

City of Millcreek

Community Risk Assessment



Millcreek City Planning Zone

UFA has three stations within the Millcreek City Planning Zone covering a total of 12.77 square miles with a population of 63,380 and responded to 5,676 calls for service in 2020.

Planning Zone	Population	Population Percentage of UFA	Square Miles	Population Density per Sq Mile	Classification
City of Millcreek	63,380	14.05%	12.77	4,963	Urban

Millcreek City has increased its population from 58,853 in 2010 to 63,380 in 2020, showing an increase of 7.14% over a ten-year timeframe. Providing an exponential growth pattern and if all things remain equal, chart 15 demonstrates that Millcreek could grow to 72,111 by the year 2040.

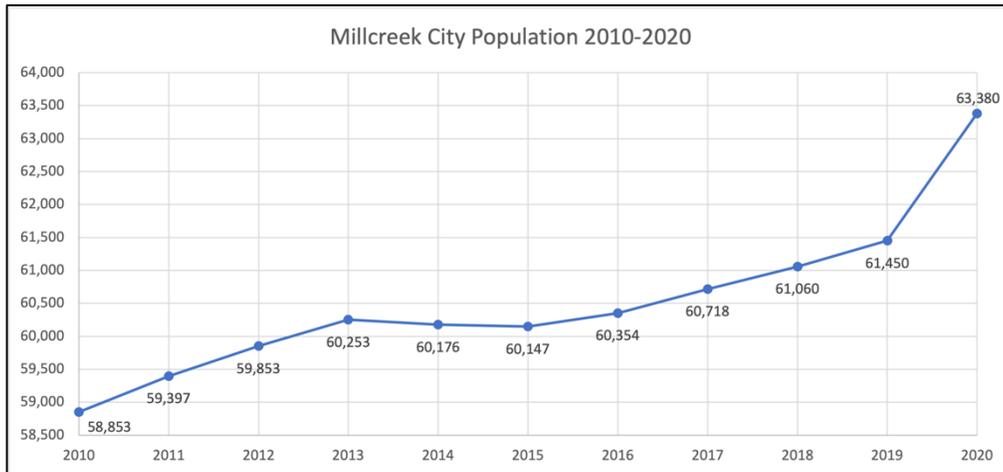


Chart 69 - Millcreek City Population 2010-2020

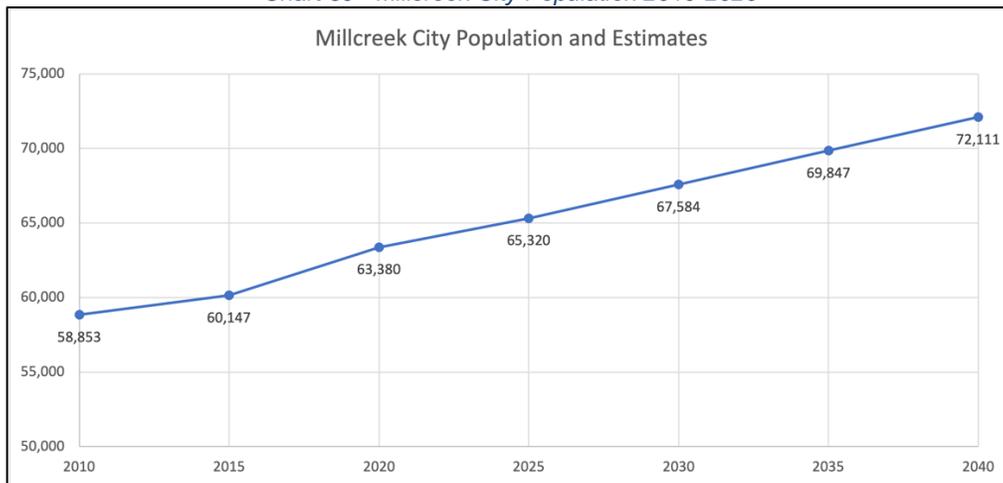


Chart 70 - Millcreek City Population and Estimates 2010-2040

Millcreek City Station Information

<p>Station 101 information:</p> <ul style="list-style-type: none">• Owner – UFSA• Opened – 2010• Address – 790 East 3900 South• Staffing and Apparatus –<ul style="list-style-type: none">○ Type 1, ME 101 (4 persons)○ MA 101 (2 persons)○ Battalion Chief 11 (1 person)	 <p><i>Image 20 – Millcreek City Station 101</i></p>
<p>Station 106 information:</p> <ul style="list-style-type: none">• Owner – UFSA• Opened – 2010• Address – 1911 East 3300 South• Staffing and Apparatus –<ul style="list-style-type: none">○ Type 1, ML 106 (4 persons)○ MA 106 (2 persons)○ Type 1, Water Tender (cross-staffed)○ Type 6, Brush Truck (cross-staffed)	 <p><i>Image 21 – Millcreek City Station 106</i></p>
<p>Station 112 information:</p> <ul style="list-style-type: none">• Owner – UFSA• Opened – 1965• Address – 3612 Jupiter Drive• Staffing and Apparatus –<ul style="list-style-type: none">○ Type 1, ME 112 (4 persons)○ Type 6, Brush Truck (cross-staffed)	 <p><i>Image 22 – Millcreek City Station 112</i></p>

Surrounding UFA and Automatic/Mutual Aid Response Stations

Surrounding fire stations and fire departments that are within an eight-minute response to Millcreek City are:

- UFA Station 104 (Holladay City), with a four-person medic engine and a two-person peak-load medic ambulance
- UFA Station 117 (Taylorsville City), with a four-person medic engine, a four-person medic ladder, and a two-person medic ambulance
- Murray City Station 81, with a three-person medic engine and a two-person medic ambulance
- Murray City Station 82, with a three-person medic engine and a two-person medic ambulance
- West Valley Station 75 with a three-person engine and a two-person medic ambulance
- South Salt Lake Station 41 with a three-person engine and a two-person medic ambulance
- South Salt Lake Station 42 with a three-person engine and a two-person medic ambulance
- South Salt Lake Station 43 with a three-person engine and a two-person medic ambulance.

Millcreek City – Incidents by Dispatch Type

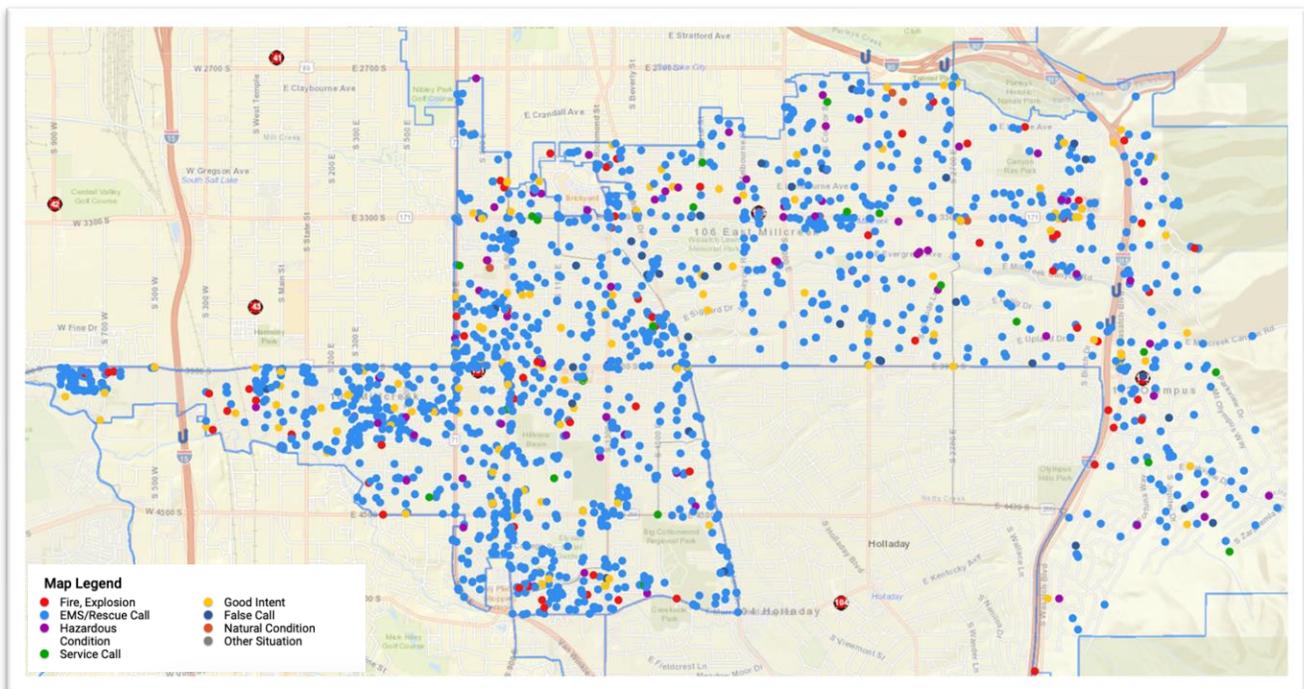
The following data is what the NFIRS type was when crews arrived on scene. This may be different than what was originally dispatched, including a reclassification of a call type from one to another. Cancelled calls occur if the company is cancelled en route to a call and never arrives on scene, which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

	CY 2020	CY 2019	CY 2018
Fire Suppression	108	84	104
EMS	3,494	3,316	3,486
Hazardous Materials	169	103	106
Service Calls	156	355	270
Good Intent	930	731	585
False Calls	287	343	308
Other (Misc., Flood, Overpressure)	17	3	16
Total	5,163	4,935	4,875

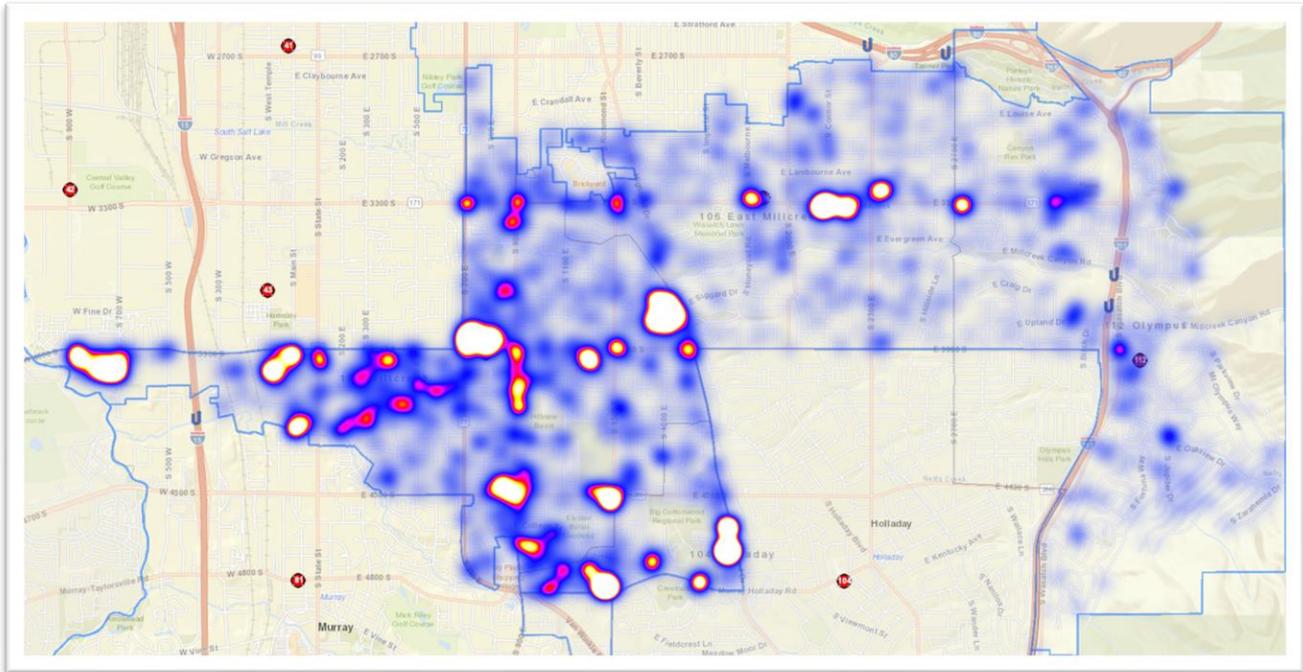
Cancelled	513	375	449
Overall Total	5,676	5,310	5,324

Table 120 – Millcreek City Call Type

Millcreek City – 2020 Incidents and Heat Map



Map 181 - Millcreek City Incident Calls by Call Type



Map 182 - Millcreek City Call Volume 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.

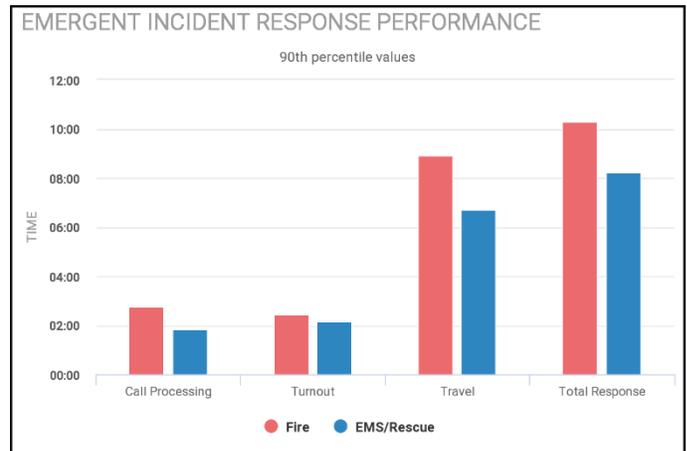
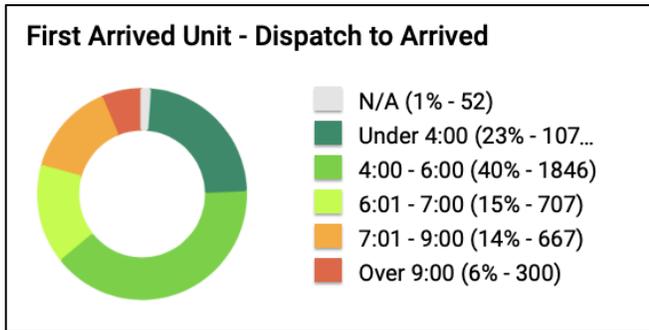
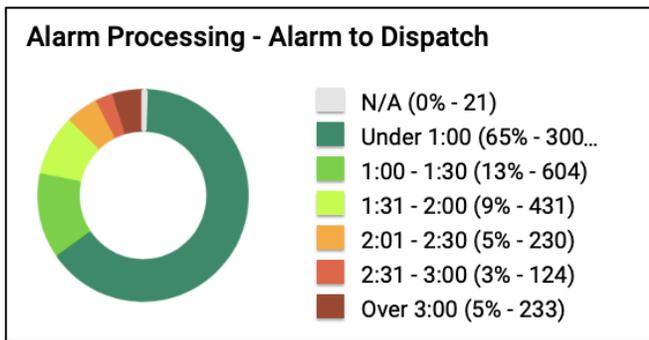
NFPA 1710 encompasses suggested standards for full-time fire departments and recommends the following times (all of which are at the 90th percentile): alarm processing – 64 seconds; turnout time for EMS responses – 60 seconds; turnout time for fire responses – 80 seconds; first arriver apparatus – 240 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.

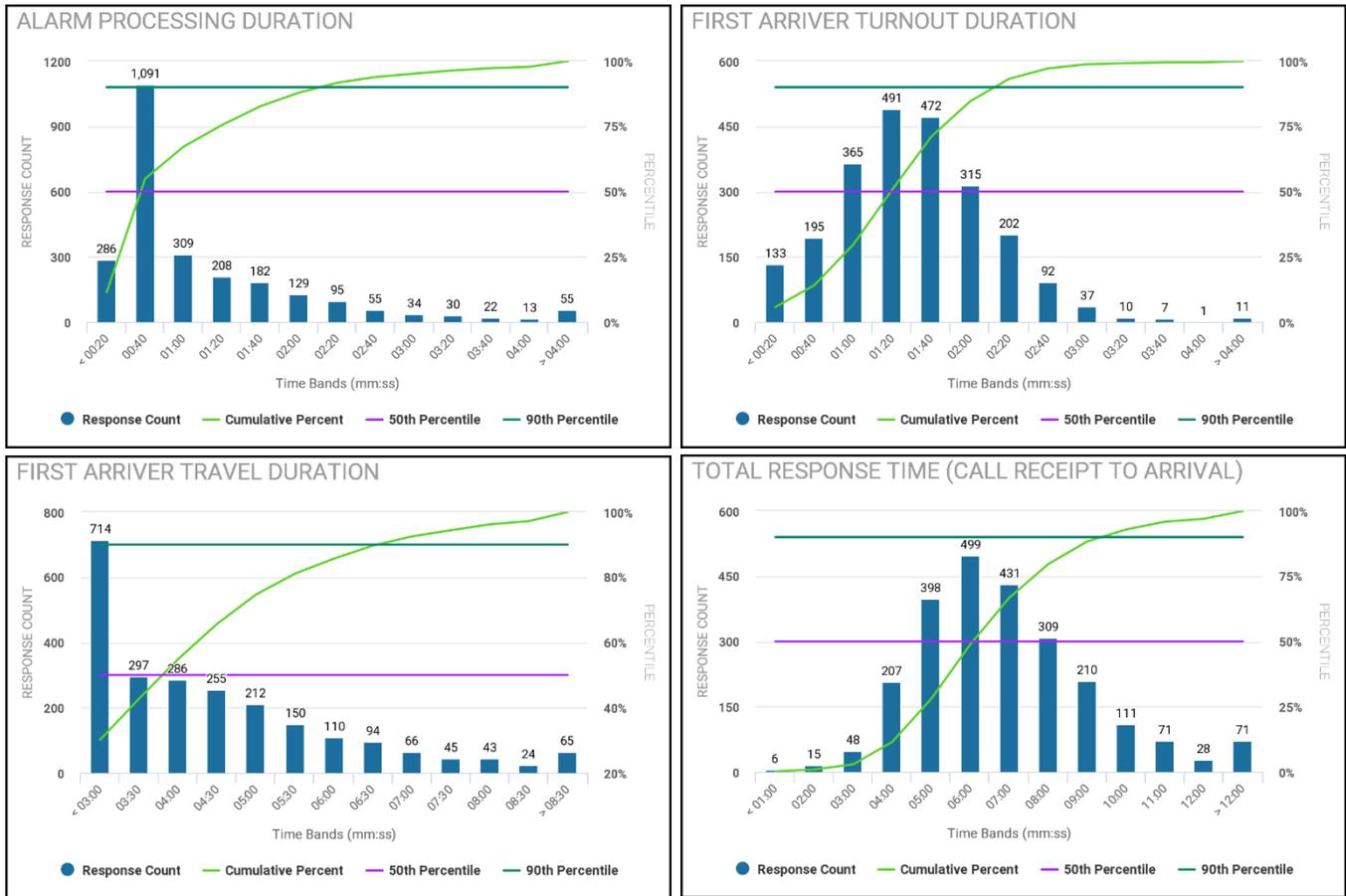
Millcreek City – 2020 Dispatch and Response Times



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
Millcreek	2:29	2:15	7:24	10:06	1:53	2:09	6:24	8:56
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 121 – Millcreek City 2020 Emergent Response Times, 90th percentile values

Millcreek City – 2020 Turnout and Travel Times



The charts above illustrate the alarm processing, turnout and travel times for all units responding to service calls within Millcreek City. The 90th percentile for alarm processing was 2:29 for fire and 1:53 for EMS, the 90th percentile turnout time was 2:15 for fire responses and 2:09 for EMS responses. The 90th percentile travel time was 7:24 for fire responses and 6:24 for EMS. The 90th percentile total response time was 10:06 for fire and 8:56 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.

Millcreek City – 2020 Incidents by Time of Day

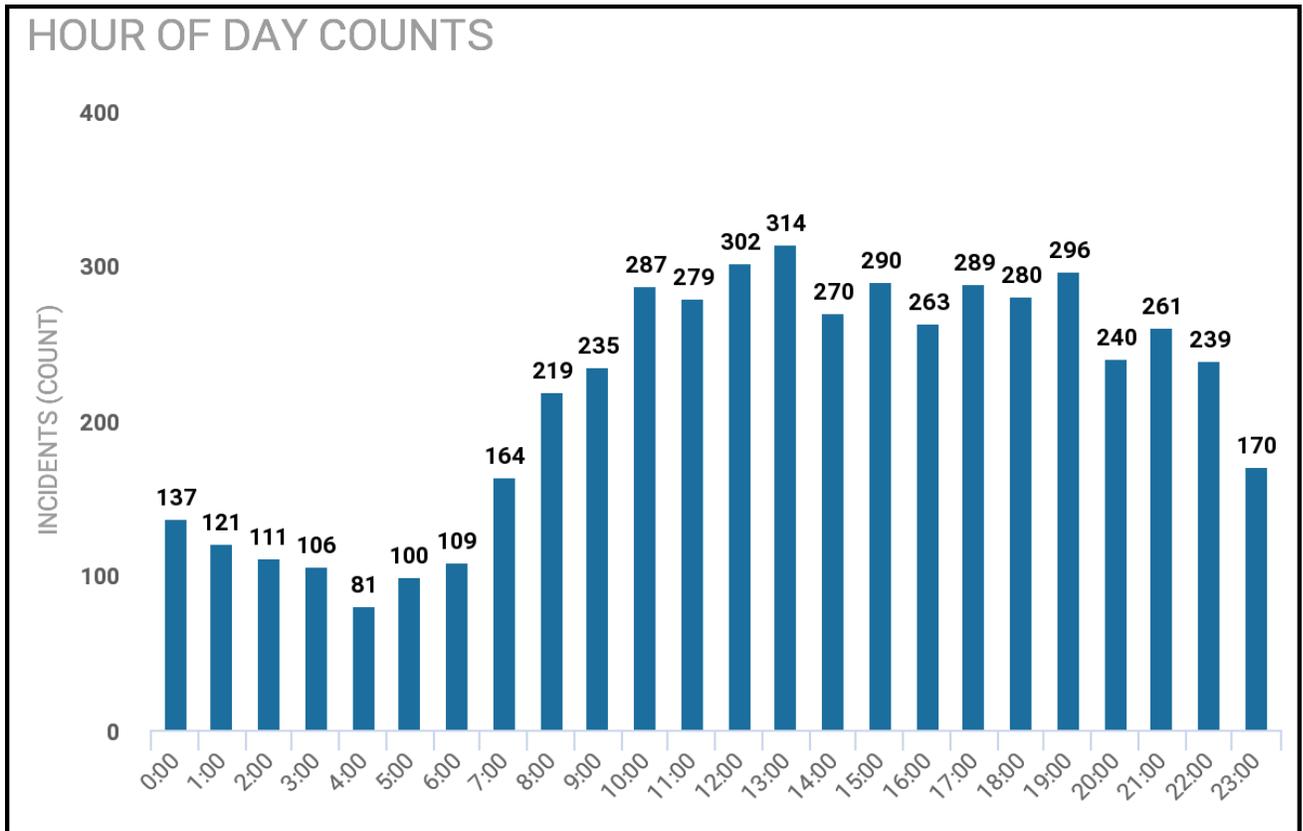


Chart 71 – Millcreek City 2020 Incidents by Time of Day

The above table demonstrates the incidents by time of day and the time of greatest demand within Millcreek City for all service calls. This chart illustrates that the greatest demand for service delivery begins to increase at 6:00 AM and starts to decrease at 7:00 PM.

Millcreek City – 2020 Incidents by Day of Week

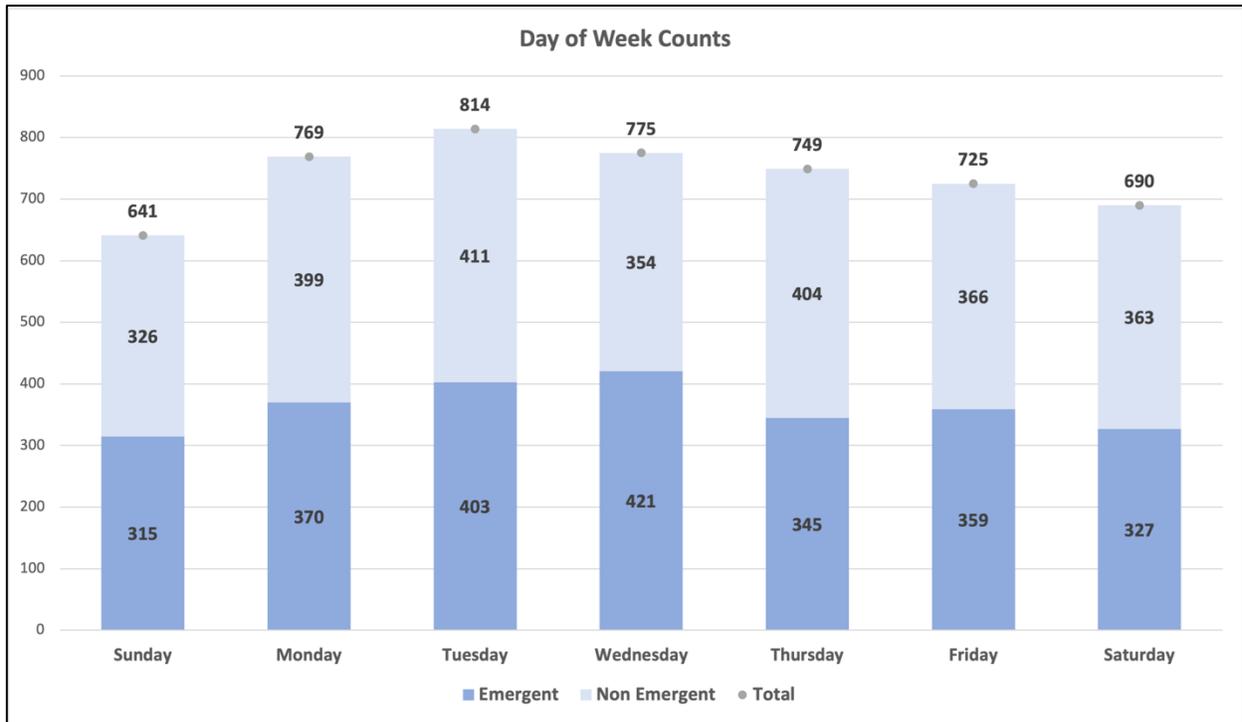


Chart 72 - Millcreek City Incidents by Day of Week

This chart demonstrates the call volume based on the day of the week, with an increase in all calls beginning Monday. The peak volume for all calls in Millcreek City occurs on Tuesday.

Millcreek City – 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	1,216	1,228	1,535
BLS Transports	2,217	1,585	1,785
Scene Release	275	327	842
Public Assistance	8	39	31
EMS Total Calls	3,716	3,179	4,193

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 122 – Millcreek City EMS Calls

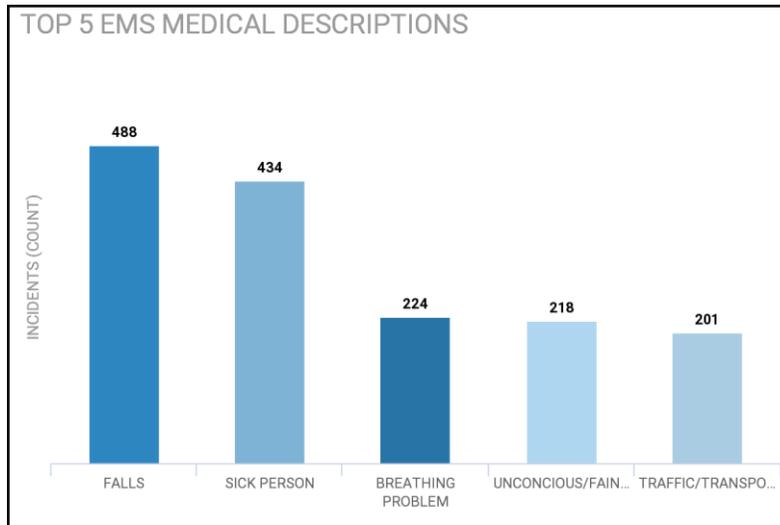


Chart 73 - Top 5 EMS Medical Calls

Millcreek City – 2020 Fire Incidents by Dispatch Type

NFIRS Description	Incident Count	% of Incidents
Structure Fire	51	41.8%
Natural Vegetation Fire	20	16.4%
Outside Rubbish Fire	22	18%
Vehicle Fire	21	17.2%

NFIRS Description	Incident Count	% of Incidents
Special Outside Fire	1	0.8%
Fire, Other	6	4.9%
Mobile Property Fire	1	0.8%
Total	122	100%

Table 123 – Millcreek City 2020 Incidents by Dispatch Type

Millcreek City – Building Occupancy Classification and Risk Categories

Occupancy Classification	Low	Moderate	High	Maximum	Total
Assembly	31	2	18	1	52
Commercial/Industrial	15	27	46	7	95
Educational	0	12	5	2	19
Government	11	0	1	1	13
Healthcare	2	1	5	1	9
Hazardous	Unknown	Unknown	Unknown	Unknown	106*
Storage	3	1	8	0	12
Residential	3,761	7,555	1,541	25	12,882
Residential – Multi Unit	352	533	109	52	1,046
High Rise	N/A	N/A	3	4	7
Total	4,175	8,131	1,736	93	14,241

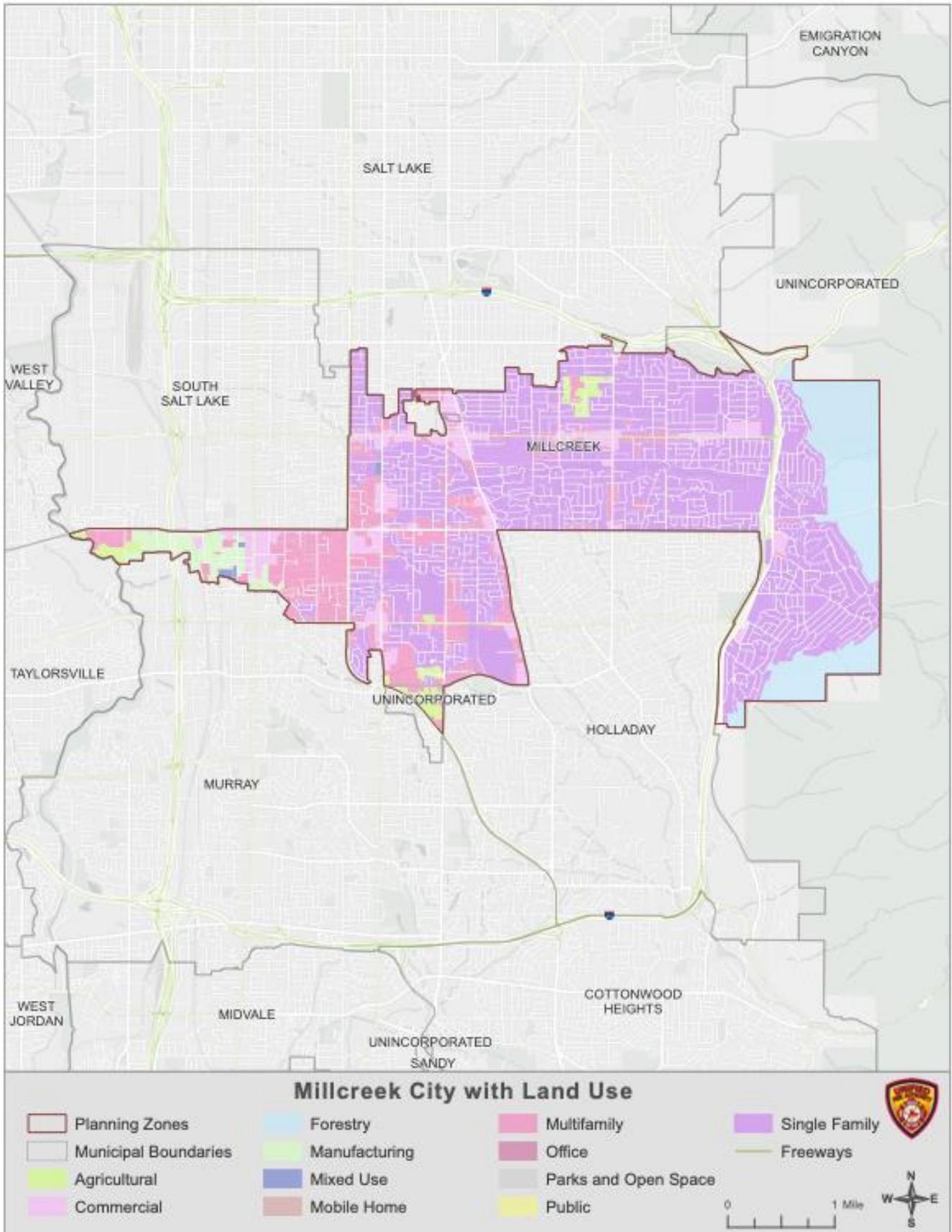
*There is currently a gap within the identification of building size regarding hazardous materials sites. This is a gap that is being closed over the next several years as we collect the data and information.

Table 124 – Millcreek City Building Occupancy and Risk Categories

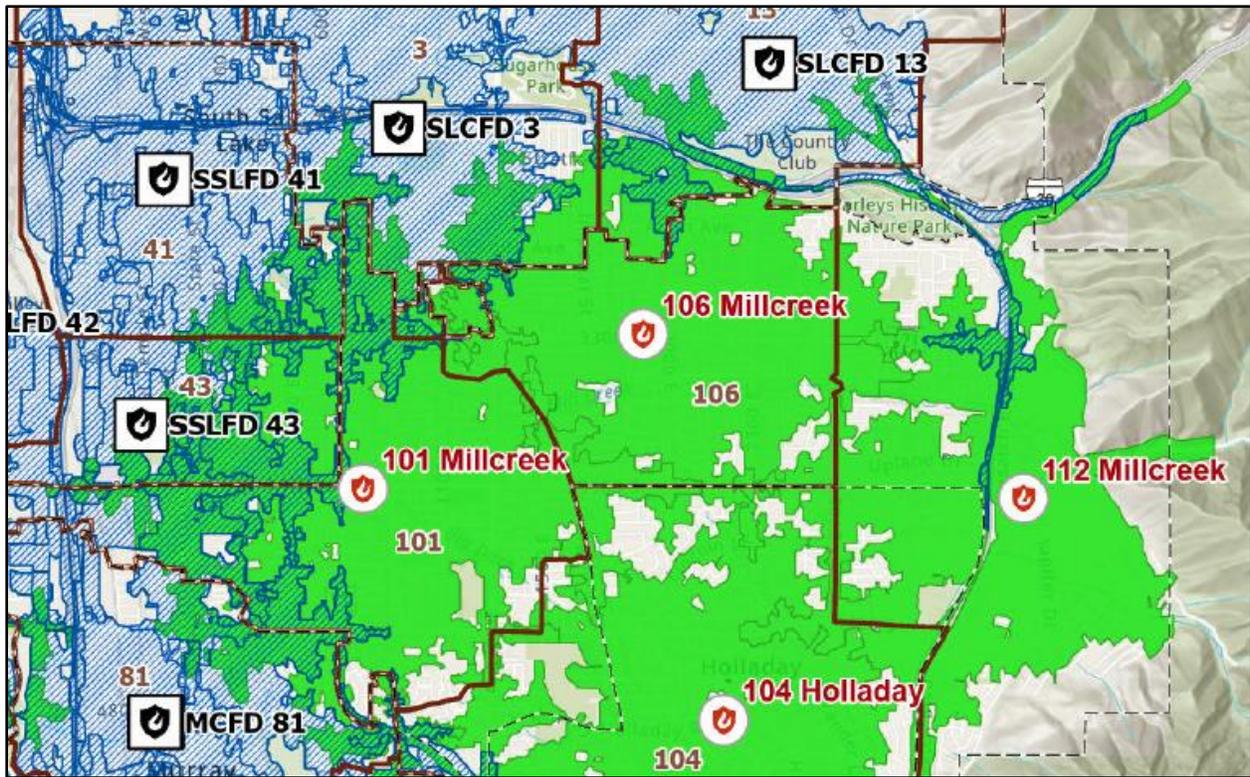
Building Size / Considerations

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.

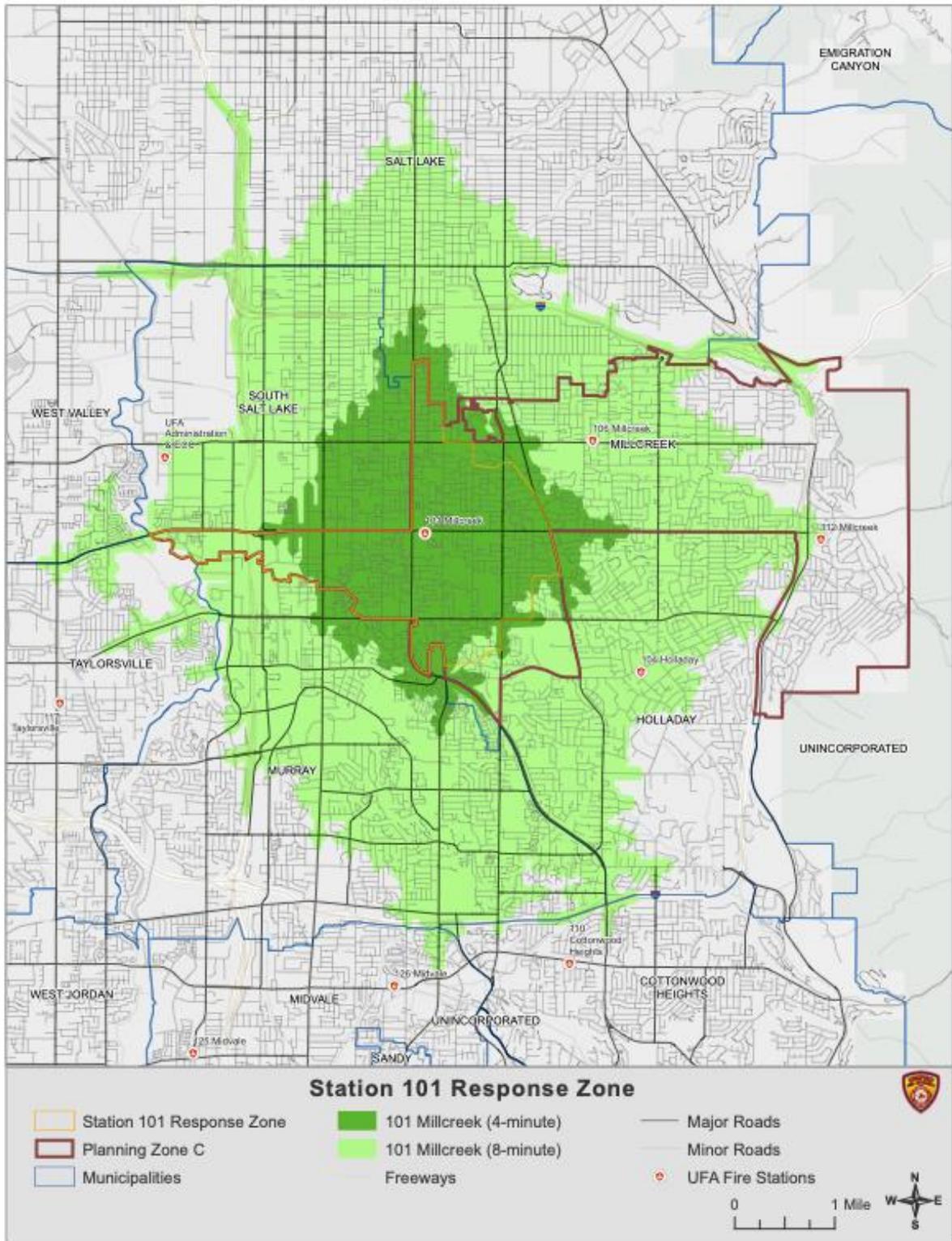


Map 183 - Millcreek City with Land Use

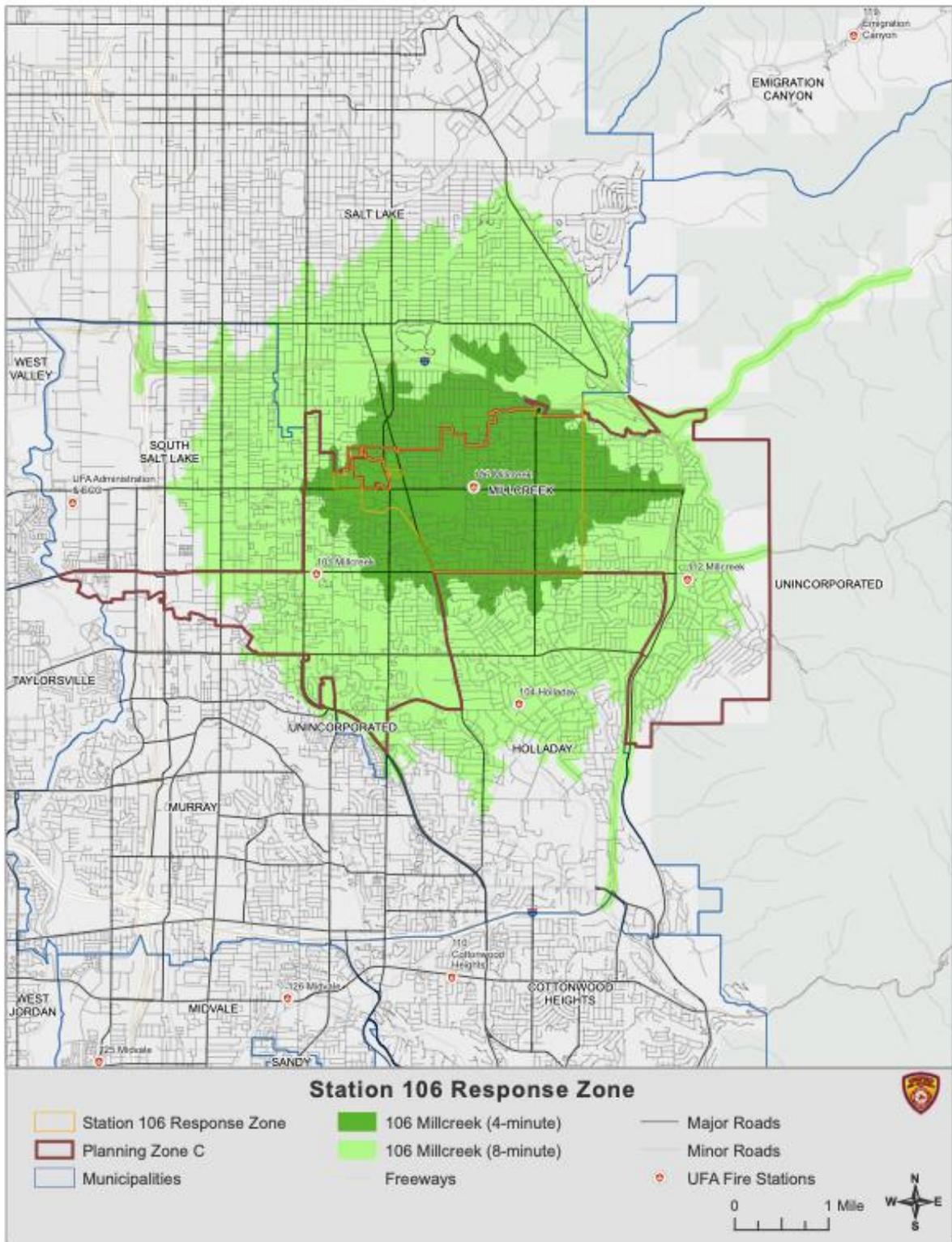


	Municipalities	<h3>Four Minute Response Times - UFA and Non-UFA Stations</h3>	 September 2022	
	Fire Zones			
	UFA Fire Stations			
	Non-UFA Fire Stations			
	4 Minute Response Times Non-UFA Fire Stations			
	4 Minute Response Times UFA Fire Stations			

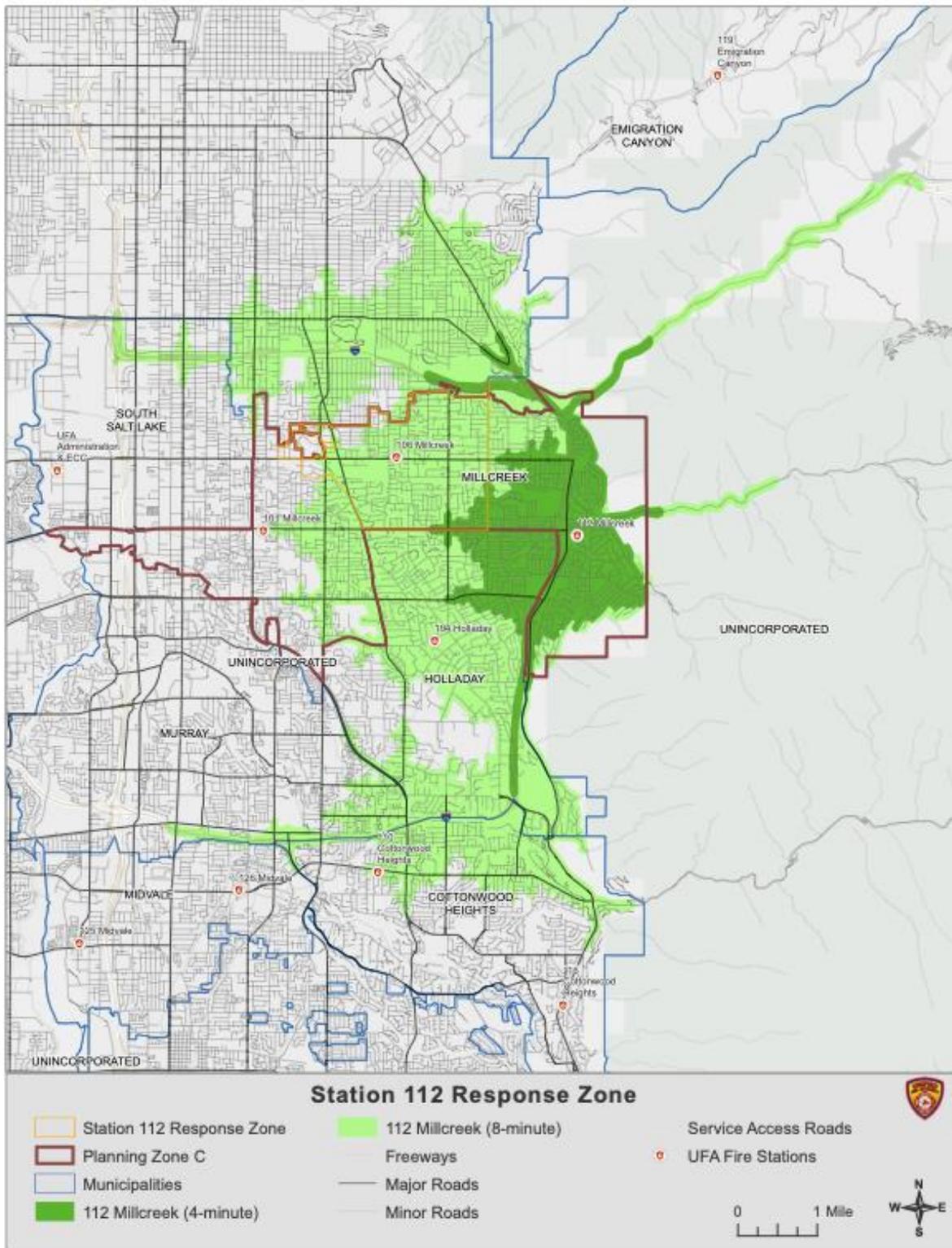
Map 184 - 4-Minute Travel Time, UFA and Aid



Map 185 - Station 101 4- and 8-Minute Travel Times



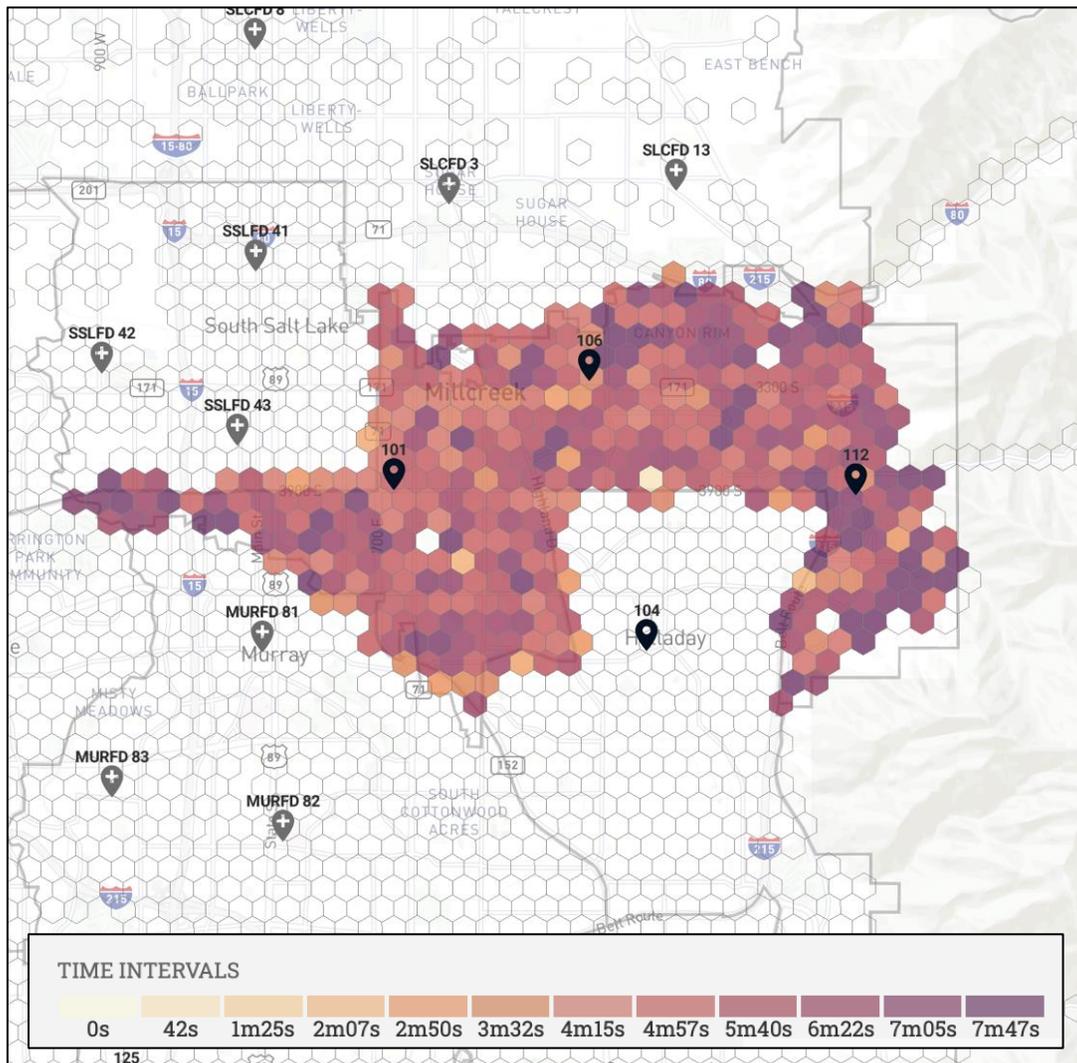
Map 186 - Station 106 4- and 8-Minute Travel Times



Map 187 - Station 112 4- and 8-Minute Travel Times

Millcreek City – First Arriver Travel Times

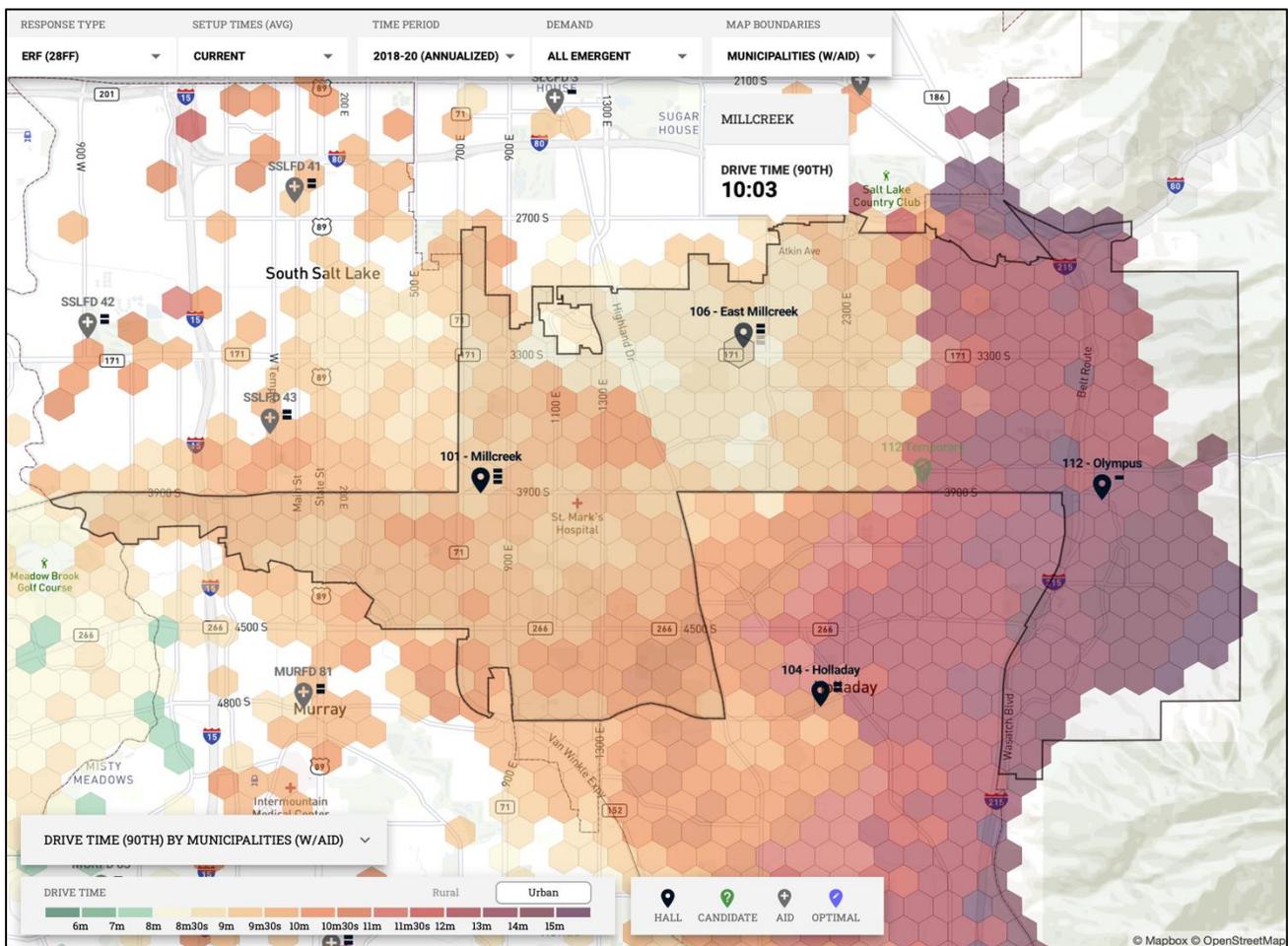
The following maps demonstrate the 90th percentile of travel times based off the last three years of historical data (2018-2020). The darker the color is, the more delayed the response, with the lighter colors demonstrating below or near target times. The darker colors on the bar within the key demonstrating 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 Millcreek City, the 90th percentile drive time for fire is 7:24 and 6:24 for EMS.



Map 188 – Millcreek City Response Times – All Aid

Millcreek City – 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 10:03.



Millcreek City 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	Mod	Mod	Low	High	Mod	Mod	Mod	High	High	High

Table 125 - Millcreek City 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

There are several high-level transportation routes within Millcreek City or directly bordering Millcreek City. I-15 runs through the west side of the city, I-80 runs on the northeast side, and I-215 runs on the west side. Several arterials and state roads also run through Millcreek, with 3300 South, 700 East and State Street. There are sixteen linear miles of Interstate/US Highway, 10.45 linear miles of State Highways, and 241.2 total linear miles of roadway. UTA also runs bus routes and light rail through the city, with the main light rail running on the west side of the city. Millcreek City is in the high-risk category for road infrastructure.

Infrastructure – Water

There are several water districts within Millcreek City, including the Jordan Valley Water Conservancy District and the Mt Olympus Improvement Water District.

Infrastructure – Dams

There are five identified dams within Millcreek City. Millcreek City is in the moderate-risk category for dam infrastructure.

Natural Hazards

Within Millcreek City, Millcreek Canyon begins and extends into Unincorporated Salt Lake County. Within Millcreek City, there are no concerns with avalanche areas, however there are several areas that Millcreek units respond to that have avalanche as well as backcountry rescue potential within Unincorporated Salt Lake County. Millcreek is in the low-risk category for avalanche. There are several fault lines that run north-south through the city (see Map 8) and are components of the Wasatch Fault. Millcreek City is in the moderate-risk category for both liquefaction and fault lines. There is roughly 44,200 linear feet of fault lines in Millcreek City. One of the biggest hazards that occur within an earthquake scenario is the number of unreinforced masonry (URM) buildings within Millcreek City, with an estimated 8,718 URM's, which constitutes about 35% of the overall URM's within UFA's response areas. Millcreek City is in the high-risk category for unreinforced masonry.

Wildland Urban Interface

On the eastern side of Millcreek City, there is risk due to urban interface fires, particularly in the Olympus Cove and East Millcreek areas. Also, there are structures and residences within Millcreek Canyon, which is a concern due to access and egress from Millcreek Canyon through Millcreek City. Millcreek City is in the moderate-risk category for Wildland Urban Interface.

Hazardous Materials / Tier II Sites

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

Hospitals

Millcreek City has one hospital, St Marks, located at 1200 E 3900 S, which is a full-service Level II Trauma Hospital with over 300 beds and is considered a short-term acute care facility. Millcreek City is in the moderate-risk category for hospitals.

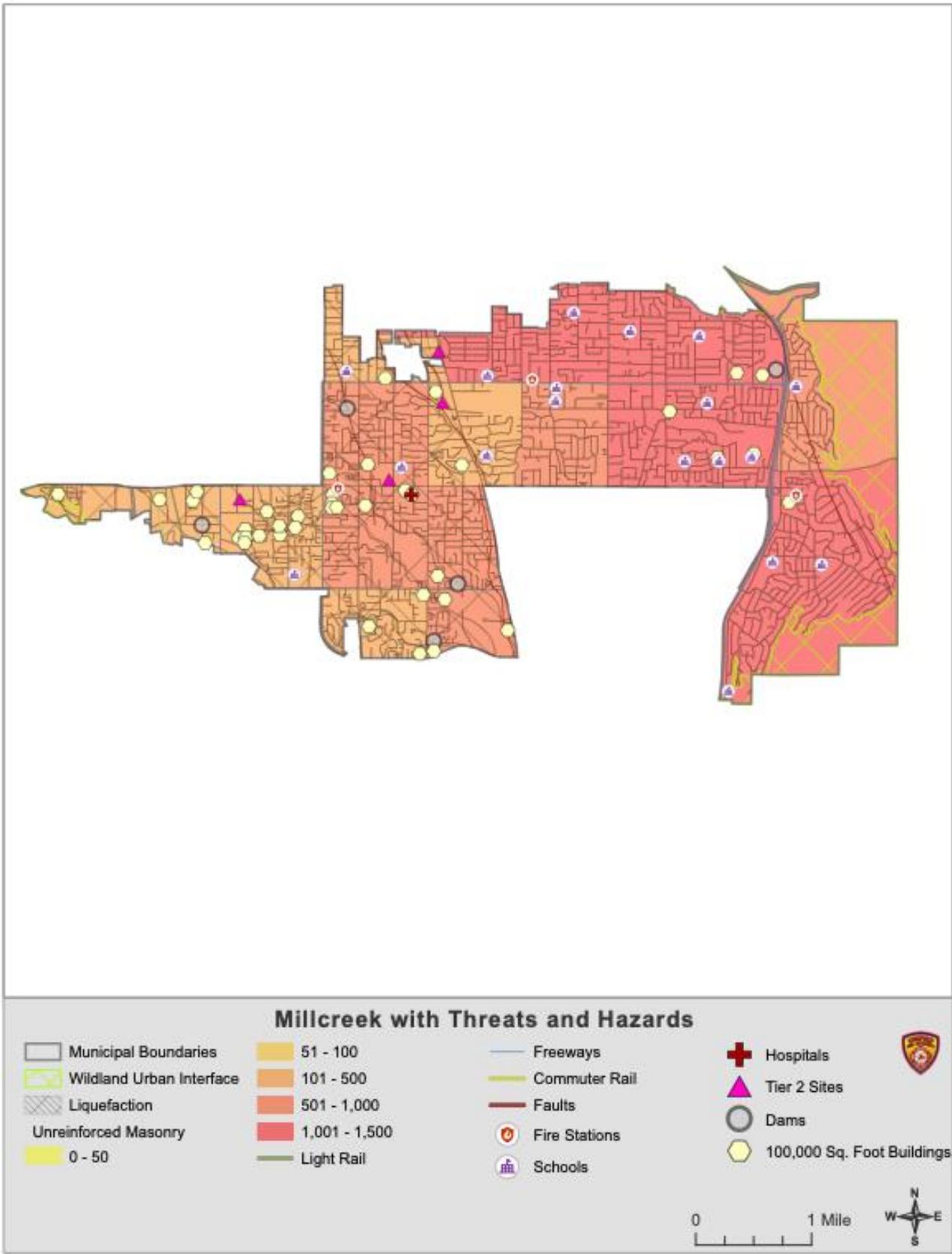
Schools

Millcreek City has nine elementary schools, three middle schools, one high school, and two private/charter schools within city boundaries, which places it in the high-risk category.

Target Hazards – Structures

Some of the target hazard occupancies in Millcreek include:

- St. Marks Hospital at 1200 East 3900 South
- Home Depot at 3398 South Highland Drive
- Specialty Lens at 3955 South Howick Street
- Morgro at 145 West Central Avenue
- Canyon Rim Care Center at 2730 East 3300 South



Map 191 - Millcreek City 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 \$3,254,602.00 of property loss and a total estimate of \$962,912.00 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 a swift water team, ice rescue team, as well as a dive rescue team. 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 Water Rescue Companies.

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.



Unified Fire Authority

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Salt Lake City, UT 84119