Genesee Fire Rescue Rapid Assessment Summary

Genesee Fire Rescue mitigation specialists conducted parcel-level rapid wildfire risk assessments in 2021. Risk assessment data collection was collected as a census of all residential properties with a structure in the study area[1]. The rapid wildfire risk assessments were conducted for 1,340 residential properties using the standard WiRē Rapid Wildfire Risk Assessment (RA), which is comprised of a set of 13 attributes that includes access to the property, background fuels and topography, vegetation near the home, and building materials. Each attribute of the RA is evaluated relative to other private land parcels within the study area. As a result, the RA serves as an indicator of the relative risk of private land parcels within the study area, rather than an absolute measure of risk.

The 13 attributes are weighted and summed to produce an overall risk score for each parcel. The weights reflect the attributes' relative contribution (ranging from 1% - 30% per attribute) to overall wildfire risk. Following our process for a standard RA, we apply a standard approach for placing the overall risk scores into five risk categories: low (20-240), moderate (241-305), high (306-435), very high (436-505), extreme (506-1000). This process can be iterative over time but has been validated across previous WiRē projects.

To ensure consistent, high quality data collection WiRē wildfire practitioners conducted a virtual training for those who would conduct the rapid risk assessments. A standardized reference sheet for data collectors was available for use in the field.

All parcel level assessments were conducted on the property being assessed unless access was blocked by a gated driveway or posted with no trespassing signage. While environmental and situational variables may occasionally impact the rapid assessment data collection process, Genesee Fire Rescue is confident that the rapid assessments collected for this project provide an accurate representation of relative wildfire risk to the parcels in the study area.

In instances when Genesee Fire Rescue mitigation specialists could not observe a risk attribute, the specialist selected "unknown/not observed." It is WiRē's protocol to assign the "unknown/not observed" and true missing data (i.e., the mitigation specialist did not select a response) the highest risk score for the attribute in question. This is consistent with other parcel risk and structure protection assessments. If a particular attribute is "unknown/not observed" or missing, practitioners and firefighters assume that a hazard exists. At best, the correct attribute response is chosen; at worst, the assessment invites a conversation with the parcel owner to delve deeper into the mitigation needs of the parcel in question and an update to their parcel risk assessment.

This protocol allows us to report results for all residential parcels in the study area rather than only those for which all attributes could be observed. For each risk attribute in the tables below, we report the number of "unknown/not observed" and missing as a footnote.

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[1] Jefferson County assessor data were provided on March 10, 2021.

The following tables present a summary of the Genesee Fire Rescue mitigation specialists' responses to the 13 risk attributes in the RA. Additionally, the tables present the results of the overall wildfire risk rating, which is the sum of the attribute scores. The percentages might not add to 100% due to rounding.

1.1 Overall risk rating

Overall risk rating: RA: Based on the sum of the 13 attribute scores.		
Response categories	**Score range**	**All RAs in study area (N=1,340)**
Low	20-240	0%
Moderate	241-305	0.5%
High	306-435	14%
Very high	436-505	38%
Extreme	506-1000	48%

1.2 Access

Risk attribute: Address Posting (1% of total RA score) Does the address sign meet all local standards (Posted at the driveway, reflective, 4-inch numerals, contrasting background, and non-combustible)		
Response categories	**Score**	**All RAs in study area (N=1,340)**
Yes, fully meets standard	0	1%
Address sign is visible, but **does not meet all** standards	5	92%
No, not posted/visible from the primary road	10	8%[a]
a. Out of *All RAs in study area, 2* were missing/unobserved (<1%) and included in the highest risk category.		

| Risk attribute: Ingress/Egress (1% of total RA score) |||
| If the road to access the home was blocked due to a wildfire, is there another road to get out of the community? |||
Response categories	**Score**	**All RAs in study area (N=1,340)**
Yes, two or more roads in/out	0	21%
No, one road in/out	10	79%[a]

a. Out of *All RAs in study area, 2* were missing/unobserved (<1%) and included in the highest risk category.

| Risk attribute: Driveway clearance (1% of total RA score) |||
| Does the driveway meet the horizontal and vertical clearance standards: height at least 13.5' and width at least 20'? |||
Response categories	**Score**	**All RAs in study area (N=1,340)**
Yes, meets **all** driveway standards	0	11%
Meets one, but not both, standards (height or width)	5	73%
Does not meet either standard (height and width)	10	16%[a]

a. Out of *All RAs in study area, 12* were missing/unobserved (1%) and included in the highest risk category.

| Risk attribute: Driveway length (1% of total RA score) |||
| What best describes the driveway? ("Adequate" refers to enough turnaround to accommodate a Type 3 engine) |||
Response categories	**Score**	**All RAs in study area (N=1,340)**
Less than 150' long	0	94%
150' or more **with** "adequate" turnaround	5	2%
150' or more **without** "adequate" turnaround	10	4%[a]

a. Out of *All RAs in study area, 22* were missing/unobserved (2%) and included in the highest risk category.

1.3 Background conditions

Risk attribute: Distance to dangerous topography (5% of total RA score) What is the closest distance from the home to a ridge, steep drainage, or narrow canyon?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
More than 150'	0	22%
50' – 150'	25	30%
Less than 50'	50	48%[a]
a. Out of *All RAs in study area, 4* were missing/unobserved (<1%) and included in the highest risk category.		

Risk attribute: Slope (2% of total RA score) The "slope" or "grade" of a property refers to the steepness of the land. A large property may have steep, moderate, and gentle slopes. How would you describe the slope of the property within 150' of the home?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
Gentle (less than 20%)	0	3%
Moderate (between 20% and 45%)	10	57%
Steep (greater than 45%)	20	40%[a]
a. Out of *All RAs in study area 6* were missing/unobserved (<1%) and included in the highest risk category.		

Risk attribute: Adjacent Fuels (4% of total RA score) Which of the following best describes the dominant vegetation 100' to 150' from the home? This may be outside the property boundary.		
Response categories	**Score**	**All RAs in study area (N=1,340)**
Light - Grasses	10	1%
Moderate - Light brush and/or isolated trees (e.g., grass with some ponderosa pine, scattered pinon juniper, or other conifer)	20	64%
Dense - Dense brush and/or dense trees (e.g., continuous ponderosa pine, dense aspen, and/or dense mixed conifer)	40	35%[a]
a. Out of *All RAs in study area, 2* were missing/unobserved (<1%) and included in the highest risk category.		

1.4 Defensible space

Risk attribute: **Defensible Space** (10% of total RA score) What is the closest distance from the home to overgrown, dense, or unmaintained vegetation?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
More than 100'	0	0%
Between 30' - 100'	50	1%
Between 5' - 29'	75	2%
Less than 5'	100	97%[a]
a. Out of *All RAs in study area, 42* were missing/unobserved (3%) and included in the highest risk category.		

Risk attribute: **Other combustibles** (8% of total RA score) What is the closest distance from the home to combustible items *other than vegetation* such as lumber, firewood, a propane tank, hay bales, or other materials that could easily ignite?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
More than 30' or no combustible items	0	1%
5' – 30'	40	0%
Less than 5'	80	99%[a]
a. Out of *All RAs in study area, 199* were missing/unobserved (15%) and included in the highest risk category.		

1.5 Home ignition potential

Risk attribute: **Roof** (30% of total RA score) What is the most vulnerable roofing material?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
Non-combustible (tile, metal, or asphalt shingles)	0	98%
Combustible (wood shake shingles)	300	2%[a]
a. Out of *All RAs in study area, 21* were missing/unobserved (2%) and included in the highest risk category.		

Risk attribute: Building Exterior (7% of total RA score) What is the most vulnerable exterior siding material?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
Stucco, cement, brick, stone, or other noncombustible siding	0	16%
Log or heavy timbers	35	1%
Wood or vinyl siding	70	82%[a]
a. Out of *All RAs in study area, 11* were missing/unobserved (1%) and included in the highest risk category.		

Risk attribute: Combustible Attachments (10% of total RA score) Does the home have a combustible balcony, deck, porch, or fence attached to the structure?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
No combustible attachments	0	2%
Combustible attachments present	100	98%[a]
a. Out of *All RAs in study area, 199* were missing/unobserved (15%) and included in the highest risk category.		

Risk attribute: Proximity to adjacent homes (20% of total RA score) What is the closest distance to a neighboring home?		
Response categories	**Score**	**All RAs in study area (N=1,340)**
More than 100'	0	14%
30' – 100'	50	49%
10' – 29'	100	16%
Less than 10'	200	21%[a]
a. Out of *All RAs in study area, 7* were missing/unobserved (1%) and included in the highest risk category.		