

## **SEAR (Southern Emergency Access Route) Update - May 2023 FAQs Related to Evacuation, Feasibility Study Results, & Financing**

The Genesee Fire Protection District (GFPD), as is true for much of the Western U.S, 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 potential for extreme congestion, and numerous non-survivable roadways. Models suggest that under our present egress structure estimated evacuation times are 3.5 to 4 hours for most of the approximately 4000 residents of GFPD (includes GF and surrounding HOAs), while impeding access for first responders entering the fire protection district. If our current evacuation route is closed, we may have no other option then to shelter in place.

Additional emergency access/egress route increases GFPD survivability by establishing a secondary egress. 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. Baseline Engineering was contracted by the Genesee Foundation to provide an analysis of the feasibility of constructing an EAR. Their report has now been completed and is available on the Genesee Foundation website (Emergency Access Route tab) and on the Genesee Fire Protection District website. The following FAQs were recorded in the Genesee Community meeting held April 20, 2023, to update the GFPD on progress toward the southern EAR.

### **Questions Related to Emergency Evacuation:**

#### **1. 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 fire fighting that gives emergency equipment the ability to enter Genesee from the north (I70) and the south (Highway 74). It also allows evacuation in both these directions. This will improve both emergency response time and evacuation times.

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

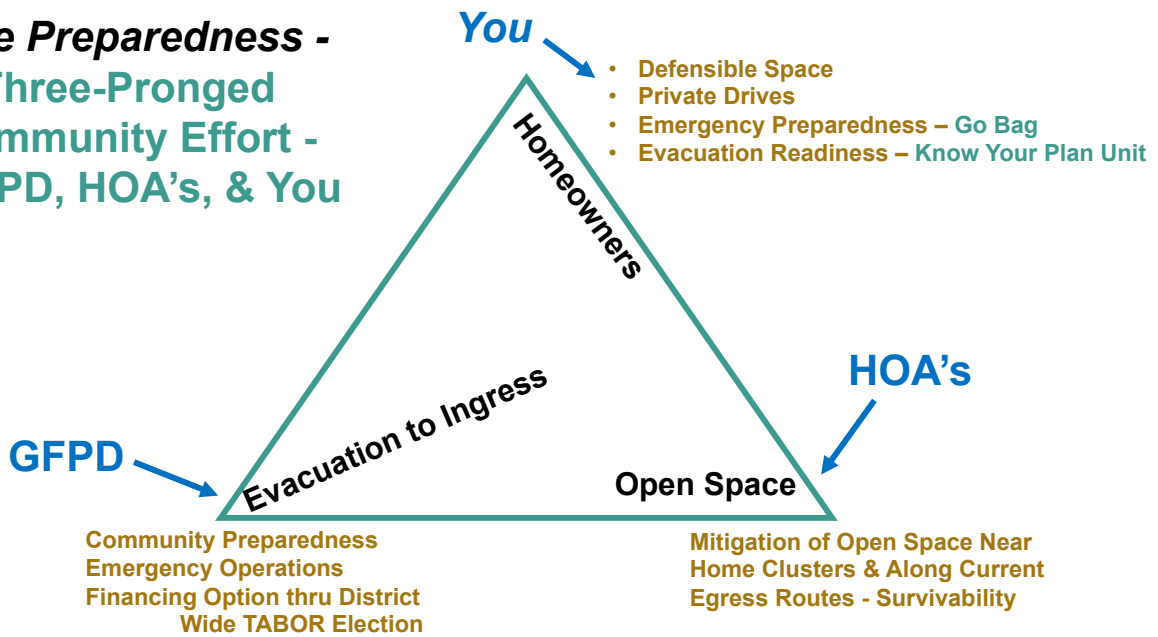
With our current constriction of only being able to exit to the north, if I70 is closed, we would have to shelter in place. This is certainly not an optimal strategy. There are no areas within GFPD that could serve as a fully safe area for wildfire

evacuation emergencies, due to steep slopes and heavy fuel loads, and under conditions of greater than 10 mph winds.

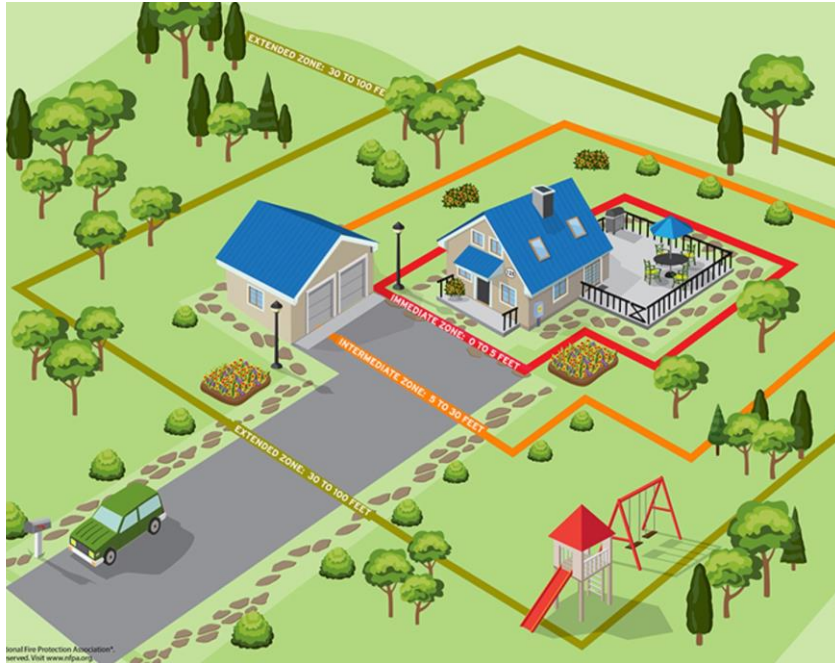
### 3. What is being done to date for GFPD fire protection?

The diagram below illustrates how fire protection can be thought of as a three-pronged communitywide effort, (1) your personal effort, (2) efforts by each of our HOAs, and (3) efforts by the GFD.

#### **Fire Preparedness - A Three-Pronged Community Effort - GFPD, HOA's, & You**



At the **personal level**, it is important to develop a personal family plan for evacuation, what personal items and documents will you take, do you have a Go Bag in case you are away from home for several days, what plan do you have for your pets, and what plan is there for possible disabled or physically limited relatives who live with you? Have you made defensible space around your home (figure below)? Fire experience in the Boulder area shows 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

**Genesee Foundation** efforts include prioritizing fire mitigation in open space along our current evacuation routes (e.g., Genesee Ridge and Vista roads, Foothills North and South, Montane Drive) to enhance survivability during evacuation (slides 5-9 of presentation). HOAs should also look at mitigation of common areas around HOA buildings. The **GFPD** continues its efforts at encouraging community preparedness, enhancing readiness for emergency operations, and supporting the SEAR effort.

### 4. 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.**

### 5. Have all the HOAs in the GFPD been invited to participate?

Yes, all the GFPD HOAs have been invited to participate in this community meeting. The Genesee Foundation Working Group is planning to meet with the adjoining HOAs in the District to engage them in the SEAR process and encourage them to support the SEAR.

### 6. How would a SEAR benefit the other HOAs in the GFPD?

The SEAR is a tool for evacuation in both directions and for emergency ingress from the south. Without the SEAR, if there were an event on the north side of the GFFD that closes I70, we would all be trapped and have to shelter in place.

### **Questions Related to Technical Aspects of the SEAR:**

#### **7. 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 20 feet wide with 2-foot-wide shoulders on either side. The route is a two-lane 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.

#### **8. 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 almost elevation 7200 and adds another 1200 feet of road length.

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

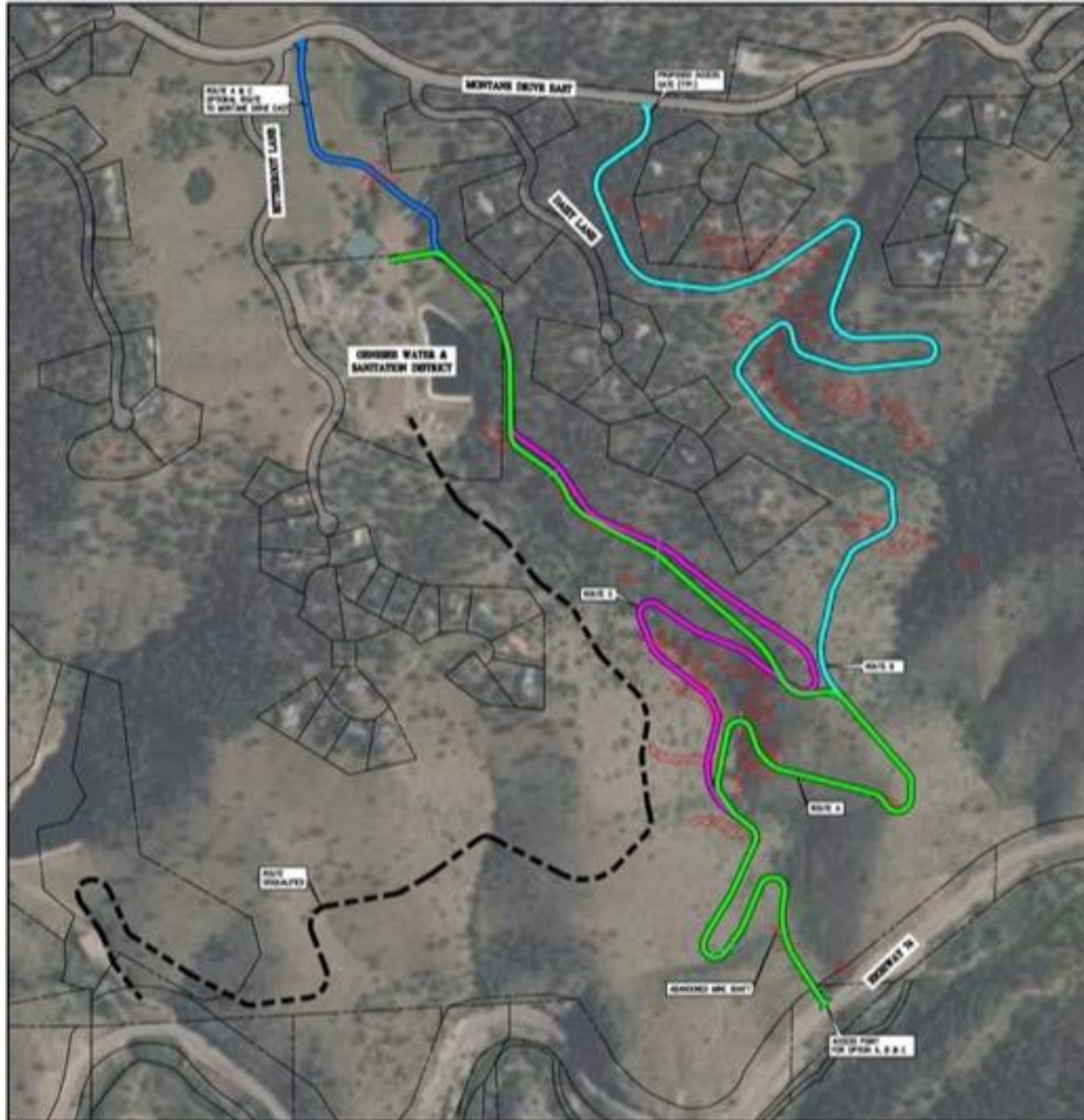
Yes, the Genesee Fire and Safety Committee completed an extensive study of multiple route possibilities. Their analysis is posted on the EAR tab and includes an EAR matrix and an analysis of the EAR matrix. The owner of the dirt jeep trail off the southern end of Pine Drop is not interested in making it a two-lane road, making it unlikely to have capacity to improve evacuation times, under present conditions has a higher risk of accidents, and vehicles exiting down Pine Drop would be on a nonsurvivable road without significant mitigation by Pine Drop owners. The southern EAR led in all categories related to emergency access, evacuation value, fire prevention value and probability of success. The SEAR preferred route A 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 serve as a fire break for west-east directed fires.

**10. Why was the original proposed EAR (black dotted line on the map) disqualified from consideration?**

This route 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.

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

The Engineer proposed a surface of 6" recycled asphalt, but Genesee Fire Protection District and the SEAR Working Group are leaning toward an unpaved 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 properly 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.



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

We 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 Route A 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.

**13. Does the enlargement of Reservoir 1 affect the design of the EAR?**

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

**14. How secure will the EAR be?**

There will be gates at either end of the EAR, 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.

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

At this point, none, since the design is not final enough to 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 that is so much in the public interest as the SEAR. We have been informally told by CDOT that Genesee Fire Protection District will get a permit for the SEAR.

**16. Who will be responsible for maintenance of the road?**

This needs to be worked out between the Genesee Foundation and the Genesee Fire Protection District. The road design includes mitigation to make it survivable during an evacuation event. Since the route is largely on Genesee Foundation open space, fire mitigation along the road is likely to be handled by the Foundation.

**17. Will there be fire hydrants along the EAR?**

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

**18. 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 don't 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.

**19. 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 real environmental constraints are recognized currently.

**Questions Related to Financing and Timing of the SEAR:**

**20. Who has the authority to approve a financing plan?**

That depends on the plan itself. The most likely case would be to have a TABOR election to request approval for a mil levy increase to fund the SEAR. The entire Genesee Fire Protection District would have the opportunity to vote on the measure.

**21. What is an estimate of the tax increase, should the mil levy be approved?**

Using the engineers estimate of an approximately \$6 million cost and a 4% interest rate over 30 years, there would be a 4.177 mil levy increase. This translates to about \$30/\$100,000 valuation/year.

**22. Why has the Foundation only gotten an estimate from one engineering company?**

An industry standard RFP was sent out to three engineering firms and Baseline Engineering responded with a reasonable bid for the feasibility study. Going forward there are two options. Option 1 is to contract for a full design, including full Geotech analysis, and then bid out to construction firms. Option 2 is a combined design/build within one construction firm and again awarded in a competitive bid process. Both qualifications and cost will be considered in the competitive bid process.

**23. What is the timeframe from now to construction?**

Due to the timing for full design and developing a more realistic cost estimate, a TABOR election could be held in November 2023 or November 2024. Upon approval construction could commence no sooner than early 2024, or most likely early 2025.



## **Links to Additional Information:**

### **Where I 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 the Emergency Access Route (EAR), and the EAR and Risk/Priority Matrices?**

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

### **How can I get more involved with wildfire preparedness?**

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

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