CITY OF PAWTUCKET, RI

Report

OCTOBER 2023

# Baseline Asset Evaluation

WRIGHT-PIERCE
Engineering a Better Environment

# Baseline Asset Evaluation

## City of Pawtucket, RI

October 2023

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# Table of Contents

# List of Appendices



# List of Figures



# List of Tables

# Section 1 Introduction

The Pawtucket Water Treatment Facility was constructed in 2005 and has been contract operated since 2008, with Veolia Water being the current operator. The facility, located at 87 Branch Street in Pawtucket, Rhode Island, sources raw water from the Abbot Run aquifer, which contains four surface water reservoirs and eight groundwater wells. The treatment plant processes raw water through up-flow clarifiers and deep bed granulated/activated carbon filters. The finished water which enters the distribution system is treated with hydrated lime for pH control, fluoride, orthophosphate for corrosion inhibition, and hypochlorite for disinfection. The plant has a design capacity of 25 million gallons of water per day.

## 1.1 Background

Wright-Pierce was retained to conduct a Baseline Asset Evaluation of the existing equipment and structures ("Managed Assets") for the City's Water Treatment Facility. This evaluation included the water treatment plant, raw water operations building, and the HVAC system located in the PWSB Administration building. It did not include an evaluation of the groundwater wells, well pump stations, or the Administration Building laboratory.

During the assessment, Wright-Pierce engineers reviewed equipment for condition, operability, and suitability for application and location. This included a visual inspection of assets during operation to identify leakage, condition of coatings, signs of wear and corrosion, and excessive vibration, noise, or temperature. Structural observations of the clearwell and the equalization (EQ) tanks were completed using specialty equipment, such as underwater cameras and drones, with assistance from subcontractors. Otherwise, the evaluation included visual inspection to all readily accessible areas. Third party diagnostic testing, OSHA safety analysis, and a full code compliance audit were not part of the scope of this project.

## 1.2 Goals and Objectives of Evaluation

### Managed Assets registry

- The registry includes a complete listing of all Managed Assets and was coordinated with the Computerized Maintenance Management Systems (CMMS) owned by Veolia, the City's contract operator.
- Veolia's CMMS was used to create the initial registry used for field evaluations.
- The registry was compiled using Microsoft Excel.
- Wright-Pierce staff developed custom registry/ inspection forms utilizing Fulcrum Software.

### Baseline evaluation of Managed Assets equipment

- All motorized and manually operated equipment together with electrical equipment was tested for proper operation.
- Assets deemed critical or essential to treatment operations had a Weighted Average Useful Life (WAUL) calculation performed. Assets not deemed critical or essential to treatment operations were not evaluated.

### Baseline evaluation of managed asset structures

- A photographic or video record was made of the exterior and interior of asset structures where possible.
- A structural integrity rating was also assigned to each Managed Asset Structure.

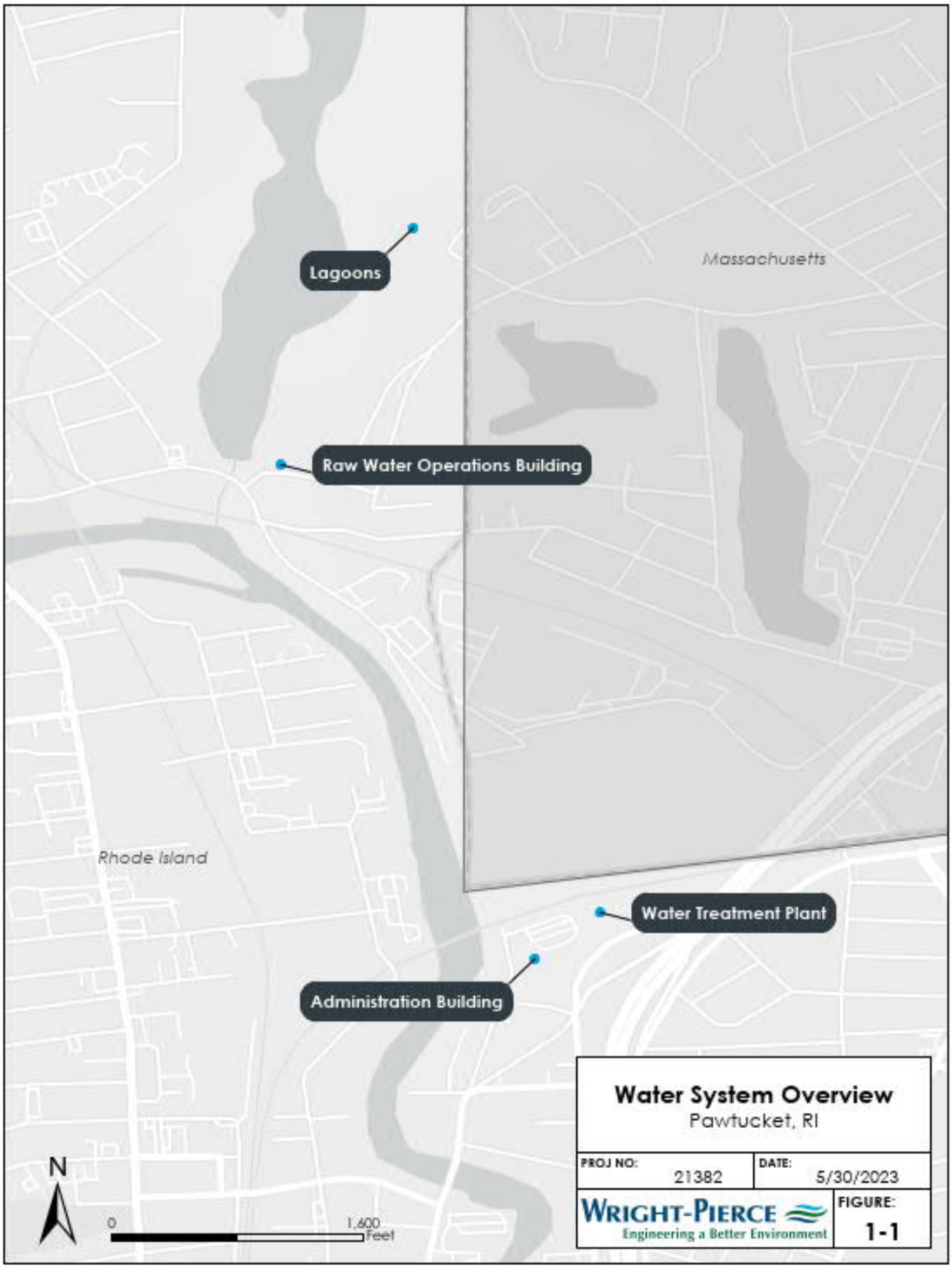
### Final Asset Evaluation report

- This report describes the procedures conducted during the evaluation, the methodology followed to generate rankings, and a summary of findings and recommendations.
- The WAUL baseline values were computed for the water treatment plant (WTP) and the raw water operations building. The baseline values may be used in future evaluations to compare whether the condition is consistent with the maintenance and general upkeep best practices.
- The final Registry of all Managed Assets for this evaluation is included in Appendix A.

## 1.3 Water System Overview

The water system asset evaluation consisted of the water treatment plant and raw water operations building. See Figure 1-1 for the location of the system facilities.

Figure 1-1 Water System Overview



# Section 2 Evaluation Protocol

## 2.1 Preliminary Research & Investigations

Prior to conducting the field evaluations, Wright-Pierce conducted a workshop meeting with Veolia operations and maintenance staff to (a) query staff relative to any on-going concerns and/or problems; and (b) review existing assets "not-in-service" or to be replaced / removed as part of ongoing Capital Expenditures.

## 2.2 Data Collection & Condition Assessment

Inventory information and condition data were collected using mobile tablets or smart phones employing a custom reporting form designed by Wright-Pierce utilizing Fulcrum Mobile Solutions Software. After the initial field visits were conducted, Wright-Pierce staff analyzed the assets to determine condition and current value. All equipment assets were then incorporated into a WAUL calculation using the condition assessment and work order history. Steps taken to calculate the WAUL values are outlined in Section 3 of this report. All structural assets were assigned a structural integrity rating of 1-5 based on the condition assessment results.

# Section 3 Methodology

Asset condition assessments were based on information provided by Veolia, interviews with treatment plant and operations staff, and field observations by Wright-Pierce personnel. During the site visits:

- Basic testing was performed with commonly available tools. Tools were not specifically calibrated for each use, but the results were used to identify assets performing outside the expected range.
- Data was collected by the Wright-Pierce team using Fulcrum, a cloud-based data collection software, on tablets and smartphones.
- Confined space entry was performed for the EQ tanks and finished water vault.
- Visual testing was performed to determine the condition of assets. Destructive testing of construction materials (concrete, paint, metal, insulation, etc.) was not performed.

## 3.1 Equipment Condition Assessment

To assess the condition of all equipment assets in the water system, the following evaluation was performed for each asset:

- Questions for evaluator. For each question, please choose the answer that best describes the current condition of the equipment asset.
  - Verify operation, does the asset run?
    - Yes
    - No
  - What is the condition of the coatings?
    - Excellent
    - Good
    - Fair
    - Poor
  - Are there any signs of wear or corrosion?
    - None
    - Minimal
    - Moderate
    - Significant
  - Is there any leakage of fluids?
    - None
    - Minimal
    - Moderate
    - Significant
    - Not Applicable

- The following questions are all Yes/No answers. The tests used to answer the following questions are performed by the engineer evaluator using common handheld devices (i.e. infrared temperature gun, decibel sound meter, etc.)
  - Are there any installation problems?
  - Is there any excessive vibration?
  - Is there any excessive noise?
  - Is there any abnormal temperature?

## 3.2 Structural Condition Assessment

To assess the condition of all structural assets in the water system the following evaluation was performed for each asset:

All architectural components are rated on condition (Inoperable, Poor, Fair, Good, Excellent) and have a photo section with each component.

Interior Components:

- Flooring
- Wall Finish
- Ceiling
- Partitions
- Door
- Vision Lites
- Stairs
- Hatches

Exterior Components:

- Exterior Walls
- Exterior Doors
- Exterior Windows
- Overhead Doors
- Louvers
- Roofing
- Soffits
- Edge Trim
- Venting
- Concrete Walls
- Concrete Slabs
- Hatches, Plates, and Grating
- Railings

All structural components have a list of defects and a photo section with each component.

- Steps and Landings
- Concrete
- Beams
- Joists
- Handrail and Guards
- Floor/Ceiling
- Metal Structure
- Column
- Roof Structure
- Coatings

Structural analysis and calculations were not performed as part of the structural assessment. Only visual observations of defects were made.

## 3.3 WAUL Calculation

The WAUL calculation is defined as the sum of the Weighted Remaining Life for an individual Managed Asset. Below are the step by step instructions used to calculate the WAUL Value. An example calculation is also done to walk you through the steps. The assets and values are fictitious, and used to demonstrate how to properly perform the calculation.

### 3.3.1 Step #1 – Assign Default Service Life

The default service life for an asset is the average/expected time that an asset under normal operating conditions will be in service from installation to replacement. Each asset is assigned an asset class, and each asset class has a default service life that corresponds to that group/type of asset as seen in Table 3-1. The default service lives were assigned using current data available, industry standards, and manufacturers recommendations.

Table 3-1 Asset Classes

| Asset Class | Service Life | Description |
|---|---|---|
| AR | 10 | Air Relief Valve |
| BL | 25 | Blower |
| BR | 30 | Bridge, Roof |
| CF | 10 | Chemical Feed System |
| CP | 30 | Centrifugal Pump |
| CS | 60 | Concrete Structure, Building, Basin, Drywell/Wet Well |
| DM | 20 | Drive Mechanism |
| EE | 30 | Electrical Equipment |
| EP | 25 | Electrical Panel |
| ES | 25 | Electrical System |

| Asset Class | Service Life | Description |
|---|---|---|
| FI | 15 | Filter |
| GN | 35 | Generator |
| GS | 300 | Grounds |
| HV | 15 | Heating, Ventilating, and Air Conditioning |
| IC | 15 | Instrumentation and Controls |
| LB | 20 | Lab and Kitchen Equipment |
| MN | 10 | Maintenance/Tools |
| MO | 20 | Motor |
| OE | 10 | Office Equipment |
| OS | 15 | Odor Control System |
| PE | 20 | Process Equipment |
| PI | 50 | Piping |
| PP | 20 | Pump |
| SA | 10 | Safety Equipment/Gear |
| SG | 30 | Slide Gate |
| TK | 25 | Tank |
| TX | 25 | Transformer, Transfer Switch |
| VA | 25 | Valve - All |
| VD | 20 | VFD, Motor Stater |
| VE | 10 | Vehicle |
| WL | 60 | Well |

Example:

| Asset Number | Asset Name | Asset Class | Default Service Life |
|---|---|---|---|
| 101-01-FI-01 | Filter | FI | 15 |
| 101-02-GN-01 | Generator | GN | 35 |
| 201-PP-01 | Pump #1 | CP | 30 |
| 201-PP-02 | Pump #2 | CP | 30 |
| 203-PP-01 | Pump #1 | CP | 30 |
| 203-PP-02 | Pump #2 | CP | 30 |

### 3.3.2 Step #2 – Calculate Assets Age

Next, the asset's initial year of installation was determined based on client data and field data. The asset's age was then calculated by subtracting the installation year from the current year.

Example

| Asset Number | Current Year | - | Install Year | = | Asset Age |
|---|---|---|---|---|---|
| 101-01-FI-01 | 2023 | | 2000 | | 23 |
| 101-02-GN-01 | 2023 | | 2000 | | 23 |
| 201-PP-01 | 2023 | | 2006 | | 17 |
| 201-PP-02 | 2023 | | 2010 | | 13 |
| 203-PP-01 | 2023 | | 2015 | | 8 |
| 203-PP-02 | 2023 | | 2015 | | 8 |

### 3.3.3 Step #3 – Assign Utilization Level

The utilization level is a comparison of an equipment's estimated run time to industry standard run time under normal operating conditions. The equipment's actual run time was estimated from conversations with the facilities operational staff. To calculate the utilization level, the estimated run time was compared to the industry standard run time under normal operating conditions. We selected the utilization level from the following list or obtained it from operators.

- Run time significantly less than expected
- Run time less than expected
- Run time is within expected range
- Run time is more than expected

- Run time significantly more than expected

### 3.3.4 Step #4 – Calculate Utilization Adjustment Factor

Based on the utilization level, a utilization adjustment factor will be applied to increase or decrease the service life.

#### Example

| Asset Number | Utilization Level | Utilization Adjustment |
|---|---|---|
| 101-01-FI-01 | Run time is within expected range | 0% |
| 101-02-GN-01 | Run time is within expected range | 0% |
| 201-PP-01 | Run time is within expected range | 0% |
| 201-PP-02 | Run time is within expected range | 0% |
| 203-PP-01 | Run time significantly less than expected | 15% |
| 203-PP-02 | Run time significantly more than expected | -15% |

### 3.3.5 Step #5 – Assign Maintenance/Renewal Level

The maintenance/renewal level is a rating of how much work is being performed on the asset. Work order history and operator knowledge was used to estimate the asset's maintenance/renewal level. The maintenance/renewal level was selected from the following list or obtained from operators.

- Easily maintained
- Largely preventative maintenance
- Periodic corrective maintenance
- Work orders well above average
- Corrective maintenance has become routine

### 3.3.6 Step #6 – Assign Condition Rating

Each asset receives a condition rating based on the equipment condition assessment that was completed in the field; the condition assessment criteria is explained in Section 3.1 above. The following are the possible condition ratings:

- New or excellent condition
- Very good condition
- Minor defects only
- Some defects and deterioration
- Moderate deterioration
- Moderate to significant deterioration
- Significant deterioration
- Significant deterioration w/ major repairs performed on equipment
- Virtually unserviceable

- Unserviceable

### 3.3.7 Step #7 – Determine Maintenance/Renewal and Condition Adjustment Values

To determine the maintenance/renewal and condition adjustment values, the expected levels (based on age) will be compared to the actual levels determined in the field. To properly calculate an asset's expected service life, we must consider the maintenance (preventative and corrective) that has been performed and make the appropriate adjustment. This adjustment is made by using maintenance records and field observations/values to adjust an assets service life up or down respectively.

#### Example

| Asset Number | Maintenance/Renewal Level | M/R Adjustment | Condition Rating | Condition Adjustment |
|---|---|---|---|---|
| 101-01-FI-01 | Largely preventative maintenance | 20% | Significant deterioration | 0% |
| 101-02-GN-01 | Largely preventative maintenance | 10% | Minor defects only | 15% |
| 201-PP-01 | Largely preventative maintenance | 0% | Some defects and deterioration | 0% |
| 201-PP-02 | Largely preventative maintenance | 0% | Minor defects only | 0% |
| 203-PP-01 | Largely preventative maintenance | 0% | Very good condition | 0% |
| 203-PP-02 | Largely preventative maintenance | 0% | Very good condition | 0% |

### 3.3.8 Step #8 – Calculate the Expected Service Life

The expected service life is the default service life adjusted up or down to account for the actual field conditions of the asset. To calculate the expected service life we multiply the utilization, maintenance/renewal, and condition adjustment factors with the default service life to obtain the additional service life if applicable. This is added to the default service life to obtain the expected service life of the asset.

#### Example

| Asset Number | Utilization Adjustment | M/R Adjustment | Condition Adjustment | % Service Life Increase | Expected Service Life |
|---|---|---|---|---|---|
| 101-01-FI-01 | 0% | 20% | 0% | 20% | 18 |
| 101-02-GN-01 | 0% | 10% | 15% | 25% | 44 |
| 201-PP-01 | 0% | 0% | 0% | 0% | 30 |
| 201-PP-02 | 0% | 0% | 0% | 0% | 30 |
| 203-PP-01 | 15% | 0% | 0% | 15% | 35 |

| Asset Number | Utilization Adjustment | M/R Adjustment | Condition Adjustment | % Service Life Increase | Expected Service Life |
|---|---|---|---|---|---|
| 203-PP-02 | -15% | 0% | 0% | -15% | 26 |

### 3.3.9 Step #9 – Calculate the Expected Remaining Life

Calculate the assets expected remaining life by subtracting the age of the asset from the expected service life.

#### Example

| Asset Number | Expected Service Life | - | Age | = | Expected Remaining Life |
|---|---|---|---|---|---|
| 101-01-FI-01 | 18 | | 23 | | 0 |
| 101-02-GN-01 | 44 | | 23 | | 21 |
| 201-PP-01 | 30 | | 17 | | 13 |
| 201-PP-02 | 30 | | 13 | | 17 |
| 203-PP-01 | 35 | | 8 | | 27 |
| 203-PP-02 | 26 | | 8 | | 18 |

### 3.3.10 Step #10 – Estimate the Replacement Value

Estimate the Replacement Value for each Managed Asset by assessing costs from manufacturers, previous bids, water equipment references, or data from Wright-Pierce records.

### 3.3.11 Step #11 – Determine the Individual Asset Weighting Factor

Determine the individual asset weighting factor by dividing each individual asset replacement value by the sum of the total replacement values.

#### Example

| Asset Number | Replacement Value | / | Sum of Replacement Values | = | Weighting Factor |
|---|---|---|---|---|---|
| 101-01-FI-01 | $40,000 | | $190,000 | | 0.2105 |
| 101-02-GN-01 | $50,000 | | $190,000 | | 0.2631 |
| 201-PP-01 | $20,000 | | $190,000 | | 0.1053 |
| 201-PP-02 | $20,000 | | $190,000 | | 0.1053 |
| 203-PP-01 | $30,000 | | $190,000 | | 0.1579 |
| 203-PP-02 | $30,000 | | $190,000 | | 0.1579 |

### 3.3.12 Step #12 – Calculate the Individual Asset's Weighting Remaining Life

Calculate the assets Weighted Remaining Life by taking the product of the assets Remaining Life and the individual asset Weighting Factor.

Example

| Asset Number | Remaining Life | x | Weighting Factor | = | Weighted Remaining Life |
|---|---|---|---|---|---|
| 101-01-FI-01 | 0 | | 0.2105 | | 0 |
| 101-02-GN-01 | 21 | | 0.2631 | | 5.5251 |
| 201-PP-01 | 13 | | 0.1053 | | 1.3689 |
| 201-PP-02 | 17 | | 0.1053 | | 1.7901 |
| 203-PP-01 | 27 | | 0.1579 | | 4.2633 |
| 203-PP-02 | 18 | | 0.1579 | | 2.8422 |

### 3.3.13 Step #13 – Calculate the Total Weighted Average Useful Life

Calculate the total Weighted Average Useful Life by taking the sum of the individual Weighted Remaining Lives of all the assets.

Example

| Asset Number | Asset Name | Date Purchased /Installed | Service Life (Years) | Replacement Value | Remaining Life (Years) | Weighting Factor | Weighted Remaining Life (Years) |
|---|---|---|---|---|---|---|---|
| 101-01-FI-01 | Filter | 2000 | 18 | $40,000 | 0 | 0.2105 | 0 |
| 101-02-GN-01 | Generator | 2000 | 44 | $50,000 | 21 | 0.2631 | 5.5251 |
| 201-PP-01 | Pump #1 | 2006 | 30 | $20,000 | 13 | 0.1053 | 1.3689 |
| 201-PP-02 | Pump #2 | 2010 | 30 | $20,000 | 17 | 0.1053 | 1.7901 |
| 203-PP-01 | Pump #1 | 2015 | 35 | $30,000 | 27 | 0.1579 | 4.2633 |
| 203-PP-02 | Pump #2 | 2015 | 26 | $30,000 | 18 | 0.1579 | 2.8422 |
| Total | - | - | - | $190,000 | - | 1.00 | - |
| | | | | Weighted Average Useful Life | | | 15.7896 |

## 3.4 Structural Integrity Rating

No invasive or destructive testing was performed, only visual observations of the asset's individual components. The structural integrity rating is determined by assessing the structure's ability to perform its intended use. The following are the structural integrity ratings:

- Excellent - No visible defects, cracks, or wear.
- Good - Visible signs of minor defects and less than expected wear.
- Fair - Visible signs of moderate defects and expected wear.
- Poor - Visible signs of major defects and more than expected wear.
- Imminent Failure - Extremely poor overall condition and significant safety and/or structural concerns.

## 3.5 Cost Estimate

In preparing the cost estimates, quotes from manufacturers were not obtained. Provided cost estimates for the replacement values are approximate numbers based on engineer's estimates. All estimates are based on engineers experience, familiarity and visual observations made during field inspections. When budgeting to replace an asset, actual equipment quotes should be requested as well as estimates for contractor's labor to install. The cost information provided is in current dollars and is based on an ENR index of 13425 (July 2023). Cost estimates include a 50% adder to budget for installation costs.

# Section 4 Updates and Future Evaluations

## 4.1 Updates

The evaluation process described in this report was developed such that the updates and final evaluation would use the same methodology to determine the WAUL of the managed assets as used in the baseline evaluation. The same holds true for the structural integrity evaluations. In addition, the updates and final evaluation should include an analysis of whether the assets condition is consistent with the maintenance and general upkeep requirements.

## 4.2 WAUL Results

The WAUL value is the sum of every weighted remaining life value. This summation was performed separately for the equipment at the treatment plant, the equipment at the Raw Water Operations Building, and for all water system equipment together. The reason for the different summations is to easily identify if repair work is being focused on a specific facility instead of being evenly spread. The baseline WAUL for the main plant is 14.76, for the Raw Water Operations Building is 29.81, and for the entire water system it is 16.51. The asset registry with all condition ratings and WAUL calculations is found in Appendix A.

### 4.2.1 Comparison to Baseline Evaluation

Wright-Pierce recommends that any future update evaluations follow the same protocol and methodology with the additional step of maintenance analysis described above. The updated WAUL will be compared to 90% of the baseline WAUL. The structural integrity ratings shall also be compared to the baseline at each update to identify any structural assets that are deteriorating.

## WAUL Values Comparison

For a newly constructed treatment plant, the expected WAUL value would be approximately 20. For a treatment plant in moderate condition with the expected maintenance being performed and asset condition being generally were its expected to be, the WAUL values would be between 10 and 20. For a treatment plant in poor condition with little maintenance being performed and assets in worse than expected condition, the WAUL values would be less than 10. For a treatment plant of similar age to the Pawtucket Treatment Plant, around 18 years old, a WAUL value of approximately 14 is normal and the expected value. Note that this does not correspond to the treatment plant having 14 years left of life before it becomes inoperable, but rather is a sum of every weighted remaining life value. This value helps garner an understanding of the amount of time, on average, that all the assets in the treatment plant are expected to contribute value to the plant. Additionally, these WAUL values include equipment assets only; structural evaluations are separate.

Table 4-1 Comparison to Baseline WAUL Values

| Contract Year | Main Plant | Raw Water Operations Building | Total Water System |
|---|---|---|---|
| Baseline – 2023 | 14.76 | 29.81 | 16.51 |
| 90 Percent of Baseline | 13.28 | 26.83 | 14.86 |
| Update #1 | | | |
| Update #2 | | | |
| Update #3 | | | |
| Final | | | |

# Appendix A
# Asset Registry

# PAWTUCKET, RI 2023 BASELINE ASSET EVALUATION

| | Asset Description | Room/Area | Asset Type | Asset Class | Defualt Service Life (YRS) | Year of Installation | Current Asset Age (YRS) | % Service Life Remaining | Utilization Level | Utilization Adjustment | Maintenance/Renewal Level | Renewal Adjustment | Condition Rating | Condition Adjustment | Expected Service Life (YRS) | Expected Remaining Life (YRS) | Replacement Value ($) | Weighting Factor | Weighted Remaining Life (YRS) | Total Weighting Factor | Total Weighted Remaining Life (YRS) | Structural Integrity Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **EQUIPMENT** | | | | | | | | | | | | | | | | | | | | | |
| | **PROCESS BUILDING** | | | | | | | | | | | | | | | | | | | | | |
| - | Piping | Pump Room | WAUL | PI | 50 | 2005 | 18 | 64% | Run time is within expected range | 0% | Easily maintained | 10% | Minor Defects Only | 0% | 55 | 37 | $750,000 | 0.0333 | 1.2324 | 0.0294 | 1.0888 | |
| - | Piping | Pipe Gallery | WAUL | PI | 50 | 2005 | 18 | 64% | Run time is within expected range | 0% | Easily maintained | 10% | Minor Defects Only | 0% | 55 | 37 | $750,000 | 0.0333 | 1.2324 | 0.0294 | 1.0888 | |
| Generator unit | Generator No. 2 | Exterior | WAUL | GN | 35 | 2004 | 19 | 46% | Run time less than expected | 10% | Largely preventative maintenance | 0% | Minor Defects Only | 15% | 44 | 25 | $750,000 | 0.0333 | 0.8244 | 0.0294 | 0.7283 | |
| Generator unit | Generator No. 1 | Exterior | WAUL | GN | 35 | 2005 | 18 | 49% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 15% | 47 | 29 | $750,000 | 0.0333 | 0.9743 | 0.0294 | 0.8607 | |
| FE-350B | Flow Element - Finished Water | Finished Water Vault | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Moderate to Significant Deterioration | 15% | 20 | 2 | $67,500 | 0.0030 | 0.0067 | 0.0026 | 0.0060 | |
| FE-350B | Flowmeter - Finished Water No. 2 | Finished Water Vault | WAUL | IC | 15 | 2022 | 1 | 93% | Run time is within expected range | 0% | Easily maintained | 0% | Moderate to Significant Deterioration | -25% | 11 | 10 | $67,500 | 0.0030 | 0.0307 | 0.0026 | 0.0271 | |
| FFE-350A | Flowmeter - Finished Water No. 1 | Finished Water Vault | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Virtually Unserviceable | 0% | 18 | 0 | $67,500 | 0.0030 | 0.0000 | 0.0026 | 0.0000 | |
| FE-702 | Flowmeter - Storage Water Tank | Finished Water Vault | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 22 | 4 | $67,500 | 0.0030 | 0.0112 | 0.0026 | 0.0099 | |
| FV-703 | Valve - Finished Water No. 703 | Finished Water Vault | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $45,000 | 0.0020 | 0.0315 | 0.0018 | 0.0278 | |
| FV-704 | Valve - Pressure Relief No. 701 | Finished Water Vault | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| FV-704 | Valve - Pressure Relief No. 702 | Finished Water Vault | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| - | Piping | Mechanical Corridor | WAUL | PI | 50 | 2004 | 19 | 62% | Run time is within expected range | 0% | Easily maintained | 10% | Moderate Deterioration | -15% | 48 | 29 | $150,000 | 0.0067 | 0.1899 | 0.0059 | 0.1677 | |
| BFV-210 | Valve - Raw Water No. 210 Static Mixer No. 210 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| BFV-211 | Valve - Raw Water No. 211 Static Mixer No. 210 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| BFV-BLWR-282-D | Valve - Blower No. 282 Discharge | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $7,500 | 0.0003 | 0.0061 | 0.0003 | 0.0054 | |
| BFV-BLWR-282-S | Valve - Blower No. 282 Suction | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $7,500 | 0.0003 | 0.0061 | 0.0003 | 0.0054 | |
| BFV-BLWR-281-D | Valve - Blower No. 281 Discharge | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $7,500 | 0.0003 | 0.0061 | 0.0003 | 0.0054 | |
| BFV-BLWR-281-S | Valve - Blower No. 281 Suction | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $7,500 | 0.0003 | 0.0061 | 0.0003 | 0.0054 | |
| FV-271 | Valve - Finished Water No. 271 UV Reactor No. 270 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| FV-272 | Valve - Finished Water No. 272 UV Reactor No. 270 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| FV-281 | Valve - Finished Water No. 281 UV Reactor No. 280 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| FV-282 | Valve - Finished Water No. 282 UV Reactor No. 280 | Mechanical Corridor | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| WTP-SCADA | SCADA Panel - Treatment Plant Control | Mechanical Corridor | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 15% | 41 | 23 | $120,000 | 0.0053 | 0.1199 | 0.0047 | 0.1059 | |
| FCP-SCDA | SCADA Panel - Filter System Control | Mechanical Corridor | WAUL | IC | 15 | 2004 | 19 | 0% | Run time significantly less than expected | 15% | Easily maintained | 20% | Very Good Condition | 25% | 24 | 5 | $120,000 | 0.0053 | 0.0266 | 0.0047 | 0.0235 | |
| BFV-310 | Valve - Finished Water Pump No. 310 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $37,500 | 0.0017 | 0.0304 | 0.0015 | 0.0269 | |
| BFV-320 | Valve - Finished Water Pump No. 320 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $37,500 | 0.0017 | 0.0304 | 0.0015 | 0.0269 | |
| BFV-330 | Valve - Finished Water Pump No. 330 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $37,500 | 0.0017 | 0.0304 | 0.0015 | 0.0269 | |
| BFV-340 | Valve - Finished Water Pump No. 340 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $37,500 | 0.0017 | 0.0304 | 0.0015 | 0.0269 | |
| FCV-293 | Valve - Backwash Water No. 293 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| FCV-294 | Valve - Backwash Water No. 294 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| BFV-291 | Valve - Backwash Water Pump No. 291 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $22,500 | 0.0010 | 0.0182 | 0.0009 | 0.0161 | |
| BFV-292 | Valve - Backwash Water Pump No. 292 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $22,500 | 0.0010 | 0.0182 | 0.0009 | 0.0161 | |
| CV-291 | Valve - Backwash Water Pump No. 291 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| CV-292 | Valve - Backwash Water Pump No. 292 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| CV-310 | Valve - Finished Water Pump No. 310 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| CV-320 | Valve - Finished Water Pump No. 320 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| CV-330 | Valve - Finished Water Pump No. 330 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| FIT-350B | Transmitter - Finished Water Flowmeter | Pump Room | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $7,500 | 0.0003 | 0.0012 | 0.0003 | 0.0011 | |
| FE-295 | Transmitter - Backwash Water Flowmeter FE-295 | Pump Room | WAUL | IC | 15 | 2020 | 3 | 80% | Run time is within expected range | 0% | Easily maintained | 0% | Very Good Condition | 0% | 15 | 12 | $7,500 | 0.0003 | 0.0040 | 0.0003 | 0.0035 | |
| FIT-702 | Transmitter - Storage Water Tank Flowmeter | Pump Room | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $7,500 | 0.0003 | 0.0012 | 0.0003 | 0.0011 | |
| FIT-295 | Transmitter - Backwash Water Flowmeter FIT-295 | Pump Room | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $7,500 | 0.0003 | 0.0012 | 0.0003 | 0.0011 | |
| M-BWP-291 | Motor - Backwash Water Pump No. 291 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $75,000 | 0.0033 | 0.0366 | 0.0029 | 0.0324 | |
| M-BWP–292 | Motor - Backwash Water Pump No. 292 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $75,000 | 0.0033 | 0.0366 | 0.0029 | 0.0324 | |
| M-HSP-310 | Motor - Finished Water Pump No. 310 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $150,000 | 0.0067 | 0.0733 | 0.0059 | 0.0647 | |
| M-HSP-320 | Motor - Finished Water Pump No. 320 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $150,000 | 0.0067 | 0.0733 | 0.0059 | 0.0647 | |
| M-HSP-330 | Motor - Finished Water Pump No. 330 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $150,000 | 0.0067 | 0.0733 | 0.0059 | 0.0647 | |
| M-HSP-340 | Motor - Finished Water Pump No. 340 | Pump Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $150,000 | 0.0067 | 0.0733 | 0.0059 | 0.0647 | |
| P-HSP-330 | Pump - Finished Water No. 330 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $375,000 | 0.0167 | 0.3248 | 0.0147 | 0.2869 | |
| P-HSP-340 | Pump - Finished Water No. 340 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $375,000 | 0.0167 | 0.3248 | 0.0147 | 0.2869 | |
| P-HSP-310 | Pump - Finished Water No. 310 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $375,000 | 0.0167 | 0.3248 | 0.0147 | 0.2869 | |
| P-HSP-320 | Pump - Finished Water No. 320 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $375,000 | 0.0167 | 0.3248 | 0.0147 | 0.2869 | |
| P-BWW-292 | Pump - Backwash Water No. 292 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $150,000 | 0.0067 | 0.1299 | 0.0059 | 0.1148 | |
| P-BWW-291 | Pump - Backwash Water No. 291 | Pump Room | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $150,000 | 0.0067 | 0.1299 | 0.0059 | 0.1148 | |
| CV-340 | Valve - Finished Water Pump No. 340 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |
| SLV-330 | Valve - Finished Water Surge Relief No. 330 | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $45,000 | 0.0020 | 0.0365 | 0.0018 | 0.0322 | |

# PAWTUCKET, RI 2023 BASELINE ASSET EVALUATION

| Asset Description | Room/Area | Asset Type | Asset Class | Defualt Service Life (YRS) | Year of Installation | Current Asset Age (YRS) | % Service Life Remaining | Utilization Level | Utilization Adjustment | Maintenance/Renewal Level | Renewal Adjustment | Condition Rating | Condition Adjustment | Expected Service Life (YRS) | Expected Remaining Life (YRS) | Replacement Value ($) | Weighting Factor | Weighted Remaining Life (YRS) | Total Weighting Factor | Total Weighted Remaining Life (YRS) | Structural Integrity Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FV-520 | Valve - EQ Pump No. 520 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $22,500 | 0.0010 | 0.0182 | 0.0009 | 0.0161 | |
| FV-521 | Valve - EQ Pumps No. 521 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FV-522 | Valve - EQ Pumps No. 522 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $22,500 | 0.0010 | 0.0182 | 0.0009 | 0.0161 | |
| FWCV-217A | Valve - Wastewater Flow Control No. 217A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-210 | Valve - Raw Water Flow Control No. 210 Clarifier No. 210 | Pipe Gallery | WAUL | VA | 25 | 2009 | 14 | 44% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 0% | 30 | 16 | $30,000 | 0.0013 | 0.0213 | 0.0012 | 0.0188 | |
| FCV-212 | Valve - Clarifier Effluent No. 212 Clarifier No. 210 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-213A | Valve - Clarified Water No. 213A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-213B | Valve - Clarified Water No. 213B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-215A | Valve - Filtered Water Flow Control No. 215A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-215B | Valve - Filtered Water Flow Control No. 215B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-220 | Valve - Raw Water Flow Control No. 220 Clarifier No. 220 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| FCV-222 | Valve - Clarifier Effluent No. 222 Clarifier No. 220 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-223A | Valve - Clarified Water No. 223A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-223B | Valve - Clarified Water No. 223B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-225A | Valve - Filtered Water Flow Control No. 225A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-225B | Valve - Filtered Water Flow Control No. 225B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-230 | Valve - Raw Water Flow Control No. 230 Clarifier No. 230 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| FCV-232 | Valve - Clarifier Effluent No. 232 Clarifier No. 230 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-233A | Valve - Clarified Water No. 233A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-233B | Valve - Clarified Water No. 233B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-235A | Valve - Filtered Water Flow Control No. 235A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-235B | Valve - Filtered Water Flow Control No. 235B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-240 | Valve - Raw Water Flow Control No. 240 Clarifier No. 240 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| FCV-242 | Valve - Clarifier Effluent No. 242 Clarifier No. 240 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-243A | Valve - Clarified Water No. 243A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-243B | Valve - Clarified Water No. 243B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| FCV-245A | Valve - Filtered Water Flow Control No. 245A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FCV-245B | Valve - Filtered Water Flow Control No. 245B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| BWCV-216A | Valve - Backwash Inlet No. 216A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-216B | Valve - Backwash Inlet No. 216B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-217B | Valve - Wastewater Flow Control No. 217B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| BWCV-219A | Valve - Backwash Outlet No. 219A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-219B | Valve - Backwash Outlet No. 219B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-226A | Valve - Backwash Inlet No. 226A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-226B | Valve - Backwash Inlet No. 226B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-229A | Valve - Backwash Outlet No. 229A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-229B | Valve - Backwash Outlet No. 229B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-236A | Valve - Backwash Inlet No. 236A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-236B | Valve - Backwash Inlet No. 236B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-239A | Valve - Backwash Outlet No. 239A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-239B | Valve - Backwash Outlet No. 239B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-246A | Valve - Backwash Inlet No. 246A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-246B | Valve - Backwash Inlet No. 246B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-249A | Valve - Backwash Outlet No. 249A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| BWCV-249B | Valve - Backwash Outlet No. 249B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0013 | 0.0210 | 0.0012 | 0.0185 | |
| ACV-211 | Valve - Air Scour No. 211 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-214A | Valve - Scour Air No. 214A Filter No. 210A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-221 | Valve - Air Scour No. 221 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-224A | Valve - Scour Air No. 224A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-231 | Valve - Air Scour No. 231 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-234A | Valve - Scour Air No. 234A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-241 | Valve - Air Scour No. 241 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| ACV-244A | Valve - Scour Air No. 244A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| BCV-214B | Valve - Scour Air No. 214B Filter No. 210B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| BCV-224B | Valve - Scour Air No. 224B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| BCV-234B | Valve - Scour Air No. 234B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| BCV-244B | Valve - Scour Air No. 244B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $15,000 | 0.0007 | 0.0105 | 0.0006 | 0.0093 | |
| CWCV-218 | Valve - Clarifier Waste No. 218 Clarifier No. 210 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Moderate Deterioration | 0% | 30 | 12 | $37,500 | 0.0017 | 0.0200 | 0.0015 | 0.0177 | |
| CWCV-228 | Valve - Clarifier Waste No. 228 Clarifier No. 220 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $37,500 | 0.0017 | 0.0262 | 0.0015 | 0.0232 | |

# PAWTUCKET, RI 2023 BASELINE ASSET EVALUATION

| Asset Description | Room/Area | Asset Type | Asset Class | Defualt Service Life (YRS) | Year of Installation | Current Asset Age (YRS) | % Service Life Remaining | Utilization Level | Utilization Adjustment | Maintenance/Renewal Level | Renewal Adjustment | Condition Rating | Condition Adjustment | Expected Service Life (YRS) | Expected Remaining Life (YRS) | Replacement Value ($) | Weighting Factor | Weighted Remaining Life (YRS) | Total Weighting Factor | Total Weighted Remaining Life (YRS) | Structural Integrity Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CWCV-238 | Valve - Clarifier Waste No. 238 Clarifier No. 230 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $37,500 | 0.0017 | 0.0262 | 0.0015 | 0.0232 | |
| CWCV-248 | Valve - Clarifier Waste No. 248 Clarifier No. 240 | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $37,500 | 0.0017 | 0.0262 | 0.0015 | 0.0232 | |
| BPV-550 | Valve - EQ Pumps Backpressure Control | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $22,500 | 0.0010 | 0.0182 | 0.0009 | 0.0161 | |
| FWCV-227A | Valve - Wastewater Flow Control No. 227A Filter No. 220A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FWCV-227B | Valve - Wastewater Flow Control No. 227B Filter No. 220B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FWCV-237A | Valve - Wastewater Flow Control No. 237A Filter No. 230A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FWCV-237B | Valve - Wastewater Flow Control No. 237B Filter No. 230B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FWCV-247A | Valve - Wastewater Flow Control No. 247A Filter No. 240A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| FWCV-247B | Valve - Wastewater Flow Control No. 247B Filter No. 240B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $22,500 | 0.0010 | 0.0157 | 0.0009 | 0.0139 | |
| BFV-510 | Valve - EQ Pump No. 510 Isolation | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| BFV-520 | Valve - EQ Pump No. 520 Isolation | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| CV-510 | Valve - EQ Pump No. 510 Check | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| CV-520A | Valve - EQ Pump No. 520 Check A | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| CV-520B | Valve - EQ Pump No. 520 Check B | Pipe Gallery | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| M-EBP-510 | Motor - EQ Pump No. 510 | Pipe Gallery | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 11 | $30,000 | 0.0013 | 0.0147 | 0.0012 | 0.0129 | |
| M-EBP-520 | Motor - EQ Pump No. 520 | Pipe Gallery | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 11 | $30,000 | 0.0013 | 0.0147 | 0.0012 | 0.0129 | |
| P-EBP-510 | Pump No. 510 | Pipe Gallery | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $225,000 | 0.0100 | 0.1949 | 0.0088 | 0.1721 | |
| P-EBP-520 | Pump No. 520 | Pipe Gallery | WAUL | CP | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 38 | 20 | $225,000 | 0.0100 | 0.1949 | 0.0088 | 0.1721 | |
| P-LIM-71 | Pump - Lime Feed Metering No. 71 | Lime Room | WAUL | PP | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $37,500 | 0.0017 | 0.0183 | 0.0015 | 0.0162 | |
| P-LIM-72 | Pump - Lime Feed Metering No. 72 | Lime Room | WAUL | PP | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $37,500 | 0.0017 | 0.0183 | 0.0015 | 0.0162 | |
| P-LIM-72 | Pump - Lime Feed Metering No. 73 | Lime Room | WAUL | PP | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $37,500 | 0.0017 | 0.0183 | 0.0015 | 0.0162 | |
| P-LIM-75 | Pump - Lime Feed Metering No. 75 | Lime Room | WAUL | PP | 20 | 2005 | 18 | 10% | Run time significantly less than expected | 15% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 32 | 14 | $37,500 | 0.0017 | 0.0233 | 0.0015 | 0.0206 | |
| ER-ACU-01 | Air Conditioning Unit | Electrical Room | WAUL | HV | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Some Defects and Deterioration | 25% | 22 | 4 | $45,000 | 0.0020 | 0.0075 | 0.0018 | 0.0066 | |
| MCC-1 | MCC-1 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $750,000 | 0.0333 | 0.8494 | 0.0294 | 0.7504 | |
| VFD-P-320 | VFD - Pump No. 320 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $150,000 | 0.0067 | 0.1699 | 0.0059 | 0.1501 | |
| VFD-P-310 | VFD - Pump No. 310 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $150,000 | 0.0067 | 0.1699 | 0.0059 | 0.1501 | |
| VFD-P-310 | VFD - Pump No. 330 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $150,000 | 0.0067 | 0.1699 | 0.0059 | 0.1501 | |
| VFD-P-310 | VFD - Pump No. 340 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $150,000 | 0.0067 | 0.1699 | 0.0059 | 0.1501 | |
| RTCP-SCADA-PNL | SCADA Panel - Remote Telemetry | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 15% | 41 | 23 | $75,000 | 0.0033 | 0.0749 | 0.0029 | 0.0662 | |
| SWB-MV-1 | Switchgear | Electrical Room | WAUL | EE | 30 | 2004 | 19 | 37% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 25 | $525,000 | 0.0233 | 0.5712 | 0.0206 | 0.5047 | |
| MCC-1 | Transformer - MCC-1 | Electrical Room | WAUL | TX | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $30,000 | 0.0013 | 0.0243 | 0.0012 | 0.0215 | |
| MCC-1 | Transformer - PP3 | Electrical Room | WAUL | TX | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| MCC-1 | Transformer - LP1 | Electrical Room | WAUL | TX | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |
| COMP-02 | Compressor No. 2 | Mechanical Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| EVP-1-COMP | Dryer - Service Air No. 1 | Mechanical Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| EVP-2-COMP | Dryer - Service Air No. 2 | Mechanical Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| COMP-01 | Compressor No. 1 | Mechanical Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| BLW-281 | Blower - Backwash Air No. 281 | Mechanical Room | WAUL | BL | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Very Good Condition | 25% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| BLW-282 | Blower - Backwash Air No. 282 | Mechanical Room | WAUL | BL | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Very Good Condition | 25% | 34 | 16 | $52,500 | 0.0023 | 0.0367 | 0.0021 | 0.0324 | |
| CV-BLWA-281 | Valve - Blower No. 281 Check | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $12,000 | 0.0005 | 0.0097 | 0.0005 | 0.0086 | |
| CV-BLWA-282 | Valve - Blower No. 282 Check | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 36 | 18 | $12,000 | 0.0005 | 0.0097 | 0.0005 | 0.0086 | |
| FIT-280 | Flowmeter - Backwash Air | Mechanical Room | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $30,000 | 0.0013 | 0.0050 | 0.0012 | 0.0044 | |
| M-BLW-281 | Motor - Blower No. 281 | Mechanical Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| M-BLW-282 | Motor - Blower No. 282 | Mechanical Room | WAUL | MO | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 29 | 11 | $7,500 | 0.0003 | 0.0037 | 0.0003 | 0.0032 | |
| T-AIR-01 | Tank - Compressed Service Air | Mechanical Room | WAUL | TK | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $7,500 | 0.0003 | 0.0061 | 0.0003 | 0.0054 | |
| GWH-01 | Hot Water Heater | Mechanical Room | WAUL | HV | 15 | 2014 | 9 | 40% | Run time is within expected range | 0% | Largely preventative maintenance | 10% | Very Good Condition | 25% | 20 | 11 | $15,000 | 0.0007 | 0.0075 | 0.0006 | 0.0066 | |
| CLAR-210 | Clarifier No. 210 | Filter Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $750,000 | 0.0333 | 0.3664 | 0.0294 | 0.3237 | |
| CLAR-220 | Clarifier No. 220 | Filter Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $750,000 | 0.0333 | 0.3664 | 0.0294 | 0.3237 | |
| CLAR-230 | Clarifier No. 230 | Filter Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Some Defects and Deterioration | 25% | 29 | 11 | $750,000 | 0.0333 | 0.3664 | 0.0294 | 0.3237 | |
| CLAR-240 | Clarifier No. 240 | Filter Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 11 | $750,000 | 0.0333 | 0.3664 | 0.0294 | 0.3237 | |
| FILT-210A | Filter No. 210A | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-210B | Filter No. 210B | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-220A | Filter No. 220A | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-220B | Filter No. 220B | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Very Good Condition | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-230A | Filter No. 230A | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-230B | Filter No. 230B | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-240A | Filter No. 240A | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FILT-240B | Filter No. 240B | Filter Room | WAUL | FI | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 22 | 4 | $750,000 | 0.0333 | 0.1249 | 0.0294 | 0.1104 | |
| FCV-BWA-280 | Valve - Backwash Air Flow Control | Mechanical Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $15,000 | 0.0007 | 0.0122 | 0.0006 | 0.0107 | |

# PAWTUCKET, RI 2023 BASELINE ASSET EVALUATION

| | Asset Description | Room/Area | Asset Type | Asset Class | Defualt Service Life (YRS) | Year of Installation | Current Asset Age (YRS) | % Service Life Remaining | Utilization Level | Utilization Adjustment | Maintenance/Renewal Level | Renewal Adjustment | Condition Rating | Condition Adjustment | Expected Service Life (YRS) | Expected Remaining Life (YRS) | Replacement Value ($) | Weighting Factor | Weighted Remaining Life (YRS) | Total Weighting Factor | Total Weighted Remaining Life (YRS) | Structural Integrity Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ADMINISTRATIVE BUIDING** | | | | | | | | | | | | | | | | | | | | | |
| - | Air Handling Unit No. 1 | | WAUL | HV | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $75,000 | 0.0033 | 0.0125 | 0.0029 | 0.0110 | |
| - | Air Handling Unit No. 3 | | WAUL | HV | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $75,000 | 0.0033 | 0.0125 | 0.0029 | 0.0110 | |
| - | Air Handling Unit No. 2 | | WAUL | HV | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 4 | $75,000 | 0.0033 | 0.0125 | 0.0029 | 0.0110 | |
| | **RAW WATER OPERATIONS BUILDING** | | | | | | | | | | | | | | | | | | | | | |
| VAC-P-01 | Vacuum Pump - Inlet Pump Priming System No. 1 | Pump Room | WAUL | PE | 20 | 2004 | 19 | 5% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 10 | $7,500 | 0.0025 | 0.0253 | 0.0003 | 0.0029 | |
| VAC-P-02 | Vacuum Pump - Inlet Pump Priming System No. 2 | Pump Room | WAUL | PE | 20 | 2004 | 19 | 5% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 10 | $7,500 | 0.0025 | 0.0253 | 0.0003 | 0.0029 | |
| Generator unit | Generator | Exterior | WAUL | GN | 35 | 1995 | 28 | 20% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Some Defects and Deterioration | 15% | 47 | 19 | $300,000 | 0.1010 | 1.9444 | 0.0118 | 0.2266 | |
| RW-VFD-P-111 | MCC-2 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $300,000 | 0.1010 | 2.5758 | 0.0118 | 0.3002 | |
| RWPS-COMP-01 | Compressor - Hydroburst Air Supply | Pump Room | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 11 | $22,500 | 0.0076 | 0.0833 | 0.0009 | 0.0097 | |
| BFV-110 | Valve - Raw Water Pump No. 110 Suction | Pump Room | WAUL | VA | 25 | 2004 | 19 | 24% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 15 | $30,000 | 0.0101 | 0.1490 | 0.0012 | 0.0174 | |
| BFV-120 | Valve - Raw Water Pump No. 120 Suction | Pump Room | WAUL | VA | 25 | 2004 | 19 | 24% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 15 | $30,000 | 0.0101 | 0.1490 | 0.0012 | 0.0174 | |
| FV-130 | Valve - Raw Water Pump No. 130 Discharge | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| FV-110 | Valve - Raw Water Pump No. 110 Discharge | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| FV-120 | Valve - Raw Water Pump No. 120 Discharge | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| BFV-130 | Valve - Raw Water Pump No. 130 Suction | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Some Defects and Deterioration | 15% | 34 | 16 | $30,000 | 0.0101 | 0.1591 | 0.0012 | 0.0185 | |
| CV-110 | Valve - Raw Water Pump No. 110 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| CV-120 | Valve - Raw Water Pump No. 120 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| CV-130 | Valve - Raw Water Pump No. 130 Check | Pump Room | WAUL | VA | 25 | 2005 | 18 | 28% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 36 | 18 | $30,000 | 0.0101 | 0.1843 | 0.0012 | 0.0215 | |
| FE-201 | Flow Element - Raw Water | Pump Room | WAUL | IC | 15 | 2005 | 18 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 22 | 4 | $67,500 | 0.0227 | 0.0852 | 0.0026 | 0.0099 | |
| M-RWP-120 | HVAC Unit | Pump Room | WAUL | HV | 15 | 2004 | 19 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 3 | $75,000 | 0.0253 | 0.0694 | 0.0029 | 0.0081 | |
| RW-VFD-P-110 | VFD - Raw Water Pump No. 110 | Electrical Room | WAUL | VD | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 29 | 11 | $37,500 | 0.0126 | 0.1389 | 0.0015 | 0.0162 | |
| M-RWP-130 | Motor - Raw Water Pump No. 130 | Pump Room | WAUL | MO | 20 | 2004 | 19 | 5% | Run time is more than expected | -10% | Easily maintained | 20% | Minor Defects Only | 25% | 27 | 8 | $30,000 | 0.0101 | 0.0808 | 0.0012 | 0.0094 | |
| RW-VFD-P-111 | VFD - Raw Water Pump No. 130 | Electrical Room | WAUL | VD | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 29 | 11 | $37,500 | 0.0126 | 0.1389 | 0.0015 | 0.0162 | |
| M-RWP-120 | Motor - Raw Water Pump No. 120 | Pump Room | WAUL | MO | 20 | 2004 | 19 | 5% | Run time significantly less than expected | 15% | Easily maintained | 20% | Minor Defects Only | 25% | 32 | 13 | $30,000 | 0.0101 | 0.1313 | 0.0012 | 0.0153 | |
| M-RWP-110 | Motor - Raw Water Pump No. 110 | Pump Room | WAUL | MO | 20 | 2004 | 19 | 5% | Run time is more than expected | -10% | Easily maintained | 20% | Minor Defects Only | 25% | 27 | 8 | $30,000 | 0.0101 | 0.0808 | 0.0012 | 0.0094 | |
| RWPS-HYDRO | Hydroburst - Intake Screen | Exterior | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 11 | $60,000 | 0.0202 | 0.2222 | 0.0024 | 0.0259 | |
| P-RWP-110 | Pump - Raw Water No. 110 | Pump Room | WAUL | CP | 30 | 2004 | 19 | 37% | Run time is more than expected | -10% | Easily maintained | 20% | Minor Defects Only | 15% | 38 | 19 | $225,000 | 0.0758 | 1.4015 | 0.0088 | 0.1633 | |
| P-RWP-130 | Pump - Raw Water No. 130 | Pump Room | WAUL | CP | 30 | 2004 | 19 | 37% | Run time is more than expected | -10% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 35 | 16 | $225,000 | 0.0758 | 1.1742 | 0.0088 | 0.1368 | |
| P-RWP-120 | Pump - Raw Water No. 120 | Pump Room | WAUL | CP | 30 | 2004 | 19 | 37% | Run time significantly less than expected | 15% | Largely preventative maintenance | 10% | Minor Defects Only | 15% | 42 | 23 | $225,000 | 0.0758 | 1.7424 | 0.0088 | 0.2030 | |
| RAD-STRIPPER-01 | Aerator No. 1 | Exterior | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Some Defects and Deterioration | 25% | 29 | 11 | $75,000 | 0.0253 | 0.2778 | 0.0029 | 0.0324 | |
| RAD-STRIPPER-01 | Aerator | Aerator Room | WAUL | PE | 20 | 1995 | 28 | 0% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Minor Defects Only | 25% | 29 | 1 | $30,000 | 0.0101 | 0.0101 | 0.0012 | 0.0012 | |
| RAD-STRIPPER-01 | Aerator No. 2 | Exterior | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Largely preventative maintenance | 20% | Some Defects and Deterioration | 25% | 29 | 11 | $75,000 | 0.0253 | 0.2778 | 0.0029 | 0.0324 | |
| RW-SCADA-PNL | SCADA Panel | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 15% | 41 | 23 | $45,000 | 0.0152 | 0.3409 | 0.0018 | 0.0397 | |
| SLD-G-01 | Slide Gate - Lagoon No. 1 | Waste Process Area | WAUL | SG | 30 | 2004 | 19 | 37% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 15% | 41 | 22 | $30,000 | 0.0101 | 0.2172 | 0.0012 | 0.0253 | |
| SLD-G-02 | Slide Gate - Lagoon No. 2 | Waste Process Area | WAUL | PE | 20 | 2005 | 18 | 10% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 11 | $30,000 | 0.0101 | 0.1111 | 0.0012 | 0.0129 | |
| SCREEN-BOX-ASSBLY | Intake Screen - Raw Water | Exterior | WAUL | PE | 20 | 2004 | 19 | 5% | Run time is within expected range | 0% | Easily maintained | 20% | Minor Defects Only | 25% | 29 | 10 | $30,000 | 0.0101 | 0.1010 | 0.0012 | 0.0118 | |
| - | Lagoons | Waste Process Area | WAUL | GS | 300 | 2005 | 18 | 94% | Run time is within expected range | 0% | Largely preventative maintenance | -20% | Very Good Condition | 0% | 240 | 222 | $150,000 | 0.0505 | 11.2121 | 0.0059 | 1.3066 | |
| - | Piping | Pump Room | WAUL | PI | 50 | 2004 | 19 | 62% | Run time is within expected range | 0% | Easily maintained | 10% | Some Defects and Deterioration | 0% | 55 | 36 | $450,000 | 0.1515 | 5.4545 | 0.0177 | 0.6356 | |
| - | Soft Starter - Raw Water Pump No. 120 | Electrical Room | WAUL | EE | 30 | 2005 | 18 | 40% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 44 | 26 | $30,000 | 0.0101 | 0.2576 | 0.0012 | 0.0300 | |
| - | HVAC Unit | Electrical Room | WAUL | HV | 15 | 2004 | 19 | 0% | Run time is within expected range | 0% | Easily maintained | 20% | Very Good Condition | 25% | 22 | 3 | $75,000 | 0.0253 | 0.0694 | 0.0029 | 0.0081 | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | **Main Plant Weighted Average Useful Life** | | | | | | | | | | | | | | | | $22,516,500 | | **14.76** | | | |
| | **Raw Water Weighted Average Useful Life** | | | | | | | | | | | | | | | | $2,970,000 | | **29.81** | | | |
| | **Total Weighted Average Useful Life** | | | | | | | | | | | | | | | | $25,486,500 | | | | **16.51** | |

# PAWTUCKET, RI 2023 BASELINE ASSET EVALUATION

| | Asset Description | Room/Area | Asset Type | Asset Class | Defualt Service Life (YRS) | Year of Installation | Current Asset Age (YRS) | % Service Life Remaining | Utilization Level | Utilization Adjustment | Maintenance/Renewal Level | Renewal Adjustment | Condition Rating | Condition Adjustment | Expected Service Life (YRS) | Expected Remaining Life (YRS) | Replacement Value ($) | Weighting Factor | Weighted Remaining Life (YRS) | Total Weighting Factor | Total Weighted Remaining Life (YRS) | Structural Integrity Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **STRUCTURES** | | | | | | | | | | | | | | | | | | | | | |
| | **PROCESS BUILDING** | | | | | | | | | | | | | | | | | | | | | |
| - | Electrical Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Work Shop | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Equalization Basin No. 1 | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Sample Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Pump Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Lime Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Pipe Gallery | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Clearwell | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Mechanical Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Filter Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Control Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Work Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Process Building | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Stairway No. 1 | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Mechanical Corridor | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Chlorine Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Storage Closet | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Caustic Soda Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Ortho/Ammonium Sulfate Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Stairway No. 2 | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Equalization Basin No. 2 | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Hallway | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| | **RAW WATER OPERATIONS BUILDING** | | | | | | | | | | | | | | | | | | | | | |
| - | Aerator Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Pump Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.5 |
| - | Electrical Room | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |
| - | Raw Water Operations Building | | Structural | | | 2005 | | | | | | | | | | | | | | | | 2.0 |

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