

# Fire Services Assessment

Coventry, Rhode Island

November 2023





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# Executive Summary

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The Town of Coventry, Rhode Island, contracted Dynamix Consulting Group on November 16, 2022, to provide a Fire Services Assessment. The purpose of the study was to evaluate potential fire service delivery models to determine the most effective potential options for the future delivery of fire and rescue services in the Town of Coventry.

## Summary Findings

This Fire Services Assessment includes a thorough review of the current performance of the fire districts within the Town of Coventry. The men and women of the Central Coventry, Coventry, Hopkins Hill, and Western Fire Districts have consistently provided the highest possible level of emergency service to the community. Dynamix Consulting Group's in-person meetings and review of the internal and external customer surveys all indicate that all four districts are comprised of members who not only serve but genuinely care for their community.

In recent years, population growth and development have begun to change the character of the Town of Coventry. These changes have resulted in an increasing demand for fire, rescue, and emergency medical services (EMS) at a time when fire departments across the country are struggling to recruit and retain firefighters and fund apparatus and equipment that are becoming increasingly more expensive. The combination of these factors makes this the perfect time for Coventry to commence a community conversation to identify the level of service its residents and business owners desire - and are willing to pay for - including the best model to deliver this service.

## Options for Consideration

### Option 1: Status Quo Financial Projection of Individual Districts

While maintaining the Status Quo of four individual fire districts is an option, this option will likely create a critical situation when one or more of the four independent fire districts are no longer financially sustainable. Dynamix Consulting Group estimates that, in the short term, the annual budgets will become more volatile, and in the long term, one or more of the fire districts could face the prospect of insolvency if aggressive steps are not taken to stabilize the finances.

### Option 2: Single Fire District Financial Projection

Establishing a single fire district will result in one tax rate for the entire Town of Coventry, but the process of consolidating the four fire districts subjects the vital service of fire suppression to a political process with an unknown outcome. Accordingly, there is a very high risk of failure should one or more of the districts fail to pass the measure to consolidate at referendum or should the State Legislature not approve the consolidation.

### Option 3: Town Fire Department Financial Projection

The establishment of a Town Fire Department would give the Town of Coventry direct control over the delivery of fire and rescue services to its citizens, but it will place the responsibility for providing this service – and the associated costs - with the Town. There is no requirement for a referendum should the Town decide to establish a Fire Department. A Town of Coventry Special Act establishes the authority of the Town to establish a Fire Department.

## Next Steps

Dynamix Consulting Group recognizes this report contains a multitude of recommendations that the Town of Coventry cannot implement simultaneously. Once the leadership of the Town of Coventry selects a potential future delivery model, the Town should facilitate a Strategic Plan to consider, prioritize, and systematically work toward implementing the model.

The strategic planning process would ideally result in a three-to-five-year plan that will guide the work effort of the entire organization toward a common set of goals and objectives. The process should include representation from every major interest group in the organization.

Organizations not engaging in strategic planning often fail to benefit from the evaluation and planning process. The recommendations within this Fire Services Evaluation will do little more than exist in the report if not prioritized, assigned to specific individuals for oversight, and then implemented.



# Acknowledgments

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## Town of Coventry

Dynamix Consulting Group would like to thank the elected and appointed officials of the Town of Coventry, the members of the Central Coventry Fire District, Coventry Fire District, Hopkins Hill Fire District, and Western Coventry Fire District for their assistance with this project. The Coventry Fire Services Assessment would not have been possible without their cooperation and support.

## Dynamix Consulting Group

The Dynamix Consulting Group Project Team for the Manchester Fire Department Evaluation was:

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# Project Methodology

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## Evaluation Process

Using organizational, operational, staffing, and geographic information system (GIS) models, this evaluation provides a comprehensive appraisal of the fire and rescue services in the Town of Coventry as found upon Dynamix Consulting Group's completion of fieldwork and data collection in September 2023.

Dynamix Consulting Group based this evaluation on data provided by the four fire districts, the Town of Coventry, and collected during fieldwork. The information was then compared to a combination of Rhode Island laws and regulations, National Fire Protection Association (NFPA) standards, health and safety requirements, federal and state laws relative to emergency services, accepted best practices within the emergency services community, and the experience of the Dynamix Consulting Group.

## Stakeholder Input

Dynamix Consulting Group conducted virtual, telephone, and in-person interviews, meetings, and facility tours with more than two dozen stakeholders to gather information to provide context for the recommendations identified within this study. General topics discussed during each interview included:

- ❏ Perceived strengths and weaknesses of the current system
- ❏ Identified strengths and weaknesses of the current system
- ❏ Opportunities for enhancement to the current system
- ❏ Future challenges that may warrant attention

Dynamix Consulting Group's interviews with stakeholders included:

- ❏ Town of Coventry Elected and Appointed Officials
- ❏ Leadership and Members of the Central Coventry Fire District
- ❏ Leadership and Members of the Coventry Fire District
- ❏ Leadership and Members of the Hopkins Hill Fire District
- ❏ Leadership and Members of the Western Fire District
- ❏ Union Leadership representing organized labor members of the fire districts

# Community Overview

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## History

The Town of Coventry, located in west-central Rhode Island, is approximately nineteen miles southwest of Providence, the state's capital. The Town lies within the boundaries of the original Shawomet Purchase of 1643, a tract of land purchased by English settlers from local Native American Indians. The track encompassed modern-day Coventry, Warwick, and West Warwick. Samuel Gorton, an early immigrant and civic leader of the Colony of Rhode Island, and eleven others bought the land from Miantonomi, Chief Sachem of the Narragansett Indians.

For nearly a century, settlement thrived in current-day Warwick and West Warwick areas, but the western portion of the purchase remained relatively uninhabited. By 1741, enough settlers had migrated west into the area now known as Coventry that the residents petitioned the General Assembly of Rhode Island to establish the Town of Coventry. The Town became the 16th incorporated township in the colony and is said to be named after the City of Coventry, England.



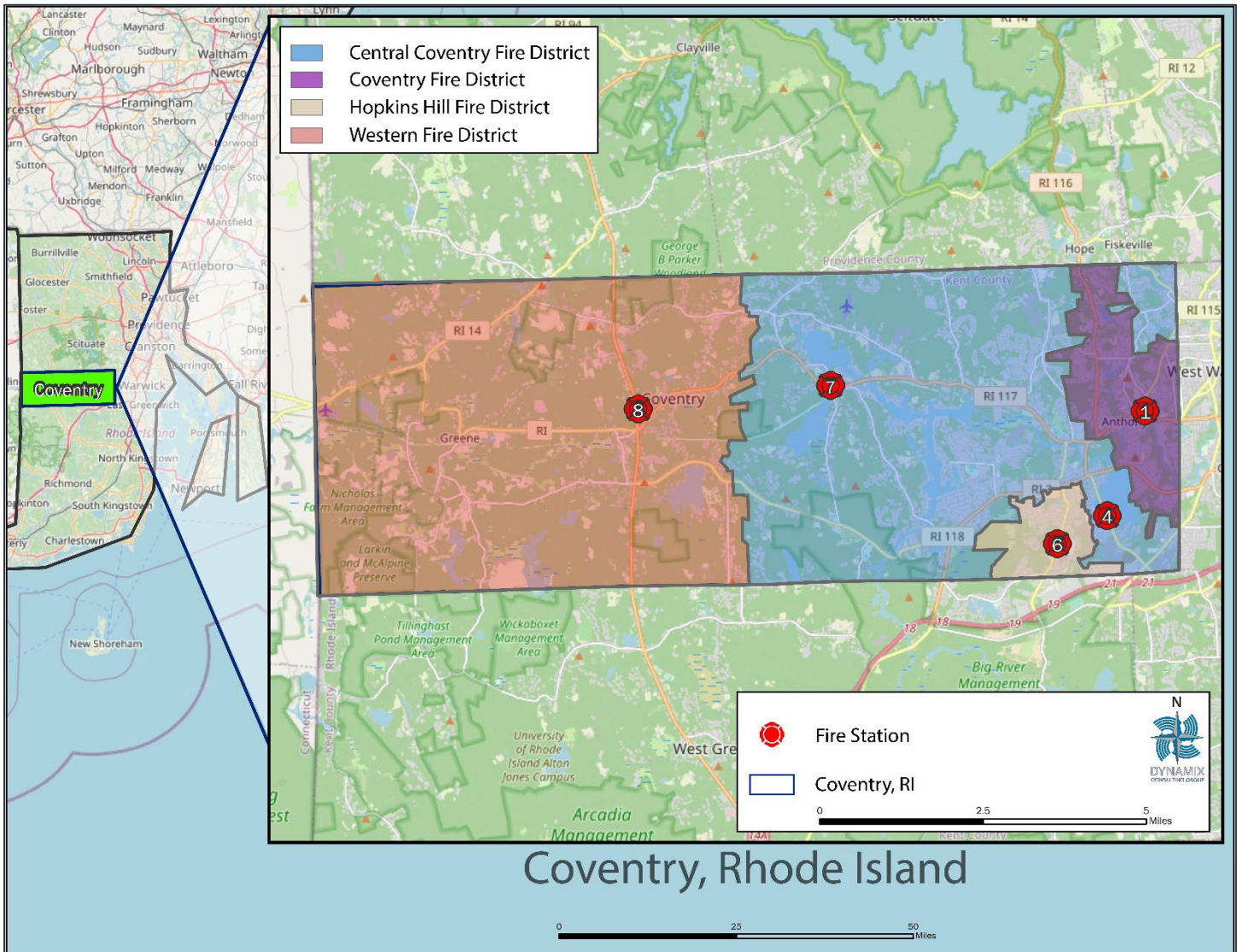
Coventry was originally an agricultural and timber community and transitioned during the Industrial Revolution of the 19th century into a textile center. Mills were built where waterpower was abundant, and Coventry had many such sites. Over the next century, the eastern end of the Town became industrialized, with multiple villages established to support the mills. The industrial jobs attracted French Canadian and Irish workers. At the end of the 19<sup>th</sup> century, almost one-fourth of the population was born outside the U.S., and French was the primary language for many eastern Coventry residents.

By the mid-20th century, industry had primarily left the Town, and most factories had closed. Since the late 20th century, the Town has attracted many new residents, and much of the eastern part of the Town has become suburbanized. In the early 21st century, a movement to limit residential development in the western sections of Coventry has helped preserve the rural nature of Coventry's beginnings.

## Characteristics

Coventry is the largest land mass town in Rhode Island, covering 64.8 square miles. It is approximately 14 miles in length from east to west and four miles wide. The city is bordered on the north by the towns of Foster, Scituate, and Cranston; on the east by the towns of West Warwick and Warwick; on the south by East and West Greenwich; and on the west by the State of Connecticut. Coventry is in Kent County and is part of the Pawtuxet River Valley.

Coventry, Rhode Island



Known as one of America's oldest towns, Coventry is rich in historical landmarks, with 19 sites on the National Registered Historic Places list. Many of the original villages from the 19<sup>th</sup> century are preserved today, as are landmarks such as the Arkwright Bridge, the General Nathanael Greene Homestead, and the Paine House. Several of the old mill buildings have been converted into modern housing units. The Town and community work collaboratively to preserve natural resources and areas of recreation, such as Caruncle Pond, Nicholas Farm Management Area, and the Arkwright Riverwalk.



## Demographics

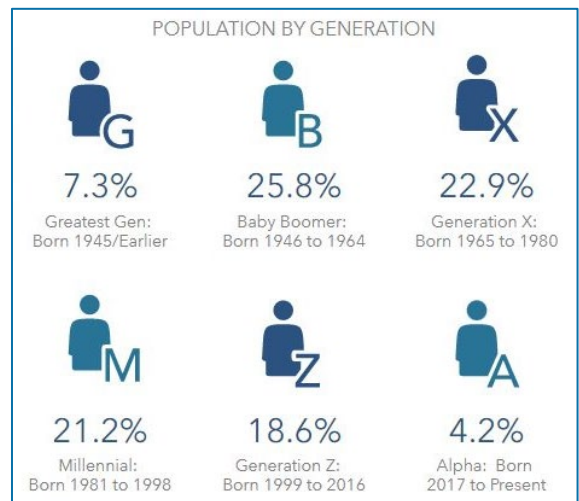
### Population

Unless otherwise noted, Environmental Systems Research Institute (ESRI) is the source of this report’s demographic information. The population of Coventry is 36,298, which is approximately 3.5% higher than the 2010 U.S. Census, and women account for 51.3% of the population. Ninety-four percent of the population identifies as white, 3.5% as Hispanic or Latino, and less than 1% as Black or African American.

The Diversity Index is a continuum that ranges from 0 (no diversity) to 100 (complete diversity), and Coventry’s Diversity Index is 18.3. Within the Town are 14,077 households, with an average family size of 2.55 individuals, smaller than the national average of 3.13 individuals. Coventry currently has a population density of 560 people per square mile. In comparison, the State of Rhode Island, the second most densely populated state in the nation, has a population density of 1,100 people per square mile.

### Age

The median age in Coventry is 46 years, 13.0% higher than the Rhode Island median age of 40 and 17.2% higher than the United States median age of 38.1 years. The number of residents over 65 years in Coventry is 7,304, representing 20.1% of the total population. This compares to 18.9% in Rhode Island and 17.3% in the United States. Baby Boomers, born between 1946 and 1964, make up the most significant percentage of residents in Coventry, and nearly 56% of the community is 58 years of age or more.



### Disabilities, Physical Fitness, & Insurance



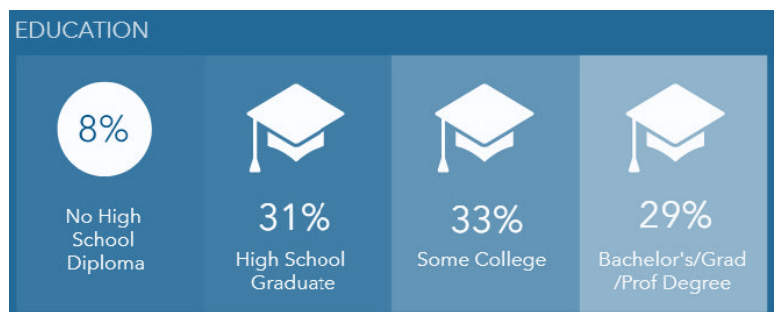
Disabilities can relate to physical mobility, sensory, intellectual, developmental, cognitive, or mental challenges. Four thousand thirty-one households in Coventry identify as having at least one member with a disability. This represents 28.6% of households within Coventry.

Approximately one-third of adults within the Town say they exercise at home two or more times per week, and 15.8% say they exercise at a club two or more times per week. These numbers are higher than the national average of just one in five Americans who exercise.

Only 3% of the population of Coventry reports having no health insurance, and half of those are between the ages of 19 and 34. This is lower than the national rate of 10.2%. Most individuals within Coventry report receiving health insurance through their employer.

### Education

Eight percent of the adult population of Coventry report not having earned a high-school diploma. Thirty-one percent of the Town residents report being high-school graduates or equivalent, and 33% report having some college education. Additionally, 29% report attaining a Bachelor’s Degree or higher. This is similar to the percentage for the State of Rhode Island and slightly lower than the percentage for the United States.



## Employment

The unadjusted unemployment rate for July 2023 for Coventry was 2.2%, similar to many cities and towns throughout Rhode Island and lower than the U.S. rate of 3.2%. Among those employed, 62.1% identify as working in “white collar jobs.” White-collar jobs are salaried employees whose duties do not require wearing work clothes or protective clothing. Comparatively, 21.8% of Coventry’s population identify as working “blue-collar” jobs. Blue-collar jobs usually include hourly employees wearing work clothes or protective clothing. An additional 16.1% of the working population of Coventry identifies as being employed in the service industry.



Coventry commuters drive alone to and from work 86.4% of the time, while only 8.2% carpool, 0.5% use public transportation, and 1% walk. Seventeen percent report spending seven or more hours a week commuting to their jobs. The largest percentage of residents spend 20 to 24 minutes traveling to work. A total of 458 households in Coventry report that they do not have transportation. Coventry has 811 businesses employing 7,830 employees. The daytime population drops to 28,233, indicating many residents travel out of the area for employment.

## Income & Housing

The median household income in Coventry is \$75,025. This is higher than the median household income for the State of Rhode Island at \$74,489 and higher than that of the United States at \$69,021. Coventry has a per capita income of \$35,412 and a median net worth of \$250,808. Households earning between \$50,000 - \$75,000 annually and \$100,000 - \$150,000 represent the largest groups within the Town. There are 1,287 households living below the poverty line, representing 9% of the total households in the community, slightly better than the US at large at 11.2%.

Eighty-one percent of Coventry residents own their homes, while 19% rent. The median home value in Coventry is \$281,252, and residents spend an average of \$11,480 on mortgages and basics. The average percent of income paid on mortgages is 15.7%. More than 16% of the homes and residential units within the Town were built before 1939, and more than 90% were built before 2000. The average two-bedroom rent in Coventry is \$1,540, above the national average of \$1,430.



## Governance

In accordance with the Town of Coventry Charter, a Council-Manager form of government exists to regulate and manage the community's business. Council-Manager is a widely used form of government throughout the United States in cities and towns of all sizes. The intention is to allow the elected representatives of the community to enact local legislation while an appointed professional public administrator is responsible for the execution of the laws and administering the government in a day-to-day capacity.

Currently, the Town of Coventry has a Town Council comprised of five members, one member elected from each of the five established districts within the Town. Elected Town Councilors currently serve two-year terms. Per a Town Charter change in 2022, two at-large Council members will be added at the general election in November 2024, forming a Town Council comprised of seven members.

The Town Council elects a president and a vice-president from amongst the group, and the president presides at meetings. The president has the right to speak and vote as any other member, and the vice-president shall function as president during the absence or temporary disability of the president.

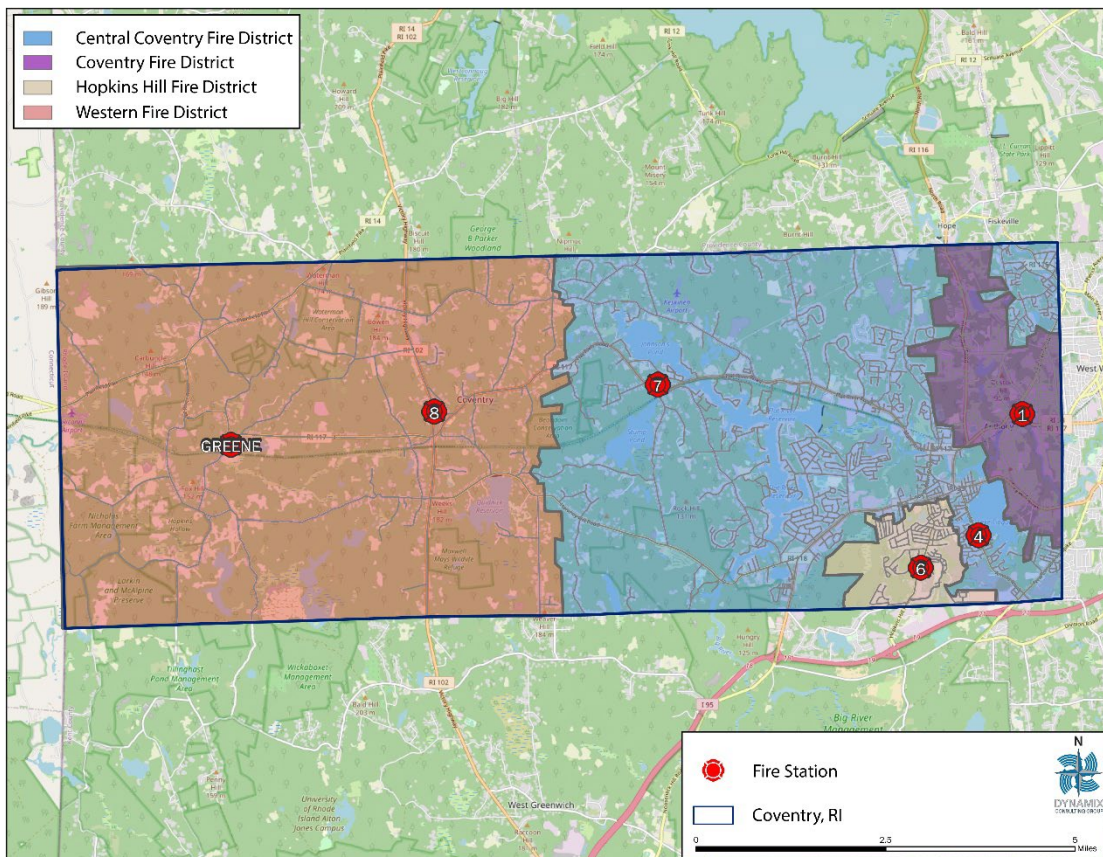


# Fire Protection Services

## Overview

Fire districts in Rhode Island can trace their origins primarily to their location in mill villages or shoreline communities. During the past 15 years, the Rhode Island Fire Service experienced some loss of districts due to consolidation, abolishment, or incorporation as a municipal fire department. Historically, Fire Districts were established through incorporation by the Rhode Island General Assembly. It was common for Fire Districts to levy taxes for fire protection in addition to streetlighting and water supply for firefighting purposes. To this day, several Rhode Island Fire Districts maintain responsibility for street and highway lighting and fire hydrants.

The Town of Coventry historically contained several Fire Districts, each protecting specific mill villages spread across the Town. Over the years, some Fire Districts dissolved, and others merged into consolidated fire protection agencies. Today, there are four Fire Districts in Coventry: Central Coventry Fire District, Coventry Fire District, Hopkins Hill Fire District, and Western Coventry Fire District.





## The Fire Districts in Coventry

### Central Coventry Fire District

Central Coventry Fire District	
<ul style="list-style-type: none"> <li>Incorporated &amp; Mergers</li> </ul>	<ul style="list-style-type: none"> <li>1959 Incorporated through Rhode Island General Assembly</li> <li>2006 merger of Central Coventry, Harris, Tiogue, and Washington Fire Districts.</li> </ul>
<ul style="list-style-type: none"> <li>Geographic Coverage</li> </ul>	<ul style="list-style-type: none"> <li>25.3 square miles</li> </ul>
<ul style="list-style-type: none"> <li>Population Served</li> </ul>	<ul style="list-style-type: none"> <li>18,902 approximately</li> </ul>
<ul style="list-style-type: none"> <li>Fire Stations &amp; Apparatus</li> </ul>	<ul style="list-style-type: none"> <li>Fire Station 4: Engine 4, Rescue 4</li> <li>Fire Station 7: Engine 7</li> </ul>
<ul style="list-style-type: none"> <li>Services Provided</li> </ul>	<ul style="list-style-type: none"> <li>Fire suppression, emergency medical services (EMS) including ambulance transport, life safety services including fire prevention, code enforcement, fire investigation, and emergency management services.</li> <li>Collect taxes for fire suppression, street lighting &amp; water supply for firefighting</li> </ul>
<ul style="list-style-type: none"> <li>Governance</li> </ul>	<ul style="list-style-type: none"> <li>District Charter, governed by Rhode Island law, requires the people of the Fire District to vote and approve the tax rate/tax levy, which funds all fire and rescue services.</li> <li>Board of Directors, seven members, elected for three-year terms</li> </ul>
<ul style="list-style-type: none"> <li>Staffing &amp; Hours</li> </ul>	<ul style="list-style-type: none"> <li>Fire Chief Frank Brown</li> <li>Three platoons</li> <li>30 Line Personnel total: 10 per shift (1 Captain, 3 Lieutenants, 4 Firefighter/EMTs, 2 Floaters)</li> <li>Average 42 hours/week</li> <li>Two line personnel cover Fire Marshal duties by working additional hours.</li> <li>Labor: IAFF Local 3372 Includes members from Central Coventry &amp; Coventry Fire Districts</li> </ul>
<ul style="list-style-type: none"> <li>Other Information</li> </ul>	<ul style="list-style-type: none"> <li>2012 - 2014 Appointment of Special Master &amp; District placed under judicial receivership, the election of the new Board, voters approved a new budget for liquidation, CCFD taken over by state under Fiscal Stability Act, Chapter 9 bankruptcy filed in court.</li> </ul>

## Coventry Fire District

Coventry Fire District	
<ul style="list-style-type: none"> <li>Incorporated &amp; Mergers</li> </ul>	<ul style="list-style-type: none"> <li>1889 Incorporated through the Rhode Island General Assembly</li> <li>Commonly known as the Anthony Fire District</li> </ul>
<ul style="list-style-type: none"> <li>Geographic Coverage</li> </ul>	<ul style="list-style-type: none"> <li>4.34 square miles</li> </ul>
<ul style="list-style-type: none"> <li>Population Served</li> </ul>	<ul style="list-style-type: none"> <li>9,865 approximately</li> </ul>
<ul style="list-style-type: none"> <li>Fire Stations &amp; Apparatus</li> </ul>	<ul style="list-style-type: none"> <li>Fire Station 1: Engine 1, Rescue 1, Ladder 1</li> </ul>
<ul style="list-style-type: none"> <li>Services Provided</li> </ul>	<ul style="list-style-type: none"> <li>Fire suppression, hazardous materials response, technical rescue, emergency medical services (EMS), and fire marshal services.</li> <li>Collect taxes for street lighting &amp; water supply for firefighting</li> </ul>
<ul style="list-style-type: none"> <li>Governance</li> </ul>	<ul style="list-style-type: none"> <li>District Charter, governed by Rhode Island law, requires the people of the Fire District to vote and approve the tax rate/tax levy, which funds all fire and rescue services.</li> <li>Board of Directors, five members, elected every two years</li> </ul>
<ul style="list-style-type: none"> <li>Staffing &amp; Hours</li> </ul>	<ul style="list-style-type: none"> <li>Fire Chief Robert Warren (Part-Time)</li> <li>Four platoons</li> <li>10 Line Personnel total: Minimum 2 per shift (1 Officer, 1 Firefighter/EMT, occasionally one floater)</li> <li>Average 42 hours/week</li> <li>Two part-time Fire Marshals</li> <li>Labor: IAFF Local 3372 Includes members from Central Coventry &amp; Coventry Fire Districts</li> </ul>
<ul style="list-style-type: none"> <li>Other Information</li> </ul>	<ul style="list-style-type: none"> <li>Apparatus is cross-staffed based on call type. Firefighters respond with one truck at a time based on the call for help. Should a medical call come in, the two members will respond to the ambulance (Rescue).</li> </ul>

## Hopkins Hill Fire District

Hopkins Hill Fire District	
<ul style="list-style-type: none"> <li>Incorporated &amp; Mergers</li> </ul>	<ul style="list-style-type: none"> <li>In 1952, the Hopkins Hill Road Volunteer Fire Department was established.</li> <li>In 1955, the State Legislature enacted a Public Law entitled “An Act to Incorporate Hopkins Hill Road Fire District.” The Act allows the District to impose taxes to fund the activities of the District and its entities, such as the Hopkins Hill Fire Department, and collect taxes for street lighting and water supply for firefighting</li> </ul>
<ul style="list-style-type: none"> <li>Geographic Coverage</li> </ul>	<ul style="list-style-type: none"> <li>1.9 square miles</li> </ul>
<ul style="list-style-type: none"> <li>Population Served</li> </ul>	<ul style="list-style-type: none"> <li>3,387 approximately</li> </ul>
<ul style="list-style-type: none"> <li>Fire Stations &amp; Apparatus</li> </ul>	<ul style="list-style-type: none"> <li>Fire Station Hopkins Hill: Quint 1, Engine 6, Rescue 6, Utility 1, Decon Unit, Marine Unit</li> </ul>
<ul style="list-style-type: none"> <li>Services Provided</li> </ul>	<ul style="list-style-type: none"> <li>Fire Hydrant Rental and maintenance - Responsible for the costs incurred for these expenses in the Hopkins Hill Fire District area. The Fire District Board pays the Kent County Water Authority these costs using funds from your Fire District Taxes.</li> <li>Highway &amp; Road Lighting - Responsible for the costs incurred for these expenses in the Hopkins Hill Fire District area. The Fire District Board pays these costs to National Grid using funds from your Fire District Taxes.</li> <li>Fire Emergency Response - Respond to calls in their District and in response to calls for aid from other districts and communities.</li> <li>Rescue Emergency Response – Respond to calls in their District and responds to calls for aid from other districts and communities.</li> <li>Life Safety Services, including home smoke alarm inspection, new home construction building plan approval, new commercial construction building plan approval, existing commercial building inspection,</li> <li>Mutual aid, patient assistance, lifesaving and CPR training, Heartsafe Program.</li> <li>Regional Mass Casualty Decontamination (one of four in the State of Rhode Island)</li> </ul>
<ul style="list-style-type: none"> <li>Governance</li> </ul>	<ul style="list-style-type: none"> <li>District Charter, governed by Rhode Island law, requires the people of the Fire District to vote and approve the tax rate/tax levy, which funds all fire and rescue services.</li> <li>The governing body of the Hopkins Hill Fire District is the Executive Committee. The term “District Board” is occasionally used, but it is the same entity.</li> <li>Seven members of the District Board, elected for a one-year term</li> </ul>
<ul style="list-style-type: none"> <li>Staffing &amp; Hours</li> </ul>	<ul style="list-style-type: none"> <li>Fire Chief Frank Brown</li> <li>Four platoons</li> <li>8 Line Personnel total, plus one Fire Marshal and four Dispatchers</li> <li>Average 42 hours/week</li> <li>Labor: IAFF Local 4824</li> </ul>

## Hopkins Hill Fire District

### Other Information

- The District receives significant funds from Amgen Inc., a biotechnology company located in West Greenwich, RI, for Fire Marshal coverage and services.
- The Town of Coventry pays Hopkins Hill Fire District for Fire Dispatch services.

## Western Coventry Fire District

Western Coventry Fire District	
<ul style="list-style-type: none"> <li>Incorporated &amp; Mergers</li> </ul>	<ul style="list-style-type: none"> <li>1942 Incorporated through the Rhode Island General Assembly</li> <li>Periodic amendments made over the years to include adding rescue services in the charter and the ability to liquidate assets.</li> </ul>
<ul style="list-style-type: none"> <li>Geographic Coverage</li> </ul>	<ul style="list-style-type: none"> <li>31.0 square miles</li> </ul>
<ul style="list-style-type: none"> <li>Population Served</li> </ul>	<ul style="list-style-type: none"> <li>3,643 approximately</li> </ul>
<ul style="list-style-type: none"> <li>Fire Stations &amp; Apparatus</li> </ul>	<ul style="list-style-type: none"> <li>Fire Station; Summit Station: Engine 8, Tanker 8, Brush 1, Rescue 8, RTV 1</li> <li>Fire Station: Greene Station – Mostly for storage, can be staffed if necessary</li> </ul>
<ul style="list-style-type: none"> <li>Services Provided</li> </ul>	<ul style="list-style-type: none"> <li>Fire suppression, emergency medical services (EMS), including ambulance transport, fire marshal, life safety, fire prevention, code enforcement, and rural water supply apparatus</li> <li>Collect taxes for firefighting</li> </ul>
<ul style="list-style-type: none"> <li>Governance</li> </ul>	<ul style="list-style-type: none"> <li>District Charter, governed by Rhode Island law, requires the people of the Fire District to vote and approve the tax rate/tax levy, which funds all fire and rescue services.</li> <li>Board of Directors, five members, elected to three-year terms</li> </ul>
<ul style="list-style-type: none"> <li>Staffing &amp; Hours</li> </ul>	<ul style="list-style-type: none"> <li>Fire Chief James Cady</li> <li>Four platoons</li> <li>five full-time line personnel, 23 per diem personnel</li> <li>Minimum 2 per shift (Fire Chief responds to calls)</li> <li>Average 42 hours/week</li> <li>Non-union</li> </ul>
<ul style="list-style-type: none"> <li>Other Information</li> </ul>	<ul style="list-style-type: none"> <li>Apparatus is cross-staffed based on call type.</li> </ul>

# Financial Analysis

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This section of the study provides background information on the historical and current financial condition of the Central Coventry Fire District, Coventry Fire District, Hopkins Hill Fire District, and the Western Coventry Fire District. To provide an understanding of the fire service financial resources and costs within the overall study area, Dynamix Consulting Group first reviewed the individual historical revenues and expenditures for each respective agency. This review includes, to the extent the data were available, a five-year historical review. The analysis included individual agency historical trend data to develop key assumptions leading to financial forecasts of revenue, expense, and fund balance for the period FY 25-30, given the status quo and various potential new service levels and service delivery configurations.

This comparative snapshot of historical financial results sets the stage for modeling the likely financial outcomes of fire district consolidation proposals to help judge the fiscal viability of the alternatives now and into the future. This analysis relies on documentation provided by the Districts, primarily third-party annual financial audits. Adopted and proposed budgets supplement annual audit data but are not used for the projection of revenues and expenditures.

Financial analysis is an important part of determining the potential for successful fire department consolidation. To this end, Dynamix Consulting Group developed data-driven models for each respective option based on the data provided. Provided is a modeled budget that represents monetary policy and practices used by each agency fairly and to neutralize differences or account for financial peculiarities. This modeling approach allows administrators to make fair comparisons of the agencies, affording a realistic public cost of each agency's operations and provides a means to evaluate the financial impact of integration effectively.

## Historical Revenues and Expenses

The following discussion presents historical revenue and expenses for each Fire District. The analyses include a summary of each Fire District, with a combined millage rate used for comparative purposes<sup>1</sup>. Each department has different and diverse revenue streams with different categories of expenses. Therefore, descriptions and analyses in each section may slightly differ from one another. Further, except for the Western Coventry Fire District, the Districts also fund fire hydrants and street lighting, which form a significant part of the total annual expenditure budgets<sup>2</sup>.

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<sup>1</sup> Each district sets separate tax rates for residential real property, commercial/industrial real property and tangible property. Since these rates vary, the analysis presents a blended rate as discussed above so that it is easier to compare districts and potential alternative methods of providing fire and EMS services. The Town of Coventry also has a vehicular tax but the remaining Districts do not, so the blended rate includes only real property in the proposal.

<sup>2</sup> Regardless of the form the fire service take in the future, these costs will remain. If the Town of Coventry forms its own department, these costs would need paid either by the legacy districts or by the Town itself. These costs appear in the one district model, identified for informational purposes in any case.

## Central Coventry Fire District

In 1959, Legislative action created the Central Coventry Fire District, which is the largest of the four fire districts providing services within the Town of Coventry. Residents of the District elect a seven-member Board of Directors to oversee the District and levy an annual fire tax that supports street lighting and fire hydrant rental as well as fire, rescue, and emergency medical services. The District operates on a September 1 to August 31 fiscal year and uses a modified accrual basis for accounting with a current financial resources measurement focus. As required by Rhode Island tax law, the District maintains separate tax or millage rates for residential, commercial/industrial, and tangible personal property. Shown in the figure below are the assessed values for each category of property (less exemptions) and the associated tax rates (per \$1,000 of assessed value) for FY 23. For comparison purposes with the other districts, the figure below depicts a “net tax rate,” calculated by multiplying the net millage value by 1000 and dividing by the total assessed property value. The net tax rate for the District is currently 1.65 Mills. The General Fund is the District’s primary operating fund.

### Central Coventry Fire District Budget and Finance Overview (FY 23)

COMPONENT	DESCRIPTION
Fiscal Year	September 1 - August 31
Assessed Property Value	\$2,881,263,915
<i>Residential</i>	\$2,455,516,450
<i>Commercial/Industrial</i>	\$357,246,300
<i>Tangible Personal Property</i>	\$68,501,165
Net Tax Rate (per \$1,000)	\$1.65
<i>Residential Rate</i>	\$1.52
<i>Commercial/Industrial Rate</i>	\$2.28
<i>Tangible Personal Property Rate</i>	\$3.04
<b>Net Millage</b>	<b>\$4,754,082</b>
<i>Residential Millage</i>	\$3,732,043
<i>Commercial/Industrial Millage</i>	\$814,522
<i>Tangible Personal Property Millage</i>	\$207,518
<b>Operating Budget (FY 23)</b>	<b>\$5,303,856</b>

The following tables summarize actual Central Coventry Fire District revenues and expenses for the period FY 18-22. The primary source of District revenues is property taxes, with various service fees and reimbursements serving as a secondary source. Recurring revenues comprise the bulk of the District’s annual revenue, which, while growing slightly from FY 18-22, have generally averaged \$5 million per year. Recurring revenue growth over the period averaged 1.9% annually. The increase in tax revenues drives revenue growth, which increased at an average of approximately 6.2% annually. The total net assessed value within the District, shown in the figure below, increased annually at a rate of 4.8%.

*Growth in Net Assessed Value Central Coventry Fire District*

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Real Property Residential	\$ 1,480,446,715	\$ 1,484,980,145	\$ 1,503,370,100	\$ 1,790,806,760	\$ 1,821,956,045
Real Property Commercial	\$ 282,203,830	\$ 295,931,440	\$ 281,029,360	\$ 314,092,400	\$ 303,451,000
Tangible Personal Property	\$ 43,739,985	\$ 38,519,305	\$ 53,796,150	\$ 50,874,630	\$ 54,495,105
<b>Total</b>	<b>\$ 1,806,390,530</b>	<b>\$ 1,819,430,890</b>	<b>\$ 1,838,195,610</b>	<b>\$ 2,155,773,790</b>	<b>\$ 2,179,902,150</b>

The upper table of the figure below reflects revenues, while the second table shows expenses for the period FY 18-22 actuals. Capital expenses are considered non-recurring expenses and have varied considerably from highs of \$403,000-463,000 in FY 18 and FY 20 to \$0 in FY 22, with the bulk of annual expenditures on equipment. During the historical period, actual equipment expenditures averaged approximately \$190,000 annually. Total expenses generally increased by 1.8% per year from FY 18 through FY 22. An increase in recurring expenses of approximately 4.2% per year drove this trend. The District has had no debt service as of FY 22 but did have principal and interest payments in FY 19 and FY 20 due to capital lease costs. Personnel costs have averaged approximately 75% of recurring costs and have increased at an average annual rate of 3.9%. Operating costs have increased at an average annual rate of 5%.

Hydrant rental in FY 22 was \$236,496, and street lighting costs totaled \$206,713. These two non-fire service-related costs comprised \$443,209, or 33.4% of the total actual operating expense budget in FY 22.

*Central Coventry Fire District Revenue FY 18-22 Actual*

REVENUE	FY 18	FY 19	FY 20	FY 21	FY 22
	Actual	Actual	Actual	Actual	Actual
Taxes (plus penalties/interest)	\$4,132,790	\$4,341,302	\$4,368,333	\$4,559,365	\$4,562,195
Service Fees/Reimbursements	\$749,301	\$775,338	\$620,138	\$576,593	\$692,883
<b>Total Recurring Revenue</b>	<b>\$4,882,091</b>	<b>\$5,116,640</b>	<b>\$4,988,471</b>	<b>\$5,135,958</b>	<b>\$5,255,078</b>
Miscellaneous	\$264,143	\$11,707	\$449,956	\$11,825	\$8,013
<b>Total Revenue</b>	<b>\$5,146,234</b>	<b>\$5,128,347</b>	<b>\$5,438,427</b>	<b>\$5,147,783</b>	<b>\$5,263,091</b>



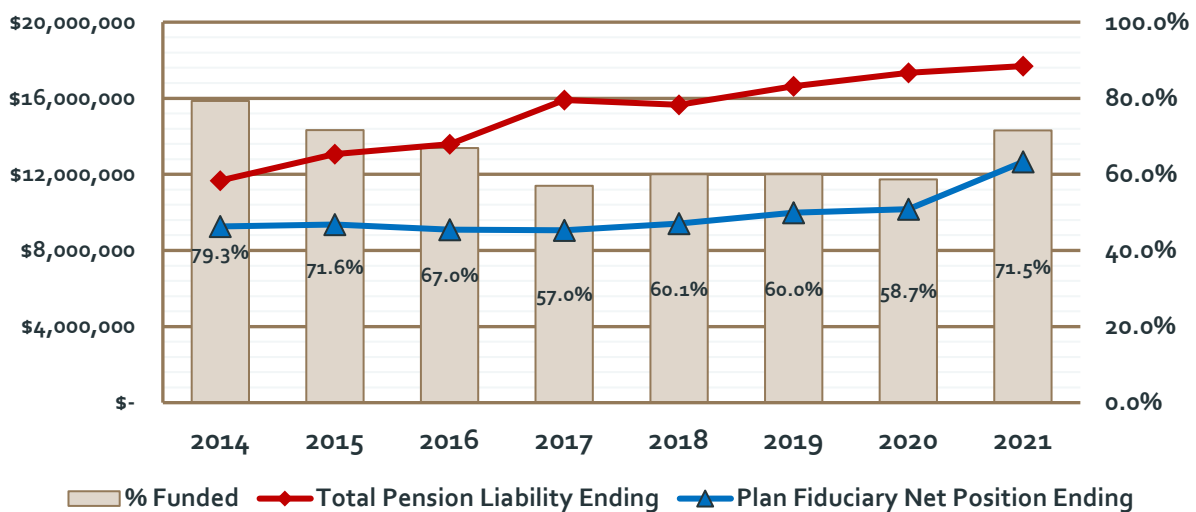
Central Coventry Fire District Revenue and Expense FY 18-22 Actual

EXPENSE	FY 18	FY 19	FY 20	FY 21	FY 22
	Actual	Actual	Actual	Actual	Actual
Personnel Services	\$3,593,106	\$3,893,604	\$3,872,223	\$4,016,931	\$4,187,729
Wages/Salaries	\$2,473,943	\$2,639,640	\$2,517,509	\$2,640,097	\$2,738,179
Benefits	\$1,119,163	\$1,253,964	\$1,354,714	\$1,376,834	\$1,449,550
Operating Expense	\$1,089,690	\$873,787	\$907,248	\$1,547,836	\$1,327,516
Debt Service	\$0	\$73,894	\$413,585	\$0	\$0
<b>Recurring Expense</b>	<b>\$4,682,796</b>	<b>\$4,841,285</b>	<b>\$5,193,056</b>	<b>\$5,564,767</b>	<b>\$5,515,245</b>
Capital	\$463,186	\$45,642	\$402,619	\$50,099	\$0
<b>Total Expense</b>	<b>\$5,145,982</b>	<b>\$4,886,927</b>	<b>\$5,595,675</b>	<b>\$5,614,866</b>	<b>\$5,515,245</b>

The district funds other post-employment benefits (OPEB) for ten members through a defined benefit program, which was subsequently replaced by a defined contribution or Post Employment Health Plan (PEHP) administered by Nationwide Retirement Solutions, the plan trustee. The OPEB program had an actuarial liability of \$991,309 as of August 31, 2022. The plan has no assets held in trust, and benefits are not prefunded, with program costs paid on an annual basis as part of the Personnel Services expenditure budget. The district paid \$67,611 to cover current plan premiums in FY 22.

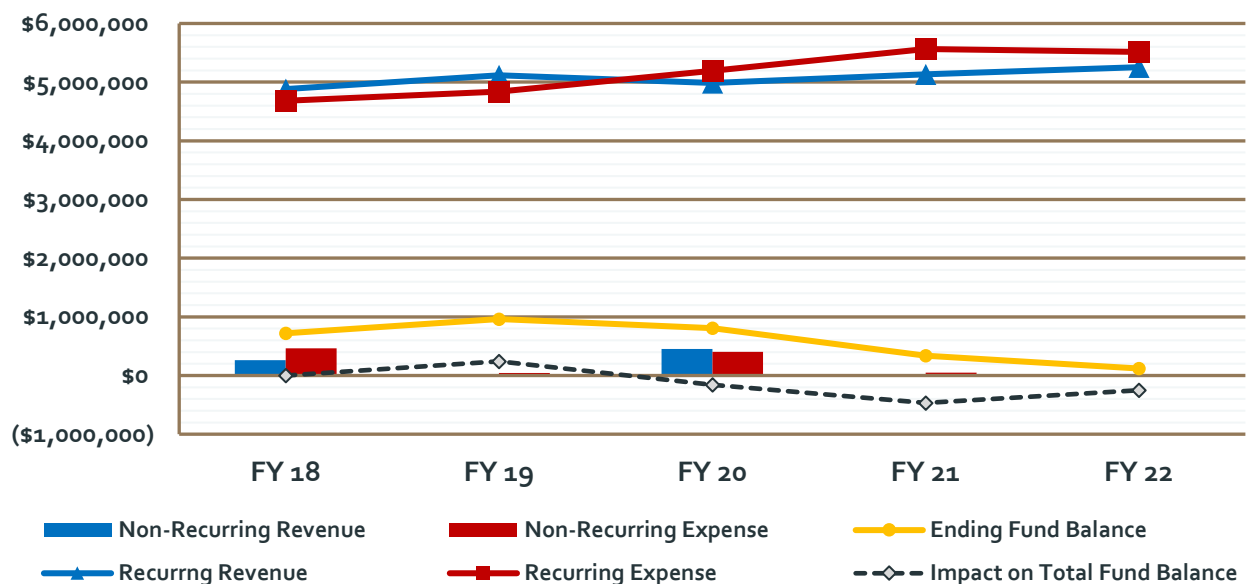
The district’s total pension liability as of June 30, 2021, was \$17,691,038, while the plan fiduciary net position was \$12,654,815. The retirement plan was funded at just under 72% as of that point in time. The historical trajectory of annual ending pension liability versus fiduciary position is shown in the following figure. As actuarially determined liability increased over the period 2014-2021, annual contributions did not keep pace, and the percentage of liability funded by the district decreased from almost 80% in 2014 to nearly 60% prior to 2021, when the district increased its annual contribution bringing the percentage to just under 72%.

Central Coventry Fire District Total Pension Liability Versus Fiduciary Position (2014-2021)



The following figure summarizes the historical financial trajectory of the District with a comparison of recurring and non-recurring revenue (blue line and blue bars, respectively) recurring and non-recurring expenses (red line and red bars, respectively). The difference between total revenue and expense, whether positive or negative, appears as a dashed line with the impact of that difference on the annual ending; the yellow line depicts the total fund balance. From FY 18 through FY 19, the District received slightly more recurring revenue than it spent on recurring obligations. This represents sound financial practice and generally has a positive impact on the ending fund balance each year. Best financial practice requires funding recurring costs such as personnel, operating, and debt obligations through recurring rather than one-time revenue sources such as fund balance or, even worse, incurring more debt. It is clear to see how the impact of surplus revenue over expense in FY 17-18 positively affects ending fund balance while increased expense over revenue, as seen from FY 20 through FY 22, requires expenditure of reserve funds with the net effect of lowering fund balance.

*Central Coventry Fire District Revenue, Expense, and Impact on Ending Fund Balance FY 18-22 Actual*



The following figure illustrates more clearly the current financial condition of the District as of the end of FY 22. The light grey bars represent the net difference between total revenue and expense, while the solid yellow line represents the unassigned fund balance. Since FY 20, the District has spent considerably more than its annual revenue, requiring the use of an unassigned fund balance (the fund balance not already committed)<sup>3</sup> to make up the difference. The net impact is a reduction in the available fund balance each year.

Recommended best practices include maintaining a cash reserve (unassigned fund balance) equal to or exceeding 2–2.5 months (17–21%) of recurring expenses. The Government Finance Officers Association (GFOA) provides guidance on the best methods to account for the reserve fund balance and the appropriate recommended amounts for various purposes<sup>4</sup>. Specifically, GFOA recommends governments maintain at least two months or approximately 17% of operating revenues or expenditures at a minimum, depending upon the fiscal year and timing of tax revenue collection and cash flow. In the figure below, the dashed yellow line represents the GFOA recommended fund balance compared to the actual unassigned fund balance (solid yellow line).

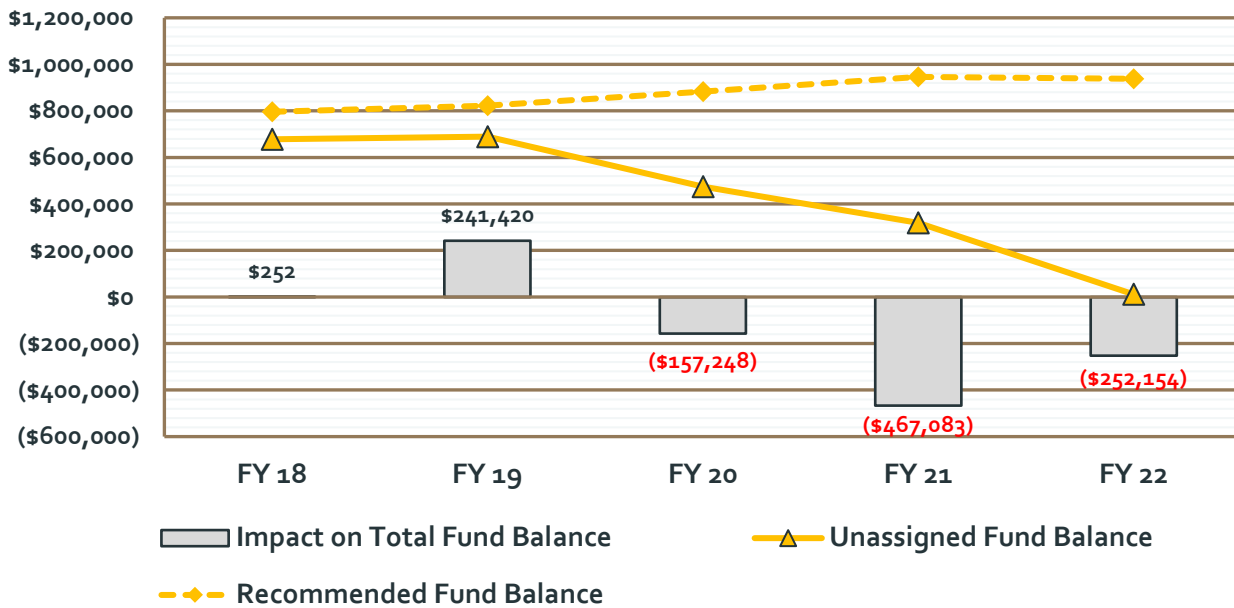
<sup>3</sup>The solid yellow line represents total fund balance in the preceding figure of \$119,455 in FY 22 while uncommitted fund balance as shown in this figure is \$11,361 for FY 22. Uncommitted fund balance funds available for any purpose authorized by the board, whether funding recurring or non-recurring expense.

<sup>4</sup><http://www.gfoa.org/fund-balance-guidelines-general-fund>

In FY 22, the recommended unassigned fund balance should be \$937,592, while the actual uncommitted fund balance is only \$11,361.

Although the District has no debt as of FY 22, the current financial trajectory is clearly unsustainable without a serious reduction in expenditures and/or increase in revenues. Both these outcomes may prove necessary. The District began taking steps to turn this trajectory around, including the planned elimination of one staffed rescue unit<sup>5</sup> in the proposed budget following the refusal of taxpayers to approve the proposed budget at the September 26, 2023, annual meeting. This step eliminates two firefighters per shift (six total).

*Central Coventry Fire District Unassigned and GFOA Recommended Ending Fund Balance FY 18-22 Actual*



<sup>5</sup> [Budget woes force Central Coventry Fire District to shut down rescue | WPRI.com](https://www.wprl.com/story/news/local/2023/09/26/budget-woes-force-central-coventry-fire-district-to-shut-down-rescue/7048886002)

## Coventry Fire District

In 1889, legislative action created the Coventry Fire District. Residents elect a five-member board of directors to oversee the Fire District. The Board possesses the authority to levy an annual fire tax that supports street lighting and fire hydrant rental, as well as fire, rescue, and emergency medical services. The District operates on a January 1 to December 31 fiscal year and uses a modified accrual basis for accounting with a current financial resources measurement focus.

As required by Rhode Island tax law, the District maintains separate tax or millage rates for residential, commercial/industrial, and tangible personal property. Represented in the figure below are the assessed values for each category of property (less exemptions) and the associated tax rates (per \$1,000 of assessed value). For comparison purposes with the other districts, the figure depicts a “net tax rate,” calculated by multiplying the net millage value by 1000 and dividing by the total assessed property value. The net tax rate for the District is currently 2.52 mills. The General Fund is the primary operating fund.

### Coventry Fire District Budget and Finance Overview (FY 23)

COMPONENT	DESCRIPTION
Fiscal Year	January 1 - December 31
Assessed Property Value (FY 23)	\$881,465,515
<i>Residential</i>	\$763,660,885
<i>Commercial/Industrial</i>	\$105,753,568
<i>Frozen</i>	\$9,882,000
<i>Tangible Personal Property</i>	\$2,169,062
Net Tax Rate (per \$1,000)	\$2.52
<i>Residential Rate</i>	\$2.39
<i>Commercial/Industrial Rate</i>	\$3.58
<i>Tangible Personal Property Rate</i>	\$3.58
<b>Net Millage</b>	<b>\$2,223,897</b>
<i>Residential Millage</i>	\$1,825,434
<i>Commercial/Industrial Millage</i>	\$378,598
<i>Frozen</i>	\$10,668
<i>Tangible Personal Property Millage</i>	\$9,197
<b>Operating Budget (FY 23)</b>	<b>\$3,397,622</b>

The following tables summarize actual Coventry Fire District revenues and expenses for the period FY 17-21<sup>6</sup>. The primary source of revenues is property taxes, with various service fees and reimbursements serving as a secondary source. Recurring revenues comprise the bulk of the annual revenue, which grew to a high in FY 19 before reductions in the adopted millage rate through FY 22. Over the period, the annual rate of growth in recurring revenue averaged less than 1%, growing from \$2.6 million in FY 17 to \$2.67 million in FY 22. Tax revenue, although fluctuating, remained relatively flat when comparing FY 17 to FY 22. The District received approximately \$75,000 in grant funding between FY 20 and FY 21. The total net assessed value within the district, shown in the figure below, increased annually at a rate of 6.8%.

*Growth in Net Assessed Value Coventry Fire District*

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Real Property	\$ 654,992,610	\$ 700,845,660	\$ 707,500,970	\$ 706,509,650	\$ 847,911,185
Tangible Personal Property	\$ 17,327,485	\$ 12,804,910	\$ 25,362,450	\$ 27,185,540	\$ 26,421,685
<b>Total</b>	\$ 672,320,095	\$ 713,650,570	\$ 732,863,420	\$ 733,695,190	\$ 874,332,870

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<sup>6</sup> The FY 22 annual financial audit was not available at the time of this study.

The upper table of the figure below depicts revenues, while the second table shows actual expenses for the period FY 17-21. Capital expenses are considered non-recurring expenses and have generally varied around an average of \$40,000 annually, with the exception of almost \$250,000 in capital expenditures in FY 20. Total expenses generally increased by 2.4% per year from FY 17 through FY 21. Recurring expenses grew from \$2.1 million in FY 17 to \$2.47 million in FY 18, driven by increased legal costs. Recurring expenses decreased annually from FY 18 to \$2.33 million by FY 22. Personnel costs increased from 50% of recurring costs in FY 17 to 62% by FY 21, increasing at an average annual rate of 5.1%. Wages increased annually at an average rate of 3%, while benefits increased at approximately 8.5% annually over the period. Operating costs increased at an average annual rate of approximately 8%.

The District used various financing options for its capital acquisition program, such as lease purchases<sup>7</sup>, lines of credit, and direct loans from various institutions over the period. Annual debt service decreased from approximately \$390,000 in FY 17 to \$115,000 in FY 21. Additional capital purchases subsequently acquired and financed increased annual debt service to \$207,000 by FY 23, which will drop to just over \$150,000 in FY 24 and then again to \$94,000 in FY 29 and FY 30.

Hydrant rental in FY 21 was \$150,956, and street lighting costs totaled \$82,440. These two non-fire service-related costs comprised \$233,396 or 10% of the total actual operating expense budget in FY 21.

*Coventry Fire District Revenue FY 17-21 Actual*

REVENUE	FY 17	FY 18	FY 19	FY 20	FY 21
	Actual	Actual	Actual	Actual	Actual
Taxes (plus penalties/interest)	\$2,304,989	\$2,371,398	\$2,457,255	\$2,440,750	\$2,297,991
Service Fees	\$299,548	\$389,958	\$391,117	\$332,592	\$373,198
<b>Total Recurring Revenue</b>	<b>\$2,604,537</b>	<b>\$2,761,356</b>	<b>\$2,848,372</b>	<b>\$2,773,342</b>	<b>\$2,671,189</b>
Grants	\$0	\$0	\$0	\$53,350	\$21,317
Miscellaneous	\$4,880	\$13,357	\$22,168	\$9,887	\$38,262
<b>Total Revenue</b>	<b>\$2,609,417</b>	<b>\$2,774,713</b>	<b>\$2,870,540</b>	<b>\$2,836,579</b>	<b>\$2,730,768</b>

*Coventry Fire District Expense FY 17-21 Actual*

EXPENSE	FY 17	FY 18	FY 19	FY 20	FY 21
	Actual	Actual	Actual	Actual	Actual
Personnel Services	\$1,185,890	\$1,378,195	\$1,318,815	\$1,459,542	\$1,446,477
<i>Wages/Salaries</i>	\$805,053	\$830,812	\$829,293	\$898,872	\$888,650
<i>Benefits</i>	\$380,837	\$547,383	\$489,522	\$560,670	\$557,827
Operating Expense	\$537,614	\$835,442	\$866,568	\$833,343	\$768,735
Debt Service	\$388,595	\$255,373	\$233,242	\$130,240	\$114,706
<b>Recurring Expense</b>	<b>\$2,112,099</b>	<b>\$2,469,010</b>	<b>\$2,418,625</b>	<b>\$2,423,125</b>	<b>\$2,329,918</b>
Capital	\$49,529	\$33,705	\$40,630	\$246,732	\$27,938
<b>Total Expense</b>	<b>\$2,161,628</b>	<b>\$2,502,715</b>	<b>\$2,459,255</b>	<b>\$2,669,857</b>	<b>\$2,357,856</b>

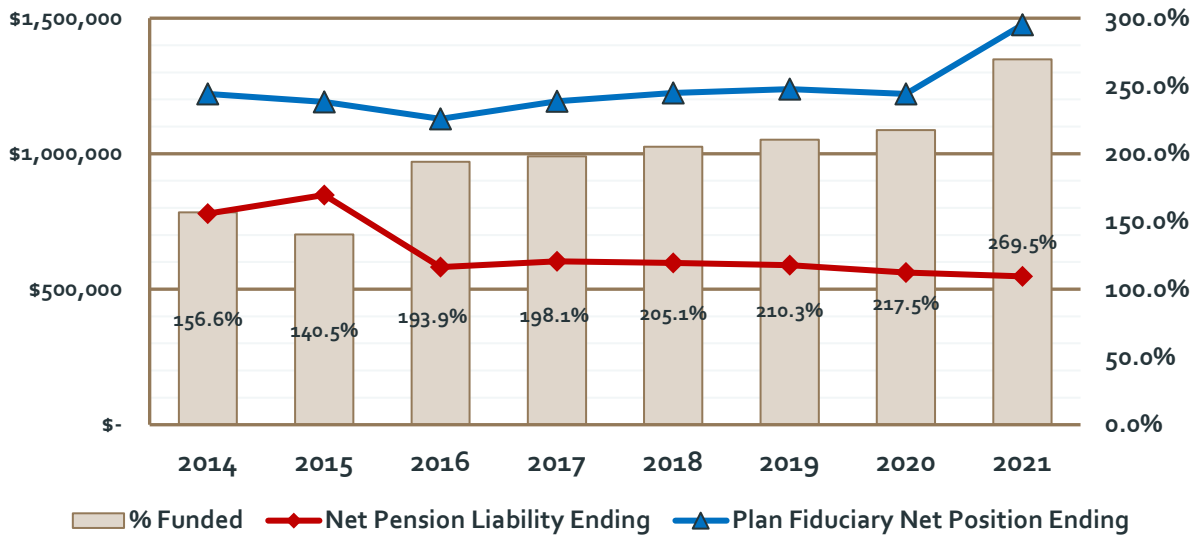
<sup>7</sup> This is the primary means used by the District to fund capital apparatus.

The district funds OPEB benefits through a defined benefit program closed to new members and which had an actuarial liability of \$1,774,286 as of December 31, 2021. The plan has no assets held in trust, with costs paid on an annual basis as part of the annual Personnel Services expenditure budget. For employees not participating in the OPEB defined benefit program, the district offers a defined contribution Post Employment Health Plan (PEHP) administered by Nationwide Retirement Solutions, the plan trustee.

The district maintains two Municipal Employee Retirement System (MERS) retirement plans under management of the Employee Retirement System of Rhode Island (ERSRI), one for general employees and one for fire employees. The district's actuarially determined total pension liability as of June 30, 2021 for the general employee plan, was \$547,427, while the plan fiduciary net position was \$1,475,484. The general employee retirement plan was funded at just under 270% as of that point in time. The total pension liability for the fire employee plan was \$6,776,306, while the plan fiduciary net position was \$4,056,395. The fire employee retirement plan was funded at just under 60% as of June 30, 2021. The combined total pension liability was \$7,323,733 while the combined net fiduciary position was \$5,531,879. The district's combined net pension liability was \$1,791,854 (net asset of \$928,057 in the general employee plan plus net liability of \$2,719,911 in the fire employee plan).

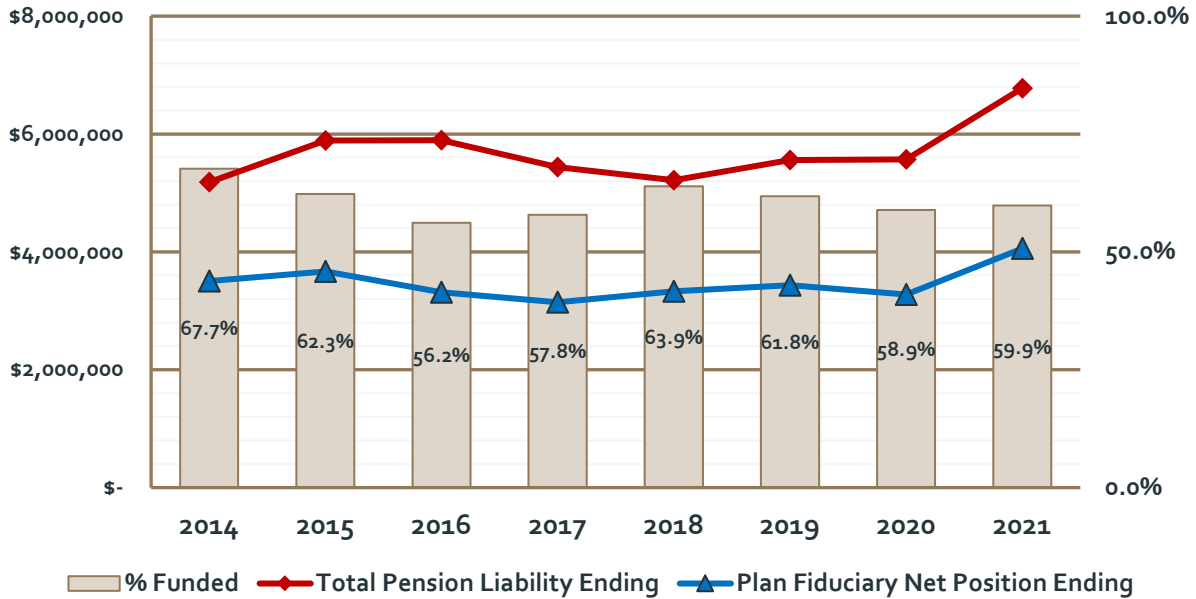
The historical trajectory of annual ending pension liability versus fiduciary position for each of the plans is shown in the following two figures. As actuarially determined liability for the general employee plan decreased over the period 2014-2021, annual contributions outpaced liabilities, and the percentage of liability funded by the district increased from 156% in 2014 to just under 218% in 2020 when the district increased its annual contribution bringing the percentage in 2021 to just under 270% giving the plan net assets of \$928,057.

*Coventry Fire District General Employee Total Pension Liability Versus Fiduciary Position (2014-2021)*



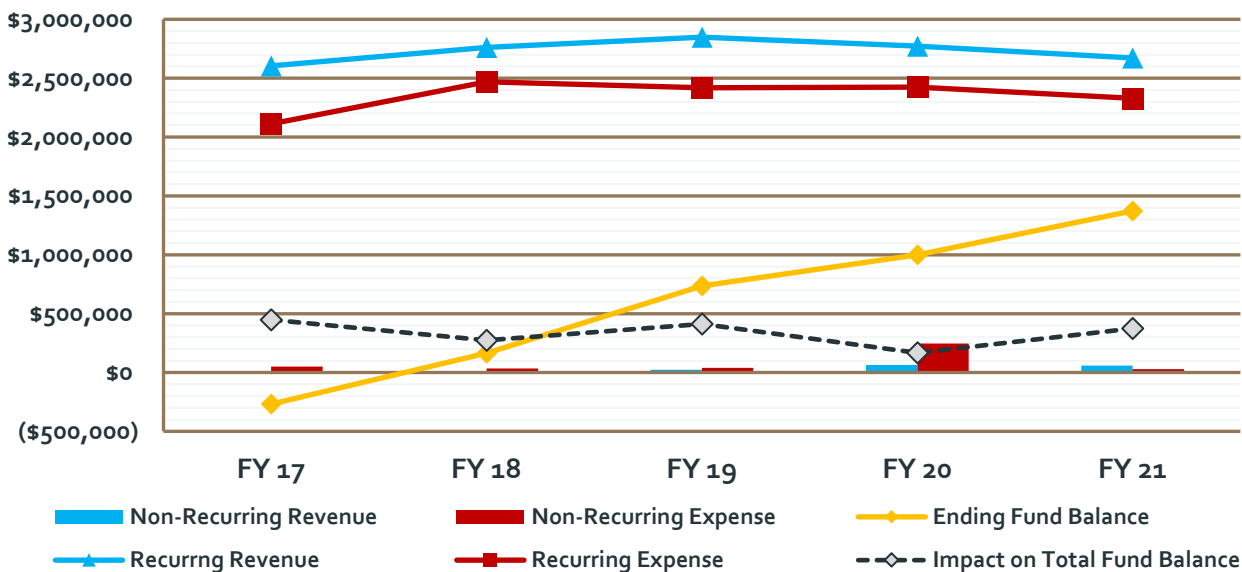
Actuarially determined liability for the fire employee plan varied around an average of approximately \$5.6 million between 2014 and 2020 before jumping to almost \$6.8 million in 2021. Following a decrease from almost 68% in 2014, annual contributions have maintained the percentage of liability funded by the district at approximately 60%, leaving the plan with a net liability of \$2,719,911 as of June 30, 2021.

*Coventry Fire District Fire Employee Total Pension Liability Versus Fiduciary Position (2014-2021)*



The following figure summarizes the historical financial trajectory of the District with a comparison of recurring and non-recurring revenue (blue line and blue bars, respectively) and recurring and non-recurring expenses (red line and red bars, respectively). A dashed line represents the difference between total revenue and expense, whether positive or negative, with the impact of that difference on the annual ending; a yellow line represents the total fund balance. Throughout the period FY 17-21, the District received an average of \$380,000 more in recurring revenue than it spent on recurring obligations. This represents sound financial practice and has had a positive impact on ending fund balance, which grew from a negative value in FY 17 to \$1.37 million in FY 21.

*Coventry Fire District Revenue, Expense, and Impact on Ending Fund Balance FY 17-21 Actual*



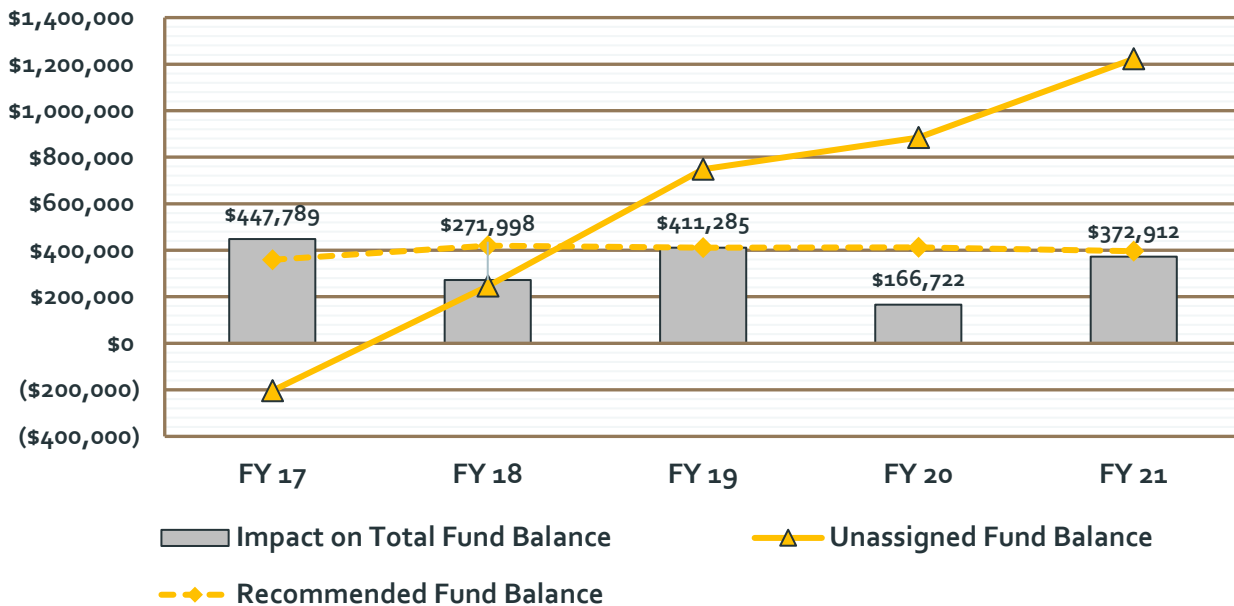
The following figure illustrates more clearly the current financial condition of the District as of the end of FY 21. Light grey bars represent the net difference between total revenue and expense, while a solid yellow line represents the unassigned fund balance. Between FY 17 and FY 21, the District spent less than it brought in each year, anywhere from \$167,000 in FY 20 to a high of



\$448,000 in FY 17. This provided growth in the unassigned fund balance each year. In the figure below, a dashed yellow line represents the GFOA recommended fund balance compared to the actual, unassigned fund balance (solid yellow line). The recommended annual fund balance generally remained flat at approximately \$400,000 throughout the historical period, while the unassigned fund balance grew rapidly, exceeding the recommended amount by \$340,000 in FY 19 and by \$867,000 in FY 21.

Although the District used various debt instruments to finance capital expenditures, it has also been prudent in managing its resources. The growth in unassigned fund balance provides both the ability to cover unforeseen contingencies and an opportunity to develop a reserve for future capital expenditures should the Board choose to do so without resorting to various finance options that could result in significant interest payments.

*Coventry Fire District Unassigned and GFOA Recommended Ending Fund Balance FY 17-21 Actual*



## Hopkins Hill Fire District

In 1955, Legislative action created the Hopkins Hill Fire District. Residents elect a Board of Directors to oversee the district. The Board levies an annual fire tax that supports street lighting and fire hydrant rental, as well as fire, rescue, and emergency medical services. The District operates on a September 1 to August 30 fiscal year and uses a modified accrual basis for accounting with a current financial resources measurement focus. As required by Rhode Island tax law, the District maintains separate tax or millage rates for residential, commercial/industrial, and tangible personal property. Shown in the figure below are the assessed values for each category of property (less exemptions) and the associated tax rates (per \$1,000 of assessed value). For comparison purposes with the other districts, the figure below depicts a “net tax rate,” calculated by multiplying the net millage value by 1000 and dividing by the total assessed property value. The net tax rate for the District is currently 2.15 Mills. The General Fund is the primary operating fund.

### *Hopkins Hill Fire District Budget and Finance Overview (FY 23)*

COMPONENT	DESCRIPTION
Fiscal Year	September 1 - August 31
Assessed Property Value (FY 23)	\$502,161,187
<i>Residential</i>	\$379,720,000
<i>Commercial/Industrial</i>	\$103,212,500
<i>Tangible Personal Property</i>	\$19,228,687
Net Tax Rate (per \$1,000)	\$2.15
<i>Residential Rate</i>	\$1.95
<i>Commercial/Industrial Rate</i>	\$2.93
<i>Tangible Personal Property Rate</i>	\$1.95
<b>Net Millage</b>	<b>\$1,080,356</b>
<i>Residential Millage</i>	\$740,457
<i>Commercial/Industrial Millage</i>	\$302,413
<i>Tangible Personal Property Millage</i>	\$37,486
<b>Operating Budget (FY 23)</b>	<b>\$1,495,406</b>

The following tables summarize actual Hopkins Hill Fire District revenues and expenses for the period FY 18-22. The two primary sources of revenue are property taxes and various service fees<sup>8</sup> and reimbursements. Recurring revenues comprise the bulk of the annual revenue, which, after growing from \$1.85 million in FY 18 to just under \$2 million in FY 19, decreased annually to \$1.76 million in FY 22 due primarily to a reduction in various fees. Tax revenue, although fluctuating, increased from \$0.94 million in FY 18 to just over \$1 million in FY 22 for an average annual growth rate of 2.8%. Loan proceeds of \$800,000 in FY 19 spiked non-recurring revenue, which varied considerably in the analysis period. The District received significant claims revenue of \$195,000 and \$257,000 in FY 21 and FY 22, respectively. The District also received an average of \$30,000 annually in grant funding between FY 19 and FY 22. The total net assessed value within the Fire District, shown in the figure below, increased annually at a rate of 3.4%.

*Growth in Net Assessed Value Hopkins Hill Fire District*

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Real Property	\$ 345,012,759	\$ 346,983,252	\$ 343,280,560	\$ 392,051,262	\$ 392,302,337
Tangible Personal Property	\$ 13,198,346	\$ 14,803,819	\$ 16,256,658	\$ 15,485,826	\$ 17,350,055
Total	\$ 358,211,105	\$ 361,787,071	\$ 359,537,218	\$ 407,537,088	\$ 409,652,392

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<sup>8</sup> The District provides contract fire, rescue, and EMS services under separate contract to other local entities.

The upper table of the following figure reflects revenues for the District, while the second table shows expenses for the period FY 18-22 actuals. Capital expenses are considered non-recurring expenses and have varied considerably throughout the historical period due to large capital construction projects. Total expenses, while skewed by capital projects, generally remained near \$2 million annually from FY 20-22. Recurring expenses increased from \$1.6 million in FY 18 to \$1.94 million in FY 20, after which they leveled off to an average of approximately \$2 million annually. Personnel costs increased from 73% of recurring costs in FY 18 to 80% by FY 22 and have increased at an average annual rate of 7.4%. Wages increased annually at an average rate of 6.6%, while benefits increased at approximately 9.3% annually over the period. Operating costs decreased from \$371,000 in FY 18 to \$272,000 in FY 21 before climbing back to \$320,000 in FY 22. Annual debt service from a lease purchase obligation runs through FY 31 in the annual amount of \$80,314, including principal and interest.

Hydrant rental in FY 21 was \$45,310, and street lighting costs totaled \$19,827. These two non-fire service-related costs comprised \$65,137, or 22.3% of the total actual operating expense budget for the district in FY 22.

*Hopkins Hill Fire District Revenue FY 18-22 Actual*

REVENUE	FY 18	FY 19	FY 20	FY 21	FY 22
	Actual	Actual	Actual	Actual	Actual
Taxes (plus penalties/interest)	\$935,779	\$959,520	\$922,206	\$1,102,824	\$1,041,774
Service Fees	\$907,388	\$1,028,211	\$912,898	\$725,400	\$712,683
Investment Income	\$4,400	\$5,352	\$4,265	\$2,100	\$2,025
<b>Total Recurring Revenue</b>	<b>\$1,847,567</b>	<b>\$1,993,083</b>	<b>\$1,839,369</b>	<b>\$1,830,324</b>	<b>\$1,756,482</b>
Claims	\$0	\$0	\$0	\$194,753	\$256,612
Loan proceeds	\$0	\$800,000	\$0	\$0	\$0
Grants	\$0	\$24,994	\$43,175	\$45,026	\$6,928
Miscellaneous	\$9,158	\$72,000	\$57,324	\$0	\$0
<b>Total Revenue</b>	<b>\$1,856,725</b>	<b>\$2,890,077</b>	<b>\$1,939,868</b>	<b>\$2,070,103</b>	<b>\$2,020,022</b>

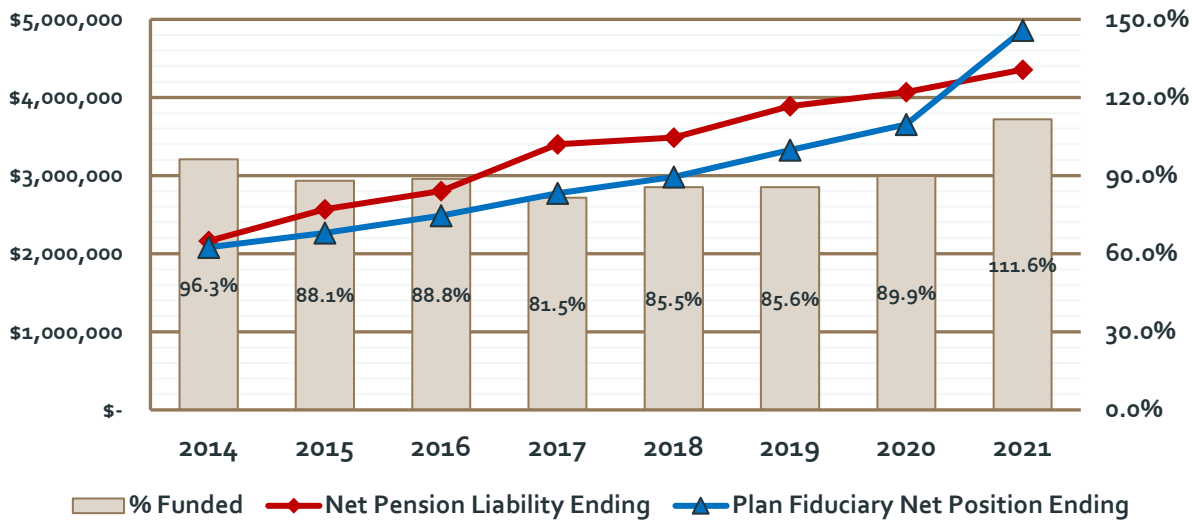
*Hopkins Hill Fire District Expense FY 18-22 Actual*

EXPENSE	FY 18	FY 19	FY 20	FY 21	FY 22
	Actual	Actual	Actual	Actual	Actual
Personnel Services	\$1,198,089	\$1,413,586	\$1,482,725	\$1,643,742	\$1,594,470
<i>Wages/Salaries</i>	\$849,986	\$1,055,035	\$1,111,012	\$1,150,220	\$1,097,397
<i>Benefits</i>	\$348,103	\$358,551	\$371,713	\$493,522	\$497,073
Operating Expense	\$370,579	\$326,135	\$326,109	\$271,575	\$320,045
Debt Service	\$54,076	\$54,075	\$134,389	\$80,314	\$80,314
<b>Recurring Expense</b>	<b>\$1,622,744</b>	<b>\$1,793,796</b>	<b>\$1,943,223</b>	<b>\$1,995,631</b>	<b>\$1,994,829</b>
Capital	\$188,995	\$1,090,926	\$97,283	\$18,525	\$54,498
Grant expense	\$0	\$24,994	\$16,300	\$0	\$8,163
<b>Total Expense</b>	<b>\$1,811,739</b>	<b>\$2,909,716</b>	<b>\$2,056,806</b>	<b>\$2,014,156</b>	<b>\$2,057,490</b>

The district funds both defined benefit and defined contribution retirement programs. The MERS total pension liability as of August 31, 2021, was \$4,356,486, while the plan fiduciary net position was \$4,861,956. The retirement plan was funded at just under 112% as of that point in time. The defined contribution plan (an IRS section 401(a) plan) is administered by TIAA-CREF. The district does not provide other post-retirement benefits (OPEB).

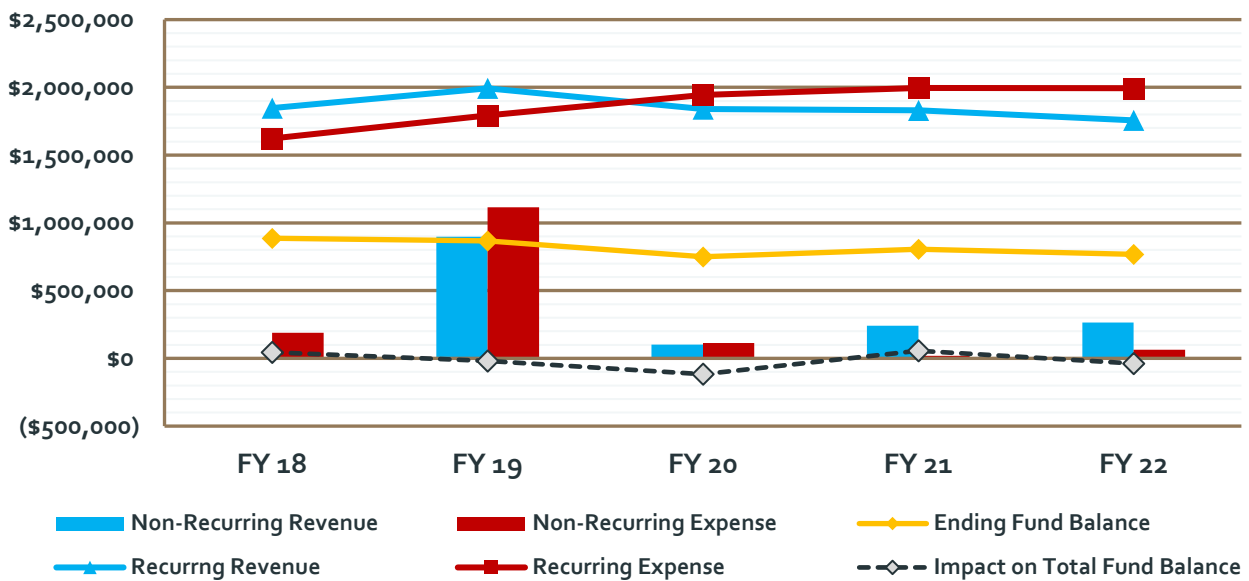
The historical trajectory of annual ending total pension liability versus fiduciary position is shown in the following figure. As actuarially determined liability increased over the period 2014-2021, annual contributions did not quite keep pace with liabilities, and the percentage of liability funded by the district decreased from 96% in 2014 to a low of just under 82% in 2017 before climbing slightly to just under 90% in 2020 when the district increased its annual contribution bringing the percentage in 2021 to just under 112%.

*Hopkins Hill Fire District Total Pension Liability Versus Fiduciary Position (2014-2021)*



The following figure summarizes the historical financial trajectory of the District with a comparison of recurring and non-recurring revenue (blue line and blue bars, respectively) recurring and non-recurring expenses (red line and red bars, respectively). A dashed line represents the difference between total revenue and expense, whether positive or negative, with the impact of that difference on the annual ending; a yellow line represents the total fund balance. For FY 18 and FY 19, the District received approximately \$200,000 more in recurring revenue than it spent on recurring obligations, after which it began to spend more than it collected. A large influx of non-recurring revenue in both FY 21 and FY 22<sup>9</sup> allowed the District to maintain its fund balance at approximately the same level as in FY 20. However, it is clear that the trend of recurring expenses exceeding recurring revenue will have a negative impact on future fund balance, which could lead to unstable financial conditions.

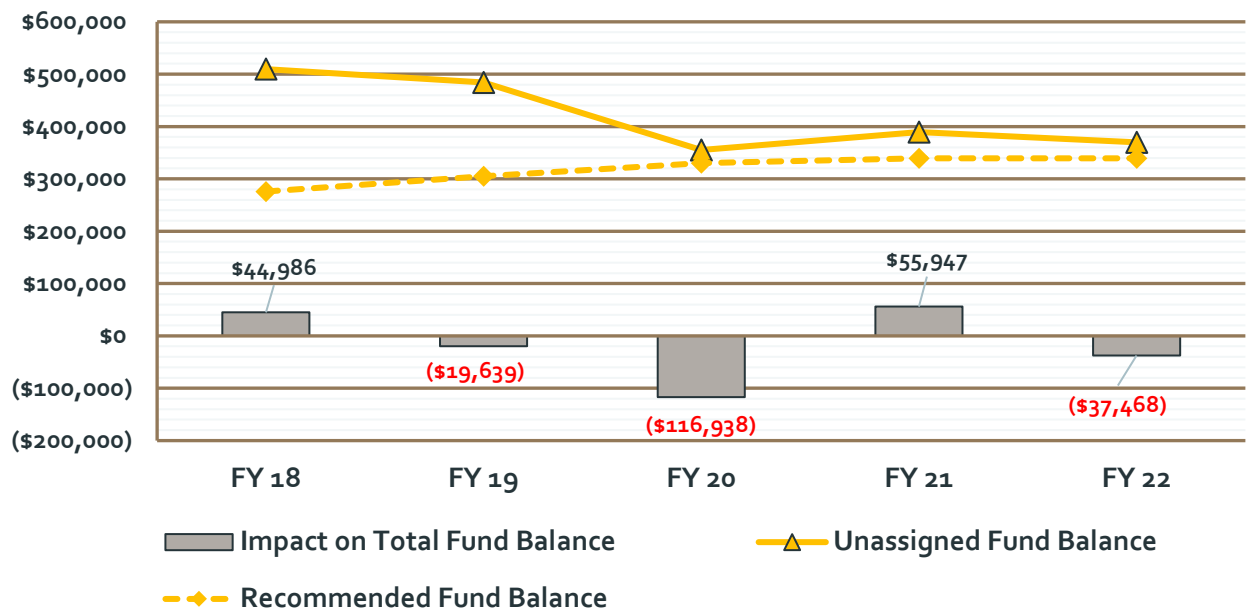
*Hopkins Hill Fire District Revenue, Expense, and Impact on Ending Fund Balance FY 18-22 Actual*



<sup>9</sup> Fire rescue claims.

The following figure illustrates more clearly the current financial condition of the District as of the end of FY 22. Light grey bars represent the net difference between total revenue and expense, while a solid yellow line represents the unassigned fund balance. The very large capital expenditure in FY 19, combined with a negative difference between recurring revenue and expense combined to create a large drop in fund balance, which made up for the funding shortfall. In the figure below, a dashed yellow line represents the GFOA recommended fund balance compared to the actual, unassigned fund balance (solid yellow line). The recommended annual fund balance increased slightly but generally averaged approximately \$315,000 throughout the historical period, while the unassigned fund balance exceeded the recommended amount by \$50,000 in FY 21 and by \$30,000 in FY 22, again due to one-time revenue infusions of claims funds in FY 21 and FY 22. However, the trend of recurring expenses exceeding recurring revenue could result in worsening financial conditions if the District does not reduce expenses and/or increase revenues.

*Hopkins Hill Fire District Unassigned and GFOA Recommended Ending Fund Balance FY 18-22 Actual*



## Western Coventry Fire District

In 1942, Legislative action created the Western Coventry Fire District. Residents within the district elect a Board of Directors to oversee the Fire District. The Board levies an annual fire tax that supports fire services. Western Coventry Fire District is the only one of the four districts in Coventry that does not support street lighting and fire hydrant rental. It operates on a March 1 to February 28 fiscal year and uses a modified accrual basis for accounting with a current financial resources measurement focus. As required by Rhode Island tax law, the District maintains separate tax or millage rates for residential, commercial/industrial, and tangible personal property. Shown in the figure below are the assessed values for each category of property (less exemptions) and the associated tax rates (per \$1,000 of assessed value). For comparison purposes with the other districts, the figure below depicts a “net tax rate,” calculated by multiplying the net millage value by 1000 and dividing by the total assessed property value. The net tax rate for the district is currently 1.58 Mills. The General Fund is the district’s primary operating fund.

### *Western Coventry Fire District Budget and Finance Overview (FY 23)*

COMPONENT	DESCRIPTION
Fiscal Year	March 1 - February 28
Assessed Property Value (FY 23)	\$570,583,637
<i>Residential</i>	\$551,034,820
<i>Commercial/Industrial</i>	\$12,297,100
<i>Tangible Personal Property</i>	\$7,251,717
Net Tax Rate (per \$1,000)	\$1.58
<i>Residential Rate</i>	\$1.58
<i>Commercial/Industrial Rate</i>	\$1.58
<i>Tangible Personal Property Rate</i>	\$1.58
<b>Net Millage</b>	<b>\$902,144</b>
<i>Residential Millage</i>	\$870,915
<i>Commercial/Industrial Millage</i>	\$19,429
<i>Tangible Personal Property Millage</i>	\$11,799
<b>Operating Budget (FY 23)</b>	<b>\$1,007,533</b>



The following tables summarize actual West Coventry Fire District revenues and expenses for the period FY 19-23. The primary source of revenue is property taxes supplemented by various service fees and reimbursements. Recurring revenues comprise the bulk of the annual revenue, which increased from \$0.8 million in FY 19 to just over \$1 million in FY 23, for an average annual increase of 5.8%. A steady increase in tax revenue drove increased recurring revenue at an average annual growth rate of 7.5%. The district received grant funding each year through the historical period, receiving an average of just under \$40,000 annually. The total net assessed value within the district, shown in the figure below, increased annually at a rate of 1%, which is likely not significant given only three years of data upon which to base this estimate.

*Growth in Net Assessed Value Western Coventry Fire District*

<b>Schedule of Net Assessed Value</b>			
<b>Description of Property</b>	<b>Assessment Year Ending</b>		
	<b>12/31/2019</b>	<b>12/31/2020</b>	<b>12/31/2021</b>
Real Property	\$ 418,563,660	\$ 419,891,700	\$ 424,407,880
Tangible Personal Property	\$ 6,009,520	\$ 6,124,180	\$ 6,691,610
<b>Total</b>	<b>\$ 424,573,180</b>	<b>\$ 426,015,880</b>	<b>\$ 431,099,490</b>

The upper table of the following figure reflects revenues for the District, while the second table shows expenses for the period FY 19-23 actual. Capital expenses are considered non-recurring expenses and have generally decreased each year throughout the historical period from a high of \$104,000 in FY 20 to \$0 by FY 23. Total expenses rose from \$833,000 in FY 19 to just over \$1 million in FY 23 for an average annual increase of approximately 4.9%. Recurring expenses increased from an average annual rate of just over 7.5%, driven by increased personnel costs, which rose by almost \$250,000 over the historical period. Personnel costs increased from 61% of recurring costs in FY 19 to 70% by FY 23 and increased at an average annual rate of just over 11.3%, with a large jump between FY 22 and FY 23 accounting for the bulk of the increase over the period. Operating costs increased annually at a rate of 3.8%, rising from just under \$200,000 in FY 19 to almost \$230,000 in FY 23. Annual debt service on a long-term obligation that runs through FY 39 in the annual amount of \$71,209 includes principal and interest.

*Western Coventry Fire District Revenue FY 19-23 Actual*

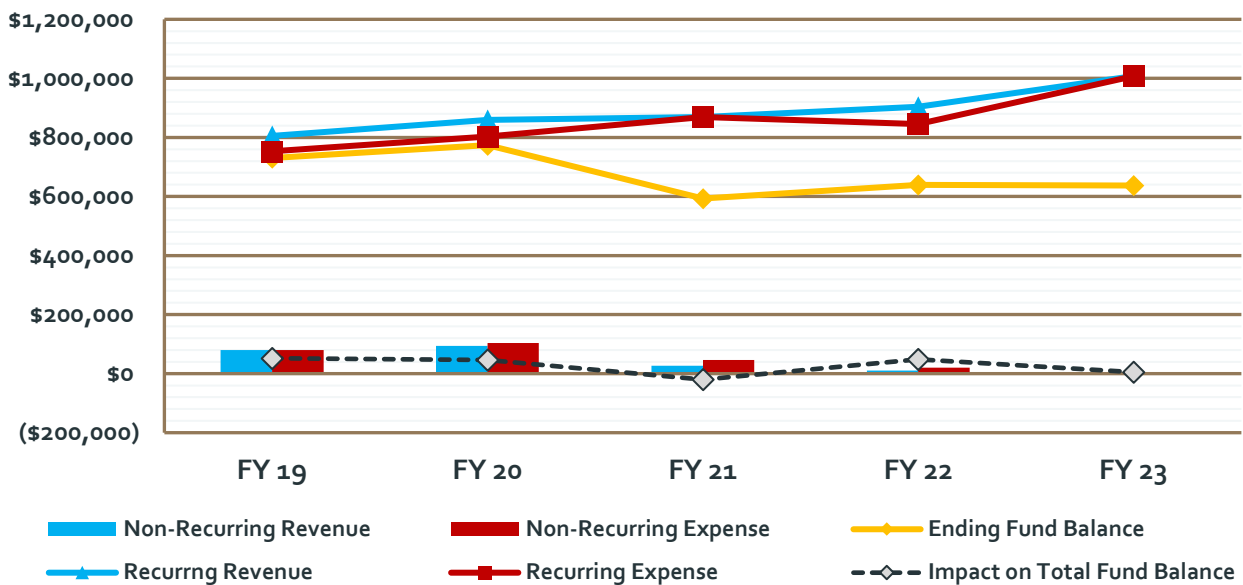
REVENUE	FY 19	FY 20	FY 21	FY 22	FY 23
	Actual	Actual	Actual	Actual	Actual
Taxes (plus penalties/interest)	\$658,234	\$691,127	\$737,239	\$737,961	\$878,653
Service Fees/Reimbursements	\$147,011	\$168,282	\$131,677	\$165,866	\$129,136
<b>Total Recurring Revenue</b>	<b>\$805,245</b>	<b>\$859,409</b>	<b>\$868,916</b>	<b>\$903,827</b>	<b>\$1,007,789</b>
Grants	\$74,574	\$93,160	\$10,730	\$10,203	\$4,706
Apparatus Sales	\$0	\$0	\$10,500	\$0	\$0
Miscellaneous	\$4,873	\$844	\$5,622	\$55	\$226
<b>Total Revenue</b>	<b>\$884,692</b>	<b>\$953,413</b>	<b>\$895,768</b>	<b>\$914,085</b>	<b>\$1,012,721</b>

*Western Coventry Fire District Expense FY 19-23 Actual*

EXPENSE	FY 19	FY 20	FY 21	FY 22	FY 23
	Actual	Actual	Actual	Actual	Actual
Personnel Services	\$461,220	\$496,122	\$551,287	\$552,814	\$708,233
<i>Wages/Salaries</i>			\$479,367	\$478,899	\$625,489
<i>Benefits</i>			\$71,920	\$73,915	\$82,744
Operating Expense	\$196,577	\$211,173	\$222,594	\$223,458	\$228,091
Debt Service	\$95,268	\$95,445	\$95,268	\$69,204	\$71,209
<b>Recurring Expense</b>	<b>\$753,065</b>	<b>\$802,740</b>	<b>\$869,149</b>	<b>\$845,476</b>	<b>\$1,007,533</b>
Capital	\$79,500	\$104,082	\$46,809	\$20,000	\$0
<b>Total Expense</b>	<b>\$832,565</b>	<b>\$906,822</b>	<b>\$915,958</b>	<b>\$865,476</b>	<b>\$1,007,533</b>

The following figure summarizes the historical financial trajectory of the district with a comparison of recurring and non-recurring revenue (blue line and blue bars, respectively) recurring and non-recurring expenses (red line and red bars, respectively). A dashed line represents the difference between total revenue and expense, whether positive or negative, with the impact of that difference on the annual ending, and a yellow line represents the total fund balance. Throughout the period FY 19-23, the District received more in recurring revenue than it spent on recurring obligations. This represents sound financial practice and has had a positive impact on ending fund balance each year. It is clear to see how the impact of this surplus in revenue over the expense in FY 19-23 has positively affected the ending fund balance. The drop in fund balance from FY 20 to FY 21 is largely the result of a change in reporting requirements found in the Government Accounting Standards Board (GASB) 34<sup>10</sup>.

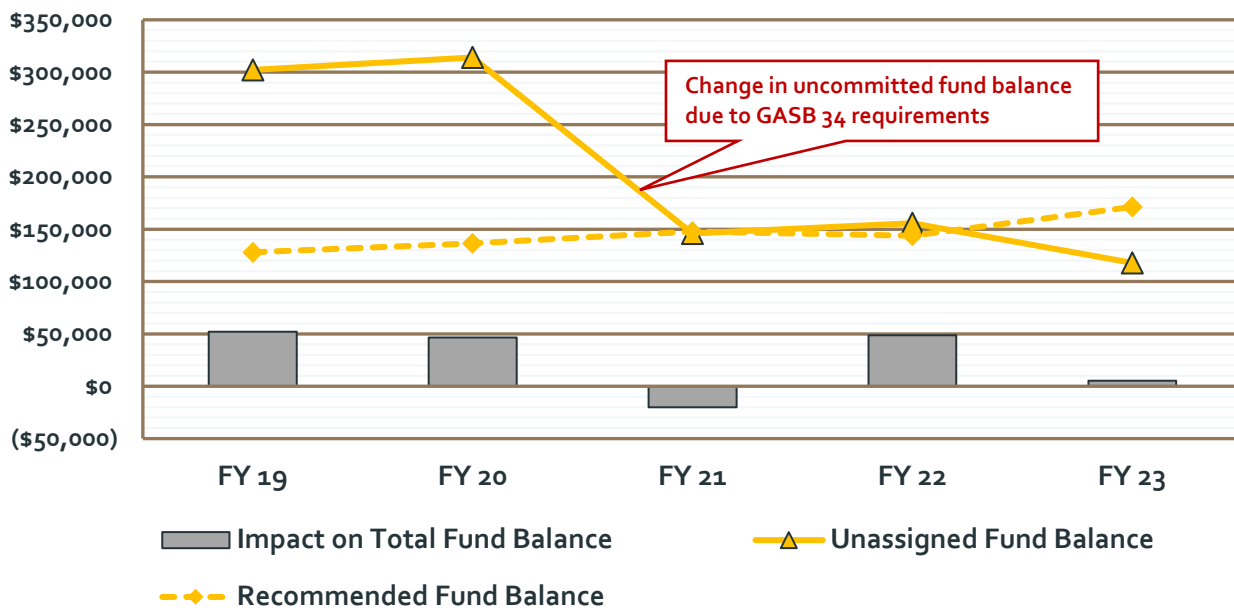
*Western Coventry Fire District Revenue, Expense, and Impact on Ending Fund Balance FY 19-23 Actual*



<sup>10</sup> The FY 21 audit report by Wadovick & Company restated the General Fund balance from \$322,590 to \$171,722 due to changes required by GASB 34 (non-spendable plus unassigned). Specifically, the District found that compensated absences, interest expense and property tax revenues were not reported in accordance with GASB 34 current resource reporting requirements, the correction of which resulted in a net reduction of \$150,868 in fund balance reported for FY 20 in the FY 21 audit.

The following figure illustrates more clearly the current financial condition of the District as of the end of FY 23. Light grey bars represent the net difference between total revenue and expense, while a solid yellow line represents the unassigned fund balance. Again, the large drop in unassigned fund balance is due largely to changes made between the FY 20 and FY 21 audits to reflect the reclassification of items in accordance with GASB 34 requirements rather than an increase in recurring expense over recurring revenue. In the figure below, the GFOA recommended fund balance is shown (dashed yellow line) compared to the actual, unassigned fund balance (solid yellow line). The recommended annual fund balance tracked with the actual unassigned fund balance after the GASB 34 correction until FY 23, when personnel expenditures increased significantly, bumping the recommended fund balance. The District will need to monitor this trend to ensure it maintains sufficient unassigned reserves to cover any potential emergencies that may require the use of fund balance to cover recurring expenses.

*Western Coventry Fire District Unassigned and GFOA Recommended Ending Fund Balance FY 19-23 Actual*



# Fire Stations Evaluation



## Overview




Within the Town of Coventry, the four independent Fire Districts provide services to the community from five active fire stations. Several of these stations were originally designed and built to serve the many villages and enclaves in the early years of Coventry’s existence. Dynamix Consulting Group visited each of the fire stations in September 2023, documented building conditions and space needs, and then conducted a gap analysis using industry best practices and recommendations from the National Fire Protection Association (NFPA), the United States Fire Administration (USFA), and the International Association of Firefighters (IAFF). The fire stations are categorized according to the following criteria:

*Fire Station Condition Classifications*

Excellent	Like new conditions. No visible structural defects. The facility is clean and well-maintained. The interior layout is conducive to function with no unnecessary impediments to the apparatus bays or offices. No significant defect history. Building design and construction match the building’s purposes. Age is typically less than ten years.
Good	The exterior has a good appearance with minor or no defects. Clean lines, good workflow design, and only minor wear on the building interior. The roof and apparatus apron are in good working order, absent any significant full-thickness cracks, crumbling of the apron surface, or visible roof patches or leaks. Building design and construction match the building’s purposes. Age is typically less than 20 years.
Fair	The building appears structurally sound with a weathered appearance and minor to moderate non-structural defects. The interior condition shows normal wear and tear but flows effectively to the apparatus bay or offices. Mechanical systems are in working order. Building design and construction may not match the building’s purposes well. Shows increasing age-related maintenance but with no critical defects. Age is typically 30 years or more.
Poor	The building appears cosmetically weathered and worn with potential structural defects, although not imminently dangerous or unsafe. Large, multiple full-thickness cracks and crumbling concrete on the apron may exist. The roof has evidence of leaking or multiple repairs. The interior is poorly maintained or shows signs of advanced deterioration with moderate to significant non-structural defects. Problematic age-related maintenance or major defects are evident. It may not be well suited to its intended purpose. Age is typically greater than 40 years.

### Fire Stations in the Town of Coventry

Station	Image	Condition	Notes
<p>Central Coventry Fire District</p> <p>STATION 4 240 Arnold Road</p>		<b>Poor</b>	<ul style="list-style-type: none"> <li>❗ Completed 1970s, metal construction</li> <li>❗ 6,000 square feet</li> <li>❗ Back-in bays only</li> <li>❗ Auxiliary power undersized (35 kW)</li> <li>❗ Not ADA compliant</li> <li>❗ Sleeping dorms not separated</li> <li>❗ No building fire sprinklers</li> <li>❗ Minimal cancer prevention engineering</li> <li>❗ Does have vehicle exhaust recovery system (Plymovent)</li> <li>❗ No separate PPE gear storage area</li> <li>❗ Inadequate apparatus bay space</li> <li>❗ Inadequate office space with limited access</li> <li>❗ Inadequate tax office space with limited access for public</li> <li>❗ Lack of training/meeting room</li> <li>❗ No separate men's and women's bathrooms</li> <li>❗ Inadequate parking</li> <li>❗ No seismic protection/minimal wind protection</li> <li>❗ No electronic access for staff</li> <li>❗ Lacks storage space</li> <li>❗ Lacks electric outlets</li> </ul>
<p>Central Coventry Fire District</p> <p>STATION 7 2847 Flat River Road</p>		<b>Poor</b>	<ul style="list-style-type: none"> <li>❗ Built 1950s concrete block construction</li> <li>❗ 4,600 square feet</li> <li>❗ Back-in bays only</li> <li>❗ Auxiliary power undersized (15 kW)</li> <li>❗ Not ADA compliant</li> <li>❗ Sleeping dorms are separated</li> <li>❗ No building fire sprinklers</li> <li>❗ Minimal cancer prevention engineering</li> <li>❗ Does have vehicle exhaust recovery system (Plymovent)</li> <li>❗ No separate PPE gear storage area</li> <li>❗ Inadequate apparatus bay space</li> <li>❗ Inadequate office space</li> <li>❗ No exercise/workout facilities</li> <li>❗ Lack of training/meeting room</li> <li>❗ Inadequate parking</li> <li>❗ No seismic protection</li> <li>❗ No electronic access for staff</li> <li>❗ Lacks storage space</li> <li>❗ Lacks electric outlets</li> <li>❗ No roadway signaling for response</li> </ul>

Station	Image	Condition	Notes
Coventry Fire District (Anthony)  STATION 1 571 Washington Street		<b>Poor</b>	<ul style="list-style-type: none"> <li>❗ The original portion was built in 1889, with additions in 1925 and 1974</li> <li>❗ Approximately 7,500 square feet</li> <li>❗ Back-in bays only</li> <li>❗ Not ADA compliant</li> <li>❗ Floors rotting with holes visible</li> <li>❗ Limited building sprinklers</li> <li>❗ Minimal cancer prevention engineering</li> <li>❗ No separate PPE gear storage area</li> <li>❗ Inadequate apparatus bay space</li> <li>❗ Inadequate office space</li> <li>❗ Lack of training/meeting room</li> <li>❗ Inadequate parking</li> <li>❗ No seismic protection</li> <li>❗ Keypad access only</li> <li>❗ Lacks storage space</li> <li>❗ Lacks electric outlets</li> <li>❗ Inadequate tax office space with limited access to public</li> </ul>
Hopkins Hill Fire District  STATION 6 1 Bestwick Trail		<b>Good</b>	<ul style="list-style-type: none"> <li>❗ Built in the 1950s, renovated 1986</li> <li>❗ Approximately 5,500 square feet</li> <li>❗ Back-in bays only</li> <li>❗ Not ADA compliant</li> <li>❗ Some cancer prevention engineering</li> <li>❗ Does have vehicle exhaust recovery system (Plymovent)</li> <li>❗ No separate PPE gear storage area</li> <li>❗ Does have PPE gear extractor washer</li> <li>❗ Inadequate apparatus bay space</li> <li>❗ Inadequate office space</li> <li>❗ Limited parking</li> <li>❗ No seismic protection</li> <li>❗ Keypad access only</li> <li>❗ Lacks storage space</li> <li>❗ Limited tax office space with limited access to public</li> <li>❗ No roadway signaling for response</li> </ul>
Western Coventry Fire District  STATION 8 SUMMIT 1110 Victory Highway		<b>Good</b>	<ul style="list-style-type: none"> <li>❗ Built in 2009, concrete block construction</li> <li>❗ Approximately 7,500 square feet</li> <li>❗ Back-in bays only</li> <li>❗ ADA accessible</li> <li>❗ Plymovent exhaust system</li> <li>❗ Building fire sprinklers</li> <li>❗ Keypad access and keyed locks</li> <li>❗ No separate PPE gear storage area</li> <li>❗ No roadway signaling for response</li> </ul>

## Future Fire Station Considerations

The fire stations within the Town of Coventry will require significant financial investment in the coming years. The five fire stations evaluated by Dynamix Consulting Group range in condition from “poor” to “good.” Central Coventry Fire District Station 4 and Station 7, along with Coventry Fire District Station 1, are in “poor” condition. These stations have outlived their useful life, lack the most basic of modern building and life safety code requirements, and some are no longer in the optimal location to meet the current service delivery demands of the community. Hopkins Hill Fire District Station and Western Coventry Fire District Station 8 received “good” evaluations but still lack some of the industry’s recognized standards to ensure the health and safety of fire and emergency service personnel. Administrators should consider relocating some or all fire stations based on the GIS Models for Fire Station Optimization. When rebuilding or renovating fire stations, the following should be considered:

### Building Codes, NFPA Standards to Include Fire Sprinklers

New or fully renovated fire stations must comply with Rhode Island Building Code Rules, Fire Safety Code Rules, and Occupational Safety Rules. Key elements of the rules include NFPA 1-Fire Code, which addresses occupant safety, emergency responder safety, and property protection, and NFPA 101-Life Safety Code, which addresses strategies to protect people based on building construction, protection, and occupancy features that minimize the effects of fire and related hazards. As noted above, some of the fire stations evaluated do not have fire sprinklers. NFPA 1-Fire Code requires that “New buildings housing emergency fire, rescue, or ambulance services shall be protected throughout by approved supervised automatic sprinkler systems.” The requirement for sprinkler protection protects the emergency services personnel occupying the facility and reduces the risk of disrupting the provision of emergency services to the community because of a fire. While not required by the code for existing buildings, Dynamix Consulting Group recommends installing fire sprinkler systems in all existing fire stations for the safety of the firefighters who occupy the stations and to demonstrate to the community the importance of automatic fire sprinkler systems.

### Response & Vehicle Circulation

Station layout and pathway flow play essential roles in “turnout” time, the time beginning when units receive notification of the emergency to the time the response begins (wheels moving). In accordance with NFPA 1710, for staffed fire stations, the benchmark is 60 seconds for EMS calls and 80 seconds for fire calls 90% of the time. Several fire stations within Coventry lack pathway flow for members to access the apparatus bay floor quickly and safely. New station design should include clear, short, and direct pathways without stairs, obstacles, or hard angle turns that may cause slips and falls.

Safe access to roadways is critical for both the public’s safety and responder safety. Noted concerns for several fire stations within Coventry include line of sight, returning to the station, and busy roadway access. Line of sight at Central Coventry Fire District Station 4 due to proximity to the road, and intersection placement of Coventry Fire District Station 1 are both safety concerns. Responders must disrupt or stop traffic at all five fire stations to allow fire apparatus to back into bays upon returning to the station. Three of the five stations lack roadway signaling to stop traffic flow when the apparatus responds to or returns from calls for service.

All five fire stations have “back-in bays.” The lack of drive-through bays at these stations constitutes a safety concern, as many firefighter injuries and accidents occur when backing emergency vehicles into the bays. Dynamix Consulting Group notes that drive-through bays are the recommended configuration. For all future buildings that will house apparatus, consider a design that allows for drive-through bays that are large enough to accommodate all frontline and reserve apparatus.



## Cancer Prevention Engineering

Firefighting is an occupation with higher rates and varieties of cancer than many other occupations, and exposure to cancer-causing agents (carcinogens) does not end with fire extinguishment. Exposure for firefighters continues when returning to the fire station until gear, equipment, and the firefighters themselves become “clean” of the carcinogens from the smoke and other products of the fire through decontamination efforts. Currently, none of the fire stations evaluated in Coventry have designated ventilated storage areas for firefighting gear. Firefighting gear is currently stored in apparatus bays where the risk of cross-contamination remains for firefighters. To limit or reduce firefighter exposure to toxic products of combustion that occur after the fire, firefighters must store turnout gear in well-ventilated rooms to prevent additional exposure to off-gassing chemicals absorbed into turnout gear during a fire. Consider additional efforts to protect firefighters from cancer, including pressurizing corridors to help keep contaminants out of designated clean areas, establishing decontamination zones, providing adequate private showers, and providing a second set of turnout gear or access to a second set for all firefighters.

## Private-Public Separation & Access Control

Historically, fire stations were places where residents and visitors from the community accessed any part of a fire station with very few limitations. The current environment requires emergency service providers to implement specific security measures limiting and controlling access to fire stations. The need to protect firefighters drives the control of limited access, installation of expensive security equipment, and protection of sensitive data from access by individuals desiring to harm the community. Presently, fire station access in the Coventry fire stations is by keys or key codes. This method is unreliable for securing buildings, as members can copy keys or share access codes. Consider installing electronic access control systems that monitor access to the buildings and allow the administrator to control access to individuals in all facilities.

## Wellness, Equality, Inclusion, & Culture

The physical nature of firefighting demands that responders constantly engage in strength, cardiovascular, and flexibility training to provide effective response to the community. Fire departments can minimize or even eliminate many injuries and illnesses if members are physically fit. NFPA 1583, Standard on Health-Related Fitness Programs for Fire Department Members, sets the requirements for fire and emergency services organizations to develop and maintain fitness programs. The fire station evaluation conducted by Dynamix Consulting Group revealed limited or no access to physical fitness equipment in fire stations for on-duty firefighters. Administrators should work to provide access to fitness equipment and include fitness rooms in plans to build or renovate fire stations. Doing so will help to reduce the organization’s workers’ compensation costs, lost time, and insurance claims.

Fire and emergency services leaders are working to address the mental wellness of firefighters, and fire station design is playing a role in creating environments that promote improved mental health. When building or remodeling fire facilities in Coventry, consider natural lighting, zoned alert toning and lighting, and space for personal privacy. Also important to consider when building or renovating fire facilities are improvements that support equity, diversity, and inclusivity, which benefits all firefighters who occupy these stations. Benefits include improved sleep quality, personal privacy, and feelings of safety while maintaining intentional collaboration, effectively leveling the experience for all firefighters, and creating new opportunities for fire station culture.

# Staffing

## Overview

Historically, each of the four Fire Districts within Coventry has functioned as independent entities, each serving somewhat of a unique demographic and geographic area. Although originally staffed by volunteer forces, each fire agency has evolved at a slightly different pace based on area growth and service delivery demands by the residents and businesses within each District. The migration from volunteer to paid-on-call to per diem to, in most cases, full-time staffing has occurred in all four Fire Districts, but staffing levels, schedules, and configurations remain different.

At the time of the Dynamix Consulting Group site visit in September 2023, a minimum of 14 line officers and firefighters protected the entire Town of Coventry, responding from five fire stations in four separate Fire Districts. The sections below provide a breakdown of staffing in the Fire Districts within the Town of Coventry.

## Staffing Levels for Fire Districts

### Central Coventry Fire District

Central Coventry Fire District (CCFD)		
Total Staff	<ul style="list-style-type: none"> <li>31 Total Department Personnel               <ul style="list-style-type: none"> <li>1 Fire Chief – Part Time*</li> <li>1 Assistant Fire Chief</li> <li>3 Captains</li> <li>9 Lieutenants</li> <li>18 Firefighter/EMTs</li> </ul> </li> </ul>	
Minimum Line Staff	<ul style="list-style-type: none"> <li>8 Minimum               <ul style="list-style-type: none"> <li>4 Officer or Acting Officers Minimum</li> </ul> </li> </ul>	
Administration/Board of Directors	Administration (Tax Office) <ul style="list-style-type: none"> <li>1 District Clerk</li> <li>1 Tax Collector</li> <li>1 Treasurer</li> </ul>	Board of Directors <ul style="list-style-type: none"> <li>7 Members</li> <li>3 Year Terms</li> <li>Members receive a stipend</li> <li>May not serve as a treasurer or tax collector of any district.</li> </ul>
Labor/Work Schedule/Hours	<ul style="list-style-type: none"> <li>IAFF Local 3372**</li> <li>Fire Chief not included in the union</li> <li>3 Platoons moving to 4 Platoons October 15, 2023.</li> <li>42-Hour Workweek Average</li> </ul>	
Notes	<p>*Part Time Fire Chief of CCFD is also the Full Time Fire Chief of Hopkins Hill Fire District</p> <p>**IAFF Local 3372 includes the labor personnel of Coventry Fire District</p> <p>***Central Coventry Fire District is the only District in Coventry that operates three platoons; all other districts operate four platoons.</p>	

## Coventry Fire District

Coventry Fire District (CFD)		
Total Staff	<ul style="list-style-type: none"> <li>11 Total Department Personnel*               <ul style="list-style-type: none"> <li>1 Fire Chief - Part Time</li> <li>1 Captain</li> <li>3 Lieutenants</li> <li>6 Firefighter/EMTs</li> </ul> </li> </ul>	
Minimum Line Staff	<ul style="list-style-type: none"> <li>2 Minimum               <ul style="list-style-type: none"> <li>1 Officer or Acting Officer Minimum</li> <li>1 Firefighter/EMT-Cardiac (EMT-C) Minimum</li> </ul> </li> </ul>	
Administration/Board of Directors	Administration (Tax Office) <ul style="list-style-type: none"> <li>1 Tax Collector / Clerk - Full Time</li> </ul>	Board of Directors <ul style="list-style-type: none"> <li>5 Member Board</li> </ul>
Labor/Work Schedule/Hours	<ul style="list-style-type: none"> <li>IAFF Local 3372**</li> <li>Fire Chief not included in the union</li> <li>4 Platoons</li> <li>42-Hour Workweek Average</li> <li>Cross-Staff apparatus</li> </ul>	
Notes	<p>*Firefighters do part-time fire marshal work in lieu of a full-time fire marshal position being filled per labor agreement</p> <p>**IAFF Local 3372 includes the labor personnel of the Central Coventry Fire District</p>	

## Hopkins Hill Fire District

Hopkins Hill Fire District (HHFD)		
Total Staff	<ul style="list-style-type: none"> <li>14 Total Department Personnel               <ul style="list-style-type: none"> <li>1 Fire Chief – Full Time*</li> <li>1 Fire Marshal</li> <li>8 Firefighter/EMTs</li> <li>4 Dispatchers</li> </ul> </li> </ul>	
Minimum Line Staff	2 Minimum	
Administration/Board of Directors	Administration (Tax Office) <ul style="list-style-type: none"> <li>1 Tax Collector</li> <li>1 Head Tax Assessor</li> </ul>	Board of Directors/Executive Committee <ul style="list-style-type: none"> <li>7 Members</li> <li>1 Year Term</li> </ul>
Labor/Work Schedule/Hours	<ul style="list-style-type: none"> <li>IAFF Local 4824</li> <li>4 Platoons</li> <li>42-Hour Workweek Average</li> </ul>	
Notes	<ul style="list-style-type: none"> <li>*Full-Time Fire Chief of HHFD is also the Part-Time Fire Chief of Central Coventry Fire District</li> <li>Fire Marshal position is paid for by money received from Amgen Corporation</li> <li>Dispatchers are HHFD employees but paid by the Town of Coventry fund</li> <li>Tax Collector and Head Tax Assessor are considered part of Executive Committee</li> <li>The following positions receive stipends:               <ul style="list-style-type: none"> <li>Chairperson</li> <li>Head Tax Assessor</li> <li>Vice Chairperson</li> <li>Member at Large</li> <li>Clerk</li> <li>Treasurer</li> <li>Tax Collector</li> </ul> </li> </ul>	

## Western Coventry Fire District

Western Coventry Fire District (WCFD)			
Total Staff	<ul style="list-style-type: none"> <li>🚒 5 Full-Time Department Personnel &amp; 24 Per Diem Personnel               <ul style="list-style-type: none"> <li>🚒 1 Fire Chief</li> <li>🚒 1 Captain</li> <li>🚒 1 Per Diem Captain</li> <li>🚒 3 Firefighter/EMT</li> <li>🚒 23 Per Diem Employees</li> </ul> </li> </ul>		
Minimum Line Staff	<ul style="list-style-type: none"> <li>🚒 2 Minimum</li> </ul>		
Administration/Board of Directors	<table border="1"> <tr> <td>           District Officials (Tax Office)           <ul style="list-style-type: none"> <li>🚒 1 Moderator</li> <li>🚒 1 Treasurer</li> <li>🚒 1 Tax Collector</li> <li>🚒 1 District Clerk</li> <li>🚒 Part-Time Salaries</li> </ul> </td> <td>           Board of Directors           <ul style="list-style-type: none"> <li>🚒 5 Members</li> <li>🚒 3 Year Term</li> </ul> </td> </tr> </table>	District Officials (Tax Office) <ul style="list-style-type: none"> <li>🚒 1 Moderator</li> <li>🚒 1 Treasurer</li> <li>🚒 1 Tax Collector</li> <li>🚒 1 District Clerk</li> <li>🚒 Part-Time Salaries</li> </ul>	Board of Directors <ul style="list-style-type: none"> <li>🚒 5 Members</li> <li>🚒 3 Year Term</li> </ul>
District Officials (Tax Office) <ul style="list-style-type: none"> <li>🚒 1 Moderator</li> <li>🚒 1 Treasurer</li> <li>🚒 1 Tax Collector</li> <li>🚒 1 District Clerk</li> <li>🚒 Part-Time Salaries</li> </ul>	Board of Directors <ul style="list-style-type: none"> <li>🚒 5 Members</li> <li>🚒 3 Year Term</li> </ul>		
Labor/Work Schedule/Hours	<ul style="list-style-type: none"> <li>🚒 Non-Union</li> <li>🚒 4 Platoons</li> <li>🚒 42-Hour Workweek Average</li> <li>🚒 Cross-Staffed Vehicles</li> </ul>		
Notes	<ul style="list-style-type: none"> <li>🚒 The Fire Chief fills line positions when needed</li> <li>🚒 Fire Chief performs Fire Marshal duties</li> <li>🚒 The Board is not paid.</li> <li>🚒 The following positions are paid:               <ul style="list-style-type: none"> <li>🚒 Clerk</li> <li>🚒 Tax Collector</li> <li>🚒 Treasurer</li> </ul> </li> </ul>		

## NFPA Staffing Requirements

### NFPA 1710

The National Fire Protection Association (NFPA) 1710 Standard, “Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments,” establishes the minimum requirements for emergency services. NFPA 1710 addresses apparatus staffing, response time, and the effective firefighting force. The effective response force is the minimum number of firefighters needed to complete essential fire ground tasks. NFPA 1710 defines a “Career Fire Department” as “A fire department that utilizes full-time or full-time-equivalent (FTE) station-based personnel immediately available to comprise at least 50 percent of an initial first alarm assignment.”

The number and types of fireground tasks needing simultaneous action dictate the minimum number of firefighters required to combat distinct types of fires. Without adequate personnel to perform concurrent actions, the commanding officer must prioritize and complete the tasks chronologically rather than concurrently. These tasks include:

- 🚒 Command
- 🚒 Scene safety
- 🚒 Search & Rescue
- 🚒 Fire Attack
- 🚒 Water Supply
- 🚒 Pump operation
- 🚒 Ventilation
- 🚒 Back-up/rapid intervention

While the individual community must establish the level of fire and rescue services provided, considerable debate surrounds the matter of firefighter staffing. Frequently, this discussion is set in the context of firefighter safety. Whereas NFPA 1710 specifies the number of firefighters assigned to a particular response apparatus (minimum of four personnel per engine company), Dynamix Consulting Group notes the more critical issue is the number of firefighters assembled at the scene of an incident. The scope and magnitude of the incident dictate the number of firefighters needed, regardless of the type or number of vehicles that arrive.

The following figure describes the initial full alarm assignments for a residential structure fire, an open-air shopping center fire, and an apartment fire. All three types of occupancies are common throughout the Town of Coventry. These are generalizations representative of different structures and risks.

NFPA 1710 Initial Full Alarm Assignments

2,000 SF Residential Structure Fire		Open-Air Shopping Center (13,000 SF to 196,000 SF)		1,200 SF Apartment (3-story garden apartment)	
Incident Commander	1	Incident Commander	2	Incident Commander	2
Water Supply Operator	1	Water Supply Operators	2	Water Supply Operators	2
2 Application Hose Lines	4	3 Application Hose Lines	6	3 Application Hose Lines	6
1 Support Member per line	2	1 Support Member per line	3	1 Support Member per line	3
Victim Search and Rescue Team	2	Victim Search and Rescue Team	4	Victim Search and Rescue Team	4
Ground Ladder Deployment	2	Ground Ladder Deployment	4	Ground Ladder Deployment	4
Aerial Device Operator	1	Aerial Device Operator	1	Aerial Device Operator	1
Rapid Intervention Crew	4	Rapid Intervention Crew	4	Rapid Intervention Crew	4
		EMS Care	2	EMS Care Crew	2
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>28</b>	<b>Total</b>	<b>28</b>

The minimum response to the benchmark structures is 17 firefighters for a residential structure, 28 for an open-air shopping center, and 28 for an apartment. As mentioned previously, the combined staffing of all four Fire Districts in Coventry was 14 firefighters at the time of the site visit and reduced to 12 firefighters in September 2023. This is five firefighters fewer than the recommended number required for a residential fire and 14 firefighters fewer than the recommended number for larger, more complex fire incidents.

Additionally, multiple emergency calls often occur simultaneously (call concurrency), which reduces the available number of personnel. The four Coventry Fire Districts must continue providing automatic mutual aid to one another and ensure that plans for mutual aid from surrounding communities are in place to assemble sufficient personnel to mitigate situations such as structure fires.

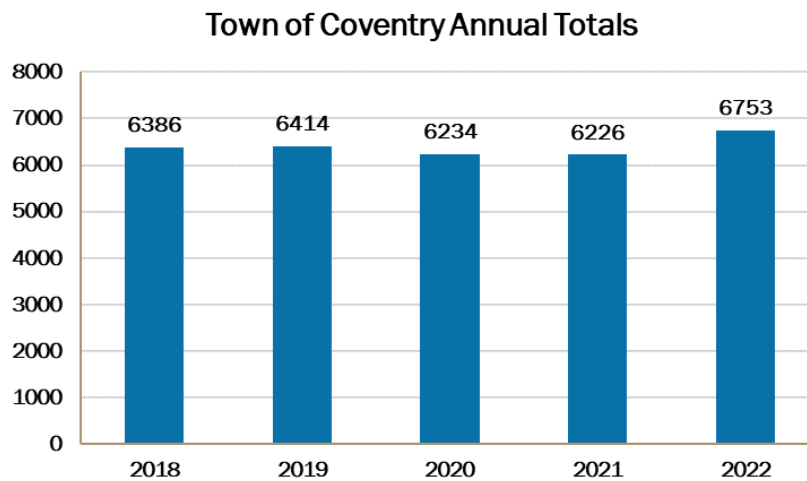
# Service Delivery and Performance

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One of the most visible elements of a fire department is its response performance. How quickly units arrive onscene and the efficiency with which they resolve emergencies could be the only interaction most residents will have with the organization. In the Town of Coventry, career and part-time firefighters provide fire suppression and emergency medical services within four Fire Districts.

## Service Demand Study

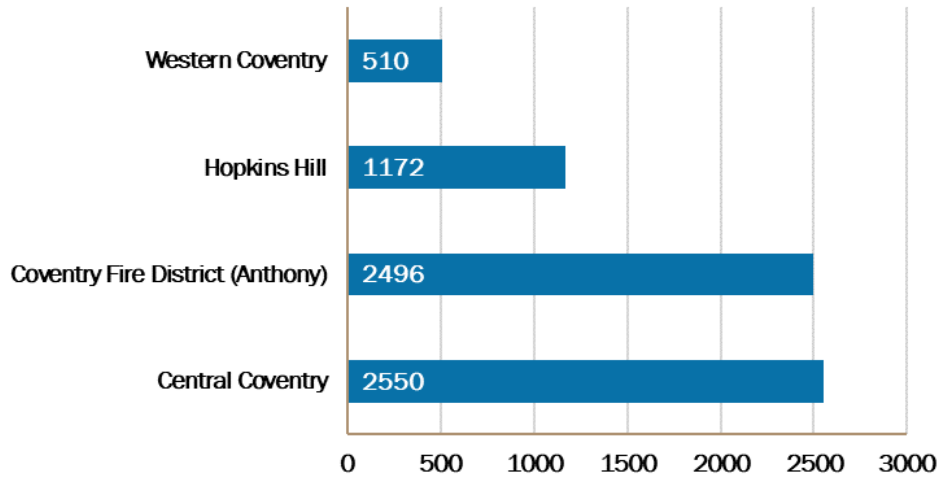
Demand for services drives the need for public safety organizations. As service demands and demographics of the community change over time, so too should the fire and rescue companies. This section provides an overview of the total demand for the Town of Coventry and the call volume for individual Fire Districts providing services, not including mutual or automatic aid responses.





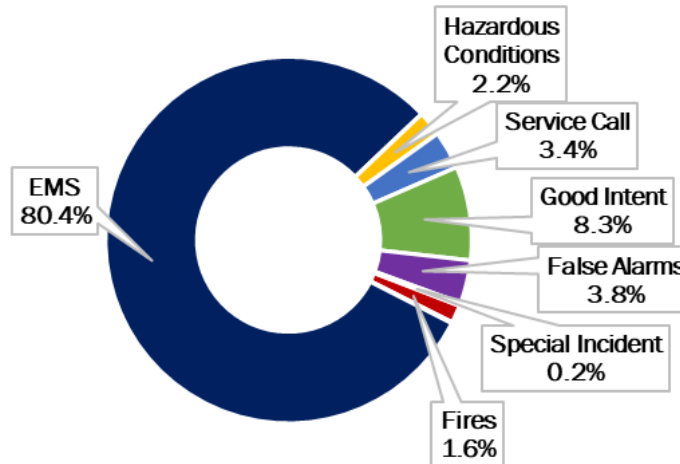
Next, incident totals, as indicated within the CAD system, are displayed by district. While it is identified that these totals do not exactly match Town totals provided by the dispatch center and vary slightly from one or more districts' internal records management system reports, they are relatively close and illustrative of demand throughout the Town.

### Incident Totals by District 2022



Within the Town of Coventry, most incidents originate within the Coventry Fire District and Central Coventry Fire District, with approximately 75% of demand occurring within these districts. Shown below is demand by incident type for the Town of Coventry. Due to data issues before April 2021, the largest date range available was April 1, 2021, through September 6, 2023, which was used to produce this figure.

### Incident Type by Demand 4/1/2021 - 9/6/2023



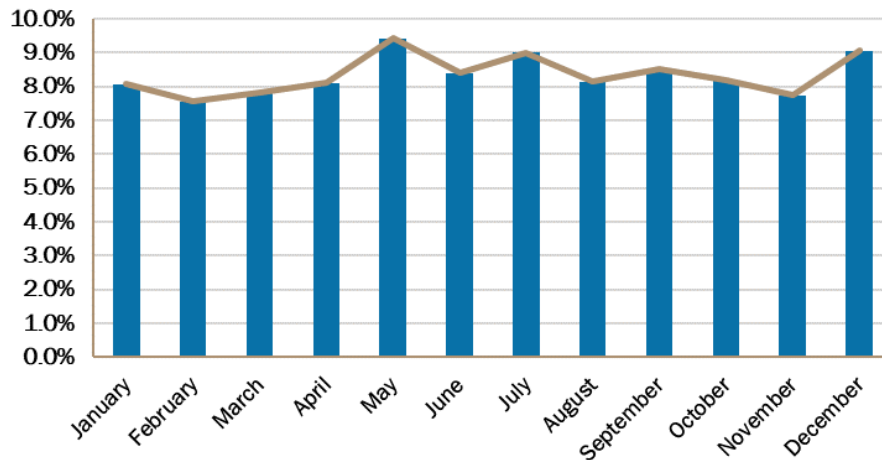
Most incidents within the Town are EMS in nature, followed by Good Intent (cancelled enroute or mistakenly reporting an incident) and False Alarms. Fires represented 1.6% of demand for this period.

## Temporal Variation

Temporal variation describes the patterns that occur over time. When analyzed and tracked over time, these patterns can provide valuable insight into when demands for services are greatest and at their lowest.

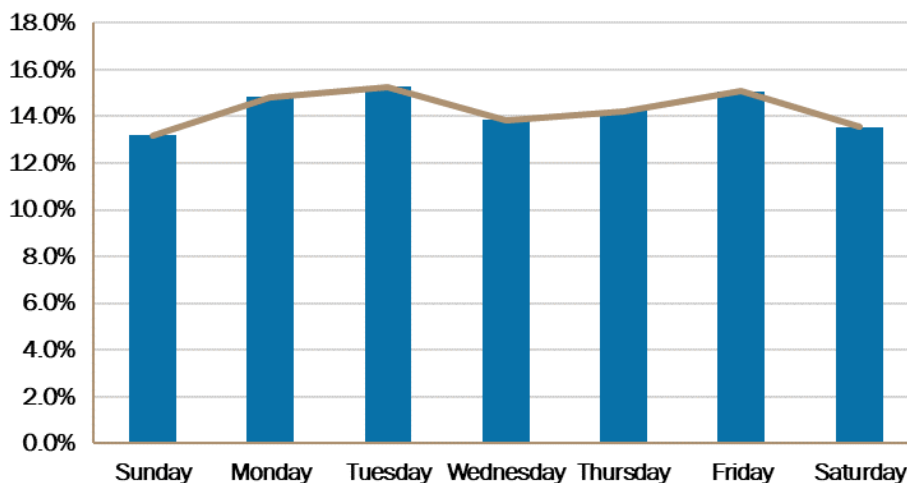
The summer months, May through September, possessed the greatest demand levels, followed by December. This is a typical pattern in New England, as people tend to be more active during warmer months.

### Service Demand by Month 2022



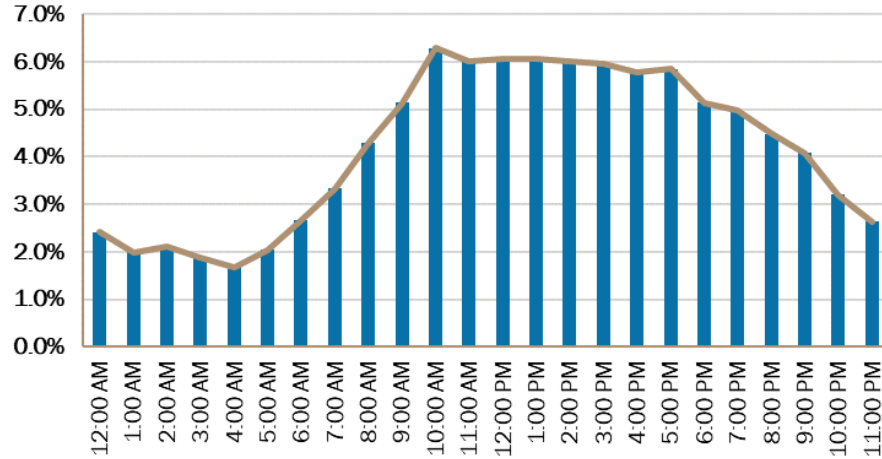
Monday through Friday possessed higher levels of demand than the weekends; however, the actual difference in the number of calls is negligible, with a difference of 0.38 incidents per day between the high of Tuesday and the low of Sunday.

### Service Demand by Day 2022



Service demand by the hour of day illustrates the typical daily demand pattern, with most incidents occurring during working hours. The majority of demand, 53.2%, occurred from 9 a.m. through 6 p.m.

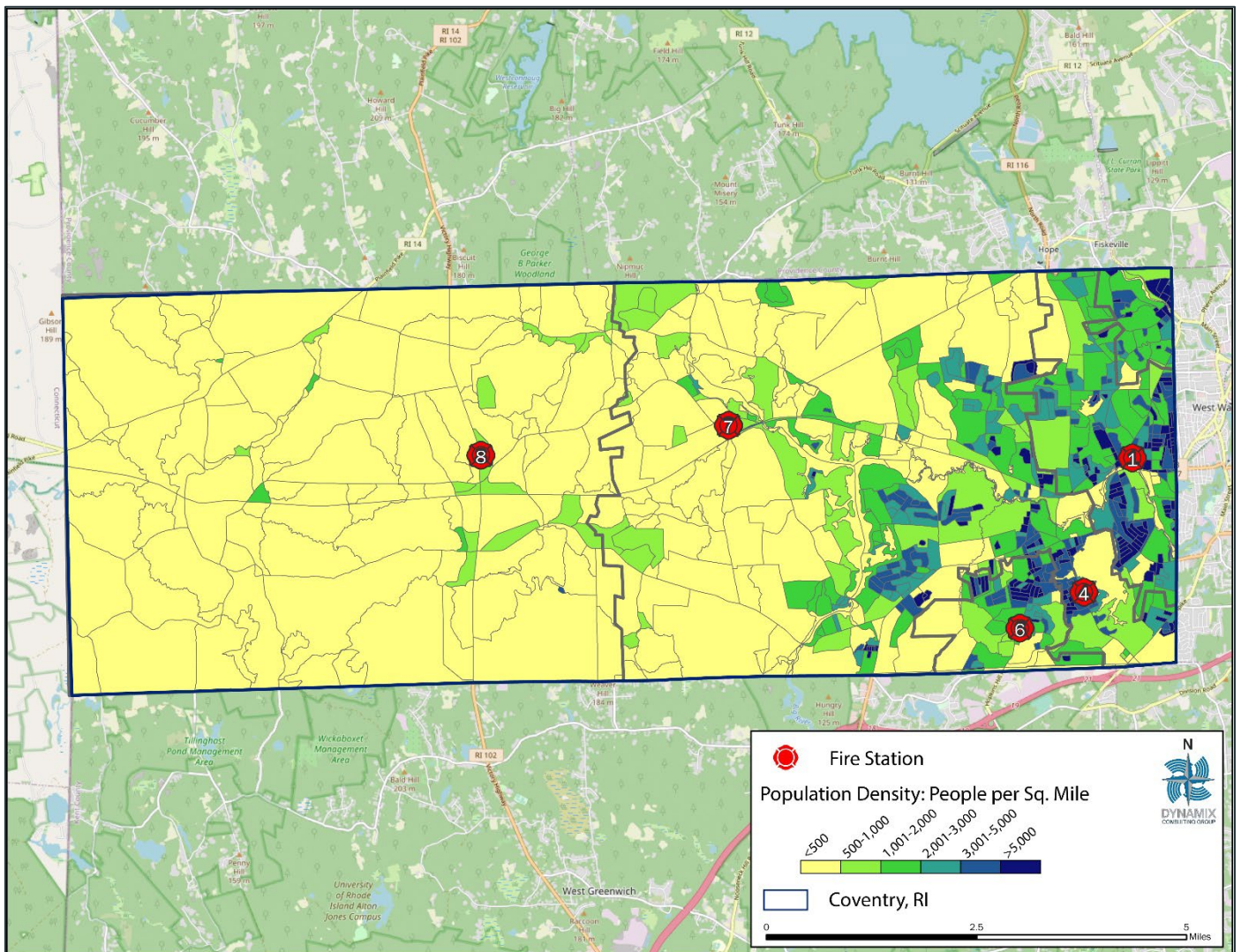
**Service Demand by Hour 2022**



## Population Density and Geographical Demand

One of the best predictors of service demand is population density. It stands to reason that more people concentrated in a given area will result in higher demand. While the specific demographics of a population can also affect the frequency of service requests, understanding the distribution of population densities is a fundamental element of developing an optimized deployment strategy. For incidents such as fires or major medical events such as cardiac arrest or severe traumatic injuries, the speed at which first-due resources can reach the scene will dramatically affect the responder's ability to resolve the event with a positive outcome. The first estimates displayed are the Town of Coventry's population density by U.S. Census Blocks using the 2023 American Community Survey (ACS).

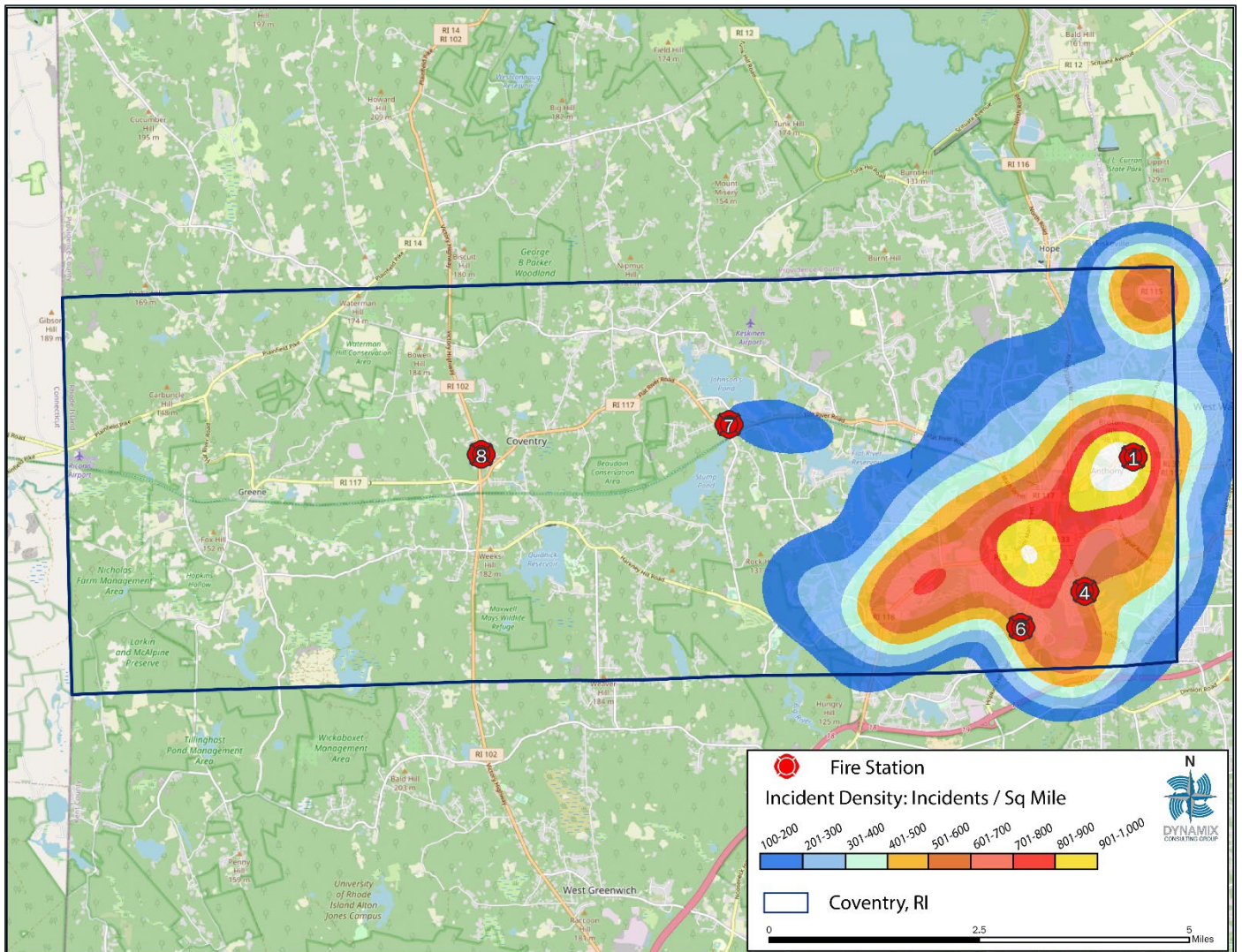
*Population Density 2023 ACS*



Much of the population density within Coventry is located within the eastern third of the Town. While commercial corridors often possess little population density, these areas can also drive demand as people commute to and from work. The patterns that population density and commercial corridors create provide insights into how the future development of the Town will impact service demands.

Using GIS software to conduct an incident density analysis, or Hot Spot analysis, determines how commercial and residential areas impact service demand within the Town. Law enforcement uses this type of analysis to identify areas of densest activity relative to other areas. While other areas may have a greater overall call volume, hot spots appear when multiple incidents occur near each other. This analysis does not suggest that a certain number of calls occurred in each area but instead provides a way to compare incident density in different areas across the jurisdiction. The following map illustrates a Hot Spot analysis using incident data from 2022 for all Town responses.

### Incident Density Analysis 2022



Most of Coventry's fire and EMS demand occurs within the most populated areas of the Town; however, pockets also exist near Station 7. Areas lacking call volume densities do not indicate that no calls occurred there, only that the density of demand did not meet the cutoff for display in this figure.

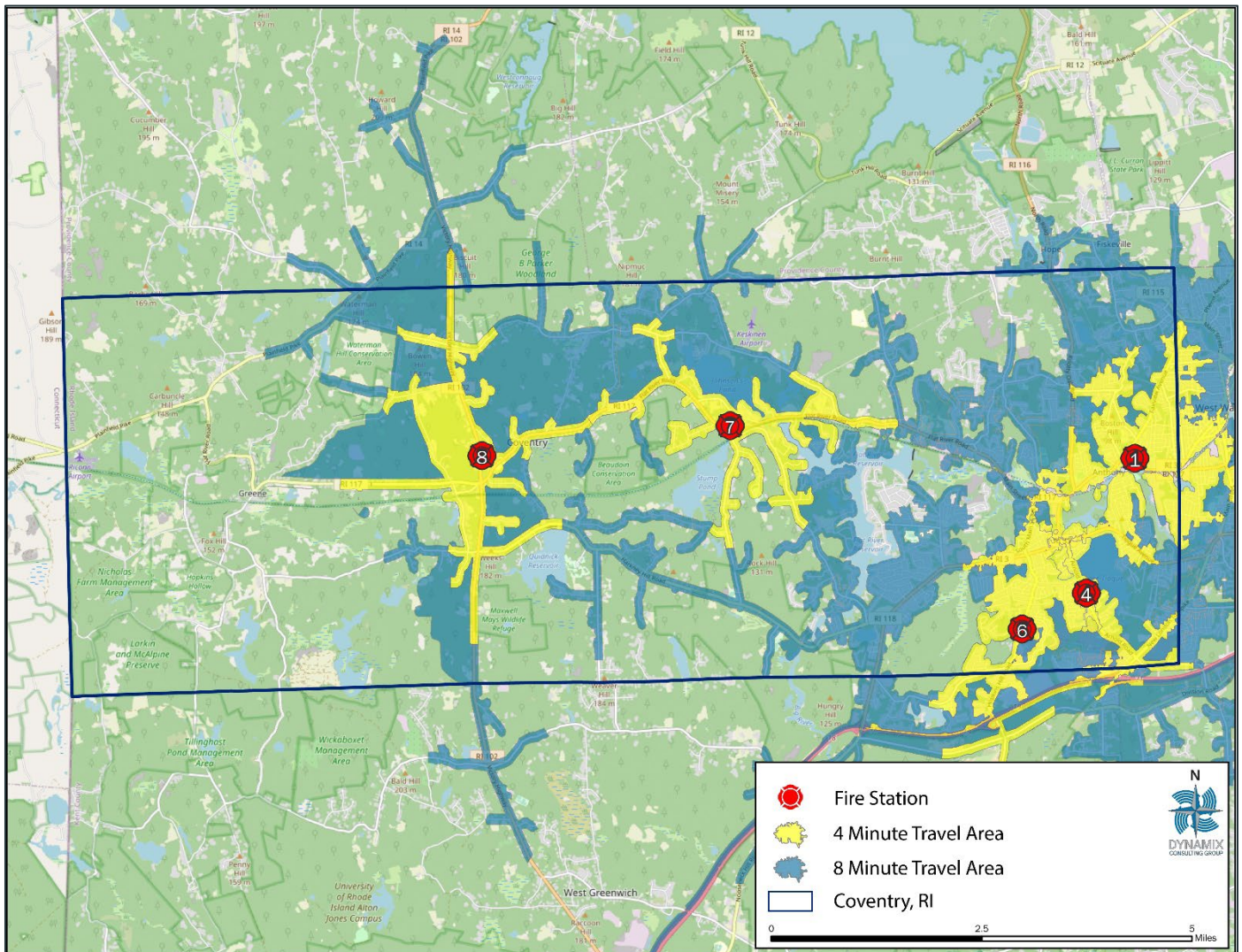
## Resource Distribution Study

The distribution of available resources is one of the key methods to providing higher service levels to the greatest number of residents possible. The Town of Coventry evaluation uses industry standards, with a gap analysis performed in this section. There are two primary industry standards for evaluating and benchmarking fire department performance, the NFPA 1710 and the Insurance Services Office (ISO), which uses proprietary evaluation criteria based on NFPA 1710.

### NFPA 1710 Criteria

The National Fire Protection Association (NFPA) is an industry trade association that develops and provides standards and codes for fire departments and emergency medical services for local governments. One of these standards, NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, serves as a national consensus standard for career fire department performance, operations, and safety. Within this standard, a travel time of 240 seconds, or 4 minutes, is the benchmark for career departments to reach emergency calls within their jurisdiction with the first arriving unit. Additionally, the balance of the response (called the effective response force) is required to arrive at the incident within 480 seconds or 8 minutes.

#### NFPA 1710 4 and 8-Minute Projected Travel Times



Much of Coventry lies within an eight-minute travel time of a fire station, with areas identified in the hot spot analysis mostly falling within a four-minute travel. The western quarter of the Town is outside of an eight-minute travel; however, this is a rural area. For incidents requiring multiple resources, such as a structure fire, additional time is necessary to assemble resources and establish a water supply for firefighting activities.

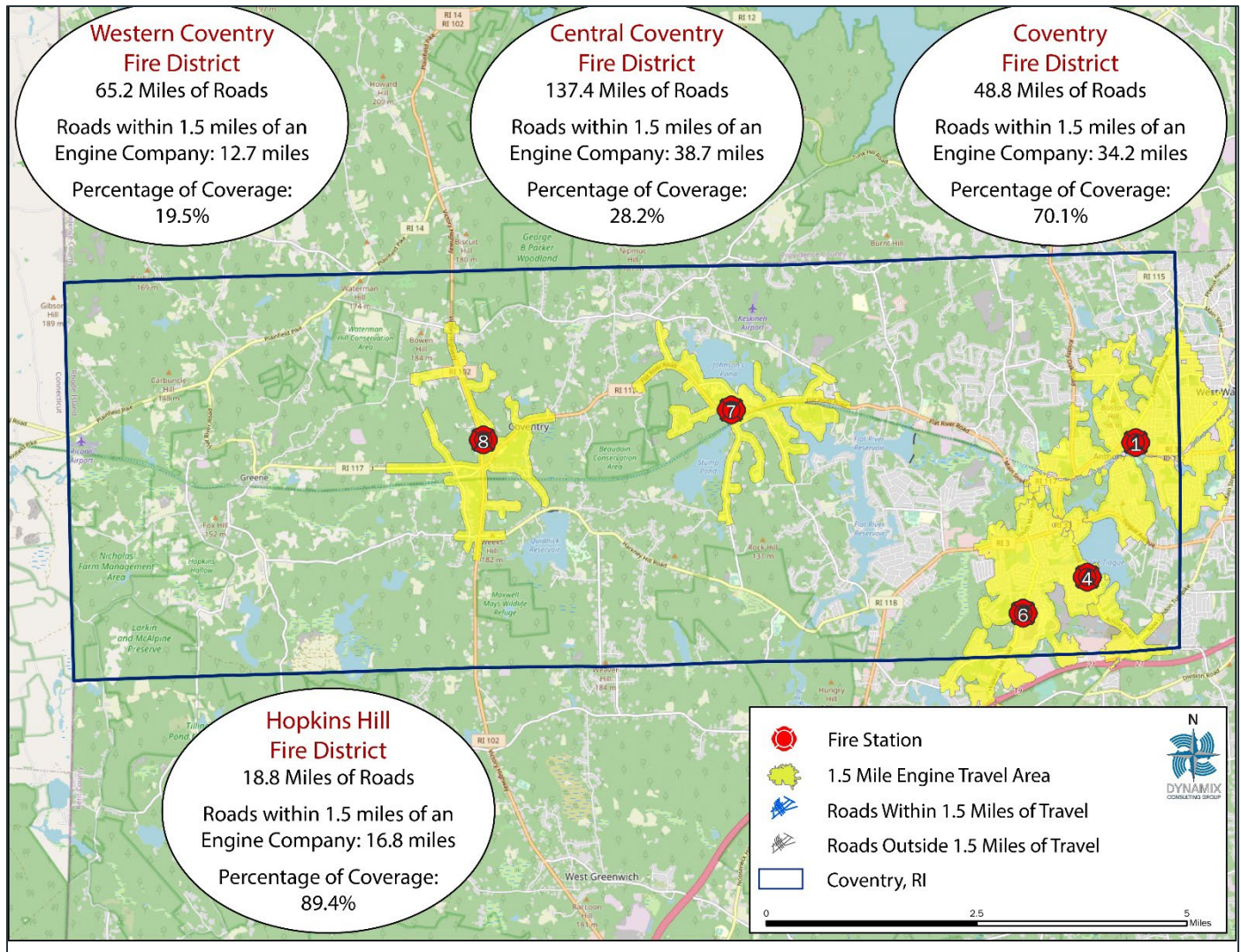
### **ISO Response Performance**

The Insurance Services Office (ISO) is a data analytics organization that provides insurance carriers with a classification rating of a local community's fire protection. The Property Protection Class (PPC®) score or rating classifies communities based upon an overall scale of 1 (best protection) to 10 (no protection) and assesses all areas related to fire protection. These areas are divided into four major categories, which include emergency dispatch and communications (10% of the rating), water supply system and distribution capabilities (40%), the fire department (50%), and Community Risk Reduction efforts (an additional 5.5% credit is available above 100%).

## Engine Company Performance

A key area of credit towards a jurisdiction's PPC® score is the degree to which structures protected by the fire department fall within a 1.5 road-mile service area of a fire station. This 1.5 road-mile standard estimates a 4-minute travel time for the first responding units as required by NFPA 1710. Below is an analysis of current fire stations, with areas in yellow indicating those structures within a 1.5-mile drive. Based on the ISO engine company travel criteria, only 34.5% of the Town of Coventry falls within the 1.5-mile travel distance, although Coventry and Hopkins Hill Fire Districts provide better coverage within their service areas.

### ISO 1.5 Mile Engine Company Criteria

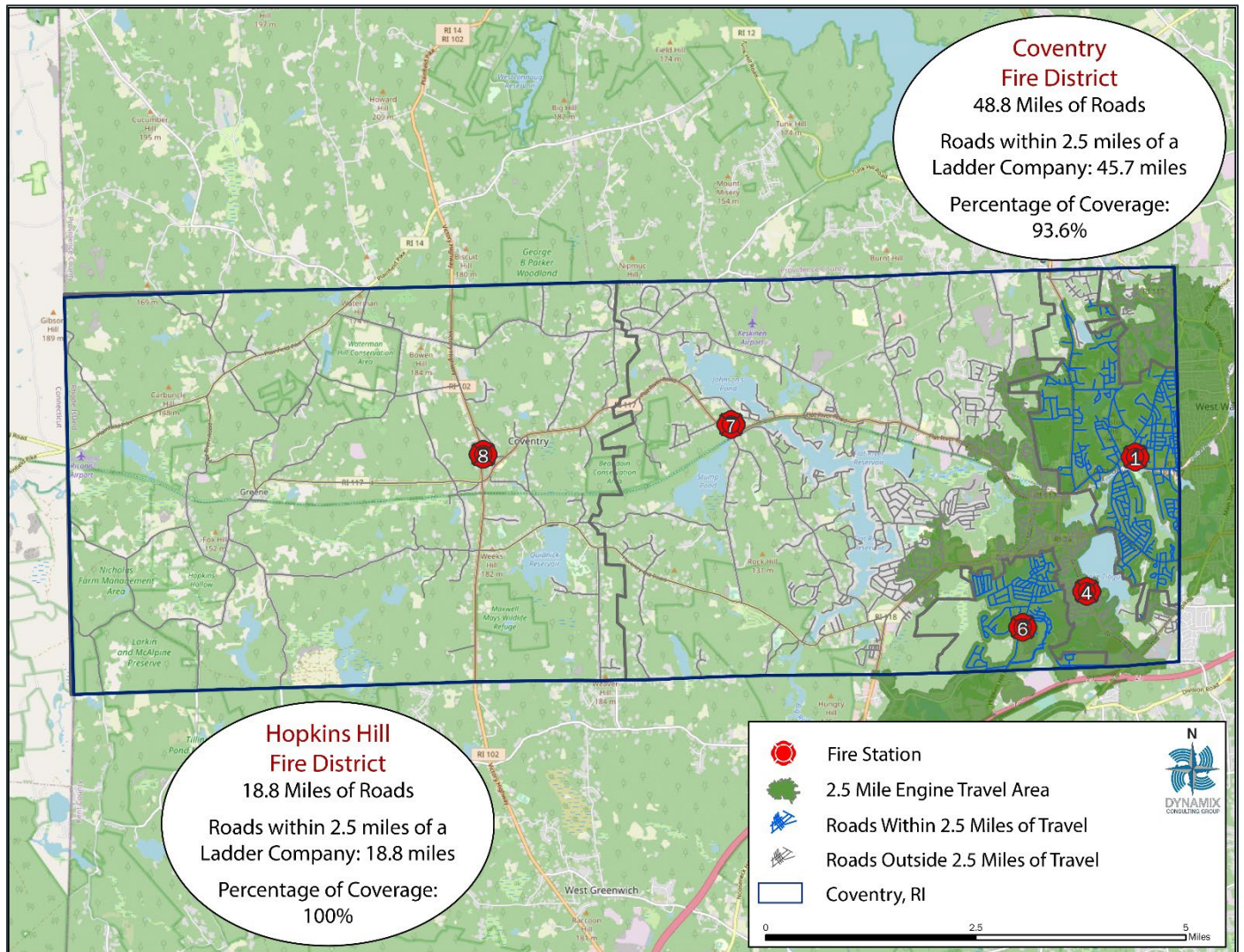




## Ladder Company Performance

In many jurisdictions nationwide, ladder companies respond only to certain incidents. Because of their limited response types, ladder companies do not count as first-due units for all other incident types. Because of this, ISO uses a 2.5 road-mile travel distance for ladder companies to estimate an 8-minute travel time in urban and suburban areas to provide the balance of personnel and equipment needed for incidents such as working fires. The next figure displays Coventry's ladder company performance within the Town.

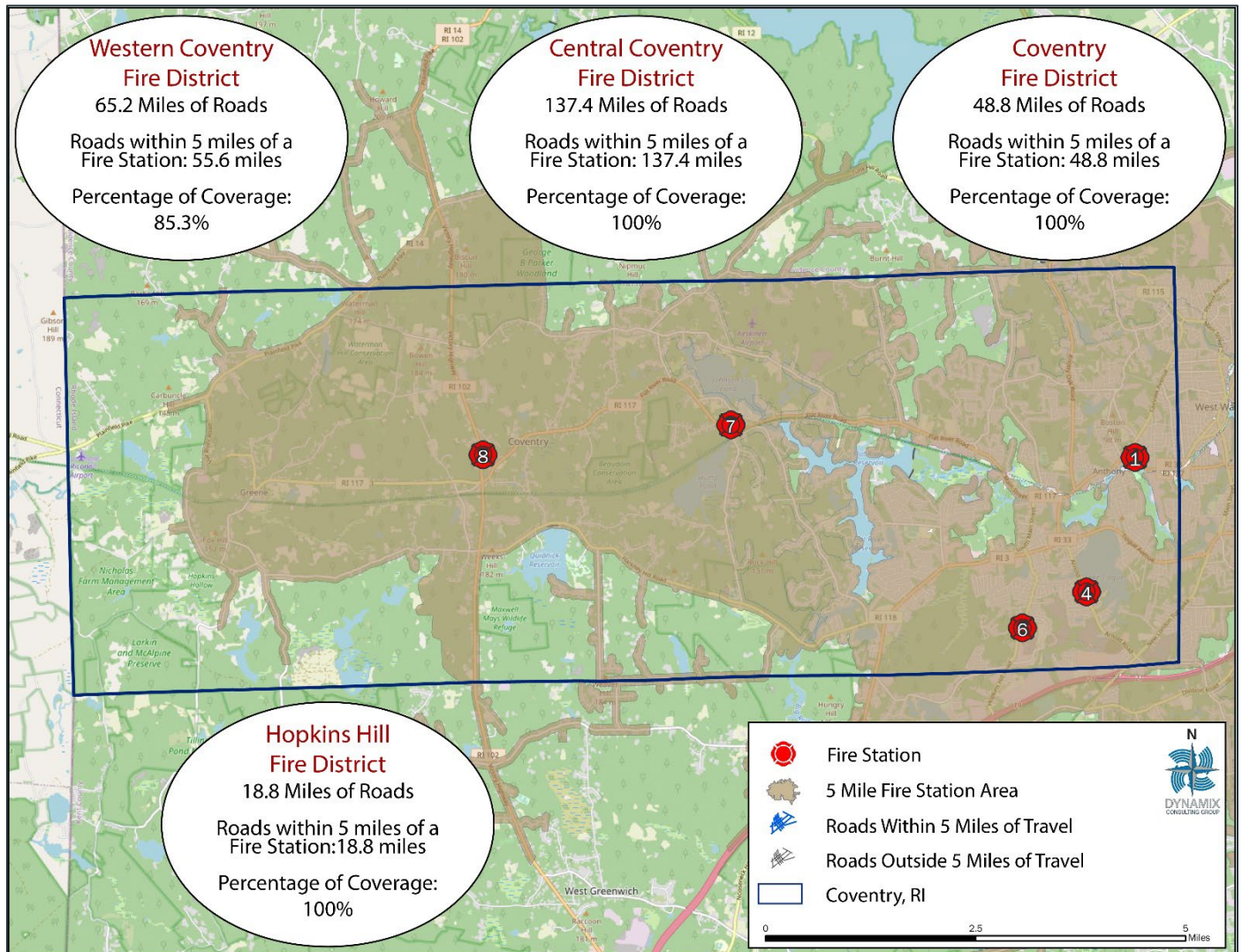
*ISO Ladder Company 2.5 Mile Criteria*



## ISO Fire Station Coverage

To receive a PPC® rating that indicates fire coverage is available from ISO, structures must generally be located within 5 miles of a fire station. Areas outside five miles are subject to receiving a PPC® rating of 10, meaning no fire department coverage is available. Using this criterion, nearly all areas (86.7%) lie within five miles of a fire station and are eligible to receive a rating based on the fire department's performance.

### ISO 5 Mile Fire Station Criteria

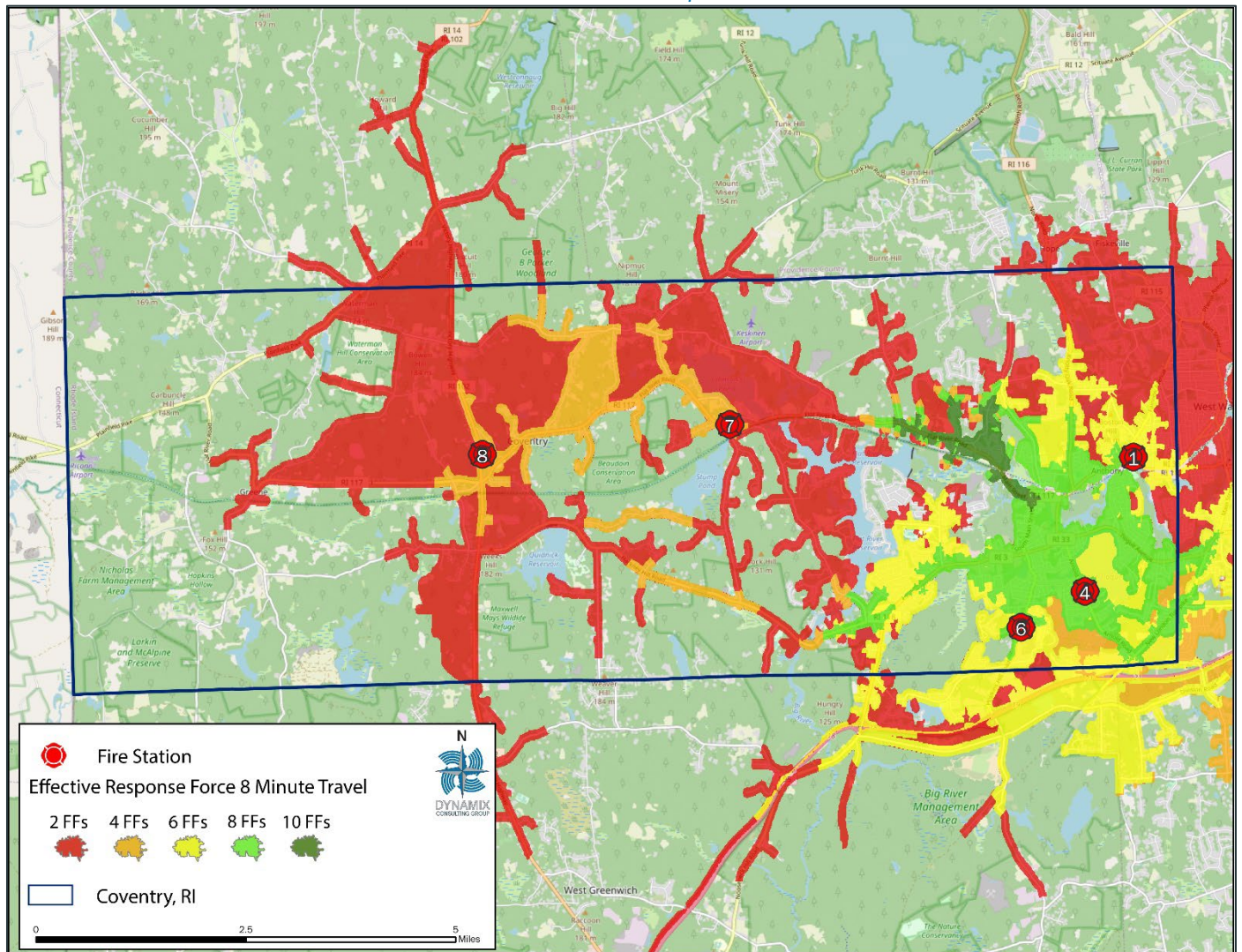


## Resource Concentration Study

Most responses within the Town of Coventry are EMS in nature, so typically, one or two units handle these types of incidents. Some incidents require large numbers of resources and personnel to mitigate the emergency condition and reduce loss safely and effectively. The ability of Coventry Fire Districts to effectively deploy multiple units to an incident scene within a timely manner will often make the difference between minor damage and total loss.

NFPA 1710 requires that for moderate risk incidents or greater, such as a fire in a 2,000 square foot residential dwelling, the balance of needed resources arrive on scene within an 8-minute travel time. Understanding the Town of Coventry fire resource’s ability to achieve this goal required an evaluation of how the spacing of multiple resources (the response apparatus within their respective fire stations) is arranged so that an initial Effective Response Force (ERF) can arrive on scene within the time frames outlined in the on-scene performance expectations. An effective response force is “the minimum amount of staffing and equipment that must reach a specific emergency zone location within a maximum prescribed total response time and is capable of initial fire suppression, EMS, or mitigation. The ERF results from the critical tasking analysis conducted as part of a community risk assessment.” GIS software aids in determining the Coventry Fire District’s ability to assemble an effective response force, by an overlay the Town’s daily minimum staffing at each station within 8-minute travel areas and then add the totals. The results appear below.

### NFPA 1710 Effective Response Force



For areas near stations 1, 4, and 6, the Town can assemble approximately two-thirds of the firefighters required by NFPA 1710. However, several areas of concern exist. The northeast corner of the Town, which also possesses some of the greatest incident density, is within eight minutes of only two firefighters. An interior fire attack within a building requires at least four firefighters, and with such lean resources, suppression will be difficult. Other areas of concern surround stations 7 and 8, as in addition to lean staffing, additional resources must travel a greater distance to reach incidents occurring in these areas.

## Resource Reliability Study

No matter how many fire stations or apparatus a City or Town positions within a community, if crews are committed to other tasks, incidents, or otherwise unavailable, delays in emergency response could occur. An evaluation of resource reliability uses several metrics to establish a global perspective on the Town of Coventry’s ability to provide sufficient responding resources to meet service demand. Supplying sufficient resources is typically not a problem when all units are available and in quarters; however, when multiple calls occur simultaneously, units are committed to incidents for extended periods, or when insufficient resources exist to mitigate an emergency, further preparation and planning safely and effectively must be completed.

### Call Concurrency

The first evaluation is call concurrency. Call concurrency compares how often overlapping multiple calls occur and places additional demand on resources. In the next figure, a concurrent call occurs when a second unit responds to a separate incident before the first unit clears the scene and becomes available. When two incidents occur simultaneously, and a third separate incident occurs, three concurrent calls occur, and so on.

Call Concurrency 4/1/2021 - 9/6/2023	
Single Incident	62.9%
2	29.0%
3	7.0%
4 or more	1.1%

Within Coventry, 37.1% of incidents occur as a second or more concurrent incident. Given the lean staffing on units across the Town, extended wait times for units to arrive on the onscene are likely, as for many incidents, two firefighters aren’t enough to mitigate an emergency effectively. As call concurrency increases, planning for additional units and personnel will help ensure that the appropriate number of resources are available to respond.

### Unit Hour Utilization

Another component considered when evaluating resource reliability is Unit Hour Utilization (UHU). UHU expresses the workload placed on the crew assigned to that unit and describes when a unit is unavailable for response because it is already committed to another incident. The larger the percentage, the greater its utilization, and the less available it is for assignment to subsequent calls for service, training, and ancillary duties. UHU rates appear as a percentage of the total hours in a year.

An important factor regarding UHU and response performance is the relationship between how often a unit is available to respond to calls versus the performance metric used to evaluate performance. The next section assesses Coventry’s Fire District performance using NFPA 1710 criteria at the 90th percentile. If a unit is unavailable greater than 10% of the time, some portion of the 90th percentile fractile performance will be negatively affected as units from other stations must leave their respective response district and travel into that zone where the unit is unavailable. This degrades response performance, increases wait times onscene, and results in another zone where the first due unit is available and out of position. This analysis excludes all units with a UHU of 0.5% or greater.

Unit Hour Utilization 4/1/2021 - 9/6/2023			
UNIT	Count	Sum	UHU
R4	8787	6756:12:32	31.7%
R1	6404	6245:03:13	29.3%
R7	6118	4865:34:06	22.8%
E4	12258	4695:20:28	22.0%
R6	4240	3812:44:45	17.9%
E7	7705	3007:38:31	14.1%
R8	1909	1909:05:10	8.9%
Q1	3395	1356:18:25	6.4%
E1	3155	1168:28:12	5.5%
C61	656	742:37:54	3.5%
E8	1676	600:05:24	2.8%
C32	569	515:33:42	2.4%
C35	189	256:58:57	1.2%
T8	178	177:14:55	0.8%
L1	411	159:31:59	0.7%
E6	383	128:59:57	0.6%
C21	461	121:40:54	0.6%
BRUSH2	183	121:12:20	0.6%

Rescues 1, 4, and 7 and Engine 4 are over double the standard for measuring performance at over 20% UHU. Additionally, these crews could experience fatigue and burnout as municipal services cannot sustain levels found within the private sector. Crews must respond to all incidents and work 24 to 48 hours at a time. These findings should assist in evaluating and planning for additional units within these areas for high-performance units.

## Response Performance Summary

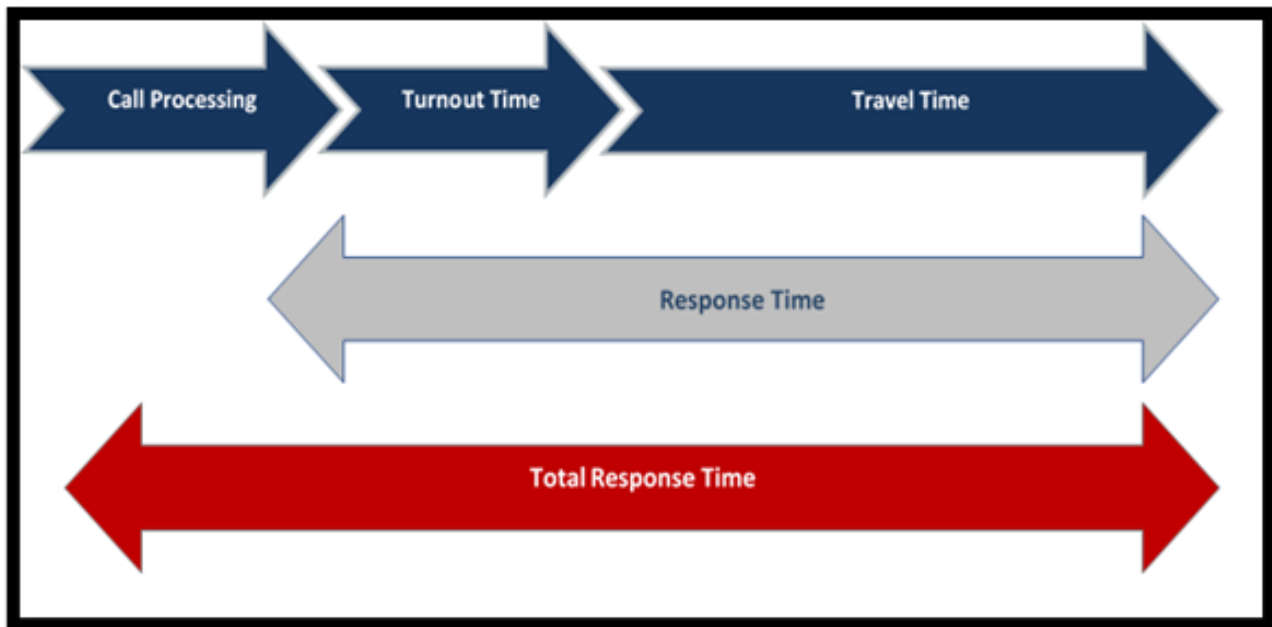
The most visible element of a fire department is its response performance. How quickly units arrive onscene and the efficiency with which they resolve an emergency are typically the only interactions most residents will have with the fire department. To evaluate the Town of Coventry’s system performance, NFPA 1710 is the applicable standard for career fire departments.

Response time performance is comprised of the following components:

- 🔧 **Call-Processing Time:** The amount of time between answering a call by the 911 Primary Public Safety Answering Point, or dispatch center, and dispatching resources.
- 🔧 **Turnout Time:** The interval between response unit notification of the incident and apparatus response.
- 🔧 **Travel Time:** The amount of time the responding unit spends on the road traveling to the incident until arrival at the scene. This is a function of speed and distance.
- 🔧 **Response Time:** This time calculation is from the dispatching of the fire department to the arrival of the first apparatus. Response Time equals the sum of “Turnout Time” and “Travel Time.”
- 🔧 **Total Response Time:** This is the most apparent time to the caller requesting emergency services. Total response time is the time that occurs from when the caller places an emergency call until units arrive. This time often includes factors both within and outside the fire department’s control, particularly when another agency provides dispatch services.

Tracking the individual components of response time will enable the Town of Coventry to identify deficiencies and areas for improvement. Once determined, the current performance for Call Processing, Turnout Time, and Travel Time can assist in developing response goals and standards that are both relevant and achievable. Fire service best practices recommend that fire service organizations monitor and report the components of Total Response Time.






The Response Time Continuum comprises the abovementioned elements: Call Processing, Turnout Time, and Travel Time. Response Time is a combination of Turnout and Travel Time, and Total Response Time is the sum of all the times starting with the Call-Processing Time, Turnout Time, and Travel Time. The components of the Response Time Continuum will each be discussed in further detail in the next sections, and results provided where data was available.



Historically, fire rescue service providers used the performance measurement of average response to describe the performance levels. The average is a commonly used descriptive statistic, also called the mean of a data set. Averages may not accurately reflect the performance of the entire data set because data outliers can significantly skew averages, especially in small data sets. One extremely good or bad value can skew the “average” for the entire data set. Percentile measurements provide a better measure of performance since they show that most of the data set has achieved a particular level of performance. The 90th percentile means that 90% of responses were equal to or better than the performance identified and that the other 10% are data outliers, inaccurate data, or situations outside of normal operations that delayed performance. This measure is then compared to the desired performance objective to determine the degree of success in achieving the goal.

An important consideration when evaluating fractile performance is that each category’s results are not additive, meaning the sum of two or more constituent metrics do not simply add together to find the sum. This is because each dataset is discrete and, as such, must be observed individually, particularly when data quality is an issue. If a metric, such as response time, possesses most of its data points, while turnout time is not accurately documented, a significant difference can exist between the response time calculated using the fractile descriptive and the sum of turnout time and travel. In evaluating the various response time components using the fractile analysis method, each component must be evaluated and quantified separately, as the available data and the quality of the data may vary significantly.

To provide an analysis of performance for emergency calls required the removal of the following:

-  Non-emergency incident types
-  Mutual and auto aid given
-  Other aid given
-  NFIRS call types within the 500, 600, 800, and 900 series
-  Cells containing zeros or no value

## Call Processing Time

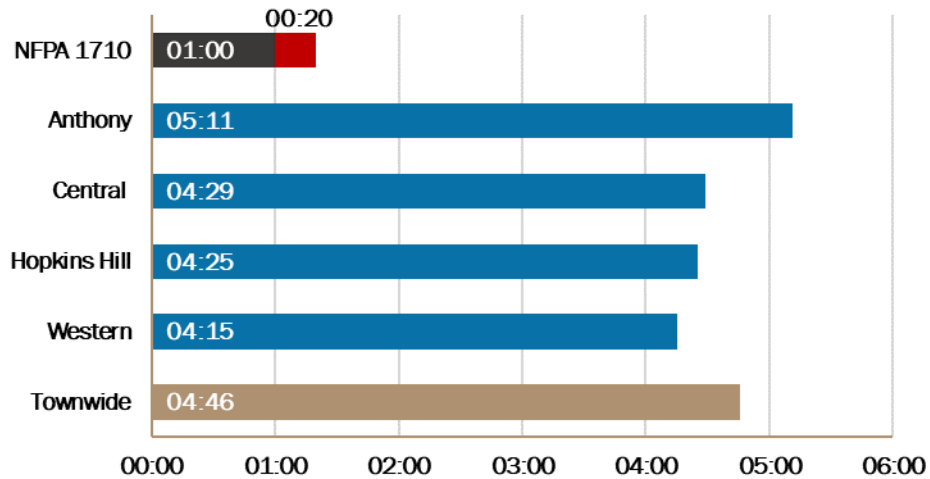
The industry standard for call processing (or alarm handling) is NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems. This standard provides for communication centers to have processing times of not more than 60 seconds 90% of the time. For special operations, calls requiring translation, or other factors described in the standard, times should not exceed 90 seconds at the 90th percentile.

The Hopkins Hill Fire District dispatches for all Coventry departments and directly supervises the initial processing and transferring of emergency calls. Call received data for the dispatch center was not available at the time of this study; however, it is best practice to regularly report performance to determine the effectiveness of the communications center.

## Turnout Time Performance

The second component of the response continuum, and one directly affected by response personnel, is turnout performance. Turnout is when personnel receive the dispatch information, move to the appropriate apparatus, and respond to the incident. NFPA 1710 calls for a 90th percentile turnout performance of 80 seconds for fire and special operations calls and 60 seconds for all other emergency calls.

**Turnout Performance 4/1/2021 - 9/6/2023**



At approximately four to five times the recommended levels for turnout performance, the Town’s Fire Districts may wish to reevaluate their deployment models. Several factors can influence turnout time other than individual compliance. Barriers to performance include station design, such as the distance from living quarters or bunk rooms to the apparatus bay, the travel path required, and the ease firefighters can access their apparatus and open bay doors to exit and “Go Enroute”. Other factors include cross-staffing units, Mobile Data Terminal (MDT) or connectivity issues, and splitting crews to bring additional specialized equipment.

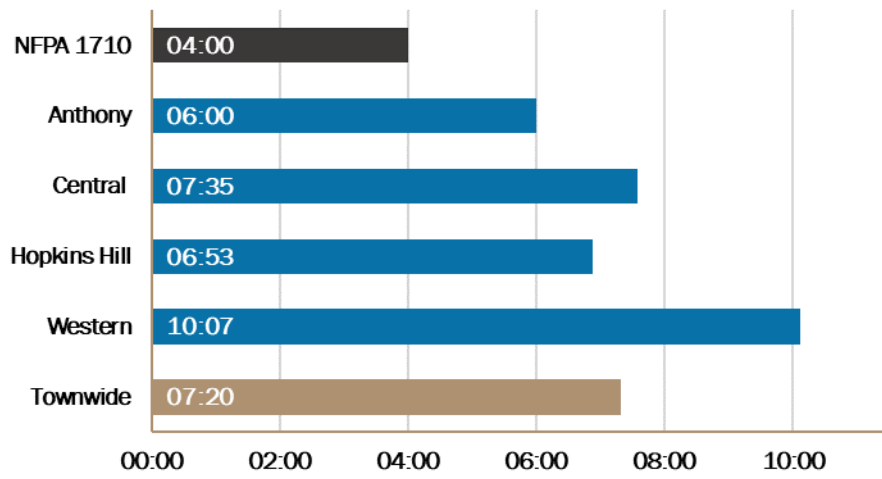
Should the districts seek to improve turnout performance, many organizations have succeeded in establishing a committee that includes representation from different stakeholder groups and regular reviews of turnout performance data. This group will most likely determine the likely causes of impediments to performance for future action items.



## Travel Time Performance

The third component of the response continuum is travel time. It is important to understand travel time is not specifically a factor of speed as much as it results from the proper placement of fire stations from which emergency responses begin. Travel time is when the apparatus departs for the call and when it arrives onscene. The measurement is at the 90th percentile. NFPA 1710 requires that units arrive onscene to an emergency call within a 4-minute travel time, 90% of the time. Traffic congestion, construction, and the condition of the road network are all potential factors in delaying a response.

**Travel Performance 4/1/2021 - 9/6/2023**

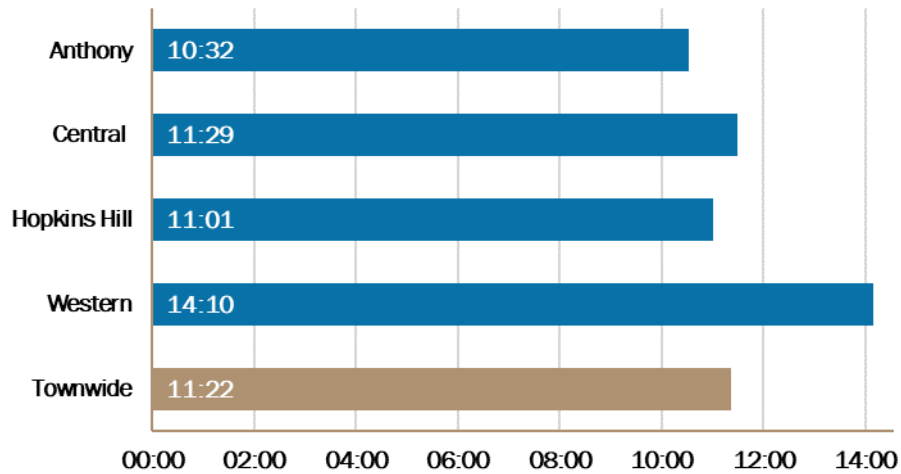


Travel time performance is also greater than the NFPA 1710 standards. As indicated in previous sections, factors such as potentially placing too few units in service, which causes other units to experience greater travel times, and UHU rates in excess of 20% likely influence this performance.

## Response Time Performance

Response time is from initial notification to the fire department until the first unit arrives onscene. Response time performance calculates the difference between the initial notification and arrival times.

**Response Performance 4/1/2021 - 9/6/2023**



While NFPA 1710 does not provide a standard for response time, performance at the 90<sup>th</sup> percentile indicates that extended wait times for emergency units are common and that turnout performance, cross-staffing units, and having too few units in service affect the overall response time.

## Total Response Time Performance

The culmination of the Response Time Continuum is total response time. When citizens call for emergency assistance, this metric represents their experience as they place the call and wait for help to arrive. Total response time is the time elapsed from when the call was initiated at the communications center until the first emergency unit arrived onscene.

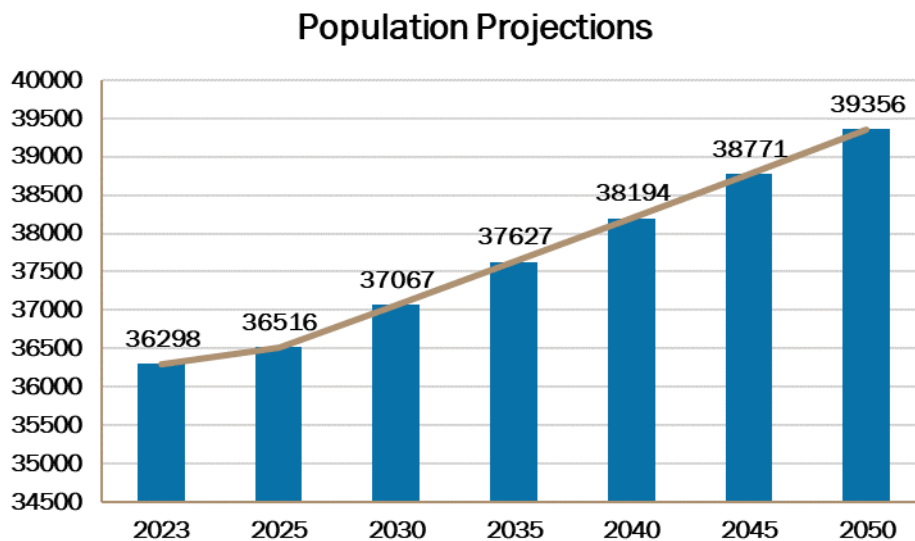
Due to the absence of data indicating the initial receipt of emergency calls at the dispatch center, total response time performance could not be calculated.

# Future System Demand Projections and Community Risk

## Population Projections

All communities experience some change in population and demographics over time. This change is vital to understand as diverse groups of people have varying levels of dependence upon emergency services. For example, when comparing a group of people from 25 to 35 years of age who own a home and have access to health care with a group aged 65+ with a disability, the second group would be more likely to utilize emergency services. Likewise, increases in population over time ordinarily lead to a higher demand for services.

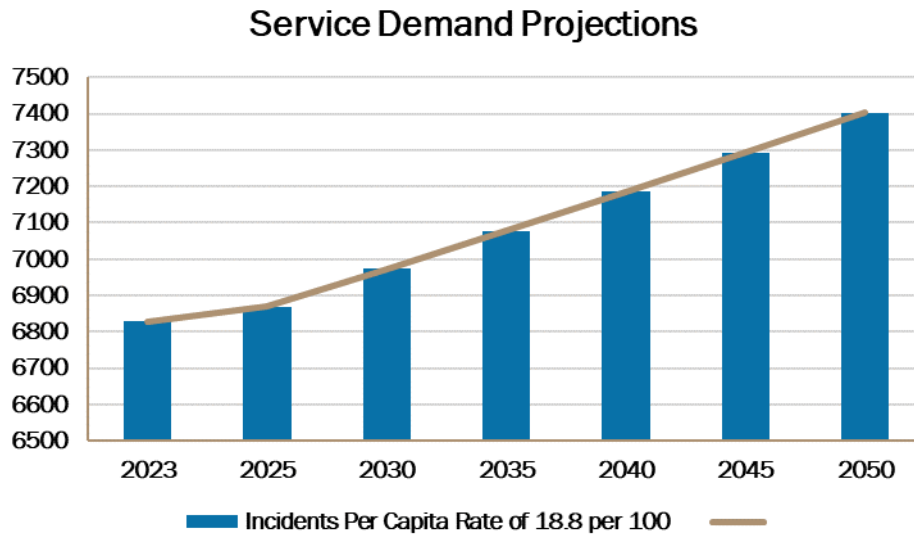
Since 2010, the Town of Coventry’s population has increased at a Compound Annual Growth Rate (CAGR) of 0.2% annually to 2020. This CAGR represents a 46.0% overall increase since 2000 and a 1.9% increase since 2010. Future projections of potential growth include a high and a low-end annual growth rate of 0.3% to represent current census growth rates since 2020.



Anticipating gradual year-over-year increases in its population, the Town of Coventry may reach nearly 40,000 people by 2050.

## Service Demand Projections

Demand for services drives all service delivery organizations, and planning for the organization’s future needs is a critical administrative task. Calculating estimates for future demand included determining the 2022 per capita rate of the annual service demand for Coventry’s population, resulting in 18.8 calls per 100 in population. Future demand projections are then determined by applying the 0.3% projected annual growth rates to the 18.8 calls per 100 population rate.



As Coventry’s population and median age slowly increase, dependence on emergency services will be greater. By 2050, demand levels for fire rescue resources may exceed 7,000 calls annually. However, as development continues and higher population densities occur, demand could be even higher than current projections.

# Future Delivery System Models

This section of the study provides stakeholders with a high-level financial analysis of various potential options available for providing fire, rescue, and EMS services to the residents and visitors of the Town of Coventry. The first and easiest option is to continue with four fire districts, the status quo option. The second option evaluated is the combination of the four districts into one district. The last option is the formation of a town fire department.

Each of the options evaluated is dependent upon a series of assumptions for both revenue and expense. The primary source of revenue for the status quo and single district options is ad valorem tax, which includes a tax on residential, commercial/industrial, and tangible personal property. The town has other sources of revenue, which could be used in conjunction with property tax to finance a fire department. To provide a degree of comparison between the various options, only the residential, commercial/industrial, and tangible property tax revenues are considered. And, while each property class has a separate millage rate, this study combines the various rates into a single rate for comparative purposes, the calculation of which is discussed in the current conditions section. These revenues are added to fire service-specific revenues such as EMS and other fees.

The projection of revenues through FY 30 is based upon the historical trajectories developed in the current conditions section for each district. A major assumption for the combined options, either single district or town fire department, is that the non-tax revenues are the sum of those shown and projected for each individual district. Further, non-recurring revenues are relatively minor, and variability from that shown here will likely have little impact on the total revenues used for the projections. The following series of figures show the historical taxable property values for each district separately and the Town of Coventry as derived from annual financial audits to the extent the data was available.

## Central Coventry Fire District Net Assessed Value 2016-2020

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Residential	\$ 1,480,446,715	\$ 1,484,980,145	\$ 1,503,370,100	\$ 1,790,806,760	\$ 1,821,956,045
Commercial	\$ 282,203,830	\$ 295,931,440	\$ 281,029,360	\$ 314,092,400	\$ 303,451,000
Tangible Personal	\$ 43,739,985	\$ 38,519,305	\$ 53,796,150	\$ 50,874,630	\$ 54,495,105
<b>Total</b>	<b>\$ 1,806,390,530</b>	<b>\$ 1,819,430,890</b>	<b>\$ 1,838,195,610</b>	<b>\$ 2,155,773,790</b>	<b>\$ 2,179,902,150</b>

## Western Coventry Fire District Net Assessed Value 2019-2021

Schedule of Net Assessed Value			
Description of Property	Assessment Year Ending		
	12/31/2019	12/31/2020	12/31/2021
Real Property	\$ 418,563,660	\$ 419,891,700	\$ 424,407,880
Tangible Personal	\$ 6,009,520	\$ 6,124,180	\$ 6,691,610
<b>Total</b>	<b>\$ 424,573,180</b>	<b>\$ 426,015,880</b>	<b>\$ 431,099,490</b>

*Coventry Fire District Net Assessed Value 2015-2019*

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Real Property	\$ 654,992,610	\$ 700,845,660	\$ 707,500,970	\$ 706,509,650	\$ 847,911,185
Tangible Personal	\$ 17,327,485	\$ 12,804,910	\$ 25,362,450	\$ 27,185,540	\$ 26,421,685
<b>Total</b>	<b>\$ 672,320,095</b>	<b>\$ 713,650,570</b>	<b>\$ 732,863,420</b>	<b>\$ 733,695,190</b>	<b>\$ 874,332,870</b>

*Hopkins Hill Fire District Net Assessed Value 2016-2020*

Schedule of Net Assessed Value					
Description of Property	Assessment Year Ending				
	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Real Property	\$ 345,012,759	\$ 346,983,252	\$ 343,280,560	\$ 392,051,262	\$ 392,302,337
Tangible Personal	\$ 13,198,346	\$ 14,803,819	\$ 16,256,658	\$ 15,485,826	\$ 17,350,055
<b>Total</b>	<b>\$ 358,211,105</b>	<b>\$ 361,787,071</b>	<b>\$ 359,537,218</b>	<b>\$ 407,537,088</b>	<b>\$ 409,652,392</b>

As depicted in the individual district data above and summarized in the table below, the trend in real and tangible value growth across the four districts has varied significantly from a low of 1% in Western Coventry to a high of 6.8% in Coventry. Some of this variation may be due to the differences in both the length of the period for which data were available and the dissimilar periods. However, the Central Coventry and Hopkins Hill fire district data covered the same period from 2016-2020, and there is a real variation in the rate at which values increased, with Central Coventry and Hopkins Hill increasing annually at 4.8% and 3.4%, respectively. These individual growth rates are used for the status quo district projections of revenue. On the other hand, the Town of Coventry’s combined real and tangible property value increased at an annual rate of 4.3% since the low in 2013, which followed the economic downturn in 2008. This value is used for the single district and town fire department projections.

*Comparison of Average Annual Increase in Net Assessed Value*

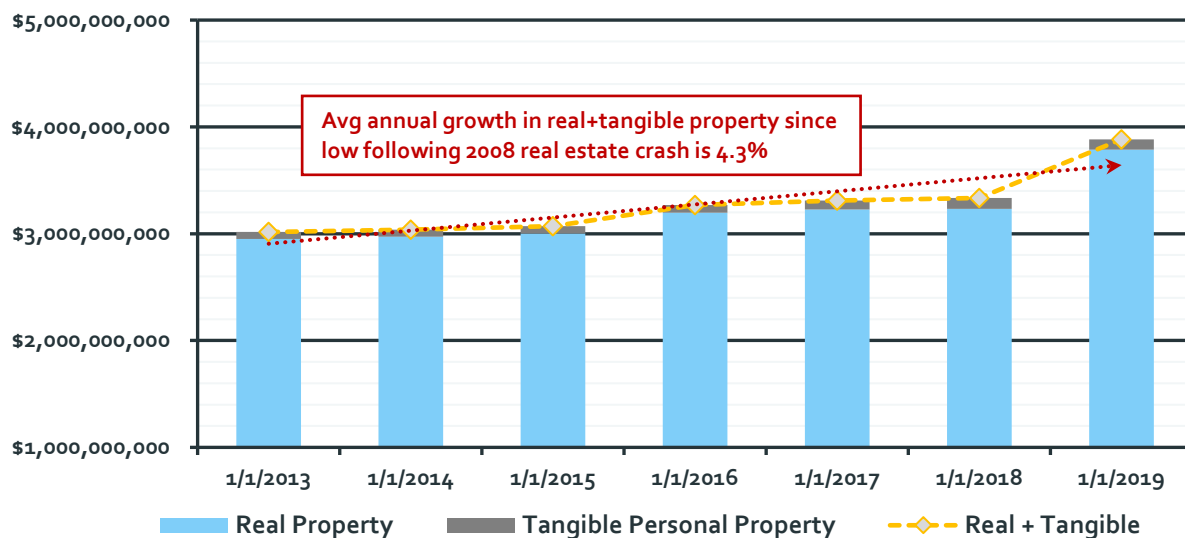
Real/Tangible Property Value Growth			
Jurisdiction	Time Period		Percentage Annual Increase
	From	To	
Central Coventry	2016	2020	4.8%
Western Coventry	2019	2021	1.0%
Coventry	2015	2019	6.8%
Hopkins Hill	2016	2020	3.4%
Town of Coventry	2013	2019	4.3%

The next two figures show the annual net assessed values for real and tangible personal property as well as motor vehicles for the Town of Coventry for the period 2013 through 2019. The 2013 values represent the low point in values following the economic downturn in 2008. Values have recovered and steadily increased from 2013 forward, and the trend for real and tangible property value growth townwide is 4.3% annually.

### Town of Coventry Net Assessed Value 2013-2019

Description of Property	Schedule of Total Assessed Value						
	Assessment Year Ending						
	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Real Property	\$ 2,952,373,605	\$ 2,973,343,095	\$ 3,003,102,100	\$ 3,197,529,325	\$ 3,228,145,965	\$ 3,231,462,720	\$ 3,787,206,070
Tangible Personal Property	\$ 63,607,365	\$ 64,485,885	\$ 67,006,090	\$ 71,394,235	\$ 81,356,440	\$ 103,317,100	\$ 96,548,023
Motor Vehicles	\$ 321,736,932	\$ 328,603,241	\$ 339,551,301	\$ 305,582,548	\$ 291,204,514	\$ 285,182,486	\$ 276,107,742
Total	\$ 3,337,717,902	\$ 3,366,432,221	\$ 3,409,659,491	\$ 3,574,506,108	\$ 3,600,706,919	\$ 3,619,962,306	\$ 4,159,861,835

### Town of Coventry Combined Real/Tangible Property Value Growth 2013-19



Revenues other than taxes projected in the status quo, single district, and town fire department models were based upon historical rates observed for each district.

There are many items that will be subject to negotiation should one or more of the fire districts determine to merge. These include both the value and disposition of capital equipment and facilities, debt service, contractual terms, long-term obligations such as Other Post-Employment Benefits (OPEB) and retirement funding, and street lighting and fire hydrant expenses, among other things.

Financial projection of the various service delivery options includes all existing debt services, and while that is a subject of negotiation and may not be part of a future single district, the disposition is unknown at this time. Therefore, the combined, current district debt service is included in all options.



Capital replacement is included to the level historically identified by each district. In the single district and town department cases, the combined capital costs of the individual districts are used.

Street lighting and hydrant expenses are shown in both the status quo and single district cases but not in the town case. However, the Town will still incur these costs either by the residual, individual districts, or some other entity and would be funded through a millage rate.

Operating costs for the single district and town fire department are a combination of the single district operating costs. These include various professional services such as legal, audit, etc., that would still be required in the case of a town fire department but would be covered by various internal service departments of the town. It is not known what the level of effort would be, but these costs are still included in the town fire department projection as an acknowledgement that the Town of Coventry would still incur some additional cost were it to stand up a fire department. If the town has a central services cost allocation study, it could estimate support service costs for a town fire department by examining allocated costs for its police department that should require a similar effort.

Personnel costs used in the single district and town fire department models are based upon firefighter salary and benefit projections provided by district chief officers combined with staffing needs based on the service delivery study performed by Dynamix Consulting Group as part of this study. The figure below shows weighted averages for the positions of firefighter, lieutenant, and captain based upon the district data provided. For example, the firefighter wage is based upon the weighted average of 16 firefighters over 36 months at \$66,487, 6 firefighters over 24 months at \$61,437, and 2 firefighters over 12 months at \$56,357. Added to this average is technician pay at \$2,080 annually (x 0.5 representing half of the current firefighters), paramedic pay at \$3,120 annually (x 0.25 representing a quarter of current firefighters), cardiac pay at \$2,080 annually, and an average of \$2,000 for longevity pay. The lieutenant and captain positions are the average plus cardiac and longevity pay. Between each of these positions is a salary/wage difference of approximately 6%. Benefits are approximately 50% of salaries/wages, which are added to provide the total compensation figures shown in the table.

*Weighted Average Annual Salary/Benefits Uniformed District Personnel (as of 9/1/23)*

Position	Wages <sup>1</sup>	Benefits	Total Comp
Captain	\$ 78,740	\$ 39,370	\$ 118,110
Lieutenant	\$ 74,470	\$ 37,235	\$ 111,704
Firefighter	\$ 70,280	\$ 35,140	\$ 105,420
FF New Hire	\$ 53,392	\$ 26,696	\$ 80,088
<sup>1</sup> Includes average of \$2,000 longevity pay for all positions			

The compensation data from the table above were rounded and used to build the full pay plan shown in the next figure.

*Notional Uniformed Pay Plan for Single District/Town Fire Department Models*

Position	Wages	Benefits	Total Comp
Fire Chief	\$ 95,000	\$ 47,500	\$ 142,500
Deputy Chief	\$ 90,000	\$ 45,000	\$ 135,000
Battalion Chief	\$ 85,000	\$ 42,500	\$ 127,500
Captain	\$ 80,000	\$ 40,000	\$ 120,000
Lieutenant	\$ 75,000	\$ 37,500	\$ 112,500
Firefighter	\$ 70,000	\$ 35,000	\$ 105,000

The service delivery study examined community risk and response relative to various national and industry-accepted standards to develop a recommended fire station, unit, and staffing needs plan. The analysis suggests that only three stations are needed to provide sufficient coverage of all areas of the town. Further, the study recommends each station provide a staffed rescue unit. Two of the stations would house a fire engine company, while the third would provide a ladder company. Each unit is recommended to be staffed with two personnel at a minimum. On each shift, there would be one captain serving as both a company officer and senior officer responsible for their respective fire station, with two lieutenants serving in each of the other fire stations and on the opposite shifts in the station with a captain on duty. The company officers would be assigned to the fire engines and ladders.

Since there is variability in shifts between the districts currently, the minimum number of personnel for a three-platoon and a four-platoon system are shown for comparison. Four battalion chief officers could be added, three working on shift to serve as shift commanders, with a fourth serving as fire marshal and other administrative functions. The total minimum staff under the three-platoon system is 39, while under the four-platoon system, it jumps to 52.

*Recommended Minimum Station, Unit, and Staffing for Single District/Town Fire Department*

Minimum Unit Staffing (3 Stations)			
	Units	FF/Unit	FF/Shift
Engines	2	2	4
Ladders	1	2	2
Rescues	3	2	6
Total Minimum Staff			
Position	Per Shift	3 Platoon	4 Platoon
Battalion Chief	1	3	4
Captains	1	3	4
Lieutenants	2	6	8
Firefighters	9	27	36
Total	13	39	52

The following figure takes the minimum staffing by position multiplied by the position compensation shown above to arrive at a full cost by position for the three- and four-platoon configurations. The fire marshal (leveled at the Battalion Chief compensation) and fire chief positions are added to provide a total staffing figure. Administrative support is included in operating costs. However, it is likely that the department would need to add one or two administrative support positions on a full-time basis.

*Base Minimum Compensation by Position for Single District/Town Fire Department Models*

Position	3 Platoon	4 Platoon
Fire Chief	\$ 142,500	\$ 142,500
Fire Marshal	\$ 127,500	\$ 127,500
Battalion Chief	\$ 382,500	\$ 510,000
Captains	\$ 360,000	\$ 480,000
Lieutenants	\$ 675,000	\$ 900,000
Firefighters	\$ 2,835,000	\$ 3,780,000
<b>Total</b>	<b>\$ 4,252,500</b>	<b>\$ 5,670,000</b>

The personnel costs shown in the figure above do not include coverage for sick, vacation, and other types of leave. Generally, fire departments utilize a combination of overtime funding and hiring additional staff to cover shift vacancies created by various types of leave. When determining staffing needs, it is prudent to account for this “relief factor” by adding the fractional cost of another firefighter to each staff position needed. This relief factor can range significantly depending upon actual leave usage, often dictated by contractual requirements, among other things. Dynamix Consulting Group has seen relief factors varying from 1.2 to as high as 1.5. A conservative approach in this case would be to utilize a relief factor of 1.35. The following figure takes the minimum funding needed per position above and applies this factor to both the three- and four-platoon cases.

*Compensation by Position with Relief Factor for Single District/Town Fire Department Models*

Position	3 Platoon	4 Platoon
Fire Chief	\$ 142,500	\$ 142,500
Fire Marshal	\$ 127,500	\$ 127,500
Battalion Chief	\$ 516,375	\$ 688,500
Captain	\$ 486,000	\$ 648,000
Lieutenant	\$ 911,250	\$ 1,215,000
Firefighter	\$ 3,827,250	\$ 5,103,000
<b>Total</b>	<b>\$ 5,740,875</b>	<b>\$ 7,654,500</b>

## Option 1: Status Quo Financial Projection of Individual Districts

While maintaining the Status Quo of four individual fire districts is an option, this option will likely create a critical situation when one or more of the four independent fire districts are no longer financially sustainable. Dynamix Consulting Group estimates that, in the short term, the annual budgets will become more volatile, and in the long term, one or more of the fire districts could face the prospect of insolvency if steps are not taken to aggressively stabilize the finances.

The following discussion presents a status quo projection for each of the four fire districts. It is understood that each district is working to reduce expenditures and still meet the expectations of its taxpayers. Some changes have already been made since the collection and analysis of financial data for this study. While those changes may not be specifically incorporated, they are reflected in the use of historical trend data and comments from district leadership regarding FY 24 budgets.

### Central Coventry Fire District

The status quo projection for the Central Coventry Fire District assumes that the FY 24 expenditure budget equals that of FY 23. The projection then uses historical trends to project the FY 24 budget through to FY 30. Tax revenue is estimated to increase at the rate of property value increase or 4.3% annually, which means that the composite millage rate remains fixed at 1.58 mills as originally proposed<sup>11</sup>. Fire-specific revenue, such as service fees, are projected to increase by 1% annually. Non-recurring revenues are projected to be relatively insignificant at \$1,500 annually. Personnel costs increase at the historically observed rates of 2.6% for wages and 6.7 % for benefits, while operating expenses are projected to increase at 3% annually, the estimated rate of inflation. The district carries no debt service, and none is anticipated through FY 30 in this projection, nor is there any capital expense projected.

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<sup>11</sup> Taxpayers subsequently rejected the proposed budget and reduced the originally proposed millage rates for each category of property. While the district has cut expenses by reducing personnel from FY 23 the revenue will also be reduced. The trend predicted here will likely continue to be valid although actual magnitude of revenue and expense will be different. Also, it is unclear how this will impact the current condition of unassigned fund balance which would very slowly recover to recommended levels under the projection shown here.

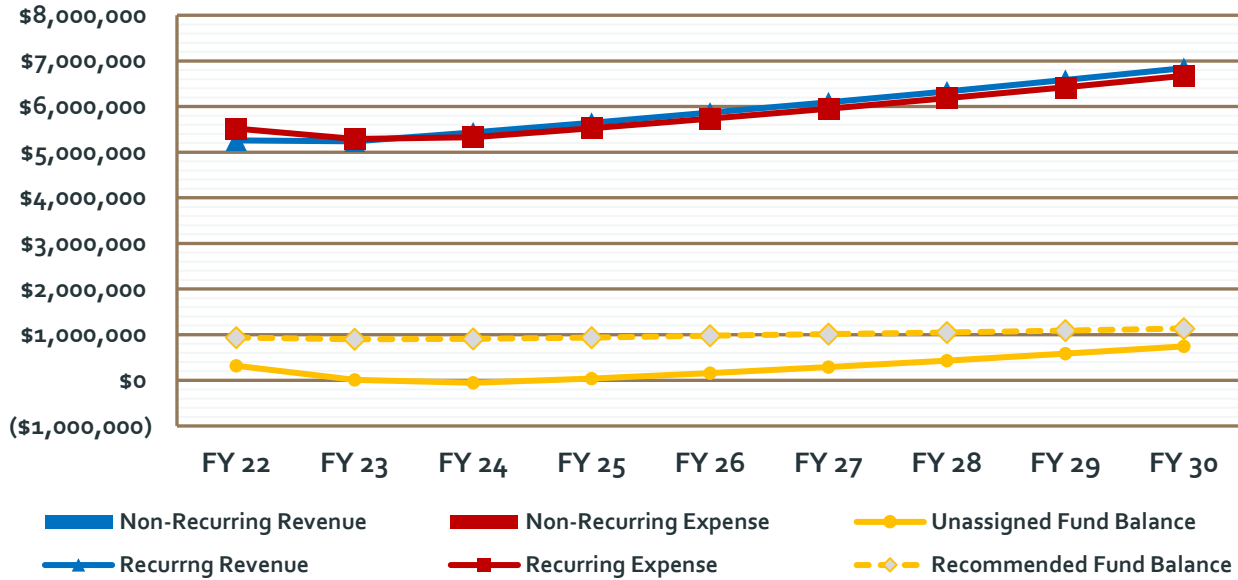
Central Coventry Fire District Status Quo Revenue/Expense Projection (FY 23-30)

REVENUE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Adopted	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$4,558,638	\$4,754,659	\$4,959,110	\$5,172,352	\$5,394,763	\$5,626,737	\$5,868,687	\$6,121,041
Service Fees	\$678,336	\$678,336	\$685,119	\$691,971	\$698,890	\$705,879	\$712,938	\$720,067
<b>Total Recurring Revenue</b>	<b>\$5,236,974</b>	<b>\$5,432,995</b>	<b>\$5,644,229</b>	<b>\$5,864,322</b>	<b>\$6,093,653</b>	<b>\$6,332,617</b>	<b>\$6,581,625</b>	<b>\$6,841,108</b>
Miscellaneous	\$1,550	\$1,550	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
<b>Total Revenue</b>	<b>\$5,238,524</b>	<b>\$5,434,545</b>	<b>\$5,645,729</b>	<b>\$5,865,822</b>	<b>\$6,095,153</b>	<b>\$6,334,117</b>	<b>\$6,583,125</b>	<b>\$6,842,608</b>

EXPENSE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Adopted	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$4,062,128	\$4,062,128	\$4,224,309	\$4,394,497	\$4,573,154	\$4,760,770	\$4,957,869	\$5,165,004
<i>Wages/Salaries</i>	\$2,682,470	\$2,682,470	\$2,752,214	\$2,823,772	\$2,897,190	\$2,972,517	\$3,049,802	\$3,129,097
<i>Benefits</i>	\$1,379,658	\$1,379,658	\$1,472,095	\$1,570,725	\$1,675,964	\$1,788,254	\$1,908,067	\$2,035,907
Operating Expense	\$1,226,728	\$1,263,530	\$1,301,436	\$1,340,479	\$1,380,693	\$1,422,114	\$1,464,777	\$1,508,721
Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Recurring Expense</b>	<b>\$5,288,856</b>	<b>\$5,325,658</b>	<b>\$5,525,745</b>	<b>\$5,734,976</b>	<b>\$5,953,847</b>	<b>\$6,182,884</b>	<b>\$6,422,646</b>	<b>\$6,673,725</b>
Capital	\$15,000	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Expense</b>	<b>\$5,303,856</b>	<b>\$5,340,658</b>	<b>\$5,525,745</b>	<b>\$5,734,976</b>	<b>\$5,953,847</b>	<b>\$6,182,884</b>	<b>\$6,422,646</b>	<b>\$6,673,725</b>

The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. As shown and discussed in the current conditions section, the district is in a weak financial position with no or negative unassigned fund balance until FY 26, when it starts to grow slowly but does not reach recommended levels by FY 30. This means the district does not have any resources to cover contingencies such as delayed or reduced tax revenues, emergency expenditures, or other needs that may arise during the fiscal year. Cutting expenses certainly helps remedy this condition, but cutting revenue means this deficit may be made up but at a very slow rate, similar to that shown in the figure. The trend will likely be similar, although the magnitude of both revenue and expense will be less.

Central Coventry Status Quo Projection of Revenue, Expense, and Fund Balance (FY 22-30)



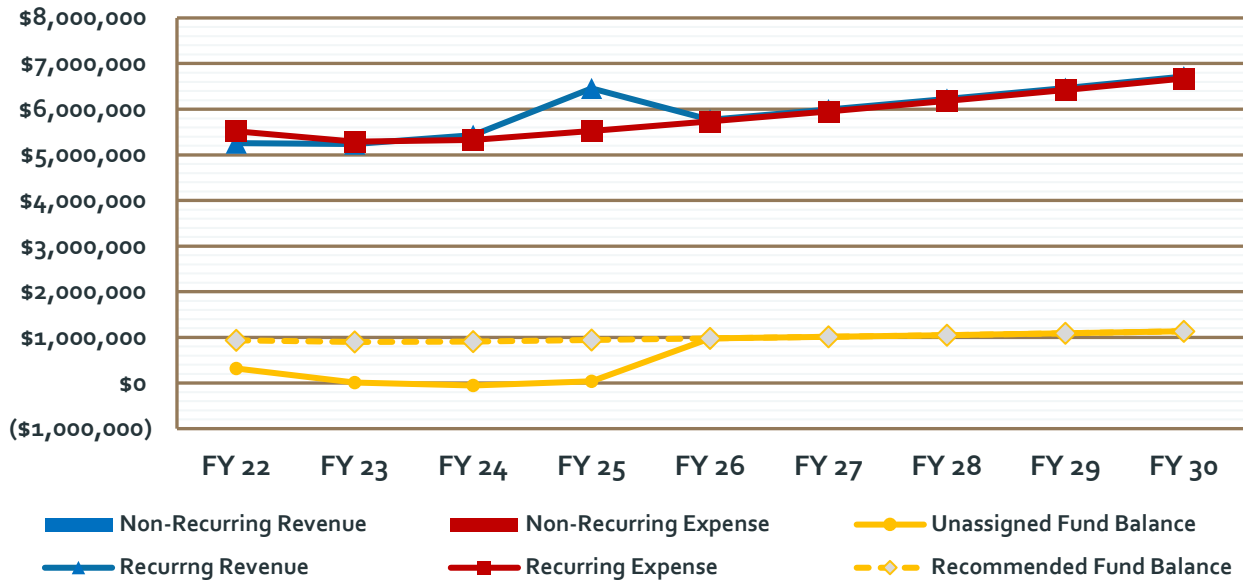
To remedy the gap between the actual unassigned fund balance and the amount recommended by the GFOA, the district would need to significantly increase the millage rate in FY 25, as shown in the figure below, after which the rate could be lowered and maintained. Conversely, the district could impose a lesser increase and reduce it over several years to the ultimate rate shown. The figure above maintains the composite millage rate at 1.58 mills, while the scenario below jumps the rate to 1.84 in FY 25, after which it is maintained at 1.55 mills.

Central Coventry Fire District Status Quo Net Tax Rate Projection (FY 23-30)

COMPONENT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
Assessed Property Value	\$2,881,263,915	\$3,005,158,263	\$3,134,380,069	\$3,269,158,412	\$3,409,732,223	\$3,556,350,709	\$3,709,273,789	\$3,868,772,562
Net Tax Rate (per \$1,000)	\$1.65	\$1.58						
<b>Net Millage</b>	<b>\$4,754,082</b>	<b>\$4,754,659</b>						
Total Budget	\$5,303,856	\$5,340,658	\$5,525,745	\$5,734,976	\$5,953,847	\$6,182,884	\$6,422,646	\$6,673,725
Non-Tax Revenues			\$686,619	\$693,471	\$700,390	\$707,379	\$714,438	\$721,567
Unassigned Fund Balance	\$11,361	(\$53,971)	\$39,917	\$974,946	\$1,012,154	\$1,051,090	\$1,091,850	\$1,134,533
Recommended Fund Balance	\$899,106	\$905,362	\$939,377	\$974,946	\$1,012,154	\$1,051,090	\$1,091,850	\$1,134,533
Net Tax Rate Needed			\$1.84	\$1.55	\$1.55	\$1.55	\$1.55	\$1.55
Net Millage Needed			\$5,774,155	\$5,078,714	\$5,292,393	\$5,516,265	\$5,750,892	\$5,996,872

The impact of this one-time large millage increase on unassigned fund balance is shown in the figure below. This one-time bump dramatically increases the unassigned fund balance, which then tracks with the GFOA recommended fund balance each year through FY 30 while the millage rate is reduced and maintained at 1.55 mills. Again, the District could accomplish the same result more gradually over a period of years and still ultimately achieve a healthy fund balance at the same level of service.

*Central Coventry Status Quo Projection Maintaining GFOA Recommended Unassigned Fund Balance (FY 22-30)*



## Coventry Fire District

The status quo projection for the Coventry Fire District uses historical trends to project the FY 24 budget through to FY 30. Tax revenue is estimated to increase at the rate of property value increase or 4.3% annually, which means the composite millage rate remains fixed at 2.51 mills as originally proposed. Fire-specific revenue, such as service fees, are projected to increase at 5.7% annually. Non-recurring revenues are projected to be flat at \$15,000 annually. Personnel costs increase at the historically observed rates of 3% for wages and 8% for benefits, while operating expenses are projected to increase at 3% annually, the estimated rate of inflation. District debt service decreased to \$153,387 in FY 24 and will decrease again in FY 29 to \$93,587 as various notes are retired. No further capital expense is projected following the \$857,520 in FY 23.

### Coventry Fire District Status Quo Projection (FY 23-30)

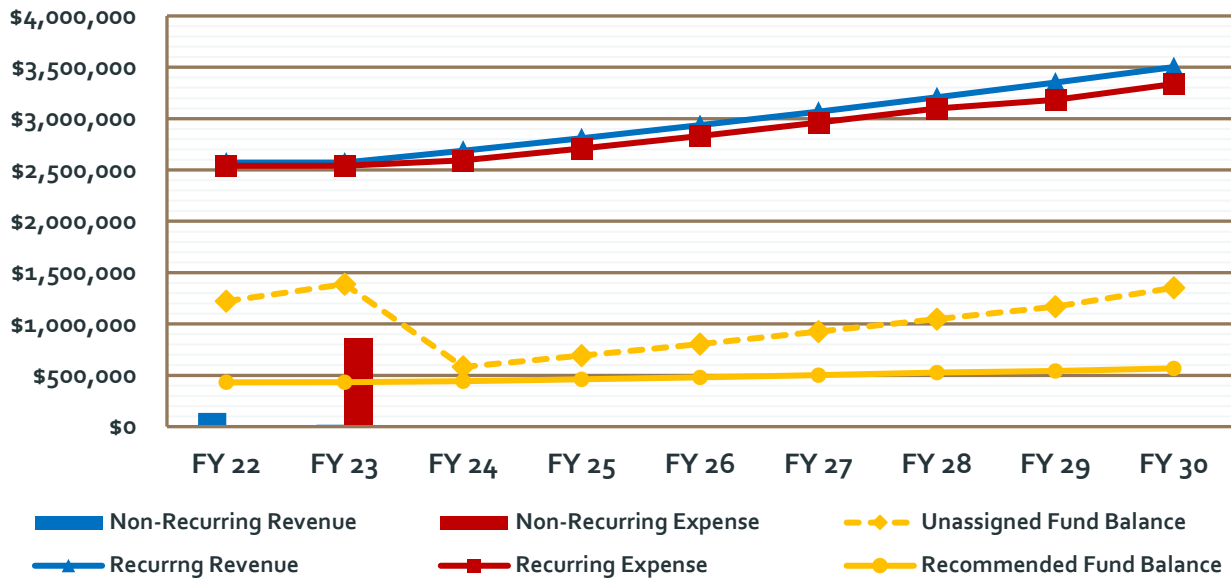
REVENUE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Adopted	Projected	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$2,213,068	\$2,308,230	\$2,407,484	\$2,511,006	\$2,618,979	\$2,731,595	\$2,849,054	\$2,971,563
Service Fees	\$360,000	\$380,520	\$402,210	\$425,136	\$449,368	\$474,982	\$502,056	\$530,674
<b>Total Recurring Revenue</b>	<b>\$2,573,068</b>	<b>\$2,688,750</b>	<b>\$2,809,693</b>	<b>\$2,936,141</b>	<b>\$3,068,347</b>	<b>\$3,206,577</b>	<b>\$3,351,110</b>	<b>\$3,502,236</b>
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous	\$18,431	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
<b>Total Revenue</b>	<b>\$2,591,499</b>	<b>\$2,703,750</b>	<b>\$2,824,693</b>	<b>\$2,951,141</b>	<b>\$3,083,347</b>	<b>\$3,221,577</b>	<b>\$3,366,110</b>	<b>\$3,517,236</b>

EXPENSE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Adopted	Projected	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$1,706,505	\$1,796,424	\$1,892,139	\$1,994,071	\$2,102,675	\$2,218,439	\$2,341,890	\$2,473,597
<i>Wages/Salaries</i>	<i>\$932,022</i>	<i>\$959,983</i>	<i>\$988,782</i>	<i>\$1,018,446</i>	<i>\$1,048,999</i>	<i>\$1,080,469</i>	<i>\$1,112,883</i>	<i>\$1,146,269</i>
<i>Benefits</i>	<i>\$774,483</i>	<i>\$836,442</i>	<i>\$903,357</i>	<i>\$975,626</i>	<i>\$1,053,676</i>	<i>\$1,137,970</i>	<i>\$1,229,007</i>	<i>\$1,327,328</i>
Operating Expense	\$626,360	\$645,151	\$664,505	\$684,440	\$704,974	\$726,123	\$747,907	\$770,344
Debt Service	\$207,237	\$153,387	\$153,387	\$153,387	\$153,387	\$153,387	\$93,587	\$93,587
<b>Recurring Expense</b>	<b>\$2,540,102</b>	<b>\$2,594,962</b>	<b>\$2,710,031</b>	<b>\$2,831,899</b>	<b>\$2,961,035</b>	<b>\$3,097,948</b>	<b>\$3,183,384</b>	<b>\$3,337,528</b>
Capital	\$857,520	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Expense</b>	<b>\$3,397,622</b>	<b>\$2,594,962</b>	<b>\$2,710,031</b>	<b>\$2,831,899</b>	<b>\$2,961,035</b>	<b>\$3,097,948</b>	<b>\$3,183,384</b>	<b>\$3,337,528</b>



The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. As shown and discussed in the current conditions section, the district is in a strong financial position with respect to the unassigned fund balance, even after the large capital expense in FY 23. Revenue will exceed expenses each year with the same millage rate of 2.51 mills, and the unassigned fund balance will continue to grow and well exceed the GFOA recommended amount.

*Coventry Status Quo Projection of Revenue, Expense, and Fund Balance (FY 22-30)*



The district could lower the millage rate in subsequent years, as shown in the table below, to keep the unassigned fund balance at or near recommended levels. The millage rate could be lowered from 2.51 mills to between 2.2 and 2.43 mills and still maintain the recommended level of unassigned fund balance. Conversely, if the millage rate is maintained, excess funds could be committed to future capital purchases without resorting to debt service, saving on interest rate charges.

*Coventry Fire District Status Quo Net Tax Rate Projection (FY 23-30)*

COMPONENT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
Assessed Property Value	\$881,465,515	\$919,368,532	\$958,901,379	\$1,000,134,138	\$1,043,139,906	\$1,087,994,922	\$1,134,778,704	\$1,183,574,188
Net Tax Rate (per \$1,000)	\$2.52	\$2.51						
<b>Net Millage</b>	<b>\$2,223,897</b>	<b>\$2,308,230</b>						
<b>Total Budget</b>	<b>\$3,397,622</b>	<b>\$2,594,962</b>	<b>\$2,710,031</b>	<b>\$2,831,899</b>	<b>\$2,961,035</b>	<b>\$3,097,948</b>	<b>\$3,183,384</b>	<b>\$3,337,528</b>
Non-Tax Revenues			\$402,210	\$425,136	\$449,368	\$474,982	\$502,056	\$530,674
Unassigned Fund Balance	\$1,387,961	\$581,838	\$690,626	\$481,423	\$503,376	\$526,651	\$541,175	\$567,380
Recommended Fund Balance	\$431,817	\$441,144	\$460,705	\$481,423	\$503,376	\$526,651	\$541,175	\$567,380
Net Tax Rate Needed			\$2.19	\$2.43	\$2.43	\$2.42	\$2.39	\$2.40
Net Millage Needed			\$2,098,619	\$2,428,716	\$2,534,942	\$2,637,490	\$2,707,532	\$2,834,681

## Hopkins Hill Fire District

The status quo projection for the Hopkins Hill Fire District uses historical trends to project the FY 24 budget through to FY 30. Tax revenue is estimated to increase at the rate of property value increase or 4.3% annually, which means the composite millage rate remains fixed at 2.1 mills. Fire-specific revenue, such as service fees, are projected to increase by 1% annually. No non-recurring revenues are projected. Personnel costs increase at the historically observed rate of 7.4% for total compensation, while operating expenses are projected to increase at 3% annually, the estimated rate of inflation. District debt service will remain at \$80,314 throughout the period. Capital expense is estimated at \$10,000 annually.

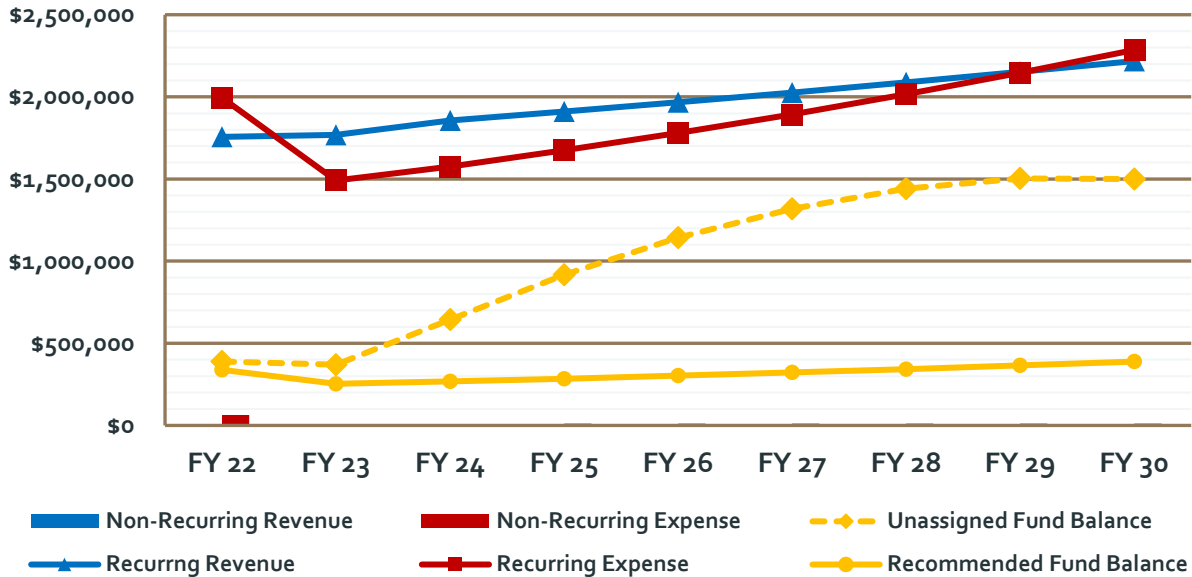
### *Hopkins Hill Fire District Status Quo Projection (FY 23-30)*

REVENUE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Estimated	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$1,034,000	\$1,099,019	\$1,146,277	\$1,195,567	\$1,246,976	\$1,300,596	\$1,356,522	\$1,414,852
Service Fees	\$733,351	\$754,618	\$762,164	\$769,786	\$777,484	\$785,258	\$793,111	\$801,042
Investment Income	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
<b>Total Recurring Revenue</b>	<b>\$1,769,351</b>	<b>\$1,855,637</b>	<b>\$1,910,441</b>	<b>\$1,967,353</b>	<b>\$2,026,460</b>	<b>\$2,087,855</b>	<b>\$2,151,633</b>	<b>\$2,217,894</b>
Claims	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenue</b>	<b>\$1,769,351</b>	<b>\$1,855,637</b>	<b>\$1,910,441</b>	<b>\$1,967,353</b>	<b>\$2,026,460</b>	<b>\$2,087,855</b>	<b>\$2,151,633</b>	<b>\$2,217,894</b>

EXPENSE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Unaudited	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$1,163,526	\$1,231,600	\$1,322,738	\$1,420,621	\$1,525,747	\$1,638,652	\$1,759,913	\$1,890,146
<i>Wages/Salaries</i>	<i>\$837,738</i>	<i>\$886,752</i>	<i>\$952,372</i>	<i>\$1,022,847</i>	<i>\$1,098,538</i>	<i>\$1,179,830</i>	<i>\$1,267,137</i>	<i>\$1,360,905</i>
<i>Benefits</i>	<i>\$325,787</i>	<i>\$344,848</i>	<i>\$370,367</i>	<i>\$397,774</i>	<i>\$427,209</i>	<i>\$458,823</i>	<i>\$492,776</i>	<i>\$529,241</i>
Operating Expense	\$247,143	\$263,650	\$271,560	\$279,706	\$288,097	\$296,740	\$305,643	\$314,812
Debt Service	\$80,314	\$80,314	\$80,314	\$80,314	\$80,314	\$80,314	\$80,314	\$80,314
<b>Recurring Expense</b>	<b>\$1,490,982</b>	<b>\$1,575,564</b>	<b>\$1,674,612</b>	<b>\$1,780,641</b>	<b>\$1,894,158</b>	<b>\$2,015,707</b>	<b>\$2,145,869</b>	<b>\$2,285,272</b>
Capital	\$4,424	\$7,500	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Total Expense</b>	<b>\$1,495,406</b>	<b>\$1,583,064</b>	<b>\$1,684,612</b>	<b>\$1,790,641</b>	<b>\$1,904,158</b>	<b>\$2,025,707</b>	<b>\$2,155,869</b>	<b>\$2,295,272</b>

The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. As shown and discussed in the current conditions section, the district is in a solid financial position with respect to the unassigned fund balance after the reduction of expenditures between FY 22 and FY 23. Revenue will exceed expense each year at decreasing levels through FY 29 with the same millage rate of 2.1 mills, and the unassigned fund balance will continue to grow and well exceed the GFOA recommended amount. The district will need to monitor the expenditure trend, however, as expense is rising at a more rapid rate than revenue at a fixed mill rate.

*Hopkins Hill Status Quo Projection of Revenue, Expense, and Fund Balance (FY 22-30)*



## Western Coventry Fire District

The status quo projection for the Western Coventry Fire District uses historical trends to project the FY 24 budget through to FY 30. Tax revenue is estimated to increase at the rate of property value increase or 4.3% annually, which means the composite millage rate remains fixed at 1.55 mills. Fire-specific revenue, such as service fees, are projected to increase by 1% annually. No non-recurring revenues are projected. Personnel costs increase at the historically observed rate of 6.3% for total compensation, while operating expenses are projected to increase at 3% annually, the estimated rate of inflation. District debt service will remain at \$71,209 throughout the period. No capital expenses are projected for the period.

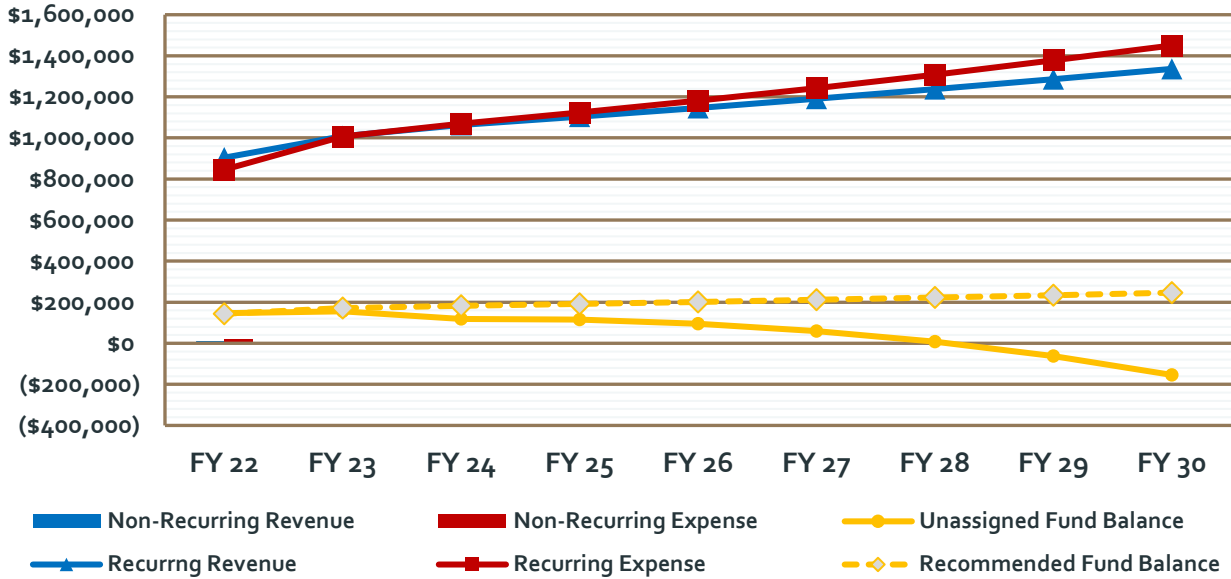
### Western Coventry Fire District Status Quo Projection (FY 23-30)

REVENUE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Actual	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$878,653	\$922,603	\$962,275	\$1,003,653	\$1,046,810	\$1,091,823	\$1,138,771	\$1,187,738
Service Fees	\$129,136	\$140,000	\$141,400	\$142,814	\$144,242	\$145,685	\$147,141	\$148,613
<b>Total Recurring Revenue</b>	<b>\$1,007,789</b>	<b>\$1,062,603</b>	<b>\$1,103,675</b>	<b>\$1,146,467</b>	<b>\$1,191,052</b>	<b>\$1,237,507</b>	<b>\$1,285,912</b>	<b>\$1,336,351</b>
Miscellaneous	\$4,932	\$2,980	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenue</b>	<b>\$1,012,721</b>	<b>\$1,065,583</b>	<b>\$1,103,675</b>	<b>\$1,146,467</b>	<b>\$1,191,052</b>	<b>\$1,237,507</b>	<b>\$1,285,912</b>	<b>\$1,336,351</b>

EXPENSE	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Actual	Proposed	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$708,233	\$756,467	\$804,124	\$854,784	\$908,636	\$965,880	\$1,026,730	\$1,091,414
<i>Wages/Salaries</i>	<i>\$625,489</i>	<i>\$631,861</i>	<i>\$667,423</i>	<i>\$709,471</i>	<i>\$754,168</i>	<i>\$801,680</i>	<i>\$852,186</i>	<i>\$905,874</i>
<i>Benefits</i>	<i>\$82,744</i>	<i>\$124,606</i>	<i>\$136,701</i>	<i>\$145,313</i>	<i>\$154,468</i>	<i>\$164,200</i>	<i>\$174,544</i>	<i>\$185,540</i>
Operating Expense	\$228,091	\$240,907	\$248,134	\$255,578	\$263,246	\$271,143	\$279,277	\$287,656
Debt Service	\$71,209	\$71,209	\$71,209	\$71,209	\$71,209	\$71,209	\$71,209	\$71,209
<b>Recurring Expense</b>	<b>\$1,007,533</b>	<b>\$1,068,583</b>	<b>\$1,123,468</b>	<b>\$1,181,571</b>	<b>\$1,243,090</b>	<b>\$1,308,232</b>	<b>\$1,377,216</b>	<b>\$1,450,279</b>
Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Expense</b>	<b>\$1,007,533</b>	<b>\$1,068,583</b>	<b>\$1,123,468</b>	<b>\$1,181,571</b>	<b>\$1,243,090</b>	<b>\$1,308,232</b>	<b>\$1,377,216</b>	<b>\$1,450,279</b>

The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. As shown and discussed in the current conditions section, the district is currently in a solid financial position with respect to the unassigned fund balance. However, at a fixed mill rate of 1.55 mills, the expense will quickly begin to exceed revenue, and the unassigned fund balance will decline below the GFOA recommended amount at an increasing rate until by FY 28, there will be no unassigned fund balance available for unseen contingencies. The district will need to monitor the expenditure trend and make adjustments as necessary well before FY 28.

*Western Coventry Status Quo Projection of Revenue, Expense, and Fund Balance (FY 22-30)*



## Option 2: Single Fire District Financial Projection

Establishing a single fire district will result in one tax rate for the entire Town of Coventry, but the process of consolidating the four fire districts subjects the vital service of fire suppression to a political process with an unknown outcome. Accordingly, there is a very high risk of failure should one or more of the districts fail to pass the measure to consolidate at referendum or should the State Legislature not approve the consolidation.

The following discussion presents a projection which combines all four districts into one. Fire service-related revenues are the sum of each district's revenues for FY 24. This total is then projected to increase by 1% annually. Investment income is estimated at \$2,000 annually, and Miscellaneous revenues are estimated at \$15,000 annually. Tax revenue is estimated at 0.5% over total expenses minus fire service-related revenues. The unassigned beginning fund balance for FY 25 is the sum of each district's ending fund balance for FY 24. This method of developing tax revenue provides a surplus each year that can be applied towards future capital purchases while also maintaining the GFOA-recommended unassigned fund balance.

As stated previously, a single district would likely be expected to continue funding all street lighting and fire hydrant costs currently carried by the individual districts. Therefore, these have been totaled and are projected to increase at an annual rate of 3% as part of the operating expenditure budget. While debt service would be subject to negotiation between the parties and may not be carried forward and funded by all taxpayers in a single district, all debt has been combined and is shown in this projection. Personnel Services for FY 24 are the sum of those expenses as budgeted by each separate district. For FY 25 forward, the personnel costs outlined earlier and based upon FY 23 actual district personnel costs are used for the projection. Wages/salaries are increased at 3% annually while benefits are increased at 5% annually. Personnel and associated costs for FY 24 are those budgeted by the districts, while those in FY 25 are based upon the minimum staffing with relief factor determined by the Dynamix service delivery study. Therefore, Personnel Services costs for the single district are estimated to be significantly less than if the current individual district costs were totaled and projected forward.

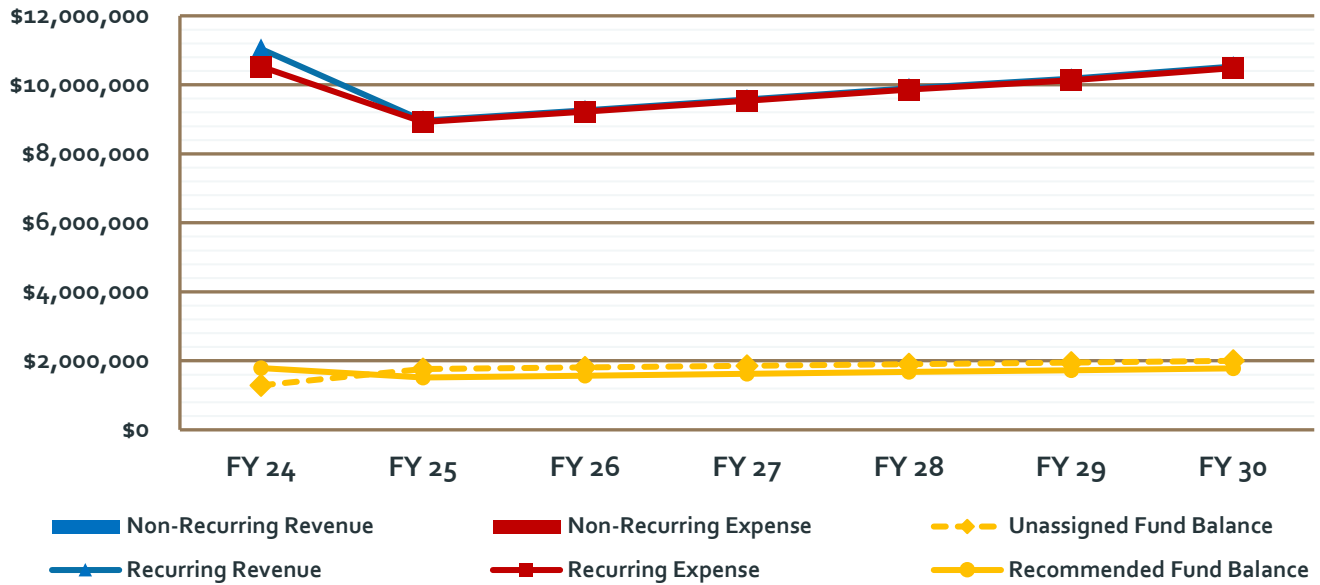
### Single Fire District Projection (FY 24-30)

REVENUE	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Estimated	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$9,084,511	\$5,965,713	\$6,226,760	\$6,498,152	\$6,780,312	\$7,073,676	\$7,378,703
Service Fees	\$1,953,474	\$1,973,009	\$1,992,739	\$2,012,666	\$2,032,793	\$2,053,121	\$2,073,652
Investment Income	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
<b>Total Recurring Revenue</b>	<b>\$11,039,985</b>	<b>\$7,940,722</b>	<b>\$8,221,498</b>	<b>\$8,512,819</b>	<b>\$8,815,105</b>	<b>\$9,128,797</b>	<b>\$9,454,355</b>
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous	\$19,530	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
<b>Total Revenue</b>	<b>\$11,059,515</b>	<b>\$7,955,722</b>	<b>\$8,236,498</b>	<b>\$8,527,819</b>	<b>\$8,830,105</b>	<b>\$9,143,797</b>	<b>\$9,469,355</b>

EXPENSE	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Estimated	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$7,846,619	\$6,170,101	\$6,397,400	\$6,633,627	\$6,879,156	\$7,134,377	\$7,399,697
<i>Wages/Salaries</i>	\$5,161,066	\$4,060,330	\$4,182,139	\$4,307,604	\$4,436,832	\$4,569,937	\$4,707,035
<i>Benefits</i>	\$2,685,554	\$2,109,772	\$2,215,260	\$2,326,023	\$2,442,324	\$2,564,441	\$2,692,663
Operating Expense	\$2,376,436	\$1,736,040	\$1,788,121	\$1,841,765	\$1,897,018	\$1,953,928	\$2,012,546
Debt Service	\$304,910	\$0	\$0	\$0	\$0	\$0	\$0
<b>Recurring Expense</b>	<b>\$10,527,965</b>	<b>\$7,906,141</b>	<b>\$8,185,521</b>	<b>\$8,475,392</b>	<b>\$8,776,174</b>	<b>\$9,088,306</b>	<b>\$9,412,244</b>
Capital	\$22,500	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Total Expense</b>	<b>\$10,550,465</b>	<b>\$7,916,141</b>	<b>\$8,195,521</b>	<b>\$8,485,392</b>	<b>\$8,786,174</b>	<b>\$9,098,306</b>	<b>\$9,422,244</b>

The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. As stated above, this model has been built to maintain both the GFOA recommended 17% (of recurring expenditures) unassigned fund balance and a slight surplus that could be placed toward future capital expenditures.

*Single Fire District Projection of Revenue, Expense, and Fund Balance (FY 24-30)*



In the following figure, the composite tax rate is shown for the combined districts in FY 23 and FY 24 and the single district using the staffing and other assumptions presented above. The needed millage rate is considerably lower than just combining the expenses of the four districts, primarily due to reduced staffing needs. The average annual composite millage rate for the single district is 1.3 mills. This represents the three-platoon staffing concept. The needed mill rate for a four-platoon system would be significantly more, averaging approximately 1.7 mills annually. The difference occurs in Personnel Services, which are approximately \$2 million more in FY 25, increasing to \$2.5 million by FY 30.

*Single Fire District Net Tax Rate Projection (FY 23-30)*

COMPONENT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
Assessed Property Value	\$4,835,474,254	\$5,043,399,647	\$5,260,265,832	\$5,486,457,263	\$5,722,374,925	\$5,968,437,047	\$6,225,079,840	\$6,492,758,273
Net Tax Rate (per \$1,000)	\$1.85	\$1.80						
Net Millage	\$8,960,479	\$9,084,511						
Total Budget	\$11,204,417	\$10,550,465	\$8,932,740	\$9,233,470	\$9,545,332	\$9,868,765	\$10,144,428	\$10,492,396
Non-Tax Revenues			\$1,990,009	\$2,009,739	\$2,029,666	\$2,049,793	\$2,070,121	\$2,090,652
Unassigned Fund Balance	\$1,924,694	\$1,289,385	\$1,761,633	\$1,612,654	\$1,667,174	\$1,723,717	\$1,772,197	\$1,832,729
Recommended Fund Balance	\$1,755,670	\$1,789,754	\$1,516,866	\$1,567,990	\$1,621,006	\$1,675,990	\$1,722,853	\$1,782,007
Net Tax Rate Needed			\$1.29	\$1.33	\$1.32	\$1.32	\$1.31	\$1.30
Net Millage Needed			\$6,793,752	\$7,278,252	\$7,572,209	\$7,867,452	\$8,134,840	\$8,423,180

## Option 3: Town Fire Department Financial Projection

The establishment of a Town Fire Department would give the Town of Coventry direct control over the delivery of fire and rescue services to its citizens, but it will place the responsibility for providing this service – and the associated costs - with the Town. There is no requirement for a referendum should the Town decide to establish a Fire Department. A Town of Coventry Special Act establishes the authority of the Town to establish a Fire Department.

Town of Coventry, RI

### **Sec. 1. [Authority to organize.]**

Upon acceptance of the terms of this act by a special financial town meeting, which said meeting shall not be held earlier than January 15, 1949, and at which said meeting the vote shall be taken by ballot, with the polls open for balloting between the hours of 8:00 a.m. and 8:00 p.m. Eastern Standard Time, the Town of Coventry is authorized to organize and maintain a permanent fire department, consisting of such number of officers and members as the town council in office at the time of the approval of this act, or its successors, shall determine.

(P.L. 1948, Ch. 2147, § 1)

### **Sec. 2. [Appointment, terms and compensation of officers and members.]**

All officers and members of said department shall be chosen by the town council from time to time as occasion may require. They shall serve during the pleasure of the council at such compensation as the council shall fix.

(P.L. 1948, Ch. 2147, § 2)

### **Sec. 3. [Purchase of equipment.]**

The town council is authorized to make such purchases from time to time as, in its opinion, may be necessary or essential for the proper equipment of said fire department, provided, however, that no purchase of a fire engine, pumper, hook and ladder truck, fire station or land upon which to build such a station, shall be made unless the financial town meeting of said town shall have first appropriated the money therefor.

(P.L. 1948, Ch. 2147, § 3)

### **Sec. 4. [Abolition of fire district taxes—Generally.]**

From and after the creation of a town fire department by the Town of Coventry under the provisions of this act, no fire district or any other district furnishing fire protection now located wholly or in part within the Town of Coventry shall pass any vote or resolution levying a tax upon any taxable property within the Town of Coventry for firefighting purposes, except hydrant rental, unless it be for the object of liquidating obligations outstanding at the time of the passage of a vote or resolution by the town council of Coventry declaring that a town fire department has been organized within said town, in the event that such obligations shall not be assumed by the Town of Coventry. Nor shall any such fire district or any other district furnishing fire protection pass any such vote or resolution for the object of liquidating such obligations incurred for firefighting purposes except hydrant rental, if the same shall have been assumed by the Town of Coventry.

(P.L. 1948, Ch. 2147, § 4)

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Town of Coventry, RI

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**Sec. 5. [Same—Affects only taxes for firefighting.]**

Nothing in this act shall be considered or construed as preventing or interfering with the right of any district to pass any vote or resolution levying a tax upon any taxable property within the Town of Coventry, where the district already has the right under its charter to so levy, for the purpose of lighting streets or paying for hydrant rental or carrying on any objects other than firefighting authorized by their respective district charters.

(P.L. 1948, Ch. 2147, § 5)

**Sec. 6. [Contracts with fire districts.]**

The Town of Coventry may contract with said fire districts, or with any of them, to take over any or all of the assets and to assume any or all of the liabilities of such districts or district upon such terms as the contracting parties may agree upon, and the said several fire districts are authorized to enter into any such contract or contracts with the Town of Coventry.

(P.L. 1948, Ch. 2147, § 6)

**Sec. 7. [Division and distribution of assets of fire districts overlapping town lines.]**

In such of said fire districts as overlap town lines an equitable division and distribution of the assets and liabilities owned or outstanding at the time of the passage of a vote or resolution by the town council of Coventry declaring that a town fire department has been organized within said town shall be made between the Coventry taxpayers and the taxpayers of such other town or city included in such district or districts by boards of appraisers consisting respectively of three citizens of the Town of Coventry to be appointed by the town council of Coventry and three citizens of each of the sections of the respective fire districts located outside the Town of Coventry to be elected at a meeting of said respective fire districts by the taxpaying citizens thereof residing in the respective sections of said fire districts located outside the Town of Coventry and such division and distribution shall respectively require the approval of a majority of the members of said several boards of appraisers and in the event that a majority cannot so agree said boards of appraisers or any of them as the case may be shall appoint an umpire who shall be a citizen of the State of Rhode Island but not a resident or taxpayer of the Town of Coventry or of any city or town in which said fire district overlaps and thereupon said umpire shall be a member of the board of appraisers appointing him and said division and distribution shall then be made by the vote and written agreement of at least four of said members of said board.

(P.L. 1948, Ch. 2147, § 7)

**Sec. 8. [Resolution as to organization of departments.]**

A town fire department shall be held to have been organized under this act when the town council of Coventry passes a resolution declaring that such a department has been

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Town of Coventry, RI

Sec. 8

Sec. 8

organized and is ready to take over the duties of the said fire districts or other districts furnishing fire protection now existing within said town.

(P.L. 1948, Ch. 2147, § 8)

The following discussion presents a projection for a town fire department. The revenue projections used for this model are the same for fire service-related revenues as the single district model. Tax revenue is estimated at 0.5% over total expenses minus fire service-related revenues, and only real and intangible property taxes are used so that a comparison can be made to the single district model. It is understood that the town may use other revenue sources not available to either the single district or the individual districts. No beginning fund balance is shown, as it is assumed that the districts would use those resources for their own purposes.

Further, a town fire department would likely be placed within the Town's General Fund, which would have its own fund balance. However, the Town might also consider setting up a fire taxing district that covered the entire town. Should the Town desire to build an unassigned reserve at a faster rate, it could fund needed tax revenue by multiplying total expense times 1.01 or higher prior to subtracting fire service-related revenues. This method of developing tax revenue would ultimately provide a surplus each year that can be applied towards future capital purchases while also maintaining the GFOA-recommended unassigned fund balance. At  $\frac{1}{2}$  percent over expenses, the unassigned fund balance will be significantly less than recommended unless the department relies on the town's general fund unassigned fund balance.

Unlike the single district model, which would likely be expected to continue funding all street lighting and fire hydrant costs currently carried by the individual districts, the Town may not wish to fund this expense. Therefore, these costs are not included in the town fire department expenditure projection. Debt service would be subject to negotiation between the parties and may not be carried forward and funded by all taxpayers in a town fire department. Therefore, all debt has been removed from this projection. Personnel Services for FY 24 are the sum of those expenses as budgeted by each separate district. For FY 25 forward, the personnel costs outlined earlier and based upon FY 23 actual district personnel costs are used for the projection. Wages/salaries are increased at 3% annually while benefits are increased at 5% annually. Personnel and associated costs for FY 24 are those budgeted by the districts, while those in FY 25 are based upon the minimum staffing with relief factor determined by the Dynamix Consulting Group service delivery study. Therefore, Personnel Services costs for the town fire department are estimated to be significantly less than if the current individual district costs were totaled and projected forward.

Also, as previously discussed, there would likely be a need for internal service supporting costs such as Human Resources, Information Technology, Legal, Budget, Finance, Fleet, Administration, and Risk Management. While some costs have been included in the operating expenses, an actual cost allocation study for the Town might provide a better estimate of these costs.

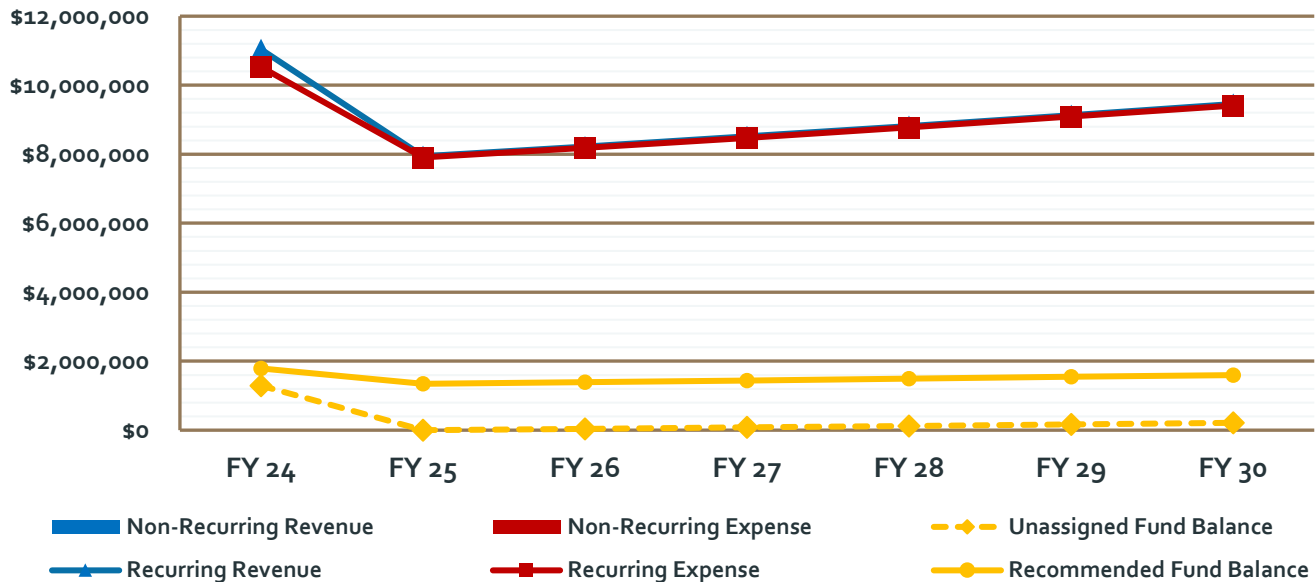
Town Fire Department Projection (FY 24-30)

REVENUE	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Estimated	Projected	Projected	Projected	Projected	Projected	Projected
Taxes (plus penalties/interest)	\$9,084,511	\$6,680,960	\$6,963,464	\$7,256,958	\$7,561,882	\$7,878,693	\$8,207,870
Service Fees	\$1,953,474	\$1,973,009	\$1,992,739	\$2,012,666	\$2,032,793	\$2,053,121	\$2,073,652
Investment Income	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
<b>Total Recurring Revenue</b>	<b>\$11,039,985</b>	<b>\$8,655,969</b>	<b>\$8,958,203</b>	<b>\$9,271,624</b>	<b>\$9,596,675</b>	<b>\$9,933,814</b>	<b>\$10,283,522</b>
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Miscellaneous	\$19,530	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
<b>Total Revenue</b>	<b>\$11,059,515</b>	<b>\$8,670,969</b>	<b>\$8,973,203</b>	<b>\$9,286,624</b>	<b>\$9,611,675</b>	<b>\$9,948,814</b>	<b>\$10,298,522</b>

EXPENSE	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
	Estimated	Projected	Projected	Projected	Projected	Projected	Projected
Personnel Services	\$7,846,619	\$6,170,101	\$6,397,400	\$6,633,627	\$6,879,156	\$7,134,377	\$7,399,697
<i>Wages/Salaries</i>	\$5,161,066	\$4,060,330	\$4,182,139	\$4,307,604	\$4,436,832	\$4,569,937	\$4,707,035
<i>Benefits</i>	\$2,685,554	\$2,109,772	\$2,215,260	\$2,326,023	\$2,442,324	\$2,564,441	\$2,692,663
Operating Expense	\$2,376,436	\$1,736,040	\$1,788,121	\$1,841,765	\$1,897,018	\$1,953,928	\$2,012,546
Debt Service	\$304,910	\$0	\$0	\$0	\$0	\$0	\$0
<b>Recurring Expense</b>	<b>\$10,527,965</b>	<b>\$8,617,830</b>	<b>\$8,918,560</b>	<b>\$9,230,422</b>	<b>\$9,553,855</b>	<b>\$9,889,318</b>	<b>\$10,237,286</b>
Capital	\$22,500	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Total Expense</b>	<b>\$10,550,465</b>	<b>\$8,627,830</b>	<b>\$8,928,560</b>	<b>\$9,240,422</b>	<b>\$9,563,855</b>	<b>\$9,899,318</b>	<b>\$10,247,286</b>

The following figure projects revenue, expense, and unassigned fund balance versus recommended fund balance through FY 30. This model was not built to maintain the GFOA recommended 17% (of recurring expenditures) unassigned fund balance, although that is shown. Again, this is because the Town may use its General Fund unassigned fund balance to cover any unforeseen shortages in town fire department expenses. The resulting mill rate could be increased if the Town desired to provide a separate GFOA-recommended fund balance for the fire department.

*Town Fire Department Projection of Revenue, Expense, and Fund Balance (FY 24-30)*



In the following figure, the composite tax rate is shown for a town fire department in FY 23 and FY 24 using a composite of the four districts and from FY 25 using the staffing and other assumptions presented above. The needed millage rate is considerably lower than just combining the expenses of the four districts, primarily due to less staffing. Total expenditure is considerably less than the single district model due to the removal of the street lighting and fire hydrant costs as well as the removal of debt service. The average annual composite millage rate for the town fire department based just on real and intangible property is 1.13 mills. This represents the three-platoon staffing concept. The needed mill rate for a four-platoon system would be significantly more.

*Town Fire Department Net Tax Rate Projection (FY 23-30)*

COMPONENT	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
Assessed Property Value	\$4,835,474,254	\$5,043,399,647	\$5,260,265,832	\$5,486,457,263	\$5,722,374,925	\$5,968,437,047	\$6,225,079,840	\$6,492,758,273
Net Tax Rate (per \$1,000)	\$1.85	\$1.80						
<b>Net Millage</b>	<b>\$8,960,479</b>	<b>\$9,084,511</b>						
<b>Total Budget</b>	<b>\$11,204,417</b>	<b>\$10,550,465</b>	<b>\$7,916,141</b>	<b>\$8,195,521</b>	<b>\$8,485,392</b>	<b>\$8,786,174</b>	<b>\$9,098,306</b>	<b>\$9,422,244</b>
Non-Tax Revenues			\$1,990,009	\$2,009,739	\$2,029,666	\$2,049,793	\$2,070,121	\$2,090,652
Unassigned Fund Balance	\$1,924,694	\$1,289,385	\$0	\$39,581	\$40,978	\$42,427	\$43,931	\$45,492
Recommended Fund Balance	\$1,755,670	\$1,789,754	\$1,344,044	\$1,391,539	\$1,440,817	\$1,491,950	\$1,545,012	\$1,600,081
<b>Net Tax Rate Needed</b>			<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.13</b>
<b>Net Millage Needed</b>			<b>\$5,965,713</b>	<b>\$6,187,179</b>	<b>\$6,457,175</b>	<b>\$6,737,885</b>	<b>\$7,029,745</b>	<b>\$7,333,211</b>

# Station Optimization

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Station optimization analyses allow communities to evaluate their current projected performance and predicted performance if fire station numbers, locations, and personnel staffing levels were optimized. Using actual incident data and current station locations, GIS software was used to establish baseline performance for the fire districts as if they were one department.

The baseline assessment indicates that approximately 93% of call volume lies within an eight-minute travel time of the current fire stations. An eight-minute travel time was selected as the districts provide ALS transport, and much of the Town can be described as rural with a population density of 500 or less. Several studies have indicated no significant difference in outcomes in rural settings for EMS transport when comparing a four to an eight-minute travel time.<sup>12</sup>

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<sup>12</sup>Albert, Laura & Mayorga, Maria. (2010). Evaluating Emergency Medical Services Performance Measures. *Health care management science*. 13. 124-36. [10.1007/s10729-009-9115-x](https://doi.org/10.1007/s10729-009-9115-x).

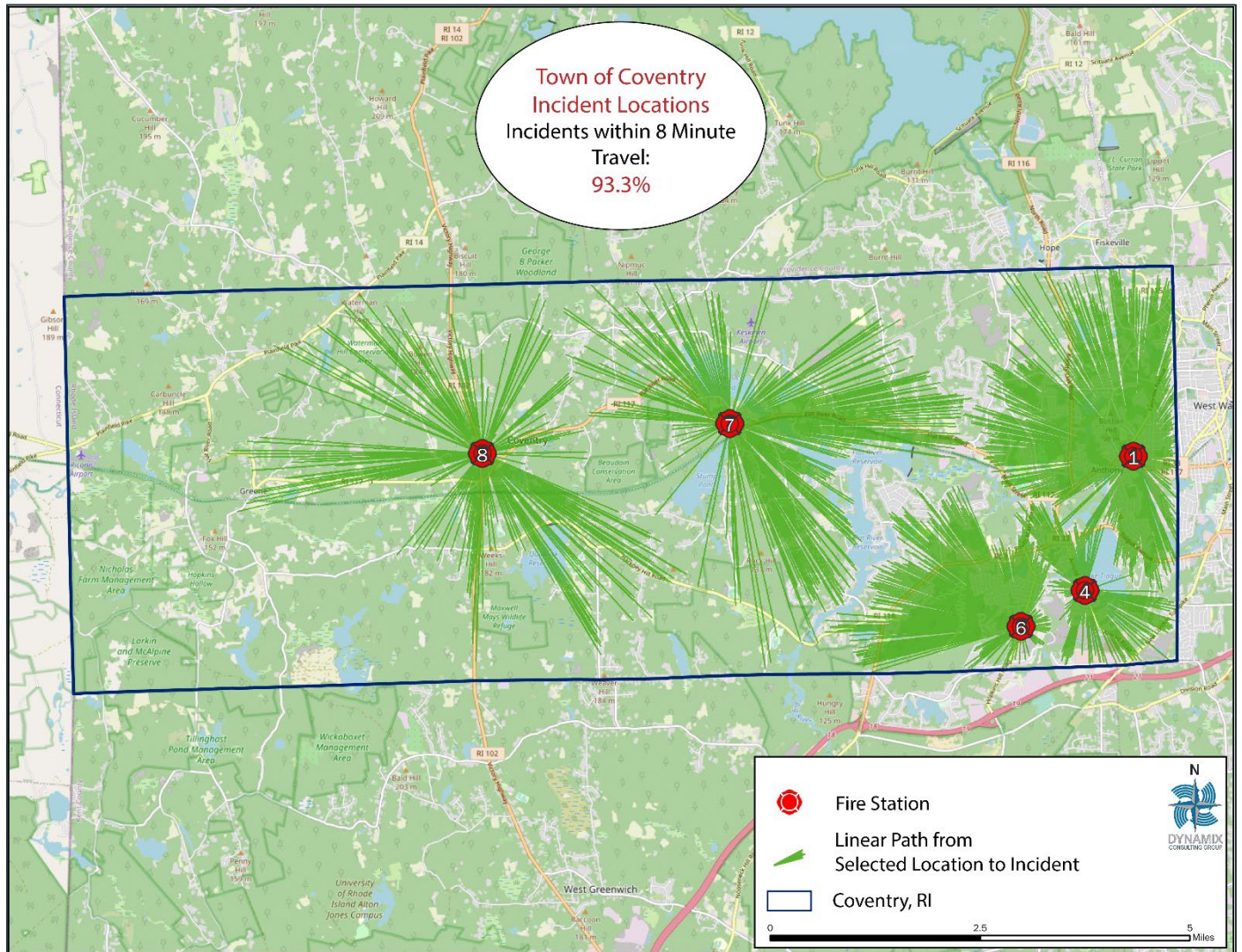
Al-Shaqsi, S. (2010). Response time as a sole performance indicator in EMS: Pitfalls and solutions. *Open Access Emergency Medicine*. 2. [10.2147/OAEM.S8510](https://doi.org/10.2147/OAEM.S8510)

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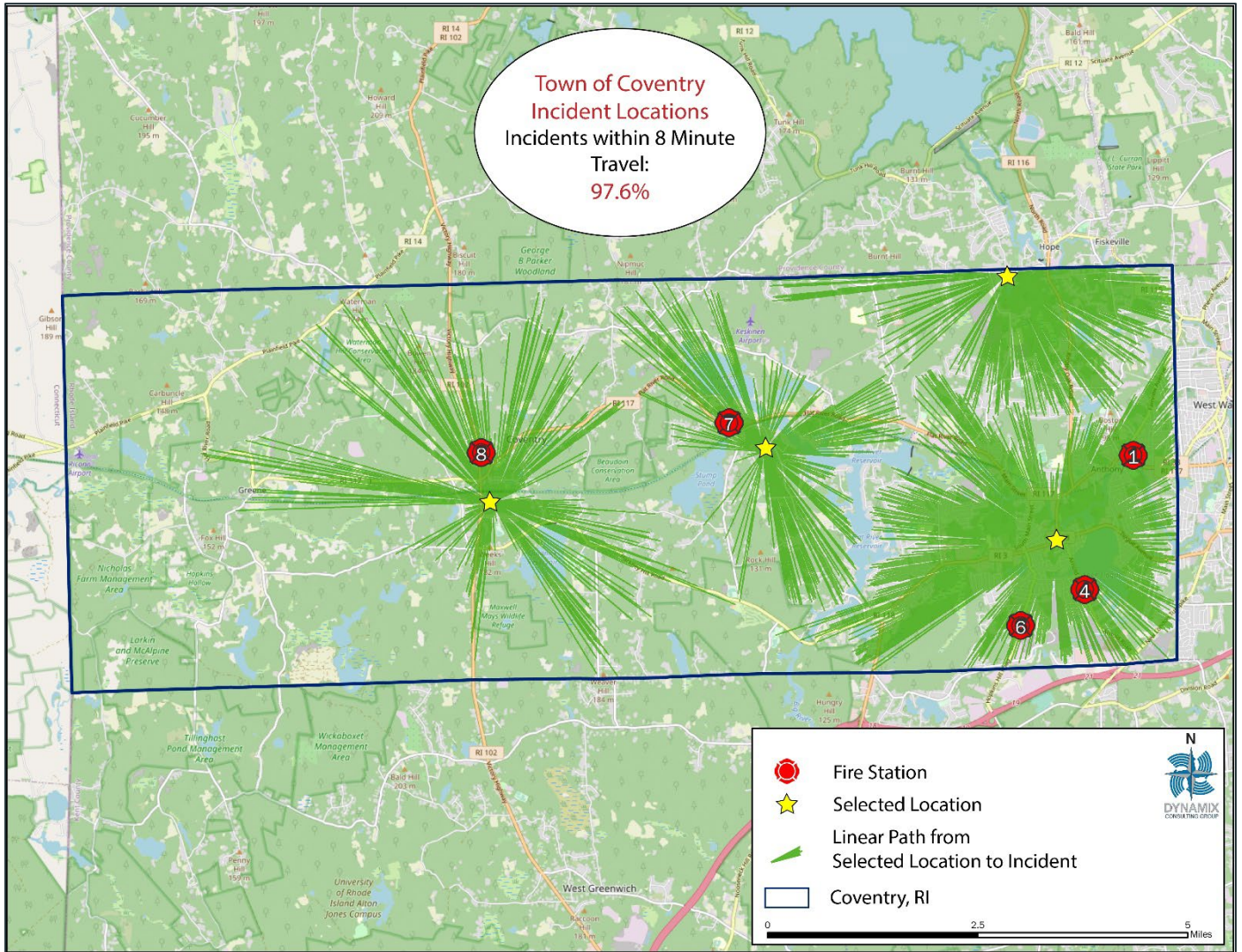
Baseline Performance from Current Locations Using 2022 Incident Data



A random point grid was created in the following analyses to provide potential locations for future fire stations. Although the specific points may not be available, this analysis is instructive in that it provides a comparison of current versus optimized performance. Additionally, other factors such as internal knowledge, road networks, and property availability should also be considered in addition to this analysis.

First, a four-station optimized model is presented. In each analysis, it is not suggested that staffing necessarily be reduced, only that more efficient deployment models are potentially available.

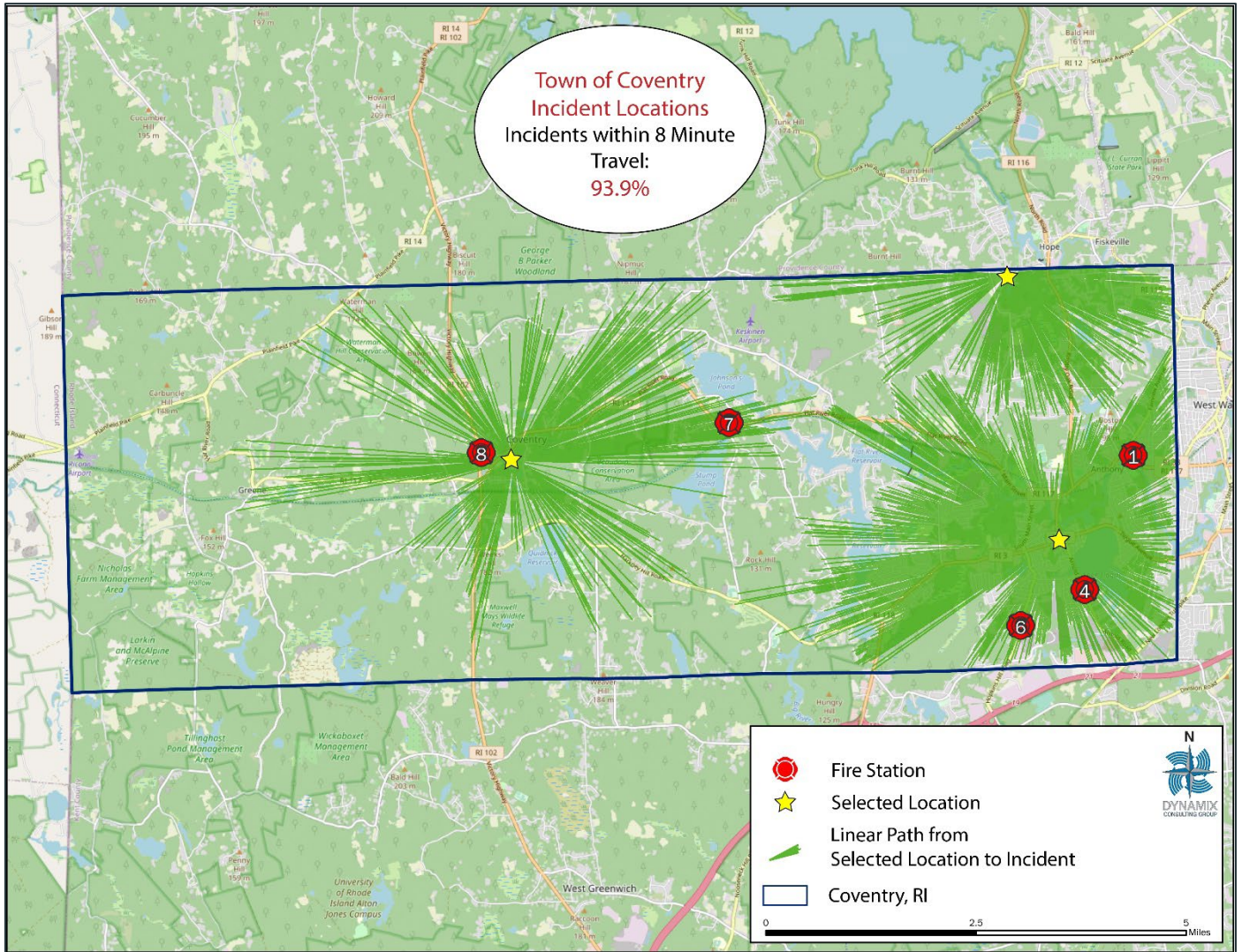
### Four-Station Optimized Model



Using a four-station optimized model, performance increases from 93% to over 97% of incidents that occurred within an eight-minute travel time of a fire station. While this provides enhanced performance, capital costs for acquiring and constructing new fire stations may be cost-prohibitive to the Town.

Next, a three-station model is presented.

*Three-Station Optimized Model*

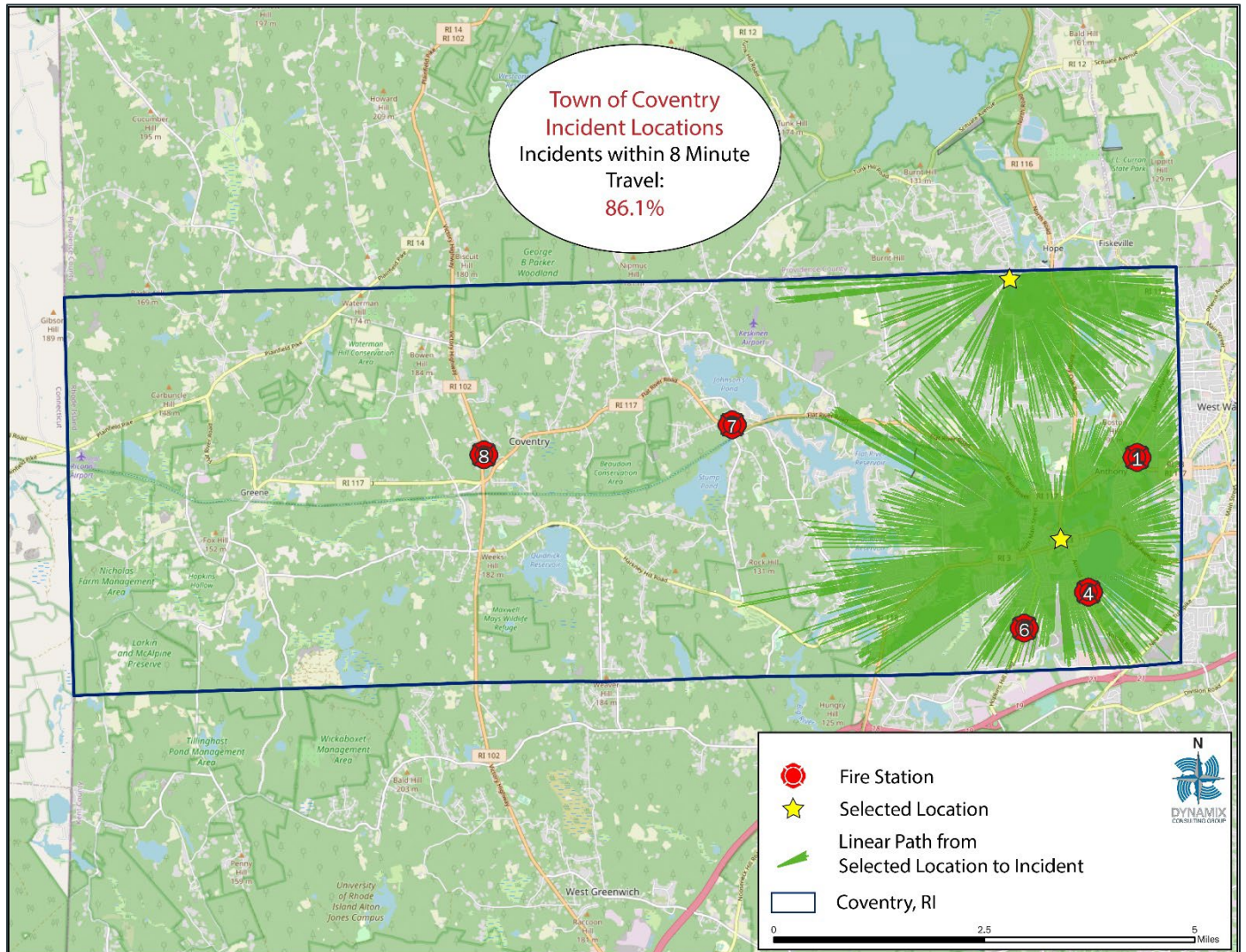


In a three-station optimized model, performance exceeds current baselines while optimizing the deployment model for the delivery of services. In this model, the current Western Coventry fire station is well positioned for deployment based on optimization, and only two new fire stations would be needed.



Finally, a two-station optimization model is presented.

*Two-Station Optimized Model*



In a two-station optimization model, performance dropped from 93% to 86% while providing no coverage in the central and western areas of the Town. While this model could potentially provide a starting point for a Town fire department, the three-station model provides optimized services and utilizes an existing fire station, which is relatively new and in good condition.

## Conclusion

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It is Dynamix Consulting Group's sincere hope the information contained in this report is used to its fullest extent and that its implementation will improve the emergency services provided to the citizens of Coventry.



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