



BERWYN FIRE COMPANY

Chester County Station 2 | Established 1894

It is the legal responsibility of the Townships to provide Fire / Emergency Medical Services to their residents.

1933 Act 69 - PA General Assembly:

Section 1553. Emergency Services.--(a) The township shall be responsible for ensuring that fire and emergency medical services are provided within the township by the means and to the extent determined by the township, including the appropriate financial and administrative assistance for these services.

(b) The township shall consult with fire and emergency medical services providers to discuss the emergency services needs of the township.

(c) The township shall require any emergency services organizations receiving township funds to provide to the township an annual itemized listing of all expenditures of these funds before the township may consider budgeting additional funding to the organization.

(1553 added Mar. 17, 2008, P.L.47, No.7)

Berwyn Fire Company is the primary provider of Emergency Medical, Fire and Rescue Services in both Tredyffrin & Easttown Townships.

Tredyffrin Township has a population of 29,350 residents. *2017 US Census Bureau

Basic Life Support Incidents (Emergency Medical Technician)

- Berwyn Fire Company protects 18,767 residents – 64%
- Paoli Fire Company protects 6,919 residents – 24%
- Radnor Fire Company protects 3,646 residents – 12%

Advanced Life Support Incidents (Paramedic)

- Berwyn Fire Company protects 19,918 residents – 68%
- Malvern Fire Company protects 5,786 residents – 20%
- Radnor Fire Company protects 3,646 residents – 12%

Fire / Rescue Incidents

- Berwyn Fire Company protects 18,767 residents – 64%
- Paoli Fire Company protects 6,919 residents – 24%
- Radnor Fire Company protects 3,646 residents – 12%

Easttown Township has a population of 10,420 residents. *2017 US Census Bureau

Basic Life Support Incidents (Emergency Medical Technician)

- Berwyn Fire Company protects 7,998 residents – 77%
- Paoli Fire Company protects 2,422 residents – 23%

Advanced Life Support Incidents (Paramedic)

- Berwyn Fire Company protects 10,420 residents – 100%

Fire / Rescue Incidents

- Berwyn Fire Company protects 7,998 residents – 77%
- Paoli Fire Company protects 2,422 residents – 23%

*Population protected provided by Chester County Department of Emergency Services

Berwyn Fire Company has been operating at a deficit for the last 5 years and is projected to deplete operating cash reserves in the next 18-24 months.

We are budgeting an operating loss in 2019. We project being out of operating cash by the end of 2020 if there is no change to our current funding situation. After our operating cash and reserves are depleted, we will support continued operations with our apparatus replacement fund and/or liquidate real estate held for a new fire station.

We most likely will outperform our budget in 2019. We have seen an increase in fundraising efforts this year, mainly due to our increasing public outreach. We have also realized a catch-up on medical billing reimbursements. There are a number of expenditures we are delaying to save money. We also continue to utilize a blend of part-time and full-time employees to keep costs contained

There are also items that are not in the budget that SHOULD be. For example – cancer is the biggest health issue for firefighters. We should be providing annual physicals for all personnel over 40 years of age. We do not have the money to do so. We should be doing more to attract and retain volunteers, but our funds are limited.

We have seen significant decreases in the last decade of what we collect per ambulance call. In 2009 we collected an average of \$459 per patient transported. That has been declining steadily. In 2018 we collected only \$362 per patient transported. This drop is mainly due to insurance legislation, both in terms of negotiated rates charged and how providers are paid.

We operate roughly a 2.4 million dollar budget with our largest expense (roughly 60%) being career personnel. We are a “combination” department with full-time and part-time employees and volunteers.

According to the National Volunteer Fire Council, the savings from this model is roughly \$6.5million compared to a fully paid Department.

Increased development and an aging population have increased our call volume significantly in the last decade. We expect this trend to continue for the foreseeable future.

In 2018 we responded to 922 Fire Emergencies and 2,297 Medical Emergencies. All calls were 9-1-1 dispatched emergencies.

| | EMS Calls | Fire Calls |
|-------------|----------------------|-----------------------|
| 2009 | 2024 | 724 |
| 2010 | 2094 | 771 |
| 2011 | 2163 | 850 |
| 2012 | 2259 | 838 |
| 2013 | 2168 | 813 |
| 2014 | 2197 | 904 |
| 2015 | 2104 | 917 |
| 2016 | 2164 | 920 |
| 2017 | 2126 | 886 |
| 2018 | 2297 | 922 |

We are expecting another increase in 2019 as Recovery Centers of America and Brightview Senior Living become further occupied.

Historical data shows that with nursing homes and assisted living facilities you can expect a minimum of one Ambulance Call per year, per resident.

In addition, we have seen a dramatic increase over the last few years of simultaneous emergencies. Over 25% of the time when we respond to a medical or fire emergency, a 2nd (3rd, 4th...etc) emergency will occur before our crews are cleared and available from the initial call. When additional personnel are not available to respond we rely on mutual aid from surrounding agencies to handle the emergency on our behalf. This leads to an increase in response times.

Tredyffrin and Easttown Township should adopt a “Standard of Cover” identifying minimum emergency response standards and expectations.

Dr. Edward Dickinson is the physician responsible for providing Medical Command & Oversight for Berwyn Fire Company, Radnor Fire Company and Malvern Fire Company. The National Fire Protection Agency (NFPA) has suggested minimum response times for both Medical and Fire Emergencies.

Using NFPA 1710, NFPA 1720 and Dr. Dickinson’s guidance, Berwyn Fire Company has recommended a “Standard of Cover” for emergency medical responses.

Our recommendation for Advanced Life Support / Paramedic responses is to have an ambulance on scene in 6 minutes from the 9-1-1 call, 90% of the time. Our recommendation for Basic Life Support / Emergency Medical Technician responses is to have an ambulance on scene in 10 minutes from the 9-1-1 call, 90% of the time.

When a 9-1-1 call is placed, it takes time for the call to get routed through the dispatch center, to alert the proper responding agency, and for the responders to get into the apparatus and leave the station.

In **Tredyffrin Township**, from January through April 2019, Berwyn Fire Company responded to 408 medical emergencies. The following is our response breakdown:

| | # of Calls | %=6 Mins | %=7 Mins | %=8 Mins | %=9 Mins | %=10 Mins |
|------------|------------|----------|----------|----------|----------|-----------|
| ALS | 195 | 42.1% | 57.9% | 70.3% | 81.0% | 86.7% |
| BLS | 213 | 31.9% | 46.5% | 64.8% | 78.4% | 85.4% |

In **Easttown Township**, from January through April 2019, Berwyn Fire Company responded to 225 medical emergencies. The following is our response breakdown:

| | # of Calls | %=6 Mins | %=7 Mins | %=8 Mins | %=9 Mins | %=10 Mins |
|------------|------------|----------|----------|----------|----------|-----------|
| ALS | 115 | 73.9% | 88.7% | 96.5% | 98.3% | 100% |
| BLS | 110 | 70.0% | 83.6% | 91.8% | 96.4% | 97.3% |

This data shows that our EMS Response in Tredyffrin Township is below the recommended standard. The driving factor in longer response times is distance. It is simply not possible to drive an ambulance from 23 Bridge Avenue into Chesterbrook, or other areas along the Swedesford Corridor, quick enough to be on scene within the recommended standard.

Our proposed solution is having a staffed substation in the greater Chesterbrook Area.

Berwyn Fire Company responds to many different types of Fire calls. Each type of call dictates a unique response. A single-family home fire does not require the same amount of personnel and equipment as a fire in a multi-story apartment building. For an appliance fire we respond with a minimum of 4 trained personnel on 1 engine, while a motor vehicle crash on Route 202 dictates an ambulance (2 people), our rescue engine (4 people) and the ladder truck (4 people). For this example we bring the ladder specifically to protect the scene from secondary crashes.

NFPA 1720 is the national standard we are trying to move towards. Per NFPA definition of an area with a population density of 1000+ people per square mile, both Tredyffrin (1488 people per sq. mile) & Easttown (1287 people per sq. mile) Townships are considered “Urban” demand zones, which requires a 9-minute response + appropriate personnel & apparatus, 90% of the time. A “Suburban” demand zone dictates a 10-minute response + appropriate personnel & apparatus, 80% of the time.

In order to meet the proposed Standard of Cover, all 3 components of the response must be met – response time, appropriate apparatus, and appropriate personnel.

The data below shows the actual occurrences where we meet each of the 3 components of NFPA 1720 “Suburban” Demand Zone for the period of Jan > Apr 2019.

| | # of Calls | 10-Minute Response Time | Appropriate Apparatus | Adequate Personnel |
|----------------------------|-------------------|--------------------------------|------------------------------|---------------------------|
| Tredyffrin Township | 163 | 77.3% | 68.7% | 63.2% |
| Easttown Township | 71 | 95.8% | 59.2% | 56.3% |

This data again supports the proposed solution of a staffed substation in the greater Chesterbrook Area. This will improve response time in Tredyffrin Township.

The only way to address the Apparatus and Personnel component is additional trained responders, volunteer or paid.

In order to move closer to industry best practices or nationally accepted response standards we need to hire additional personnel. Additionally, to meet response time guidelines developed by BFC medical director, we strongly recommend establishing a EMS / Fire Station (substation) in the greater Chesterbrook area.

Berwyn Fire Company only staffs 5 personnel daytime/weekdays and 4 personnel daytime/weekends, with 2 people overnight 7 days a week. The data shows the need for a minimum staffing level of 6 personnel daytime/weekdays and 4 personnel daytime/weekends, with 4 people overnight 7 days a week. The data also points to the fact that the only way to address response times for Chesterbrook, Glenhardie and the Swedesford Corridor is to build a centrally located EMS / FIRE substation, staffed 24/7.

If we staff to the 6/4 & 4/4 model, we would then be able to allocate existing personnel & apparatus to adequately staff the substation. We envision the substation with 2 personnel 24/7, with an ambulance and fire apparatus, and the main station staffed 4/2 with the remaining apparatus.

It is worth noting that we have applied for a federal grant (Staffing for Adequate Fire and Emergency Response – SAFER) to assist in paying for the costs associated with this goal. If awarded, and if we receive Township support, this grant will provide federal funds to reduce out of pocket costs of the new employees for the first 3 years of employment.

With regards to the substation cost, we have asked the Townships to sponsor a Redevelopment Assistance Capital Program (RACP) Grant, which would pay for half the costs of the building. We would request Township support for 25% of the cost, and we would fundraise the balance.



While both Tredyffrin & Easttown Townships have increased their Fire / EMS funding over time, what they give annually is significantly less per capita than surrounding municipalities in terms of direct & indirect financial support.

Total funding (direct and indirect support) by Municipality for Fire / EMS Services in 2019. Excludes State Volunteer Fire Company Relief funds.

| Rank | Municipality | Population | Fire / EMS Spend | Per Capita |
|-------------|--|-------------------|-------------------------|-------------------|
| 1 | East Whiteland Township | 11,890 | \$2,123,642 | \$178.61 |
| 2 | Norristown Borough | 34,510 | \$3,659,473 | \$106.04 |
| 3 | Upper Merion Township | 30,374 | \$2,711,903 | \$89.28 |
| 4 | Whitemarsh Township | 17,888 | \$1,083,193 | \$60.55 |
| 5 | Charlestown Township | 5,938 | \$339,250 | \$57.13 |
| 6 | Abington Township | 55,604 | \$2,633,129 | \$47.36 |
| 7(a) | Schuylkill Township | 8,642 | \$400,000 | \$46.29 |
| 8 | Malvern Borough | 3,438 | \$151,450 | \$44.05 |
| 9 | Horsham Township | 26,559 | \$1,117,998 | \$42.09 |
| 10 | Willistown Township | 10,923 | \$413,000 | \$37.81 |
| 11 | Easttown Township | 10,644 | \$375,000 | \$35.23 |
| 12 | Radnor Township | 31,884 | \$1,049,833 | \$32.93 |
| 13 | West Goshen Township | 22,992 | \$741,205 | \$32.24 |
| 14(a) | Newtown Township | 13,393 | \$393,858 | \$29.41 |
| 15 | Tredyffrin Township | 29,550 | \$771,700 | \$26.12 |
| 16 | East Goshen Township | 18,233 | \$429,535 | \$23.56 |
| 17 | West Whiteland Township | 18,385 | \$371,684 | \$20.22 |

Total Population: 350,847

Total Fire/EMS Funding: \$18,765,853

Average Per Capita: \$53.49

(a) May include State Volunteer Fire Company Relief Funds

What this study shows is the total financial outlay for direct and indirect items that support EMS and Fire services in the municipality.

In East Whiteland, for example, The Township makes a direct cash contribution to East Whiteland and Malvern Fire Companies for operations. The Township also directly employs career firefighters and pays their salaries and benefits directly.

An indirect support example includes Townships that pay Fire Marshalls. Not only do the Fire Marshall's perform inspections, but they also respond to emergencies.

As stated by System Planning Corporation in a 2008 study commissioned by Tredyffrin & Easttown Townships, Berwyn Fire Company's fire station needs to be replaced.

Tredyffrin & Easttown collaborated and contracted a consultant study in 2008 to look at Fire & EMS services for the community.

From the study:

“ Recommendation 20: The facility operated by Berwyn Fire Company should be replaced in the very near future. There are two concerns, in addition to the expense of maintaining this older structure. First is the lack of functionality, particularly due to the size of the apparatus bays and personnel facilities. Increasing demand for service requires increased staffing. The existing facility is barely able to handle the current staffing arrangement and limits flexibility in developing more efficient staffing plans. Space for spare equipment is already lacking, and there is no room for expansion. Another concern is the amount of time required to maintain this aging structure. Volunteers have limited time to donate to the community, and time spent fixing a leaking roof is time not spent conducting the primary function of the company—fire and EMS service to the public.”

The situation has not improved during the 11 years since this study was done and the building is now 90 years old! The building remains operationally well past end of life, fails to meet basic safety requirements, and is inadequate.

With regards to the new fire station cost, we have asked the Townships to sponsor a Redevelopment Assistance Capital Program (RACP) Grant, which would pay for half the costs of the building. We would request Township support for 25% of the cost, and we would fundraise the balance.