

S.E.A.R. (Southern Emergency Access Route) Update and FAQs

January 2024

The Genesee Fire Protection District (GFPD), like much of the Western US, is at high risk for high-severity wildfires due to overgrown vegetation exacerbated by dry and hot weather, and strong, gusty winds. The GFPD has limited egress routes and the potential for extreme congestion. In addition, there are numerous areas of non-survivable roadways (areas along evacuation routes where the combination of heavy vegetation and significant slopes, mean that individuals stopped on the road would likely not survive were fire active in the area). Models suggest that under our present egress structure estimated evacuation times are two to four hours for most of the approximately 4000 residents of GFPD. That time would increase if there were any accidents, stalls, or other secondary incidents that may block traffic. These evacuation times are a concern for life safety and will also compromise access for first responders entering the fire protection district.

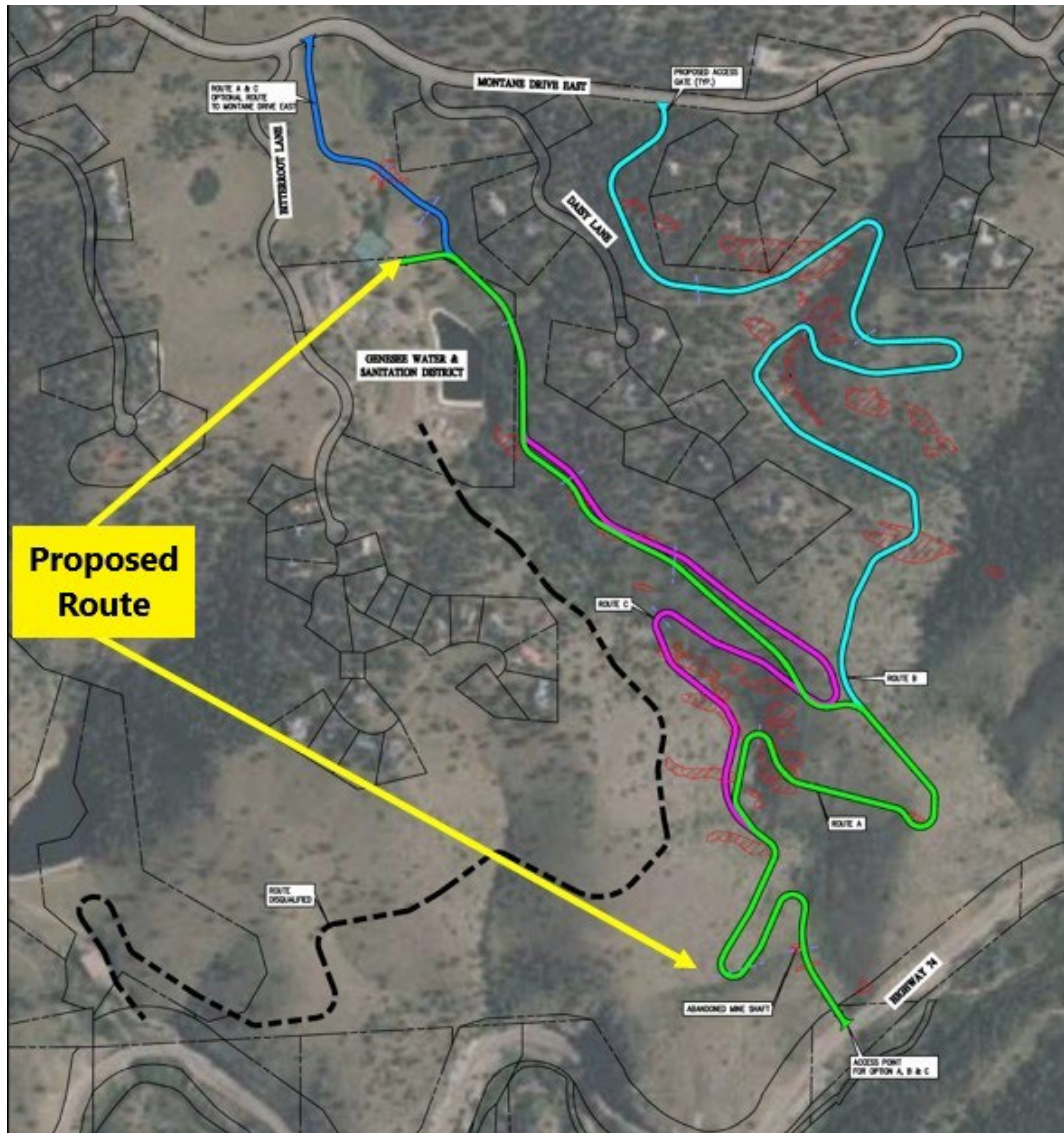
If our current evacuation route is closed, or access to it is blocked by, for example, fire, falling tree(s), or an accident, we may have no other option than to shelter in place in our homes. No areas within the GFPD that could serve as a fully safe, designated area for wildfire evacuation emergencies under conditions of 10-20 mph winds and especially winds greater than 20 mph due to steep slopes and heavy fuel loads. (2021 CWPP 3F, page 59). Survivability is highly uncertain if you elect or are forced to shelter in place or delay your evacuation.

An additional emergency access/egress route would increase both GFPD resident survivability and the ability to defend the district from the effects of the fire, by establishing a secondary egress route as well as an emergency responder access route. With that goal in mind, a study was commissioned to investigate the possibility of constructing an emergency access route (EAR) in the southern area of Genesee.

GFPD is grateful that Genesee Foundation and its SEAR Working Group, have taken the lead in getting us to the point where GFPD can be in a position to ask its constituents to fund the building and maintenance of the road. GFPD funding relies solely (>90%) on the revenue from taxpayers to fund its operational budget and could not have funded the initial design work from those funds. In addition, the Genesee Foundation Fire & Safety Committee (GFSC) evaluated and recommended a general location for the Emergency Access Road (see their report, Analysis of EAR Matrix on the GFR website). Finally, GFPD is grateful to

Genesee Foundation and Genesee Water and Sanitation District for granting easements to GFPD, making it possible to build the road without the need for purchasing the property on which the road would be sited. There are numerous communities in the foothills who have only a single way in and out, which would be used by both residents and emergency responders in the event of a fire. All fire districts have high levels of concerns about life safety and the ability to protect property if there were a wildfire in any of these communities; GFPD is fortunate to have the ability to increase its operational flexibility in responding to a fire in, or approaching, the District without the need to purchase land.

A final engineering report is in the process of being completed (completion expected in February, which will include final details on the siting of the road, as well as a cost estimate for building the road. An independent cost estimate has also been contracted for. Although not final, the working road site is shown below:



The following FAQs update the GFRD on progress toward the SEAR and respond to questions raised in GFRD-wide community meetings held in September and December, 2022, and April and December, 2023 (power point and recordings of each of these meetings are available on the GFR website). Four additional virtual community meetings are scheduled in 2024 (time/dates/links are listed on our website). If you have specific not addressed in these FAQs, please email info@geneseefire.org.

Questions Related to the Value of Building a Southern Emergency Access Road

1. Why does the fire department support the construction of the proposed SEAR?

A secondary access road was recommended in the 2008 Community Wildfire Protection Plan (CWPP); the CWPP was updated in 2021 and this analysis, as well, documented the evacuation challenges in the district. The addition of a secondary ingress/egress route is a critical tool that, when coupled with roadway mitigation, increases roadway survivability for both citizens and first responders, provides a secondary means of egress when a primary evacuation route is compromised, provides an ingress route for emergency responders, and gives firefighters the ability to defend GFPD from a fire approaching from the south/west, because the road gives them a safe way to escape should fire conditions warrant it. The GFPD Board of Directors supported Genesee Foundation's conducting an engineering study to evaluate the feasibility of and formulate a cost estimate for a purpose-built road in the southern part of the GFPD. The GFPD has recently agreed upon and signed two easements with both the GF and the Genesee Water & Sanitation District that will allow the GFPD to build and maintain the proposed SEAR, without the need to purchase property to build a road on. This is a benefit that few, if any, communities have when they consider a needed secondary egress route.

2. If there is a wildfire in, or approaching, the district, how will the SEAR be used?

The SEAR will provide Genesee Fire Rescue and emergency responders with much greater flexibility in operational decisions as they respond to protect lives and property in the district. There are an infinite number of emergency scenarios. Each would dictate a unique strategy and a set of corresponding tactics but, for the sake of illustration, the following three examples illustrate how the SEAR might be utilized during a wildfire:

A wildfire approaching from the south or southwest: residents would be evacuated to the north and the SEAR would be utilized for ingress/egress of firefighting resources and/or as a place where firefighters can defend the District from an approaching fire (without

the SEAR, the lack of an escape route would limit the ability of firefighters to operate in this areas). Law enforcement may elect to allow residents to use one or two lanes on Genesee Ridge and Genesee Trail Roads for egress and, if needed, they may shut down I-70 to allow for the high volume of vehicles entering the highway.

A wildfire approaching from the west or east aiming for the midpoint of the district: a fire like this would likely cut the district in half in terms of fire operations and evacuation, blocking travel between the northern and southern parts of the district. As such, residents would evacuate both to the north and to the south on the SEAR and first responders would enter both from the north and the south.

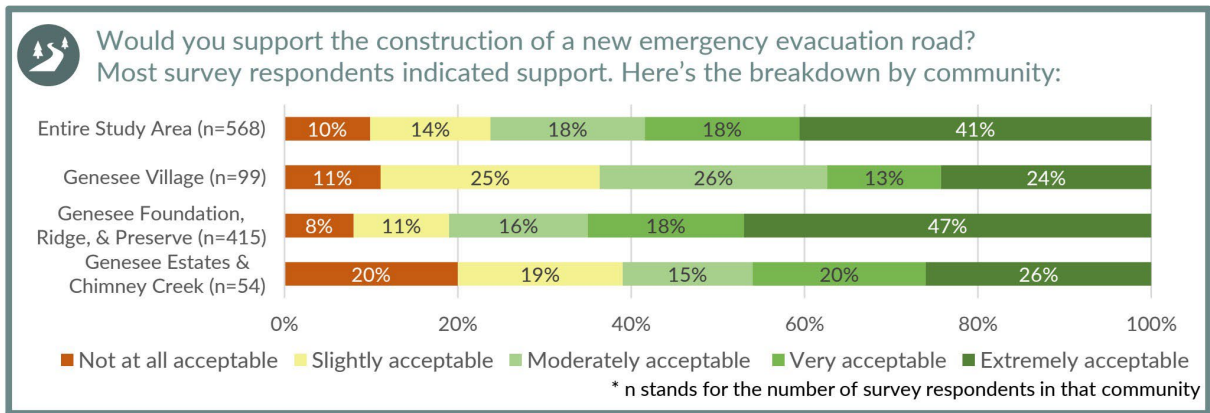
A wildfire approaching from the west, northwest, north, northeast, or east in the upper portion of the district: residents would evacuate to the south on the proposed SEAR. First responders would enter the community from the north.

Again, there are numerous scenarios but, when possible, residents would be routed to the north. The reason for this is that during high stress/low visibility situations, following a familiar path is safer and much more likely to get residents out of harm's way in the most efficient manner.

3. Does the community support the construction of the proposed emergency access route?

In 2021, a household survey was conducted for the GFPD and one of the questions asked was, 'Would you support the construction of a new emergency evacuation road?' Those results are depicted below:

What we might do in the future: Build an emergency road!



4. Is there support for the SEAR outside of the district?

Letters of support from the Colorado Division of Fire Prevention & Control, the Jefferson County Sheriff Office, Highland Rescue Team, and Evergreen Fire & Rescue are on our website.

Questions Related to Technical Design of the Road

5. What are the dimensions of the route? How long is the route?

The preferred Route A (see map below) plus the extension to Montane Dr. is approximately 1.25 miles long. The road is proposed to be twenty-four feet wide, consisting of two 9-foot travel lanes with 3-foot-wide shoulders on either side. The proposed road is a two-lane natural surface road designed to allow both two way and one way traffic in and out of Genesee. Three lanes were not considered because of cost (i.e., much more material to excavate, both rock and soil), a two-lane is considered more than adequate for ingress and egress by cars and fire equipment, and maintenance of speed at choke points. Curves will be widened to accommodate fire apparatus. The design accommodates a 20-mph speed and fulfills Jefferson County standards.

6. What is the vertical drop along the SEAR?

Referring to the Plan and Profile from the Study Report, the preferred Route A (Green line) starts at elevation 7100 at the tennis courts and intersects Highway 74 at elevation 6636, a vertical drop of about 464 feet. The approximate distance along the Route A alignment is 5900 feet. If we add

the section that goes up to E. Montane (dark blue line), the route starts at an elevation of approximately 7200 and adds another 1200 feet of road length. Extending the SEAR to E. Montane (Blue segment) adds an estimated half million dollars to the cost, and results in two drive access within one hundred feet of each other, which is not ideal or desirable.

7. What road surface will the SEAR have and is there a preferred or required road surface for fire equipment?

The SEAR will be an unpaved, natural surface road. An unpaved road does not affect fire apparatus usage. There are unpaved roads throughout Jefferson County that take heavy daily traffic (the SEAR will not) with only infrequent maintenance (typically grading and compacting every several years). We have excellent soil conditions, so a professionally designed and constructed unpaved road and drainage system is a viable option. Paved roads, particularly on slopes, required annual crack filling to protect them from freeze-thaw. Unpaved roads, with less impervious surfaces, result in less stormwater runoff than paved roads. Paving the road adds about an estimated quarter million dollars to the cost. Finally, unpaved roads are aesthetically more compatible with our mountain community.

8. How close to property lines will the preferred route come?

We have attempted to stay as far away from private property lines as we could. Referring to the map above from the Study Report, the narrowest point along the Proposed Route is between the expanded Reservoir 1 and Daisy Lane, with no feasible way to get further away from private property. Depending on the exact alignment, the SEAR will be between 75 and 100 feet from the western point of Parcel 40- 303-01-028, 2397 Daisy Lane. Since this area is heavily forested, there must be additional mitigation (tree cutting) on Genesee Foundation Open Space property to make the route survivable. This is in a cut section (the road will be lower than the existing ground surface), so that may make the road a bit less noticeable from Daisy Lane.

9. What commitment from CDOT do you have that the intersection on Highway 74 can be permitted?

At this point, none, although we have been informally told by CDOT that GFPD will get a permit for the SEAR. Until there is a finalized plan, we cannot submit for a permit. However, Highway 74 is not a restricted access

road. There are numerous private driveways, public intersections, and parking lots that abut Highway 74 between Evergreen and Morrison. We have sited the intersection on the straightest section of the Highway in the Study Area, with the longest lines-of-sight. It is inconceivable that CDOT would not permit an intersection for a project that is so much in the public interest.

10. Who will be responsible for maintenance of the road?

Under the recently agreed upon easement, the Genesee Fire Protection District is responsible for constructing and maintaining the road. The road design includes mitigation to make it survivable during an evacuation event. Since the route is on Genesee Foundation open space, fire mitigation along the road is likely to be handled by the Foundation.

11. Will there be fire hydrants along the SEAR?

We have not discussed this with the Water District, but it is certainly worth investigating.

12. Will this project require permits, and what kinds?

Yes, during final design, we will coordinate with both Jefferson County and the State of Colorado on permit requirements. There will certainly be a Jeffco Land Disturbance Permit requiring grading plans, and a CDOT permit for the intersection at Highway 74. We expect that we will be required to demonstrate adequate storm water management provisions, so we do not impact areas downstream. These permits, which are normally the responsibility of the Owner and Engineer, will take some time and effort, but we are confident that the project will be permitted. Permitting needs to be accomplished well before submittal of the project for a TABOR election in November 2024.

We have met with Jeffco Planning and Zoning, and they have indicated full support, and we expect an expedited review. It appears that Jeffco is well aware of the access challenges that many communities in the foothills have, with only single access route. GFPD is taking advantage of a route that is available without any purchase of land. Easements from Genesee Foundation and Genesee Water and Sanitation District to site the road on their properties have already been granted.

13. Was environmental impact considered in the feasibility study?

General consideration was given to environmental impact, but no specific study was undertaken. Since there are no wetlands, cultural history, or unique vegetation present in this area, no environmental constraints are recognized currently.

14. Does the enlargement of Reservoir 1 affect the design of the SEAR?

Yes, the reservoir does present an asset to accommodate, but the feasibility study indicates that there is enough accessible area next to the reservoir and we can safely avoid any impact on the reservoir.

Questions Related to the Uses of the Road

15. What would the proposed emergency access route be used for?

The proposed emergency access route is designed and constructed to be safely navigated by passenger vehicles, law enforcement vehicles, and fire apparatus during an emergency. The SEAR will not be used for public transport, recreational, or other day to day use by any person or entity and is intended to be used only for emergency ingress and egress, maintenance/mitigation, and as well as periodic training for firefighters and law enforcement personnel.

16. How secure will the SEAR be?

The SEAR will be access controlled with appropriate gates and security, as well as appropriate signage, locks, and monitoring. The gates at either end of the SEAR will be controlled by the Genesee Fire Protection District and the Jefferson County Sheriff Department. In the event of an emergency, the Jeffco Sheriff would control usage and the exit to Highway 74.

17. Will this be a public road?

As per Jefferson County requirements, the SEAR will be a road controlled by GFPD, in accordance with the terms of easement agreements entered into between GFPD and Genesee Foundation and Genesee Water & Sanitation District. Under the terms of the easement agreements, the SEAR will only be

used for ingress and egress by emergency vehicles, community residents in case of a wildfire emergency, and periodic fire department and law enforcement training.

Questions Related to the Cost, Funding and Timing Construction of the SEAR

18. Who has the authority to approve a financing plan?

The current plan is to have a TABOR election to request approval for a mil levy increase to fund the building and maintenance of the SEAR. The entire Genesee Fire Protection District would have the opportunity to vote on the measure.

19. What is the estimate of the tax increase, should the mil levy be approved?

We expect to receive both an engineering estimate and a contractor estimate by the end of quarter one in 2024. When we receive those numbers, we will publish that information along with a mill levy calculator that will provide an estimate of what the proposed road will cost each homeowner in the district based on \$100,000 of home value.

20. What work has already been contracted for and what was the bid process?

An industry standard RFP was sent out to three engineering firms to do a feasibility study. Baseline Engineering responded with a reasonable bid for the feasibility study. Their report was received in April 2023, and can be found under “Reports and Studies,” “Baseline Report.” A second contract for full design, including full Geotech analysis, was put out for bids using the same process and, again, Baseline Engineering was engaged. Their report, which will include a better cost estimate, is expected in February, 2024. This report is necessary to obtain the necessary County and State permits and an accurate cost estimate prior to the election. Zak Dirt, the contractor working on the reservoir project for GWSD will also provide a cost estimate. Genesee Foundation has paid for the 2 Baseline Studies as well as the Zak Dirt estimate in order to move the project forward to the point where GFPD has the information necessary to conduct a TABOR election. If the project is approved by the GFPD, the GFPD would bid out to construction firms. Both qualifications and cost will be considered in the competitive bid process.

21. What is the time from now to construction?

Due to the timing for full design and cost estimate, a TABOR election could be held in November 2024. Upon approval construction could commence in early 2025.

22. If District residents fail to approve the mil levy increase necessary to build and maintain the SEAR, what will happen?

Genesee Fire Rescue will continue to operate as it has in the past and, should there be a wildfire approaching or in the district, will operate under the constraints associated with having only a single egress route. The priority will be on life safety.

Questions Related to Emergency Evacuation:

23. Is it a fair assumption that the most likely fire direction will be from the south and west? Are we building a road in the direction of most likely incoming fire direction?

We cannot assume fires will come from a particular direction. The winds are variable and depending on the season can come from almost any direction. The SEAR is an important tool for firefighting that gives emergency equipment the ability to enter Genesee from the north (I-70) and the south (Highway 74). It also allows evacuation in both these directions. How the road is used will depend on the specifics of the fire, but having the options provided by the SEAR will improve both emergency response time and evacuation times.

24. Does the SEAR benefit all the residents in the GFPD, or does it preferentially benefit residents living on the south side of the district?

The SEAR benefits all the GFPD communities. How the SEAR is used depends on the specifics of the fire (see answer to Question 2). In a scenario where the SEAR is used for evacuation, it preferentially benefits residents in the southern part of the district. However, if the specifics of the fire scenario mean that residents, even those living in Genesee Village or Chimney Creek, cannot access I-70, their only means of evacuation will be via the SEAR. Additionally, the SEAR is a tool that can allow for evacuation in both directions (taking pressure off those evacuating to the

north and decreasing their evacuation times), and for emergency ingress from the south, allowing more firefighting resources to control the fire and defend property throughout the district. Without the SEAR, if there were an event on the north side of the GFPD that closes access to I-70, all GFPD residents would be trapped in their homes and there would be no way for supporting Fire Departments, like Indian Hills or Evergreen, to come to our rescue. Additionally, the SEAR gives firefighters a safe route for escape so that they have the option to defend GFPD from a wildfire approaching from the south/west, benefitting the entire District.

25. If there were a fire tomorrow, would emergency response include a plan to shelter in place?

In some communities there are areas designated “safe” where people can congregate should they not be able to evacuate. Based on our analysis, there are currently no areas within the GFPD that could serve as a fully safe, designated area for wildfire evacuation emergencies under conditions of 10-20 mph winds and especially winds greater than 20 mph due to steep slopes and heavy fuel loads (2021 CWPP 3F, page 59).

With our current limitation of only being able to exit to the north, if I-70 is closed or access to it blocked, we would have to shelter in place (i.e., in our homes) and survivability is uncertain. You would only be told to shelter in place if evacuation was impossible, and you should not elect to do so even if you have created defensible space and hardened your home.

26. How would evacuation commence and be ordered?

The Fire District is divided into Plan Units for optimizing emergency response. Know your Plan Unit, as we will be notified by Plan Unit through Lookout Alert, and we will evacuate by Plan Unit. **Please access the GFPD website for your Plan Unit** and be sure you are signed up for Lookout Alert.

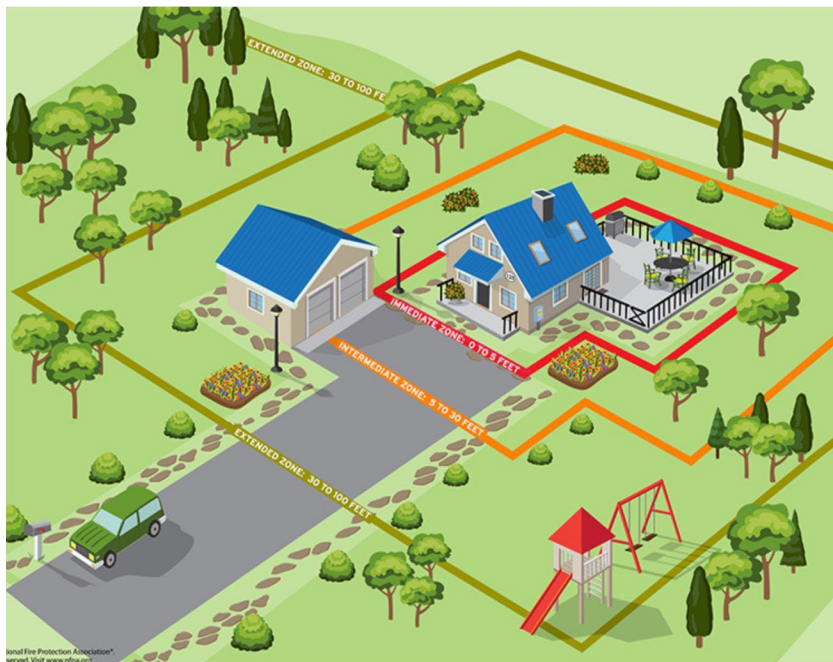
Fire Preparedness

At the personal level, to be ready at all times (but especially when there is a red flag warning) to evacuate. You could receive an alert to evacuate *immediately* and the longer it takes to do so could mean longer evacuation

times and a greater probability that you will be in danger. You do the following *now*:

- Register to receive evacuation notices from Lookout Alert. You should register all phone numbers as well as email addresses.
- Have a **Go Bag** already packed and ready to go. If there are last minute items you will need to add, have a list of those items on top of the bag.
- Have fire resistant clothing (no synthetics!), heavy shoes, face masks and eye protection from smoke ready to don should the fire already be in GFPD.
- Create a family plan in case you are separated (a place to meet, a contact person outside of GFPD that everyone will contact, etc.)
- Have a plan for evacuating your pets, and disabled or physically limited relatives who live with you, in case you are not at home when an evacuation is ordered.

Create Defensible Space around your house (see Figure below). Defensible space gives firefighters a safer space to operate in while defending your home. Fire experience in the Boulder area (Marshall Fire), as well as other wildfires, shows that creating defensible space makes a big difference in survivability of homes.



Home Hardening and Defensible Space

- 5-foot perimeter with no vegetation
- Remove pine needles from roof valleys & gutters
- Remove flammable materials from beneath decks
- Fire resistant exterior materials
- Treetops should be separated by 10-15 feet to prevent crown fire reaching your house

HOA Responsibility/Work

HOAs within the District are working on fire mitigation. Genesee Foundation, because it includes so much community-owned Open Space, has budgeted and completed forest thinning for forest health and fire mitigation in its Open Space yearly for 25+ years. Currently, they are prioritizing fire mitigation along evacuation routes (e.g., Genesee Ridge and Vista roads, Foothills North and South, Montane Drive) to enhance survivability during evacuation. In addition, Genesee Foundation funds an annual curbside slash pickup to facilitate and encourage private property owners to do mitigation on their property.

GFPD works with all HOAs to discuss and facilitate fire mitigation efforts.

Genesee Fire Rescue Responsibility/Work

The 2021 CWPP, funded by GFPD has guided all of the work discussed below. In 2021, GFR created a position for and hired a full-time Wildland Specialist. Many initiatives have been completed or are ongoing including the following examples:

Presentations of the findings of the CWPP, specific to each Plan Unit. These virtual presentations were recorded and available on the GFR website.

GFR has done, and continues to offer, neighbor walks to discuss wildfire risks and mitigation actions specific to the neighborhood.

GFR offers comprehensive wildfire home evaluations for a nominal fee, with suggestions for mitigating areas of risk.

GFR works with each and every HOA within the District to encourage fire mitigation efforts. Chimney Creek was recently awarded FireWise status with the help of GFR. GFR has submitted a grant, in cooperation with Chimney Creek, to mitigate some of their Open Space.

GFR has submitted a grant for mitigation in an Open Space area that is not part of GFPD, but which poses a significant wildfire risk to GFPD.

GFR continues its efforts to encourage community emergency preparedness, enhance readiness for emergency operations, and educate its constituents about wildfire risk.

Questions on the Process Used to Identify Preferred Route A for the SEAR

27. Were there shorter or more direct routes considered, for example Pine Drop Lane?

Yes, the Genesee Fire and Safety Committee completed an extensive study of multiple route possibilities, including routes to the west and east. Their analysis is listed under “Archived Information and identified as “Analysis of EAR Matrix.” The southern route sited between Bitterroot and Daisy led in all categories related to emergency access, evacuation value, fire protection value and probability of success. The SEAR preferred route A (see map in the introduction to the FAQs) almost entirely traverses Genesee open space, requiring less mitigation than any route traversing forested and narrow county or private drives, can accommodate a two-lane road for both ingress of fire equipment and egress of Genesee Fire District residents, and can make it possible for firefighters to defend GFPD from wind-driven west-east directed fires.

With respect to a route from Pine Drop, the owner of the dirt jeep trail off the southern end of Pine Drop is not interested in making it a two-lane road, making it unlikely to have capacity to improve evacuation times. More importantly, under present conditions this route has a higher risk of accidents, and vehicles exiting down would be on a nonsurvivable road without significant mitigation by Pine Drop owners. Genesee Fire Rescue strongly urges residents not to attempt to use this road to evacuate. Should it be blocked by a vehicle unable to navigate the road, you are likely to be backed up into a heavily wooded area.

28. Why was the original proposed EAR disqualified from consideration?

This route was proposed in the 2021 Baseline study. It was rejected because of proximity to Genesee Water and Sanitation facilities at the upper end and Reservoir 2 at the lower end. In addition, the terrain was too steep at either end, i.e., greater than 10% grade, for fire equipment. In addition, the current road over the dam is only 15 feet wide and is not expandable to the 24 feet required for a safe two-lane road. As Reservoir 2 is covered by Federal standards and safety requirements, it is unlikely any road near the

dam would satisfy Federal safety standards. Importantly, the preferred Route A provides clear lines of sight for both ingress and egress.

29. Why was the conceptual Baseline study conducted in the first place and how much did it cost?

The 2021 Baseline conceptual study was intended to answer one question: Is it possible to build a road from Genesee to Highway 74? To answer that question five deliverables were agreed upon: Site Visit, Preliminary Roadway Alignment and Grading, Roadway Section Detail, Construction Cost Estimate, Written Narrative of Findings, Assumptions, and Observations. The total cost to the community for this conceptual study was \$6,500, split between the Genesee Fire Protection District and the Genesee Foundation, each paying \$3,250. Baseline Engineering's 2021 study included the agreed upon deliverables, which are typical of a conceptual road study.

30. What did we learn from the conceptual Baseline study?

The concept of building an emergency access road has been discussed for decades without any meaningful progress. The 2021 Baseline conceptual study was an important first step to move the process forward. It provided an answer to the question of whether it was possible to build an emergency road, but it was also limited in terms of scope. Baseline Engineering was given a starting point, an ending point, and a general outline of the route rather than being provided with a wider geographic area to explore as subsequent projects did. Since the 2021 Baseline study, the project has proceeded, albeit slowly until recently. Some assumptions that were thought to be operative when the 2021 study was performed have changed, and conditions have also evolved. For example, the Marshall Fire of December 2021 heightened awareness of our vulnerability to wildfires. In addition, in 2022 the Genesee Water and Sanitation District reached the decision to proceed with their Reservoir #1 in the middle of the study area. We now understand that the road may connect to Highway 74 at locations other than the access to GWSD's Reservoir #2, giving us additional flexibility. Conditions are right to proceed with this project, which is so essential to Genesee residents' survivability in the event of a major fire event.

Links to Additional Information:

Where can I find more information about the CWPP?

<https://geneseefpd.colorado.gov/community-wildfire-protection-plan>

Where can I find more information about preparing for a wildfire?

<https://geneseefpd.colorado.gov/wildfire-info>

Where can I find more information about preparing for evacuation?

<https://geneseefpd.colorado.gov/evacuation-info>

Where can I find more information about the Sothern Emergency Access Route and supporting documentation?

<https://geneseefpd.colorado.gov/southern-emergency-access-route-sear-info>

How can I get more involved with wildfire preparedness?

<https://geneseefpd.colorado.gov/ambassador-hub>