

Strategic Plan

Derby Fire & Rescue Department

Original: August 25, 2005

Revised: April 4, 2011

The Derby Fire and Rescue Department exists to serve the residents and businesses of the City of Derby. Through fire prevention and emergency response services, the department's essential role is to protect the community and promote safety. Failure to provide appropriate, timely and well-organized response to a wide variety of emergencies has life-or-death consequences.

The City of Derby is a growing and vibrant community with all the risks of a large urban center because of our location in relation to the City of Wichita and McConnell Air Force Base.

The Sedgwick County Hazard Analysis Plan recognizes these risks ranging from fires, severe weather, flooding, tornados, hazardous chemicals and terrorist attacks. It is important that as a community we acknowledge the possibility that any kind of emergency event may take place in our community and that we plan and train for such.

Background

The City of Derby has experienced a significant population growth during the last 35 years, from a population of approximately 9,200 to today's estimate of 22,500. This exceeds the percentage of growth for the Wichita Metro area and the State of Kansas.

Since 1952, Derby's fire protection had been provided by the Derby Volunteer Fire Department. In December 2004, the change was made to a combination fire department to accommodate the rapid growth and responsibilities placed upon the City to provide effective fire protection, medical first response capabilities, and fire prevention activities.

Mission

The Derby Fire and Rescue Department's mission is to serve our community by providing life safety, property conservation, public education, and fire prevention and to progressively perform the duties of the fire service with integrity and honor. This mission supports and helps achieve the City of Derby's mission to create vibrant neighborhoods, nurture a strong business community, and preserve beautiful green spaces.

Goals

The goals of the Derby Fire and Rescue Department are as follows:

1. Develop, review and update operating procedures for volunteer, part-time and full-time staff.
2. 100% State Certified Firefighter I and II for paid and volunteer staff.

3. 100% minimum of Haz-Mat operations.
4. 100% paid Firefighter/EMT State certified staff; 50% volunteer Firefighter/EMT staff.
5. All staff trained and certified in the National Incident Management System/ICS.
6. Prepare and respond to changing community needs with the growth of the City.
7. Exercise leadership in fire prevention and emergency response services in Sedgwick County and the State of Kansas.
8. Reduce life safety risks and property loss in our community by the use of an aggressive fire inspection and code enforcement plan.
9. Reduce fire-related calls per 1000 population.
10. Maintain an ISO classification of 3 or lower.
11. Emergency fire and medical response to all areas in our City in 4 minutes or less 90% of the time.
12. Maximize tax dollars by using alternative funding resources for personnel, equipment and training, including grants, cost sharing and donations.

Objectives

To accomplish these goals, the department needs to meet the following objectives:

1. Provide adequate full-time firefighters to staff equipment to recognized National Standards (ISO, NFPA and OSHA).
2. Increase full-time personnel, as funding allows, to properly and safely staff all emergency responses.
3. Develop department guidelines for training that will facilitate the certification level required for both paid and volunteer staff.
4. Accept only volunteer and paid members who are willing to train and work towards the minimum standards.
5. Review response times in all parts of the City and determine needs necessary to provide a 4 minute emergency response time.
6. Review and make recommendations for future land acquisition, especially to provide protection to the increased growth in the northwest and southeast sections of the City.
7. Review organizational structure of department and update to reflect the complexity of administrative roles.

Full-time/Volunteer Cooperation

The Derby Volunteer Fire Department has a long and proud history. Volunteers have saved the City of Derby millions of dollars because of their services. The volunteer staff, while proud of their history, embraced the transition to a combination department for several reasons:

- Volunteers, like the rest of us, have very busy schedules, both in their business and personal lives.
- Derby has been fortunate that the bulk of its volunteers have worked in and around the City of Derby. This made many of them available for calls 24 hours a day. That situation has changed, where many more of our volunteers work outside the City and are not available during their working hours.

- Several volunteers have been employed by the City of Derby in other departments. The City allowed those personnel to respond from their jobs to answer emergency calls. This has been a great system but at times short changed their departments because of the loss of manpower during this time.
- Full-time personnel carry much of the responsibility for training as well as taking care of planning, record keeping and administrative duties.
- Volunteer staff augments manpower for large-scale incidents.
- Qualified volunteer staff is used as much as they are available to fill gaps left by full-time staff for vacations, sick leave and training.

Response Capability

Part of a measurement of how well a fire department is doing is its response capability. This capability is measured in the following areas:

1. Personnel response times.
2. Truck and equipment arrival; how much how soon.
3. Required number of personnel at an emergency scene. NFPA requires a minimum equivalent to 15 full-time firefighters at any structure fire. ISO recognizes that 3 volunteers are equivalent to one full-time firefighter.
4. How often personnel are not available to respond because qualified personnel are committed to other calls.

In 2004, the average response time for the 189 calls made for the year was 4:49 minutes. This was a very impressive number which would meet the national standard. However, what is not indicated in this number is that this is personnel responding either from their homes or off their jobs with no equipment except their personal protective clothing. The apparatus usually arrived a few minutes after the first fire personnel were on scene. Apparatus arrival times are harder to track because there were no criteria for them in the dispatching system.

With the inclusion of full-time personnel located at Station #2, in 2005 the average response time for 744 calls dropped to 3:18 minutes with firefighters and equipment arriving at the same time.

The City is divided into 7 response zones. These zones are determined by landmarks such as Rock Road or Dry Creek. Using these zones, the department not only monitors high call volume areas but also areas where response times are unusually high. This will help in future location of equipment and fire stations.

In 2008, the City of Derby received a federal grant to help pay for four additional full-time firefighters increasing the full-time staff to 14. This allowed the City to staff Station #1 with two full-time personnel per shift as well as two full-time personnel at Station #2 and drastically reduce response times to the areas west of Dry Creek.

With a minimal full-time staff available at Station #1 and #2, the department's response times have lowered. Better yet, at least two fully equipped apparatus also arrive with minimal personnel, placing equipment on scene as volunteer and off duty personnel arrive.

The Derby Fire and Rescue Department’s strategic plan includes the goal of a four-minute response 90% of the time to all residents. Since providing minimal full-time staffing at the two main Derby stations, the Department has been able to accomplish this goal 83% of the time. A four-minute response time is especially important in the area of Medical First Response.

Concerns early on were whether volunteers would continue to be involved in the fire department. The standard from NFPA 1710 says that 15 personnel should be on scene to successfully and safely fight a structure fire. That standard also says that a crew of 4 should be on scene within 6 minutes from initiation of the call and that any further help should be there within 8 minutes. While the department has its volunteers who turn out for emergencies, those numbers do not happen immediately. Sometimes volunteers do not arrive on scene for 15 minutes or longer. Occupational Safety and Health Administration standards require that for two firefighters entering an area that poses a threat to life and health, a minimum of two firefighters are to be waiting outside the danger area fully equipped and ready to provide rescue for the entry team if they were to encounter any problems. Volunteer staffing cannot reliably be counted upon for immediate staffing or response.

Automatic & Mutual Aid

In today’s tight economy it is very important to foster working relationships with surrounding departments and communities. In 2010, the department continued to build on our good relationships with Wichita Fire, Sedgwick County Fire Dist. #1, Mulvane Volunteer Fire Dept., McConnell Fire Dept. and Rose Hill (Butler County Fire Dist. #3). The department did this by hosting several training events here in Derby with several of the mentioned departments attending and involved. We also attended training events hosted by the other departments.

The value of this cooperation has proven itself by providing needed resources during several emergencies. Departments responded together, operated under one command system and worked together to the benefit of the property owners in our communities. In 2010, the Derby Fire Department provided automatic and mutual aid responses to surrounding departments 33 times and received aid 19 times in Derby.

Auto/Mutual Aid by Departments

Department	2010	2010	2009	2009	2008	2008
	Received	Given	Received	Given	Received	Given
McConnell	0	0	0	0	0	0
Mulvane	10	7	0	4	1	0
Rose Hill	0	0	0	0	0	0
SCFD #1	19	25	11	17	0	1
Wichita	0	1	1	0	0	0

ISO Ratings

The Insurance Services Office (ISO) sets the classifications for fire insurance ratings in the State of Kansas. ISO evaluates the ability of a community's fire department to safely battle and extinguish fires. They look at the community water supply, fire equipment, dispatching and call taking, training and the amount of personnel responding.

In 1997, ISO looked at the City of Derby, did a classification study and awarded Derby with a rating of 4 on a scale of 1 to 10, with 10 being no fire protection. A 4 or 5 rating is considered doing pretty well. Since 1997, the City has made many major improvements including construction of Fire Station #2, improved water system, new equipment and full-time staff.

In 2007, with full-time personnel, the rating improved to a Class 3 which is most advantageous to commercial and industrial growth as this rating affects the insurance rates companies and businesses pay for property insurance.

Increased Services

Even in challenging economic times, our City continues to grow commercially, resulting in an increased responsibility of the Department to make sure all new facilities meet our adopted fire codes. In 2009, we had 450 businesses, 45 daycares and 30 educational facilities that were to be inspected for the year. (Educational facilities were turned over to Derby Fire Department by the State Fire Marshal's Office in 2007.)

With the increased commercial growth on the K-15, Rock Road and Patriot Avenue corridors, as well as the expected future commercial or industrial growth at the Derby Corporate Park, the Department needs to maintain the ability to respond quickly with increased amounts of capable equipment including not only our pumpers, but our aerial apparatus.

The opening of a new hotel facility on Rock Road and new senior living and medical facilities on East Madison Avenue in 2009, along with proposed new senior living facilities on Patriot, East Madison, and East Meadowlark opening in 2012, the Department will face the responsibility of responding with sufficient equipment and personnel in a timely manner.

The department's call load once again saw an increase in 2010. Also, as the City annexes more area, the response area for which we are responsible increases the chance of current equipment and personnel not being available for calls for service.

	2010	2009	2008	2007
Building Fires, including cooking/chimneys	31	19	27	25
Vehicle Fires, including freight/transport	3	11	7	10
Medical Response	1181	1071	945	1034
Motor vehicle accidents	81	104	66	61
Total Calls*	1862	1767	1520	1561

* Total calls include responding to hazardous substances, lost persons, electrical issues, gas odors, public safety instruction, including CPR, fire extinguisher training, etc.

The department's responsibilities include but are not limited to the following:

- Fire Inspections: 644+ annual fire inspections (2010)
- New Business code compliance and inspections for occupancy
- Rescue services: water, confined space, & vehicle
- Haz-Mat Response (hazardous materials)
- Fire Prevention/Education: schools, seniors, businesses, & CPR classes
- Fire Investigations
- Emergency Preparedness

Apparatus Inventory

Replacement Year	Model/Type	Years of Service*	Cost
2011	1956 Ford/Rescue #1	55	\$125,000
2013	1981 International/Engine #3	31	\$575,000
2014	2005 Fire Chief Vehicle	10	\$40,000
2015	2006 Ford/Squad #2	10	\$80,000 Chass/refurb
2017	2008 Deputy Chief Vehicle	10	\$42,500
2017	Engine #4	New	\$650,000
2018	Fire Squad #3	New	\$175,000
2019	2009 Ford/Squad #1	10	\$85,000 Chass/refurb
2019	Pierce/Quint #1	23	\$1,005,000
2020	Pierce/Engine #2	19	\$723,000
2024	2015 Ford/Squad #2	10	\$217,000
2026	Pierce/Engine #1	19	\$835,000

*Years of service based upon the purchase date and not model year.

Current Staffing

Staffing provided by the City for the Fire Department now includes two full-time firefighters per shift at both Stations #1 and #2. Because of medical calls and safety, minimum staffing requires at least two firefighters 24/7 at Station #1 and Station #2.

Call-back staffing of part-time personnel, full-time off-duty personnel, or volunteer EMT firefighters provides for maintaining minimum staffing levels as required. Each shift consists of a lieutenant, a firefighter II and two firefighters. In 2010, 8 part-time firefighter positions were created to help minimize overtime costs due to backfill of the full-time staff to continue a minimum of two firefighters at each station.

The Chief has an office at Station #2, and the Deputy Chief has an office at Station #1. Both Chiefs are exempt employees who work a 40-hour shift but are available for call 24/7.

Recognized staffing levels normally are 3 personnel for each engine and 2 personnel for each squad truck. This would require at least 5 personnel in each station. Most, if not all cities the size of Derby or smaller, have a larger full-time staff. In 2004, the City of Derby initiated a survey to determine the various full-time staffs of other cities. The chart below is a result of that survey.

City	Population	Career or Volunteer	# of Career	# of Volunteer
Gardner	9,411	Combination	23	19
Chanute	9,727	Career	15	0
Independence	9,846	Career	16	0
Atkinson	10,232	Career	20	0
Merriam	11,008	Career	22	13
Coffeyville	11,021	Career	21	0
Parsons	11,514	Career	19	0
Ottawa	11,921	Career	20	8
El Dorado	12,057	Combination	16	20
Winfield	12,206	Combination	20	8
Great Bend	15,345	Combination	24	10
Pittsburg	19,243	Career	34	0
Liberal	19,666	Combination	15	20
Hays	20,013	Combination	23	8
Dodge City	25,176	Career	25	0
Garden City	28,451	Combination	27	12

In 2011, one new firefighter position was added to our full-time staffing which gave a staffing level of 5 personnel on one shift. Part-time personnel are used to assist with day-time staffing on the two other shifts, as well as filling in for vacancies. In 2010, the department applied for a federal SAFER grant to provide for two more full-time firefighters.

Supervisors have:

- Fire science certificate or associate degree
- Firefighter I & II certifications
- Haz-Mat Operations certification
- Emergency Medical Technician certification
- Fire Instructor I certification
- Fire Officer I certification
- Driver/Operator certification

Firefighter IIs are required to have:

- Firefighter I & II certifications
- Haz-Mat Operations certification
- Emergency Medical Technician certification
- Fire Instructor I certification within one (1) year of promotion date

Paid Firefighters are required to have:

- Firefighter I & II certifications
- Haz-Mat Operations certification
- Emergency Medical Technician certification

Volunteer Firefighters are required to have:

- Firefighter I certification
- Haz-Mat Ops certification

A volunteer firefighter may fill in for a full-time firefighter if EMT certified.

Long term, the City will have to provide for more full-time firefighters to meet the demands of a growing and aging population. Seventy-five percent of calls answered in Derby are for medical emergencies. As the Derby population ages, this number will increase, which increases the chances of full-time personnel being already committed on other calls. As large retail stores continue to open, we will see increased needs for personnel to respond to emergencies at these businesses.

The NFPA (National Fire Protection Association) requires that before any fire attack can be initiated, at least 4 firefighters are on the scene. NFPA 1710 sets the requirements for personnel to fight a regular house fire at a minimum of 15 personnel on scene within the first 8 minutes.

OSHA requires that before a firefighter may enter a burning structure, the department must have a dedicated rapid response team standing by on the outside to initiate an immediate rescue attempt, if needed. This team has to remain committed to this responsibility and cannot perform other fire ground tasks such as incident commander, pump operator or water supply.

ISO looks at the number of personnel responding to fires and emergencies and evaluates how many personnel we are able to normally put on scene. It takes 3 volunteers to meet the same requirement of one full-time firefighter on scene.

2010 Accomplishments

- Call volume increased 5.4%.
- Filled 4 more part-time positions to cover vacations, sick leave and training absences of full-time staff.
- Accepted 10 new volunteer firefighter applications in 2010. These volunteers began training in January 2011.
- Began creation of a City Continuity of Operations Plan.
- Hosted a two-day disaster management class for directors and assistants.
- Hosted in-house KU classes for Driver/Operator, Firefighter I and II certification testing, Trench Rescue and Fire Inspector I.
- Worked with Derby Police Department and Derby Public Works in developing a plan for required radio communications changes that will take effect in 2013.
- Began planning for the dispatching transition for January 01, 2012.
- Working on transition of the City's outdoor warning sirens to the County.
- Focus continued on fire prevention, education and fire safety for the City. This means an aggressive fire inspection/code enforcement program for all existing and new businesses, daycares and schools.

Facilities Overview

Current Fire Department facilities include Station #1, Station #2, and Station #3 (Water Metering Station).

Station #1 at 128 W. Market is 6,000 square feet constructed in 1988 for volunteer use. In 2006, the building was remodeled to make room for 24/7 staff. Because of limited space, the training room was used to create a bunk room and a locker room. The Deputy Chief shares the one office with the on-duty firefighters for their report making and filing.

Station #2 at 1401 N. Rock Road is 12,000 square feet constructed in 2002 and designed for use by volunteers, 24/7 firefighters, Sedgwick County EMS Post 11, and the Fire Chief's office. Also at Station #2 in the basement is Derby's Emergency Operations Center, a backup dispatch room, and a combination training/safe room large enough for 50 people. This room and some storage space are shared with EMS.

Station #3 at 401 W. Patriot Avenue is actually the Water Metering Station, which serves as the connection point for City of Wichita water coming into Derby. The building houses the Fire Department's oldest engine, and volunteers who live in the northwest part of the City respond to this station and operate Engine #3.

In 2013, Engine #3 (1981) will have been in service for 32 years and is slated to be replaced by a newer apparatus. Any new apparatus will be too large to fit in this building, which means that one of several things could happen: (1) an older, out-of-date piece of equipment would have to stay in service, (2) a new Station #3 would be built, or (3) a new apparatus would be placed back at Station #1. Option #2 would be the preferred outcome. However, a move from volunteer staffing of Station #3 to full time would eventually need to be considered. Space for Sedgwick County EMS may also need to be considered as there has been interest in moving an ambulance closer to the K-15 corridor.

The City of Derby currently has two written agreements with Sedgwick County EMS that need to be considered. First is a 1991 agreement that was initially entered to provide EMS support to the Derby Volunteer EMS. That agreement was updated in December 2004 and required the provision of dedicated first responders.

The second agreement was entered in August of 2002 to provide facilities for a Sedgwick County EMS unit to be staffed and stationed in Derby. This facility is provided at Station #2. This agreement was for 10 years and required a \$300,000 payment to Derby for provision and use of this facility.

The Derby Fire Chief and the Sedgwick County EMS Director are currently in talks about future fire department and EMS needs and updating these two agreements to combine into one.

Future Fire Stations

The location of future fire stations definitely depends upon the future growth of the City. While it is important to plan for future stations, it is more imperative to provide for personnel who can adequately staff the existing stations on the east and west sides of Derby.

While Stations #1 and #2 currently provide adequate coverage for most of the City in a 1.5 mile radius, generally considered a three-minute response area, areas to the northwest and southeast in the City's growth area are outside of that recognized 1.5 mile response area.

In 2007, the ISO evaluated Derby's fire protection services. While the City as a whole was recognized for its improved fire protection services, the northwest area also was a concern because of the recent and future growth of commercial properties. This concern was what prompted the movement of Engine #3 into the Water Metering Station in 2008 to create the temporary Station #3.

Another issue at stake is when the Water Division needs its space back in its Metering Station. In 2010, PEC performed an analysis for the City about water usage and pressure, in addition to projections about the next 10 years to determine when the City will need to add water storage capacity and whether the underground space reserved at this site will be the appropriate location.

The study concluded that the City should install pumps in 2012 in the space inside the building (where Engine #3 is currently parked) to provide needed pressure in our north water tower. This means that Fire Station #3 will cease to exist at the Water Metering Station by the fall of 2012.

The City Manager is exploring land options for a new Fire Station #3 in the vicinity of the current station. Based on recent construction of several Sedgwick County fire stations of similar size and scope, building a new station is expected to cost at least \$1.4 million, plus the operational and staffing costs.

Future stations would incorporate at least two drive-through bays allowing room for at least an Engine and a squad along with office space and living quarters. Staffing of the station would be determined by type of growth, call load in the area and response times from Stations #1 and #2.

As Fire Chief, one of my many goals is to give my customers, the citizens of Derby, as much bang for the buck as possible while providing needed services. We are a growing community, with a lot of responsibilities to fulfill. Those responsibilities require changes in our lives and sometimes how we operate. It is important to reevaluate occasionally to make sure we are on the right path.

10-Year Time Line

A 10-year time line for continued development of the department is formulated below. With the increased construction along the K-15, Patriot and Rock Road corridors to include hotels, senior living and skilled nursing facilities and large retail stores, the department needs to have enough full-time staff to respond with the necessary equipment. Even with volunteer assistance, eventually there will need to be at least three firefighters staffing Station #1, five firefighters staffing Station #2 and three firefighters staffing Station #3.

- 2011 Hired one full-time firefighter to begin the process of staffing Station #2 with three full-time firefighters per shift. Continue to seek federal grant assistance in filling full-time staff positions. Increased the part-time budget to keep callback overtime for full-time firefighters to a minimum. Locate a site to construct Station #3 in the northwest part of the city, including contract negotiations with Sedgwick County regarding continued housing of EMS in Station 2 or other alternatives (contract with County expires in 2012).
- 2012 Hire two full-time firefighters to complete process of staffing of Station #2 with three full-time firefighters per shift (hopefully with 2010 SAFER grant). Design Station 3. Seek federal grant assistance for 6 full-time firefighters to be able to staff Station #1 with three personnel per shift instead of the current two firefighters per shift, and staff station #2 with four firefighters per shift.
- 2013 If not successful in 2012, apply for federal grant for 6 full-time firefighter positions to begin the process of staffing Station #1 with 3 full-time firefighters per shift and staffing Station #2 with 4 full-time firefighters per shift. Create 3 Shift Captain positions and promote.
- 2014 Hire 3 full-time firefighters to increase Station #1 staffing to 3 full-time firefighters per shift. Construct Station #3. Continue to seek federal grant assistance in filling 3 full-time staff positions.
- 2015 Hire one full-time firefighter. Apply for federal grant for 8 firefighter positions to begin process of permanent staffing of Station #3 with two full-time personnel per shift and raise staffing at Station #2 to four full-

time personnel per shift. Review growth pattern and search for property for possible future construction of Station #4 in the southeast part of the city.

- 2016 If not successful with 2015 grant, hire 2 full-time firefighters to raise staffing at Station #2 to 4 firefighters per shift. If 2015 federal grant was not successful, re-apply for federal grant for firefighter positions to staff Station #3 around the clock. Design Station # 4.
- 2017 If 2015 & 2016 federal grants were not successful, hire 6 full-time firefighters to staff Station #3 with 2 full-time firefighters per shift. Apply for federal grant for 6 full-time personnel to staff Station #3 with three firefighters per shift and Station #2 with five firefighters per shift. Upgrade to 3 Firefighter II positions for Station #3 staffing.
- 2018 Apply for federal grant for 9 firefighter positions to staff Station #3 with three full-time firefighters per shift and staff Station #4 with two firefighters per shift. Review growth pattern, call volume and staffing levels. Construct Station #4.
- 2019 If not successful with 2018 grant, hire one full-time firefighter to begin the process of staffing Station #3 with 3 personnel per shift and seek federal grant assistance for 8 full-time staff positions.
- 2020 Hire 2 full-time firefighters to staff Station #3 with 3 full-time firefighters per shift if not successful with federal grant assistance in 2019 and reapply for grant assistance for 9 full-time firefighter positions to staff Station #4.

Certainly, there are factors that could change how this 10-year plan comes together and how quickly some of these goals are accomplished, including future growth of the City, grants for personnel, call volume, code responsibilities and training needs. As always, the department remains committed to providing the best service possible to the Derby community.