



## FIRE SERVICES AUDIT FOR WEEKAPAUG, CENTRAL BEACH, SHADY HARBOR, AND SHELTER HARBOR FIRE PROTECTION DISTRICTS

In March 2008 the above stated 4 Rhode Island Fire Districts contacted TriData a subsidiary of System Planning Corporation to evaluate the cost of contracted fire protection in the districts. Currently, the collective annual cost for this service in the 4 districts is approximately \$219,400 annually with about 30 to 35 callouts per year. This cost has risen dramatically in the past several years and call volume has been pretty much static. To illustrate, the Weekapaug Fire District with approximately 40 year around and 200 seasonal residents, fire protection costs have risen from about \$50,000 to \$125,000 during this time frame while call volume has been virtually the same.

The purpose of this study is to assess current protection and establish possible alternative strategies including the positives and negatives of each alternative offered. From these ranked alternatives the fire districts can decide which system will work best for the group or which system will work best for each participating stakeholder.

### History of Fire Protection in the Districts

**Weekapaug Fire District** – The Weekapaug Fire District was incorporated in 1937 as a part of the Town of Westerly. The initial purpose was the provision of fire protection. Over the years, the powers have been expanded to include ownership and management of roads, parking lots, meeting places, docks, beaches and recreational areas. The Fire District has the power to collect taxes, other than Westerly taxes, and to adopt bylaws and ordinances not inconsistent with those of higher government bodies. WFD is governed by an Executive Committee of up to 14 members including a Moderator, Clerk, Treasurer, District Tax Assessor/Collector, and Commissioners of Beach, Public Safety and Public Works. A Long-Range Planning Committee considers possible future directions for the District.

**Quonochontaug (Central Beach) Fire District – Quonochontaug Central Beach Fire District** – Quonochontaug is the oceanfront community located between Quonochontaug Pond to the west and Ninigret Pond to the east. There are three recognized areas within Quonnie: West Beach, Central Beach, and East Beach, each with three different amenities. Quonochontaug Central Beach Fire District (QCBFD) is located in the middle of Quonochontaug. In 1930, an act by the R.I. General Assembly was passed to incorporate the Central Beach Fire District (1930

Charter). Under law, the Central Beach Fire District could collect taxes for purchasing apparatus needed for fire prevention, for supplying the district property owners with water, for maintenance and improvements of district roads, and for the collection of garbage. It is thickly settled with some lovely homes. QCBFD provides a short walk to a private beach, tennis courts and community ballfield. QCBFD also maintains a boating access on Quonnie Pond with moorings out front.

The business of the QCBFD is conducted under the direction a Board of Governors, consisting of ten members and various operating committees. The Board of Governors and the Operating Committees, all of whom are volunteers, are mainly responsible for maintaining Community Assets and providing Services to its residents.

The Board is comprised of a Moderator, Treasurer, Secretary, a minimum of five operating committee commissioners, (three of whom must represent the following committees: Public Works, Real Estate, and Finance) and two ad hoc members.

***Shady Harbor Fire District*** – The Shady Harbor Fire District was settled as a neighborhood community in the post-world War II years and incorporated as a fire district in 1963. This thickly settled community of 93 homes is located between Route 1 and Quonochontaug Pond near the extreme westerly point of Charlestown, close to the Westerly town line. Shady Harbor, located between the Central Beach and Shelter Harbor districts, owns and maintains a public water system, a private road system and seven rights-of-way to Quonochontaug Pond. In addition, the fire district owns several parcels of undeveloped, wooded land located near its well site and pump house. Shady Harbor is governed by an Executive Committee of up to 19 members, including a Moderator, Deputy Moderator, Clerk, Treasurer, and District Tax Collector. The Fire District has the power to collect taxes, other than Charlestown taxes, and to adopt bylaws and ordinances not inconsistent with those of higher government bodies.

***Shelter Harbor Fire District*** – Located between Watch Hill and Narragansett, Shelter Harbor has come a long way from its origin as a 19th-century summer colony for musicians. Today, the peninsula includes homes ranging from cozy to grand along rustic lanes named for composers such as Brahms, Grieg, Wagner and Donizetti. Shelter Harbor is home to both year-round and summer residents who treasure the low-key, peaceful seashore environment the Rhode Island coastline offers. Situated on Quonochontaug Pond and overlooking a pristine, undeveloped barrier beach, Shelter Harborites enjoy docking facilities and lifeguarded swimming at both Pond and Beach. In addition, private courts are available for tennis enthusiasts. Shelter Harbor Fire District was incorporated in 1937. There are approximately 200 houses in Shelter Harbor and one commercial establishment, the Shelter Harbor Inn.

The Shelter Harbor Inn, a full-service country retreat, enhances the community with fine dining and charming accommodations. The Fire District also owns some vacant land. A bit less than half of the home owners in Shelter Harbor are year-round residents. Shelter Harbor is governed by a 6-member Board of Governors and a Moderator, Treasurer, Tax Collector, and Clerk, all of whom are elected by the property owners who also approve the annual budget

## Risks

Risks in the four districts are mostly residential structures about 30 to 35 calls per year are generated in Weekapaug, Central Beach, Shady Harbor, and Shelter Harbor. Most calls for emergency service are fire, medical, and rescue calls which are handled by DCFD operations and outside EMS providers.

The Weekapaug Inn and the Shelter Harbor Inn constitute the main commercial occupancies. Additional risks in the area include weather emergencies, tidal surges, and hazardous materials incidents. Although the likelihood of any of these occurrences is rather remote planning for emergency response must be part of an all hazards approach to public protection.

## Current Fire Protection

Fire protection is currently provided for the four consigned fire districts by Dunn's Corner Fire Department on a contract basis for an annual fee of \$219,400.

Dunn's Corners Fire Department (DCFD) is a volunteer company with the following assets:

- 2 stations – 40 volunteers (33 active) – Paid chief and 6 part-time personnel
- Apparatus – 5 engines and 1 tanker including 2 Class A pumpers, two Brush units, and 1 Urban Interface unit
- 25 FF#1, 17FF#2, 1 FO#1, 6 EMT, 28 HazMat basic
- Training 36 sessions per year attended by 1/3 of personnel average per session
- Average response to calls is 8 personnel

The 2007 annual budget for DCFD was \$562,677.

| Income      |           | Expenses     |           |
|-------------|-----------|--------------|-----------|
| Fire Tax    | \$343,200 | Admin        | \$47,620  |
| Fire Fees   | \$219,400 | Salaries     | \$48,984  |
| Rental      | \$1,000   | Firefighting | \$253,623 |
| Inspections | \$8,000   | Capital      | \$212,450 |

**DCFD Fire Protection Fees** – Fees are charged to outlying fire districts, beach associations, residential cooperatives, or similar organizations, for provision of fire protection services at a minimum, equal to the amount which would be charged using the same assessment criteria used for properties within The District, unless approved by a majority of the eligible voters present at an Annual, Special or Adjourned Meeting.

**Current Level of Fire Protection**

The level of fire service provided to a jurisdiction is determined by comparing the jurisdictional risks and service demands to the fire department resources available to respond. Thus as risks or demands increase resources must also increase to maintain a consistent level of service.

The guidelines the National Fire Protection Association establishes for volunteer departments (NFPA 1720) bases response standards upon population density. NFPA 1720 shows the total response time and the number of personnel that should be assembled for a fire emergency. Table 1 shows these NFPA 1720 response recommendations. Weekapaug, Shady Harbor, Shelter Harbor and Central Beach Fire Districts all fall within the rural category (<500 people per square mile) with a recommended total response time of fourteen minutes and a complement of at least six personnel, at at least 80 percent of the incidents. Although NFPA 1720 does not address it, call processing/dispatch should be completed in one minute at the 90<sup>th</sup> percentile (an NFPA 1710 recommendation). This provides a total response to incident time of 15 minutes for the initial assignment for rural fire districts, on 80 percent of the calls.

**Table 1: NFPA 1720 Recommended Staffing for Initial Response and Response Times**

| Demand Zone | Demographics                     | Staffing | Response Time (minutes) | Percentage of Responses |
|-------------|----------------------------------|----------|-------------------------|-------------------------|
| Urban       | >1,000 people per square mile    | 15       | 9                       | 90                      |
| Suburban    | 500-1,000 people per square mile | 10       | 10                      | 80                      |
| Rural       | < 500 people per square mile     | 6        | 14                      | 80                      |
| Remote      | Travel distance > 8 miles        | 4        | Not Available           | 90                      |

**Dunn’s Corners Fire Response**

Structural fire assignments for Dunn’s Corners and the 4 consigned districts are the same. This response includes units from Dunn’s Corners, Misquamicut, and Watch Hill Fire Departments. The average response includes about 20 firefighters ,4 engines, 1 ladder, and several support vehicles.

## DCFD Current Call Volume and Response Times

Dunn's Corner currently responds to about 300 calls for service annually. Of this total about 30 to 35 calls are from the 4 consigned districts, thus accounting for less than 12% of the annual call volume. The average response time for fire calls is about 4 to 5 minutes

## DCFD Response Compared to NFPA 1720

DCFD does an excellent job of providing fire protection to the residents of Dunn's Corners and the four outlying fire districts. The level of service exceeds NFPA standards in all categories. Although much of this outstanding service is also a credit to the excellent automatic aid system in the area between Dunn's Corners, Misquamicut, and Watch Hill fire departments.

## Fire Protection Options

It appears that demand will be fairly consistent for the foreseeable future in the districts. Since Dunn's Corner Fire Department is delivering a level of service consistently exceeding national benchmarks, service is excellent for risks and demand. Therefore, the real issue is maintaining fire defense resources at this current level to keep the standard of response consistent. There are four scenarios which could be employed to attain this desired outcome, they are:

**1. Stay The Same** – This is the “if it isn't broken don't fix it approach”. This is only acceptable if the current level of service and cost per fire district is agreeable to all parties.

**2. Restructure With Current Provider** – DCFD currently assess its annual cost for fire protection to outside districts the same as the cost to citizens in its own district, at .23 per K on assessed property value (building and land). This system is fair and unfair to customers. It is fair since the rate is consistent to all people served wherever they live. At the same time it is unfair since property values, especially land, are much higher in the four contracted districts as compared to properties in Dunn's Corners. Additionally calls per citizen served are lower in the four contracted districts than in Dunn's Corners since most homes are only occupied part of the year.

It is likely prudent to find a way to assess the cost of fire protection for all occupancies in the four outlying districts based upon the actual risk of fire. The first consideration to establish a consistent fire protection user fee process is to determine a single factor common to all occupancies in the districts. The most logical is structure size since risk and resources needed to combat a fire in a structure increase as size of the structure increases. An accurate benchmark for this measurement is using the square footage of structure to set the cost to the property owner for

fire protection. Thus, the square footage of the structure X the fire impact fee per square foot would = the total annual cost per citizen for fire protection.

This assessment tool is easily initiated since most jurisdictions at the county or local level have the square footage for each structure in the taxation system to use during their tax assessment processes.

Finally, there is a need for better communications between DCFD and the four contracted districts. When fees for service are changed or if level of service changes it would be appropriate for all stakeholders to become part of the process rather than only being advised of changes after the fact. This gives the perception of uncaring to the affected groups.

Open dialog and factual discussion of needs to include all DCFD stakeholders will go along way toward providing the best and most efficient fire services for all DCFD customers.

### ***3. Explore Additional Options For Coverage***

#### **Misquamicut Fire Department**

One station and 30 volunteers, including 20 FF#1, 3 FF#2, 6 Haz-Mat basic, 1 Haz-Mat advanced, 3 Pump Operators, conducts 24 training session per year with over 50% attendance at sessions. Apparatus includes 2 Class A pumpers, 1 support unit, a jet-ski, and an ATV. Department averages about 100 calls per year with an average of 10 personnel responding to the calls. Specialized certifications include EMT and EMS specialties, trench and confined space rescue, and safe boating.

All confirmed structural fire calls use auto and mutual aid from Dunn's Corners and Watch Hill thus providing an average of 20 personnel on first alarm and 4 engines, 1 ladder, and several support apparatus this is well above NFPA benchmarks.

Currently the average response time for MFD is 4 minutes and 20 seconds on structural calls, which exceeds the requirements of NFPA 1720.

Emergency service from MFD would be well above the NFPA benchmarks and similar to DCFD for number of personnel per call and equipment per call. Response times for Weekapaug would be very close to those from DCFD but response times to Shelter Harbor, Shady Harbor, and Central Beach would probably be longer than DCFD response times to the same outlying districts. However these response times for MFD would be within the 15 minute criteria as set out by NFPA 1720 for rural areas.

MFD Annual Budget is \$54,000 for 2007

| Income      |        | Expenses     |        |
|-------------|--------|--------------|--------|
| Fire Tax    | 54,000 | Admin        | 15,628 |
| Fire Fees   | 150    | Salaries     |        |
| Rental      |        | Firefighting | 9,429  |
| Inspections |        | Capital      | 42,000 |

Additionally, the four districts may wish to develop an RFP for fire service and allow bids from several fire departments for a one year or multi year contract to deliver service within prescribed criteria. This proposal process could include Watch Hill, Westerly, and Charlestown in addition to any other jurisdiction who could meet NFPA 1720 response criteria.

**4. Build Your Own Station And Staff With Volunteers** – This option would be to construct a fire station central to the four fire districts and staff it with volunteer personnel. Considerations would be the initial cost of a building and possibly land to start the department. Also a factor would be establishing a pool of volunteers large enough to respond safely (NFPA 1720 guidelines) to fire calls. Also the continuous overhead for operations and capital programs would likely be substantial. Examples are station at \$1M over a 40 year life span would cost \$25K per year plus 2 engines at \$500K each and a 20 year life span would cost \$50K per year. Add to this overhead of utilities, insurances, fuels, expendable supplies, fire gear replacement and the annual budget would likely be \$100K to \$125K for a basic fire department operation.

### SWOT Analysis

A SWOT analysis is a scan of the internal and external environment. Environmental factors internal to the organizations can be classified as strengths (S) or weaknesses (W), and those external to the organizations can be classified as opportunities (O) or threats (T). The SWOT Analysis is useful because it provides information regarding the districts resources and capabilities.

Strengths and weaknesses are internal and typically current, whereas opportunities and threats are external and often future-oriented. Internal issues are where the focus of change should be. External factors cannot be changed, merely anticipated.

It is important to identify the strengths of the situation in order to assure it is capable of providing the services necessary, and making sure the strengths are consistent with the issues facing the organizations. The future performance of the districts largely depends on the identification of weaknesses in the system and how they are confronted. Weaknesses or other areas where the system does not function well or at all, if not addressed, will inhibit future progress and could possibly make or break the future of the program.

The potential for future efficiencies and enhancements of the fire districts is a key point of planning.

## **SWOT Analysis of Fire Districts' Options**

**Strengths** – The current fire protection system for Dunn's Corners is exceeding NFPA benchmarks for level of service delivery. Equipment is up to date and well maintained. Training is delivered routinely and personnel are properly prepared for the situations they encounter. There is a very good automatic mutual aid system with neighboring departments. The current system has a long standing history of quality service delivery.

**Weaknesses** – The mechanism used to calculate the cost of fire protection for the four outlying fire districts does not reflect an accurate picture of the actual risks present in the total Dunn's Corners Fire District. The use of assessed property value (structures and land) as the fee mechanism for fire protection is not a fair benchmark since land values have skyrocketed lately and caused significant increases in annual fees to the four seaside communities even though the actual fire risks are mostly constant in these areas. Further using land as an assessing mechanism at all is questionable since the risk of fire to earth or land is very small as compared to the risk of fire to structures.

**Threats** – The largest threat is the direct threat to DCFD if any or all of the four seaside districts elects to either switch to MFD for fire protection or to create their own fire department and answer calls themselves. Either way DCFD will suffer up to a 40% reduction in annual operational funds. This will be catastrophic to the department which must then either ask the rest of its citizens to shoulder a greatly larger individual cost or reduce operational costs and cut services as well.

**Opportunities** – The opportunities are numerous and varied. There are several opportunities to reduce costs for fire service to the four seaside districts. This includes using a better mechanism of risk assessment and eliminating the land assessment criteria from the DCFD annual fire protection fee process. Additionally, developing a multi year contract with escalation criteria set out for each year.

There is also a clear opportunity for the four seaside districts to shop the marketplace for their fire protection needs. Using NFPA benchmarks to assure quality of service and looking outside the current service provider for a comparable products will almost certainly result in a reduction in annual fire service costs to the citizens.



## Conclusions and Recommendations

Weekapaug, Central Beach, Shady Harbor, and Shelter Harbor are in a very enviable position for fire protection. They are truly at a crossroads of being able to control their own destiny and get the best bang for the buck for fire protection.

It is likely that being able to negotiate a mutually acceptable agreement with DCFD is the best option for all parties. Since the level of service is known and past history is also a known product. That said, there should be several changes in this relationship to prepare for the future. First, the cost for service must be fair and equitable for DCFD and the four seaside districts. Next is the need to develop a written contractual agreement for the service, with service expectations and costs clearly established and set out over a period of at least five years with some type of renewal for an additional period of years. Finally there is a need for a feedback process between DCFD and the four seaside districts to assure that everyone is heard and responsive to the other stakeholders.

If this can be accomplished you will have a win-win scenario and all parties will benefit from the outcomes for many years.

Should the efforts to restructure the DCFD relationship fail there are also opportunities for some different ways to achieve the same outcomes. MFD is able to deliver a level of service consistent with NFPA guidelines and since there is no preexisting fee structures, it would be an ideal opportunity to initiate the per square foot of structure fire protection fee as described previously in this report. Additionally, this would be the ideal opportunity to explore the possibility of hiring fire service from other area fire departments. These could include Westerly, Charlestown, and Watch Hill. These contracts could also be multi year instruments with level of service provisions to assure quality fire protection.

Finally, Weekapaug, Central Beach, Shady Harbor, and Shelter Harbor could elect to start their own fire department. This is likely the least financially advantageous solution since all costs will be borne by the 4 districts and once they are committed to this alternative it would be very difficult to go back. Also the issue of recruiting and retaining volunteer firefighters would be a constant source of frustration.

Whichever option is chosen, one thing is certain: the process will have its share of supporters and non-supporters who will have a great effect on the outcome of the decisions. The leaders must always keep the mission of all fire/rescue services at the sharp point of this endeavor. That mission is simply to save lives and protect property, and to do what is right for Mrs. Smith.