Receive Analysis and Provide Direction on Negotiating with Alameda County Fire Department to Amend Fire Contract and Prepare Closure Plan for Fire Station 30

Background

- October 2018: Fiscal Stability Committee fire service technical consultant
- CPSM public safety technical assistance for ICMA
  - Evaluated Union City ALCO fire data October 1, 2017 – September 30, 2018
- April 2019: Public Survey, Budget Discussion Fire Closure
- ALCO: CityGate Standards of Coverage Review, September 1, 2017

Meeting Order:

- Public Comment
- ALCO Fire Chief
- CPSM
- Presenter Response
- Council Questions
- Council Direction

Public Comment

ALCO Presentation

ALAMEDA COUNTY FIRE DEPARTMENT

SERVING:

City of Dublin

City of Emeryville

City of Newark

City of San Leandro

City of Union City

Lawrence Berkeley National Laboratory

Lawrence Livermore National Laboratory

Unincorporated Areas of Alameda County

Alameda County Regional Emergency Communications Center "Accredited Center of Excellence"

Standard of Coverage Review

Presented by:

David A. Rocha, Fire Chief

History of Fire Studies in Union City

- June 2008 **Emergency Services Consulting, Inc.**
  - Standards of Cover (SOC) document for the UCFD
- April 2009 **Citygate Associates, LLC**
  - Regional Fire Service Study for the Cities of Newark and Union City
- July 2017 **Citygate Associates, LLC**
  - Standards of Cover (SOC) Review document for the ACFD
- July 2019 **Center for Public Safety Management**
  - Fire Services Analysis Report

Emergency Services Consulting, Inc.
June 2008

Recommendations:

1. Adopt response goals
2. Adopt SOC resolution by Council
3. Adopt compliance protocols for annual review
4. Reinstate a comprehensive pre-fire planning program consistent with NFPA Standards
5. Consider staffing truck company on a full-time basis
6. Consider the use of squads
7. Consider the use of peak activity units
8. Construct a training facility
9. Install training system to keep equipment in first-in districts
10. Request ISO update
11. Evaluate every opportunity to expand upon collaborative efforts between neighboring agencies

Citygate Associates, LLC
April 2009

City to City Merger not recommended

1. Higher merged costs
2. Reduction in existing Battalion Chief service levels

Alameda County Fire Contract for Union City

1. Significant cost savings, with or without Newark
2. Significant service enhancements
3. Make final service level decisions on fire suppression, fire prevention and clerical staffing levels.
4. Request a formal proposal from ACFD and then negotiate the cost details to determine actual savings and operating conditions
5. The two cities and ACFD need to formally request that Fremont consider offering First Alarm ladder truck and Battalion Chief services

Citygate Associates, LLC
July 2017

Alameda County Fire Department Standards of Coverage

In late 2016, the ACFD issued a request for proposals to conduct a Standards of Coverage deployment analyses consistent with guidelines from the National Fire Protection Association; the Commission on Fire Accreditation International; and the Insurance Services Office.

Citygate Associates, LLC was chosen as one of the most experienced and relied-upon fire and emergency medical services consultancy firms. Citygate had executed many of the largest fire service studies we know of, including for the Counties of Los Angeles, San Diego, and El Dorado, as well as the Cities of San Diego, Oakland, Stockton, and Pasadena and the Sacramento Metropolitan Fire District and both the Ports of Long Beach and Los Angeles.

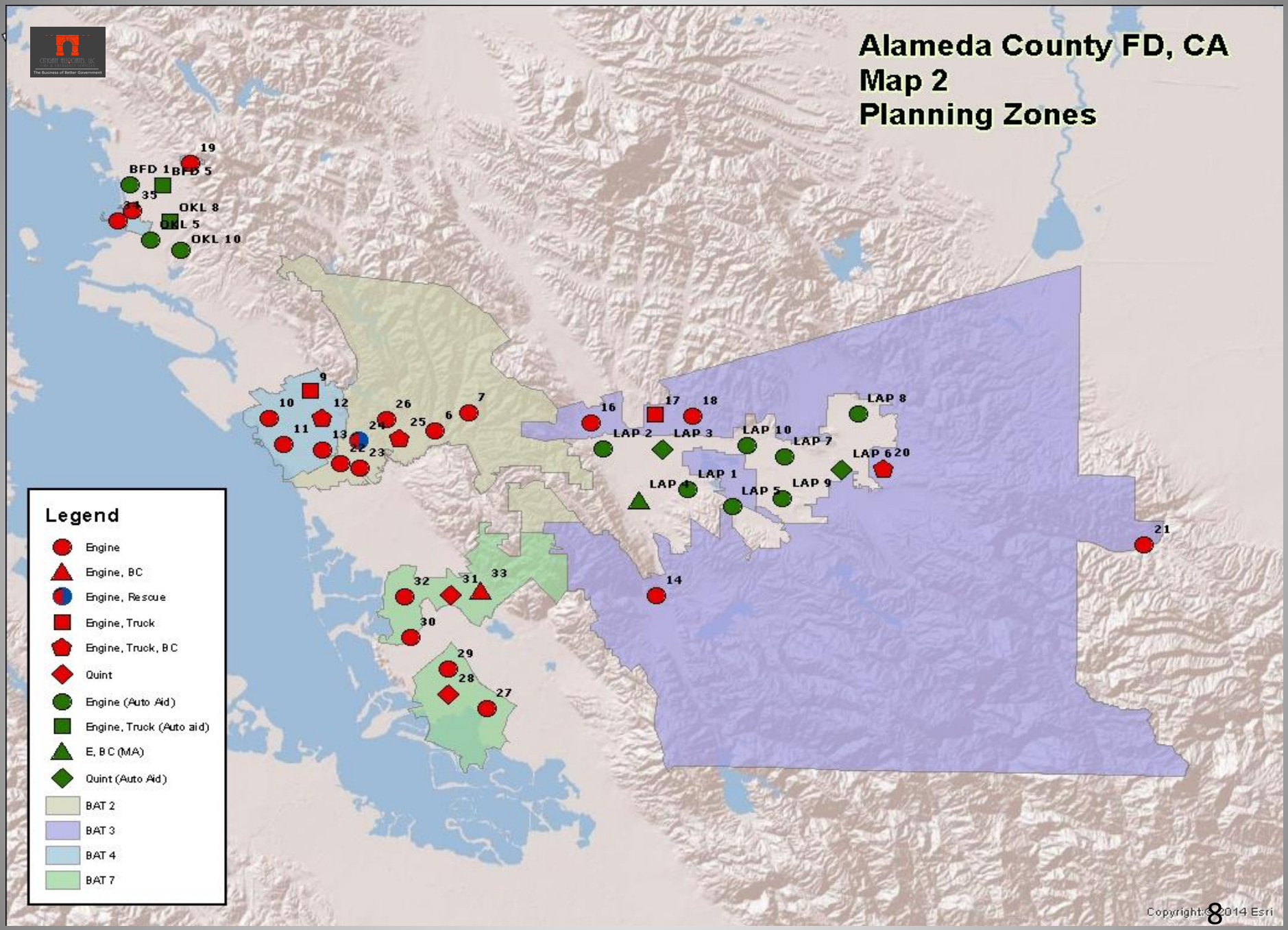
On September 1, 2017, Citygate Associates completed its Standards of Coverage Review based on 2014, 2015 and 2016 calendar data and began presenting the findings to ACFD ‘s Board of Directors, Fire Advisory Commission and City Councils. Union City opted not to receive a presentation directly from Citygate Associates and the ACFD during the performance period of the contract.

Citygate's Overall Opinion

- The Fire Department provides advanced life support emergency medical care, but the threat of fire, even if low, still requires resources *in addition to EMS hourly demand* for an effective response to emerging fires
- For its current risks and desired outcomes, the ACFD has the correct quantity of fire engines (pumpers) and quint/ladder trucks
- If the ACFD and/or its contract city partners chooses not to continue the current level of service for fire services delivery, then it should adopt a travel time goal that it can afford, understanding that longer response times will mean the most time-sensitive emergencies could experience worse-than-desired outcomes

Response Time Measure Advice

- Best-practice advice:
  - Total response time from fire dispatch receipt to unit arrival(s)
  - Measures and goals for dispatch, crew turnout, and travel time
  - Tied to risks and outcomes
  - Reflect population density and taxation economics
- All of the above used by elected officials to set agency goals
- Citygate tested urban response times from 9-1-1 receipt:
  - 1:30 dispatch + 2:00 crew turnout + 4:00 travel equals
    - 7:30 minutes for first-due
    - For multiple unit responses, 11:30 minutes total response time for last-arriving neighborhood-based unit


Alameda County FD, CA
Map 2
Planning Zones
BFD 1
BFD 5
OKL 8
OKL 5
OKL 10
LAP 1
LAP 2
LAP 3
LAP 4
LAP 5
LAP 6
LAP 7
LAP 8
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LAP 10
Legend
Engine
Engine, BC
Engine, Rescue
Engine, Truck
Engine, Truck, BC
Quint
Engine (Auto Aid)
Engine, Truck (Auto aid)
E, BC (MA)
Quint (Auto Aid)
BAT 2
BAT 3
BAT 4
BAT 7
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Risk Assessment Summary

Risk		Planning Zone				
		Batt. 2	Batt. 3	Batt. 4	Batt. 7	Emeryville
1	Building Fire	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
2	Wildland Fire	HIGH	HIGH	MODERATE	HIGH	LOW
3	Medical Emergency	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
4	Hazardous Materials	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
5	Technical Rescue	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE

Call to First Arrival Time 2016

Best-Practice Urban Goal – 7:30 Minutes

Area	2016
Department-wide	**7:53**
Battalion 2 – Castro Valley	7:43
Battalion 3 – Tri-Valley	8:09
Battalion 4 – San Leandro / Emeryville	7:39
Battalion 7 – Newark / Union City	8:00

Travel Time - 2016

Best-Practice Urban Goal – 4:00 Minutes*

Area	2016
Department-Wide	**5:12**
Battalion 2 – Castro Valley	5:01
Battalion 3 – Tri-Valley	4:58
Battalion 4 – San Leandro / Emeryville	5:00
Battalion 7 – Newark / Union City	5:31

First Alarm Travel Time 2016

Best-Practice Urban Goal – 8:00 Minutes

Area	2016
Department-Wide	**16:28**
Battalion 2 – Castro Valley	11:04
Battalion 3 – Tri-Valley	Mixed Data Set *
Battalion 4 – San Leandro / Emeryville	11:35
Battalion 7 – Newark / Union City	20:12

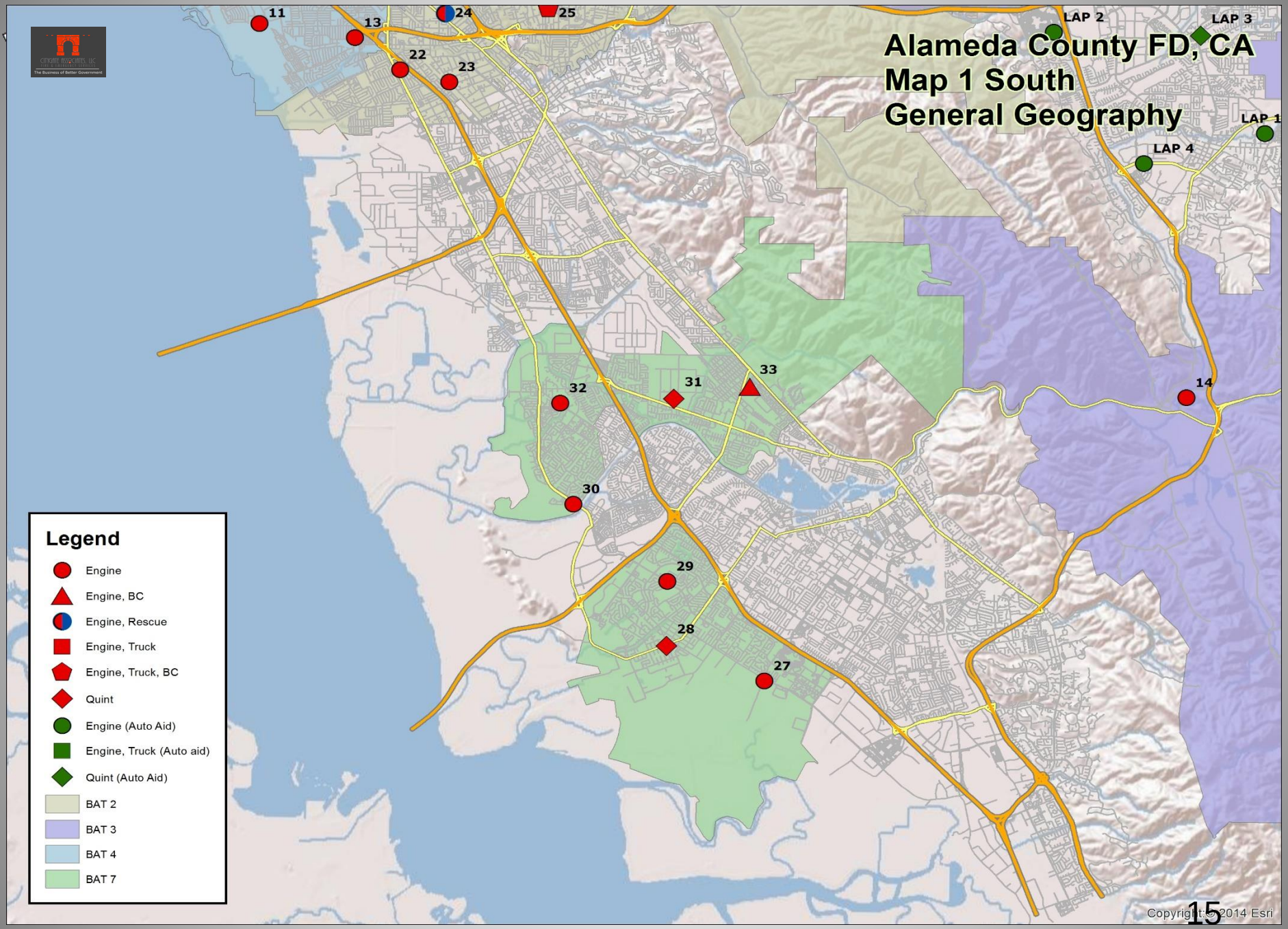
*- Mixed Data Set due to automatic aid and rural

Incident Statistics Overview

- Incidents by time of day, day of week, and month follow typical urban area patterns
- Incident volumes are typical, reflecting the demographics and population density
- Daily demand of 117 incidents
- 70.66 percent of the incidents are medical events
- Fire account for 2.55 percent of all incidents
- 26.79 percent are other types of emergency or public assist
- Incident quantities are steadily increasing but, at present, the units can handle more incident load

Unit Hour Utilization

Hour	E24	E09	E13	E22	E33	E12	E23	E32	E25	E29
00:00	12.21%	8.38%	6.86%	6.66%	5.05%	5.68%	3.20%	5.38%	4.05%	4.60%
01:00	8.92%	7.15%	5.72%	5.21%	3.12%	4.46%	4.43%	3.72%	4.96%	3.78%
02:00	7.74%	7.93%	6.62%	12.07%	4.10%	4.02%	5.45%	3.92%	5.33%	2.74%
03:00	9.77%	8.34%	6.36%	3.64%	3.84%	6.02%	4.00%	1.98%	3.96%	4.48%
04:00	7.15%	6.40%	4.57%	5.19%	4.20%	2.10%	3.22%	2.54%	3.46%	3.06%
05:00	9.15%	7.27%	6.92%	4.73%	4.48%	4.34%	4.30%	4.17%	5.17%	3.59%
06:00	9.76%	8.65%	6.90%	6.66%	7.30%	3.42%	5.67%	5.89%	5.68%	5.28%
07:00	11.74%	10.92%	8.99%	7.65%	5.82%	6.33%	6.26%	4.84%	8.09%	5.71%
08:00	14.40%	9.61%	11.10%	10.97%	7.84%	6.48%	9.61%	7.87%	6.77%	5.49%
09:00	15.41%	12.49%	12.35%	11.42%	8.08%	9.21%	9.05%	7.98%	8.25%	7.63%
10:00	13.88%	11.00%	11.68%	11.42%	10.97%	10.98%	8.96%	10.25%	7.86%	7.63%
11:00	13.24%	12.00%	12.75%	12.14%	10.38%	10.32%	9.93%	10.46%	10.36%	6.15%
12:00	16.17%	14.53%	12.72%	15.05%	8.48%	13.67%	9.50%	10.25%	8.87%	9.00%
13:00	16.27%	12.76%	16.26%	12.50%	12.05%	9.68%	9.44%	7.53%	9.94%	8.82%
14:00	15.84%	12.18%	12.87%	11.17%	12.72%	10.03%	9.52%	11.86%	7.52%	11.23%
15:00	14.09%	12.92%	13.39%	10.55%	10.59%	12.14%	9.41%	13.93%	9.22%	11.36%
16:00	18.16%	14.14%	12.55%	12.31%	12.63%	9.33%	10.80%	9.14%	10.51%	8.64%
17:00	16.76%	16.21%	13.35%	12.05%	13.32%	12.72%	11.65%	12.61%	10.06%	10.63%
18:00	18.73%	15.67%	13.65%	12.72%	12.73%	10.02%	10.37%	8.91%	8.90%	9.00%
19:00	17.81%	12.91%	13.36%	9.83%	10.70%	10.10%	10.37%	9.70%	9.95%	6.67%
20:00	15.16%	12.46%	10.76%	13.57%	10.82%	8.45%	8.91%	8.60%	8.13%	8.31%
21:00	16.15%	14.38%	11.55%	10.63%	8.16%	8.85%	8.74%	6.84%	7.96%	8.75%
22:00	14.63%	11.52%	8.79%	9.12%	9.33%	6.87%	8.88%	7.47%	7.60%	6.53%
23:00	9.88%	9.71%	8.53%	6.21%	5.89%	5.70%	5.91%	6.77%	5.33%	6.50%


Alameda County FD, CA
Map 1 South
General Geography
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LAP 2
LAP 3
LAP 1
LAP 4
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Legend
Engine
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Engine, Rescue
Engine, Truck
Engine, Truck, BC
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Engine (Auto Aid)
Engine, Truck (Auto aid)
Quint (Auto Aid)
BAT 2
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BAT 4
BAT 7
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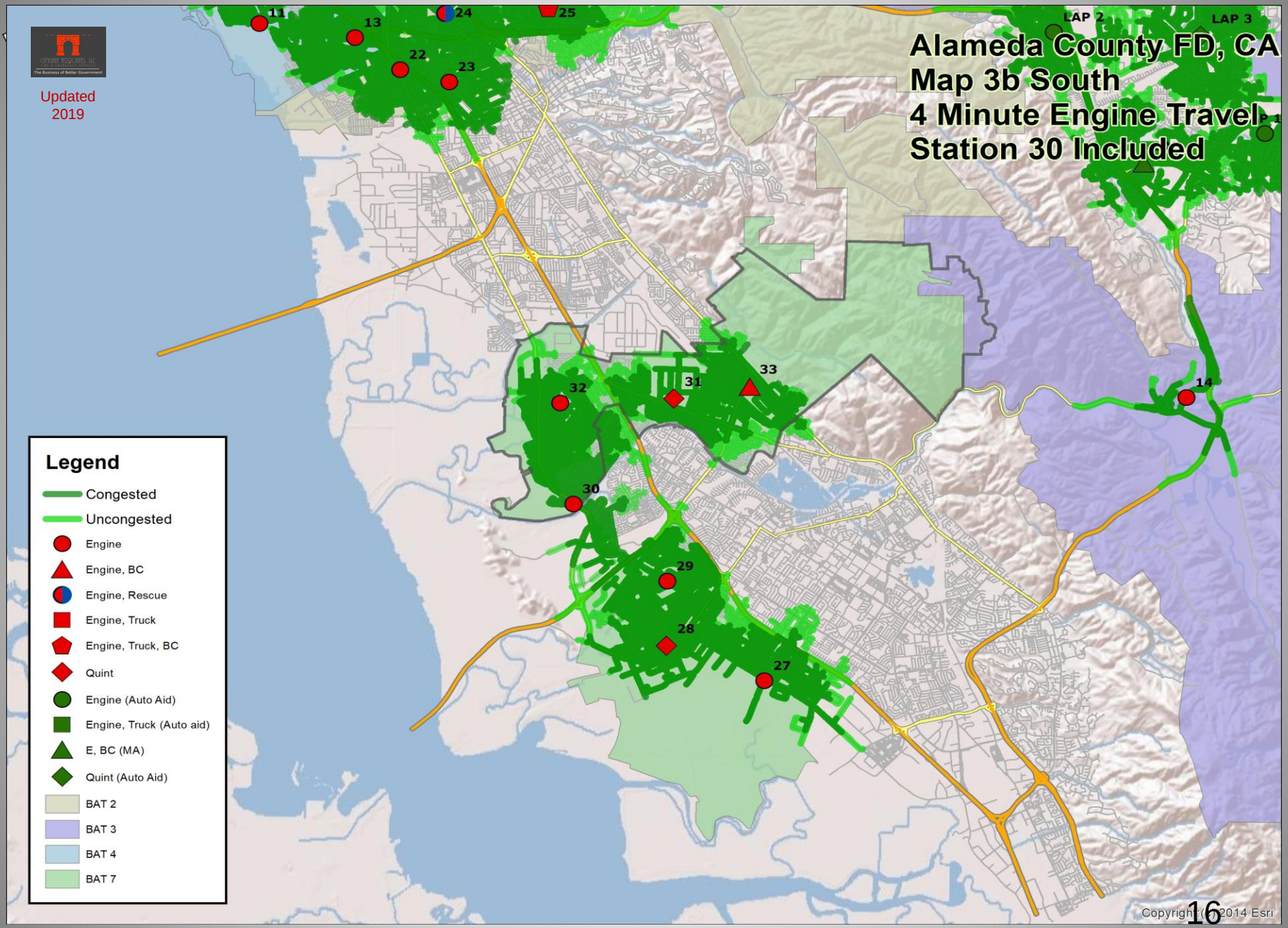
Alameda County FD, CA
Map 3b South
4 Minute Engine Travel
Station 30 Included
Updated
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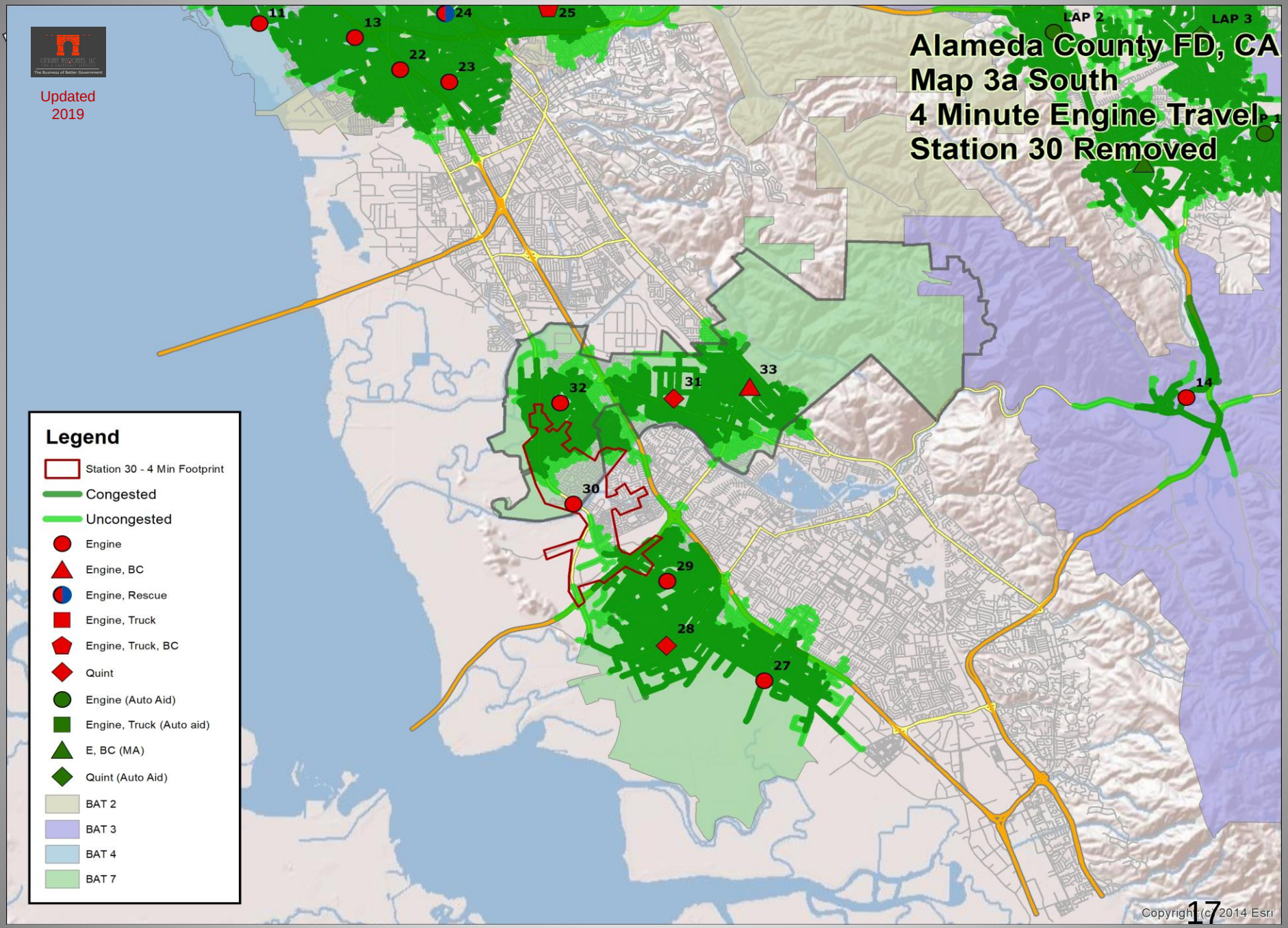
Alameda County FD, CA
Map 3a South
4 Minute Engine Travel
Station 30 Removed
Updated
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LAP 2
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Station 30 - 4 Min Footprint
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Quint (Auto Aid)
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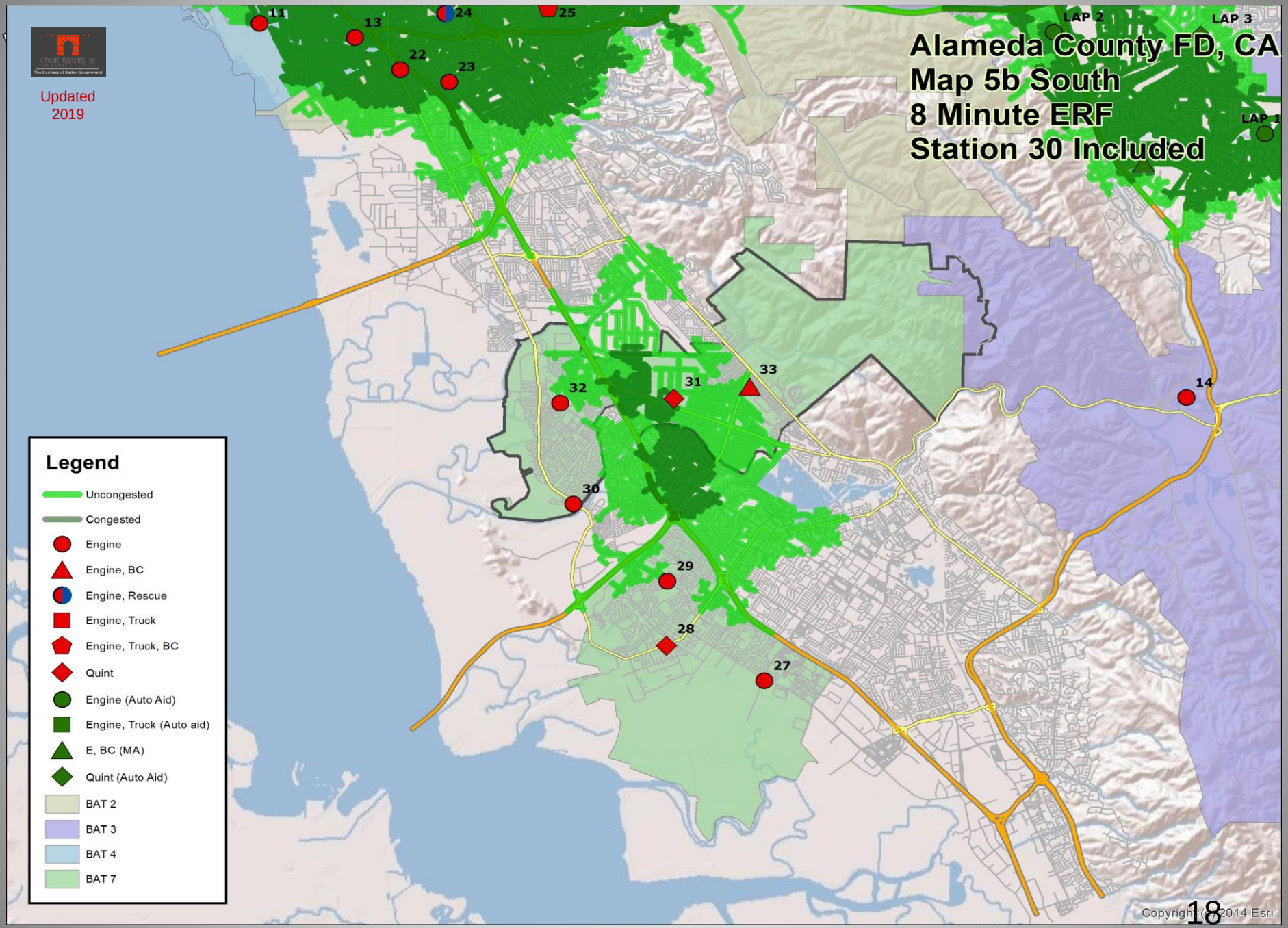
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2019
Alameda County FD, CA
Map 5b South
8 Minute ERF
Station 30 Included
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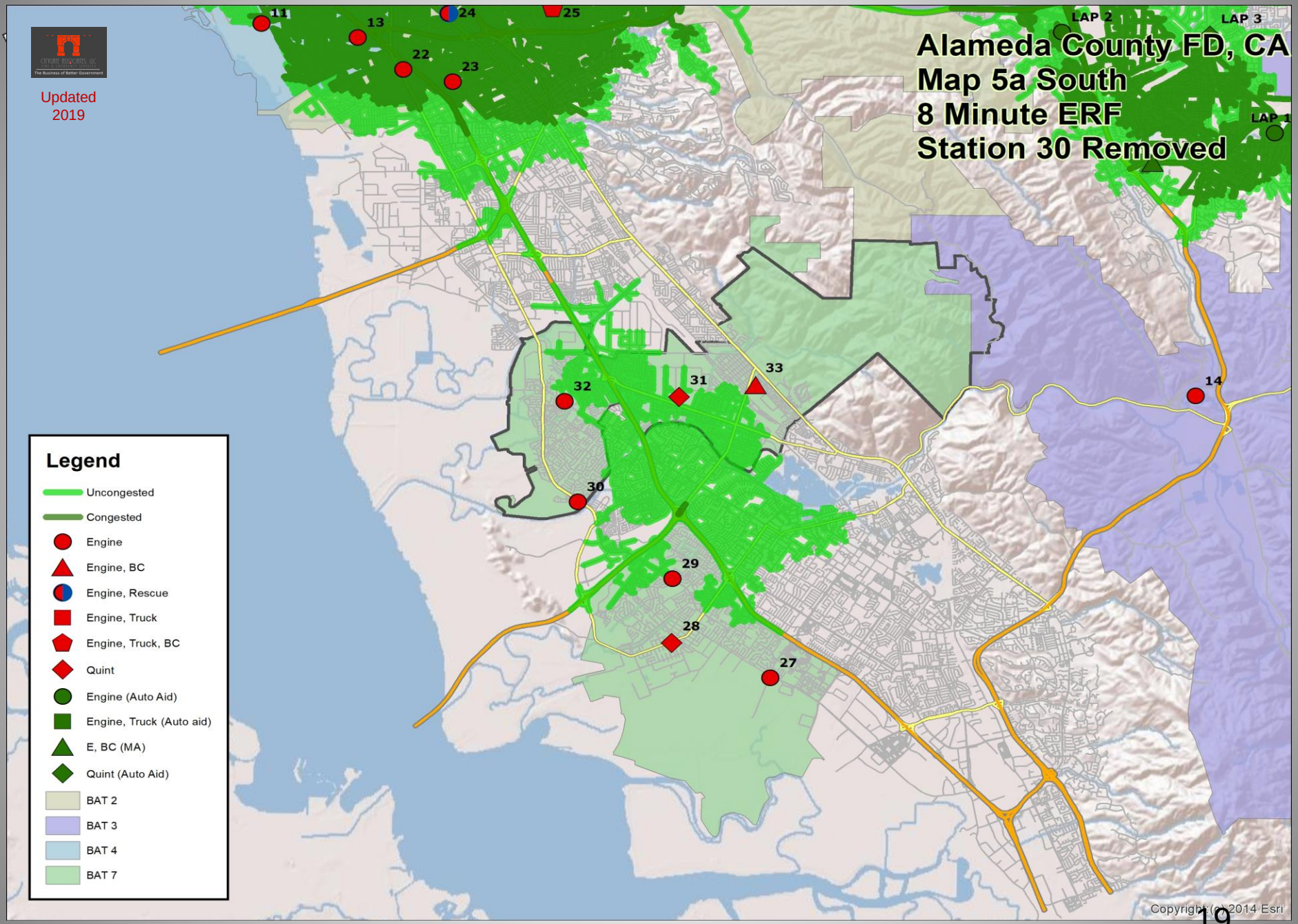
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Alameda County FD, CA
Map 5a South
8 Minute ERF
Station 30 Removed
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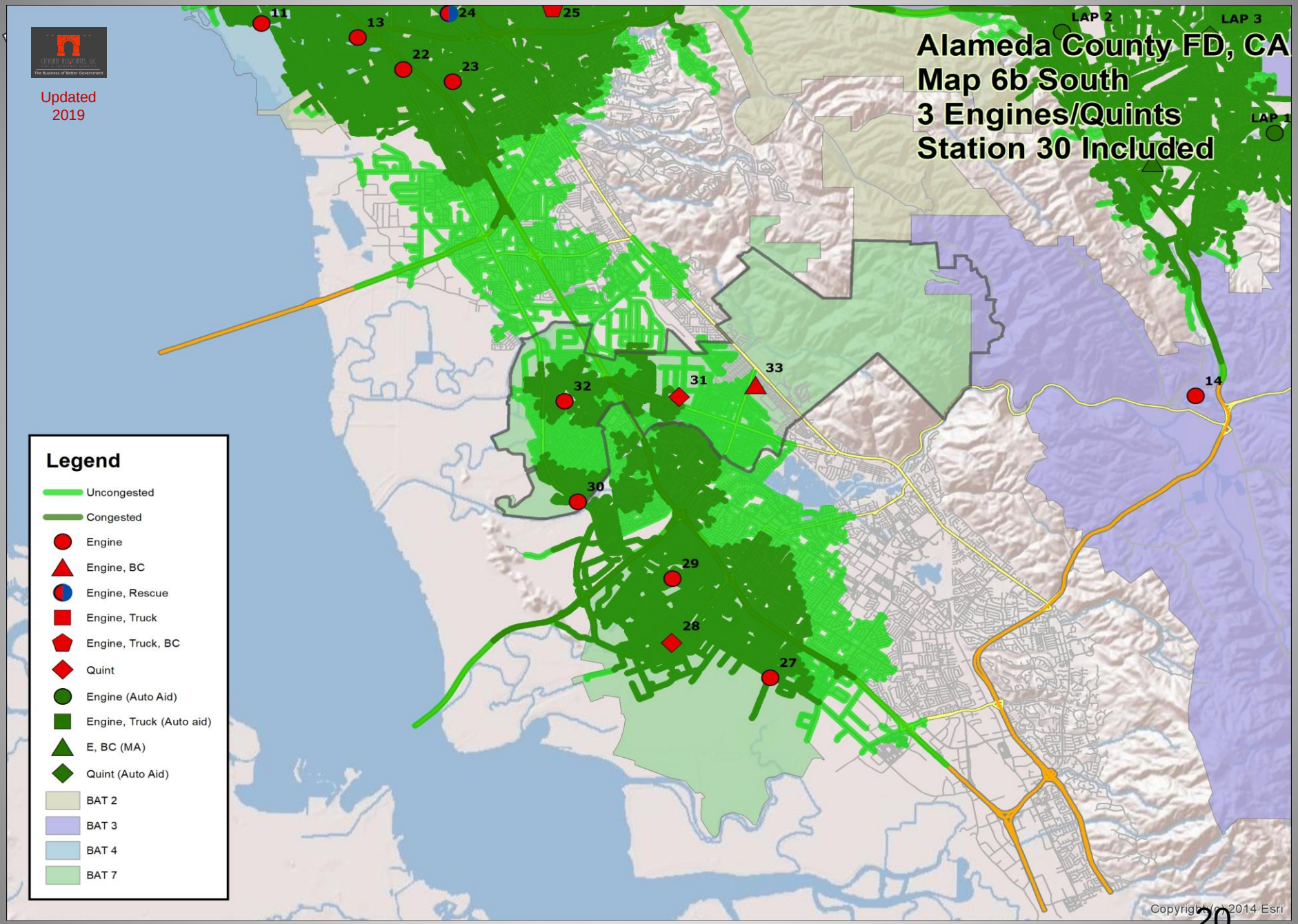
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2019
Alameda County FD, CA
Map 6b South
3 Engines/Quints
Station 30 Included
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LAP 3
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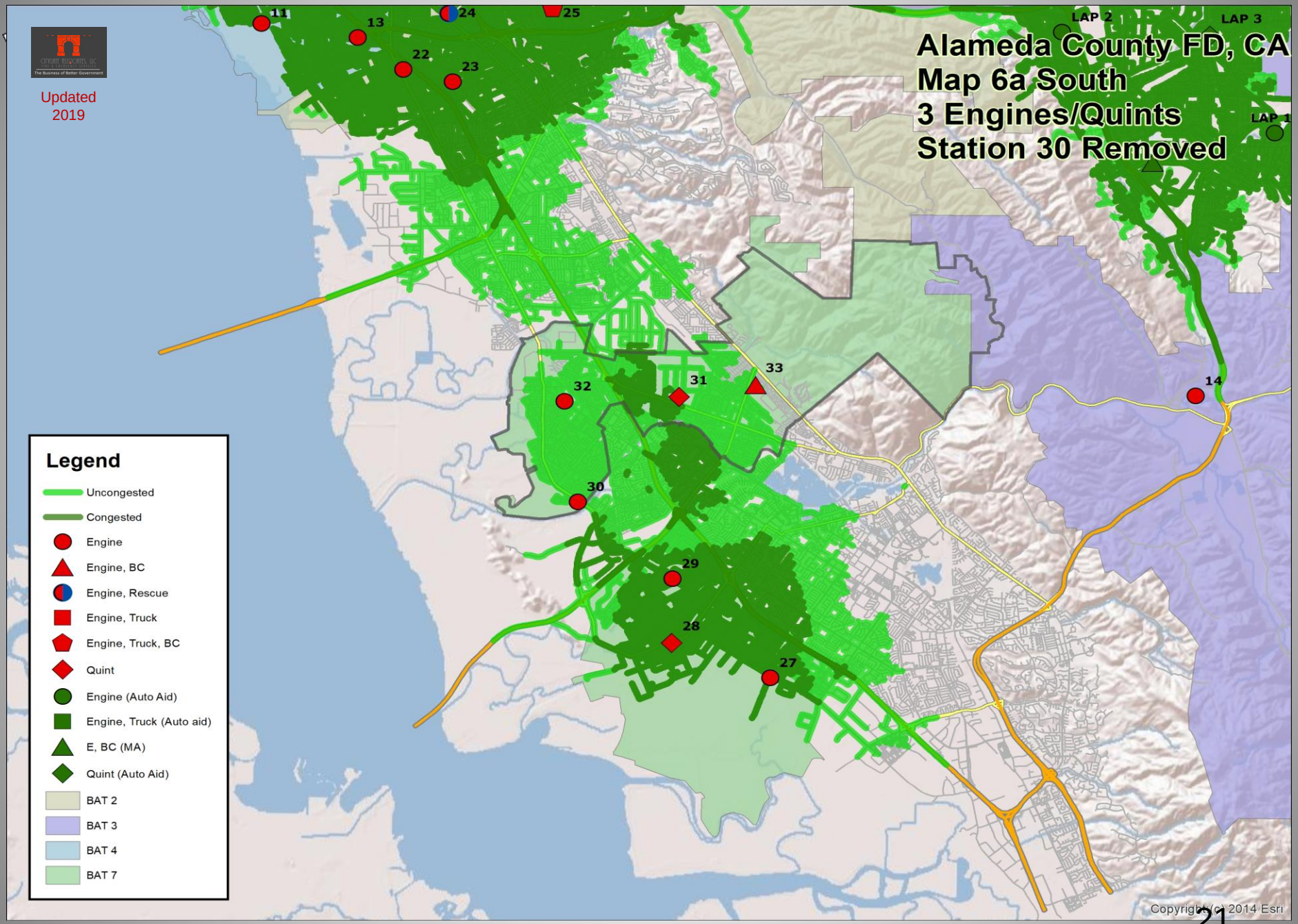
Updated
2019
Alameda County FD, CA
Map 6a South
3 Engines/Quints
Station 30 Removed
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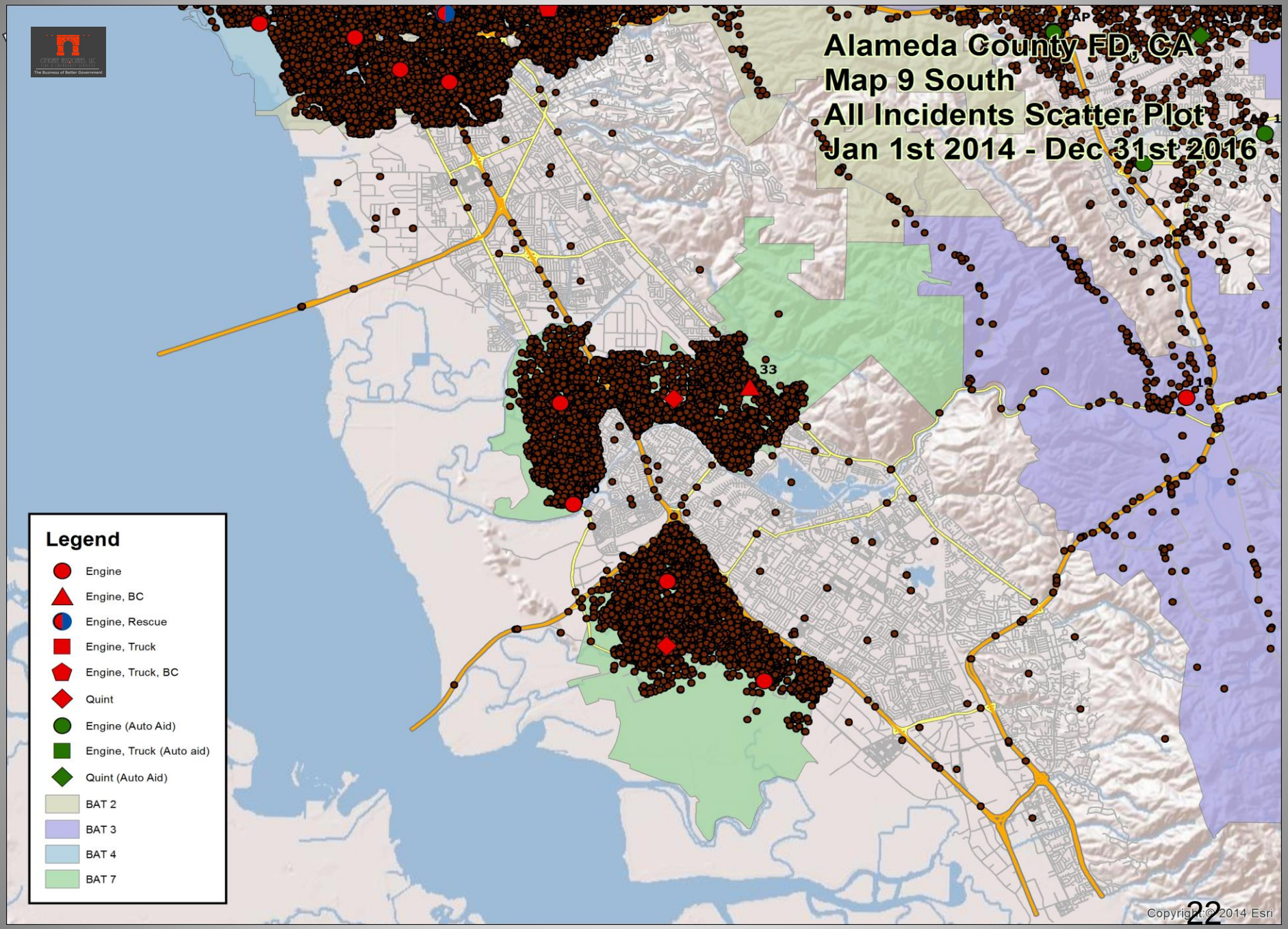
Alameda County FD, CA
Map 9 South
All Incidents Scatter Plot
Jan 1st 2014 - Dec 31st 2016
Legend
Engine
Engine, BC
Engine, Rescue
Engine, Truck
Engine, Truck, BC
Quint
Engine (Auto Aid)
Engine, Truck (Auto aid)
Quint (Auto Aid)
BAT 2
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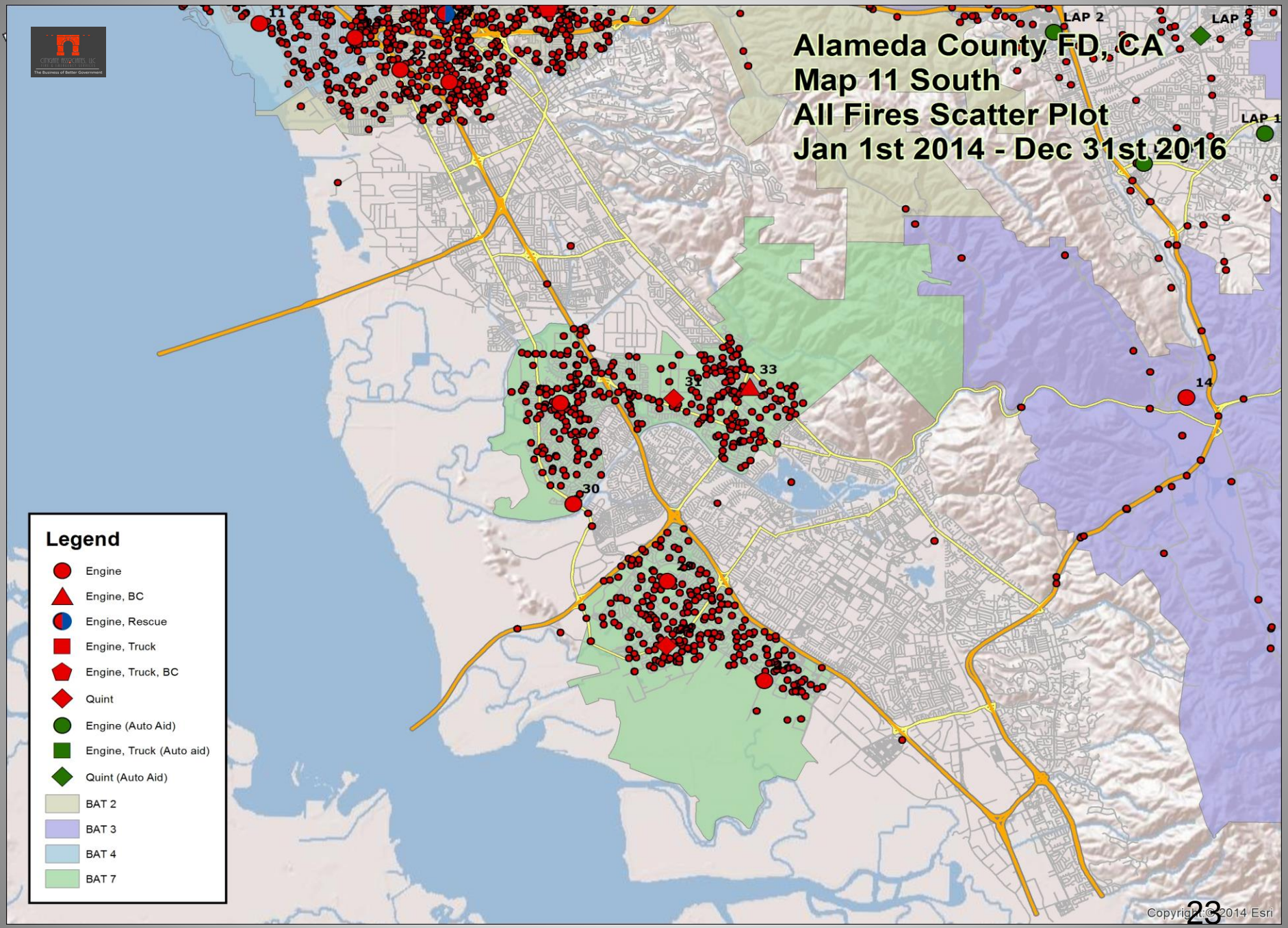
Alameda County FD, CA
Map 11 South
All Fires Scatter Plot
Jan 1st 2014 - Dec 31st 2016
LAP 2
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Engine, Truck (Auto aid)
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BAT 7
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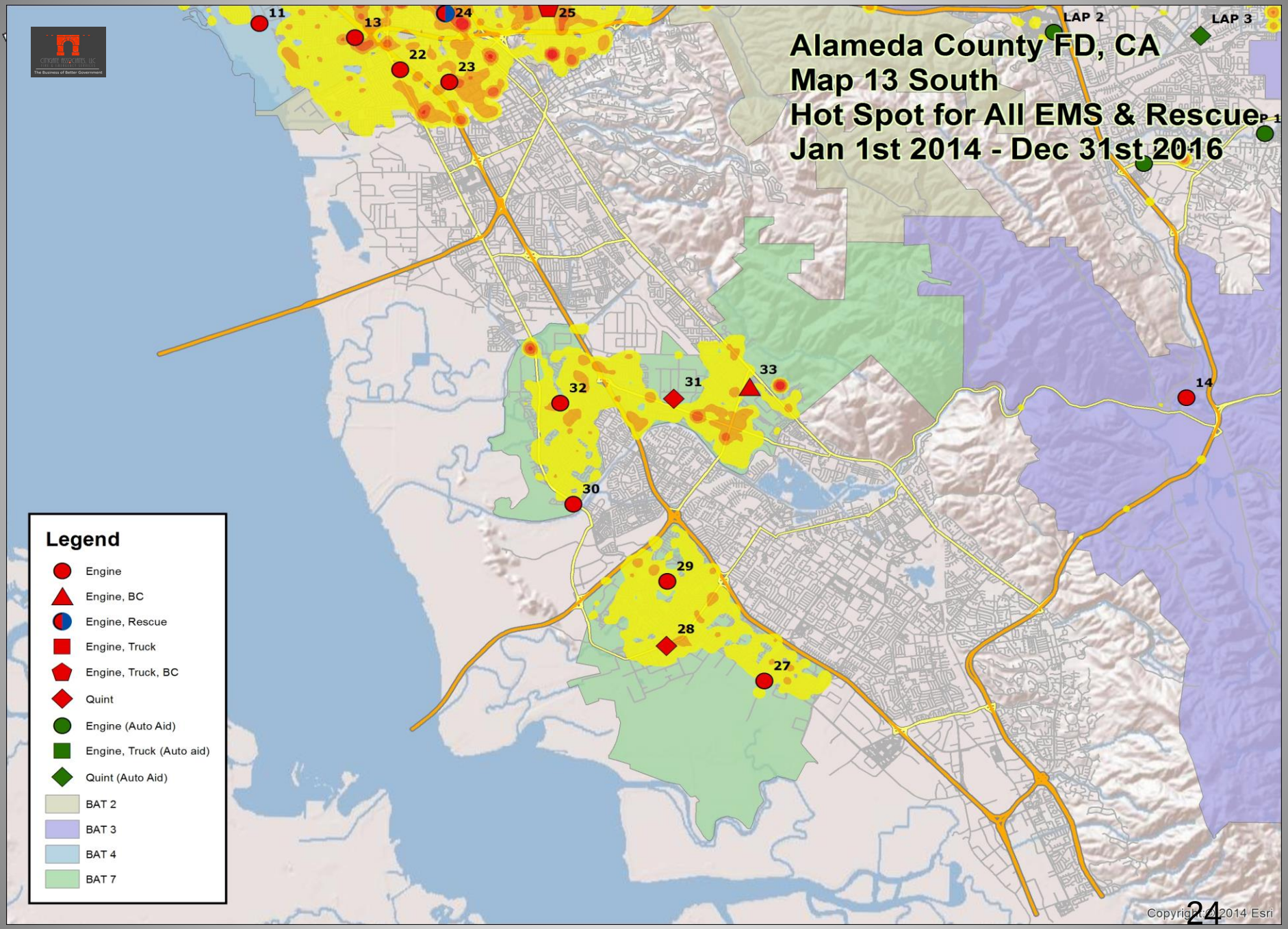
Alameda County FD, CA
Map 13 South
Hot Spot for All EMS & Rescue
Jan 1st 2014 - Dec 31st 2016
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Engine (Auto Aid)
Engine, Truck (Auto aid)
Quint (Auto Aid)
BAT 2
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BAT 4
BAT 7
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Findings

- Engine and truck/quint coverage is adequate
- The travel time gaps that do exist are too small to justify additional fire stations
- Availability of Battalion Chiefs and, occasionally, truck/quint limits First Alarm response time
- Risks and time of day volumes are not yet significant enough to warrant a different deployment plan for peak hour demands

Performance Recommendations

- Adopt best practices performance measures to include all pieces of the response timeline:
  - 1:30-minute call processing time
  - 2:00-minute turnout time
  - 4:00-minute travel time
  - A total response time goal for first arrival of 7:30 minutes
  - Adopt an Effective Response Force goal of 11:30 minutes, 90 percent of the time

Deployment Recommendations

- Monitor workload increases per company at peak hours of the day and, if they reach an hour-after-hour level that significantly lengthens response times, then the ACFD should consider peak-hour relief units primarily for the high volume of EMS calls for service
- Monitor the impact of incident growth and traffic congestion on individual fire companies at peak hours
- If simultaneous incident demand and/or traffic congestion continues to decay response times, additional stations, or peak-hour engines, will become necessary to maintain response times to critical events

Additional Analysis

- Comparison to other Alameda County cities
  - Residents to firefighter count
- ACFD Response Data
  - CY2017, CY2018, and 2019 to June 13th
- National Fire Protection Association (NFPA)
  - NFPA 1710 *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*
- National Institute of Standards and Technology (NIST)
  - NIST Technical Note 1661, *Report on Residential Fireground Field Experiments*
- ISO's Fire Suppression Rating Schedule (FSRS)
  - FSRS Overview

Residents to Firefighters

City	Population	Fire Companies	Firefighters	Residents per Firefighter
Emeryville	11,110	2	6	1851.67
Piedmont	11,200	2	6	1866.67
Oakland	412,040	33	132	3121.52
Albany	19,420	2	6	3236.67
ACFD (District only)	127,980	10	31	4128.39
San Leandro	89,040	7	21	4240.00
Alameda *	77,410	6	18	4300.56
Berkeley *	118,590	9	27	4392.22
Dublin	54,520	4	12	4543.33
Hayward	154,510	11	33	4682.12
Pleasanton	77,050	5	16	4815.63
Newark	44,680	3	9	4964.44
Livermore	86,490	5	16	5405.63
Fremont	227,930	13	41	5559.27
Union City (currently)	73,500	4	12	6125.00
Union City (proposed)	73,500	3	9	8166.67
			MEAN	4215.54
			MEDIAN	4392.22

* additional ambulance staffing by FFs not included

https://statisticalatlas.com/county/California/Alameda-County/Population

Union City Annual Responses by Call Type & Station

(T-10) Calendar 2017

Station Assigned	EMS and Rescue	False Alarm and False Call (Cancelations)	Fires (Other than Structure)	Good Intent Call	Hazardous Condition	Service Call	Special Incident Type	Structure Fire	Total
30	499	47	15	72	9	30	2	2	676
31	982	49	16	156	15	113			1,331
32	1,222	129	53	182	18	63	4	7	1,678
33	1,368	195	50	188	34	87		6	1,928
Total	4,071	420	134	598	76	293	6	15	5,613

(T-10) Calendar 2018

Station Assigned	EMS and Rescue	False Alarm and False Call (Cancelations)	Fires (Other than Structure)	Good Intent Call	Hazardous Condition	Service Call	Special Incident Type	Structure Fire	Total
30	424	54	17	70	2	35	2	4	608
31	1,073	32	20	136	11	100	1	2	1,375
32	1,136	117	52	215	20	72	2	5	1,619
33	1,406	170	55	211	19	75	1	7	1,944
Total	4,039	373	144	632	52	282	6	18	5,546

(T-10) 2019 ytd thru June 13th

Station Assigned	EMS and Rescue	False Alarm and False Call (Cancelations)	Fires (Other than Structure)	Good Intent Call	Hazardous Condition	Service Call	Special Incident Type	Structure Fire	Total
30	226	20	4	24	1	10			285
31	490	23	9	67	2	45			636
32	581	58	14	122	7	41		1	824
33	597	82	14	80	13	70	1	1	858
Total	1,894	183	41	293	23	166	1	2	2,603

Response Time Summary For Union City (overall)

(2019 is ytd thru June 13th)

		2017		2018		2019		Grand Total	
		90th Percentile Response Time	Total Calls	90th Percentile Response Time	Total Calls	90th Percentile Response Time	Total Calls	90th Percentile Response Time	Total Calls
Union City	EMS / Rescue Types	10.30	3,901	5.70	3,821	7.03	1,807	7.17	9,529
	Structure Fire	14.23	15	11.70	17	15.18	2	13.12	34
	All Other Types	11.93	1,607	8.17	1,583	7.95	747	10.11	3,937
	Total	11.67	5,523	7.47	5,421	7.32	2,556	8.44	13,500
Grand Total		7.77	5,523	7.47	5,421	7.32	2,556	7.58	13,500

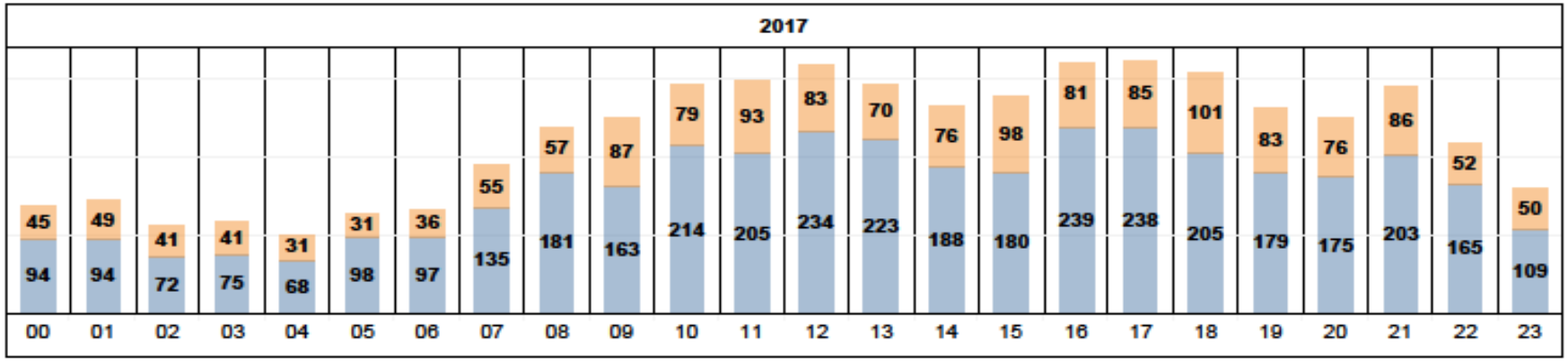
Frequency of Overlapping Calls For ACFD Union City Stations Calendar 2017, 2018 & YTD 2019 (thru June 13th)

Table below shows the number of calls occurring simultaneously for the stations first due assigned response area. Overlapping calls will require resources from the next closest station or apparatus as recommended by the CAD system.
Note: 27 records were excluded due to incorrect time stamps in CAD data

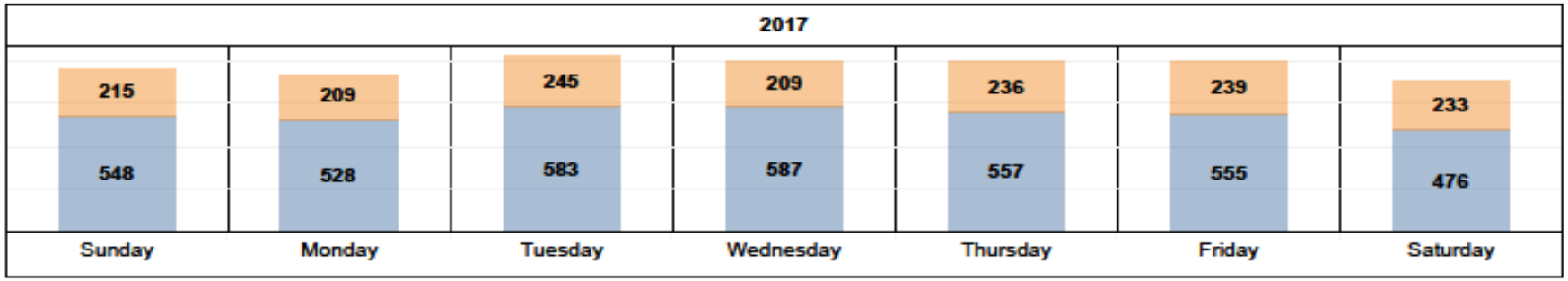
Station	Overlap Count	Number Of Calls	Percent of All Calls	Total Call Hours
30	No Overlapped Calls	1,513	96.31%	571.40
	Overlapped By One Call	57	3.63%	29.68
	Overlapped By Two Calls	1	0.06%	1.96
31	No Overlapped Calls	2,841	85.34%	1,016.69
	Overlapped By One Call	367	11.02%	135.00
	Overlapped By Two Calls	40	1.20%	16.22
	Overlapped By Three Calls	70	2.10%	27.95
	Overlapped By Four Calls	11	0.33%	3.29
32	No Overlapped Calls	3,756	90.90%	1,369.40
	Overlapped By One Call	350	8.47%	145.81
	Overlapped By Two Calls	24	0.58%	21.40
	Overlapped By Three Calls	2	0.05%	7.44
33	No Overlapped Calls	4,143	87.53%	1,467.88
	Overlapped By One Call	519	10.97%	205.62
	Overlapped By Two Calls	68	1.44%	29.71
	Overlapped By Three Calls	2	0.04%	0.27
	Overlapped By Four Calls	1	0.02%	3.87

Call Types All Other Types EMS Types

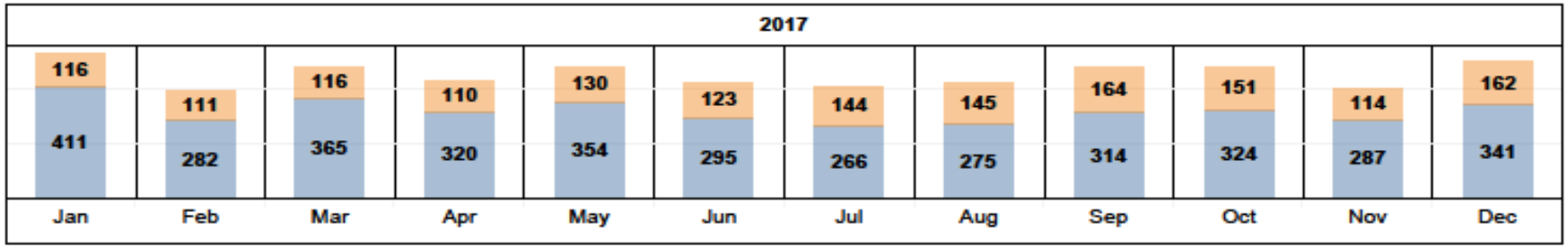
Union City Responses By Time of Day - For Stations 30,31,32 & 33



Union City Responses Day of Week - For Stations 30,31,32 & 33

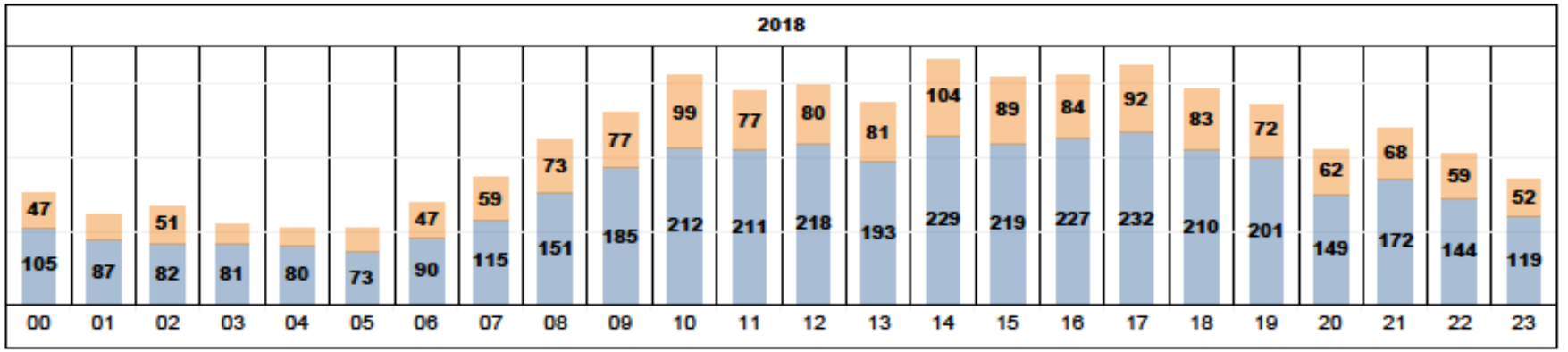


Union City Responses By Month - For Stations 30,31,32 & 33

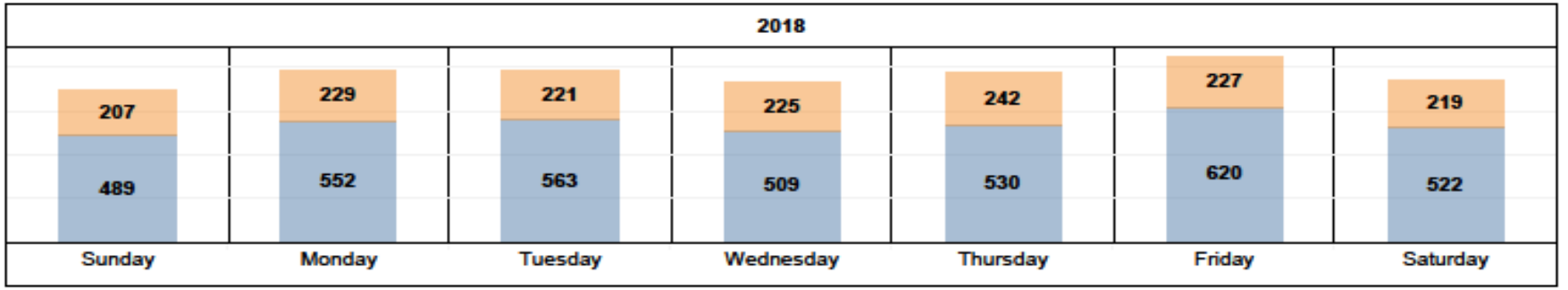


Call Types All Other Types EMS Types

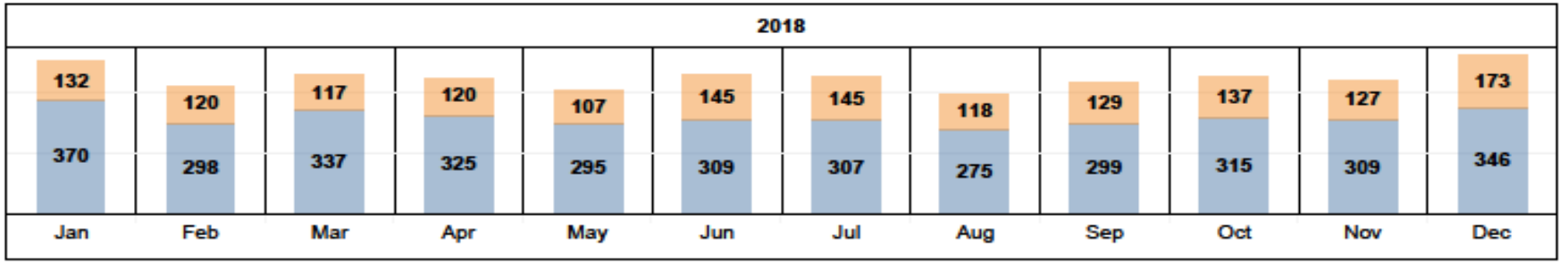
Union City Responses By Time of Day - For Stations 30,31,32 & 33



Union City Responses By Day of Week - For Stations 30,31,32 & 33



Union City Responses By Month - For Stations 30,31,32 & 33

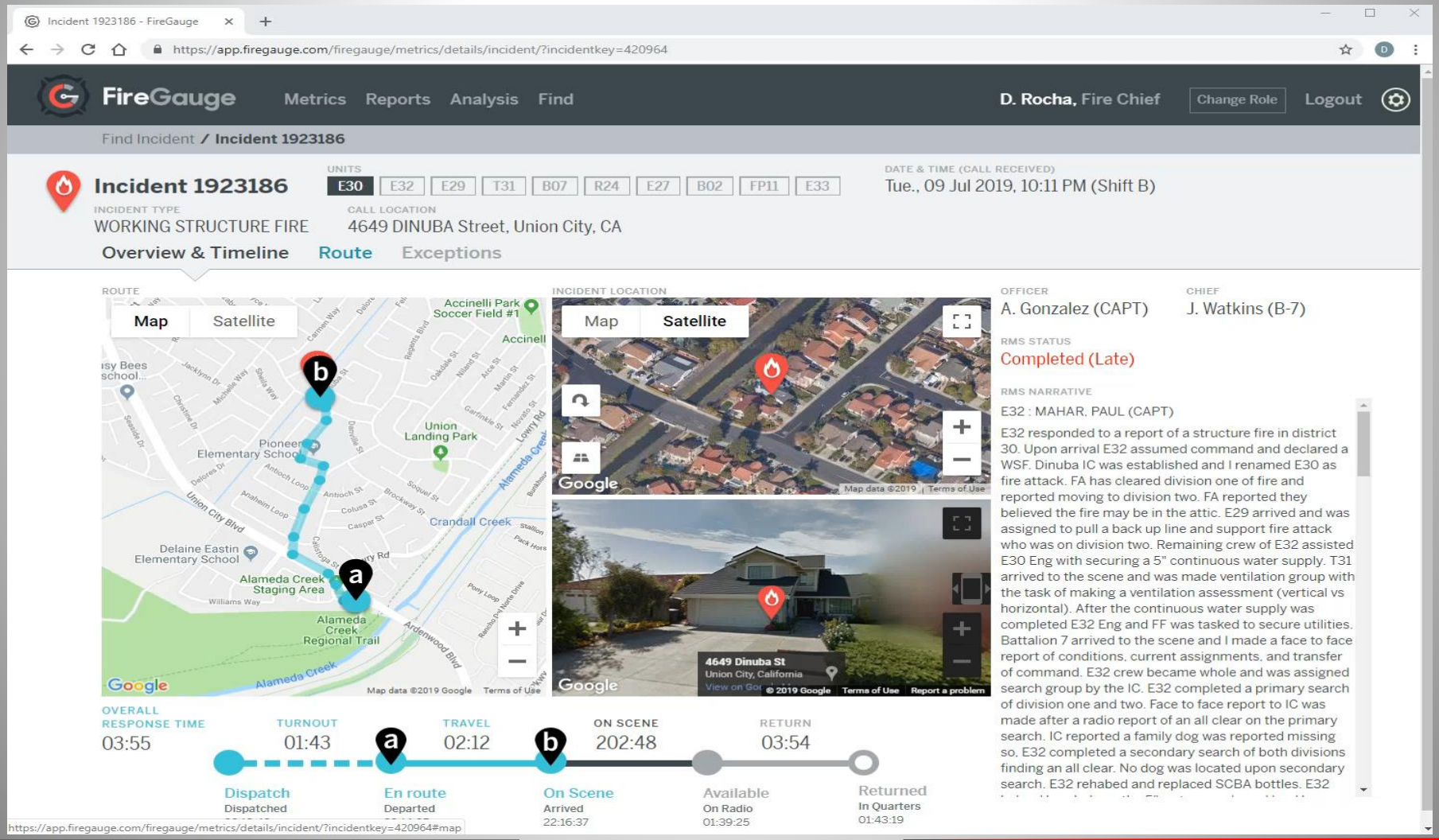


July 9, 2019 4649 Dinuba Street Union City

Fire at single family residence

Initial Unit = Engine 30 3:55 minutes

ERF = E30, E32, E29, T31, B7 & E27 11:17 minutes



UCFD Class 4

ISO Rating

ACFD Class 2

According to the ISO's Fire Suppression Rating Schedule (FSRS), there are four main criteria to a fire rating score:

- 50% comes from the quality of your local fire department including staffing levels(25%), apparatus(12%), training(9%) and fire station distribution(4%).
- 40% comes from availability of water supply, including the prevalence of fire hydrants and how much water is available for putting out fires.
- 10% comes from the quality of the area's emergency communications systems.
- An extra 5.5% comes from community outreach, including fire prevention and safety courses.

The formulas homeowner's insurance companies use to determine their insurance rates are complex and constantly changing. But all other things being equal, a lower PPC score for your area will translate to a lower insurance premiums for commercial properties and homeowners, as it a lower risk for serious fire damage.

Recommended National Standards

NFPA 1710 and
NIST Technical Note 1661

https://youtu.be/f42S9TRc634

Embedded version

Recommended National Standards

NFPA 1710 and

NIST Technical Note 1661

https://youtu.be/f42S9TRc634

Internet version

ALAMEDA COUNTY FIRE DEPARTMENT

SERVING:

City of Dublin

City of Emeryville

City of Newark

City of San Leandro

City of Union City

Lawrence Berkeley National Laboratory

Lawrence Livermore National Laboratory

Unincorporated Areas of Alameda County

Alameda County Regional Emergency Communications Center "Accredited Center of Excellence"

CPSM Presentation

Union City Fire and EMS Analysis

July 2019

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Who is CPSM:

The Center for Public Safety Management, LLC.

Exclusive provider of Public Safety Technical assistance to ICMA (*International City/County Management Association*), in the areas of Police, Fire, EMS, Emergency Management and 911 Communications.

Operational since 2006, conducting more than 328 studies in 42 states and 221 communities ranging in size from 8,000 - 800,000 population.

We become a *part of your TEAM* - providing detailed and unbiased analysis aimed at improving efficiency for service delivery options.

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Professional Qualifications

Leonard Matarese; MPA, ICMA-CM, IPMA-CP:

Project Coordinator: CPSM Principal-

- 44 Years of Experience in Public Safety, City Management
- Managed over 120 Fire and EMS Operational Studies

Thomas Wieczorek

Alternate Project Coordinator: CPSM Principal-

- Former Executive Director, Commission on Fire Accreditation
- Represented ICMA on NFPA 1710 & 1730 Standards Committee
- Managed over 100 Fire and EMS Operational Studies

Dov Chelst; PH.D:

Director of Quantitative Analysis: CPSM Principal-

- 9 Years of Experience in Managing Public Safety Data Studies
- Completed over 160 Data Analysis Projects for Local Government
- Manages a Full-Time Staff of Research Analysts
- Former University Professor - Mathematics, Physics and Statistics

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Professional Qualifications

Chief Mike Iacona (Ret.); MPA, BA, EFO

Project Manager:

38 Years - Fire Service Experience (18 year as Fire Chief)
17 Years - Public Safety Consultant (over 55 Studies Completed)
Managed Fire Operations in Densely Populated Urban Settings
Expertise in Urban & Emergency Planning in High Growth Settings
Experience in County Government and County Service Areas
Extensive Background-EMS Management and Transport Services

Mr. Matt Zavadsky; MS-HSA, NREMT

EMS Specialist:

39 Years Experience in EMS Management & Ambulance Operations
Strategic Integration Officer: MedStar Mobile Health Care
In-coming President, National Association of EMT's
Extensive Training & Public Speaking: EMS Cost Analysis
Expertise in Mobile Integrated Healthcare
Extensive Background – EMS Financial Analysis-Revenue Modeling

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Our Approach:

* Conduct an In-depth *Workload Analysis*
* Evaluate *Deployment and Dispatching* Practices
* Review the *Business Model* (Focus on Value)
* Investigate any Service Criteria or *System Requirements*
* Obtain *Stakeholder Feedback*
* Develop Service *Options and Recommendations*

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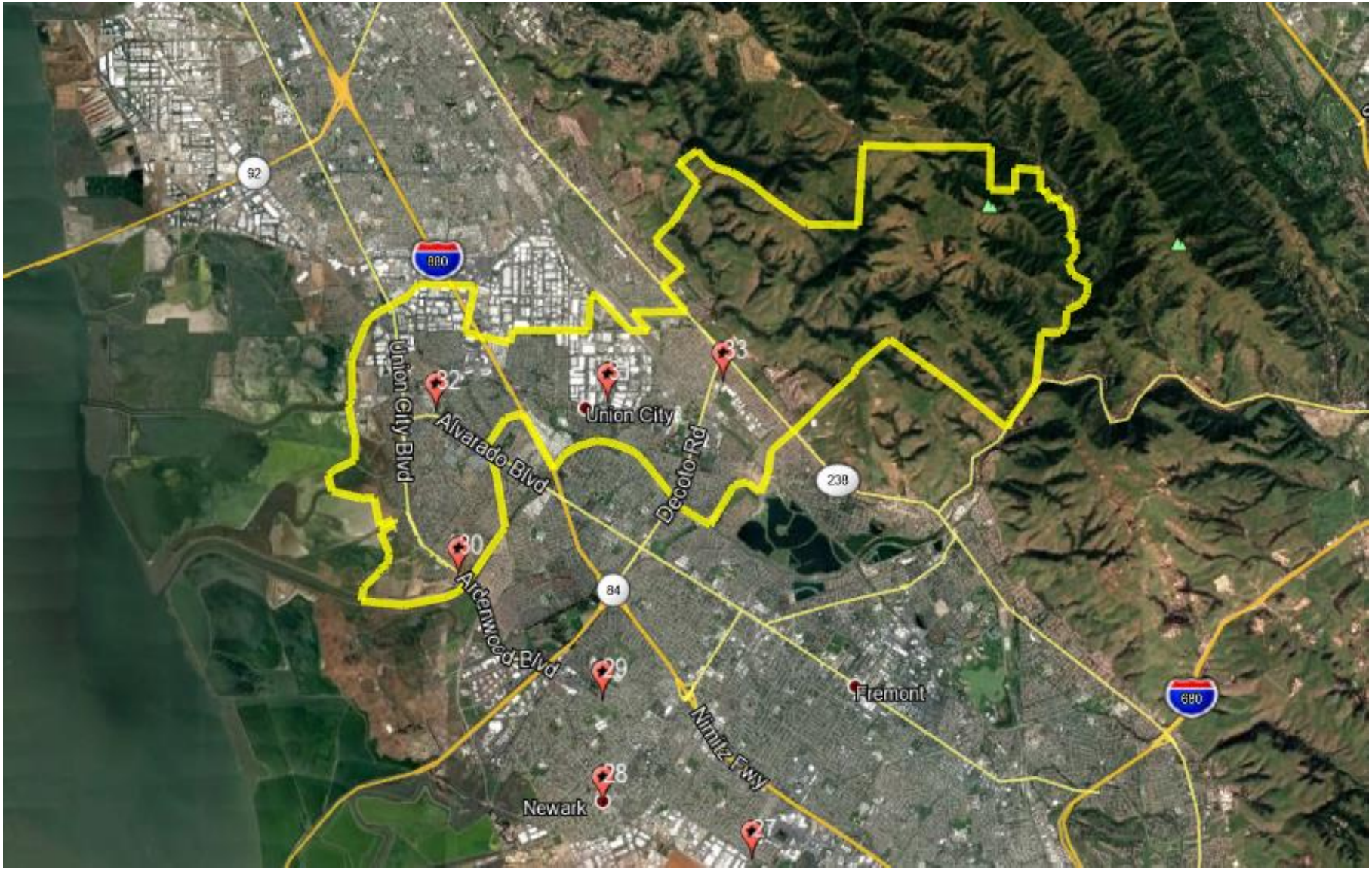

Union City Stations

Challenges

Difficult deployment choices

Layers of deployment

Gaps in coverage areas (Fremont and Hayward)

Choices for ACFD are not necessarily best for Union City

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What's it called?

Standard of Cover (SOC)

Integrated Risk Management Planning (IRMP)

Deployment is all about managing risk!

Is it effective? Is it efficient? Is it safe – for responders and the public?

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Smaller fire departments to larger:

1. Opportunities to diversify
2. Opportunities for promotion and specialization
3. Costs spread on a larger service area
4. Can be difficult if not a district or where individual communities retain costs (stations, equipment, etc.)
5. Automatic Aid vs. Mutual

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Standards of Cover

Term and technique from the United Kingdom, developed in the 30's (1933-)

Focus was on response to incidents (usually following war)

Standard was revised in 1955, again in 1985 and then a study began on effectiveness of the process

In 2001, a White Paper was released that outlined several points: most of focus was on industry (few fatalities or injuries) whereas fires occurred in residential.

SOC to Integrated Risk Management Planning

- **Reduce the incidents of fire and other emergency incidents**
- **Reduce the loss of life in fire and accidents**
- **Reduce the number and severity of injuries occurring in fires and other emergencies**
- **Reduce the commercial, economic, and social impact of fires and other emergencies**
- **Safeguard the environment and protect natural resources**
- **Provide a value for money invested**

Three main strategies

Design fire safety into homes, offices, and other buildings through the building regulations;

Maintain a safe environment, through fire safety and other legislation, which sets out employers' and commercial property owners' responsibilities; and

Promoting community fire safety to encourage safe behavior and to reduce the incident of arson.

Deploying the right resources in the right place at the right time

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73,877 Union City population

9 square mile urbanized area

2.25 square mile service area for four existing stations excluding hillsides and wetlands

13.1 square mile service area ICMA surveyed cities

7.1 square miles median service area

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ISO Fire Suppression Rating Schedule, first-due engine companies serve areas within a 1.5-mile travel distance

Equates to 4.5 square mile service area, depending on the road network

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The National Fire Protection Association (NFPA) references the placement of fire stations that achieves a four-minute travel time.

Rand Institute estimated average emergency response speed for fire apparatus is 35 mph and can travel 1.97 miles in four minutes.

1.97 mile travel distance equates to an average 7.3 square mile service area

The average 2.25 square-mile service area per Union City lower than the noted references

A three-station configuration would result in an average service area of 3.0 square mile, still lower than the references

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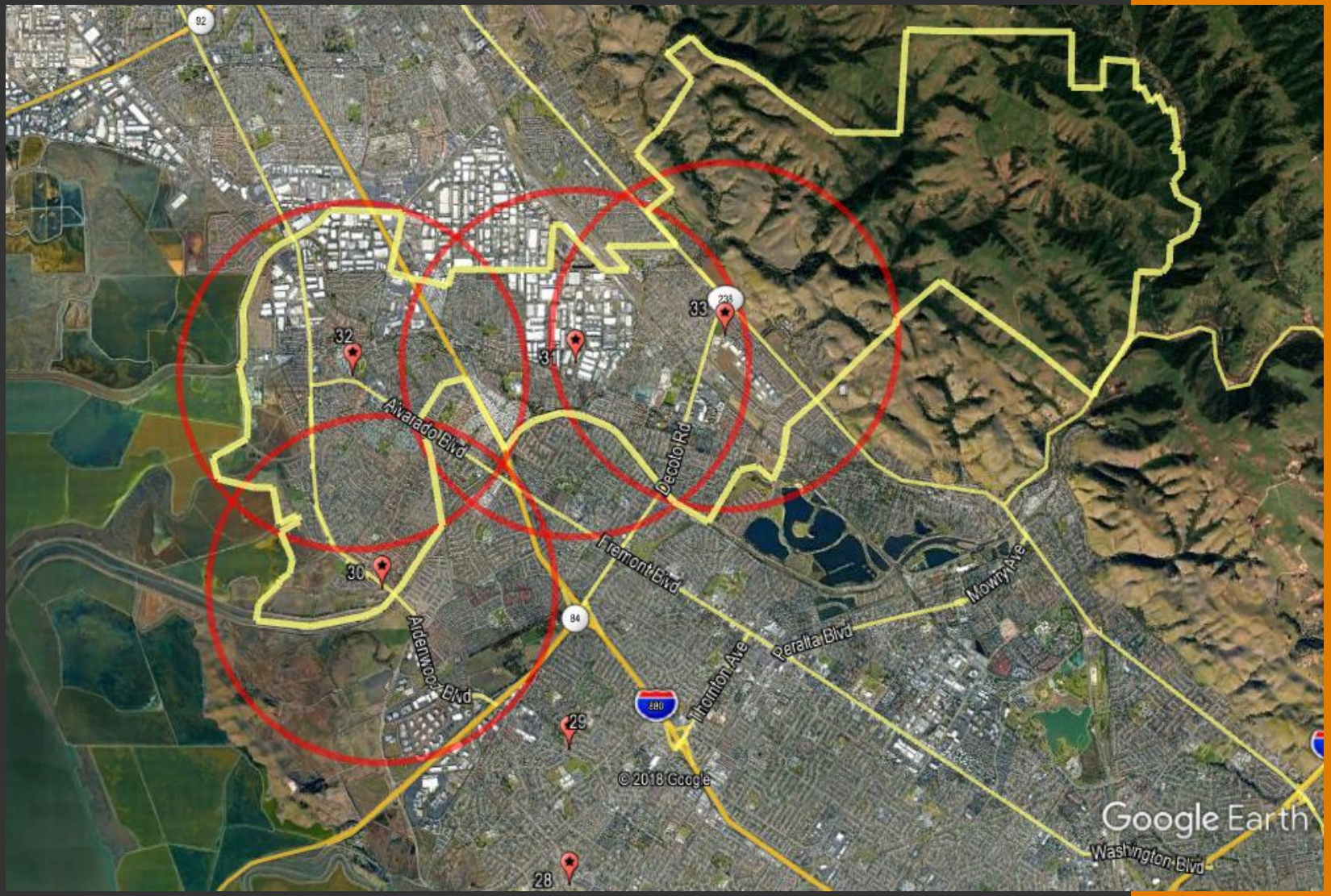

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Fire Coverage Map - Area outside 1.5 mi Radius

Units built before 2001

Units built after 2001 (Sprinkered)

588 units - Built before 2001
129 units - Built after 2001
717 units - Total

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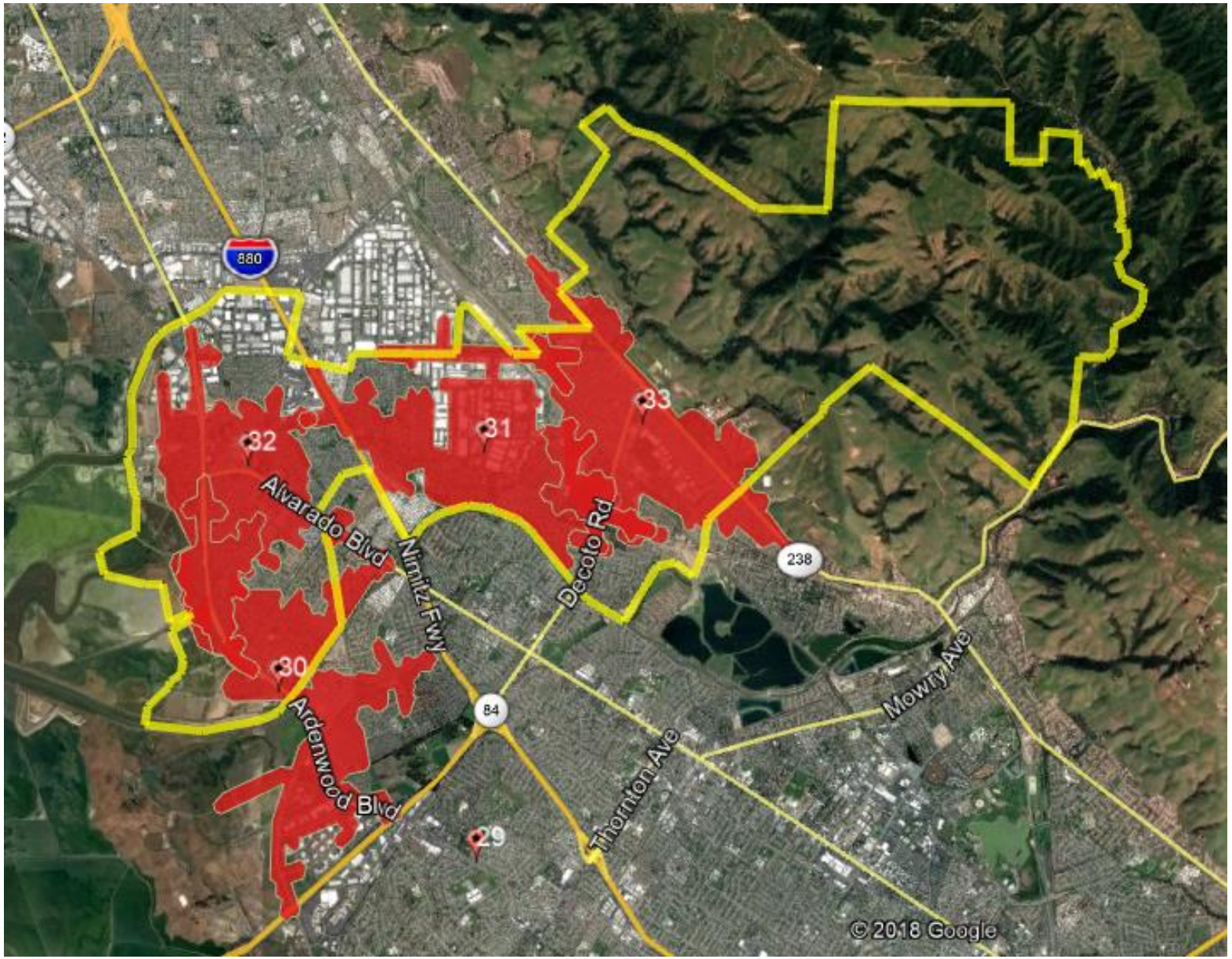
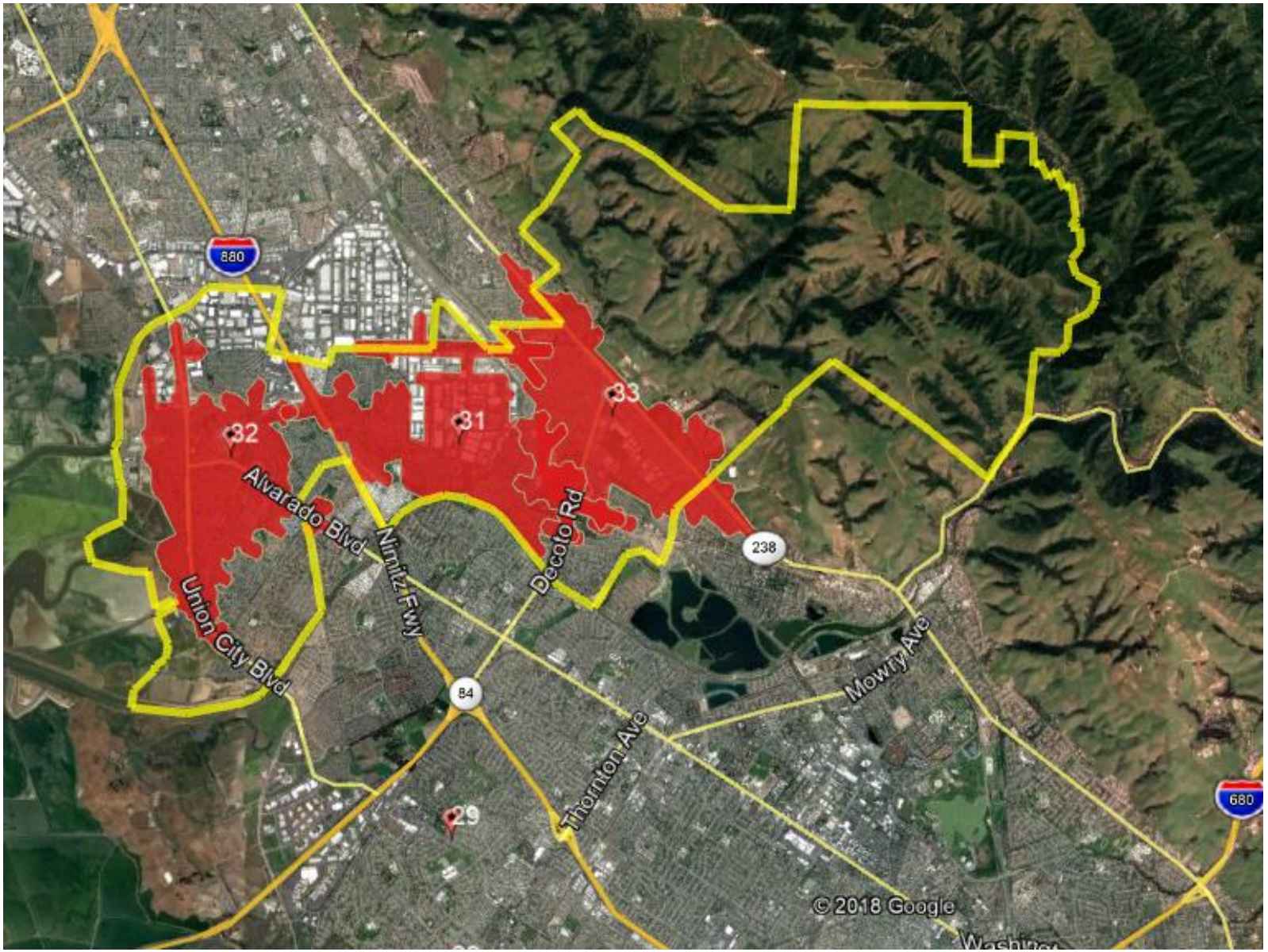
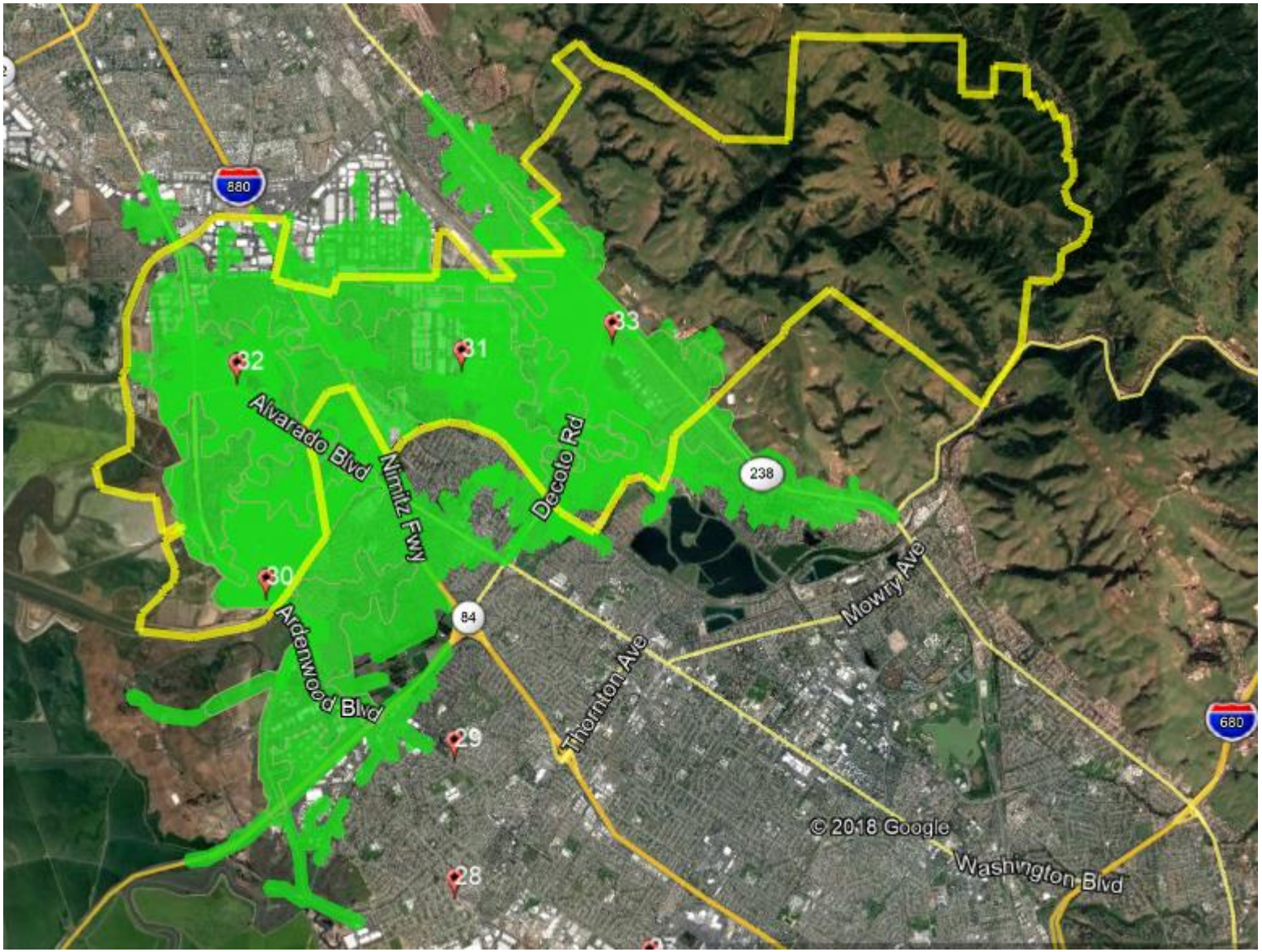


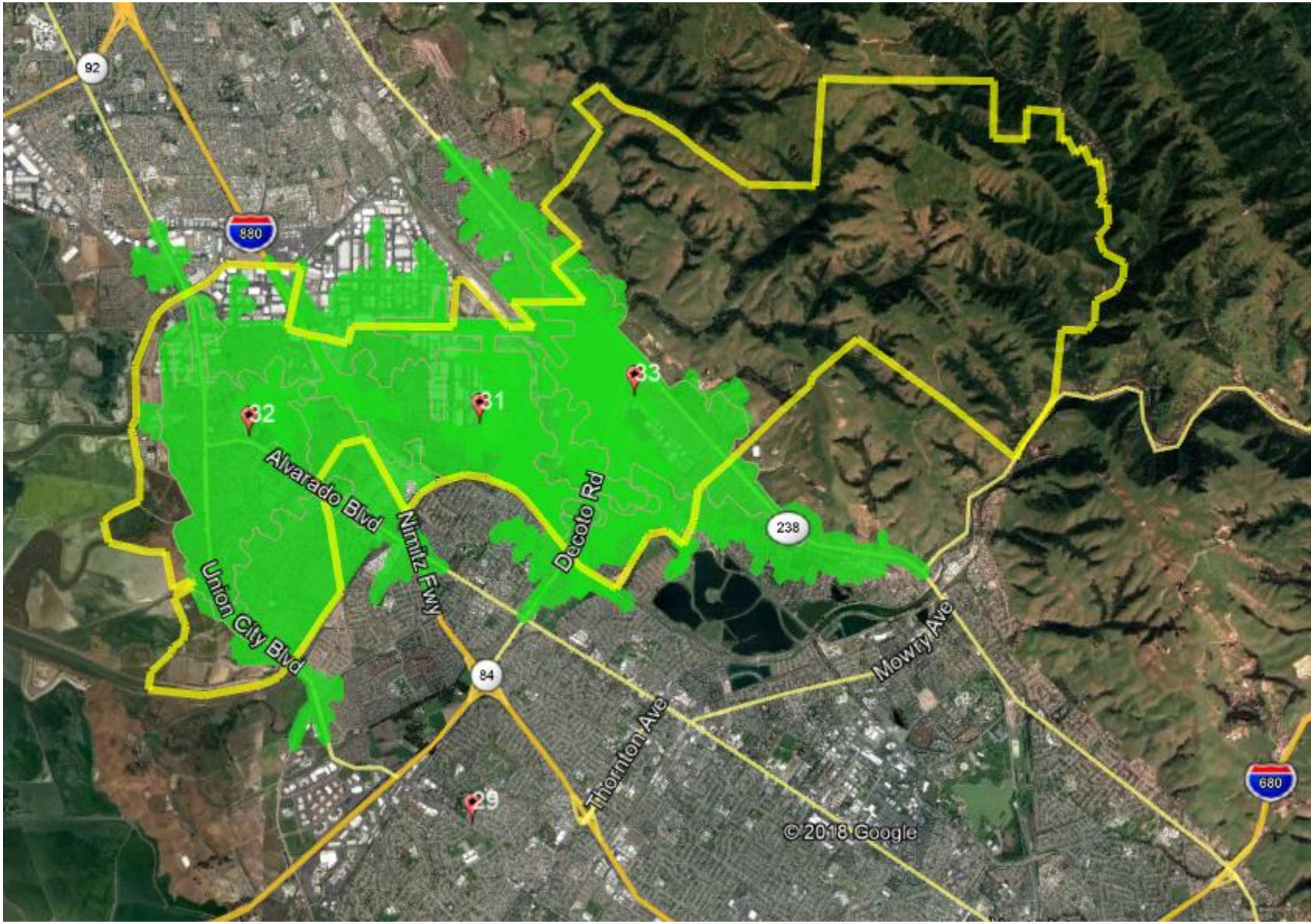
4 minutes Travel Time – All Stations



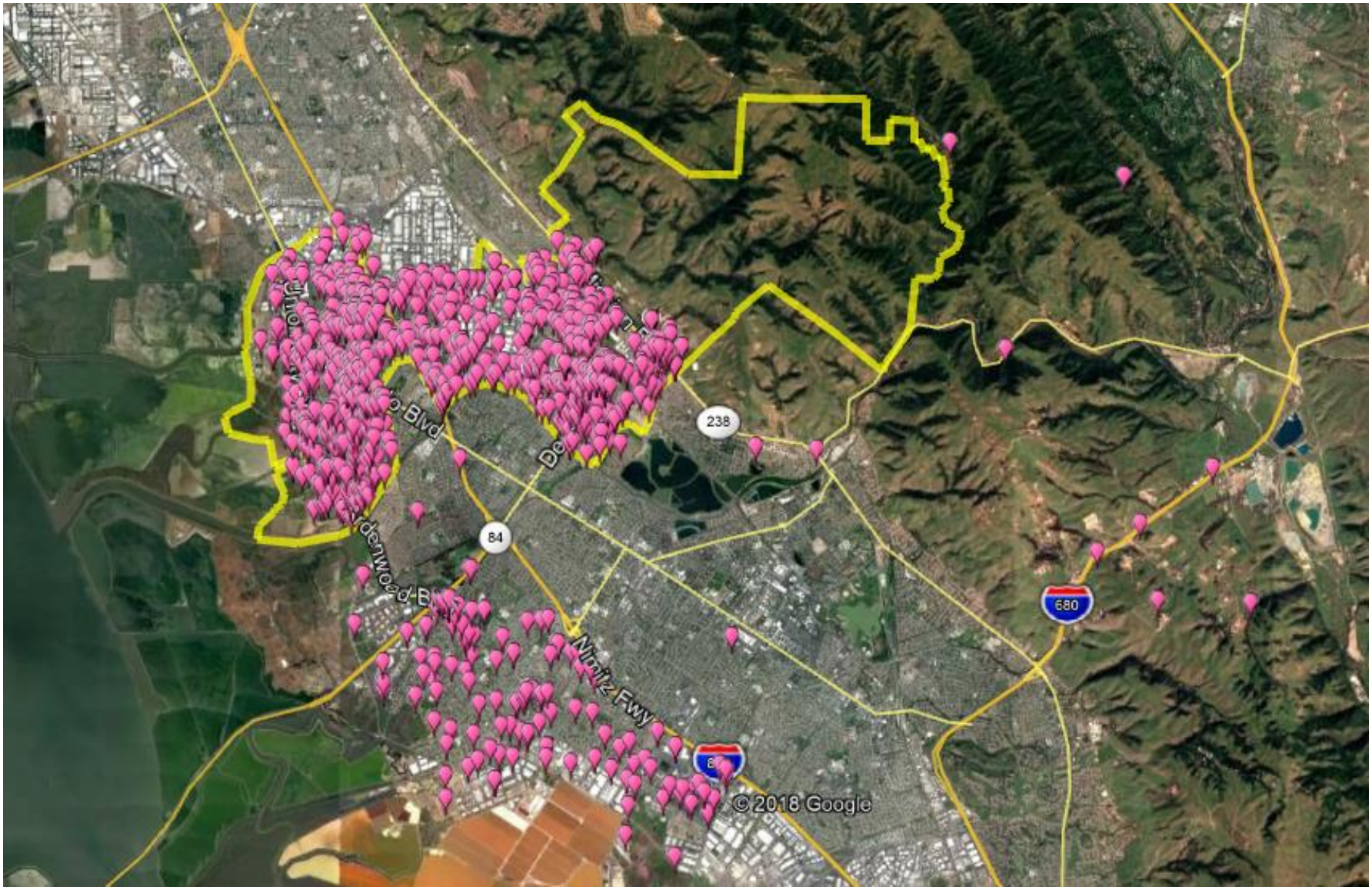
4 minutes (w/o Station 30)



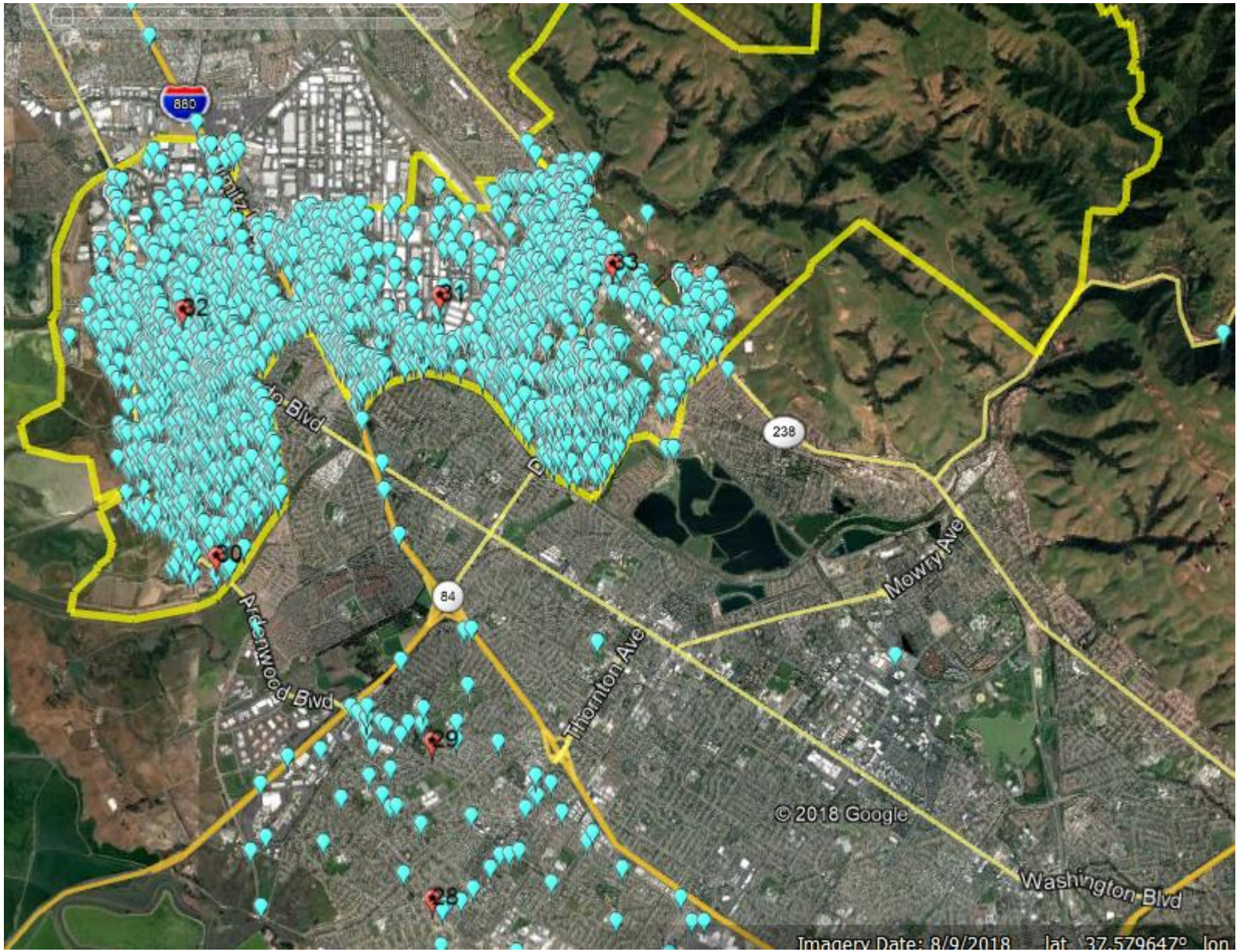
6 minutes travel time



6 minutes (w/o Station 30)



Fire Runs – Where are the calls for Fire?


880
Valley
Blvd
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84
Mowry Ave
Ardenwood Blvd
Thornton Ave
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© 2018 Google
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lat 37.579647° lon
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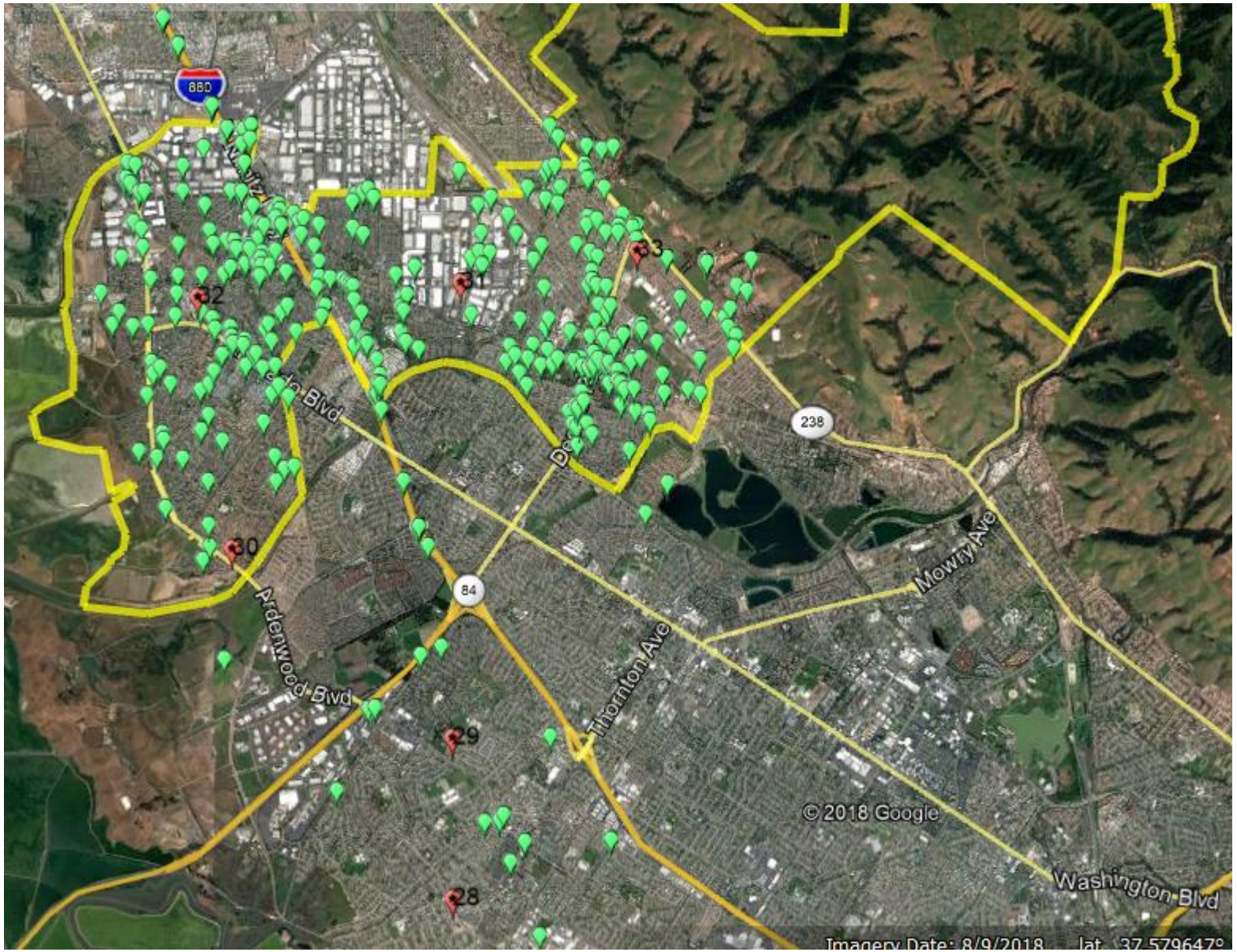
EMS Runs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Thornton Ave
Ardenwood Blvd
Washington Blvd
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Imagery Date: 8/9/2018
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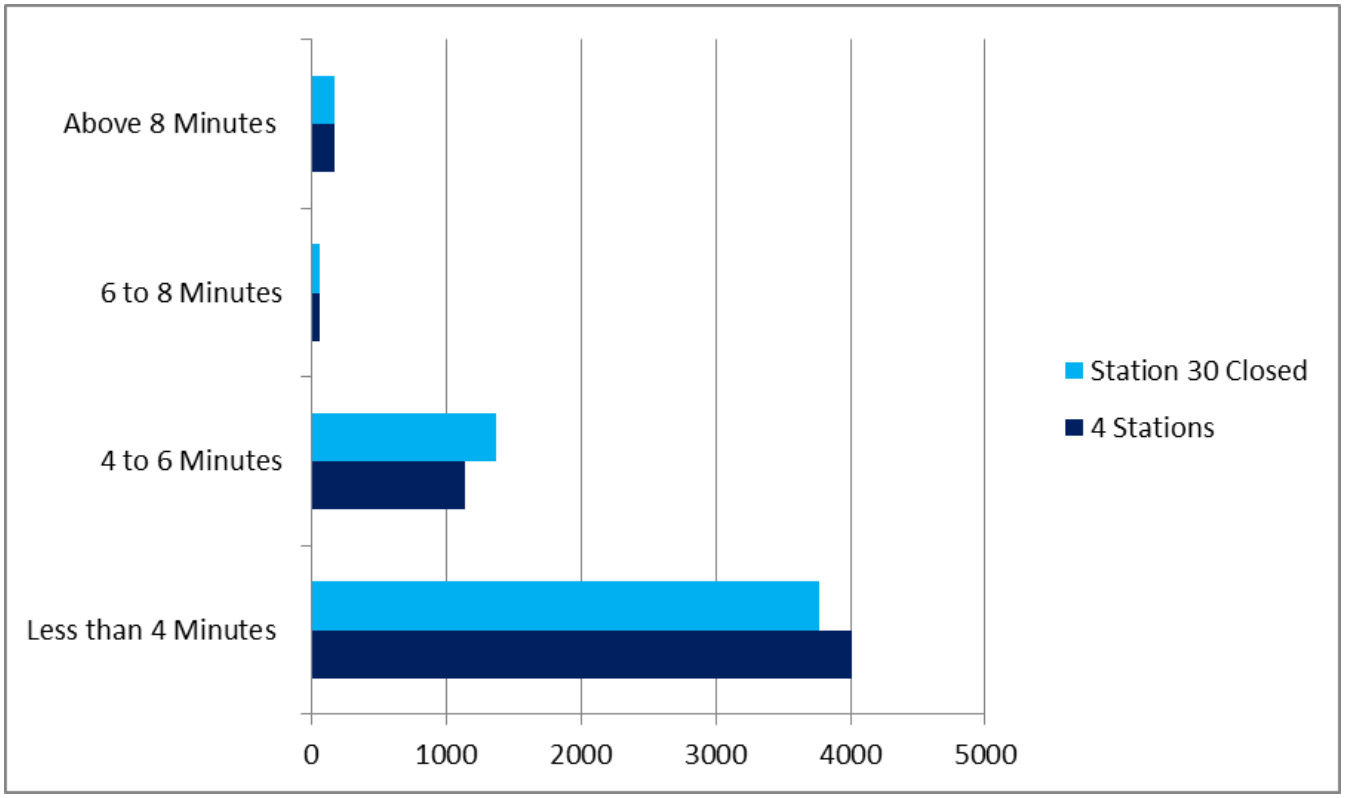
Other Runs

Fire Service Calls by Station

Station	**30**	**31**	**32**	**33**	Other	Total
Yearly Runs	636	1,872	1,728	1,980	372	6,588
Avg./Day	1.7	5.1	4.7	5.4	1.0	18.0

If Station 30 Closed

- 237 calls would change from under 4 minutes to 4 – 6 minutes



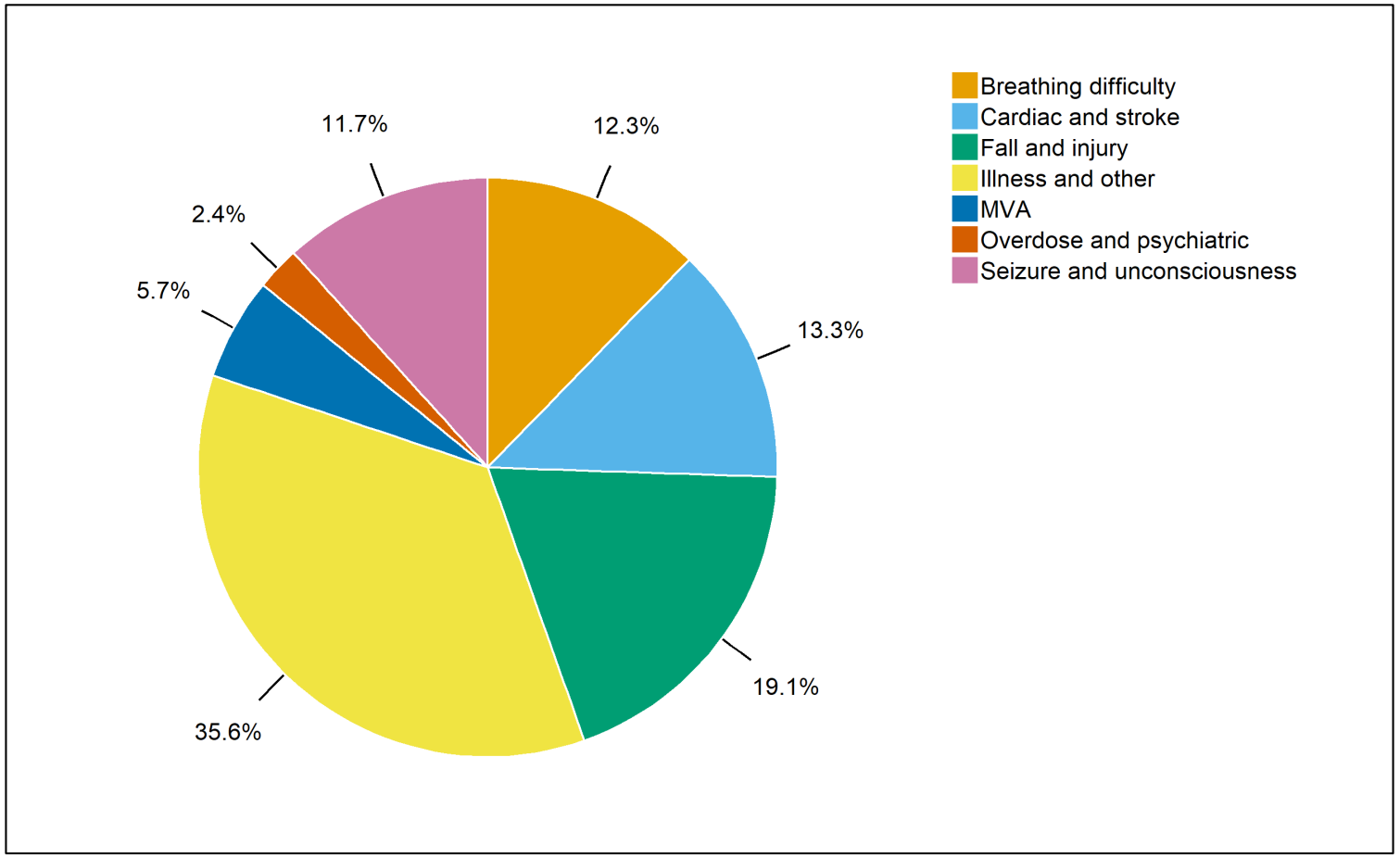
ISO Ratings

- Banded pricing: a 1-5 rating little difference in overall pricing.
- State Farm and other insurance companies no longer use ISO rating schedule.
- Insurance companies are not bound to use the ISO schedule
- ISO does not reflect EMS which is the work driver of Calls for Service.

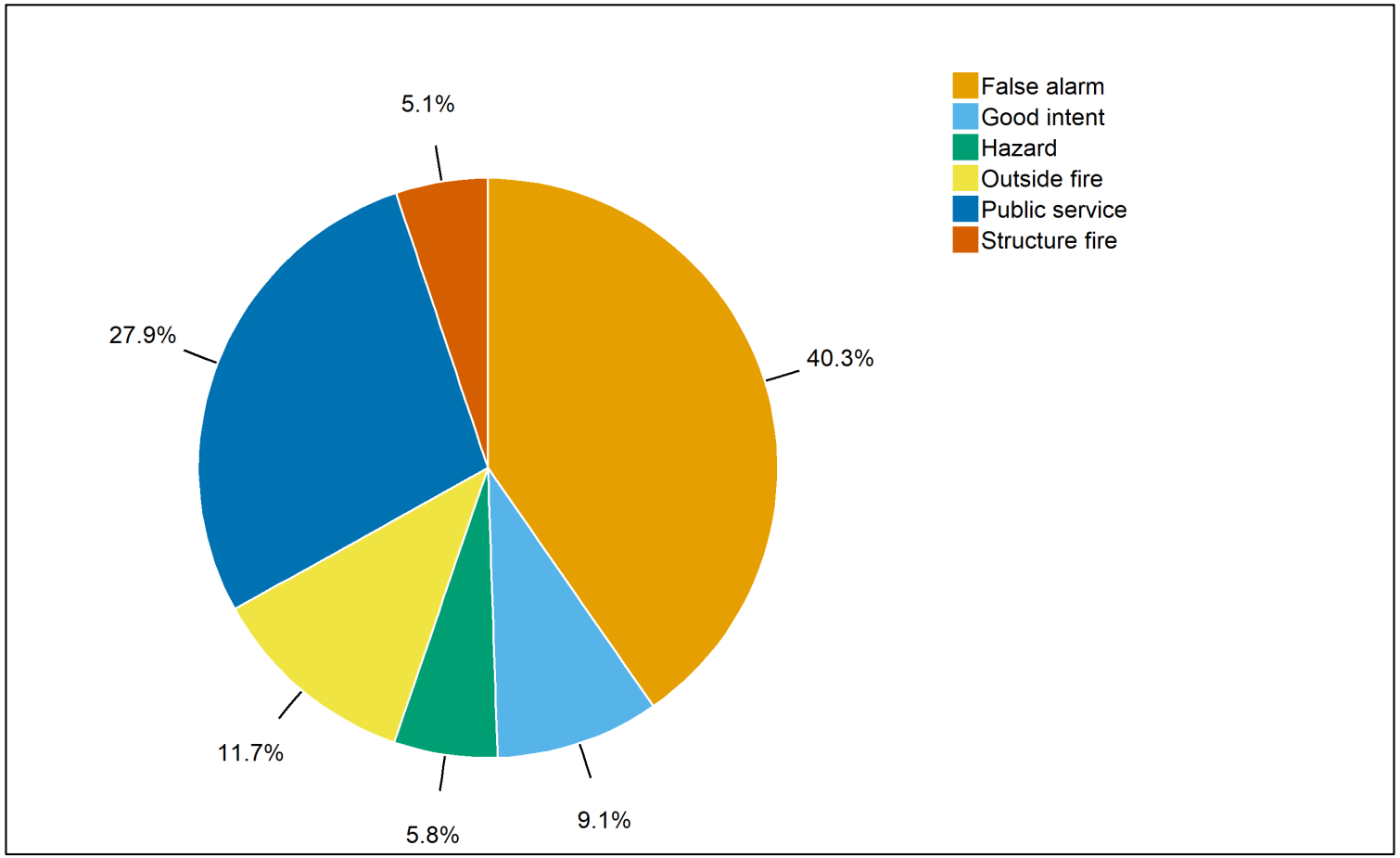
What Are the Calls for Service (CFS)?

Call Type	Number of Calls	Calls per Day	Call Percentage
Breathing difficulty	491	1.3	9.1
Cardiac and stroke	532	1.5	9.9
Fall and injury	764	2.1	14.2
Illness and other	1,425	3.9	26.5
MVA	229	0.6	4.3
Overdose and psychiatric	98	0.3	1.8
Seizure and unconsciousness	469	1.3	8.7
EMS Total	**4,008**	**11.0**	**74.5**
False alarm	384	1.1	7.1
Good intent	87	0.2	1.6
Hazard	55	0.2	1.0
Outside fire	111	0.3	2.1
Public service	266	0.7	4.9
Structure fire	49	0.1	0.9
Fire Total	**952**	**2.6**	**17.7**
Canceled	418	1.1	7.8
Total	**5,378**	**14.7**	**100.0**

EMS CFS


11.7%
12.3%
2.4%
5.7%
13.3%
19.1%
35.6%
Breathing difficulty
Cardiac and stroke
Fall and injury
Illness and other
MVA
Overdose and psychiatric
Seizure and unconsciousness

Fire CFS


False alarm
Good intent
Hazard
Outside fire
Public service
Structure fire
40.3%
9.1%
5.8%
11.7%
27.9%
5.1%

Overall UC - ACFD Deployment

Overall

- **14.7 calls per day**, including 1.1 canceled calls.
- EMS: 4,008 (75 percent of all calls), an average of 11.0 per day.
- Fire: 952 (18 percent of all calls), an average of 2.6 per day.

EMS

- 36 percent calls for Illness
- 13 percent calls cardiac and stroke
- 6 percent motor vehicle accidents

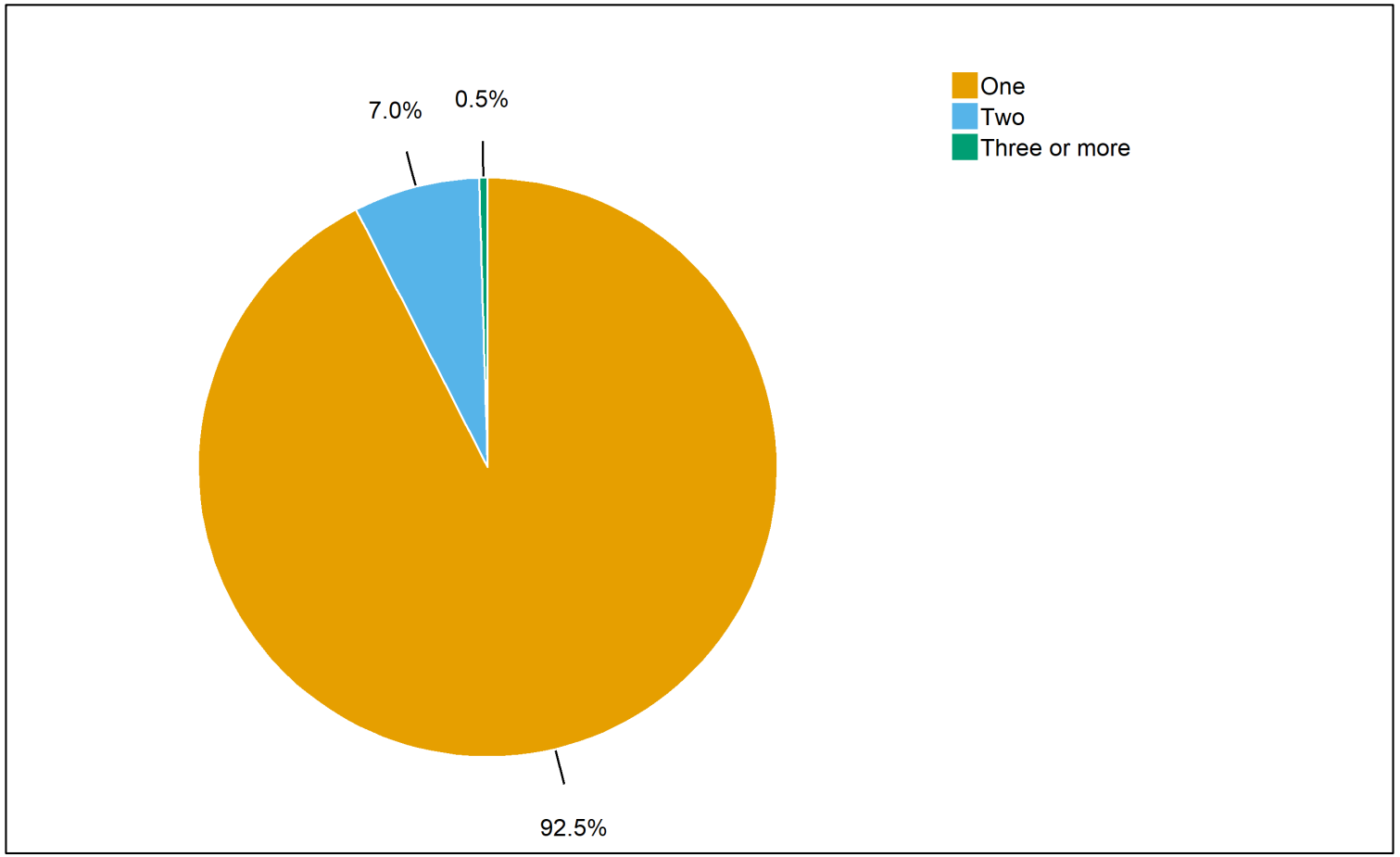
Fire

- 40percent false alarms, average of 1.1 calls per day.
- 17 percent of calls structure and outside fire calls combined, average of 0.4 calls per day, or one call every 2 days

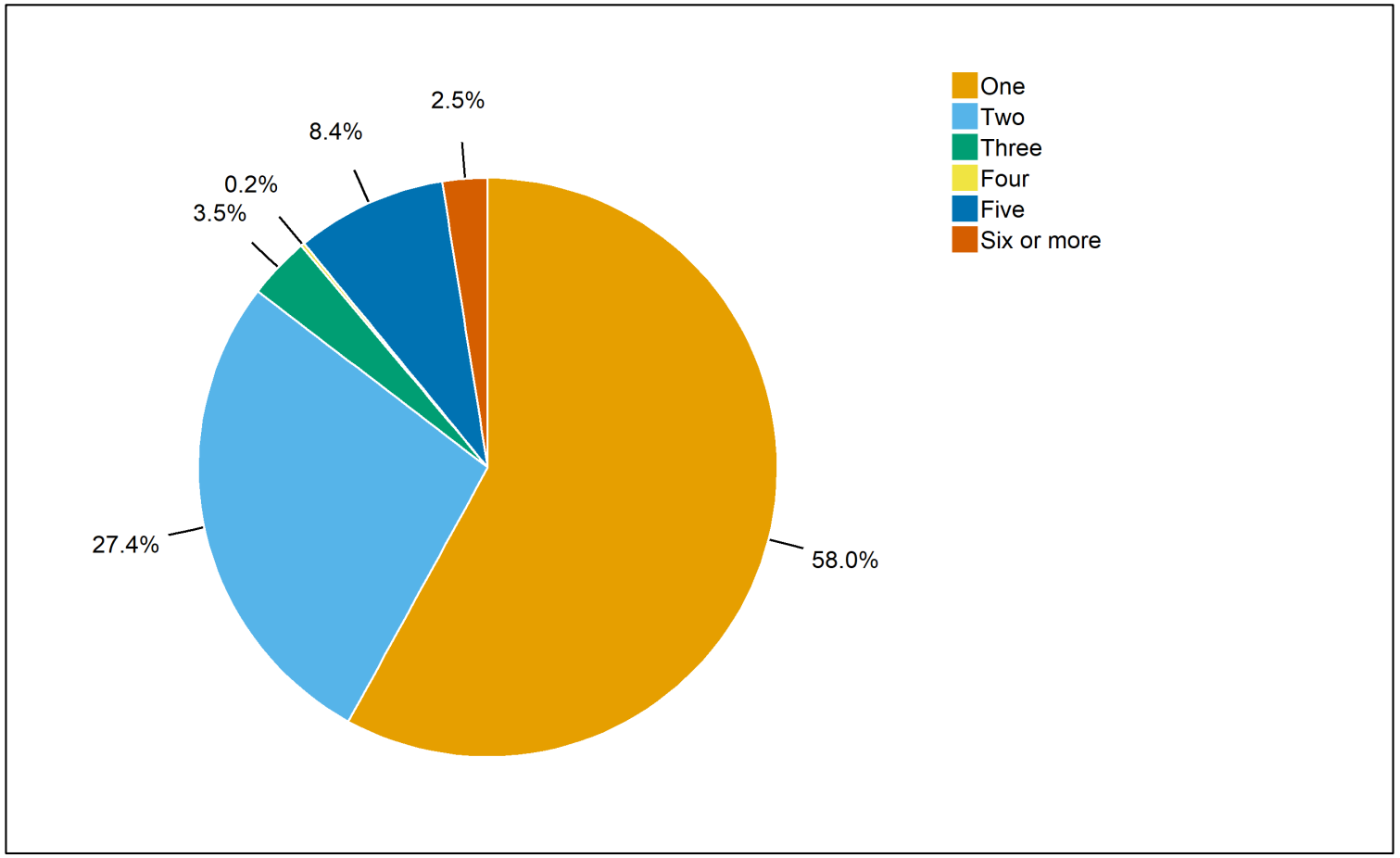
85.6 % calls handled by 1 unit

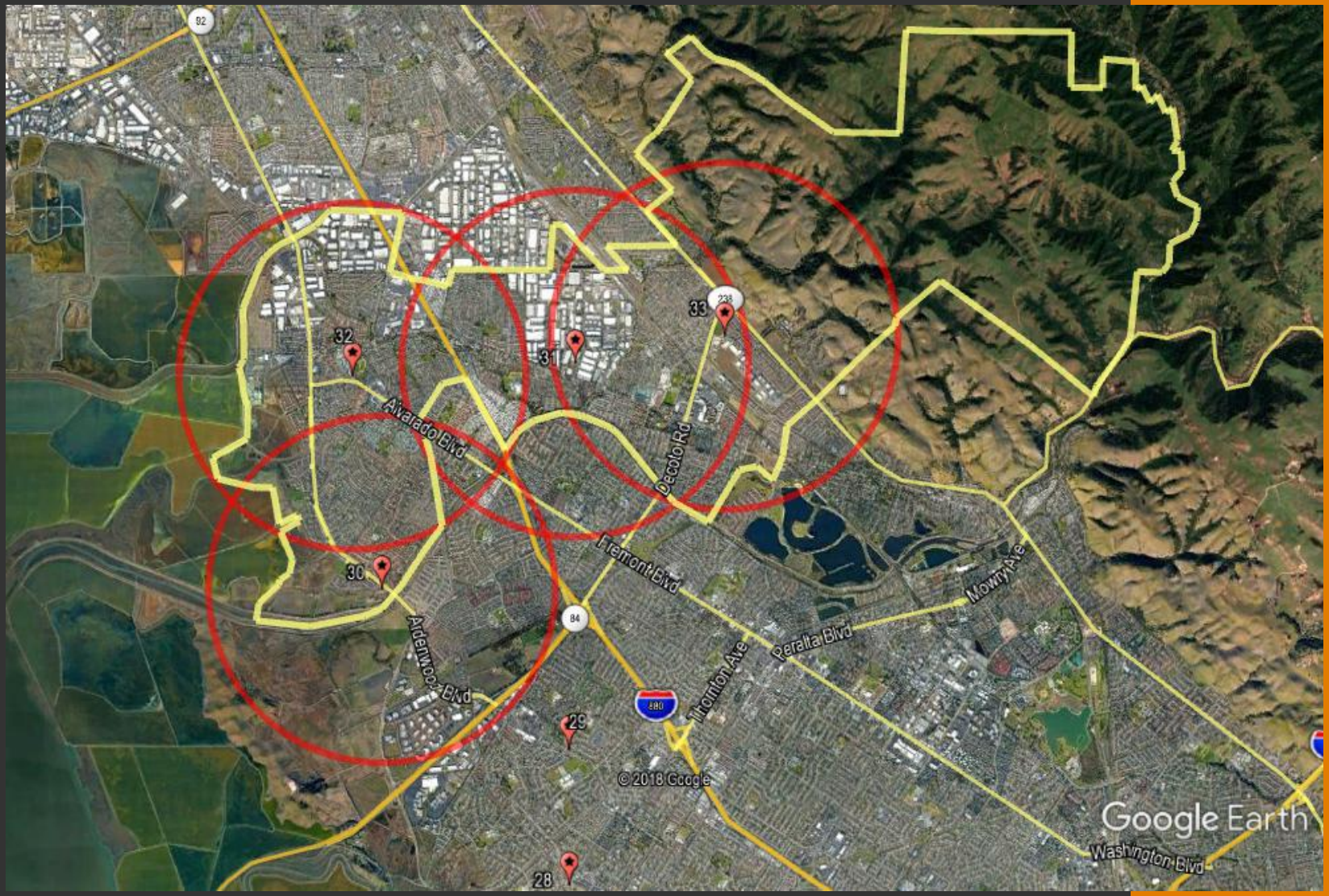
Call Type	Number of Units			Total Calls
	One	Two	Three or More	
Breathing difficulty	477	14	0	491
Cardiac and stroke	512	20	0	532
Fall and injury	744	20	0	764
Illness and other	1,391	33	1	1,425
MVA	26	185	18	229
Overdose and psychiatric	96	2	0	98
Seizure and unconsciousness	461	8	0	469
EMS Total	**3,707**	**282**	**19**	**4,008**
False alarm	131	212	41	384
Good intent	57	7	23	87
Hazard	26	9	20	55
Outside fire	87	16	8	111
Public service	241	14	11	266
Structure fire	10	3	36	49
Fire Total	**552**	**261**	**139**	**952**
Canceled	345	61	12	418
Total	**4,604**	**604**	**170**	**5,378**
Percentage	85.6	11.2	3.2	100.0

EMS Units dispatched



Fire CFS Units dispatched





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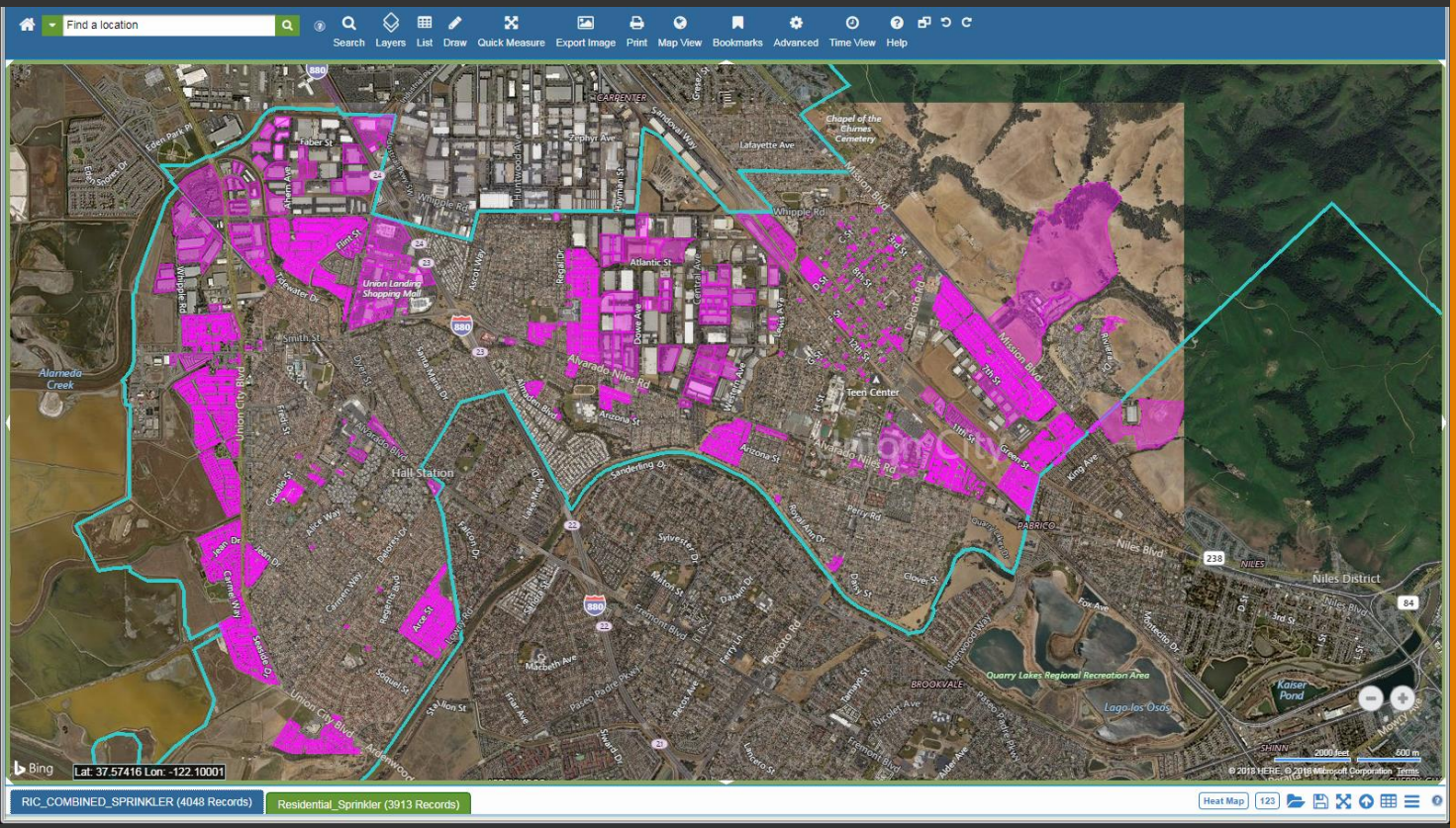
Residential and Commercial Sprinkler Systems



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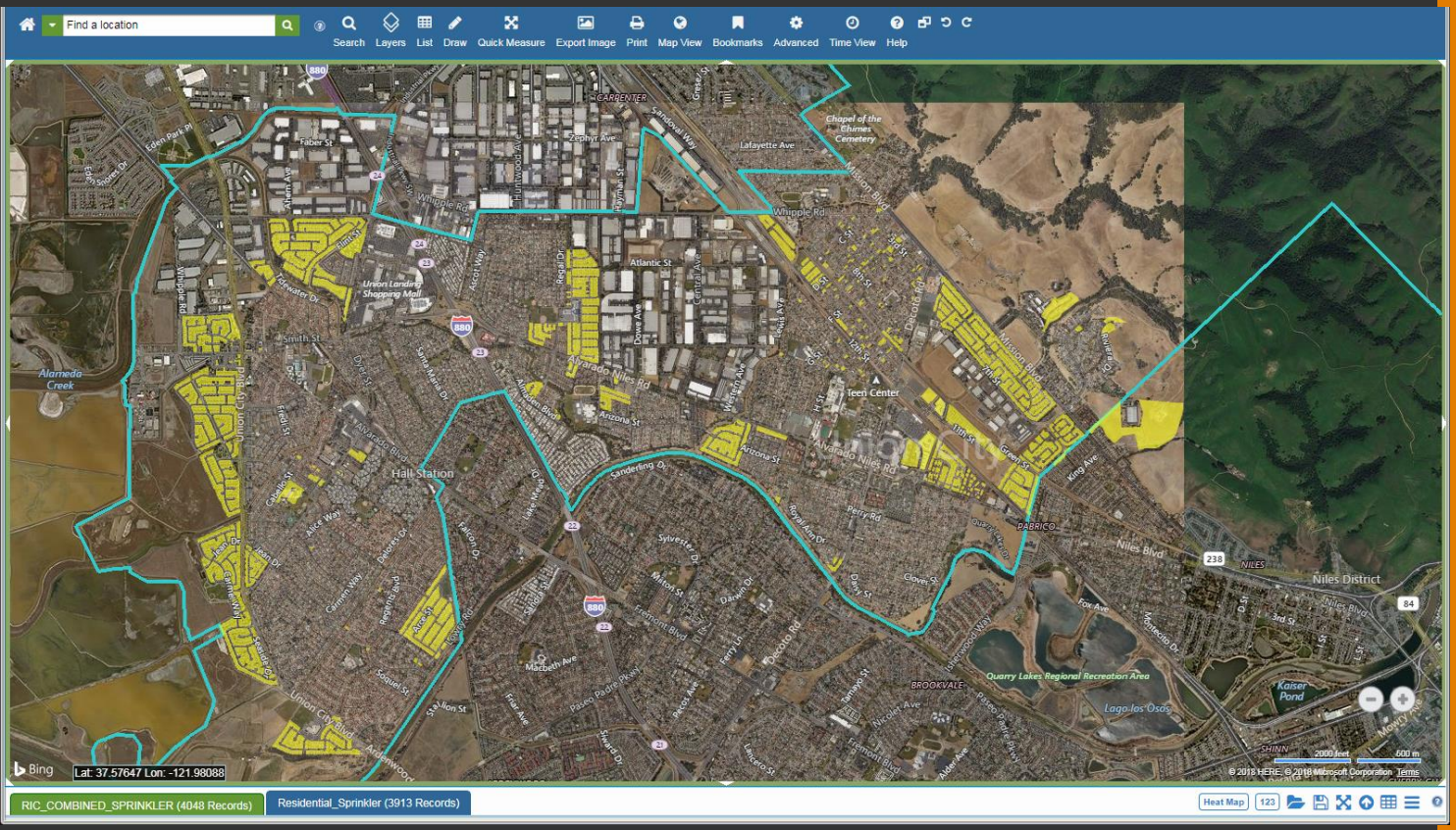
Residential Sprinkler Systems



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Improving Performance

1. Traffic interruption devices
2. AED's in patrol cars (expand program community wide)
3. Community wide CPR programs
4. False Alarm reduction strategies
5. IRMP Yearly Plan – reduce "hot" calls for EMS in line with Tulsa Study
6. Utilize savings for code enforcement and fire prevention

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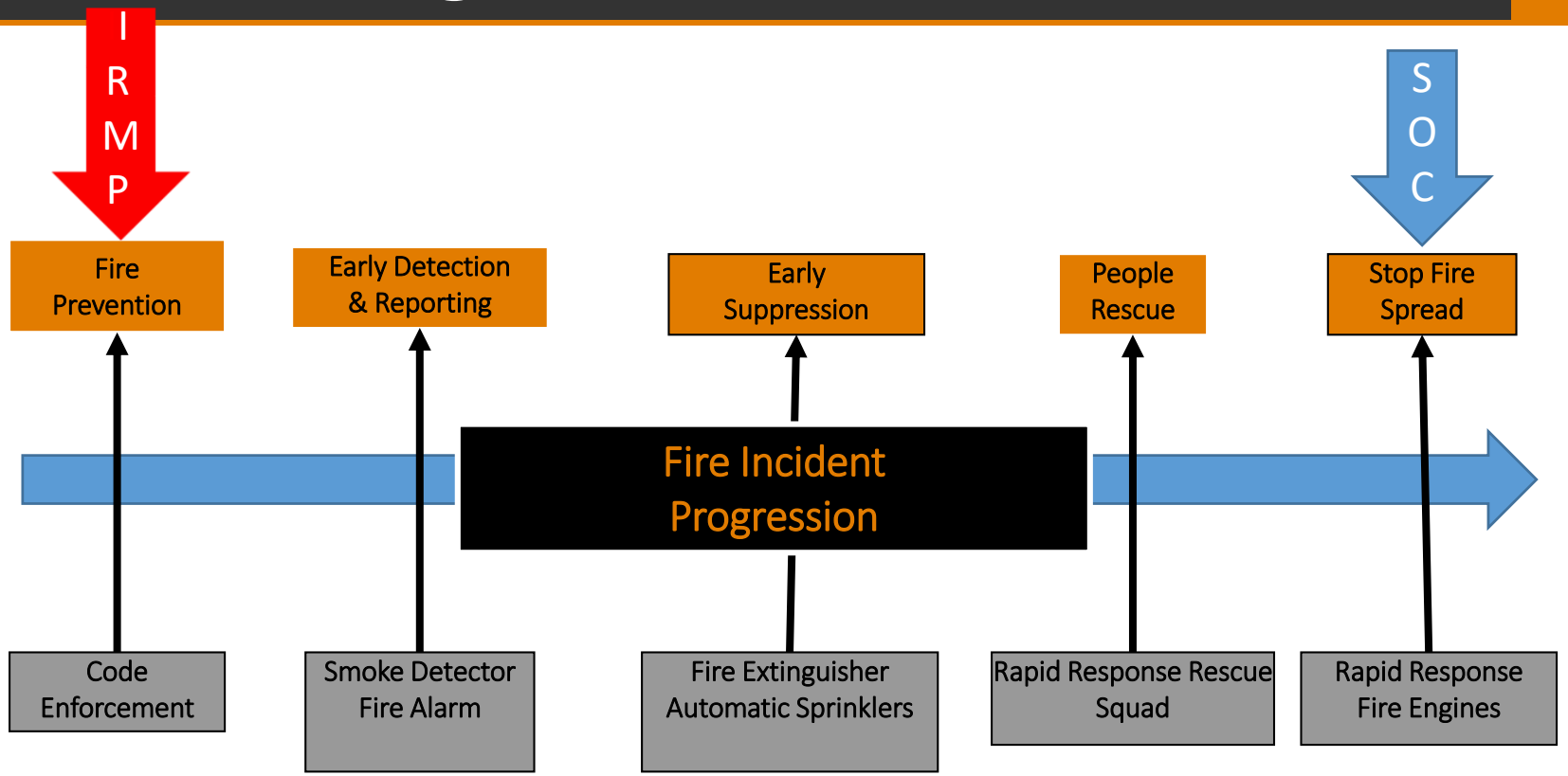
Fire Challenges



FIRE DEPARTMENT ACTIONS

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Questions ??

CPSM

Helping to make communities safe for citizens, business and employees.

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Presenter Response

City Council Questions/Comments Direction