



# UNMET NEEDS ASSESSMENT

*Draft 1*

Document Version History			
<i>Date</i>	<i>Version</i>	<i>Author</i>	<i>Change</i>
11/02/2018	Draft	Hagerty Consulting	First Draft Submission

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# Introduction

The 2017 Northern California Wildfires comprised a series of nearly two dozen major wildfires that burned across Northern California from October 8 through October 31, 2017. It was the costliest fire event in U.S. history and the deadliest fire disaster in the U.S. since 1918.<sup>12</sup> Four of the most destructive fires in California (“State”) history burned simultaneously in the same region, fueled by a historic drought and red flag fire conditions. On October 10, 2018, the president declared six counties—Napa, Lake, Sonoma, Mendocino, Butte, and Solano—federal disaster areas.<sup>3</sup> The fires persisted throughout October, causing the worst air pollution on record in Northern California, causing school closures and air advisories up to 100 miles away.<sup>4</sup>

Sonoma County was hardest hit due to the Tubbs Fire, which became the most destructive in the State’s history. The fire burned over 100,000 acres and destroyed 6,957 structures.<sup>5</sup> More than 3,000 homes were destroyed in Santa Rosa, an estimated five percent of the city’s housing stock.<sup>6</sup> The blaze also burned 400,000 square feet of commercial space in Santa Rosa, including the Fountain Grove Inn, multiple schools, a Hilton hotel, and a community health center. Santa Rosa Mayor, Chris Coursey, estimates the fire caused \$1.2 billion in damage in Santa Rosa alone.<sup>7</sup>

Since the federal disaster declaration, the Federal Emergency Management Agency (FEMA) approved over 4,500 individual assistance applications for a total of more than \$16 million. On May 10, 2018, state, federal, and local officials announced the completion of major debris removal operations across the four counties hardest hit by the wildfires. The debris removal project was the largest since the 1906 San Francisco earthquake, removing more than 2.2 million tons of debris from county properties.<sup>8</sup>

The devastation from the wildfires affected low income communities and upscale

<sup>1</sup> Dale Kasler (December 8, 2017). "[Wine country wildfire costs now top \\$9 billion, costliest in California history](#)". *The Sacramento Bee*. Retrieved October 27, 2018.

<sup>2</sup> "[America's Most Devastating Wildfires | American Experience | PBS](#)". www.pbs.org. Retrieved October 27, 2018.

<sup>3</sup> "[Top 20 Most Destructive California Wildfires](#)" (PDF). CAL FIRE. Retrieved October 29, 2018.

<sup>4</sup> Doug Criss and Judson Jones (October 11, 2017) "[The California Wildfires, by the numbers](#)". CNN. Retrieved October 29, 2018.

<sup>5</sup> "[Incident Fact Sheet](#)" (DF). Cal Fire. Retrieved October 29, 2018.

<sup>6</sup> Nelson, Laura (October 13, 2017). "[Death toll from Northern California fires jumps to at least 34; 5,700 structures destroyed.](#)" *Los Angeles Times*. ISSN 0458-3035. Retrieved October 28, 2018.

<sup>7</sup> Id.

<sup>8</sup> Jonathon Gudel (May 10, 2018) "[Major Debris Removal Operations are Complete Following October 2017 Wildfires In Northern California](#)". Cal OES News. Retrieved October 29, 2018.

subdivisions alike, and even impacted areas not considered a fire hazard. This included a low income mobile home park for seniors; the high-end subdivision of Fountaingrove; and the expansive middle income neighborhood known as Coffey Park.

Following the disaster, the thousands of displaced families looking for rental options has caused a spike in rental costs, making it extremely for challenging low- and middle-income families to afford housing in their community. As a result, businesses have reported difficulty finding skilled laborers, negatively impacting the tourism, healthcare, and services industries. Local tourism, a major economic driver, was shaken during the disaster and most businesses were forced to close anywhere from a few days to several months.

An investigation by state authorities revealed the fires were started by power lines from the local utilities, Pacific Gas and Electric. The finding started a battle in courts and legislatures over who will pay for the damages. Public utilities argue that increased fire risk is part of the new climate and have lobbied to introduce legislation that would limit their liability. However, the insurance industry and homeowners maintain that current laws should remain intact to require utility companies to responsibly maintain equipment. Uncertainty over the dispute caused Standard & Poor to downgrade the credit rating of two state utilities, making it costlier for the utilities to borrow money.<sup>9</sup> The event also led insurers to consider adopting policies to contract with private firefighters for protection of private property. In total, insurers have paid over \$11.5 billion in claims and the total economic impact of the fires is estimated to be \$85 billion.<sup>10 11</sup>

<sup>9</sup> Laurel Rosenhall (July 12,2018) "[A political firestorm is about to hit the Capitol: Who will pay for wildfire damages?](#)". CalMatters. Retrieved October 29, 2018.

<sup>10</sup> "[Weather, Climate & Catastrophe Insight – 2017 Annual Report](#)". Aon Benfield. Retrieved October 29, 2018.

<sup>11</sup> Brian Lada (October 15, 2017) "[Devastating California wildfires predicted to cost US economy \\$85 billion; Containment may take weeks](#)". AccuWeather. Retrieved October 29, 2018.

*Figure 1: Fires burning apartment complex, October 2017*



*Figure 2: Aerial view of aftermath, Coffey Park, October 2017*



# Housing

The 2017 wildfires had a devastating impact on several neighborhoods in the northern portion of the city, damaging nearly 4,000 homes. The most affected neighborhoods include Journey's End, a mobile home park for senior residents; Fountaingrove, an upscale bedroom community; and Coffey Park, a moderate to middle-income family-oriented neighborhood centered around a large greenspace.

To estimate unmet need for housing recovery, the City of Santa Rosa uses two methods. The first method utilizes a variation of HUD's methodology as described in the Federal Register 6109-N-01.<sup>12</sup> The second method supplements HUD's approach with the city's field surveys of housing damage. In both instances, unmet need for housing recovery is defined as the cost to repair or rebuild homes damaged by the disaster (DR-4353), subtracting the combined insurance proceeds, FEMA grants, and Small Business Administration (SBA) home loans each household received.<sup>13</sup>

**HUD Methodology** - HUD approaches the initial estimate of housing unmet need using FEMA's initial inspections through: (1) FEMA's Individual Assistance (IA) Program and (2) the SBA home inspections conducted as part of their homeowner loan repair program. The IA data is the largest dataset available recording the owners and renters impacted by the wildfires and is therefore considered a near-exhaustive database of housing damage. However, because FEMA's initial inspections are conducted rapidly to support first-response recovery, HUD has found these preliminary estimates of damage costs to be considerably underestimated. Therefore, HUD recommends using average SBA loan amounts to gauge a more accurate representation of damage costs. The average SBA loan amount, by damage category, is then applied to the IA applicants who did not receive an SBA loan, but whose damage estimates are comparable to the SBA loan applicants.

**Based on HUD's methodology, 1,061 homes were significantly impacted; 933 occupied by renters (88%).** This was determined using FEMA's estimate of Real Property Loss (RPL) for homeowners, and Personal Property Loss (PPL) for renters,

<sup>12</sup> FR 6109-N-01 outlines the allocation of \$10.03 billion in CDBG-DR funds for disaster recovery efforts related to the 2017 presidentially declared natural disasters. California was allocated \$124,155,000; 80 percent of these funds must be used in the most impacted areas of Sonoma and Ventura Counties, and five impacted zip codes.

<sup>13</sup> The FEMA IA records indicate whether an applicant has insurance (Y/N), but excludes the amount of insurance each applicant received. Therefore, the current estimate for unmet need assumes homeowners who have home insurance will have sufficient resources to rebuild, which follows HUD methodology. This assumption may change once housing recovery programs are in operation, and the application process illustrates significant unmet need even among owners with home insurance.

within the FEMA IA data provided September 21, 2018.<sup>14</sup>

**Revised Methodology using city data** –The City of Santa Rosa estimates housing damage and unmet needs following the general HUD methodology, with one critical exception—the city supplements the FEMA IA data with local inspections. The city conducted a thorough assessment of residential and commercial damage and found nearly 4,000 homes impacted. The inspections classified homes as “green” for little to no damage; “yellow” for evident but reparable damage; and “red” for severe damage or destroyed homes. This local inspection effort resulted in a substantially higher estimate for impacted homes.

The City of Santa Rosa incorporates this inspection process into the unmet needs analysis because the results are more complete and accurate than FEMA’s inspections. For instances where FEMA determined little to no damage, but where city inspectors determined damage to be “yellow” or “red,” the city adjusts the home’s damage category to “major” or “severe,” respectively.

**Using this revised methodology that incorporates local inspections data, 3,952 homes were significantly impacted; 1,473 occupied by renters.** This resulted in an additional 2,342 owner-occupied homes, and 783 renter-occupied homes (37 percent), considered significantly impacted.

It is important to note that HUD’s methodology for determining damage categories using FEMA’s IA Program is standard practice for flood events, but is not commonly used for fire damage. Based on local knowledge, areas damaged by the fires were largely decimated, where almost all homes that experienced fire damage were either severely damaged or destroyed. In other words, it is rare to find fire-damaged homes with only Minor Damage. However, only 39 percent of homes are considered “severely damaged” using FEMA IA damage estimates (compared to 82 percent using local data).

Additionally, Santa Rosa’s local inspections indicate that the FEMA IA inspection process grossly underestimate the number of homes damaged or destroyed. Therefore, the City of Santa Rosa is relying on local inspections over FEMA IA inspections to determine the extent of housing damage and unmet need.

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<sup>14</sup> Housing damage is categorized using a five-point scale, where 1 = Minor/Low Damage; 2 = Minor-High Damage; 3 = Major-Low Damage; 4 = Major-High Damage; and 5 = Severe Damage. It is based on FEMA’s estimate of real property loss for owners, and personal property loss for renters. FR 6109-N-01 defines the ranges for each category.



Table 1: Estimate of Damaged Homes using HUD Methodology

	Own	Rent	NA	Total
Minor-Low	34	79		113
Minor-High	5	105	1	111
Major-Low	1	213	1	215
Major-High	10	340		350
Severe	116	380		496
<b>Total Damage</b>	<b>166</b>	<b>1,117</b>	<b>2</b>	<b>1,285</b>
Major-Severe Damage	127	933	1	1,061
% Major-Severe Damage	76.5%	83.5%	50.0%	82.6%
Applicants - No Damage	7,185	3,827	17	11,029

Table 2: Damage Categories using City of Santa Rosa Inspections

	Own	Rent	NA	Total
Minor-Low	21	58		79
Minor-High	4	72		76
Major-Low	157	223	4	384
Major-High	9	200		209
Severe	2,302	1,050	7	3,359
<b>Total Damage</b>	<b>2,493</b>	<b>1,603</b>	<b>11</b>	<b>4,107</b>
Major-Severe Damage	2,468	1,473	11	3,952
% Major-Severe Damage	99.0%	91.9%	100.0%	96.2%
Applicants - No Damage	4,858	3,341	8	8,207

For this analysis, only homes with “significant impact” (i.e., homes with major to severe damage) are considered to have unmet needs. Of this group, homeowners without insurance, and low to moderate income renters<sup>15</sup>, are assumed to have unmet needs.

The analysis utilizes HUD’s multipliers to calculate estimated unmet needs.<sup>16</sup> Please note, income values were not provided in the received IA data from FEMA. Thus, low to moderate income analysis was not readily available for this assessment. The city can run LMI analysis if data is made available.

<sup>15</sup> Based on American Community Survey data, 49 percent of rental units in the most impacted census tracts are affordable to low income households based on 80 percent of Area Median Income. Therefore, the analysis assumes 49 percent of rental units with major to severe damage have unmet needs.

<sup>16</sup> FR 6109-N-01 prescribes multipliers for damage categories; Major-Low = \$40,323; Major-High = \$55,812; and Severe = \$124,481.

Table 3: Housing Unmet Need (V1 and V2)

	Unmet Need V1	Unmet Need V2	Difference
<b>Own</b>	\$4,069,302	\$22,776,442	\$18,707,140
<b>Rent</b>	\$36,685,153	\$73,921,145	\$37,235,992
<b>Total</b>	<b>\$40,754,455</b>	<b>\$96,697,587</b>	<b>\$55,943,132</b>

## Repairing Owner-Occupied Homes

The wildfires of 2017 impacted the northern residential areas of Santa Rosa, including three mobile home parks, the middle-class neighborhood of Coffey Park, and the high-end subdivision of Fountaingrove. More than one year after the wildfires, rebuilding is underway in Coffey Park and Fountaingrove, whereas the mobile home communities have yet to be rebuilt.

**Coffey Park** was ravaged by the Tubbs Fire in October 2017, destroying an estimated 1,400 homes. This community, composed of single-family homes mostly occupied by middle-class families, is currently active in reconstruction activities. As of early October, 2018, 24 homes have been rebuilt; 551 units are under construction; and 250 homes are awaiting building permits.<sup>17</sup>

However, there are two critical issues that remain. First, not all homeowners have sufficient resources to rebuild, particularly those who were not fully insured. Approximately one-third of the homeowners (over 500 homes) have yet to begin the rebuilding process. We can assume a substantial percentage of these homeowners do not have adequate financing to rebuild after accounting for FEMA and insurance proceeds and need additional assistance.

Second, the neighborhood's sidewalks, curbs, and gutters were irreparably damaged, and there is currently no funding source to repair these damages. Typically, FEMA's Public Assistance (PA) Program would find this infrastructure repair eligible for grant funding. However, the City of Santa Rosa's regulations require property owners to maintain and repair the public spaces fronting their property. Because of this regulation, FEMA has determined that the City of Santa Rosa is not eligible for a FEMA PA grant to make these repairs. As it currently stands, Coffey Park lacks sidewalks, gutters, and curbs, and has no source of funds to install them.

**Journey's End**, a mobile home park for senior residents, was decimated by the Tubbs

<sup>17</sup> Allie Rasmus, "Coffey Park in Santa Rosa still rebuilding, one year after North Bay firestorm," KTVU, posted online October 8, 2018, retrieved October 23, 2018, <http://www.ktvu.com/news/coffey-park-in-santa-rosa-still-rebuilding-one-year-after-north-bay-firestorm>.

Fire, where 117 of the 161 homes were destroyed. The fire also destroyed the site's utility lines and basic infrastructure, requiring the entire park to be closed off from residents. This left 44 households homeless, even though their homes were not destroyed. Because their homes were not damaged, these 44 low-income, senior households received limited benefits from FEMA, and face significant challenges in finding decent, safe housing that is affordable to them.

Due to the city's current land use, the 13-acre parcel is no longer suitable for mobile home development, and Journey's End will not be rebuilt, leaving all 161 households without homes and no clear plan for their future. The non-profit organization, Burbank Housing Corporation (Burbank), intends to develop 161 senior affordable apartments on the site, and offer former residents the right of first refusal to occupy these units once built. However, 118 households (73 percent) owned their mobile home. The transition from being a mobile homeowner to renter may not be ideal for many of these households.

As of October 2018, nearly all displaced residents live in housing owned and operated by Burbank within Santa Rosa city limits. The non-profit is currently in negotiations with the State and HUD to determine the costs and responsibility for relocating former residents to new housing under the Uniform Relocation Act (URA). If HUD determines that Burbank will be responsible for URA costs, Burbank proposes developing a new mobile home park at an alternative site. However, the costs may be prohibitive, stalling any new development. The outcome of these negotiations will ultimately decide whether the project onsite (161 rental units) and/or offsite (new mobile home park) moves forward, and the level of assistance the 161 senior households will receive to find new homes.

In addition to Journey's End, the Coddington Estates mobile home park lost 11 homes; and the Orchard Mobile Home Park lost 63 homes. As of October 2018, 28 units at Orchard have been rebuilt, and another 24 units are expected to be available by the end of 2018. More than half of the displaced residents have decided not to return.

Fountaingrove, the hillside community of luxury and custom-built homes, was the most significantly impacted, destroying close to 1,500 homes.<sup>18</sup> According to building permit data, reconstruction in this neighborhood has lagged Coffey Park due to several factors. For one, cleanup activities took longer because the homes and lots are much larger, leading to a delay in rebuilding. Also, the cost of construction is much higher for these

<sup>18</sup> Kevin McCallum, *Press Democrat*, "Rebuilding Sonoma County: Fountaingrove rebuild includes water, open space restoration," June 22, 2018, retrieved October 23, 2018 at <https://www.pressdemocrat.com/specialsections/8419090-181/rebuilding-sonoma-county-fountaingrove-rebuild?sba=AAS>.

custom-built homes, causing substantial gaps between the cost to rebuild and the amount of insurance payouts homeowners received. There is also evidence based on sales activity that many residents are opting to place their lots for sale rather than rebuild. Many residents who have the financial flexibility to leave are choosing to do so. Finally, the community's preserved land and infrastructure require substantial investment. The water supply for 350 homes is contaminated with benzene due to melting plastic water pipes, requiring cleanup and replacing damaged lines. Additionally, 214 acres of preserved wildland under control of the homeowners' association burned down. This was a significant asset to the neighborhood, and the cost to restore this area places a considerable burden on current residents.

Fountaingrove property owners are unlikely to face any significant unmet need due to their financial resources; however, population loss within this area may lead to a significant reduction in property tax revenue for the city.

### Rental Housing Challenges

Santa Rosa's available rental housing was extremely limited prior to the 2017 wildfires; since the disaster, the rental housing market has been in a state of emergency, impacting the economy and quality of life for owners and renters alike.

Prior to the wildfires, the rental housing vacancy rate was one percent, indicating an extreme rental housing shortage. Typical "healthy" rental housing vacancy rates are between five and seven percent. After the disaster, the rental market was flooded with thousands of homeowners whose homes were destroyed, exacerbating the problem. The spike in rental housing demand, with virtually no rental housing available, led to price gauging and illegal evictions in some cases. Multiple instances of renters claiming they were evicted without cause, so that landlords could accept new tenants with generous rent stipends paid by insurance, have been noted. The problem was significant enough that the State of California issued laws restricting price gauging. Although the U.S. Census and other data sources have not yet documented the price increases, a current survey of rents indicate price increases of roughly 80 percent.

The lack of rental housing at all price points has placed strain on the local economy. Stakeholders working in Santa Rosa's business development and tourism industries cite the housing shortage as a deterrent for attracting doctors, nurses, childcare workers, and service-industry workers.

Naturally, residents in lower-wage industries are disproportionately impacted by the surge in rental housing costs, notably residents working in wine-country tourism and viticulture industries. Santa Rosa has a significant Hispanic population working in these industries. Several organizations, including Hispanic Chamber of Commerce and

Catholic Charities are providing supportive services for the Spanish-speaking population within the city.

Aside from the severe shortage of rental housing, there are three issues that should be addressed in the recovery process.

**Mobile homes** – Three mobile home parks, including Journey’s End home for seniors, suffered significant damage in the 2017 wildfires. Residents either owned their mobile home and paid rent for the space, or rented their mobile homes directly. Roughly a quarter of the 161 tenants at Journey’s End did not experience direct damage to their homes, and received limited assistance from FEMA to find suitable replacement housing. Those households that did receive assistance likely did not receive enough funds for replacement housing (assuming households received insurance payouts based on the value of the mobile home, not the cost of replacement). Recovery housing programs should take these unique needs into account, particularly the needs of seniors faced with transitioning from homeownership (i.e., owning a mobile home) to renting.

**Small Structures** – The majority of Santa Rosa’s rental housing is within single family homes, duplexes, and other small structures, not large multi-family complexes. To restore rental housing and rebuild damaged neighborhoods, recovery housing programs should include rebuilding these structures.

**Rental Conversions** – Local real estate experts are seeing a spike in vacant lots for sale, implying that many owners are choosing to sell the land and keep insurance proceeds rather than rebuild. It appears many landlords who owned and rented out their single-family homes are among this group, meaning that the supply of rental housing will be even lower than before the wildfires.

### ***Other Subsidized Housing, Non-Subsidized Affordable Housing***

The wildfires had a limited impact on subsidized or affordable rental housing. Based on outreach with the local housing authority and property owners, there were no homes lost that were funded with LIHTC, HOME, CDBG, Section 202, or Section 811 Programs. Similarly, no public housing unit was damaged in the fires, and less than ten households with Housing Choice Vouchers lost their homes.

One apartment building, Coffey Apartments, sustained significant fire damage, and only three buildings remain

### ***Housing for Persons with Special Needs***

According to city officials, two senior housing developments in Fountaingrove, and the senior community of Journey’s End, were nearly destroyed. The senior communities in Fountaingrove were luxury retirement communities, whereas Journey’s End was

occupied by low income residents. It is presumed there is no unmet need for senior Fountaingrove residents; however, the 161 senior households who lived in Journey's End still require new permanent housing, and are currently living in temporary homes in the region.

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# Vulnerability of the Most Impacted Communities

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Natural disasters cause disproportionate impact to very low income families, persons with physical and mental disabilities, seniors, and individuals with English language barriers. To assess how the 2017 wildfires impacted vulnerable populations, the study includes a socio-economic analysis of the seven most severely impacted neighborhoods (defined as census tracts with more than 40 homes experiencing major to severe damage). Based on this analysis, we find the following vulnerabilities and specific needs:

- ❖ Census Tract 1528.01 lost nearly two thirds of its rental housing, the majority of which was affordable to low and moderate-income renters.
- ❖ Census Tract 1527.02 lost 12.4 percent of its rental housing, with roughly 60 percent affordable to low and moderate-income renters. This census tract also had many duplexes, triplexes, and other small rental structures.
- ❖ Census Tract 1526 has the largest number and proportion of residents older than 65 years old, comprising 1,685 residents, nearly 20 percent of the population.
- ❖ Census Tract 1529.05 has the largest percentage of non-native English speakers, with 33 percent speaking another language at home. Most of these residents speak Spanish.
- ❖ Additionally, Census Tract 1528.01 and 1521 have more than 20 percent of the population speaking another language; 1528.01 includes large communities which speak Spanish or an Asian based language, whereas 1521 is predominantly Spanish-speaking.
- ❖ Census Tract 1521 has the highest poverty rate and can be considered a low-income area, with poverty at 12.6 percent.

Table 4: General Summary, Most Impacted Census Tracts

(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Population</b>	4,252	5,388	5,910	5,453	8,121	10,129	3,195
<b>Households</b>	1,581	1,949	2,091	2,160	3,176	4,287	1,053
<b>Housing Units</b>	1,615	2,005	2,122	2,252	3,468	4,513	1,070
<b>Owned</b>	1,000	1,366	996	1,447	2,610	3,248	539
<b>Rented</b>	581	583	1,095	713	566	1,039	514
<b>Affordable Rental Housing</b>	378	341	651	396	144	281	304
<b>Damaged Housing Units</b>	47	406	137	60	94	180	102
<i>Owned</i>	37	10	1	4	6	2	65
<i>Rented</i>	10	396	136	56	88	178	37
<i>% Renters</i>	21.3%	97.5%	99.3%	93.3%	93.6%	98.9%	36.3%
<i>% Rental Units Damaged</i>	1.7%	67.9%	12.4%	7.9%	15.5%	17.1%	7.2%

Table 5: Housing Summary, Most Impacted Census Tracts

(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Total</b>	<b>1,615</b>	<b>2,005</b>	<b>2,122</b>	<b>2,252</b>	<b>3,468</b>	<b>4,513</b>	<b>1,070</b>
<b>1, detached</b>	1,055	1,728	1,158	1,384	3,051	3,343	587
<b>1, attached</b>	23	47	169	116	282	266	67
<b>2</b>	0	46	8	44	0	0	40
<b>3 or 4</b>	91	31	150	27	20	36	72
<b>5 to 9</b>	175	11	148	167	38	31	43
<b>10 to 19</b>	47	32	210	26	10	328	0
<b>20 to 49</b>	9	0	60	15	0	0	74
<b>50 or more</b>	63	20	124	0	14	509	0

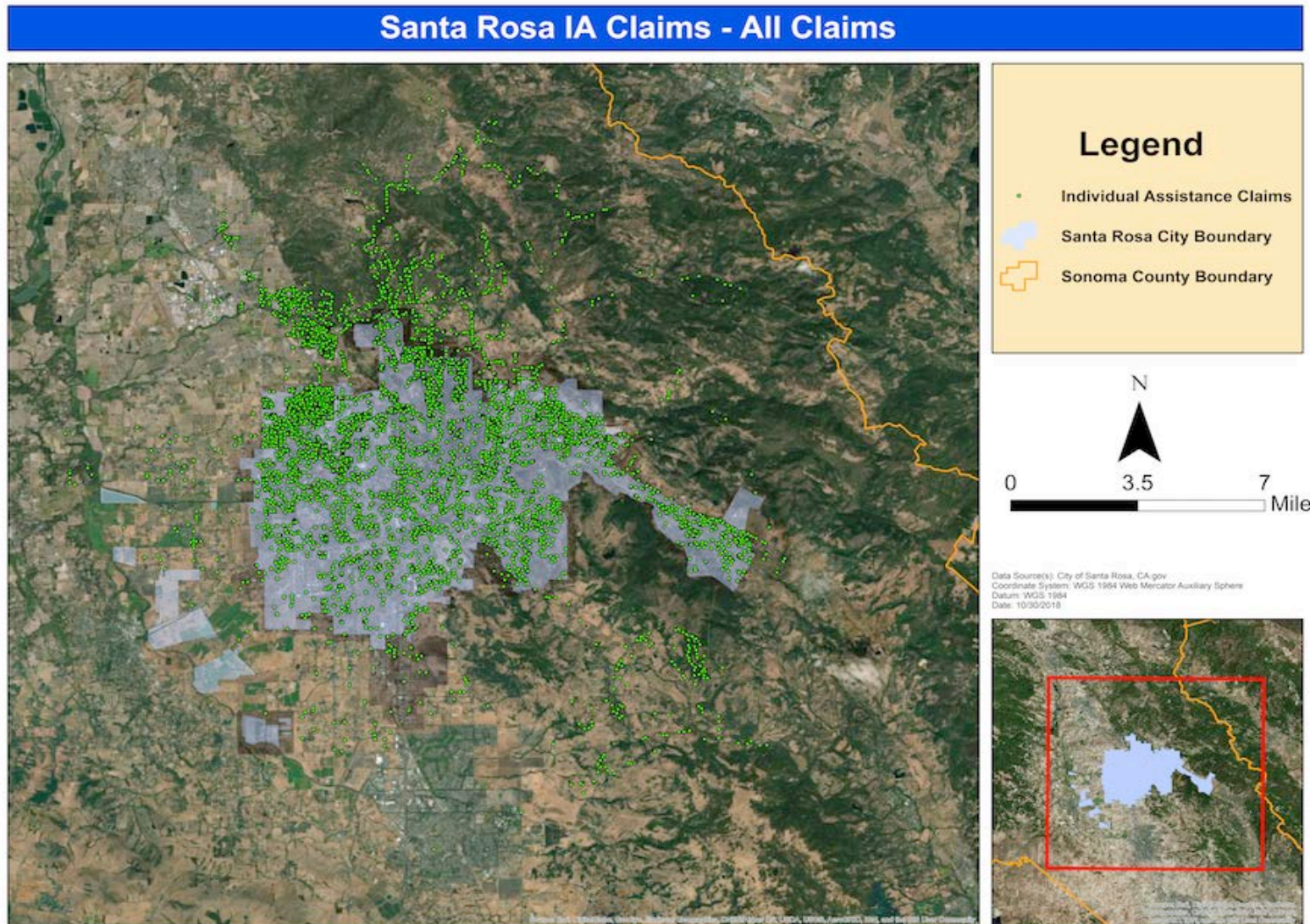


(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Mobile home</b>	152	90	95	463	53	0	187
<b>Boat, RV, van, etc.</b>	0	0	0	10	0	0	0
% Multi-Family (2 - 10 units)	5.6%	3.8%	7.4%	3.2%	0.6%	0.8%	10.5%
% Multi-Family (10+ units)	18.2%	3.1%	25.5%	9.2%	1.8%	19.2%	10.9%
% Mobile Homes	9.4%	4.5%	4.5%	20.6%	1.5%	0.0%	17.5%

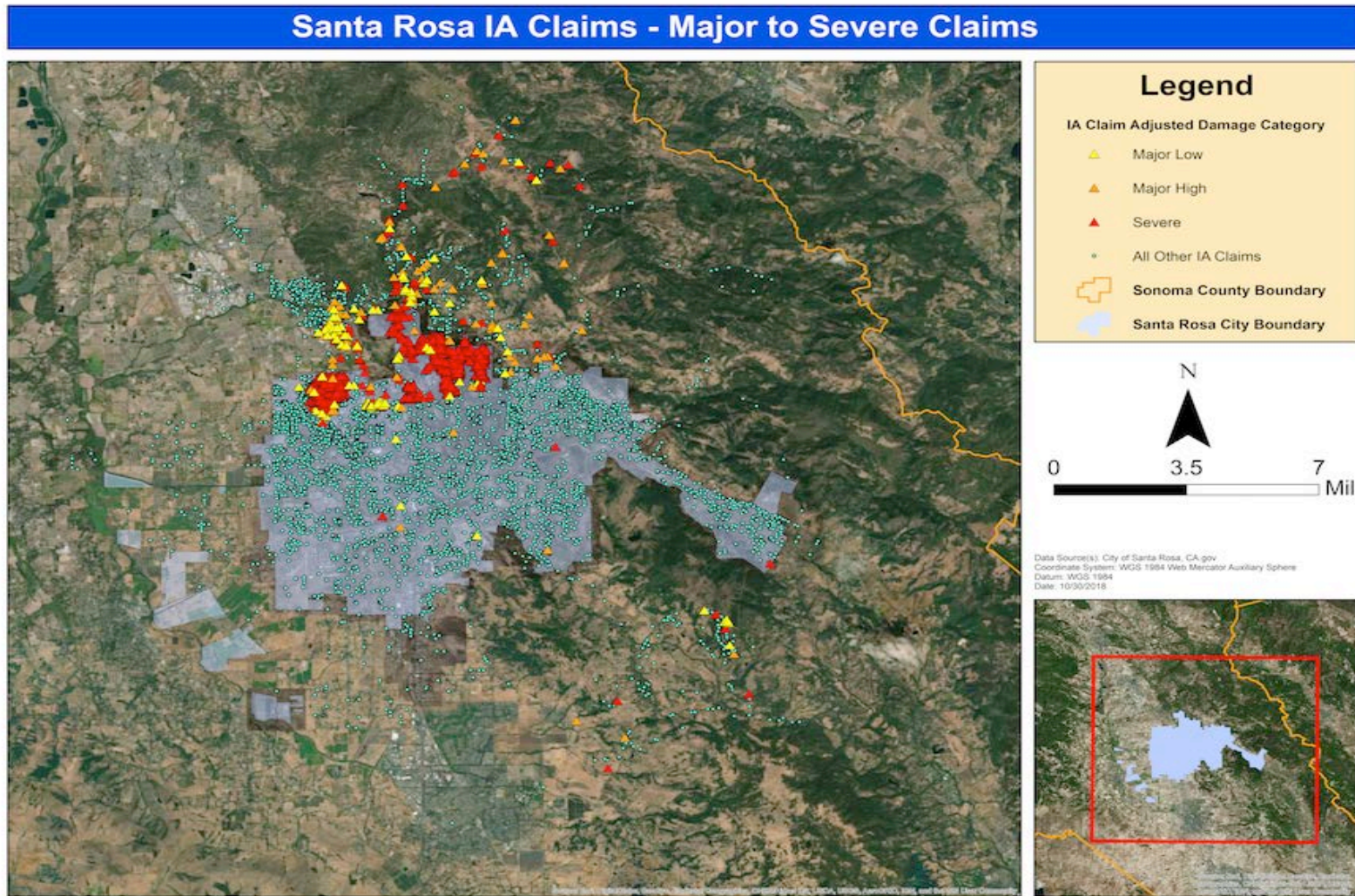
Table 6: Demographic Characteristics, Most Impacted Census Tracts

(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Population 65+</b>	500	486	737	972	1,685	2,771	413
<b>Population 65+ in Group Quarters</b>	0	4	26	0	1	62	8
<b>% Pop 65+ in Group Quarters</b>	0	0.8	3.5	0	0.1	2.2	1.9
<b>% Population Below Poverty Line</b>	5.6	7.7	10.6	9	5.3	3.5	12.6
<b>Population Speaking Foreign Language at Home</b>	33.0%	22.3%	13.7%	15.3%	12.7%	19.4%	23.4%
<b>Population Spanish Speaking</b>	21.6%	16.7%	10.7%	11.3%	4.2%	6.2%	19.8%
<b>Population speaks Asian and/or Pacific Island language</b>	7.0%	1.5%	1.7%	1.8%	2.9%	7.9%	2.0%
<b>Population speaks Indo-European and/or other language</b>	4.5%	4.1%	1.3%	2.3%	5.6%	5.3%	1.6%

A series of Geographic Information System (GIS) maps were generated to assist in the visualization of the damage to the city because of the fire. The maps were created using a combination of FEMA Individual Assistance (IA), City of Santa Rosa and other publicly available sources. Individual assistance claims were geocoded using the ESRI world geocoding service. The geocoding service places addresses in the street. This resulted in a small amount of error when combining address points with some parcels located in subdivisions or in cul-de-sacs or courts. In addition, multiple IA claims at one address were not always aggregated when represented visually, however they often had the same damage category information.

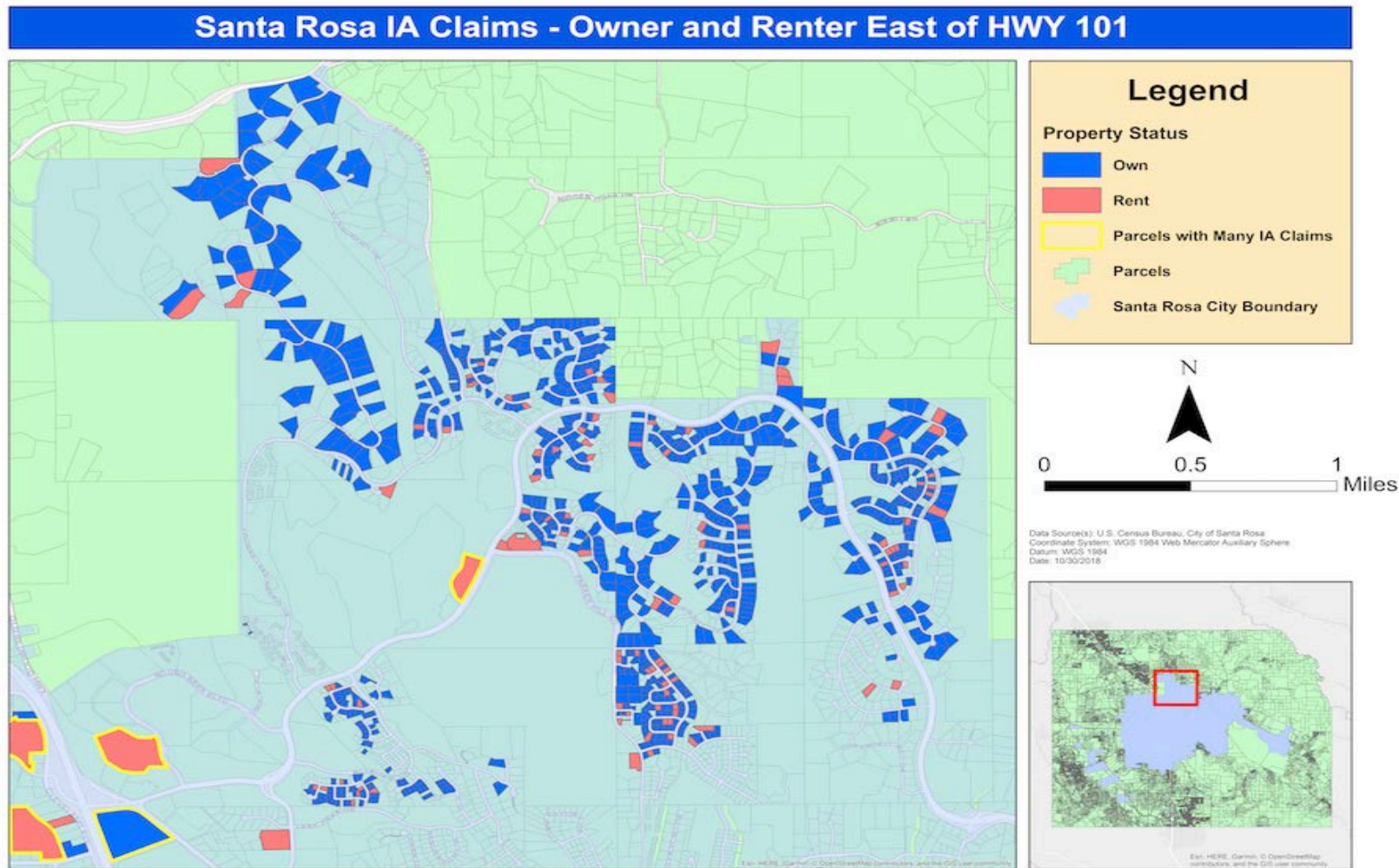


The above map provides an overview of all IA applicants within city limits.

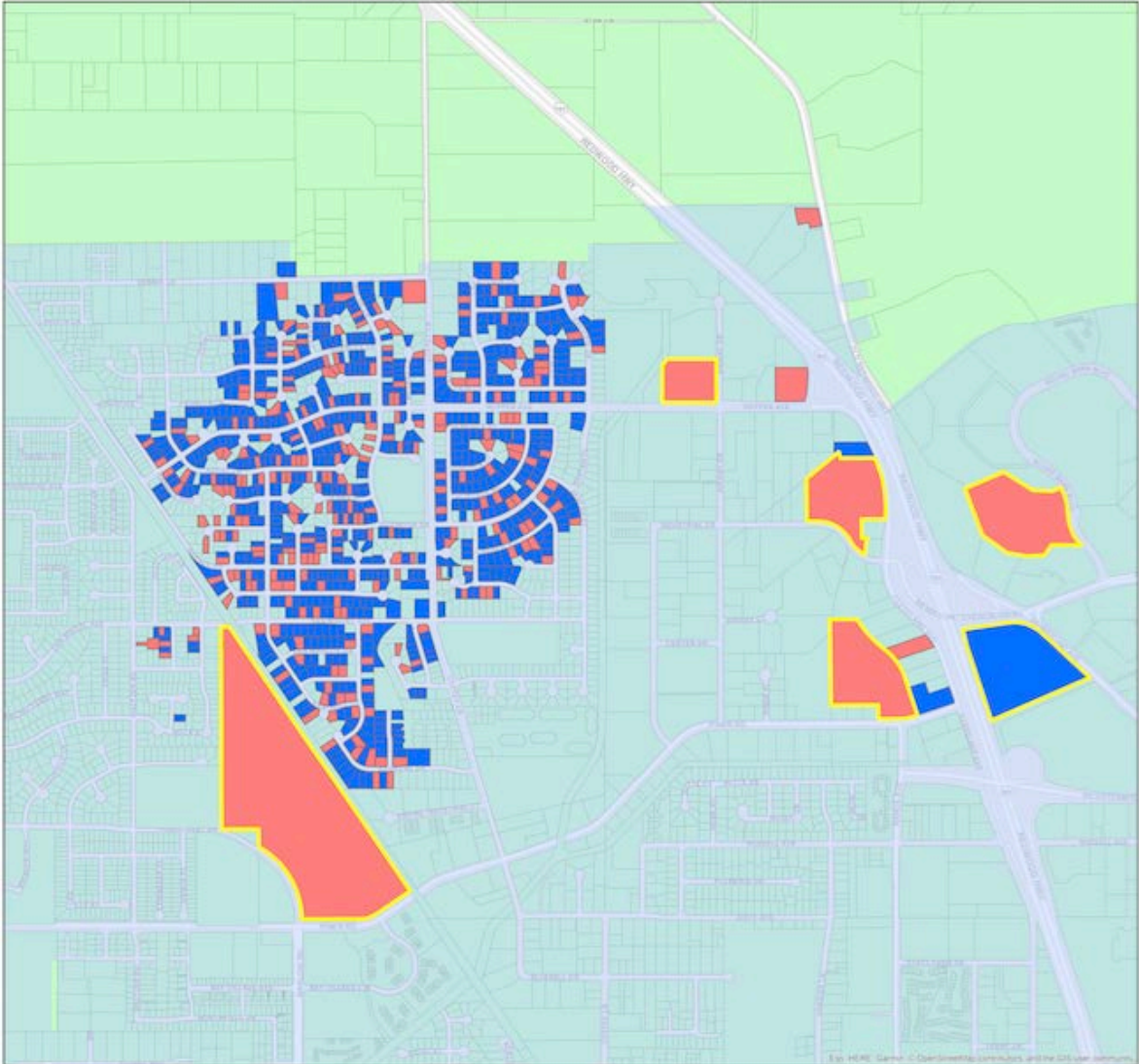


The second map shows of the total number of individual assistance claims, where the major-low, major-high, and severe damage occurred.

This following two maps provide a view into the locations of the Owner and Renter populations, while also showing areas where multiple IA claims were submitted on the same property.



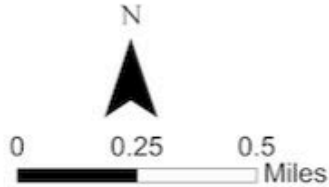
### Santa Rosa IA Claims - Owner and Renter West of HWY 101



#### Legend

Property Status

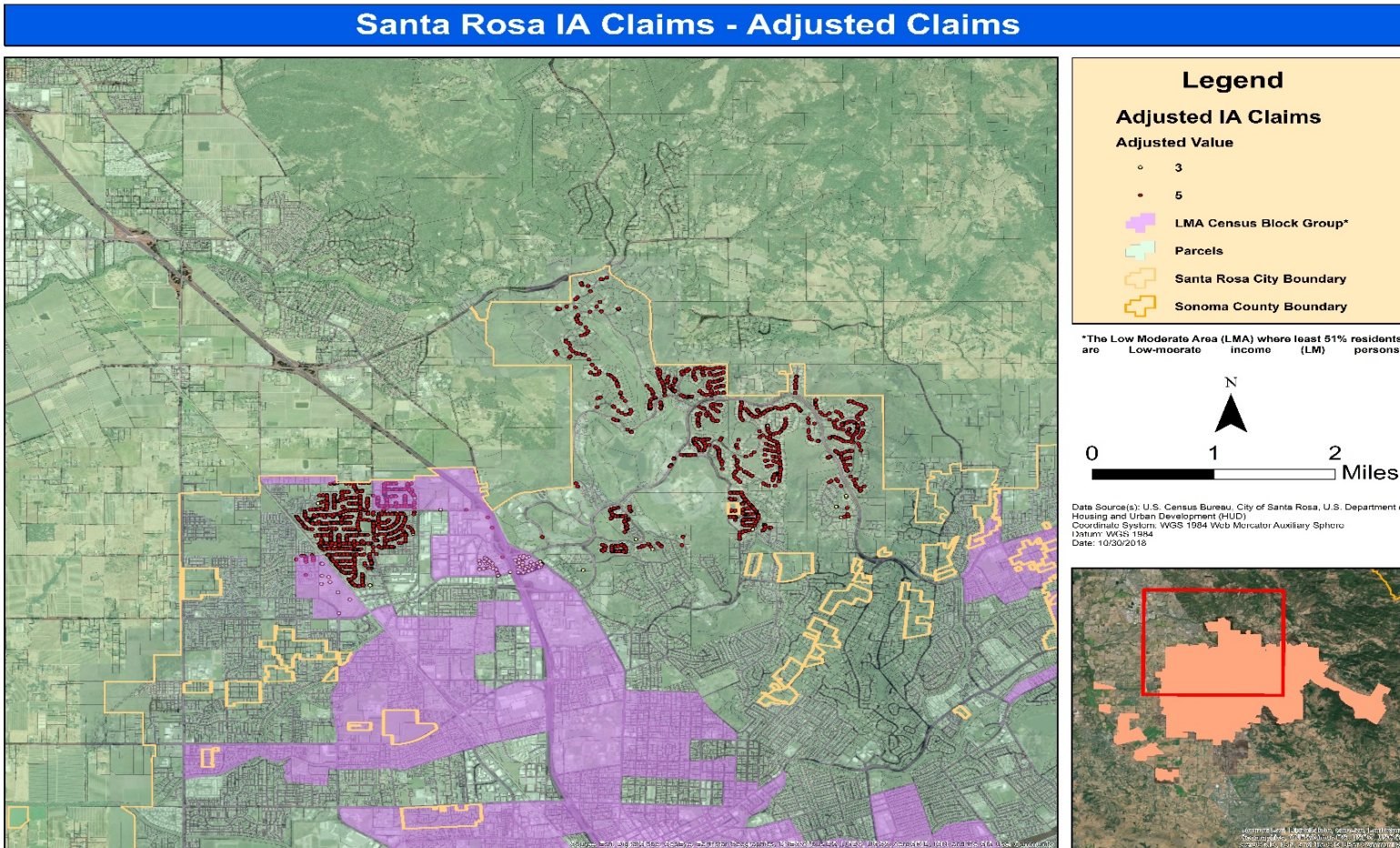
- Own
- Rent
- Parcels with Many IA Claims
- Parcels
- Santa Rosa City Boundary



Data Source(s): U.S. Census Bureau; City of Santa Rosa  
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
Datum: WGS 1984  
Date: 10/30/2018



When adjusted using city driven damage data, the following provides visibility into where the most damaged housing occurred and how the low to moderate income population was affected.



## Economic Recovery

To quantify unmet business needs, the city follows HUD's methodology, where businesses who applied for an SBA loan, but were denied or withdrew their applications, have unmet needs.<sup>19</sup> It should be noted, however, that this is not a complete picture, as many impacted businesses may have determined they do not qualify for an SBA loan based on revenue or credit rating, or were not aware of the SBA loan program, and didn't apply. This may be especially true for micro-businesses and at-home businesses that provide supplemental income.

Based on the SBA loan data, the City of Santa Rosa's unmet business needs are approximately \$9.5 million.

*Table 7: Small Business Unmet Needs*

	Business	Loan Amount	Unmet Need
<b>Applications Approved</b>	122	\$23,083,700	\$0
<b>Applications Denied</b>	86	\$0	\$3,601,873
<b>Applications Withdrawn</b>	107	\$0	\$5,889,855
<b>Total</b>	<b>315</b>	<b>\$23,083,700</b>	<b>\$9,491,728</b>

*Source: SBA Disaster Declaration CA 15352 – Wildfires October 8-31, 2017*

The 2017 wildfires destroyed approximately 30 businesses in the northern portion of the city, including three hotels, six restaurants, a grocery store, and a K-Mart. Other businesses were damaged but not destroyed, including the corporation headquarters for Keysight Industries, offices for Medtronic, another Fortune 500 Company, Trader Joe's grocery store, and Kohl's department store. As of October 2018, nearly all these damaged or destroyed places of business have been restored.

In the summer of 2018, the city conducted a survey of local businesses to develop a more complete understanding of short- and long-term impacts to the local economy. 750 businesses were surveyed, and 81.3 percent stated their business was either destroyed, physically damaged, or shut down temporarily due to the wildfires. When asked about economic impacts of the fire, the most common complaint cited was the increased cost of housing for local workers.

<sup>19</sup> To calculate unmet business needs, the estimate calculates average loan amount per employee for businesses that received an SBA loan and uses this multiplier times employees per establishment for businesses that were denied a loan, or that withdrew their application.

Following is a summary of this survey:

- ❖ 81.3 percent of those surveyed had their business physically destroyed, physically damaged, temporarily closed or suspended due to the wildfires.
- ❖ Most businesses were closed for a week to a month with some remaining closed for much longer or permanently.
- ❖ 47 percent of respondents missed work due to the business being closed, 10 percent missed work due to losing their home, and the remaining 43 percent missed work due to “other” reasons.
- ❖ Over four percent of respondents lost their jobs because of the wildfires.
- ❖ 23 percent of respondents whose jobs were client-based reported losing business due to the fires. Most estimates of loss ranged from 10-30 percent with higher estimates up to 100 percent.

These findings are corroborated with an additional business survey, with 176 businesses responding. This survey found that:

- ❖ 13 percent of respondents had their business physically destroyed; 10 percent of respondents’ businesses were physically damaged, and 72 percent of businesses were not destroyed but suffered economic impact.
- ❖ 7.3 percent of businesses surveyed are still closed; 80 percent of businesses were closed for a period but are now open.
- ❖ 88 percent of businesses reported negative impacts due to clients being affected by the fires. Most businesses reported year-over-year loss in revenue.
- ❖ 25 percent of respondents report that the fires have negatively affected their ability to find employees, mainly due to housing cost increases.
- ❖ 10 percent of business report having an unmet need for skilled workers to aid in disaster recovery.

*Table 8: Employees within the Most Impacted Census Tracts, by Industry*

(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Agriculture &amp; Mining</b>	2	57	389	32	65	6	22
<b>Construction</b>	24	372	708	154	104	77	17
<b>Manufacturing</b>	0	435	1,240	9	178	1,244	0
<b>Transportation</b>	22	131	347	59	5	14	15
<b>Communication</b>	0	6	4	2	0	163	32
<b>Utility</b>	3	0	108	0	0	0	4
<b>Wholesale Trade</b>	35	400	600	10	22	80	17



(Census Tract)	1529.05	1528.01	1527.02	1527.01	1526	1524	1521
<b>Retail</b>	24	1,217	1,564	36	266	427	377
<b>Finance, Insurance, Real Estate</b>	26	66	392	180	36	553	274
<b>Services</b>	24	1,343	3,426	517	441	2,076	4,310
<b>Government</b>	0	23	959	0	15	109	2,707
<b>N/A</b>	6	7	6	12	4	5	46
<b>Total Employees</b>	<b>166</b>	<b>4,057</b>	<b>9,743</b>	<b>1,011</b>	<b>1,136</b>	<b>4,754</b>	<b>7,821</b>

*Source: ESRI Business Analyst retrieved October 14, 2018*

Santa Rosa anticipates a significant dip in tax revenue due to the 2017 wildfires. Considering the city is already in a shortfall, this will place a significant burden on basic city functions. Based on October 2018 estimates, Santa Rosa anticipates losing \$5.2 million in tax revenue directly related to the 2017 disaster, nearly 5 percent of annual revenue. Of the 30 destroyed businesses, only two resumed operations in 2018, generating tax revenue less than \$2,000 combined.

The largest proportional declines in tax revenue come from the Occupancy Tax and Utility Users Tax. Occupancy tax revenue is estimated to decline nearly 13 percent from \$6,131,000 to \$5,336,000, while Utility User Tax revenue is estimated to decline 9.3 percent from \$10,321,000 to \$9,361,000.

Based on feedback from city officials and business representatives, the greatest need for economic recovery is for workforce housing (defined here as housing for local workers regardless of income). The housing shortage has proved a deterrent for hospital workers (doctors, nurses, technicians, etc.), service industry workers, teachers, and agricultural workers, where housing costs are either unaffordable, or pricier than other competitive areas that were not impacted. Additionally, the fires created a shortage of 518 daycare slots, leaving many parents without adequate childcare so that they may resume work. Exorbitant housing costs combined with limited childcare and healthcare are dissuading former and new residents from living in Santa Rosa, which in turn will reduce population and thereby tax base for city services.

# Public Infrastructure and Facilities

The 2017 wildfires severely burned seven census tracts in the northern portion of the city, destroying or causing severe damage to utility lines, roads and sidewalks, street lights, water storage and treatment facilities, and public buildings. For the purpose of this study, unmet need includes two types of projects:

1. FEMA Public Assistance (PA) Projects, where the amount provided by FEMA and the State does not cover the full cost of the project. The remaining amount is unmet need; and
2. Projects not covered by FEMA PA, where unmet need is the cost of the project minus insurance proceeds.

As of October 2018, the City of Santa Rosa's estimated unmet need for infrastructure and public facilities is \$213M. We expect this number to be revised as the recovery evolves.

## FEMA PA Projects

Unmet need for FEMA's PA projects is defined as the local match requirement, plus any costs not covered under the FEMA PA Program. The City of Santa Rosa estimates this unmet need to be \$22M. Highlight projects include:

- ❖ Rebuilding the city's fire station that was destroyed and relocating the station to an area safer from fire risk.
  - \$10-20M in cost not covered by FEMA PA
- ❖ Repairing the water system in Fountaingrove that has been contaminated with benzene.
  - \$5.5M in costs not covered by FEMA PA
- ❖ Rebuilding, and relocating where necessary, the nine sewer lift stations damaged in the fires.

## Projects Not Covered by FEMA PA

In addition to the local match requirement for FEMA PA projects, there are several large infrastructure projects needed due to the 2017 wildfires that do not qualify for FEMA assistance. The estimated cost for these projects as identified in the appeal letters for FEMA is \$4.7M. Please note, this only represents the total included in the appeal. Highlight projects include:

- ❖ **Coffey Park Sidewalks** - The sidewalks, gutters, and curbs about Coffey Park were destroyed but are not eligible for FEMA assistance because the costs of general repair are a responsibility of the property owner per city regulations.

However, neither homeowners nor the city anticipated that the regulation would preclude federal assistance in the event of a natural disaster, and homeowners are not receiving insurance proceeds to repair public infrastructure. This will lead to a neighborhood whose homes have been rebuilt, but without adequate street and sidewalk infrastructure. The estimated cost of this repair is \$1,500,000.

- ❖ **Street Trees Recovery** - The City of Santa Rosa lost a substantial number of trees within the northern portion of the city; however, FEMA does not provide sufficient resources for replanting. The FEMA Public Assistance Program will provide assistance for the removal of scorched tree trunks, but not the removal of destroyed bulbs required for replanting. The city will require an additional \$1,500,000 to remove the bulbs; cost to replace the trees to be determined.
- ❖ **Street Repairs** – During the immediate clean-up process, the weight of trucks carrying debris caused substantial damage to the city’s road network. FEMA conducted an initial inspection and found that no visibly evident damage occurred; therefore, the street repairs are not eligible under the FEMA PA Program. However, the structural integrity of multiple roads is compromised and will require substantial repairs within totaling \$13.5 million. The city is developing a more detailed estimate and this report will be revised when the cost estimate is finalized. \$1M of that estimated total was included in the appeal to FEMA.
- ❖ **Park Restoration** - The center of the Coffey Park neighborhood is Coffey Park, a community recreation space and walking trail that was destroyed in the fire. To fully repair this family-oriented community, the park needs to be restored, including planting new grass and trees, repairing walking trails, and installing recreational features such as a playground and picnic areas. Costs have not yet been determined.

Table 9: Unmet Needs FEMA PA Local Match

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
City-wide Debris Removal	38594	Vegetative debris within Foutaingrove and Coffey Park neighborhoods. Debris and disposal removal from Fir Ridge Park, Francis Nielsen Ranch, Nagasawa Park, Rincon Ridge Open Space/Park and Thomas Lake Harris Open Space. PPDR work and related work will be the City's responsibility is also captured in this project. Additionally, the City's Hazard Trees project will be captured here.	\$46,035.98	\$34,526.99	\$8,631.75	\$9,494.92	\$2,014.07	\$3,095,451.23
Citywide Roadways Requested for Loss of Useful Life	40270	Citywide Roadways Requested for Loss of Useful Life	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,000,000.00
City-wide Emergency Protective Measures - First 30 days	38591	Citywide Operations centers, rescue efforts, several shelters (cleaning of usage and carpet), materials and purchases, probable Mutual Aid Agreements, and other emergency activities performed by both force account and contract forces. Cat B expenses incurred by individual departments; Fire, Police, Transportation and Public Works, Parks, Water, and Finance.	\$2,332,074.99	\$1,749,056.24	\$437,264.06	\$480,990.47	\$102,028.28	\$787,692.66

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
City-wide Emergency Protective Measures - Remaining Period (31 days plus)	38592	Operations centers, rescue efforts, several shelters, materials and purchases, Mutual Aid Agreements, and other emergency activities performed by both force account and contract forces. Sheltering materials including cleaning of shelters and replacement of apportioned eligible items (carpet) Cat B expenses incurred by individual departments; Fire, Police, Transportation and Public Works, Parks, Water, and Finance.	\$70,533.77	\$52,900.33	\$13,225.08	\$14,547.59	\$3,085.85	\$612,731.84
Transportation Public Works (TPW) Dept. Emergency Protective Measures - First 30 days	38593	Emergency Protective Measures applying wattles, sandbags, using generators, and temporary pumps.	\$156,259.80	\$117,194.85	\$29,298.71	\$32,228.58	\$6,836.37	\$59,521.43
Transportation Public Works (TPW) Dept. Emergency Protective Measures - Remaining Period (31 days plus)	40510	Emergency Protective Measures applying wattles, sandbags, using generators, and temporary pumps.	\$68,086.75	\$51,065.06	\$12,766.27	\$14,042.89	\$2,978.80	\$2,978.80

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>Water Dept. Emergency Protective Measures - First 30 days</b>	38852	Wildfires and heat damaged the City's water and sewage infrastructures which required the department to apply emergency protective measures to temporarily repair damages, rented generators, purchased fuel, and rented trucks to pump wells at stations, 1, 2, and 20.	\$254,151.05	\$190,613.29	\$47,653.32	\$52,418.65	\$11,119.11	\$11,119.11
<b>Water Dept. Emergency Protective Measures - Remaining Period (31 days plus)</b>	40509	Wildfires and heat damaged the City's water and sewage infrastructures which required the department to apply emergency protective measures to temporarily repair damages, rented generators, purchased fuel, and rented trucks to pump wells at stations, 1, 2, and 20.	\$576,416.62	\$432,312.47	\$108,078.12	\$118,885.93	\$25,218.23	\$95,853.26
<b>Donated Resources</b>	40437	Because of the October 2017, California Wildfires, the City of Santa Rosa used the services of the Police, Fire, Utilities, and other departments to protect its citizens. Volunteers from the City and neighboring communities assisted City staff at operation centers, participated in rescue efforts, and rendered other services requested by the City.	\$ -	\$ -	\$ -	\$ -	\$ -	\$130,291.37

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>Roads &amp; Bridges - City-wide road signs, poles and melted conduit</b>	36351	Wildfires caused damage and requires the replacement of or repair of the following: streetlights, fixtures, wire, conduit, signs, poles, bollards, guardrails and components, side reflectors, middle marker, sidewalk, barricades.	\$288,824.18	\$216,618.14	\$54,154.53	\$59,569.99	\$12,636.06	\$1,943,216.78
<b>Roads &amp; Bridges - Vehicular Bridges</b>	36353	Wildfires caused damage to and requires the replacement or repair of vehicular bridges and large arch culverts.	\$3,293.80	\$2,470.35	\$617.59	\$679.35	\$144.10	\$144.10
<b>Roads &amp; Bridges - Storm drain pipes, catch basins, and drop inlets</b>	36383	Wildfires caused damage and requires the replacement or repair of the following: Vehicular culverts, melted pipes and drains, and wood field drain lids (to be replaced with metal lids)	\$16,685.23	\$12,513.92	\$3,128.48	\$3,441.33	\$729.98	\$ 314,814.75
<b>Roads &amp; Bridges - City-wide Curbs, Gutters and Sidewalks Damaged by Wildfire</b>	36385	Wildfires caused damage that requires the replacement or repair of the following: retaining walls (potential mitigation to change from wood to concrete), concrete sidewalk and fencing, curb gutters, curb ramps (ramps to be updated to code standards)	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,595,285.00

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>City wide - Completed work on storm drain systems</b>	37170	Completed work - Wildfires damaged the City's storm drain systems that are the responsibilities of and maintained by the City. The City also used CCTV to inspect the extent of damage after discovering sinkholes, collapsed roads, and fire flowing through pipes.	\$881,695.72	\$661,271.79	\$165,317.95	\$181,849.74	\$38,574.19	\$77,713.52
<b>Roads and Bridges - Roads and Bridges City-wide asphalt and pavement damage from Burnt Debris</b>	37829	Roads and Bridges City-wide asphalt and pavement damage from Burnt Debris	\$147,772.36	\$110,829.27	\$27,707.32	\$30,478.05	\$6,465.04	\$6,465.04
<b>Private Property Debris Removal (PPDR)-related asphalt and pavement, sidewalks, driveways and curbs damages</b>	43559	City-wide asphalt and pavement, sidewalks, driveways and curbs damaged as a result of PPDR performed. This project will be a result of the work identified for repair/replacement, for work that the PPDR completion anticipated.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,012,717.00
<b>Buildings &amp; Equipment - Fire Station 5 Building</b>	36366	Fire Station 5 completely destroyed by wildfire.	\$5,000.00	\$3,750.00	\$937.50	\$1,031.25	\$218.75	\$20,218.75



Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>Emergency Protective Measures - Temporary Relocation of New Fire Station 5</b>	42404	Fire Station 5 completely destroyed by wildfire.	\$ -	\$ -	\$ -	\$ -	\$ -	\$502,436.00
<b>Buildings &amp; Equipment - Former Fire Station 5 Building</b>	36370	Former Fire Station 5 completely destroyed by wildfire.	\$1,594,700.00	\$1,196,025.00	\$299,006.25	\$328,906.88	\$69,768.13	\$69,768.13
<b>Buildings &amp; Equipment - Vehicle losses &amp; sign damages</b>	36371	Replacement of 5 police vehicles including the following: 2012 Honda Accord, 2011 Nissan Murano, two 2011 Ford crown Victoria, and a 2015 Toyota Tundra. The applicant also reported damage to a City bus, and a bus stop shelter.	\$100,747.51	\$75,560.63	\$18,890.16	\$20,779.17	\$4,407.70	\$4,407.70
<b>Utilities - Potable Water Pumps &amp; Reservoirs</b>	36373	Wildfires damaged or destroyed: 1. six (6) potable water pumps & 2. six (6) potable water reservoirs and 3. replacement of destroyed miscellaneous items for potable water.	\$709,879.04	\$532,409.28	\$133,102.32	\$146,412.55	\$31,057.21	\$588,310.17
<b>Utilities - Sewer Lift Stations</b>	36375	Wildfires damaged or destroyed 1. nine (9) sewer lift stations and 2. plugging exposed sewer laterals in the watershed tributary areas where the lift station burned down.	\$24,924.31	\$18,693.23	\$4,673.31	\$5,140.64	\$1,090.44	\$492,586.13

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>Utilities - Contaminated Water System &amp; Temporary Water Supply</b>	36378	Replacement of destroyed water system & costs for temporary water supply for the advisory area and outside of the advisory area.	\$5,565,353.64	\$4,174,015.23	\$1,043,503.81	\$1,147,854.19	\$243,484.22	\$866,194.22
<b>Sewer Lift Station 1</b>	37303	Wildfires damaged or destroyed Lift Station No. 1	\$182,963.85	\$137,222.89	\$34,305.72	\$37,736.29	\$8,004.67	\$1,025,040.82
<b>Sewer Lift Station 2</b>	38691	Wildfires damaged or destroyed Lift Station No. 2	\$3,091,709.41	\$2,318,782.06	\$579,695.51	\$637,665.07	\$135,262.29	\$1,443,552.88
<b>Sewer Lift Station 20</b>	38692	Wildfires damaged or destroyed Lift Station No. 20	\$1,580,232.38	\$1,185,174.29	\$296,293.57	\$325,922.93	\$69,135.17	\$888,902.79
<b>City-wide Water Dept. Metering</b>	38687	Fire and heat damaged the City's metering system that requires replacement of 2,785 meters and components in the burned areas.	\$1,994,738.00	\$1,496,053.50	\$374,013.38	\$411,414.71	\$87,269.79	\$87,269.79
<b>Parks, Recreation &amp; Other - Pedestrian Bridge at Francis Nielsen Park, Parker Hill Road</b>	36379	Francis Nielsen Park; two pedestrian bridges, decking, wood bridges with structured, and rail damages to be repaired or replaced.	\$66,253.84	\$49,690.38	\$12,422.60	\$13,664.85	\$2,898.61	\$326,644.77

Project Name	Project #	Project Description	FEMA Net Validated Amount	Fed Share - based on FEMA Net validated amount	State share - based on FEMA net validated amount	State share with added 10% admin allowance - based on FEMA net validated amount	Local share based on FEMA net validated amount	Unmet need with FEMA Net Validated Amount (total repair value less validated amount plus local share)
<b>Parks, Recreation &amp; Other - City Wide</b>	36380	Repair and replacement of damaged or destroyed Open Space and Parks; fences, walkways, play equipment, multiple use turf, signs, monument sign, picnic area and equipment at Coffey park, Altruria Drive/Frances Nielson, Fir Ridge Park Nagasawa Park, Rincon Ridge and Thomas Lake Harris Park	\$2,939,242.56	\$2,204,431.92	\$551,107.98	\$606,218.78	\$128,591.86	\$1,909,734.30
<b>Parks, Recreation &amp; Other - Irrigation System</b>	36360	Replace Irrigation system: Includes 4 controller cabinets, 4 irrigation backflow, and electrical service	\$6,727,413.08	\$5,045,559.81	\$1,261,389.95	\$1,387,528.95	\$294,324.32	\$766,911.24
<b>PAAP Direct Administrative Costs</b>	39364	DAC under PA Alternative Procedures Pilot Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTALS</b>			<b>\$ 29,424,987.87</b>	<b>\$22,068,740.90</b>	<b>\$5,517,185.23</b>	<b>\$6,068,903.75</b>	<b>\$1,287,343.22</b>	<b>\$20,737,973.56</b>

# Resiliency

The fires of 2017 were the most devastating wildfires in California history, but unfortunately, are no longer a rare occurrence. In August 2018, northern California experienced another national disaster with the Mendocino Complex Fire, which caused an estimated \$3 billion in damages. The State of California and its impacted communities are emphasizing the importance of hazard mitigation and education to limit the damages that can occur in future disaster events, and keep residents informed and safe.

Through FEMA's Hazard Mitigation Grant Program (HMGP), the City of Santa Rosa has identified multiple projects that will improve safety and shorten recovery time in the event of another wildfire. This includes:

- ❖ Adding battery backups to traffic signals so that roads are operational during the disaster event;
- ❖ Transitioning to steel water reservoirs to protect the water supply;
- ❖ Retrofitting water treatment facilities to limit flood risk;
- ❖ Installing back-up generators in select public buildings and water treatment facilities;
- ❖ Installing a siren program for emergency evacuations; and
- ❖ Assessing the risk of flooding due to water control failure, including an assessment of flood risks if dams should fail, and developing a storm drain master plan.

These projects are slated for development through the HMGP Program. The following is the current breakdown of the city's HMGP portfolio. These figures will be updated as the program evolves.

- ❖ \$63.7M in Federal share for 404 HMGP, PDM, and FMA potential projects
- ❖ \$27M in city share for 404 HMGP, PDM, and FMA potential projects
- ❖ Of these amounts \$575,561 has been approved by FEMA in total project costs for the city (404 HMGP). This is broken out as follows: \$431,670 (Federal share) and \$143,891 (Local share). The city will revise the totals above as it relates to unmet need.

The city has identified several other projects necessary for hazard mitigation and improved resiliency that are not included within the HMGP projects. The most significant

project is an expansion of the three main evacuation routes out of the city. Mendocino Crossing, Chanate Road, and Farmers Lane are the main arterials leading to Highway 101 and SR-12, yet they experience congestion under normal conditions. In a disaster event, these roads can come to a standstill, placing the city's residents at undue risk. The estimated cost for these road improvements is \$95 million.

The city also requires adequate facilities and equipment that allows for immediate response in the event of another disaster. This includes adding an Emergency Operations Center (EOC) that is ready and available 24/7. Currently, this city of 180,000 residents relies on a temporary EOC located within a 100-year floodplain that requires more than an hour to wire and install. This means Santa Rosa requires more than an hour to begin coordinating disaster response. Considering the rapid spread of wildfires with limited foresight in their direction, this lost hour can be critical. Therefore, a new "Hot EOC" located in a safer area that will allow for immediate response is necessary. The estimated cost is \$2 million.

Additionally, Santa Rosa requires a larger facility for sheltering residents who are not able to evacuate. During the October 2017 fires, the city used the Finley Community Center and Aquatic Complex. Doors opened at 12:45 PM on October 9. In two hours, the complex was at capacity, and residents had to be turned away. For future disasters, the City requires an additional complex to shelter residents. The estimated cost is \$2.3 million.

Finally, the City found the lack of awareness amongst the community's residents—particularly those with English language barriers and those with limited financial resources to evacuate—created an unnecessary risk. Households were not aware of evacuation routes, shelter locations, and the resources available to them in the event of a wildfire. To address this gap, the City believes a Community Awareness Program is necessary to reach the most vulnerable residents. This would include community liaisons and hubs to educate the public and developing a community education and evacuation plan by neighborhood. The estimated cost is \$1.8 million.

To increase the City's individual preparedness, the Department of Community Engagement has designed the Neighborfest Pilot Program to build all hazards awareness amongst city citizens. In partnership with City Fire, Police, the Red Cross and United Way, the Neighborfest program utilizes a block party format to engage local citizens in disaster preparedness and raise awareness among community members. The Department of Community Engagement is planning to conduct 8 pilots in 2019 using a mini-grant of up to \$2,500 each to initiate and fund the activity. To fund this activity, Department of Community Engagement is identifying a cost of \$20,000.

Beyond the City of Santa Rosa's resiliency needs, there is a regional need for vegetation management that has a direct impact on the city. This would most likely include the tri-county area of Sonoma, Mendocino, and Napa counties, where areas outside of urban development that experienced the fires would be cleared. As it currently stands, overgrowth in rural lands creates additional fire hazard for Santa Rosa.

*Table 10: Additional Unmet Need, Resiliency Projects*

<b>Project</b>	<b>Estimated Cost</b>
<b>Evacuation Route Improvements</b>	<b>\$95,000,000</b>
<i>Mendocino Overcrossing</i>	<i>\$45,000,000</i>
<i>Chinate Road</i>	<i>\$10,000,000</i>
<i>Farmers Lane Extension</i>	<i>\$40,000,000</i>
<b>Redundancy Communications and Continuity</b>	<b>\$300,000</b>
<b>Community Awareness Program</b>	<b>\$1,820,000</b>
<b>Hot EOC Facility</b>	<b>\$2,000,000</b>
<b>Emergency Shelter</b>	<b>\$2,300,000</b>
<b>Total</b>	<b>\$101,420,000</b>

*Source: City of Santa Rosa, October 2018*

# Attachments

## Attachment 1

Severely damaged homes to include Low to Moderate Area census block group as provided by the Department of Housing and Urban Development.

