



## Parks and Open Space

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### BOARD OF COUNTY COMMISSIONERS HEARING

Time/Date of Meeting: 11:00 p.m., Tuesday, August 9, 2016

Location: BOCC Hearing Room, 1325 Pearl Street, 3<sup>rd</sup> Floor, Boulder, CO

**TO:** Board of County Commissioners

**FROM:** Justin Atherton-Wood, Resource Planner

Sandy Duff, Land Officer

**RE:** Reynolds Ranch-2016 Nederland Easement (Emergency Egress Easement, a/k/a Big Springs Emergency Egress Easement)

**DATE:** August 2, 2016

### Summary

The Town of Nederland (Town), with the support of the Nederland Fire Protection District (Fire District), is requesting a permanent easement from Boulder County through the Reynolds Ranch Open Space Property to construct and maintain an emergency egress route between the Big Springs Subdivision and Magnolia Road. The egress would begin in the eastern side of the subdivision at Doe Trail and travel south across US Forest Service property and county open space property terminating at Magnolia Road. Currently the only maintained roads providing access into the subdivision (Big Springs Drive and Peakview Drive) enter from the west off of Peak to Peak Highway. If an emergency were to limit or obstruct access to the highway from the subdivision, residents in the Big Springs Subdivision would not have an evacuation route.

POSAC heard the item at their meeting on July 28, 2016. Many people had traveled from Nederland to provide public comment. POSAC member voted unanimously in favor of a recommendation to the Board of County Commissioners to approve the disposition of an easement to the Town for the emergency egress.

### Background

The need for additional egress for emergency situations from the 187 home subdivision has been known and under study for some time. And, Parks and Open Space, the Town and the Fire District have been evaluating a number of alternatives to address this life safety concern in cooperation with other county departments and the US Forest Service (USFS) in more detail over the past few years. Given the topographic and ownership constraints in the forested mountains and foothills of Boulder County, this circumstance is present in other communities as well and the county has worked with fire districts and citizens to identify and implement solutions.

At this time, the combination of this route across Reynolds Ranch, referred to as the Doe Trail Egress, and the route to the west across USFS lands, called the Wildewood Egress, have been identified by the Town and the Fire District as the preferred strategy for meeting the life safety need that would arise in a range of emergency scenarios that could face the subdivision at any time. Depending on the situation, the two single-lane routes would both be

needed: the route closer to the event would be used by emergency personnel to gain access to the emergency area while the farther route would be used for residents to evacuate to Magnolia Road.

Last fall, the Town submitted an application to the US Forest Service to formalize their request for a special use permit to construct and maintain the egress routes. The application was also provided to the county for consideration. The application describes the Town's intentions for both routes in detail. The application was subsequently used by USFS to develop a proposed action for inclusion in the Forsythe II Environmental Assessment. The proposed action included the Wildewood Egress and those portions of the Doe Trail Egress located on USFS lands. Staff at the Boulder Ranger District anticipate that the timing of a decision about the potential permit could be resolved later this fall about the same time that the county's land disposition process would be completed and an easement could potentially be granted.

Earlier this year, the Town supplemented the application with a Time Until Fire Arrival Analysis (the TUFA Analysis) for the two proposed routes, as well as a GIS Spatial Analysis of the Doe Trail Egress (the Spatial Analysis). The TUFA Analysis helps provide additional justification for the need for both routes. And the Spatial Analysis provides a preliminary understanding of the feasibility of the Doe Trail route as well as the intensity of impacts. These two documents, along with the original Special Use application have been used to formulate the alignment description and discussion of impacts below. The documents are available here: <http://www.bouldercounty.org/doc/parks/reynolds-ranch-nederland-easement-application.pdf>.

### **Alignment Description**

The proposed Doe Trail Egress is located on the east side of the subdivision. It would originate from Doe Trail, a Town road, and climb generally southeast for roughly 3,780 linear feet along remnants of an old mining road with the last section following an old utility corridor before accessing Magnolia Road. About 10% of the egress would be located on USFS lands in two separate segments for a total of approximately 380 feet.

The egress would be constructed consistent with the Parcel Access Design Standards of the Boulder County Multimodal Transportation Standards for a One-Lane Mountain Access Road (Table 5.5.1 in that document). The Spatial Analysis applied this standard to the route location that was identified as having the most minimal environmental impact in the analysis. This preliminary analysis yields the following characteristics of the route:

- Route sited to avoid natural drainages, wetlands, and other water features
- A travelway width of 12 feet wide with 2 feet clear on each side
- Pull-outs planned approximately every 500 feet, for a total of seven
- A natural surface tread that may be seeded with short native groundcover
- Grades that average 8%, with a minimum of 0% and a maximum of 14% for very short distances
- A net elevation change of about 305 feet
- A roadside ditch that would manage storm water and other drainage flows and include 7 to 10 culverts with stabilized outlets located along the length of the route (3,785 feet of ditch)

- Side slopes of 1.5:1 are achievable that minimize disturbance from grading
- Total disturbance area would be 1.91 acres consisting of 1.27 acres for the road and pull-outs, 0.39 acres for cut slope areas, and 0.25 acres of fill slope areas
- Silt perimeter fencing and other strategies to protect natural drainage from project-related sedimentation

The route generally follows an existing trail that was likely an old mining road. The existing trail became part of the county's non-motorized trail system (also known as the Dot Trails, East Mag Trails, and/or Boy Scout Trails) when the Platt Rogers Memorial Park, Reynolds Ranch, and Roger Property Management Plan was adopted by BOCC in 2000. The egress would continue to function as a non-motorized trail in the county's system and be restricted to emergencies for vehicles with access control being provided by gates, bollards, or another means acceptable to Parks and Open Space.

### **Staff Discussion of Recent Analysis, Resource Impacts, and Alternatives**

When discussion with the Town, Fire District, the county, and USFS about potential egress routes began in earnest a few years ago, the Doe Trail alignment was among a number of alignments that were being evaluated for their feasibility. With Barker Reservoir as an impediment to the north, what was learned during that process is that there is no ideal location for constructing a new access out of Big Springs across open space or USFS lands, the subdivision's only neighbors to the east and to the south. However, the recent analysis done by the Town demonstrates that the Doe Trail Egress provides an effective and efficient means for improving life safety outcomes in the event of an emergency.

As described in the TUFA Analysis, the Doe Trail Egress is the most important egress to construct for life safety reasons primarily because of its location at the eastern end of the subdivision. It also provides the longest window of opportunity for the most residents to evacuate if a fire were to spread from west to east, a common fire behavior for this area.

#### *Potential Natural Resource Impacts*

One of the primary consideration behind to detailed analysis of other locations is that there are multiple significant natural resources in the vicinity of the proposed alignment. Those that are identified in the Reynolds Ranch Management Plan and the Environmental Resource Element of the Boulder County Comprehensive Plan include:

- The corridor is known to provide nesting and fledging habitat for sensitive species including Northern Goshawk and Long-eared Owls, both of which are designated as Species of Special Concern;
- The area is well known as a Wildlife Migration Corridor for elk and designated as such on the Critical Wildlife Habitat map;
- Stands of large diameter trees (Englemann spruce and Douglas-fir) are also known to be present in the drainage area with the oldest more than 140 years old; these stands are designated as a Significant Natural Community; and,
- At the lower end of the drainage, while not yet inventoried as such, plant communities have riparian and/or wetland characteristics, particularly on USFS lands near the access point from Doe Trail. Wetland and Riparian Areas are another Comprehensive Plan designation.

Due in part to the potential impacts to the above significant natural resources, alternative alignments on the eastern side of the subdivision were evaluated for constructability, maintainability, effectiveness in an emergency, and potential impacts to significant open space resources. The other routes are summarized below.

#### *Other Alternatives Studied*

Three routes looked at the potential of climbing to the ridge to the south of the Doe Trail route where forest treatments have occurred over the past decade or so leaving remnant skid roads and open areas for easy travel. These routes would then traverse the ridge to connect to the same abandoned utility road that the Doe Trail route would utilize.

The first route would begin at Alpine Drive and traverse a heavily wooded hillside on the east side of the ridge. It would require substantial earthwork and forest clearing work while also creating all new disturbance. Connecting to Alpine Drive to the hillside would also be a challenge due to grade differential between the road cut and the available public land.

The second route explored using a private drive to help reach the ridge. The driveway easement is held by as many as five property owners and consists of multiple tight switchbacks that would be difficult for rescue equipment or evacuees to utilize in an emergency situation. When contacted by the fire chief, owners were not readily amenable to the idea of using their driveway or property for this purpose.

A third route was evaluated that would begin near the Doe Trail access point and use switchbacks to climb to the ridge. This route would require significant earthwork to create the switchbacks and pose challenges similar to the driveway in terms of navigability. Maintaining potential sedimentation into a wetland located below the switchbacks would also be a challenge.

The fourth route would traverse around the south and east side of Barker Reservoir and connect eventually to Boulder Canyon. Like the first route, it would start from Alpine Drive. This route would require significant forest clearing and potentially even rock blasting. There would also be Homeland Security considerations to address associated with the dam. And, negotiations with multiple property owners would be needed to secure access to the highway. A bridge would also be required to cross Boulder Creek somewhere below the dam. Finally, using the dam itself as a crossing was considered, but Homeland Security concerns made this alternative a non-starter.

#### **Public Process, POSAC meeting, and Public Comment**

Because the county open space property affected by the easement was purchased with open space sales tax funds, this easement disposition requires POSAC review and approval by the Board of County Commissioners. If BOCC approves the easement, the disposition would then be subject to a 60-day waiting period before the easement could be conveyed to the Town of Nederland. As required by sales tax language, staff sent letters to adjacent property owners outlining the proposed easement disposition and published a notice of this hearing in the newspapers of record within the county. The notices included an invitation to attend and comment at this meeting.

As mentioned above, the item was heard by POSAC at their most recent meeting on the evening of July 28<sup>th</sup>. In addition to the comment provided at POSAC, we have received written comment and phone calls. All commenters have been in support of the need for an

egress. And, most have supported the Doe Trail egress location. However, there are some who do not think an egress should be built in this location. Concerns include potentially impacts to the wetland / riparian habitat and other natural resources in the corridor, as well as its location in the drainage that could act as a chimney in a wildfire.

Written comment received thus far is attached. And, the presentation to POSAC is also attached. The minutes of the POSAC meeting will be provided to BOCC as soon as they are available.

### **Staff Recommendation**

After exploring and analyzing other alternatives, it has been determined that the Town has sufficiently demonstrated the need for moving forward despite the potential impacts. During a site visit last fall, the Doe Trail route was also supported by the Office of Emergency Management as a means for enhancing life safety concerns in the subdivision; County Road Maintenance staff also supported this route as more easily constructed and maintained than other routes they had evaluated. As such, this Disposition of Lands process for an easement is an appropriate means for reconciling this use that may impact the open values present on this portion of the property. Staff supports the disposition of land and granting of an easement for this purpose.

While the impacts will be real and significant, relative to the other alternatives, the Doe Trail Egress would be easier to construct and maintain in part because it would utilize the existing trail/mining road. However, the Parks and Open Space Department does have some design criteria and other management considerations that should be included in the easement agreement to minimize impacts to open space resources within the easement area and in the immediate vicinity. These measures will be better defined as the easement language is drafted in cooperation with the Town. They include:

- The easement will give the Town the right to construct the one-lane, natural surface egress route consistent with the county's standards for *Driveway Access for Emergency Vehicles* (attached). The Town shall prepare and submit a construction plan to Boulder County for approval prior to construction.
- With that right comes to obligation to regularly maintain the facility particularly in the spring and following large storm events.
- The route shall continue to function as a designated, non-motorized trail within the Reynolds Ranch Open Space trail network; in addition, the county may plan for and construct or deconstruct trails that connect to the egress in cooperation with the Town and to the extent that any changes would not significantly impact the purpose of the egress
- The Town shall develop a plan to manage storm water, sediment and other erosion-related concerns. The design shall include specific measures to avoid negative impacts to riparian forest areas, wetland areas, and old-growth timber from sedimentation and other pollutants. A proposed maintenance plan shall be a component of this plan. Parks and Open Space must approve this plan prior to construction.
- The Town shall construct and maintain gates, bollards, or other facilities to prevent and enforce unauthorized motorized use of the route and any/all adjacent open space.

Fencing and related structures shall be designed to wildlife-friendly, especially for elk, and approved by Parks and Open Space.

- Goshawk and Long-eared Owl have used this area for nesting and fledging in the past. The Town and Parks and Open Space shall work together to develop mutually agreeable and appropriate measures that shall be taken by the Town if there is a need construction and maintenance activity to occur during potential periods of nesting or when nesting activity is detected. Colorado Parks and Wildlife may be consulted for additional guidance. The measures, protocols, and responsibilities shall be outlined in the easement or other subsequent agreement.

**BOCC Action Requested**

Approve the disposition of an easement to the Town of Nederland for an emergency egress between Doe Trail and Magnolia Road consistent with the measures and design criteria outlined above.