  | <b>6.66%</b>  | <b>6.68%</b>  | <b>6.71%</b>  | <b>6.73%</b>  | <b>6.76%</b>  |

## Appendix 16: Cost of Debt Estimation, Cost of Equity (CAPM) and Cost of Capital WACC (Scenario 3 – for comparison in the scenario analysis)

| Scenario 3 -WACC-Variables    | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Risk Free Rate (RFR)          | 1.7%          | 1.7%          | 1.7%          | 1.7%          | 1.7%          | 1.7%          | 1.7%          |
| Tax                           | 24%           | 24%           | 24%           | 24%           | 24%           | 24%           | 24%           |
| Beta (β)                      | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          | 0.89          |
| Risk Premium                  | 7.8%          | 7.8%          | 7.8%          | 7.8%          | 7.8%          | 7.8%          | 7.8%          |
| <b>Cost of Equity</b>         | <b>8.7%</b>   | <b>8.7%</b>   | <b>8.7%</b>   | <b>8.7%</b>   | <b>8.7%</b>   | <b>8.7%</b>   | <b>8.7%</b>   |
| Interest Expense              | \$ 7,563.29   | \$ 7,979.27   | \$ 8,418.13   | \$ 8,881.12   | \$ 9,369.59   | \$ 9,884.91   | \$ 10,428.58  |
| Debt                          | \$ 125,618.35 | \$ 125,730.84 | \$ 125,849.53 | \$ 125,974.73 | \$ 126,106.83 | \$ 126,246.19 | \$ 126,393.22 |
| <b>Cost of Debt</b>           | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   | <b>6.5%</b>   |
| <b>After tax cost of Debt</b> | <b>5.0%</b>   | <b>5.0%</b>   | <b>5.0%</b>   | <b>5.0%</b>   | <b>5.0%</b>   | <b>5.0%</b>   | <b>5.0%</b>   |
| Weight of Debt                | 45%           | 44%           | 43%           | 42%           | 40%           | 40%           | 38%           |
| Weight of Equity              | 55%           | 56%           | 57%           | 58%           | 60%           | 60%           | 62%           |
| Capital                       | \$ 278,034.78 | \$ 287,333.57 | \$ 295,416.54 | \$ 303,550.59 | \$ 311,639.39 | \$ 319,565.17 | \$ 328,513.22 |
| Equity                        | \$ 152,416.43 | \$ 161,602.72 | \$ 169,567.01 | \$ 177,575.85 | \$ 185,532.56 | \$ 193,318.98 | \$ 202,120.00 |
| <b>Pre-tax WACC</b>           | <b>7.70%</b>  | <b>7.73%</b>  | <b>7.75%</b>  | <b>7.78%</b>  | <b>7.80%</b>  | <b>7.82%</b>  | <b>7.84%</b>  |
| <b>WACC</b>                   | <b>6.99%</b>  | <b>7.04%</b>  | <b>7.09%</b>  | <b>7.13%</b>  | <b>7.17%</b>  | <b>7.20%</b>  | <b>7.24%</b>  |

## Appendix 17: Long-run Sustainable Growth Rate

| Stable Growth Model:    | 2016        | 2017        | 2018        | 2019        | 2020        | 2021F       | 2022F       | 2023F       | 2024F       | 2025F       | 2026F       | 2027F       | Terminal Period |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| Reinvestment Rate x ROE |             |             |             |             |             |             |             |             |             |             |             |             |                 |
| CAPEX                   | \$13,208.00 | \$25,074.00 | \$16,882.00 | \$20,537.00 | \$33,299.00 | \$24,528.44 | \$25,877.50 | \$27,300.76 | \$28,802.31 | \$30,386.43 | \$32,057.69 | \$33,820.86 | \$ 298,565.99   |
| D&A                     | \$ 6,422.00 | \$ 6,769.00 | \$ 7,010.00 | \$ 7,688.00 | \$ 8,177.00 | \$ 8,186.31 | \$ 8,636.56 | \$ 9,111.57 | \$ 9,612.71 | \$10,141.41 | \$10,699.18 | \$11,287.64 | \$ 97,319.38    |
| Δ NCWC                  | \$ 5,530.00 | \$ 622.00   | \$10,707.00 | \$ 8,069.00 | \$15,745.00 | \$ 3,722.18 | \$ 6,986.82 | \$ 7,217.65 | \$ 7,768.06 | \$ 8,041.86 | \$ 8,637.61 | \$ 8,959.23 | \$ 90,762.42    |
| EBIT                    | \$22,888.00 | \$23,693.00 | \$22,517.00 | \$23,786.00 | \$24,431.00 | \$26,589.87 | \$28,052.32 | \$29,595.20 | \$31,222.93 | \$32,940.19 | \$34,751.90 | \$36,663.26 | \$14,242.67     |
| Corporate tax rate      | 35%         | 35%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%         | 21%             |
| Reinvestment rate       | 8%          | 123%        | -5%         | 25%         | 49%         | 60%         | 46%         | 47%         | 46%         | 47%         | 46%         | 47%         | 45%             |
| ROE                     | 10.4%       | 10.9%       | 10.6%       | 10.7%       | 11.6%       | 9.9%        | 9.8%        | 9.9%        | 9.9%        | 10.0%       | 10.2%       | 10.3%       | 10.2%           |
| g                       |             |             |             |             |             |             |             |             |             |             |             |             | 4.52%           |

## Appendix 18: Effective Tax Rate

|                    | 2016   | 2017   | 2018   | 2019   | 2020   | 2021F  | 2022F  | 2023F  | 2024F  | 2025F  | 2026F  | 2027F  | Terminal Period |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------|
| Effective Tax rate |        |        |        |        |        |        |        |        |        |        |        |        |                 |
| Income tax expense | 5,409  | 4,543  | 2,491  | 2,240  | 2,018  | 3,996  | 4,215  | 4,447  | 4,692  | 4,950  | 5,222  | 5,509  |                 |
| EBT                | 17,255 | 17,517 | 15,867 | 16,642 | 18,101 | 19,027 | 20,073 | 21,177 | 22,342 | 23,571 | 24,867 | 26,235 |                 |
| Effective Tax rate | 24%    | 21%    | 14%    | 12%    | 10%    | 17%    | 17%    | 17%    | 17%    | 17%    | 17%    | 17%    | 16.8%           |

## Appendix 19: WACC Method

| FCFF                          | 2020         | 2021F        | 2022F        | 2023F        | 2024F        | 2025F        | 2026F        | 2027F        | Terminal Year |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| + operational income          | \$ 24,431.00 | \$ 26,589.87 | \$ 28,052.32 | \$ 29,595.20 | \$ 31,222.93 | \$ 32,940.19 | \$ 34,751.90 | \$ 36,663.26 | \$ 33,034.70  |
| (1-t)                         | 89.97%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 83.22%        |
| = NOPAT. = EBIT(1-t)          | \$ 21,980.49 | \$ 21,975.10 | \$ 23,183.73 | \$ 24,458.84 | \$ 25,804.08 | \$ 27,223.30 | \$ 28,720.58 | \$ 30,300.21 | \$ 27,490.10  |
| + Stock Based Compensation    | \$ 154.00    | \$ 158.62    | \$ 163.38    | \$ 168.28    | \$ 173.33    | \$ 178.53    | \$ 183.88    | \$ 189.40    | \$ 189.40     |
| + Deferred income taxes       | \$ 88.00     | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40     |
| + other                       | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00     |
| + amortizations/depreciations | \$ 8,177.00  | \$ 8,186.31  | \$ 8,636.56  | \$ 9,111.57  | \$ 9,612.71  | \$ 10,141.41 | \$ 10,699.18 | \$ 11,287.64 | \$ 11,287.64  |
| - changes in WCR              | \$ 15,745.00 | \$ 3,722.18  | \$ 6,986.82  | \$ 7,217.65  | \$ 7,768.06  | \$ 8,041.86  | \$ 8,637.61  | \$ 8,959.23  | \$ 8,959.23   |
| -Capex                        | \$ 33,299.00 | \$ 24,528.44 | \$ 25,877.50 | \$ 27,300.76 | \$ 28,802.31 | \$ 30,386.43 | \$ 32,057.69 | \$ 33,820.86 | \$ 30,473.61  |
| = FCFF                        | \$ 13,397.49 | \$ 11,049.18 | \$ 14,628.39 | \$ 15,190.97 | \$ 16,091.27 | \$ 16,734.06 | \$ 17,718.97 | \$ 18,451.03 | \$ 18,988.16  |

| Company Value           |               |
|-------------------------|---------------|
| Terminal Value(pr       | \$ 876,684.68 |
| PV of Terminal va       | \$ 631,340.17 |
| PV of FCFF              | \$ 68,992.30  |
| <b>Enterprise Value</b> | \$ 700,332.47 |

| Equity Value          |               |
|-----------------------|---------------|
| +enterprise val       | \$ 700,332.47 |
| +cash                 | \$ 10,826.54  |
| - debt                | \$ 125,730.84 |
| <b>= Equity Value</b> | \$ 585,428.16 |

|            |              |
|------------|--------------|
| EBITDA     | \$ 34,776.19 |
| EV/ EBITDA | \$ 20.14     |

|              |          |
|--------------|----------|
| Shares Outs. | 13050    |
| Price Target | \$ 44.86 |

## Appendix 20: Adjusted Present Value

| FCFF                          | 2020         | 2021F        | 2022F        | 2023F        | 2024F        | 2025F        | 2026F        | 2027F        | Terminal Year |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| + operational income          | \$ 24,431.00 | \$ 26,589.87 | \$ 28,052.32 | \$ 29,595.20 | \$ 31,222.93 | \$ 32,940.19 | \$ 34,751.90 | \$ 36,663.26 | \$ 33,034.70  |
| (1-t)                         | 89.97%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 82.64%       | 83.22%        |
| = NOPAT. = EBIT(1-t)          | \$ 21,980.49 | \$ 21,975.10 | \$ 23,183.73 | \$ 24,458.84 | \$ 25,804.08 | \$ 27,223.30 | \$ 28,720.58 | \$ 30,300.21 | \$ 27,490.10  |
| + Stock Based Compensation    | \$ 154.00    | \$ 158.62    | \$ 163.38    | \$ 168.28    | \$ 173.33    | \$ 178.53    | \$ 183.88    | \$ 189.40    | \$ 189.40     |
| + Deferred income taxes       | \$ 88.00     | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40    | \$ 983.40     |
| + other                       | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00    | \$ 552.00     |
| + amortizations/depreciations | \$ 8,177.00  | \$ 8,186.31  | \$ 8,636.56  | \$ 9,111.57  | \$ 9,612.71  | \$ 10,141.41 | \$ 10,699.18 | \$ 11,287.64 | \$ 11,287.64  |
| - changes in WCR              | \$ 15,745.00 | \$ 3,722.18  | \$ 6,986.82  | \$ 7,217.65  | \$ 7,768.06  | \$ 8,041.86  | \$ 8,637.61  | \$ 8,959.23  | \$ 8,959.23   |
| -Capex                        | \$ 33,299.00 | \$ 24,528.44 | \$ 25,877.50 | \$ 27,300.76 | \$ 28,802.31 | \$ 30,386.43 | \$ 32,057.69 | \$ 33,820.86 | \$ 30,473.61  |
| = FCFF                        | \$ 13,397.49 | \$ 11,049.18 | \$ 14,628.39 | \$ 15,190.97 | \$ 16,091.27 | \$ 16,734.06 | \$ 17,718.97 | \$ 18,451.03 | \$ 18,988.16  |

|              |       |      |      |      |      |      |      |
|--------------|-------|------|------|------|------|------|------|
| Pre-tax WACC | 7.4%  | 7.4% | 7.4% | 7.4% | 7.4% | 7.5% | 7.5% |
| Growth rate  | 4.52% |      |      |      |      |      |      |

|                         |               |
|-------------------------|---------------|
| Terminal Value          | \$ 693,007.17 |
| PV of Terminal value    | \$ 485,277.98 |
| PV of FCFF              | \$ 67,857.40  |
| <b>Enterprise Value</b> | \$ 553,135.38 |

|      |               |
|------|---------------|
| Cash | \$ 10,826.54  |
| Debt | \$ 125,730.84 |

|                  | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        | 2027        | Terminal Year |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
| Interest on Debt | \$ 5,922.26 | \$ 6,247.99 | \$ 6,591.63 | \$ 6,954.17 | \$ 7,336.65 | \$ 7,740.16 | \$ 8,165.87 | \$ 7,357.69   |
| Tax Shield       | \$ 1,243.68 | \$ 1,312.08 | \$ 1,384.24 | \$ 1,460.37 | \$ 1,540.70 | \$ 1,625.43 | \$ 1,714.83 | \$ 1,545.12   |

|                      |              |
|----------------------|--------------|
| Terminal Value       | \$ 56,391.78 |
| PV of Terminal value | \$ 39,488.32 |
| PV of Tax Shields    | \$ 6,222.64  |
| <b>Sum PV</b>        | \$ 45,710.97 |

|              |               |
|--------------|---------------|
| Equity Value | \$ 483,942.04 |
| Shares Outs. | 13050         |
| Price Target | \$ 37.08      |

## Appendix 21: Industry Peers

| Name                           | Ticker  | ROE    | Mkt Cap (USD)     | P/E          | EV/EBITDA    | EV/EBIT      | Comments                         |
|--------------------------------|---------|--------|-------------------|--------------|--------------|--------------|----------------------------------|
| <b>Peers Companies</b>         |         |        |                   |              |              |              |                                  |
| York Water Co/The              | YORW US | 11.59% | \$ 596,523,819    | 37.81        | 20.51        | 27.14        | Global Data                      |
| SJW Group                      | SJW US  | 6.58%  | \$ 1,905,659,071  | 28.65        | 14.69        | 24.90        | From Bloomberg, as of 02/07/2021 |
| California Water Service Group | CWT US  | 13.54% | \$ 2,878,277,700  | 30.97        | 15.60        | 26.65        | From Bloomberg, as of 02/07/2021 |
| Essential Utilities Inc        | WTRG US | 9.18%  | \$ 11,599,278,656 | 27.26        | 17.49        | 25.94        | From Bloomberg, as of 02/07/2021 |
| American Water Works Co Inc    | AWK US  | 11.20% | \$ 28,468,887,468 | 35.51        | 18.32        | 26.43        | From Bloomberg, as of 02/07/2021 |
| American States Water Co       | AWR US  | 14.26% | \$ 2,984,417,424  | 32.28        | 19.22        | 24.98        | From Bloomberg, as of 02/07/2021 |
| <b>Average</b>                 |         |        |                   | <b>30.93</b> | <b>17.07</b> | <b>25.78</b> |                                  |

### Enterprise Value Multiples

|                      | 2022F         | Unit      |
|----------------------|---------------|-----------|
| <b>EV/EBITDA</b>     |               |           |
| Peers average        | 17.07         | x         |
| YORW - EBITDA        | \$ 36,688.88  | \$        |
| YORW - EV            | \$ 626,108.18 | \$        |
| (-) Debt (Gross)     | \$ 125,730.84 | \$        |
| (+) Cash             | \$ 10,826.54  | \$        |
| YORW - Equity        | \$ 511,204    | \$        |
| # Shares Outstanding | 13,050        | #         |
| Price Target         | 39.17         | USD/Share |

|                      | 2022F         | Unit      |
|----------------------|---------------|-----------|
| <b>EV/EBIT</b>       |               |           |
| Peers average        | 25.78         | x         |
| YORW - EBIT          | \$ 28,052.32  | \$        |
| YORW - EV            | \$ 723,202.78 | \$        |
| (-) Debt (Gross)     | \$ 125,730.84 | \$        |
| (+) Cash             | \$ 10,826.54  | \$        |
| YORW - Equity        | \$ 608,298    | \$        |
| # Shares Outstanding | 13,050        | #         |
| Price Target         | 46.61         | USD/Share |

### Equity Value Multiples

|                       | 2022F        | Unit      |
|-----------------------|--------------|-----------|
| <b>Price/Earnings</b> |              |           |
| Peers average         | 30.93        | x         |
| YORW - Earnings       | \$ 15,857.71 | \$        |
| YORW - Equity         | \$ 490,540   | \$        |
| # Shares Outstanding  | 13,050       | #         |
| Price Target          | 37.59        | USD/Share |

## Appendix 22: Sensitivity and Scenario Analysis – Scenario 2 used in the FCFF DCF

| Sensitivity Analysis of Equity value to the long-run sustainable growth rate and WACC |          |          |          |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Long-run Sustainable Growth rate  |          |          |          |          |          |          |          |          |          |          |
|   | \$ 44.86 | 4.1%     | 4.2%     | 4.3%     | 4.4%     | 4.5%     | 4.6%     | 4.7%     | 4.8%     | 4.9%     |
| WACC  | 6.39%    | \$ 45.21 | \$ 47.49 | \$ 49.98 | \$ 53.02 | \$ 56.42 | \$ 59.15 | \$ 62.93 | \$ 67.19 | \$ 72.02 |
|   | 6.49%    | \$ 42.93 | \$ 45.01 | \$ 47.28 | \$ 50.03 | \$ 53.09 | \$ 55.53 | \$ 58.90 | \$ 62.67 | \$ 66.91 |
|   | 6.59%    | \$ 40.84 | \$ 42.75 | \$ 44.82 | \$ 47.31 | \$ 50.08 | \$ 52.28 | \$ 55.30 | \$ 58.65 | \$ 62.40 |
|   | 6.69%    | \$ 38.91 | \$ 40.66 | \$ 42.56 | \$ 44.84 | \$ 47.35 | \$ 49.34 | \$ 52.06 | \$ 55.06 | \$ 58.41 |
|   | 6.79%    | \$ 37.13 | \$ 38.74 | \$ 40.48 | \$ 42.57 | \$ 44.86 | \$ 46.67 | \$ 49.13 | \$ 51.84 | \$ 54.83 |
|   | 6.89%    | \$ 35.47 | \$ 36.96 | \$ 38.57 | \$ 40.49 | \$ 42.58 | \$ 44.23 | \$ 46.47 | \$ 48.92 | \$ 51.62 |
|   | 6.99%    | \$ 33.93 | \$ 35.31 | \$ 36.80 | \$ 38.56 | \$ 40.49 | \$ 42.00 | \$ 44.04 | \$ 46.27 | \$ 48.71 |
|   | 7.09%    | \$ 32.49 | \$ 33.77 | \$ 35.15 | \$ 36.79 | \$ 38.56 | \$ 39.95 | \$ 41.82 | \$ 43.85 | \$ 46.07 |
|   | 7.19%    | \$ 31.14 | \$ 32.34 | \$ 33.62 | \$ 35.14 | \$ 36.78 | \$ 38.06 | \$ 39.78 | \$ 41.64 | \$ 43.66 |

| Scenario Analysis |               |            |            |            |            | Company Value           |               | Equity Value          |               |
|-------------------|---------------|------------|------------|------------|------------|-------------------------|---------------|-----------------------|---------------|
| 1                 |               | Scenario 2 | Scenario 1 | Scenario 2 | Scenario 3 |                         |               |                       |               |
| 2                 | Corporate tax | 21%        | 19%        | 21%        | 24%        | Terminal Value          | \$ 876,684.68 | +enterprise value     | \$ 700,332.47 |
| 3                 | Risk free     | 1.2%       | 1.0%       | 1.2%       | 1.7%       | PV of Terminal v        | \$ 631,340.17 | +cash                 | \$ 10,826.54  |
| 4                 | Growth rate   | 4.5%       | 4.21%      | 4.52%      | 4.95%      | PV of FCFF              | \$ 68,992.30  | - debt                | \$ 125,730.84 |
| 5                 | ROE           | 10.2%      | 9.7%       | 10.2%      | 10.7%      | <b>Enterprise Value</b> | \$ 700,332.47 | <b>= Equity Value</b> | \$ 585,428.16 |
| 6                 | Risk premium  | 7.7%       | 7.5%       | 7.7%       | 7.8%       | <b>EBITDA</b>           | \$ 34,776.19  | Shares Outs.          | 13050         |
| 7                 | WACC          | 6.79%      | 6.63%      | 6.79%      | 7.04%      | <b>EV/ EBITDA</b>       | \$ 20.14      | <b>Share Price</b>    | \$ 44.86      |

## Appendix 23: Sensitivity and Scenario Analysis – Scenario 1

| Sensitivity Analysis of Equity value to the long-run sustainable growth rate and WACC |          |          |          |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Long-run Sustainable Growth rate  |          |          |          |          |          |          |          |          |          |          |
|   | \$ 41.95 | 3.8%     | 3.9%     | 4.0%     | 4.1%     | 4.2%     | 4.3%     | 4.4%     | 4.5%     | 4.6%     |
| WACC  | 6.23%    | \$ 42.30 | \$ 44.30 | \$ 46.48 | \$ 49.11 | \$ 52.03 | \$ 54.36 | \$ 57.56 | \$ 61.13 | \$ 65.13 |
|   | 6.33%    | \$ 40.28 | \$ 42.12 | \$ 44.11 | \$ 46.51 | \$ 49.15 | \$ 51.26 | \$ 54.13 | \$ 57.32 | \$ 60.87 |
|   | 6.43%    | \$ 38.41 | \$ 40.10 | \$ 41.93 | \$ 44.13 | \$ 46.54 | \$ 48.44 | \$ 51.04 | \$ 53.90 | \$ 57.08 |
|   | 6.53%    | \$ 36.68 | \$ 38.24 | \$ 39.93 | \$ 41.94 | \$ 44.14 | \$ 45.88 | \$ 48.24 | \$ 50.82 | \$ 53.67 |
|   | 6.63%    | \$ 35.07 | \$ 36.52 | \$ 38.07 | \$ 39.92 | \$ 41.95 | \$ 43.53 | \$ 45.68 | \$ 48.03 | \$ 50.60 |
|   | 6.73%    | \$ 33.57 | \$ 34.91 | \$ 36.35 | \$ 38.06 | \$ 39.92 | \$ 41.38 | \$ 43.35 | \$ 45.48 | \$ 47.82 |
|   | 6.83%    | \$ 32.17 | \$ 33.42 | \$ 34.76 | \$ 36.34 | \$ 38.06 | \$ 39.40 | \$ 41.20 | \$ 43.16 | \$ 45.29 |
|   | 6.93%    | \$ 30.86 | \$ 32.02 | \$ 33.27 | \$ 34.74 | \$ 36.33 | \$ 37.57 | \$ 39.23 | \$ 41.02 | \$ 42.97 |
|   | 7.03%    | \$ 29.62 | \$ 30.71 | \$ 31.88 | \$ 33.24 | \$ 34.72 | \$ 35.87 | \$ 37.40 | \$ 39.05 | \$ 40.84 |

| Scenario Analysis |               |            |            |            |            | Company Value           |               | Equity Value          |               |
|-------------------|---------------|------------|------------|------------|------------|-------------------------|---------------|-----------------------|---------------|
| 1                 |               | Scenario 1 | Scenario 1 | Scenario 2 | Scenario 3 |                         |               |                       |               |
| 2                 | Corporate tax | 19%        | 19%        | 21%        | 24%        | Terminal Value          | \$ 817,475.46 | +enterprise value     | \$ 662,295.79 |
| 3                 | Risk free     | 1.0%       | 1.0%       | 1.2%       | 1.7%       | PV of Terminal v        | \$ 593,004.62 | +cash                 | \$ 10,826.54  |
| 4                 | Growth rate   | 4.2%       | 4.21%      | 4.52%      | 4.95%      | PV of FCFF              | \$ 69,291.17  | - debt                | \$ 125,730.84 |
| 5                 | ROE           | 9.7%       | 9.7%       | 10.2%      | 10.7%      | <b>Enterprise Value</b> | \$ 662,295.79 | <b>= Equity Value</b> | \$ 547,391.48 |
| 6                 | Risk premium  | 7.5%       | 7.5%       | 7.7%       | 7.8%       | <b>EBITDA</b>           | \$ 34,776.19  | Shares Outs.          | 13050         |
| 7                 | WACC          | 6.63%      | 6.63%      | 6.79%      | 7.04%      | <b>EV/ EBITDA</b>       | \$ 19.04      | <b>Share Price</b>    | \$ 41.95      |

## Appendix 24: Sensitivity and Scenario Analysis – Scenario 3

| Sensitivity Analysis of Equity value to the long-run sustainable growth rate and WACC |          |          |          |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Long-run Sustainable Growth rate  |          |          |          |          |          |          |          |          |          |          |
|   | \$ 48.35 | 4.5%     | 4.6%     | 4.7%     | 4.8%     | 4.9%     | 5.0%     | 5.1%     | 5.2%     | 5.3%     |
| WACC  | 6.64%    | \$ 48.68 | \$ 51.33 | \$ 54.25 | \$ 57.83 | \$ 61.89 | \$ 65.18 | \$ 69.79 | \$ 75.05 | \$ 81.11 |
|   | 6.74%    | \$ 46.08 | \$ 48.47 | \$ 51.11 | \$ 54.33 | \$ 57.94 | \$ 60.86 | \$ 64.91 | \$ 69.50 | \$ 74.74 |
|   | 6.84%    | \$ 43.70 | \$ 45.88 | \$ 48.27 | \$ 51.17 | \$ 54.41 | \$ 57.01 | \$ 60.60 | \$ 64.64 | \$ 69.22 |
|   | 6.94%    | \$ 41.51 | \$ 43.51 | \$ 45.68 | \$ 48.31 | \$ 51.23 | \$ 53.56 | \$ 56.77 | \$ 60.35 | \$ 64.37 |
|   | 7.04%    | \$ 39.51 | \$ 41.33 | \$ 43.32 | \$ 45.71 | \$ 48.35 | \$ 50.46 | \$ 53.33 | \$ 56.53 | \$ 60.10 |
|   | 7.14%    | \$ 37.65 | \$ 39.33 | \$ 41.15 | \$ 43.34 | \$ 45.74 | \$ 47.65 | \$ 50.24 | \$ 53.11 | \$ 56.29 |
|   | 7.24%    | \$ 35.93 | \$ 37.48 | \$ 39.16 | \$ 41.16 | \$ 43.36 | \$ 45.09 | \$ 47.44 | \$ 50.03 | \$ 52.88 |
|   | 7.34%    | \$ 34.34 | \$ 35.77 | \$ 37.32 | \$ 39.16 | \$ 41.17 | \$ 42.76 | \$ 44.90 | \$ 47.24 | \$ 49.82 |
|   | 7.44%    | \$ 32.85 | \$ 34.18 | \$ 35.61 | \$ 37.31 | \$ 39.16 | \$ 40.61 | \$ 42.57 | \$ 44.70 | \$ 47.04 |

| Scenario Analysis |               |            |            |            |            |
|-------------------|---------------|------------|------------|------------|------------|
| 1                 |               | Scenario 3 | Scenario 1 | Scenario 2 | Scenario 3 |
| 2                 | Corporate tax | 24%        | 19%        | 21%        | 24%        |
| 3                 | Risk free     | 1.7%       | 1.0%       | 1.2%       | 1.7%       |
| 4                 | Growth rate   | 4.9%       | 4.21%      | 4.52%      | 4.95%      |
| 5                 | ROE           | 10.7%      | 9.7%       | 10.2%      | 10.7%      |
| 6                 | Risk premium  | 7.8%       | 7.5%       | 7.7%       | 7.8%       |
| 7                 | WACC          | 7.04%      | 6.63%      | 6.79%      | 7.04%      |

| Company Value           |                      | Equity Value          |                      |
|-------------------------|----------------------|-----------------------|----------------------|
| Terminal Value          | \$ 952,033.86        | +enterprise value     | \$ 745,921.03        |
| PV of Terminal v        | \$ 677,418.05        | +cash                 | \$ 10,826.54         |
| PV of FCFF              | \$ 68,502.98         | - debt                | \$ 125,730.84        |
| <b>Enterprise Value</b> | <b>\$ 745,921.03</b> | <b>= Equity Value</b> | <b>\$ 631,016.72</b> |
| <b>EBITDA</b>           | <b>\$ 34,776.19</b>  | Shares Outs.          | 13050                |
| <b>EV/ EBITDA</b>       | <b>\$ 21.45</b>      | Share Price           | <b>\$ 48.35</b>      |

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### Recommendation System

| Level of Risk | SELL  | REDUCE      | HOLD/NEUTRAL | BUY         | STRONG BUY |
|---------------|-------|-------------|--------------|-------------|------------|
| High Risk     | 0%≤   | >0% & ≤10%  | >10% & ≤20%  | >20% & ≤45% | >45%       |
| Medium Risk   | -5%≤  | >-5% & ≤5%  | >5% & ≤15%   | >15% & ≤30% | >30%       |
| Low Risk      | -10%≤ | >-10% & ≤0% | >0% & ≤10%   | >10% & ≤20% | >20%       |