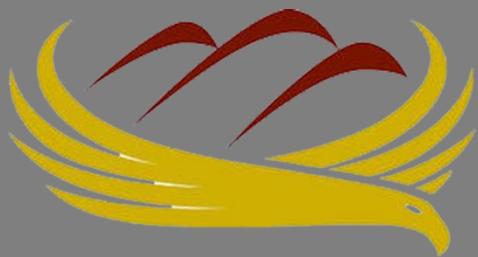# Eagle Mountain City

Community Risk Assessment

Photo Courtesy of: Eagle Mountain City

EAGLE
MOUNTAIN

Eagle Mountain Planning Zone

UFA has two stations within the City of Eagle Mountain Planning Zone covering a total of 50.43 square miles with a population of 43,623 and responded to 1,455 calls for service in 2020.

Planning Zone	Population	Population Percentage of UFA	Square Miles	Population Density per Sq Mile	Classification
Eagle Mountain	43,623	9.67%	50.43	865	Urban

Eagle Mountain has increased its population from 21,931 in 2010 to 43,623 in 2020, showing an increase of 49.73% over a ten-year timeframe. Providing an exponential growth pattern and if all things remain equal, the following chart demonstrates that Eagle Mountain City could increase its population to 85,581 by the year 2040.
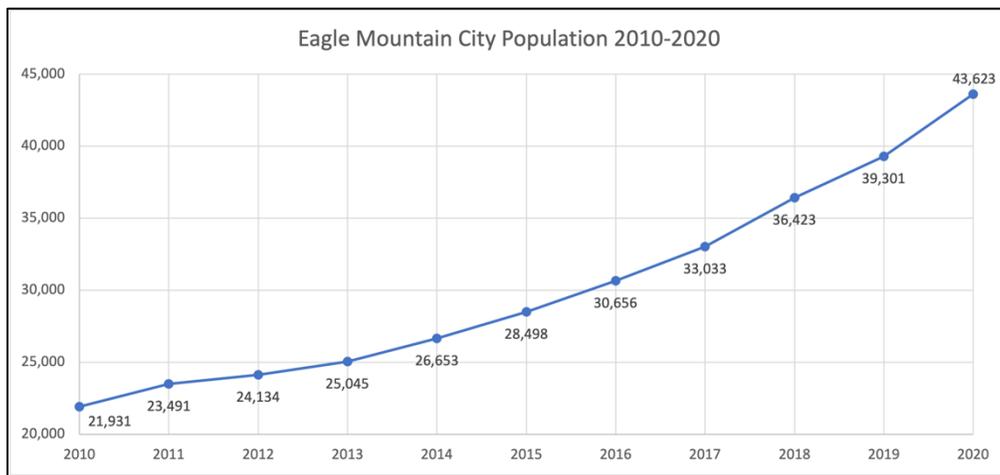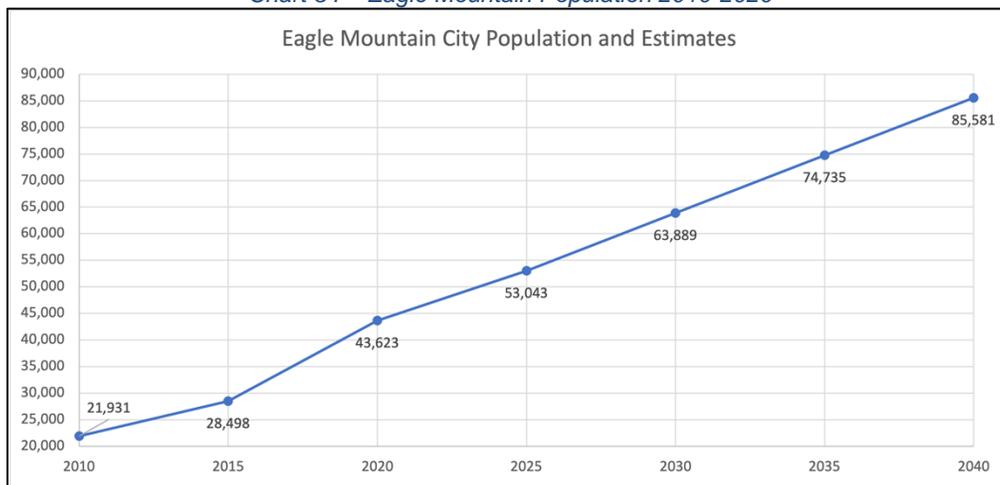

Chart 34 – Eagle Mountain Population 2010-2020

Chart 35 – Eagle Mountain Population and Estimates 2010-2040

Eagle Mountain Station Information

<table>
<tr>
<td>

Station 251 information:

- Owner – UFSA
- Opened – 1997/2016
- Address – 1680 E. Heritage Drive
- Staffing and Apparatus –
  - Type 1/3, ME 251 (3 persons)
  - MA 251 (cross-staffed)

</td>
<td>

Image 9 – Eagle Mountain Station 251

</td>
</tr>
<tr>
<td>

Station 252 information:

- Owner – UFSA
- Opened – 2002
- Address – 3785 E. Pony Express Parkway
- Staffing and Apparatus –
  - Type 1, ML 252 (4 persons)
  - MA 252 (2 persons)
  - Type 6, Brush Truck (cross-staffed)

</td>
<td>

Image 10 – Eagle Mountain Station 252

</td>
</tr>
</table>

Surrounding UFA and Automatic/Mutual Aid Response Stations

Surrounding fire stations and fire departments that are within an eight-minute response to Eagle Mountain are:

- Saratoga Springs Station 261, with a two-person ladder and a two-person medic ambulance

- Saratoga Springs Station 262, with a two-person engine and a two-person medic ambulance

Eagle Mountain – Incidents by Dispatch Type

The following data is what the NFIRS type was when crews arrived on scene. This may be different than what was originally dispatched, including a reclassification of a call type from one to another. Cancelled calls occur if the company is cancelled en route to a call and never arrives on scene, which then changes the dispatch type to an NFIRS 611 call type.

	CY 2020	CY 2019	CY 2018
Fire Suppression	51	35	54
EMS	833	720	569
Hazardous Materials	37	46	36
Service Calls	22	29	18
Good Intent	253	223	216
False Calls	81	116	110
Other (Misc., Flood, Overpressure)	2	5	2
Total	1,279	1,174	1,005

Cancelled	176	185	188
Overall Total	1,455	1,359	1,193

Table 78 – Eagle Mountain Call Types

Eagle Mountain – 2020 Incidents and Heat Map
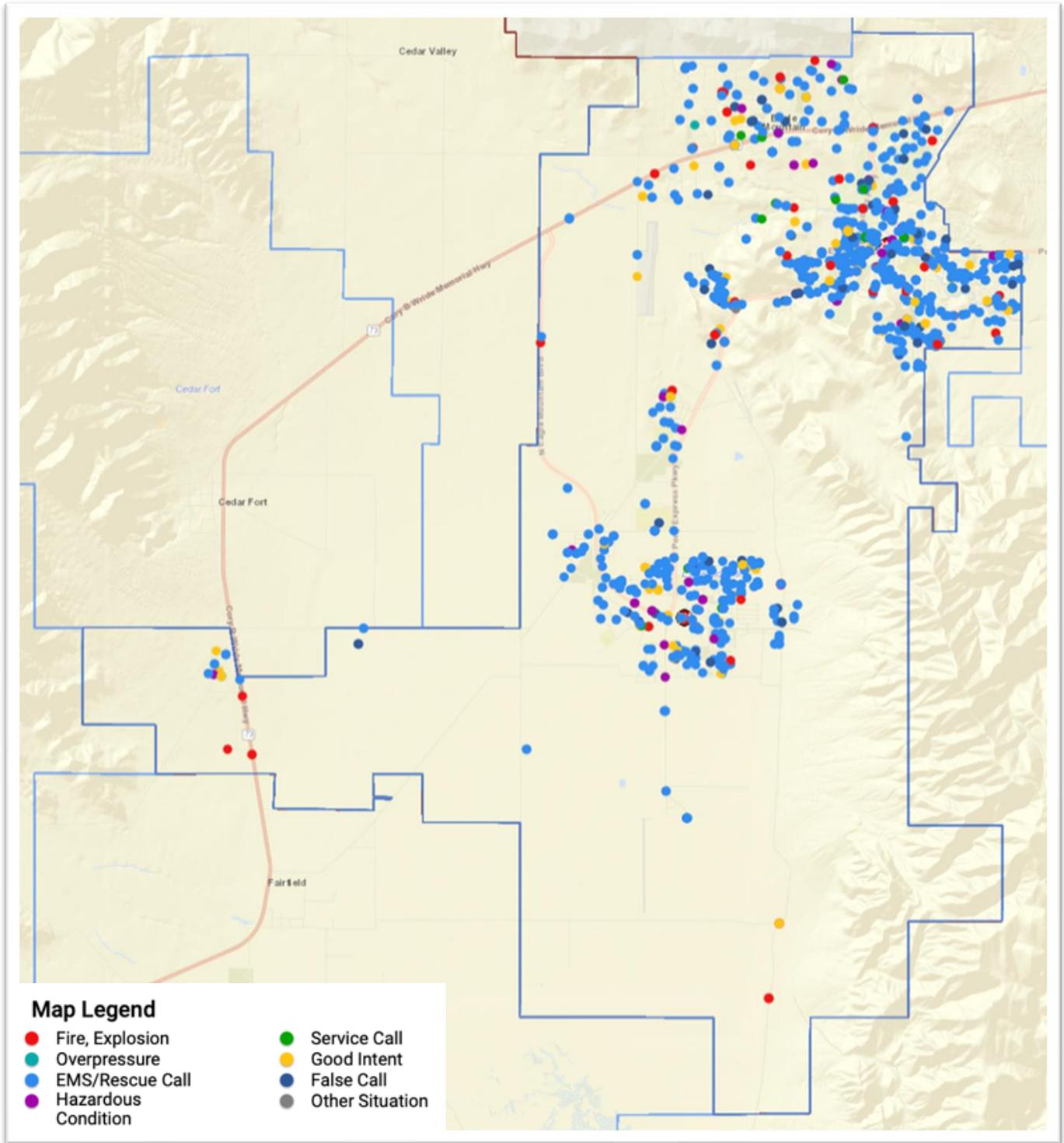
Map 114 – Eagle Mountain Incident Calls by Type
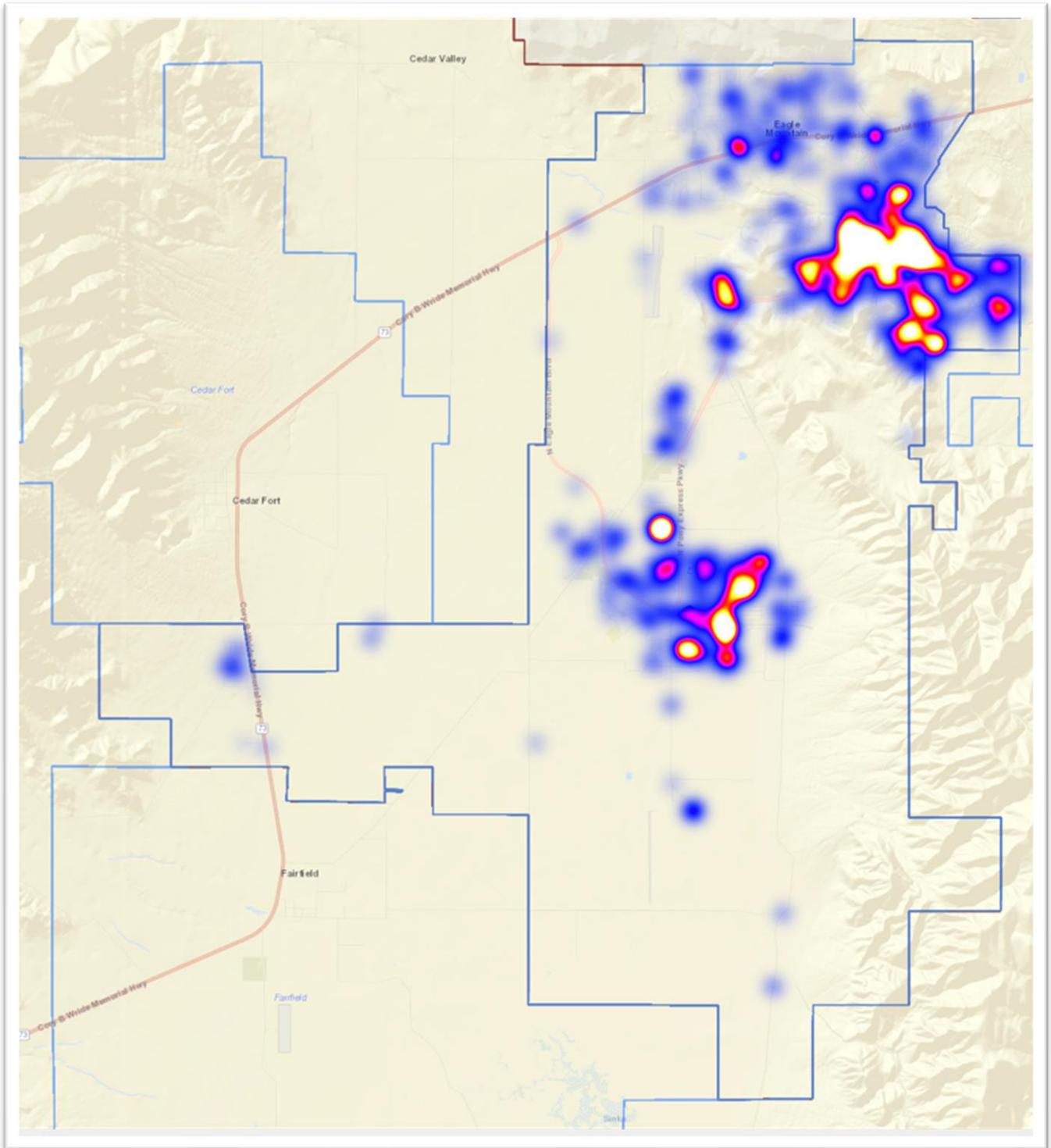
Map 115 – Eagle Mountain Incident Heat Map

NFPA 1710

The National Fire Protection Association is an international nonprofit organization that is devoted to eliminating death, injury, property, and economic loss due to fire, electrical and related hazards. The NFPA makes recommendations on over 300 codes and standards. NFPA 1710 recommendations are based off 90th percentile times.

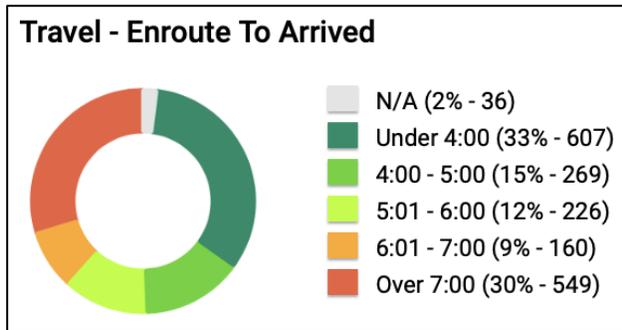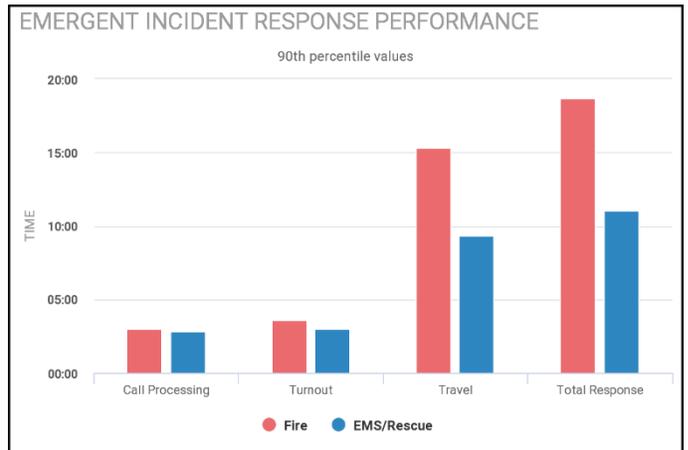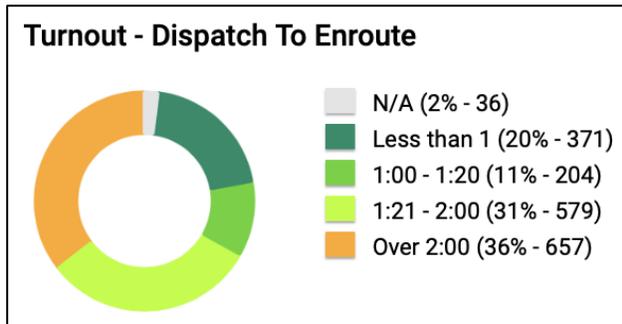| 💡 – In Other Words… |
| --- |
| If a value is in the 90th percentile, it means the value is better than 90% of all other values in the dataset. In other words, it is within the top 10% of the values. |

NFPA 1710 encompasses suggested standards for full-time fire departments and recommends the following times (all of which are at the 90th percentile): alarm processing – 64 seconds; turnout time for EMS responses – 60 seconds; turnout time for fire responses – 80 seconds; first arriver apparatus – 240 seconds (4 minutes); initial full-alarm assignment for low and medium hazard responses – 480 seconds (8 minutes); or initial full-alarm assignment for high hazard/high-rise responses – 610 seconds (10 minutes 10 seconds). The total response times are the cumulative totals of call processing time, turnout time, and travel time. NFPA 1710 recommends a total response time of 6:24 for the first arriving apparatus for fire and 6:00 for the first arriving apparatus for EMS.

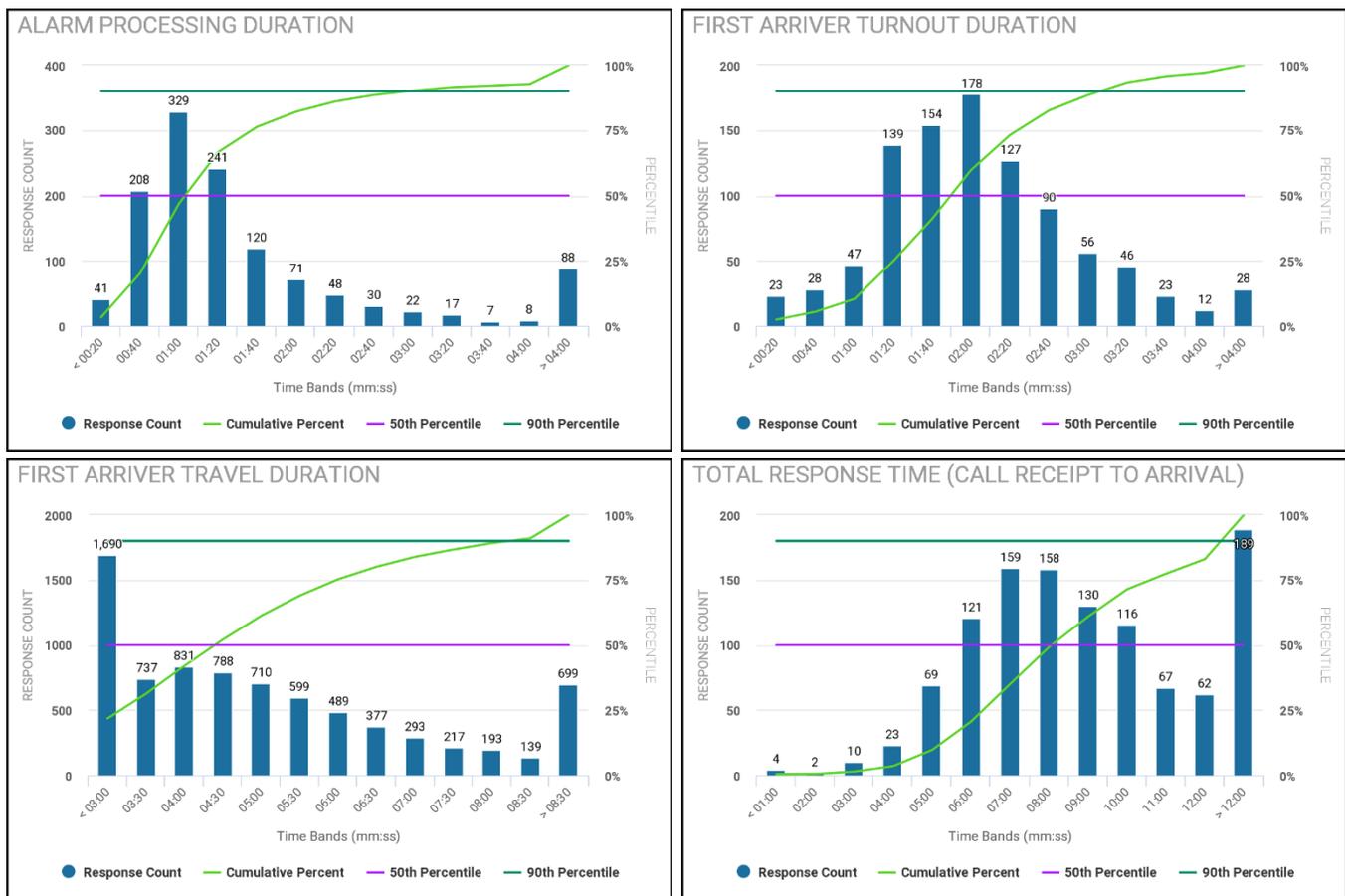| 🔑 – Of Note… |
| --- |
| NFPA 1710 response times have not been adopted by the UFA Board. One of the important elements of the community risk assessment and standards of cover is to identify current 90th percentile times (current baselines) within UFA and to identify realistic benchmarks for the UFA Board to consider for adoption. |

Eagle Mountain – 2020 Dispatch and Response Times

Turnout - Dispatch To Enroute

- N/A (2% - 36)
- Less than 1 (20% - 371)
- 1:00 - 1:20 (11% - 204)
- 1:21 - 2:00 (31% - 579)
- Over 2:00 (36% - 657)

Travel - Enroute To Arrived

- N/A (2% - 36)
- Under 4:00 (33% - 607)
- 4:00 - 5:00 (15% - 269)
- 5:01 - 6:00 (12% - 226)
- 6:01 - 7:00 (9% - 160)
- Over 7:00 (30% - 549)

EMERGENT INCIDENT RESPONSE PERFORMANCE

90th percentile values

Urban	Call Processing: Fire	Turnout Time: Fire	Travel Time: Fire	Total Response: Fire	Call Processing: EMS	Turnout Time: EMS	Travel Time: EMS	Total Response: EMS
Eagle Mountain	2:28	3:17	12:13	16:48	1:34	3:03	9:07	11:42
UFA Urban 2018-2020	2:16	2:39	7:36	10:34	1:47	2:32	6:29	9:18
UFA Rural 2018-2020	2:32	3:05	15:08	19:09	1:56	2:50	14:45	17:45
NFPA 1710	1:04	1:20	4:00	6:24	1:00	1:00	4:00	6:00

Table 79 – Eagle Mountain 2020 Emergent Response Times, 90th percentile values

Eagle Mountain – 2020 Turnout and Travel Time

ALARM PROCESSING DURATION

FIRST ARRIVER TURNOUT DURATION

FIRST ARRIVER TRAVEL DURATION

TOTAL RESPONSE TIME (CALL RECEIPT TO ARRIVAL)

The charts above illustrate the alarm processing, turnout and travel times for all units responding to service calls within Eagle Mountain (90th percentile). The alarm processing for fire was 2:28 and 1:34 for EMS; turnout time was 3:17 for fire responses and 3:03 for EMS responses; travel time was 12:13 for fire responses and 9:07 for EMS. The 90th percentile total response time was 16:48 for fire and 11:42 for EMS. For the charts above, they show both fire and EMS response times together.

🔔 – Of Note…

One item to note is that if you were to add the processing time, the turnout time, and the travel time, it will not necessarily (and often doesn't), sum the total response time. This is due to some of the limitations within the datasets and gaps within timestamps. Where there are missing timestamps, those particular key performance indicators (KPI) are excluded as they cannot accurately be calculated out.

9

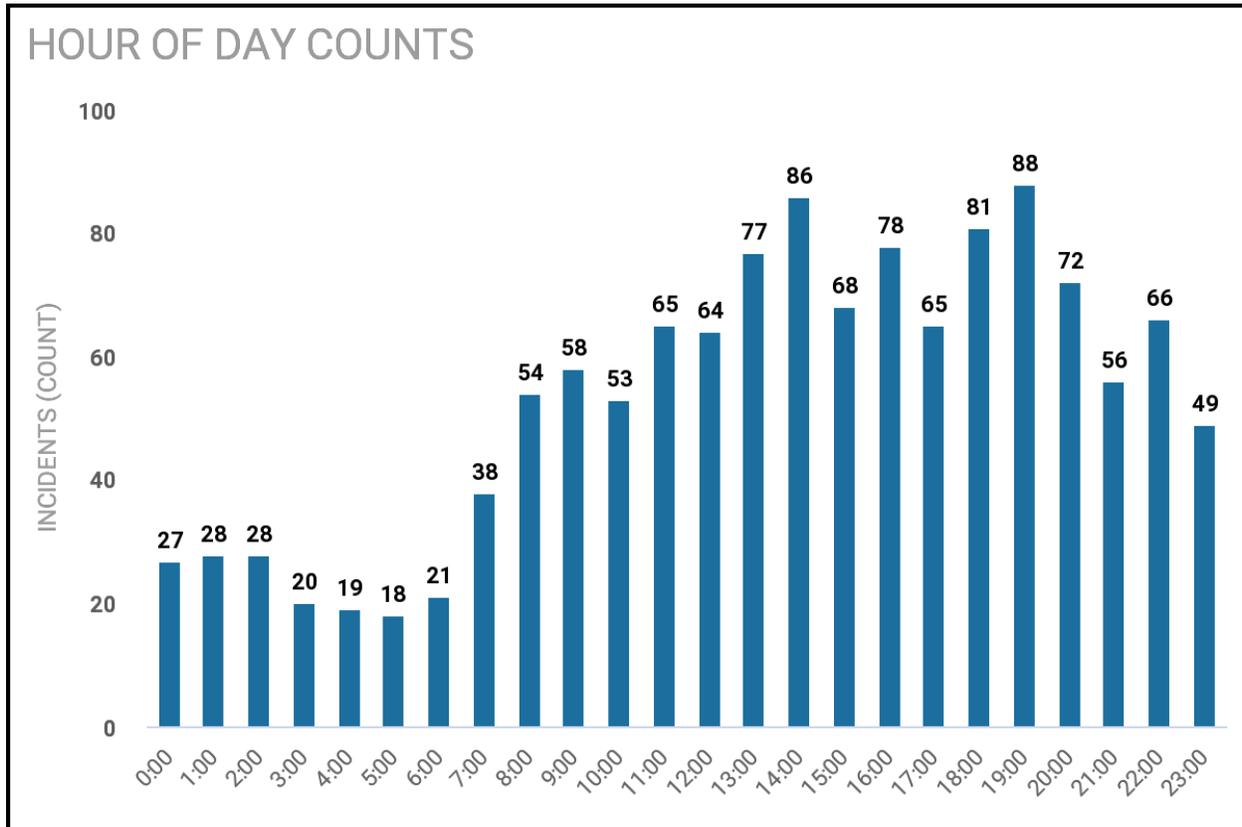Eagle Mountain – 2020 Incidents by Time of Day

HOUR OF DAY COUNTS

Chart 36 – Eagle Mountain 2020 Incidents by Time of Day

The above table demonstrates the incidents by time of day and the time of greatest demand within Eagle Mountain for all service calls. This chart illustrates that the greatest demand for service delivery begins to increase at 7:00 AM and starts to decrease at 7:00 PM.

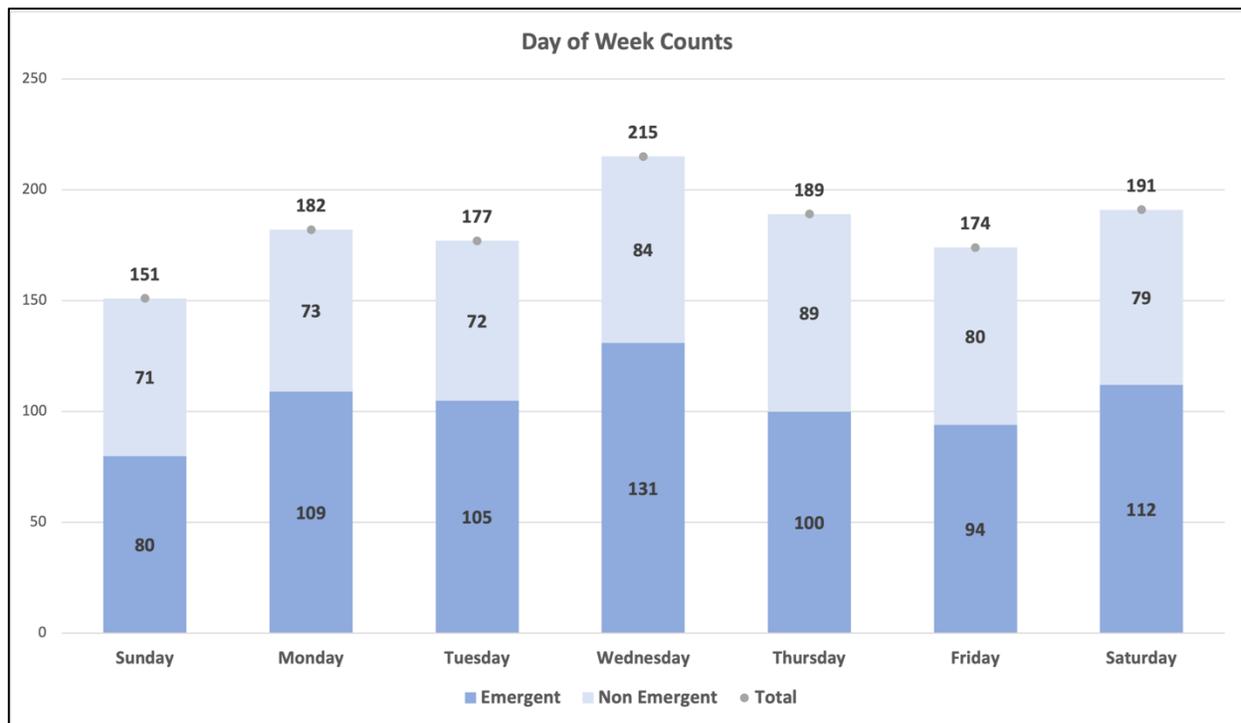## Eagle Mountain – 2020 Incidents by Day of Week

Chart 37 – Eagle Mountain Incidents by Day of Week

This chart demonstrates the call volume based on the day of the week, with Wednesdays having the most overall calls in Eagle Mountain.

Eagle Mountain – EMS Calls

EMS calls are filtered by final disposition codes and this data is taken from VECC and determined by the patient acuity at the time of call termination. Often times the EMS calls identified from final disposition are different than the number of EMS calls that were initially dispatched due to one being the initial call type, and one being what call type the call was closed as by responding fire crews.

|	CY 2020	CY 2019	CY 2018
ALS Transports	444	425	325
BLS Transports	417	317	212
Scene Release	24	15	48
Public Assistance	5	1	2
EMS Total Calls	885	757	585
Note: There is possibly a difference if you were to add all calls due to data reporting mechanisms. Public assistance calls will sometimes get duplicated with a scene release, depending on dispatch code, but those calls do not carry across to the total calls. Also, cancelled calls go into a different final disposition so the numbers in the 'Incidents by Dispatch Type' are reflective of this difference.			

Table 80 – Eagle Mountain EMS Calls

TOP 5 EMS MEDICAL DESCRIPTIONS
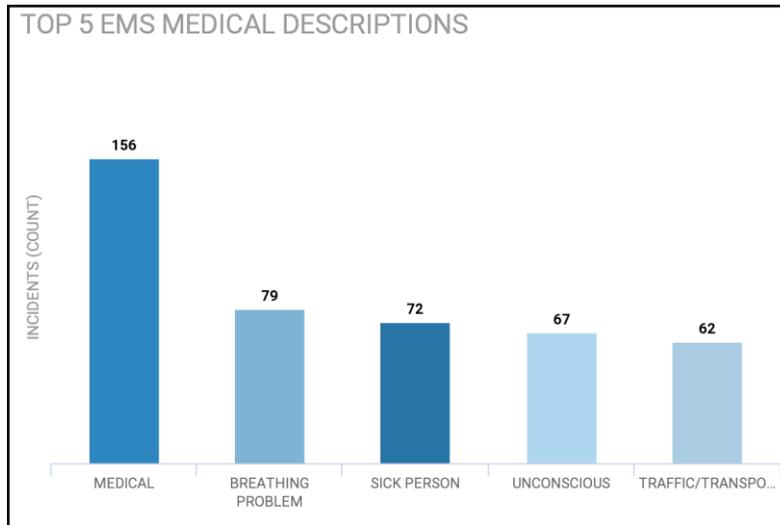
Chart 38 - Top 5 EMS Medical Calls - 2020

Eagle Mountain – 2020 Fire Incidents by Dispatch Type

NFIRS Description	Incident Count	% of Incidents	NFIRS Description	Incident Count	% of Incidents
Structure Fire	12	23.5%	Natural Vegetation Fire	22	43.1%
Outside Rubbish Fire	5	9.8%	Vehicle Fire	3	5.9%
Special Outside Fire	4	7.8%	Fire, Other	4	7.8%
Mobile Property Fire	1	2.0%			
			Total	51	100%

Table 81 – Eagle Mountain 2020 Incidents by Dispatch Type

Eagle Mountain – Building Occupancy Classification and Risk Categories

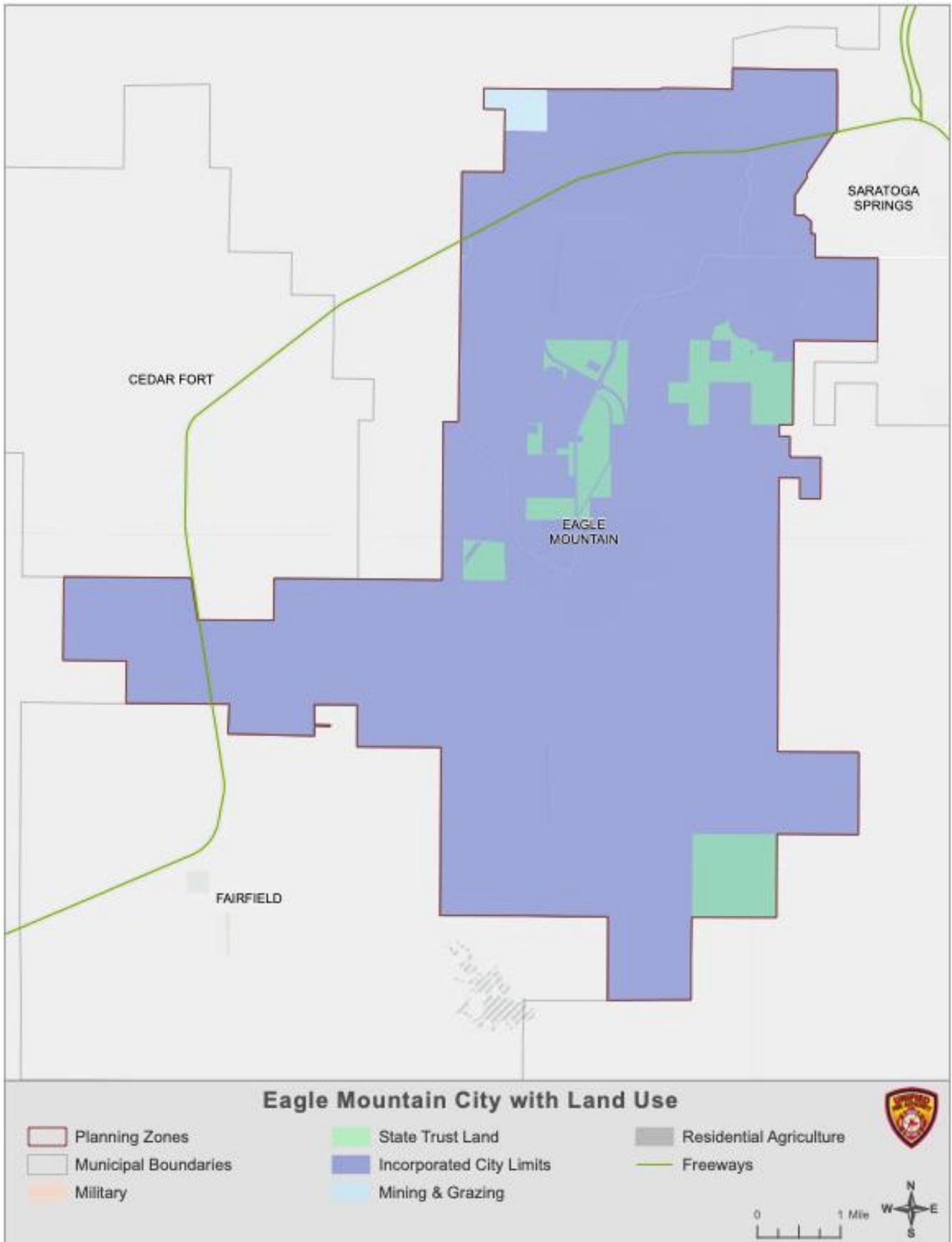| Occupancy Classification	Low	Moderate	High	Maximum	Total
Assembly	0	0	1	24	25
Commercial/Industrial	14	0	28	11	53
Educational	0	0	7	1	8
Government	0	0	0	0	0
Healthcare	0	1	0	0	1
Hazardous	Unknown	Unknown	Unknown	Unknown	30*
Storage	0	0	0	1	1
Residential	498	6,747	1,167	10	8,422
Residential – Multi Unit	600	41	11	4	656
High Rise	N/A	N/A	0	0	0
Total	1,122	6,789	1,214	51	9,196

*There is currently a gap within the identification of building size regarding hazardous materials sites. This is a gap that is being closed over the next several years as we collect the data and information.

Table 82 – Eagle Mountain Building Occupancy and Risk Categories
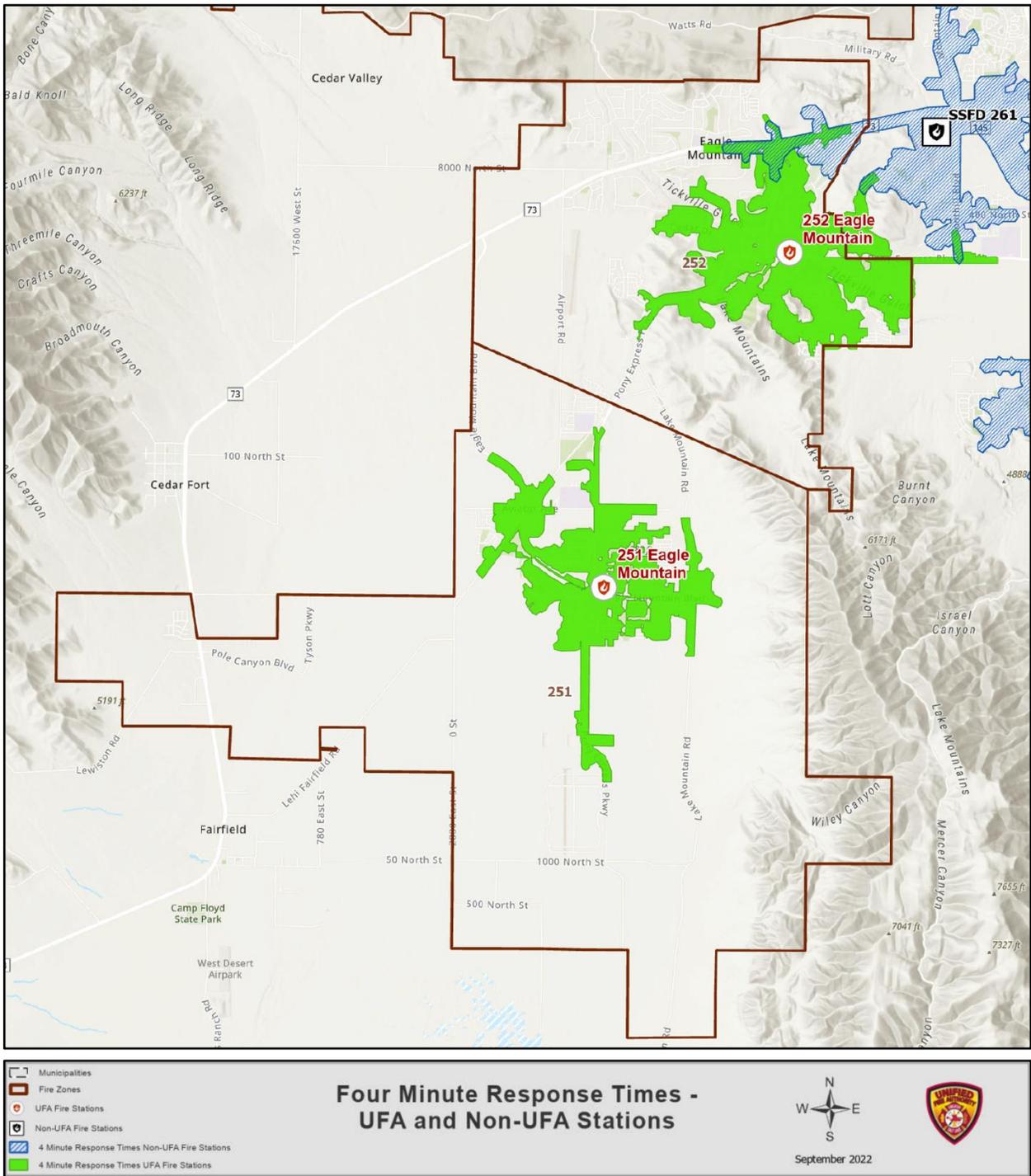
Building Size / Considerations

For purposes of risk classification, UFA has outlined the following risk classifications for building size, regardless of occupancy type (except residential). Low risk = 1-4,999 square feet. Moderate risk = 5,000-9,999 square feet. High risk = 10,000-99,999 square feet. Maximum risk = >100,000 square feet.
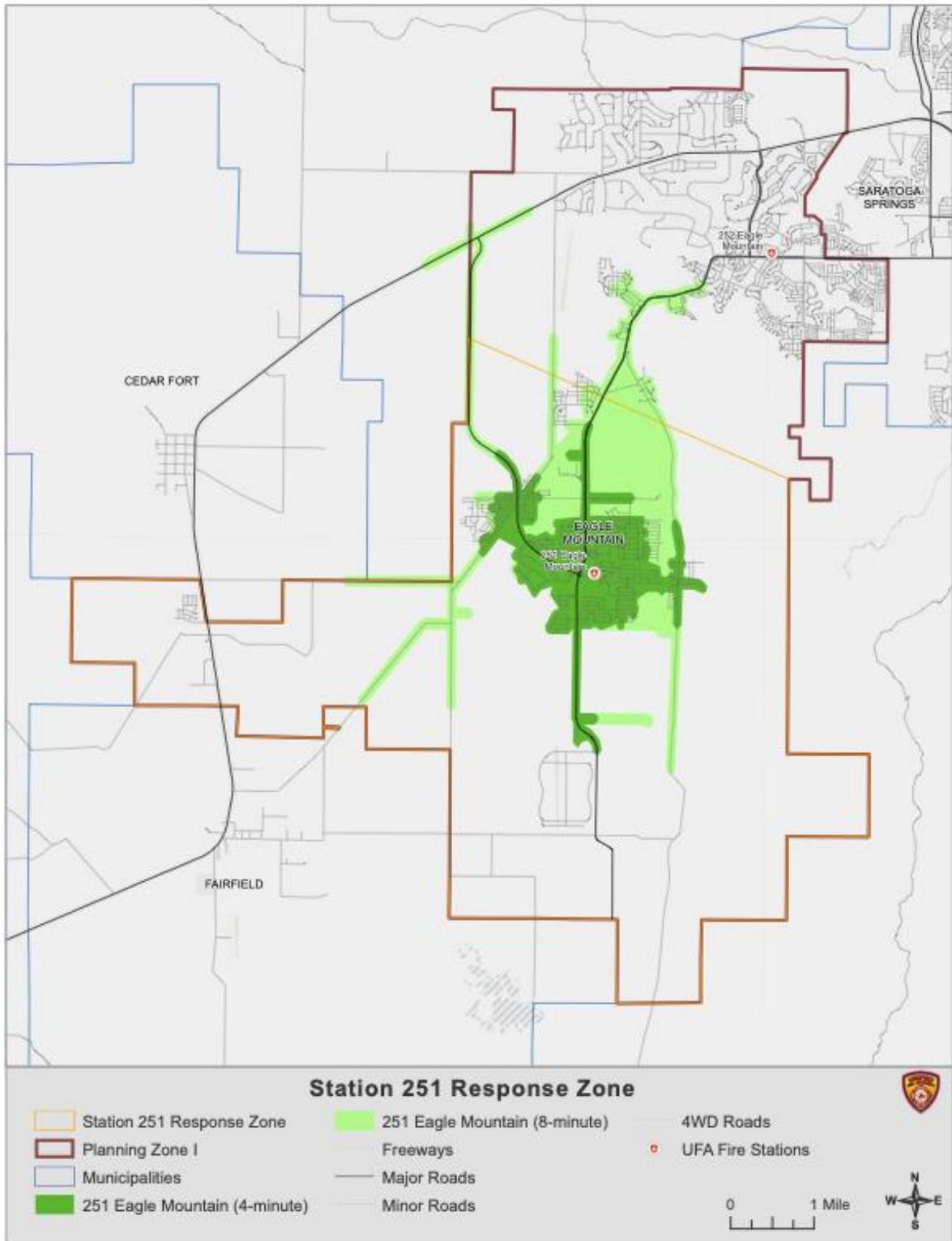
For residential occupancies, the following classifications apply. Low risk = 1-1,999 square feet. Moderate risk = 2,000-3,999 square feet. High risk = 4,000-9,999 square feet. Maximum risk = ≥10,000 square feet.

Map 116 – Eagle Mountain with Land Use

14

Map 117 - 4-Minute Travel Times, UFA and Aid

Station 251 Response Zone

▢ Station 251 Response Zone	251 Eagle Mountain (8-minute)	4WD Roads
▢ Planning Zone I	Freeways	⊙ UFA Fire Stations
▢ Municipalities	Major Roads	
251 Eagle Mountain (4-minute)	Minor Roads	0 1 Mile

Map 118 - Station 251 4- and 8-Minute Travel Times

Station 252 Response Zone

Station 252 Response Zone	252 Eagle Mountain (8-minute)	4WD Roads
Planning Zone I	Freeways	Service Access Road
Municipalities	Major Roads	UFA Fire Stations
252 Eagle Mountain (4-minute)	Minor Roads	0 1 Mile
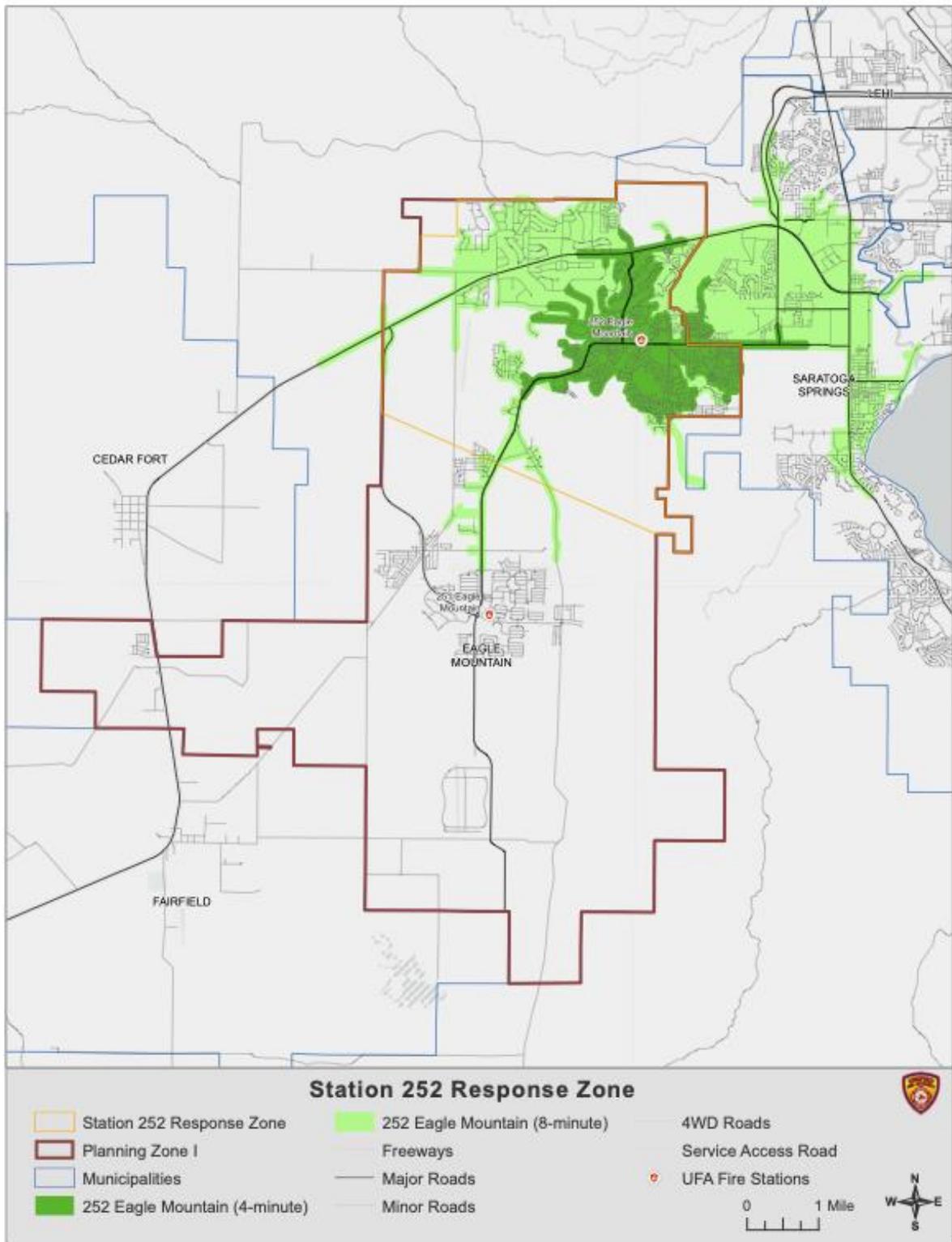
Map 119 - Station 252 4- and 8-Minute Travel Times

Eagle Mountain – First Arriver Travel Times

The following maps demonstrate the 90th percentile of travel times based off the last three years of historical data (2018-2020). The darker the color is, the more delayed the response, with the green and light colors demonstrating below or near target times. The darker colors on the bar within the key demonstrating longer travel times by apparatus. This map's drive times (or travel times) are based off the current NFPA 1710 standard of four minutes (90th percentile) from notification of the alarm to the arrival of the first arriving apparatus — not an adopted standard by UFA. UFA is currently in process of identifying benchmark and target standards to be adopted by the UFA Board of Directors. Currently, within Eagle Mountain, the 90th percentile drive time is 12:13 for fire and 9:07 for EMS, or a combined 90th percentile drive time of 9:53.
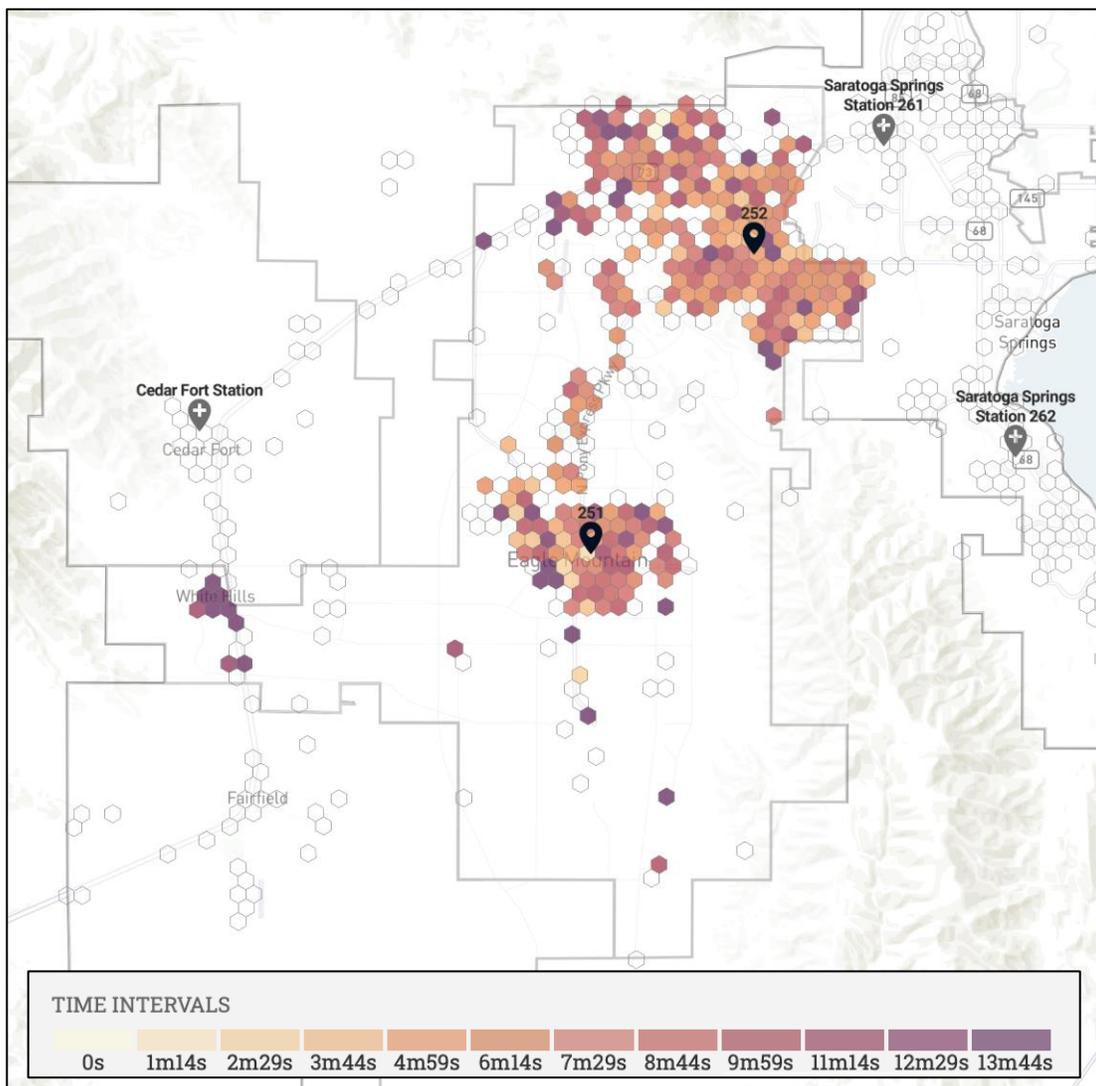
Map 120 – Eagle Mountain Response Times – All Aid

18

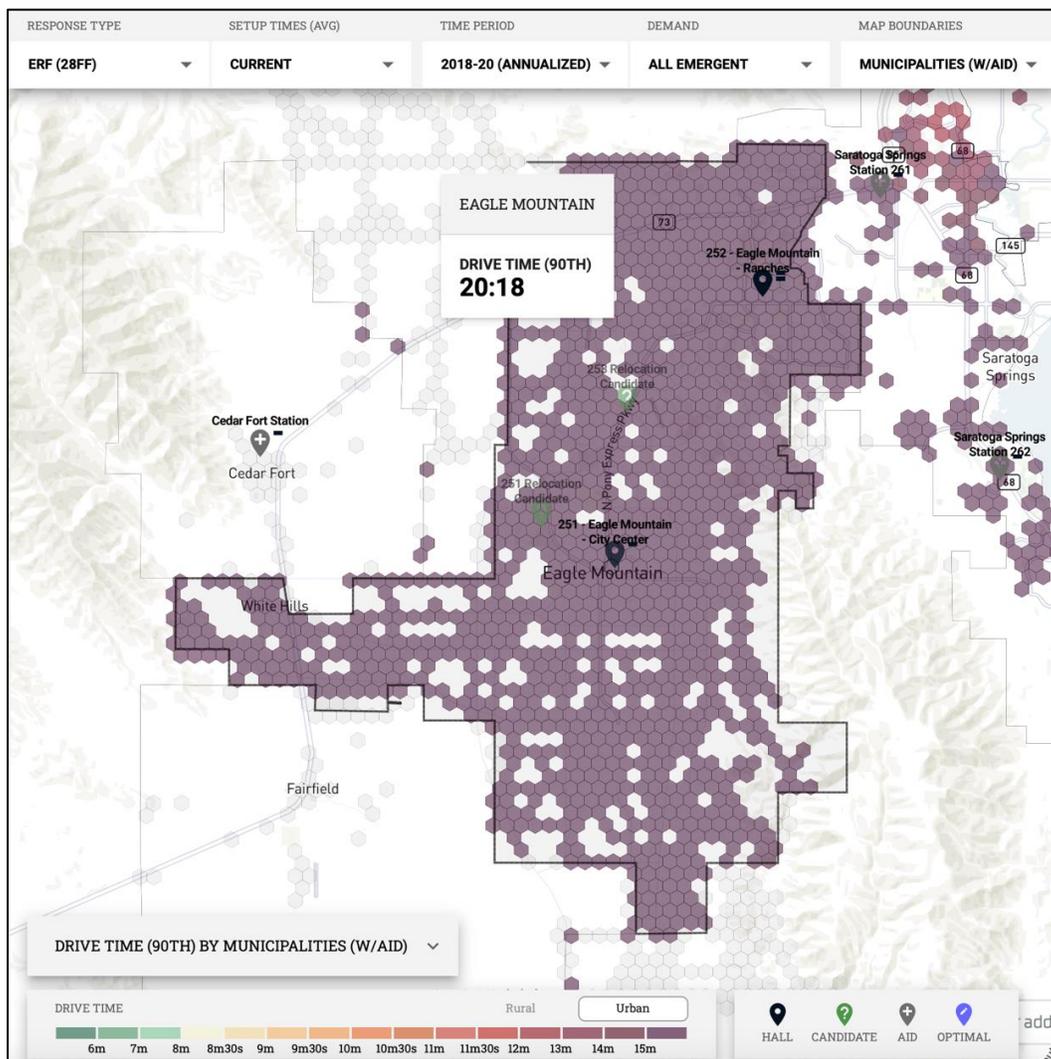## Eagle Mountain – Residential Fire Effective Response Force (17 FF)

This map demonstrates the coverage of a multi-unit response to a residential fire based off all apparatus being within their station. The green to light yellow demonstrates the ability to have seventeen firefighters (a residential fire effective response force) on scene based off a residential urban fire force response. This map's drive times (or travel times) are based off the current NFPA 1710 standard of eight minutes (90th percentile) from notification of the alarm to the arrival of the initial full alarm assignment (a minimum of 17 firefighters) for a residential, low, or medium hazard assembly — not an adopted standard by UFA. UFA is currently in process of identifying benchmark and target standards to be adopted by the UFA Board of Directors. Based off predictive data, it is projected that the 90th percentile for 17 firefighters to arrive on scene would be 15:46.
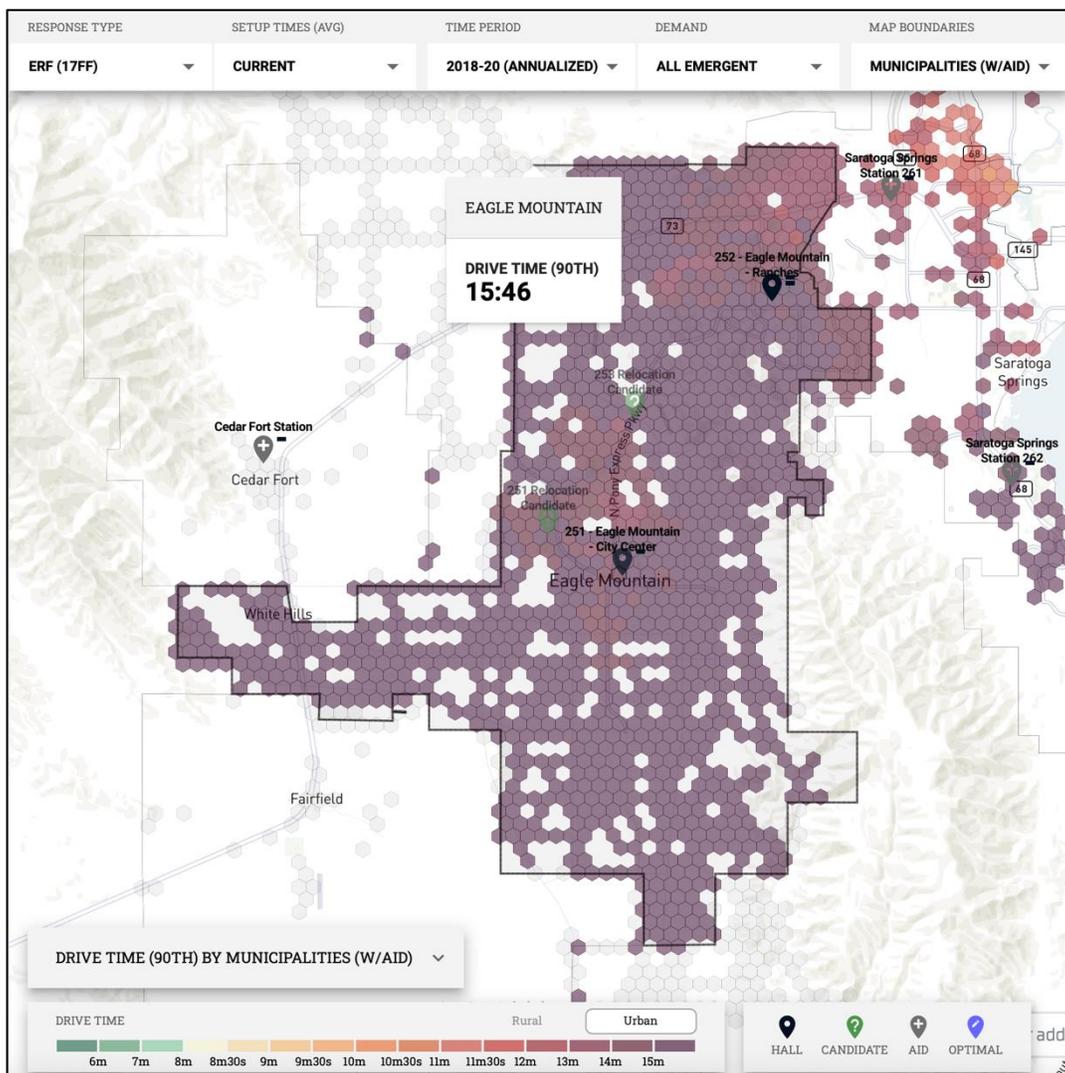
Map 121 – Eagle Mountain Response Times – Residential Fire Effective Response Force (17 ERF)

19

Eagle Mountain – Commercial Fire Effective Response Force (28 FF)

This map demonstrates the coverage of a multi-unit response to a commercial fire based off all apparatus being within their station. The green to light yellow demonstrates the ability to have twenty-eight firefighters (a commercial fire effective response force) on scene based off a residential urban fire force response. This map's drive times (or travel times) are based off the current NFPA 1710 standard of ten minutes and 10 seconds (90th percentile) from notification of the alarm to the arrival of the initial full alarm assignment (a minimum of 28 firefighters) for a commercial, high hazard or high-rise assembly — not an adopted standard by UFA. UFA is currently in process of identifying benchmark and target standards to be adopted by the UFA Board of Directors. Based off predictive data, it is projected that the 90th percentile for 28 firefighters to arrive on scene would be 20:18.

Map 122 – Eagle Mountain Response Times – Commercial Fire Effective Response Force (28 FF)

20

Eagle Mountain Risk Assessments

Infrastructure – Transportation	Infrastructure – Dams	Earthquake Liquefaction	Earthquake Faults	Avalanche	Unreinforced Masonry	Wildland Urban Interface	Tier II Sites	Hospitals	Schools	≥100,000 sq ft Structures	Residential Population
High	Mod	Low	Low	Low	Mod	High	Mod	Low	Mod	Low	Mod

Table 83 – Eagle Mountain Hazard Matrix

Transportation: Low Risk = 0-99 Linear Miles; Moderate Risk = 100-199 Linear Miles; High Risk = >200 Linear Miles
Dams: Low Risk = 0-3; Moderate Risk = 4-6; High Risk = ≥7
Liquefaction: The areas of liquefaction vary throughout the valley, with areas of high susceptibility running South and East from the Great Salt Lake
Earthquake Faults: Low Risk = 0-30,000 LF of fault line; Moderate Risk = 30,001-60,000 LF of fault line; High Risk = ≥60,001 LF of fault line
Unreinforced Masonry: Low Risk = 0-100; Moderate Risk = 101-1,000; High Risk = ≥1,001
Wildland Urban Interface: Low Risk = 0-25% WUI; Moderate Risk = 26-50% WUI; High Risk = ≥51% WUI
Tier II Sites: Low Risk = 1-5; Moderate Risk = 6-10; High Risk = ≥11
Hospitals: Low Risk = 0; Moderate Risk = 1; High Risk = ≥2
Schools: Low Risk = 0-5; Moderate Risk = 6-10; High Risk ≥11
100,000 sq ft Buildings: Low Risk = 0-5; Moderate Risk = 6-14; High Risk = ≥15
Population: Low Risk = 1-19,999; Moderate Risk = 20,000-39,999; High Risk = ≥40,000

Infrastructure – Transportation

The primary roadway that runs through Eagle Mountain City is State Road 73 which runs east/west between Redwood Road and the Tooele County border. There are 0 linear miles of Interstate/US Highway, 6.82 linear miles of State Highways, and 226.5 total linear miles of roadway. Eagle Mountain is in the high-risk category for road infrastructure.

Infrastructure – Water

There is one water district within Eagle Mountain City, the Eagle Mountain Water Department.

Infrastructure – Dams

There are four identified dams within Eagle Mountain City. Eagle Mountain is in the moderate-risk category for dam infrastructure.

Natural Hazards

Within Eagle Mountain City, there are low concerns with avalanche areas, placing it in the low-risk category for avalanche. There are no identified fault lines that run through the

city (see Map 8). Eagle Mountain is in the low-risk category for liquefaction and low-risk category for fault lines.

Wildland Urban Interface

There is high risk of urban interface fires within Eagle Mountain. Eagle Mountain is in the high-risk category for Wildland Urban Interface.

Hazardous Materials / Tier II Sites

There are six identified HazMat/Tier II Sites within Eagle Mountain City, which is in the moderate-risk category.

Hospitals

Eagle Mountain has no hospitals. This places Eagle Mountain in the low-risk category for hospitals.
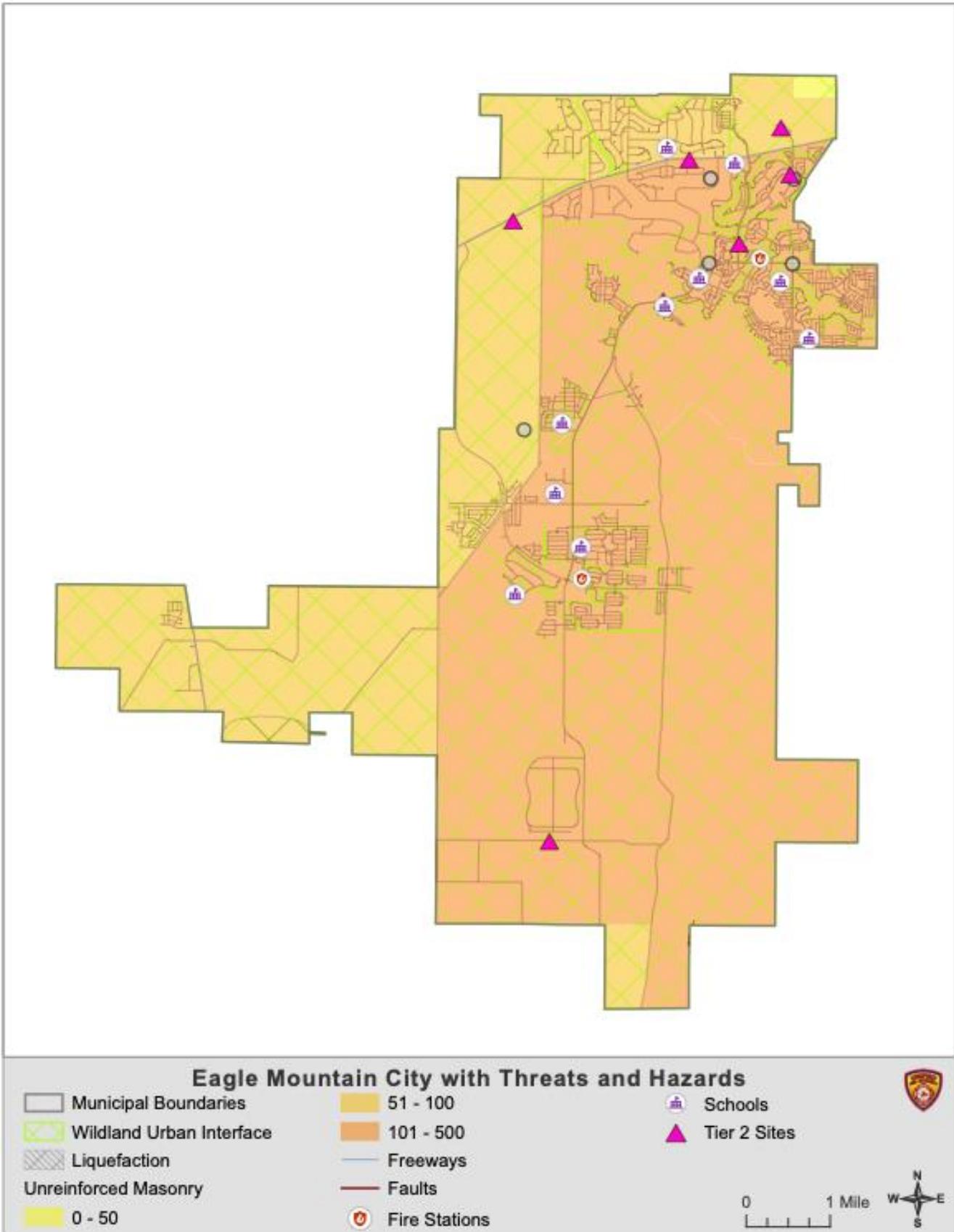
Schools

Eagle Mountain has seven elementary schools, two middle schools, two charter schools and one high school within city boundaries, which places it in the moderate-risk category.

Target Hazards – Structures

Some of the target-hazard occupancies in Eagle Mountain include:
- Tyson Foods – 3817 N Tyson Pkwy
- Facebook Eagle Mountain Data Center – 1275 North Community Circle

Eagle Mountain City with Threats and Hazards

Legend		
☐ Municipal Boundaries	☐ 51 - 100	⛪ Schools
☒ Wildland Urban Interface	☐ 101 - 500	▲ Tier 2 Sites
▨ Liquefaction	— Freeways	
Unreinforced Masonry	— Faults	
☐ 0 - 50	Ⓞ Fire Stations	0 1 Mile

Map 123 – Eagle Mountain with Combined Hazards

Life and Property Loss

From 2015-2020, there have been zero fatalities attributed to fire. There has been a total estimate of $450,936.00 of property loss and a total estimate of $501,592.00 of content loss due to fire.

Unified Fire Shared Services

With a regional-response model, the Unified Fire Authority brings special services to bear when the situation calls for it, not relying on automatic or mutual aid which provides a quicker and more effective delivery of service to its residents.

Battalion Chiefs

Unified Fire Authority staffs three operational battalion chiefs (BCs) daily, in addition to a 40-hour Operations Chief (OC). These BCs and OC respond to large, complex, or expanding incidents — providing incident command, safety, and operational direction. Each BC covers an area of UFA's service area and respond to calls for service in any jurisdiction. Battalion 11 is housed out of Station 101 in Millcreek, Battalion 12 is housed out of Station 121 in Riverton, and Battalion 13 is housed out of Station 118 in Taylorsville.

Heavy Rescue Companies

Heavy Rescue specializes in structural collapse, confined space rescue, trench collapse rescue, vehicle extrication, machinery disentanglement, rope rescue (high angle, low angle, rigging) and rapid intervention (Firefighter Rescue). The UFA Heavy Rescue Program consists of two independent rescue companies strategically placed in UFA's jurisdiction. Station 117 in Taylorsville, and Station 121 in Riverton house our Heavy Rescue Teams.

Hazardous Materials (HazMat) Companies

The Hazardous Materials Teams provide an efficient, effective, and professional Hazardous Material Mitigation response. HazMat Companies respond to hazardous material releases/spills for the purpose of mitigating the release/spill. They select and use proper specialized chemical personal protective equipment dependent on the nature of the incident. The HazMat Program consists of two independent HazMat

companies strategically placed in UFA's jurisdiction. Station 124 in Riverton, and Station 126 in Midvale house our HazMat Teams.

Water Rescue Teams

UFA has swift water and ice rescue capabilities. These companies respond to victims recreating in our swift canyon rivers and our lakes and reservoirs. Station 116 in Cottonwood Heights, Station 117 in Taylorsville, Station 121 in Riverton, and Station 123 in Herriman house companies with water rescue capabilities.

Wildland Division

UFA's Wildland Division provides highly trained and experienced wildland fire and all-risk response resources to local, state, and federal incidents. The Wildland Division oversees the training and certification of UFA personnel for response to wildland fires and all-hazard incidents. We also work with UFA Communities to educate residents on wildfire preparedness and provide mitigation services to reduce the risks of wildfire. UFA has a special capability where a Duty Officer is able to act as the Fire Warden within UFA's jurisdictions, allowing the ordering of resources much more quickly than having to rely on a Fire Warden that may or may not be readily accessible. Station 103 in Herriman currently houses the Duty Officer.

Investigations Division

Arson and Explosive related incidents are considered two of the most dangerous criminal activities that threaten our citizens. The need exists to protect the citizens of our jurisdiction from loss of life and property by reducing the crime of arson, arson-related crimes, improvised explosive devices (IEDS) and the prevention of future violent crimes. The Investigations Division addresses this need by establishing a sound foundation of effective enforcement, focusing on the apprehension of the offender, while in partnership with other Local, state and federal law enforcement agencies. The team utilizes highly-trained Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) certified K-9's that assist with accelerant and explosives detection.

Urban Search & Rescue

A FEMA Urban Search and Rescue Task Force is a team of individuals which serve as a resource for disaster response at local, state, and federal levels. It is comprised mainly of firefighters but includes structural engineers, medical professionals,

canine/handler teams and emergency managers with highly specialized training in urban search and rescue environments.

Utah Task Force 1 (UT-TF1) is one of 28 Type I, Federal Urban Search & Rescue (US&R) Task Forces in the United States. This program brings a highly trained, multi-hazard Task Force that is especially designed to respond to a variety of emergencies/disasters including earthquakes, hurricanes, tornadoes, floods, terrorist acts and hazardous material releases. Fire department personnel that are task force members receive specialized training and skills that directly benefit Unified Fire Authority.

Salt Lake County Emergency Management

The Salt Lake County Division of Emergency Management serves our citizens by directing and coordinating resources for disasters and emergencies through preparation, planning, mitigation, response, and recovery. The Salt Lake County Emergency Coordination Center is activated and manned during any event—from small-scale to large-scale occurrences—to disasters both natural and man-made that can or have exceeded the resources of any particular jurisdiction. Currently, the Salt Lake County ECC assists and obtains resources for the 22 jurisdictions located within the Salt Lake Valley. Salt Lake County EM assists these jurisdictions through the activation of 15 Emergency Support Functions (ESFs) filled by employees from a multitude of backgrounds. The ESF employees have authority throughout Salt Lake County to fill and order additional support for the operations occurring in the field until the impacted jurisdiction can return to their normal operations and functions. The Emergency Management Division is committed to keeping the public safe through community outreach, training, dissemination of important public information, training of staff and the creation of a more resilient community through mitigation, preparation, response, and recovery. The ECC has been activated for many events such as Child Abduction Response Team (CART) Deployments, wildland fires such as the Rosecrest and Machine Gun fires, flooding, severe weather events, earthquakes, civil unrest, the COVID-19 pandemic, Line of Duty Deaths (LODD), and many other events.

This Page Intentionally Left Blank

Unified Fire Authority

3380 South 900 West
Salt Lake City, UT 84119