



Unincorporated Salt Lake County



Community Risk Assessment

Salt Lake County

UFA has no stations within Unincorporated Salt Lake County (SLCo) and responds to all Unincorporated areas from surrounding municipal fire stations. This includes the majority of the canyons within the Salt Lake Valley and is probably the most dynamic of our planning zones due to types of responses. Responses include technical rescues (including swift water rescues and high angle rescues), motor vehicle accidents, brush fires, and urban interface fires. Other areas of interest include Kennecott/Rio Tinto, the Utah Data Center, and Camp Williams. UFA covers a total of 358.87 square miles in Salt Lake County with a population of 11,052 and responded to 3,193 calls for service in 2022-2024.

Municipality	Population	Population Percentage of UFA	Square Miles	Population Density per Sq Mile	Classification	Value of Structures Protected
Unincorporated Salt Lake County	11,052	2.3%	358.87	30.80	Wilderness	\$1.1B

Salt Lake County Population

There is not a great source for Unincorporated Salt Lake County population data. The balance of the population from the census estimate for 2024 (taking all of Salt Lake County and subtracting all incorporated populations) shows a population of 11,052 and the previous estimate was 7,094 from the 2020 census. This shows a 35.8% increase in a 4-year timeframe. This is anticipated to drastically change by July 1, 2027, as there is new State of Utah legislation (HB330) which requires all unincorporated islands within a city of the first class to either vote to incorporate or be annexed into existing municipalities. This will decrease the population to nearly zero, as all islands of unincorporated pockets will be absorbed or become municipalities.

Surrounding UFA and Automatic/Mutual Aid Response Stations

Due to the unimproved and forested nature of much of Unincorporated Salt Lake County, as well as the various unincorporated pockets within the Salt Lake Valley, many of the remaining 9 fire agencies within the Salt Lake Valley have either contiguous borders with portions of Unincorporated Salt Lake County; are close to; or provide service to pockets of Unincorporated Salt Lake County. Due to the complicated geographic boundaries, it is difficult to accurately identify the agencies and stations within an eight-minute response time to Unincorporated Salt Lake County. While eight-minute response times can be determined to some degree along the major transportation routes and established communities, there are other areas within Unincorporated Salt Lake County with unimproved roads, or in some cases no roads, that make the collection of this data difficult at best. The following table identifies the units and apparatus from UFA that responded into Unincorporated Salt Lake County on service calls from 2022-2024.

Unit	Incidents
AL115	5
BC11	654
BC12	36
BC13	216
COMM2	1
E6102	4
E6106	6
E6109	1
E6110	10
E6111	13
E6112	21
E6115	2
E6118	1
E6123	2
HM109	1
HM124	5
HM126	18
HV117	65
HV121	17
MA101	80
MA104	55
MA106	253
MA109	128

Unit	Incidents
MA110	456
MA111	190
MA113	1
MA118	20
MA120	8
MA121	60
MA126	129
MA203	94
MA204	206
MA206	44
MA216	34
MA217	7
MA225	24
ME101	28
ME102	195
ME103	185
ME104	280
ME108	55
ME109	1
ME112	591
ME113	476
ME115	73
ME116	404

Unit	Incidents
ME117	4
ME119	40
ME123	22
ME124	2
ME125	11
ME126	19
ML106	187
ML109	153
ML110	140
ML111	111
ML117	9
ML121	12
OPS1	4
S1D	2
SAFE1	1
SW116	1
UFA192	1
UFA194	1
WILD1	2
WTT106	17
WTT111	2
WTT123	2

*Note – The number of apparatus that responded are greater than the number of calls identified in the following tables due to several apparatus being sent to a call.

Table 1 - UFA Responses Into SLCo Unincorporated

Unincorporated Salt Lake County – Incidents by Dispatch Type

	CY 2022	CY 2023	CY 2024
Fire Suppression	52 4.8%	36 3.4%	48 4.5%
EMS	725 67.3%	627 59.3%	615 58.2%
HazMat	17 1.6%	24 2.3%	12 1.1%
Service Call	22 2%	20 1.9%	40 3.8%
Good Intent	226 21%	305 28.8%	294 27.8%
False Call	30 2.8%	40 3.8%	42 4%
Natural Condition	2 0.2%	4 0.4%	5 0.5%
Other Situation	1 0.1%	2 0.2%	0 0%
Unknown	3 0.3%	0 0%	1 0.1%
Total	1078 100%	1058 100%	1057 100%

Table 2 - Incidents by Dispatch Type

Unincorporated Salt Lake County – Incidents by Dispatch Type

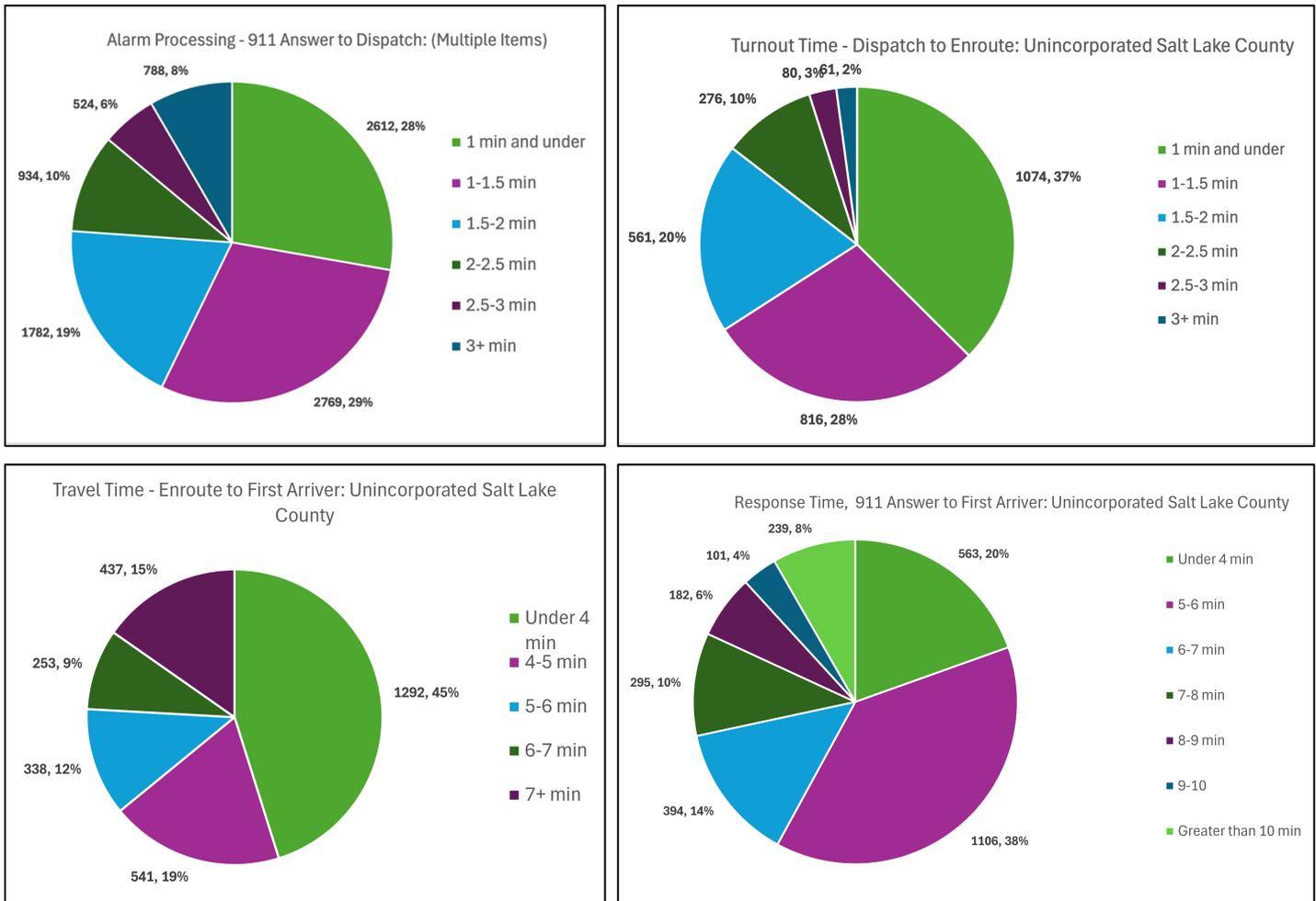


Chart 1 - Dispatch and Response Times

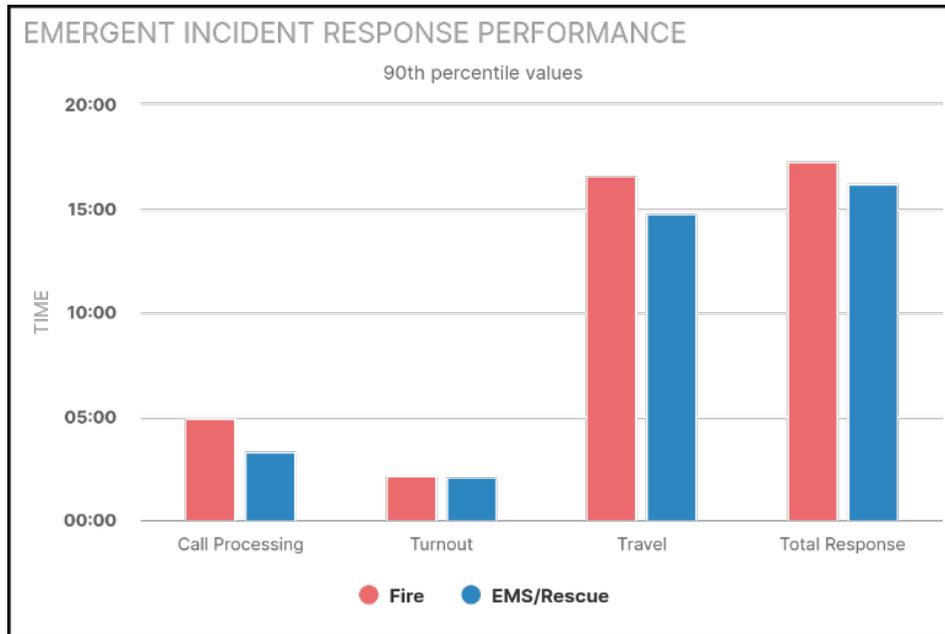


Chart 2 - Emergent Incident Response Performance

Wilderness	Call Processing: Fire	Turnout Time: Fire	Travel Time: Fire	Total Response: Fire	Call Processing: EMS	Turnout Time: EMS	Travel Time: EMS	Total Response: EMS
Unincorporated SCo 2022	3:05	2:02	14:38	19:08	3:03	2:15	14:42	18:49
Unincorporated SCo 2023	3:00	2:17	14:04	18:13	2:57	2:04	14:33	17:38
Unincorporated SCo 2024	2:55	2:36	16:40	18:51	2:39	1:58	15:13	18:47
UFA Urban 2022-2024	2:43	2:20	7:17	10:51	2:15	2:06	6:11	9:11
UFA Rural 2022-2024	2:59	2:22	14:56	17:48	2:51	2:18	14:29	18:22
NFPA 1710	1:04	1:20	4:00	6:24	1:00	1:00	4:00	6:00

Table 3 – Emergent Response Times, 90th percentile values

Unincorporated Salt Lake County – 2022-2024 Total Response Times



Chart 3 - Turnout and Travel Time

The charts above illustrate the alarm processing, turnout, travel, and total response times for all units responding to service calls within Unincorporated Salt Lake County (90th percentile).

Unincorporated SL County: 2022-2024 Incidents by Time of Day

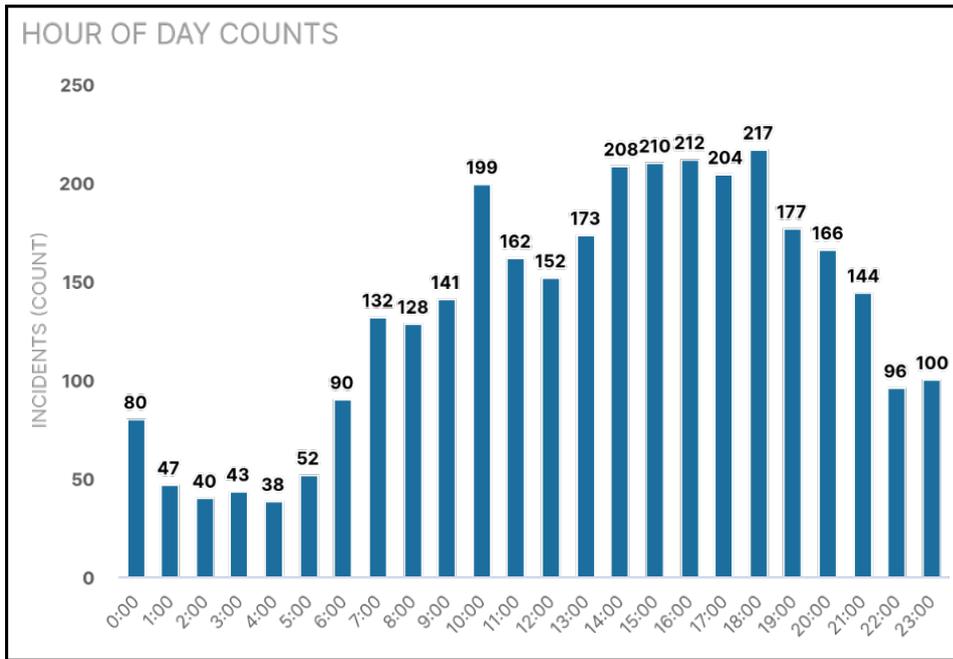


Chart 4 – Incidents by Time of Day

This table demonstrates the incidents by time of day and the time of greatest demand within Unincorporated SL County for all service calls.

Unincorporated Salt Lake County – 2022-2024 Incidents by Day of Week

This chart presents incident volume by day of the week and demonstrates that demand increases toward the weekend, with the highest call volume occurring on Saturday.

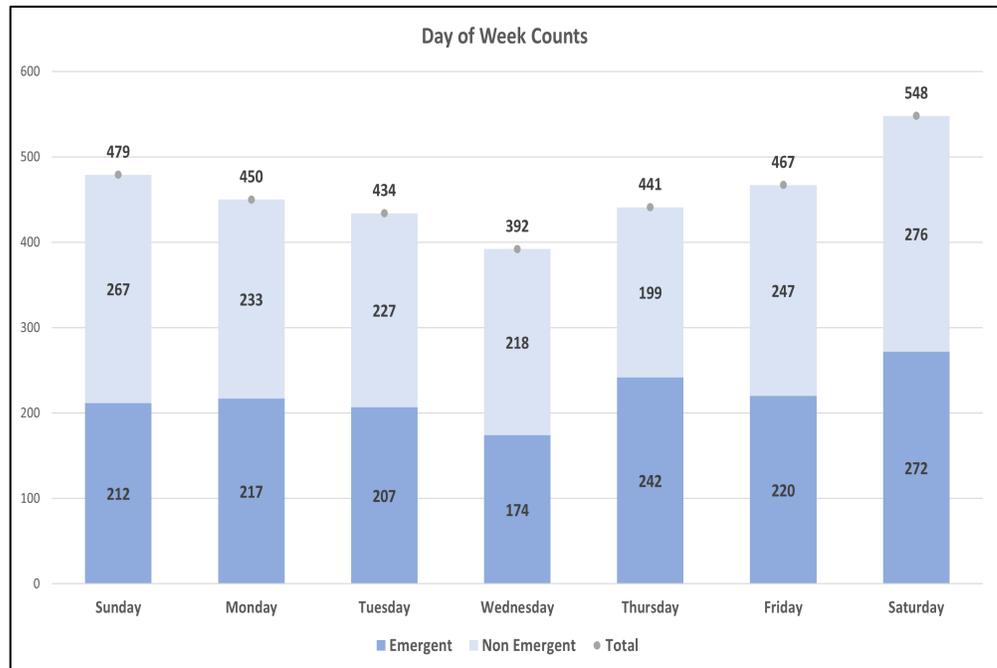


Chart 5 – Incidents by Day of Week

Unincorporated SL County – 2022-2024 EMS Calls and Ambulance Transports

Total EMS Calls	Total Ambulance Transports	% Of EMS Calls Requiring Transport
1,967	964	49%

Table 4 - EMS Calls and Ambulance Transports

Unincorporated SL County – 2022-2024 EMS Incidents by Dispatch Type

EMS Call Type	Incident Count
Trauma	183
Sick Person	167
Fall	114
Unconscious	89
Heart Problem	45

Table 5 - Top 5 Medical Calls

Unincorporated SL County – 2022-2024 Fire Incidents by Dispatch Type

NFIRS Description	Incident Count	% of Incidents	NFIRS Description	Incident Count	% of Incidents
Structure Fire	10	7.35%	Special Outside Fire	7	5.15%
Natural Vegetation Fire	26	19.12%	Fire, Other	7	5.15%
Outside Rubbish Fire	11	8.09%	Mobile Property Fire	3	2.21%
Vehicle Fire	72	52.94%	Total	136	100%

Table 6 - Incidents by Dispatch Type

Unincorporated SLCo – Building Occupancy Classification and Risk Categories

Occupancy Classification	Low	Moderate	High	Max	Total
Agriculture	48	4	0	0	52
Assembly	4	2	4	0	10
Commercial	41	4	6	0	51
Education	4	14	3	0	21
Government	146	0	29	1	176
Hazardous	56	0	2	0	58
Healthcare	0	0	0	0	0
High Rise	0	0	0	0	0
Industrial	129	29	24	5	187
Mixed Use	0	0	0	0	0
Residential **	2901	94	8	0	3003
Single Family Residential	1167	1130	206	0	2503
Multi-family Residential	27	38	10	0	75
Unclassified/Storage	144	5	2	1	152
Utility and Miscellaneous	2	0	1	0	3
Total	4669	1320	295	7	6291

**** Residential includes single family and multi-family. Breakdowns for those are in a separate row.**

**** Residential includes manufactured homes and unclassified so multi-family and single family may not add up to residential.**

Building Size / Considerations

Nonresidential low: 1 - 1-4,999 sq ft	Residential low: 1 – 1,999 sq ft.
Nonresidential moderate: 5,000 – 9,999 sq ft	Residential moderate: 2,000 – 3,999 sq ft.
Nonresidential high: 10,000 – 99,999 sq ft	Residential high: 4,000 – 9,999
Nonresidential max: ≥ 100,000 sq ft	Residential max: ≥ 10,000

Table 7 – Unincorporated SLCo Building Occupancy and Risk Categories

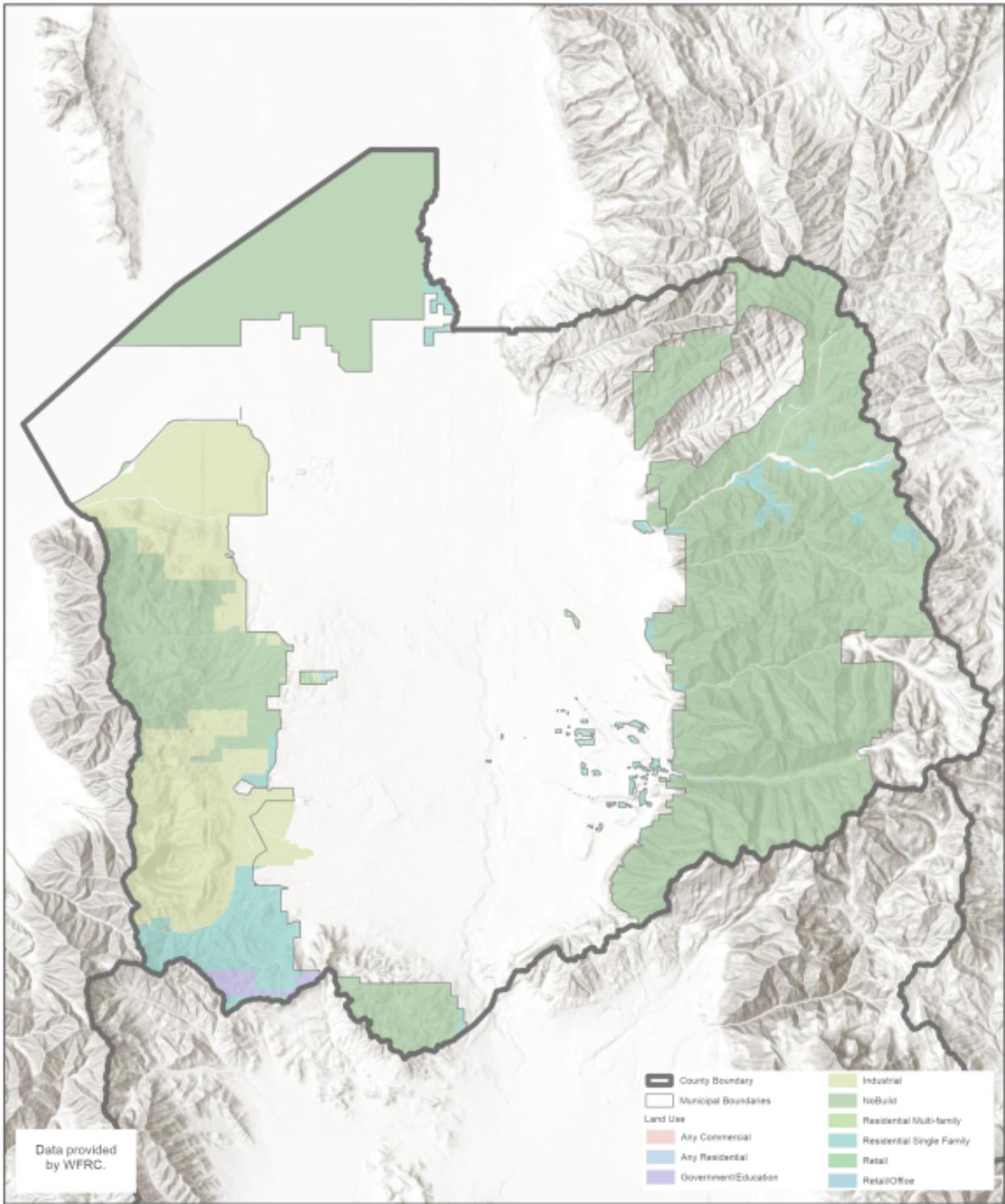


Image 1 - Land Use

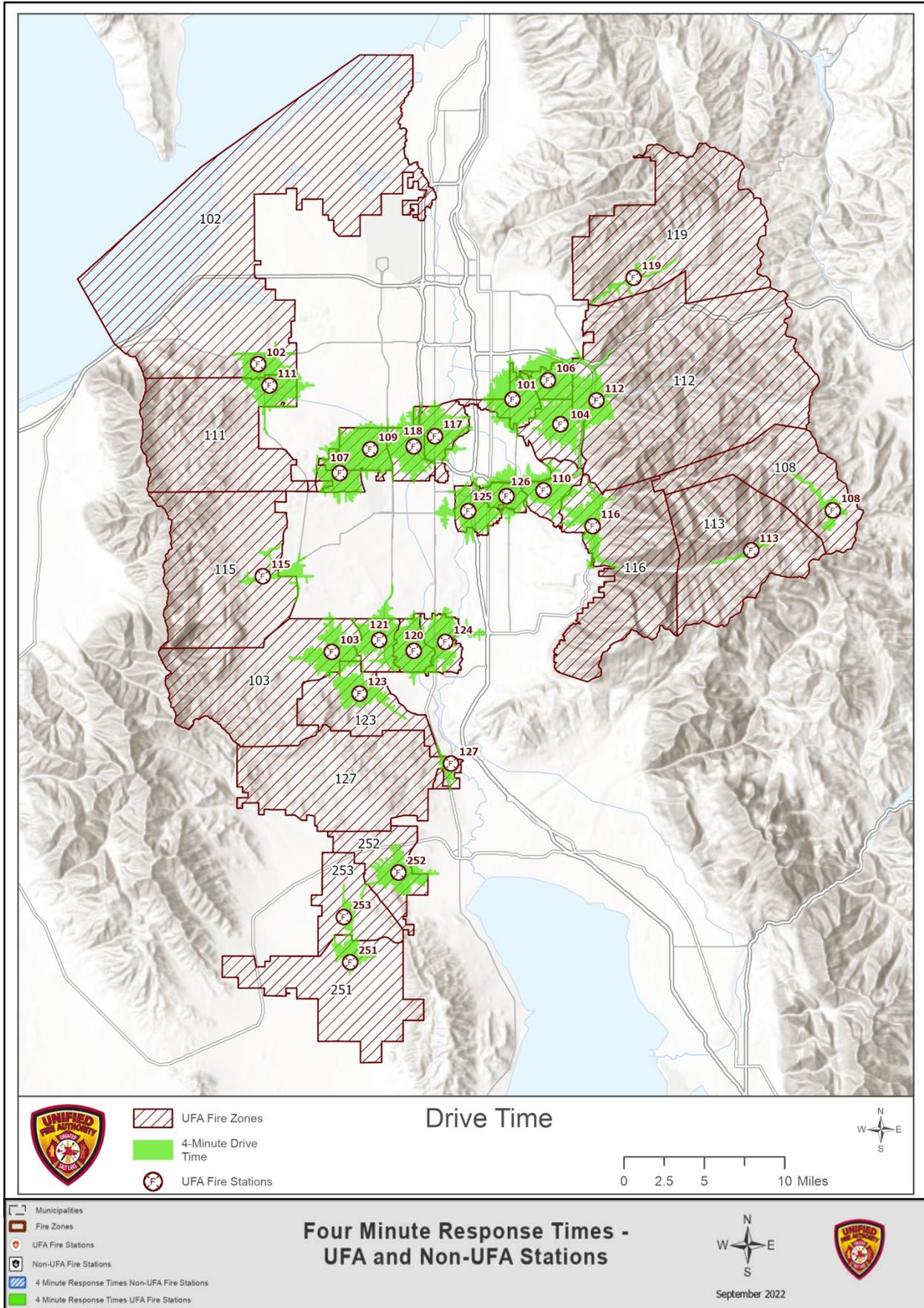


Image 2 - 4-Minute Travel Times - UFA

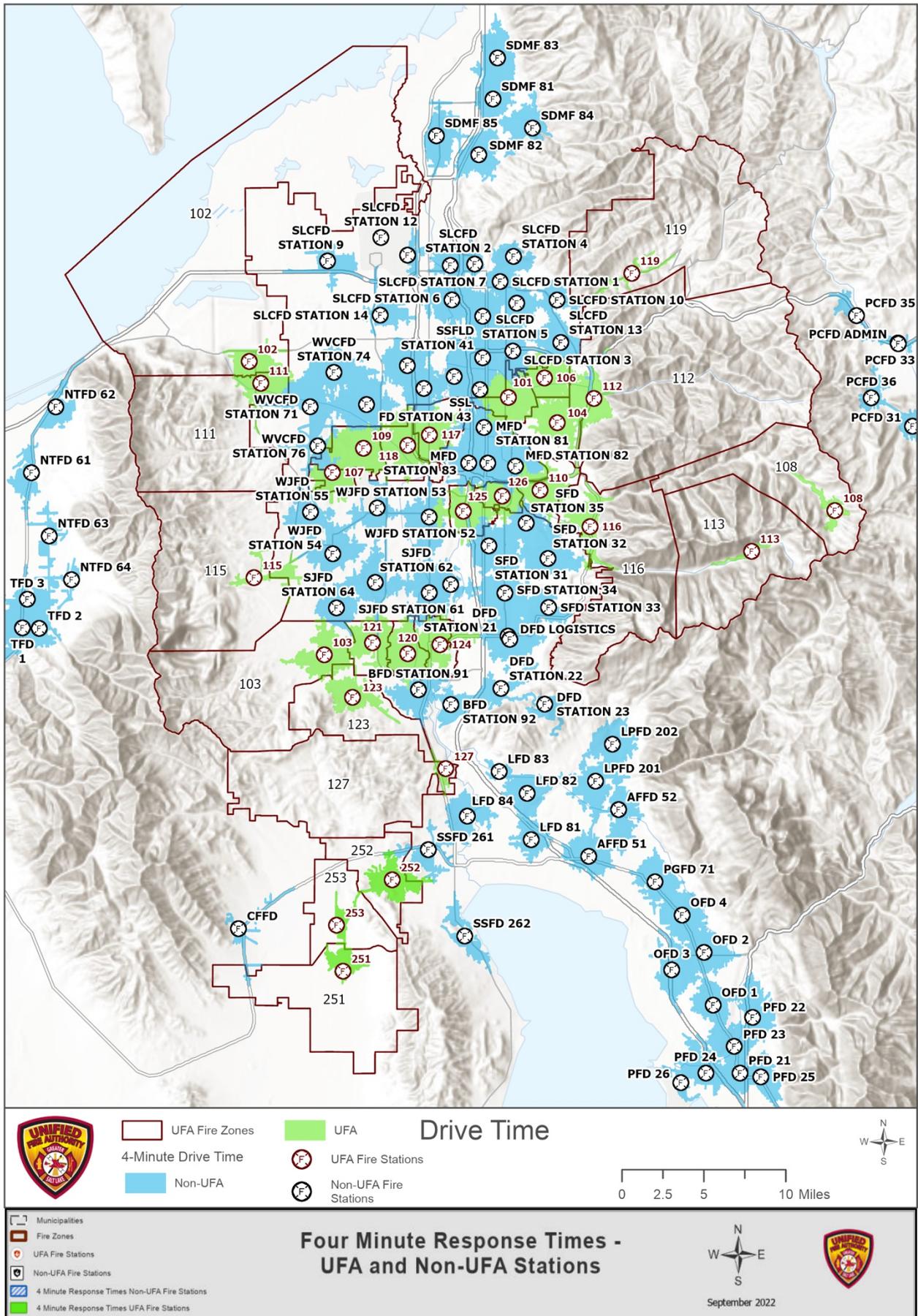


Image 3 - 4-Minute Travel Times - UFA and Aid

Unincorporated Salt Lake County – First Arriver Travel Times

The following maps demonstrate the 90th percentile of travel times based off the last three years of historical data (2022-2024). 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. In 2024, within Unincorporated Salt Lake County, the 90th percentile drive time is 15:34 for fire and 14:48 for EMS, or a combined 90th percentile drive time of 14:57.

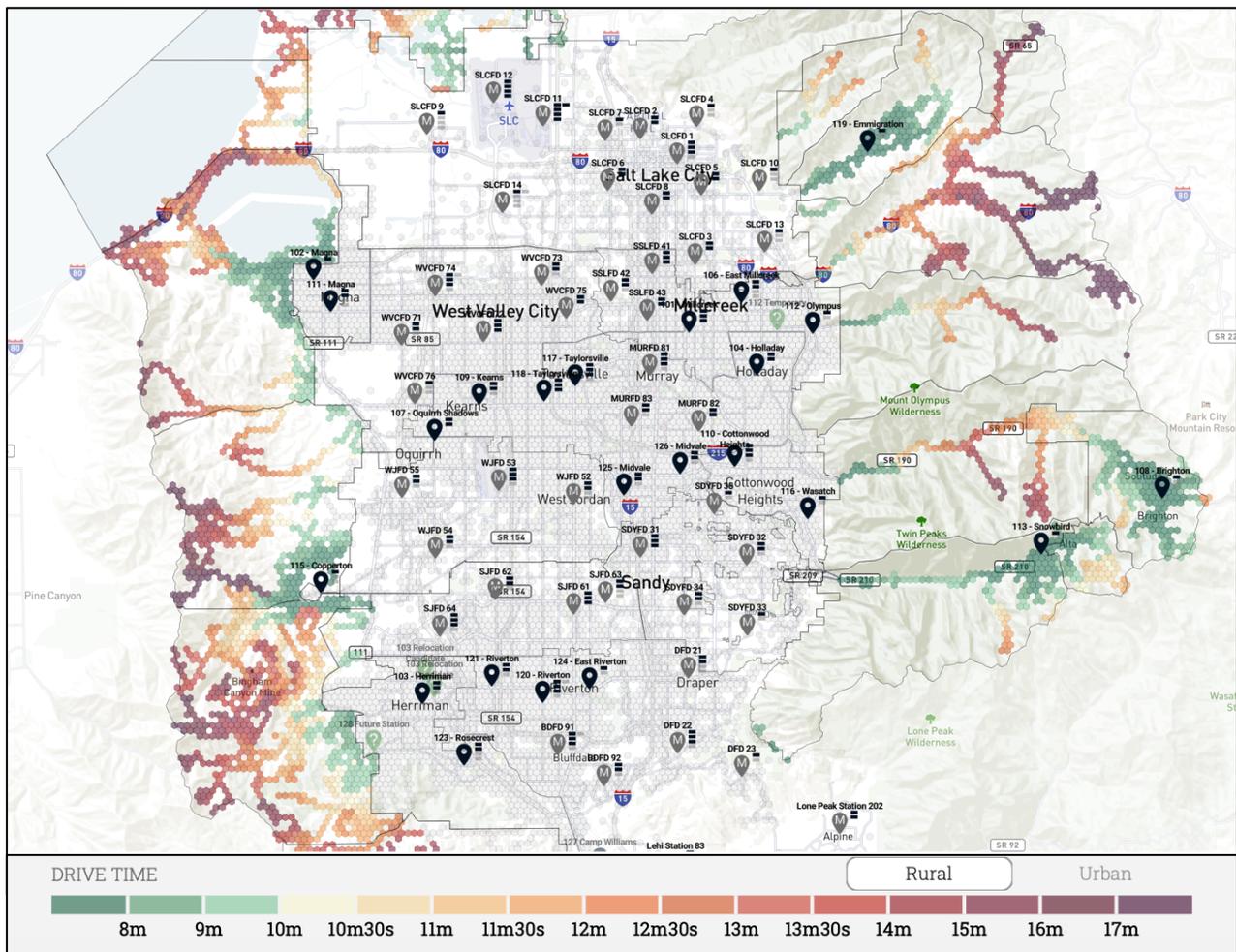


Image 4 - Emergent Response Times - All Aid

Unincorporated Salt Lake County – 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. Based off predictive data, the 90th percentile for 17 firefighters to arrive on scene is 18:15.

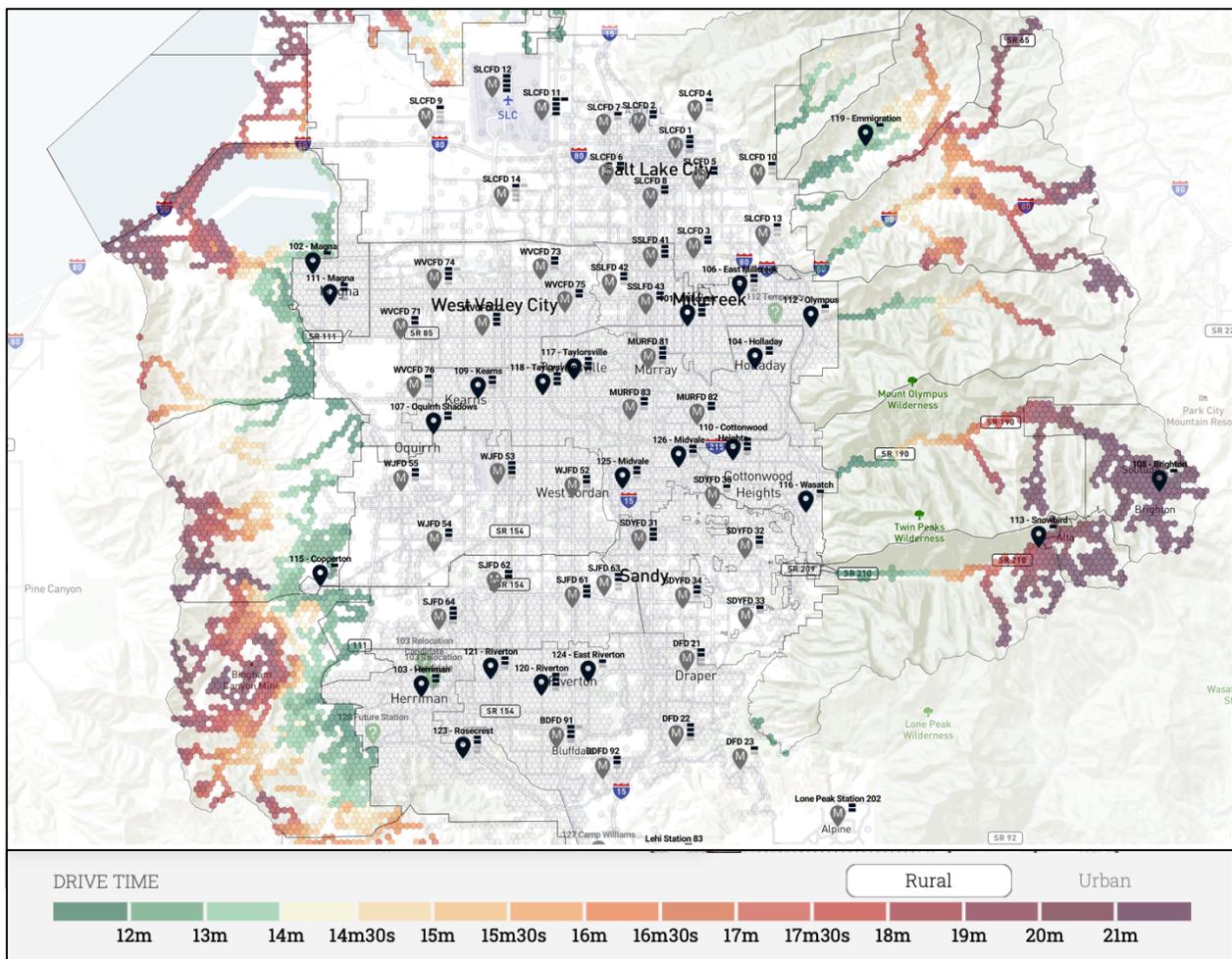


Image 5 - Response Times – Residential Fire Effective Response Force (17 ERF)

Unincorporated Salt Lake County – 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. Based off predictive data, the 90th percentile for 28 firefighters to arrive on scene is 19:30.

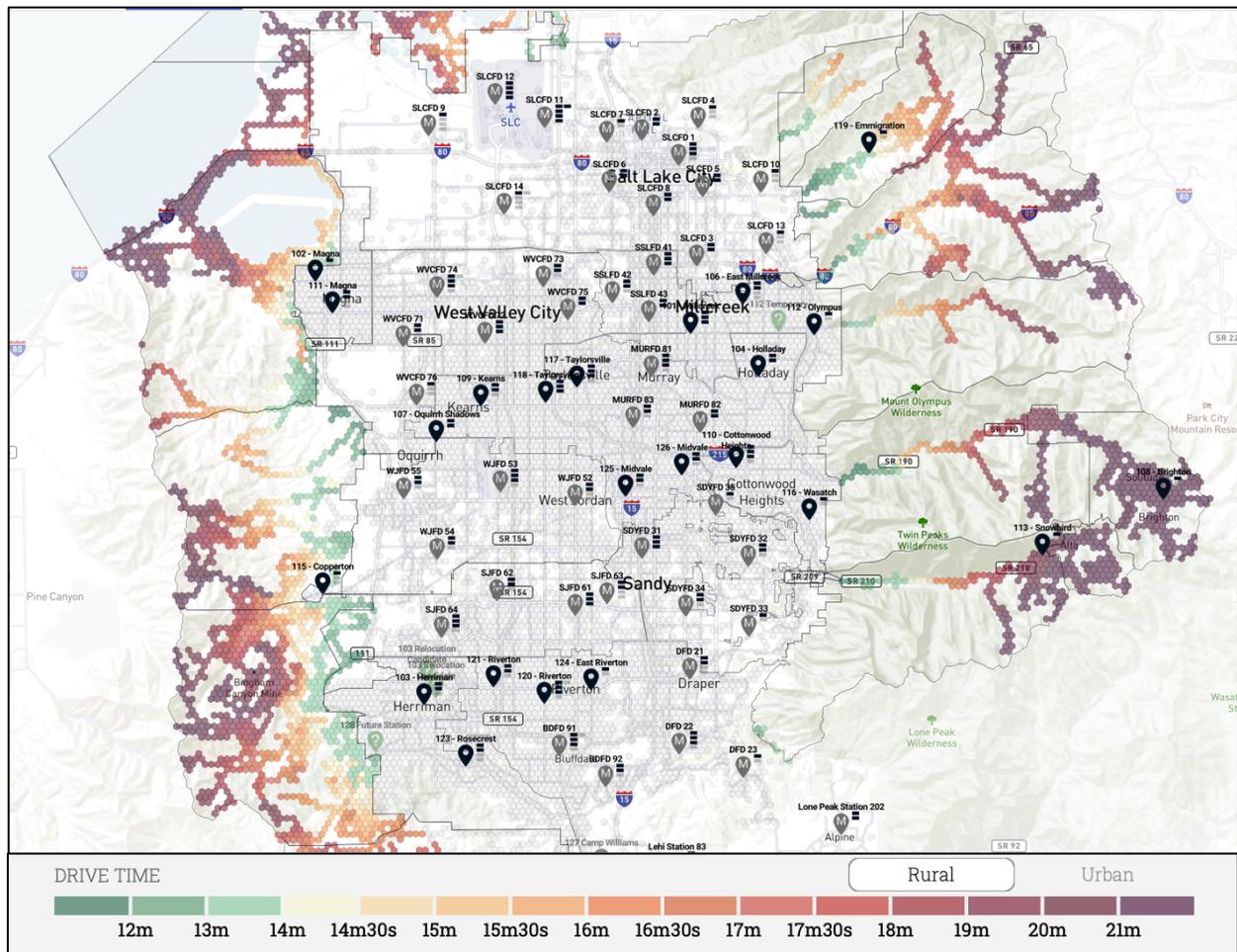


Image 6 - Response Times – Commercial Fire Effective Response Force (28 FF)

Unincorporated SLCo 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	High	Low	High	Mod	High	High	High	Low	Low	Low	Low

Table 8 - 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 roadways that run through Unincorporated Salt Lake County are I-80, which runs east/west on the northern side; U-201 which runs near parallel with I-80 on the west bench; State Road 190 up Big Cottonwood Canyon and State Road 210 up Little Cottonwood Canyon. There are 38.96 linear miles of Interstate/US Highway, 40 linear miles of State Highways, and 263 total linear miles of roadway. UTA also runs bus routes throughout Unincorporated Salt Lake County. Unincorporated Salt Lake County is in the high-risk category for road infrastructure.

Infrastructure – Water

There are several water districts within Unincorporated Salt Lake County. Copperton Improvement Water District, Cottonwood Improvement District, the Jordan Valley Water Conservancy District, and other small water districts.

Infrastructure – Dams

There are seventy-two identified dams of various types and sizes within Unincorporated Salt Lake County. Unincorporated SLCo is in the high-risk category for dam infrastructure.

Natural Hazards

Within Unincorporated Salt Lake County, there are moderate concerns with avalanche areas, as most of the high-risk avalanche areas within this planning zone are in areas not close to any roads or traveled areas. There are several identified fault lines that run through the area, with roughly 118,913 linear miles of fault lines. Unincorporated SLCo is in the low-risk category for liquefaction and high-risk category for fault lines. One of the biggest hazards that occur within an earthquake scenario is the number of unreinforced masonry (URM) buildings. Within Unincorporated SLCo, there are an estimated 575 URM's, which constitutes about 2.25% of the overall URM's within UFA's response areas. Unincorporated Salt Lake County is in the moderate-risk category for unreinforced masonry on the west bench of the County and in the high-risk category for unreinforced masonry on the east bench of the County.

Wildland Urban Interface

There is high risk of urban interface fires within Unincorporated Salt Lake County, with nearly all the Unincorporated Salt Lake County areas abutting residential structures and urban areas, particularly as building continues to occur within the unincorporated areas. Unincorporated Salt Lake County is in the high-risk category for Wildland Urban Interface.

Hazardous Materials / Tier II Sites

There are 58 identified HazMat/Tier II Sites within Unincorporated Salt Lake County, which places this threat in the high-risk category.

Hospitals

Unincorporated Salt Lake County has no standalone hospitals, which place it in the low-risk category.

Schools

Unincorporated Salt Lake County has zero elementary schools, zero middle schools, and zero high schools within unincorporated boundaries, which places it in the low-risk category.

Target Hazards –

- Rio Tinto Kennecott
- State Road 210 (Little Cottonwood Canyon)

- State Road 190 (Big Cottonwood Canyon)
- Interstate Road I-80

Kennecott's Bingham Canyon Mine is the largest man-made excavation, and deepest open pit mine in the world. The mine operates 24 hours a day, 365 days a year. The overall operation includes the mine, a concentrator plant, a smelter, and a refinery, which are spread out on the west side of the service area of Unincorporated Salt Lake County. Response to the operation includes medical, fire, hazmat and technical rescue incidents.

Life and Property Loss

From 2022-2024, there have been zero fatalities attributed to fire. There has been a total estimate of \$741,100.00 of property loss and a total estimate of \$267,900.00 of content loss due to fire.

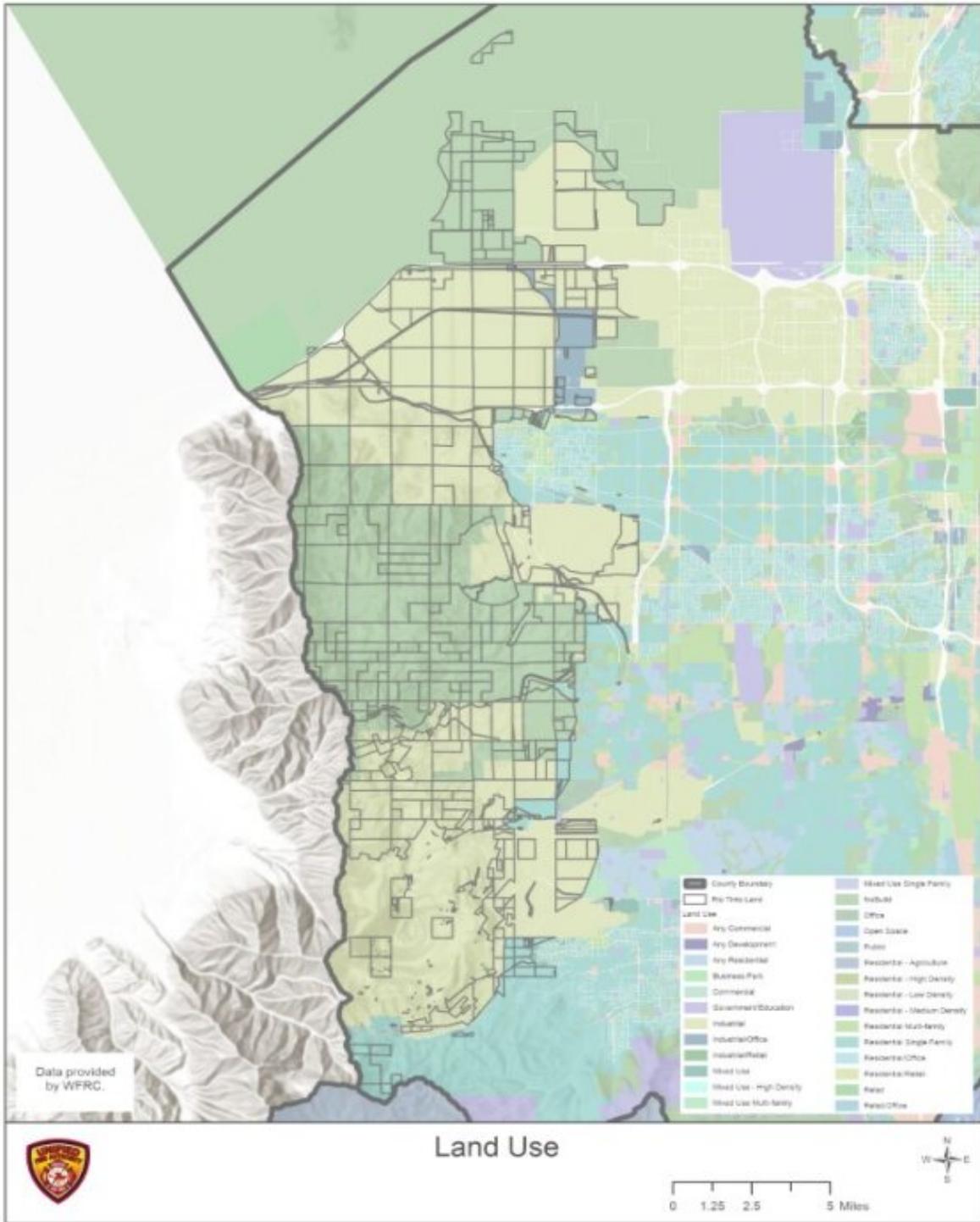


Image 7 – Rio Tinto Land Use

