



# Community Planning & Permitting

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**MEMO TO:** Boulder County Commissioners  
**FROM:** Wesley Jefferies – Development Review Planner  
**DATE:** March 26, 2024  
**RE:** LU-19-0041: Parks & Open Space Nederland Forestry Processing and Sort Yard – 3-Year Review

Item	Pages
○ Staff Memo	1 – 2
○ BOCC Resolution (Attachment A)	A1 – A5
○ Sort Yard Activities Report (Attachment B)	B1 – B110

In 2009, the Boulder County Board of County Commissioners approved a Community Forestry Sort Yard (CFSY) on Ridge Road to serve the Nederland area. The original sort yard approval was in response to the mountain pine beetle and Ips beetle epidemic that was taking place at that time. The approval was valid for a three-year period, and the use was reviewed and re-approved in 2014 and 2017. In years since the original approval, the majority of materials received at the sort yard has shifted from those generated by pest issues to those generated by wildfire mitigation efforts. The popularity of the sort yard since its creation has proven the need for a publicly-accessible facility where forestry materials may be brought for processing. This has been essential in advancing county programs in forest insect/disease control and wildfire mitigation. Additionally, materials processed at the yard are utilized as a biomass heating fuel source by county facilities. For of these reasons, the sort yard has proven to be an important and beneficial asset to Boulder County and residents of the Nederland area.

Site improvements required in the 2009 approval were installed for the initial 2010 season. These included gating and fencing, an access drive built to county standards, internal circulation, and a storage shed. Electricity was later added on the site, allowing for the placement of a security light near the entrance of the site and providing electrical access for the workers on site.

The CFSY has operated annually between the months of April and October since 2010. Originally, sort yard operations were split between the Allenspark sort yard and the Ridge Road facility, with each generally operating during periods when the other was not. The popularity of the facilities has led to both sites being open throughout the April – November season.

Some changes to the operation have occurred since the original approval. The county initially operated an air-curtain burner on the site to process materials. This burner unit used an ember screen but was subject to a number of operating restrictions to reduce fire hazards, based on meteorological conditions such as wind. Because there were numerous periods when the air curtain burner could not be operated, the county discontinued its use and no longer owns the equipment. A mobile grinder was purchased in 2013, allowing the county to produce biomass that could be used for heating and compost. The proposed primary method for processing materials on site continues to be the grinder unit, however, the applicant would like to maintain the option of an air-curtain burner on the site if desired in the future.

In addition to operations during the April – November season, there is occasionally need to store and/or process materials during the winter months. For instance, a spike in wood volume that could be processed and stored for use in biomass heating facilities at county facilities occurred after the Cold Spring Fire. Providing a Christmas tree drop-off facility for area residents is another need during the current off-season.

Two of the primary concerns at the time of the original approval were potential impacts from traffic and noise. At each of the prior approvals, the applicant committed to continued monitoring of traffic and noise impacts. Monitoring has taken place throughout the periods of operation over the succeeding years, and the applicant has provided those results for review.

The Applicant proposed and was granted approval for the extension of the operating season of the facility through Docket LU-19-0041: Parks and Open Space Forestry Processing and Sort Yard. The approval was conditioned per Resolution 2020-26 (Attachment A). The approval states that, prior to any use beyond the 2022 operating season “the Board must review the facility to ensure the requirements and conditions continue to be met and determine if the facility continues to be needed by the community. During the three-year review, the Board may set such additional terms and conditions necessary for continued compliance with the Code or determine that operation of the facility shall cease.”

The Applicants are seeking approval for a further 3-year period for operating years 2023 (retroactive), 2024, and 2025. The Applicants are not proposing any other modification to their hours or operations.

The Applicants have provided a report of the Sort Yard Activities (Attachment B). Neither Boulder County Parks and Open Space nor Community Planning and Permitting have received any complaints from or conflicts with neighbors.

## **RECOMMENDATION**

Staff finds that this proposal has satisfied the required criteria, and therefore recommends the Board of County Commissioners renew the approval of Docket LU-19-0041: Parks & Open Space Nederland Forestry Processing and Sort Yard, subject to the conditions Resolution 2020-26, with the following revision:

1. In accordance with the provisions of Article 4-505.5.e, the facility is approved for operation for a minimum period of three years (2023, 2024, and 2025 operating seasons). Prior to any use of the facility beyond the 2025 operating season, the facility must be reviewed by the BOCC to ensure that requirements and conditions continue to be met and to determine if the facility continues to be needed by the community. During the three-year review, the BOCC may set such additional terms and conditions as may be necessary for continued compliance of the Boulder County Land Use Code, or determine that operation of the facility shall cease.

## RESOLUTION 2020-26

### **A resolution conditionally approving Boulder County Land Use Docket LU-19-0041: Parks and Open Space Nederland Forestry Processing and Sort Yard**

#### Recitals

A. Boulder County Parks and Open Space (the “Applicant”), applied to Boulder County for Limited Impact Special Use Review under Article 4-600 of the Boulder County Land Use Code (the “Code”) for re-approval of the existing sort yard originally approved as Docket LU-09-0010 and last approved as LU-16-0041.

B. The subject property is located at 291 Ridge Road, approximately 1,700 feet east of its intersection with State Highway 72, in Section 12, Township 1 South, Range 73 W, in a Forestry zoning district in unincorporated Boulder County.

C. In 2009, the Boulder County Board of County Commissioners (the “Board”) approved a Community Forestry Sort Yard (“CFSY”) on Ridge Road to serve the Nederland area. The original sort yard approval was in response to the mountain pine beetle and ips beetle epidemic taking place at that time. The approval was valid for a three-year period, and the use was reviewed and re-approved in 2014 and 2017. In years since the original approval, the majority of materials received at the sort yard has shifted from those generated by pest issues to those generated by wildfire mitigation efforts. The popularity of the sort yard since its creation has proven the need for a publicly-accessible facility where forestry materials may be brought for processing. This has been essential in advancing county programs in forest insect/disease control and wildfire mitigation. Additionally, materials processed at the yard are utilized as a biomass heating fuel source by county facilities. For of these reasons, the sort yard has proven to be an important and beneficial asset to Boulder County and residents of the Nederland area.

D. Site improvements required in the 2009 approval were installed for the initial 2010 season. These included gating and fencing, an access drive built to county standards, internal circulation, and a storage shed. Electricity was later added on the site, allowing for the placement of a security light near the entrance of the site and providing electrical access for the workers on site.

E. The CFSY has operated annually between the months of April and October since 2010. Originally, sort yard operations were split between the Allenspark sort yard and the Ridge Road facility, with each generally operating during periods when the other was not. The popularity of the facilities has led to both sites being open from April through November.

F. Some changes to the operation have occurred since the original approval. The county initially operated an air-curtain burner on the site to process materials. This burner unit used an ember screen but was subject to a number of operating restrictions to reduce fire hazards, based on meteorological conditions such as wind. Because there were numerous periods when the air curtain burner could not be operated, the county discontinued its use and no longer owns the equipment. A mobile grinder was purchased in 2013, allowing the county to produce biomass that could be used for heating and compost. The proposed primary method for processing materials on site continues to be the grinder unit. However, the Applicant would like to maintain the option of an air-curtain burner on the site if desired in the future.

G. During operations, staff regularly grinds slash piles to process and remove the material in a very short time-frame, and with minimal restrictions; when grinding slash material there is a 60% reduction of volume which helps decrease transportation costs. A semi-truck can hold up to 120 cubic yards of ground slash, and up to four truckloads can be processed in a day. Typically, a minimum of two loads are ground at a time to limit the number of grinding days and minimize noise.

H. In addition to operations during the April – November season, there is occasionally the need to store and/or process materials during the winter months. For instance, a spike in wood volume that could be processed and stored for use in biomass heating facilities at county facilities occurred after the Cold Spring Fire. Providing a Christmas tree drop-off facility for area residents is another need during the current off-season.

I. Two of the primary concerns at the time of the original approval were potential impacts from traffic and noise. At each of the prior approvals, the Applicant committed to continued monitoring of traffic and noise impacts. Monitoring has taken place throughout the periods of operation over the succeeding years, and the Applicant has provided those results for review.

J. While this application does not seek to change the primary characteristics of the use from the previous approvals, the Applicant proposes to extend the season that the facility operates. The Applicant would like to extend operations to be open during the months of December through March. The Applicant proposes that the facility be open for material storage and processing by staff on Monday through Saturday, and that the facility be open to the public on Fridays and Saturdays. As with current operations, the facility will only be open for an 8-hour period between 7:00 a.m. and 6:30 p.m., and grinding operations may only occur between 8:00 a.m. and 5:00 p.m.

K. The above-described request was processed and reviewed as Boulder County Land Use Docket LU-19-0041 (the “Docket”), as further described in the memorandum and written recommendation to the Board by Boulder County Community Planning & Permitting Department (formerly the Land Use Department) planning staff dated February 27, 2020, together with its

attachments (the “Staff Recommendation”). The Staff Recommendation found that the Docket could meet the criteria for approval with recommended conditions, and therefore, recommended that the Board conditionally approve the Docket.

L. At a public hearing on the Docket held February 27, 2020 (the “Public Hearing”), as further reflected in the official record of the Public Hearing, the Board considered the Staff Recommendation, as well as documents and testimony presented by County Community Planning & Permitting Department planning staff. The Board also heard testimony from County Parks and Open Space Department staff Wayne Harrington and Stefan Reinold on behalf of the Applicant. No members of the public spoke at the Public Hearing.

M. Based on the Public Hearing, the Board finds that the Docket meets the criteria for Limited Impact Special Use approval for a Forestry Processing and Sort Yard as set forth in Articles 4-601 and 4-505.B of the Code, subject to the conditions stated below.

N. Therefore, the Docket can be approved, subject to the conditions stated below.

Therefore, the Board resolves:

Docket LU-19-0041 is approved on the basis and terms set forth in this Resolution, above, and subject to the following conditions:

1. In accordance with the provisions of Article 4-505.5.e of the Code, the facility is approved for operation for a minimum period of three years (2020, 2021, and 2022 operating seasons). Prior to any use of the facility beyond the 2022 operating season, the Board must review the facility to ensure that requirements and conditions continue to be met and to determine if the facility continues to be needed by the community. During the three-year review, the Board may set such additional terms and conditions necessary for continued compliance with the Code or determine that operation of the facility shall cease.
2. From April to November, the facility may be open to the public for an 8-hour period between 7:00 a.m. and 6:30 p.m. Monday through Saturday.
3. From December to March, the facility may be open to the public for an 8-hour period between 7:00 a.m. and 6:30 p.m. on Fridays and Saturdays only. The facility may be utilized by county staff only, not open to the public, during the same hours, Monday through Thursday.
4. Operation of the grinder shall occur only between the hours of 8:00 a.m. and 5:00 p.m.

5. If an air curtain burner or similar burning unit is utilized on the site, it may only be operated between 8:00 a.m. and 5:00 p.m., and must be operated within the following parameters:

- a. Nederland Fire Protection District must be allowed to inspect the unit and must be notified at the commencement and cessation of use.
- b. The burner unit must be located at least 500 feet from the nearest occupied structure and at least 100 feet from the edge of the forested area during operation.
- c. Wildfire suppression apparatus must be on site at all times during burner operation.
- d. The burner unit may not be used during red flag warnings or when not exempted during fire restrictions.
- e. An ember screen will be placed on the unit when not in use and at any time that the unit is operated when winds are in excess of 15 miles per hour.

6. The sound levels generated at the facility are acceptable, subject to the limitations on operating hours cited above. A sound level meter shall be used to periodically measure, at each property line, the noise level generated at the facility while the loudest machinery is in use. This information shall be submitted with the application materials at the three-year review.

7. The sort yard shall be limited to a maximum size of three acres, the approximate size of the facility at the time of this approval. If the Applicant intends to expand the facility, Community Planning & Permitting Department staff will need to determine whether the request is a minor or major modification to this review and approval.

8. Maintenance of all aspects of the site must continue as necessary, including but not limited to vegetative screening, the access drive, fencing, and erosion control measures.

9. Upon permanent cessation of this use, site restoration, revegetation, and weed management shall occur as outlined in the application materials to ensure that the facility does not have a long-term negative impact on the land.

10. The Applicant shall be subject to the terms, conditions, and commitments of record in the file for Docket LU-19-0041: Parks and Open Space Forestry Processing and Sort Yard.

**[Signature Page to Follow]**

A motion to approve the Docket was made by Commissioner Matt Jones, seconded by Commissioner Elise Jones, and passed by a 3-0 vote.

**ADOPTED** as a final decision of the Board on this 24th day of March 2020.

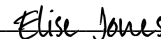
**BOARD OF COUNTY COMMISSIONERS  
OF BOULDER COUNTY:**



\_\_\_\_\_  
Deb Gardner, Chair




\_\_\_\_\_  
Matt Jones, Vice Chair



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Elise Jones, Commissioner

ATTEST:



\_\_\_\_\_  
Clerk to the Board



# Parks and Open Space

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## Limited Impact/Special Review Application Narrative

August 30, 2023

### Ridge Road Community Forestry Sort Yard

#### I. RESOLUTION 2023

Resolution 2009-35, which was approved by the BOCC on February 24, 2009, provides authorization for the creation of a Community Forestry Sort Yard also known as a Forestry Processing Sort Yard:

**A RESOLUTION APPROVING BOULDER COUNTY LAND USE DOCKET #DC-08-003: PROPOSED TEXT AMENDMENTS TO SECTION 4-504 OF THE BOULDER COUNTY LAND USE CODE, TO ADD A NEW FORESTRY USE ENTITLED “FORESTRY PROCESSING AND SORT YARD” (See Appendix A for full language.)**

The Resolution was renewed in 2013, and the Resolution was temporarily (yearly basis) modified in 2014 and 2015 to allow for the storage and processing of slash and biomass material beyond the November yard closure through the May opening. In 2016 the original Resolution through LU Docket 16-0041 was approved by the BOCC along with a formal approval of the time extension of storage and processing with Resolution 2017-42 (**Appendix A**).

#### II. Description of the Need

There is a continued need for forest management and wildfire mitigation projects in Boulder County. Forest managers and communities are actively pursuing wildfire mitigation fuel reduction projects and ecosystem restoration projects in an attempt to increase forest health and reduce susceptibility to stand-replacing wildfires.

Forest management activities have drastically increased the amount of forest biomass that is being removed from forested landscapes. The majority of woody biomass is too small for traditional sawmill operations and/or small-diameter mill locations are too far away to feasibly transport products. In addition to regular biomass disposal problems, bark beetle infested trees have certain disposal requirements to prevent further spread of the beetles. To effectively utilize small diameter material and biomass, collection sites are critical in order to economically sort, dispense, and treat this material. Treating mountain pine beetle infested material can be expensive, labor intensive, and time consuming especially in large quantities. Removal of material offsite is expensive to transport and to dispose.

Boulder County, in an effort to help private landowners dispose of slash and woody biomass, purchased a mobile grinder to increase capacity at the site in 2013. This has allowed us to use the biomass for heating, compost, bio-char, etc. Boulder County no longer owns an air-curtain burner. We had found that the air-curtain burner couldn't meet the demand for the volume of wood coming into these sites. The air curtain burner could also not be used when there were



county burn bans in place, or during conditions outside our standard operating guidelines for environmental conditions. We would however like to keep the air-curtain burner as an option for future use. We regularly grind slash piles to process and remove the material in a very short time-frame, and with minimal restrictions. When grinding slash material we have a 60% reduction of volume which helps decrease transportation costs. A semi-truck can hold up to 120 yd<sup>3</sup> of ground slash and we can grind up to 4 truckloads in a day. Typically, we will grind only two loads to limit the number of grinding days while also minimizing noise disturbance duration for neighbors.

In addition to grinding slash, there is a need to store material and occasionally process this material during the winter months. Usable material from forestry operations can be stored for future use. An example would be the storage of material that can be used in our biomass heating facilities located at the Boulder County Jail and the Open Space and Transportation Complex (OSTC).

### **III. Definition of Woody Biomass Sort Yard/Collection Site**

Community Forestry Sort Yards (CFSY) are designated areas with the goal of improving utilization, quality, and distribution of forest products or efficient disposal of unusable material. These sort yards are primarily for small-diameter material generated from forest management activities on private lands. Material will be sorted and processed for highest current value, including products such as poles, rails, posts, logs, firewood, mulch, or biomass energy. In addition, a major objective for these sort yards is to provide areas to collect post infested trees as well as slash with various approved on-site disposal and mechanical treatment options. These sites were proposed to be temporary, but with increased emphasis by the county on homeowner's forest management, we now propose to keep this CSFY open for the foreseeable future. Equipment that could be utilized on site or in conjunction with the project may include: air curtain burners, mobile biochar unit, grinders, wood chippers, log handling and processing equipment, and transport trucks and trailers.

### **IV. Description of Activities**

#### **A. Approved change in processing material at the site from Resolution 2017-42.**

Currently the CFSY may be open to the public Monday- Saturday from April through November. The hours of operation can be from 7:00am to 6:30pm, the yard can be open to the public for 8 hours within this time frame.

We request to have the flexibility of operating the Nederland CFSY from December through March on a limited schedule of Friday and Saturday only from 7:00am to 6:30pm, of which the yard will be open during eight hours to the public. During the two years after a major fire, insect and disease outbreak, or tree loss event in the Nederland area we would like to have the ability to offer the community these extended drop off times.

Parks and Open Space may need to store woody biomass on site from December through March with the flexibility to process woody biomass Monday- Saturday from 7:00am to 6:30pm. Actual grinder processing is restricted from 8:00am to 5:00pm to minimize noise. This corresponds to fuels reduction projects in the area, where we want to wait and utilize the material for its highest valued use, such as biomass for the heating facilities or fence posts for fence construction. There were modifications to the original LISR document for the 2014 and

2015 to allow this activity. By expanding the non-public hours, Resolution 2017-42 gives flexibility to process material in an efficient manner during this time frame.

Boulder County is also interested in purchasing a mobile biochar unit; this unit would be used to reduce the cost of operations of the CFSY. The mobile unit would convert slash mulch to biochar, which would further reduce the volume and weight, turning the mulch into a product. The biochar will be cooled in the processing units and the final product will be stored in barrels. If Boulder County operates a mobile biochar unit at this yard; the mobile biochar unit would operate under similar guidelines as the Air Curtain Burner (ACB) (See Section H Below), and will follow all federal, state, and county regulations for safety and pollution.

## **B. Description of Site**

The Ridge Road property is 36.32 acres of land (**Appendix B Parcel Report** and **Appendix C Location, Vicinity, and Site-Specific Aerial Maps**) located in SE ¼ of S 12, T1S, R73W, approximately 1 mile NE of the Town of Nederland. Ridge Road is a paved road off of Highway 72. This parcel was obtained through an Intergovernmental Agreement (IGA) between Boulder County and the Town of Nederland as a part of the Mud Lake Open Space acquisition; it was not purchased with open space tax dollars. The site includes an existing industrial use in the form of a bus barn, is across the street from the County Road Maintenance yard, and near the USFS field station, the Nederland Recycling Facility and regional CDOT maintenance facility. There are residences located adjacent to this site, with the closest being approximately 825 feet from the northeast corner of the parcel.

Wildlife Specialists and Resource Planners with the Boulder County Parks and Open Space Department also reviewed the Ridge Road site in 2009 to assess the potential impact of the CFSY on this parcel. The following items were noted in their comments:

- The proposed Ridge Road parcel is at 8,440 feet and is composed of a mixed conifer stand, lodgepole pine (dominant species) and ponderosa pine. It also contains an isolated one-acre patch of aspen located in the middle of the parcel.
- Although there is a human presence on the site (social trails), there are signs of wildlife use; specifically signs of deer, elk, snowshoe hare, coyote and pine squirrel. Additionally, black-capped chickadees, a downy woodpecker, and a northern goshawk were observed. The Ridge Road parcel contains suitable foraging habitat for goshawks and there are known nearby nesting territories. But based on the forest structure and aspect of the site, no suitable areas for a goshawk-nesting stand exist.
- Wildlife habitat at the Ridge Road site is already heavily impacted due to its proximity to permanently developed industrial sites, local homes and subdivisions, and Highway 72. Additionally, the site is directly encircled by roads and surrounded on three sides by privately owned land. Its eastern side borders an isolated, 23-acre parcel of USFS land.
- Under the Boulder County Comprehensive Plan, the Ridge Road site is designated as Open Roadside Corridor (Peak-to-Peak Highway) and contains a small aspen patch and a wetland area that should be avoided. (**Appendix C Comprehensive Plan Map**)
- The topography of the site is relatively flat.
- Moose have now been observed within the site during operations and during closures by the site staff and game/security cameras.

The Community Forestry Sort Yard is located on a maximum of 5 acres (current footprint is under 3 acre) within the Ridge Road property. The site is cleared of vegetation for fire safety and to accommodate adequate vehicular circulation as well as storage of biomass for burning or grinding. During construction, we installed all necessary erosion control structures in accordance with state permits. We have also maintained long-term erosion control measures around portions of the perimeter as dirt berms. We have checked these twice monthly during site operation to assure they are effectively controlling any site run-off. They have effectively controlled site run-off per our observations during and after precipitation events the past few years.

### **C. Road Access and Interior Circulation**

See the Site Plans (**Appendix D**) and the Vicinity and Site-Specific Aerial Maps (**Appendix C**) for the location of the access point that will allow the public to access the site. It is located over 150 feet from the nearest intersection (for the County's road maintenance yard). It is not directly north of that intersection due to the topography of the site.

The site access is aligned perpendicular to Ridge Road for safe ingress and egress. Vegetation has been cleared to accommodate site distance as specified in the Boulder County Road Standards and Specifications for a 25 mph design speed. This work was completed in 2009 and is currently maintained by POS working with the road district. The speed limit on this access road is 10 mph.

There is a concrete apron at the entry that is a minimum of 6 inches thick and 10 feet long that abuts the existing asphalt roadway. This concrete pan allows proper drainage alongside Ridge Road and it has minimized road base migration onto Ridge Road. Beyond the apron, we have stabilized the 40 additional feet of the entry with road base.

We have created and effectively used two natural surface interior circulation routes for small vehicles and large trucks. These routes have adequate turning radiuses, so vehicles can safely and effectively move through the site (**Appendix D**). The native soil on the site is decomposed granite that has good infiltration. The site is relatively flat; however we did grade the circulation routes for proper drainage during construction. This design has worked well the past few seasons with no issues.

### **D. Season and Hours of Operation**

This CFSY may be open to the public Monday- Saturday from April through November. The hours of operation are from 7:00am to 6:30pm, with approximately 8 hours within this time frame the yard is open to the public.

### **E. Signs, Barriers and Traffic Flow**

Boulder County Parks and Open Space (BCPOS), in order to ensure a safe perimeter around an air curtain burner or biochar machine, will provide and maintain all signs and barriers. In the past, barriers have been used around the air curtain burner and other processing areas to keep the public at an established safe distance. Staff also manages public access to maintain a safe environment. Designated drop-off areas are indicated and staff directs people to these to insure an orderly, organized site and facilitate efficiency. In addition, security measures, such as a locked gate and fencing, have been in place to ensure safety and security for people and machinery when sites are closed. The gate has been located at the end of the road base area of the entry to allow safe pull-off from Ridge Road. Fencing links the gate to the forest edge to

prevent cars from circumventing the gate. Boulder County Sheriff's Office deputies and BCPOS Rangers are notified when the site is in use as well as hours of operation and closure in order to facilitate patrol. We have also installed a motion detected security camera at the site. See Site Plan (**Appendix D**) for more detail.

#### **F. Staff**

Employees of, or contractors supervised by, BCPOS are in charge of the site. A minimum of one fully trained site operator is on site during operational hours. Boulder County is responsible for safety, security, operations, logistics, and public interaction.

#### **G. Equipment**

Equipment that could be used on site or in conjunction with the project may include: air curtain burners, mobile biochar units, grinders, wood chippers, log handling and processing equipment, and transport trucks and trailers. If Boulder County operates a mobile biochar unit at this yard, the mobile biochar unit would operate under similar guidelines as the ACB, and will follow all federal, state, and county regulations for safety and pollution.

#### **H. Air Curtain Burner/Mobile Biochar Standard Operating Guidelines**

The Air Curtain Burner (ACB) has been used on site to dispose of wood and slash. The ACB is operated at a distance of at least 500 feet from the nearest occupied structure. The ACB is located at least 100 feet from the forest clearing. Wildland fire suppression apparatus is on site at all times during the operation of the air curtain burner. We have changed the type of apparatus on the site. We have connected to Nederland's water hydrant which allows us to maintain a hose lay around the perimeter with water that is supplied by Nederland. This provides more water to suppress fire if needed and removed the need for a fire engine on site. No ACB operations will take place during red flag days or when not exempted during fire restrictions. The site manager has developed more detailed guidelines for temperature, relative humidity and wind that help guide operations on a daily basis during normal conditions. The ACB will be covered with the ember screen (which prohibits sparks from escaping) when sustained wind speeds reach 15 mph and at the conclusion of each operational period (day). Boulder County no longer owns an ACB, but would like to keep the flexibility of using an ACB.

If a Mobile Biochar piece of equipment is added, it is anticipated that the above guidelines for the ACB will be followed. Procedures and guidelines will be developed prior to use and will follow all federal, state, and county regulations.

#### **I. Excess material**

In the event of excess infested material on site during established MPB flight time, methods other than the ACB may be used such as chippers, grinders, de-barkers, and subsequent transportation off-site to insure that infested material does not reside at the site for more than one (1) operational period. Material that is not infested or under quarantine and meets the sort yard standards for merchantability will be transported off site as needed.

#### **J. Screening and Landscaping**

The site will be no more than 5 acres of cleared land (currently the yard site is under 3 acres), located at least 100 feet from Ridge Road. It has been screened from the road with existing trees about 50 feet in width. This screening buffer has seen some mortality in the lodgepole pine due to mistletoe and insect activity. There are also ponderosa pine and aspen trees within

the buffer. The lodgepole pine will continue to degrade within the buffer, so we would like to manage the buffer to eliminate the lodgepole pine and increase the aspen to replace it. An increase in conditions for successful aspen regeneration will require removal of the canopy of the existing lodgepole within the buffer. Immediately after treatment, we will have a significant reduction in tree density within the buffer, but within 2-5 years, aspen tree density will most likely be higher than the original lodgepole pine density. If we do not manage this buffer, the lodgepole will continue to die leaving many dead hazardous snags to remove. Since the site is currently forested, there is no landscaping plan. Site access from Ridge Road is cleared to meet transportation safety standards, and no additional vegetation will be planted. In our original LISR, we stated “ in the event that mountain pine beetle destroys the trees providing the screening, the County will encourage natural aspen and shrub regeneration to provide the screening benefit”, however the current and expected mortality in the buffer will require management.

#### **K. Buildings**

The County has located a portable shed on site for the site supervisor and staff to escape from dangerous weather, including lightning and snow. The shed also allows staff to store tools and equipment on site and secured. The portable office is a shed, similar in nature to the shelter provided by Land Use at the Recycling Drop-Off facilities in the County. A drawing with measurements of the portable shed is found in **Appendix E**. The portable shed is on skids to facilitate moving the building. Parks and Open Space submitted and received an additional building permit for this portable shed in 2009.

#### **L. Noise**

By locating the operation within the forest with a 100 foot buffer from Ridge Road to the south and the bus barn, and a much greater distance from the east and north sides of the property, we will be using the existing vegetation to buffer noise. Our observations over the past few seasons verify that noise has been kept to a minimum. We have included a map with data points where sound was collected, a table that provides the data from each point and a chart that shows average sounds. These are included in **Appendix F**. The data was collected during grinding operations with different types of grinders on site at different distances and locations from the actual operation. This data represents the worst-case scenario, as regular day to day operations do not create the sound that is generated during grinding operations.

#### **M. Site Use and Trips per Day**

There is one access point that serves as ingress and egress to the site. All trees and shrubs are removed, and the entry is compacted for an all-weather surface. That number of trips was about 50 per day average, and we have been over 40 for the past two years. The traffic summary in **Appendix G** has the traffic counts per year for 2019 through 2022. **Appendix H** has the origin of material maps from 2019 through 2022.

#### **N. Electricity, Restrooms and Water**

In the original LISR, we did not anticipate the need for electricity. We recognized that electricity was needed for computers, telephone connections and lights. We put in one line on one power pole to give us better lighting at night to discourage illegal dumping. We do not have running water or restrooms on the site, and will not install either. We have been putting a port-o-potty on site for staff to use for restrooms. This allows staff to stay on site during operations. This service has included regularly scheduled cleanings. We still have access to the county transportation shop across the street for restrooms as an additional measure if

needed. We did improve the fire suppression capability with the addition of City of Nederland water at the hydrant. We were able to change the the security light to low emissions.

**O. Emergency Response**

In the event of an emergency, we will rely on the Town of Nederland Police and the Nederland Fire Department. BCPOS has a ranger stationed as a caretaker at Caribou Ranch therefore her services will also be available through dispatch. This site is located only 1 mile from the Town of Nederland and is easily accessible for emergency response. We also jointly manage fire on open space with the sheriff’s office. The joint program has a Fire Management Officer (FMO) and associated initial and extended attack crew that responds to fire incidents on open space. We would work jointly with Nederland Fire Protection District for initial attack operations, and would have the Sheriff’s Office manage an extended attack.

**Q. Training**

Due to the continued success of the site, we have received increased requests to hold forest and fire related trainings and/or meetings at the site. Trainings and meetings have been tailored to the private landowner and community to help educate them on actions landowners can take on their properties. Anticipated future trainings include tree felling and removal, slash management techniques, mistletoe management, forest and fire field inventories, etc. These would most likely be joint trainings with agencies such as the Colorado State Forest Service (CSFS), Boulder County Land Use, and the Boulder County Sheriff’s Office. We would like to continue to hold these types of events when needed, even if it is outside the yard’s normal operating schedule (although within the approved 7:00am to 6:30pm window).

**R. Site Restoration**

At the end of the specified use of the site as a Community Forestry Sort Yard, Boulder County Parks and Open Space will reclaim the site. The compacted soil will be ripped to relieve the compaction. Soil amendments may be added if needed. The area will be reseeded using the following seed mix and BCPOS will manage noxious weeds on the site.

<b>Ridge Road Community Forestry Sort Yard Site Seed Mix</b>				
<b>Common Name</b>	<b>Latin name</b>	<b>Variety</b>	<b>% of mix</b>	<b>PLS/Acre</b>
Canada Wildrye	<i>Elymus canadensis</i>	VNS	15	3.40
Squirrel Tail	<i>Elymus elymoides</i>	VNS	25	3.41
Thickspike Wheatgrass	<i>Elymus lanceolatus</i>	Critana	11	1.87
Slender Wheatgrass	<i>Elymus trachycaulus</i>	San Luis	11	1.81
Rocky Mtn. Fescue	<i>Festuca saximontana</i>	VNS	11	0.22
Junegrass	<i>Koeleria macrantha</i>	Native	15	0.17
Yarrow	<i>Achillea millefolium</i>	Mud Lake Collection*	3	0.03
Fringed Sage	<i>Artemesia frigida</i>	VNS	4	0.02
Lousiana Sage	<i>Artemesia ludoviciana</i>	VNS	2	0.01
Sulphur Flower	<i>Eriogonum umbellatum</i>	Mud Lake Collection*	3	0.37
<b>Totals</b>			<b>100.00</b>	<b>11.31</b>
<b>Rate is for drilled seed. Double rate for broadcast.</b>				
<b>*Denotes seed from BCPOS/WRV seed collections.</b>				

After seeding, the site will be mulched to provide moisture retention for improved seed germination. Boulder County POS will manage for weeds annually on the site for 5 years after reseeding and as needed thereafter.

**Attachments:**

Appendix A – Resolution 2009-35 and Resolution 2020-26

Appendix B – Parcel Report

Appendix C – Vicinity, Location, Site-Specific Aerial, and Comprehensive Plan Maps

Appendix D – Site Plans/Grinding Operations or ACB/Biochar Operations

Appendix E – Shed Building Plan

Appendix F – Sound Data and Map

Appendix G – Traffic Data and Report

Appendix H – Maps of Sort Yard User Material Origination



# Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
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## BOARD OF COUNTY COMMISSIONERS

### AGENDA ITEM

August 4, 2009 – 4:30 PM

Hearing Room, Third Floor, County Courthouse, Boulder

#### PUBLIC HEARING

STAFF PLANNER: Hannah Hippely

**Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard  
Limited Impact Special Review**

Request: A Limited Impact Special Review for a Forestry Processing and Sort Yard.

Location: At 291 Ridge Road, north of and adjacent to Ridge Road approximately 0.15 miles east of Highway 72 (Peak to Peak Highway) in the SE1/4 of Section 12, Township 1S, Range 73W.

Zoning: Forestry (F)

Applicant: Therese Glowacki, Boulder County Parks and Open Space

#### RECOMMENDATION:

Staff recommends approval, subject to conditions.

#### DISCUSSION:

The forests of Boulder County require routine forest management and wildfire mitigation projects to support forest health and reduce wildfire hazard; however, the tree mortality resulting from the current Mountain Pine Beetle epidemic has increased the need for forest management activities. This activity has resulted in a dramatic increase in the amount of woody biomass that is being removed from forested landscapes. The majority of this biomass is not suitable for sawmills and/or the small diameter sawmills are too far away to transport the material to. Additionally, infested trees require certain disposal methods to help reduce the spread of the beetles. In an effort to aid landowners in their forest management efforts, Boulder County has purchased an air curtain burner (ACB) to dispose of biomass materials that, once removed from a property, are otherwise difficult for residents to dispose of.

This application proposes a Forestry Processing and Sort Yard use under Section 4-504.B of the County Land Use Code, in order to locate the ACB and its associated activities at a close enough proximity that the forest management efforts of Boulder County residents may be supported. The Ridge Road property is 36.32-acre parcel owned by Boulder County; the Applicant indicates that a maximum of five acres may be cleared for the proposed use. The initial size of the clearing is expected to be approximately 2.5 acres; however, if demand requires a larger clearing for the facility,



Boulder County parks and Open Space would like the ability to expand the clearing to five acres. Access to the facility will be from Ridge Road and according to the application materials, the access will be improved with a ten foot long concrete pan and forty feet of compacted road base. Internal one way circulation routes will be created for small and large trucks; the Applicant has estimated that 340 cubic yards of grading will be necessary to create the internal roads. As shown on the site plan, occupying the western portion of the site, drop off areas will be designated within the subject property beside the internal roads. The eastern portion of the clearing is where the sorting and processing activities will take place.

The eastern portion of the clearing is where the air curtain burner, dumpster, kiln, and portable pond will be located, as shown on the site plan. The air curtain burner is used for treatment of beetle infested wood by incinerating the biomass in a firebox. The firebox has a curtain of air that is blown across the opening at the top at high velocity, this air curtain traps burned particles in the firebox where they are reburned resulting in little emissions and a high level of mass reduction. The application materials estimate that 100 tons of wood results in two to five tons of ash. The ash resulting from the incineration will be stored in the dumpster until it is removed. It is expected that much of this ash will be reused by local recyclers/landscapers as a soil amendment. The kiln will allow beetle infested wood to be heat treated and sanitized so that it may be reused as firewood. The portable pond serves as a cistern to which a pump and hose are attached; this provides the necessary on-site wildland fire suppression and prevention measure. Chippers, grinders, and debarkers will also be used on the site as they are needed to process wood. These methods for sanitization will be used in instances when the volume of wood being dropped off at the yard exceeds the air curtain burner's capability to process material, or when the air curtain burner is not able to be used; the air curtain burner will be the primary method for treating slash and beetle infested wood. The alternative methods (chipping and/or grinding) may also be used when there is a demand for the resulting biomass product.

Currently, the forests of Boulder County are experiencing beetle infestations of both the Mountain Pine Beetle and the Ips Beetle. The Mountain Pine Beetle flight period is from approximately July 15 to September 15<sup>th</sup>; and the proposed facility will not be accepting wood infested with Mountain Pine Beetles during this time. Additionally, all the Mountain Pine Beetle infested wood dropped off at the site prior to July 15<sup>th</sup> will be sanitized before beetle flight time begins. The facility will not store, process, or accept Mountain Pine Beetle infested wood during Mountain Pine Beetle flight time. The application materials indicate that this policy could change in the face of a Mountain Pine Beetle epidemic so widespread where the movement of infested wood to the site during beetle flight time would not increase the spread of Mountain Pine Beetle and so would not exacerbate the epidemic. Ips beetle infested wood will still be accepted and processed at the site during the Mountain Pine Beetle flight time. As the application materials note that pheromone traps used at the Meeker Park sort yard have been successful in preventing the spread of the Ips Beetle to the surrounding forests.

The Applicant proposes that the facility operate from April through November, six days (Monday to Saturday) per week from 7:30 am to 6:00 pm. Within this time span the facility will be open to the public for eight hours. A minimum of one employee will staff the facility. A temporary shelter/office for the facility staff may be provided (this is identified on the site plan as a shed). The Applicant indicates that once the facility is no longer needed, Parks and Open Space will remove the structure and reclaim the site by revegetating the disturbed areas.

#### **REFERRAL RESPONSES:**

This docket was referred to the standard list of agencies, and all adjacent property owners within 1,500 feet of the subject property. Copies of the comments received are attached for review and summarized below.

Boulder County Public Health- The agency has reviewed the proposal and noted: that no drinking water is proposed for the site, that restroom facilities at the County Road Maintenance facility are proposed for use by the staff, and that an Air Pollution Emission Notice (APEN) that must be obtained from the State.

Boulder County Parks and Open Space (BCPOS)- The agency has reviewed the proposal and provided a number of comments: noting the Open Corridor Roadside Comprehensive Plan designation and other resource inventories, identified the other uses in the area; noted that the significant features of the property, the aspen stand area and the social trails, would remain undisturbed by the project; pointed out that the Open Roadside Corridor designation is not associated with Ridge Road, but with Peak to Peak Highway and that the project would not be visible from Peak to Peak Highway; noted that the on-going beetle epidemic could change the entire landscape in the vicinity of the facility.

Boulder County Transportation Department- The agency reviewed the proposal and provided the following comments: an access permit will be issued during the building permit process; a Stormwater Discharge Permit will need to be obtained from the State and a copy of the stormwater management plan sent to Boulder County; the driveway and access shall conform to Boulder County Road Standards and Specifications; the locations of the roads on site are ideal given that they minimize the amount of grading necessary for the project as they are proposed in areas with relatively flat grades and the proposed location of the facility on the site minimized the length of the driveway and thus the disturbance associated with the installation of the driveway; the traffic projected and summarized in the traffic review letter is acceptable for Ridge Road. Due to limited historical data associated with such a use this department is requesting traffic reporting and a review of the data to be performed in one year to determine if any road and/or site changes are necessary.

Boulder County Wildfire Coordinator- The proposal was reviewed and comments were provided that indicated no conflict, and noted that driveway improvements and the location of a portable cistern of approximately 3,000 gallons would be required.

Boulder County Building Division- The proposal was reviewed and comments were provided that indicated no conflict with the proposal.

Boulder County Sheriff's Office- The proposal was reviewed and comments were provided that indicated no conflict with the proposal.

US Forest Service- The agency reviewed the proposal and provided comments applauding the efforts of Boulder County to provide such a facility and noted that the facility will provide a great benefit to mountain residents. Indicated that they believe that any concerns that may exist could be addressed with Parks and Open Space in the future should the issue arise.

Adjacent Property Owners – One property owner noted support for the facility, stating the need for the facility and that the facility is for the good of the County. Nine letters were received voicing concerns regarding the sort yard. The concerns expressed in these letters relate to: noise, truck traffic on Ridge Road and Hurricane Hill east of the facility, the length of time the facility may be located on the site, the amount of time during the year that it is in operation, daily hours of operation, possible noise and air pollution, fire hazard, operation of the site during beetle flight time, questions regarding the wind speed on the site and the feasibility of operating the ACB with the existing wind conditions. One APO expressed a desire for the County to cut and dispose of infested trees located on the subject parcel, another APO suggested moving the site to the west more so that it was closer to the bus barn and requested that the site stay at the 2.5 acre size.

## **REVIEW STANDARDS:**

Staff has reviewed this application with respect to the criteria of Article 4-601.A of the Boulder County Land Use Code for Limited Impact Special Review that states: **a use will be permitted by special review only if the Board finds that the proposed use meets the following standards and conditions:**

1. **except as otherwise noted, the use will comply with the minimum zoning requirements of the zoning district in which the use is to be established, and will also comply with all other applicable requirements;**

The subject parcel is 36.32 acres and therefore meets the minimum parcel size in the Forestry zone district. The current request proposes no changes to the boundaries of the Boulder County Open Space property. The shelter/office is the only structure proposed for the property and it will be required to obtain a building permit and to comply with all setback and height regulations of the Forestry zone district.

A Forestry Processing and Sort Yard use is allowed in the Forestry zone district by approval of a Limited Impact Special Review. Additional Provisions of the Land Use Code relating to Forestry Processing and Sort Yards (Article 4-504.B.5) were adopted when the Forestry Processing and Sort Yard use was recently added to the County Land Use Code. These additional Provisions include:

- a. **The minimum parcel size shall be 3 acres.**

As previously mentioned the subject parcel is 36.2 acres and therefore meets this requirement.

- b. **All activities, except driveways, shall be setback a minimum of 50 feet from any adjacent right-of-way or private property.**

The site plan provided by the Applicant indicates that the activities will be setback the required 50 feet. As a condition of approval, the applicant is required to abide by this commitment.

- c. **This use is not required to be located on a building lot, or comply with the minimum lot size requirements for the district in which it is located.**

Although, this use does not require a legal building lot, the subject parcel is larger than 35 acres and is a legal building lot.

- d. **Times and frequencies of operation shall be determined through limited impact special review.**

The proposed times and frequency of operation of the facility as proposed by the Parks and Open Space Department is acceptable. The hours and frequency of operation are similar to hours of operation of the adjacent facilities.

- e. **All approved facilities shall be reviewed by the Board of County Commissioners every three years to ensure continued compliance with the special use criteria.**

Condition of Approval 9 requires that “this facility shall be reviewed by the Board of County Commissioners in three years in order to determine if the Special Use Criteria continue to be met and to determine if the facility continues to be needed by the community.”

- f. Access to the site shall be secured so that unauthorized persons may not use the facility when it is closed.**

The Applicant has proposed to install a fence that will prevent access to the facility so that it may not be used by unauthorized persons when it is closed. As a Condition of Approval the fence is required to be installed prior to the facility beginning operations.

- g. Upon permanent cessation of this use, the disturbed area must be reclaimed and revegetated.**

The Applicants have proposed to reclaim and revegetate the property upon cessation of the use and this commitment has been included as a Condition of Approval.

- h. These facilities shall not be the final disposal place for woody biomass materials and shall promote the recycling of all received materials to the maximum extent possible.**

To ensure the facility does not become the final disposal place for woody biomass, as a Condition of Approval all biomass is required to be removed from the property at the end of an operational season, the last day of November.

Staff has determined that the applicable additional requirements of the zoning code can be satisfied.

- 2. will be in harmony with the character of the neighborhood and compatible with the surrounding area;**

Land uses along Ridge Road in the vicinity of the site include the Boulder County Road Maintenance facility and recycling center to the south, a CDOT maintenance facility and a US Forest Service work center to the southeast, vacant US Forest Service land to the east, and the Boulder Valley School District’s bus barn to the west. Staff finds that the proposed use will be in harmony with and compatible with these adjacent public uses. The Additional Provisions of the Land Use Code relating to Forestry Processing and Sort Yards (Article 4-504.B.5) require that such facilities be reviewed every three years.

- 3. will be in accordance with the Comprehensive Plan;**

The parcel under consideration has the Open Corridor Roadside Comprehensive Plan designation. This designation is associated with the Peak to Peak Highway, not Ridge Road. The facility would not be visible from Peak to Peak Highway.

Goal E.6 of the Boulder County Comprehensive Plan states “adequate facilities to assure the health safety, and welfare of all citizens should be promoted.” The current forest management crisis facing landowners in the mountains of Boulder County has created a need for the proposed forestry processing and sort yard. Forest managers are actively pursuing wildfire mitigation fuel reduction projects and ecosystem restoration projects in an attempt to increase forest health and reduce susceptibility to stand replacing wildfires. The creation of the proposed ‘yard’ will assure that Boulder County is promoting the health safety, and

welfare of all citizens by facilitating the efforts of landowners to manage the consequences and mitigate the health and safety impacts of the ongoing beetle epidemics.

**4. will not result in an over-intensive use of land or excessive depletion of natural resources;**

No agency referral responses have indicated that this project would be considered an over-intensive use of the land or excessive depletion of natural resources. At a maximum, the facility would occupy five acres of the (approximately) 36-acre property. A single structure is proposed, which would be removed when the facility ceases to exist. The amount of earthwork being proposed has been minimized by locating the facility in the flattest area of the site. Once the site is reclaimed and revegetated, the mid-term impact would be a loss of trees in the area where the facility once was, over time, this area will regain its stand of trees as it is reseeded from the surrounding forest. The referral from Parks and Open Space dated June 23, 2009 states "a pure stand of lodgepole is the least diverse and the least important wildlife community type in the montane zone of the mountains." From this statement staff has concluded that the clearing of trees necessary for the facility is not an excessive depletion of natural resources. Recommended Conditions of Approval regarding site restoration and revegetation would ensure that the facility does not have a long term negative impact on the land. Additionally, staff is recommending that the same pheromone traps used at the Meeker Park Sort yard be used at the Ridge Road Sort Yard to prevent the Ips Beetle from impacting the adjacent forests.

**5. will not have a material adverse effect on community capital improvement programs;**

No publicly funded improvements will be required by the proposal. No referral response received by staff indicates any adverse effects on community capital facility programs in the area.

**6. will not require a level of community facilities and services greater than that which is available;**

No service provider indicated any increases in community facilities would be required as a result of this proposal. Fire protection facilities will be provided on site; no referral response was received from the Nederland Fire Protection District.

**7. will not result in undue traffic congestion or traffic hazards;**

Anticipated traffic to the site is estimated to be 100 trips per day (50 vehicles entering and 50 exiting). The majority of this traffic is expected to be personal trucks or SUVs, perhaps some pulling a trailer. Large semi-truck traffic is expected to average less than six trips per week. An access point from Ridge Road will be constructed; as a condition of approval this access point shall meet all applicable Boulder County Road Standards. Once a vehicle has entered the site, a one way circular drive provides access to the drop off area and the exit. For large trucks, a separate internal road provides access to pick up and drop off materials and provides the proper turning radii necessary for safe operations. The referral response received from the Transportation Department noted that the interior circulation roads were ideally located for minimizing grading and the length of the driveway.

Transportation staff also noted that the projected trip generation level of the sort yard is acceptable for Ridge Road. Given that the sort yard is a new use with limited historical traffic data the Transportation Department has requested that a log detailing the total trips to

and from the site as well as turning movement counts at the access be kept. The data is to be collected each week on the three busiest consecutive days of the week. After one operational season, the Transportation Department will be provided a report of the information and will review the counts to determine if any road and/or site changes are necessary. As a recommended condition of approval the required road or site changes must be completed prior to operation of the facility the subsequent year.

As the impact of the beetle epidemics are more fully realized, the use of this facility could increase and traffic counts for the first year may not accurately describe the traffic that will be associated with the facility at the three-year mark. In order to have an understanding of the level of use of the facility (both in terms of its current use but also in terms of how the level of use may change over time) and its associated traffic impacts at the required three-year review, the Land Use Department is requiring that a traffic counting scheme be required for the full three years rather than a single year. After the first season of following the counting scheme recommended by the Transportation Department the applicant would be required to track the number of vehicles accessing the site on a daily basis and provide this information to the Land Use Department at the end of each season.

**8. will not cause significant air, odor, water, or noise pollution;**

No agency referral responses have indicated that the proposal represents a significant source of air pollution. The Applicant has noted that the air curtain burner meets the EPA regulations and is subject to all the rules and regulations of the Colorado Air Quality Control Commission and the Colorado Air Pollution Prevention and Control Act. Additionally, the Federal and State regulations, as implemented through permitting and monitoring processes are designed to ensure that significant air pollution does not occur. A temporary emissions permit from the State of Colorado Department of Public Health and Environment for the air curtain burner has been obtained and the final permit is expected to be issued in the fall of 2009. Compliance with such permits is often monitored by the County Public Health and may include onsite testing.

It is likely that the operation of the facility would emit odors associated with wood burning, but no referral responses or adjacent property owners raised concerns regarding possible odors.

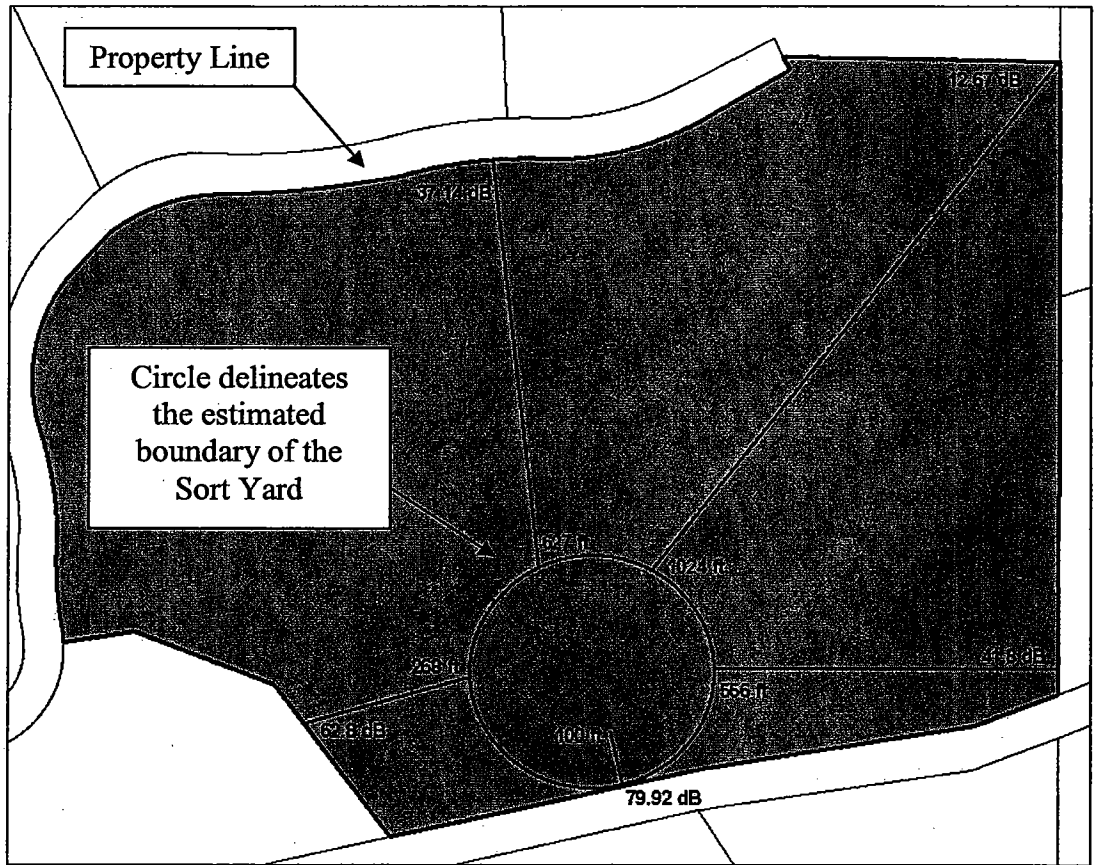
The addition of the facility to the proposed site and the use of the machinery associated with the facility will generate noise. Based on the application materials provided, the machinery proposed to be used on site and the associate decibel levels are as follows:

- Morbark 18" Chipper 250 HP Engine – 80 dB rating measured at 50 feet
- Vermeer 2100XL (20") Chipper 150-175 HP Engine – 99.2 dB rating measured at 0 feet
- Vermeer HG6000 Horizontal Grinder 630 HP Engine - 105 dB rating measured at 10 feet
- Air Curtain Burner 59HP Engine – 88 dB rating measured at 10 feet

Boulder County Parks and Open Space staff provided a methodology to determine how distance and the tree buffer may aid noise reduction. Distance alone will provide noise reduction as the energy of a sound wave decreases as it spreads out leading to lesser intensity of sound at a distance. An online calculator which took into account the inverse square law (intensity of sound lessens by the inverse square of the distance from the source) and the exponential dampening of sound that occurs over large distances (source:

<http://www.numericalexample.com/index.php?view=article&id=18>) was used to calculate the decibel level of the loudest piece of machinery (the grinder) at the property line. Additionally the information provided by Parks and Open Space indicated that a tree buffer may provide five to eight dB reduction per 100 feet of tree buffer. Using the conservative number of five, the additional reduction was subtracted from the previous result to provide an estimate of the dB level of the loudest piece of machinery at the property line. Five measurements were made from the edge of the area that the facility would occupy to the property line, and the calculation explained above was performed for each distance measurement. Figure 1 below indicates where the measurements were made on the property and provides the result of the calculations described. The calculation results are also summarized in Table 1.

**FIGURE 1: Measurement Locations and Results of Calculations**



**TABLE 1: Calculation Results**

<b>Distance (ft.)</b>	<b>dB at Property Line Due to Distance</b>	<b>dB Reduction Due to Tree Buffer</b>	<b>dB at Property Line Due to Distance and Tree Buffer</b>
627	68.49	31.35	37.14
268	76.2	13.4	62.8
100	84.92	5	79.92
556	69.6	27.8	41.8
1024	63.87	51.2	12.67

The Boulder County Noise Ordinance (ORDINANCE NO. 92-28) Section 1.01.050.C states “sound from a non-vehicular source located in a residential area, shall not exceed the following limits: 7:00 a.m.-7 p.m. of the same day: 55 dB(A), 7:00 p.m.-7 a.m. of the following day: 50 dB(A).” While the Noise Ordinance does not per se apply to this property or use, as the area of Ridge Road in which the facility being proposed is not a residential area as defined by the Noise Ordinance, it does provide a reference point for determining if the noise generated at the facility would be considered substantial noise pollution. The noise generated by the loudest equipment that may be used on the site exceeds 50 dB at the property line in two instances: at the western and southern property lines, where it is estimated to be 62.7 and 79.92 dB respectively. According to the materials provided by the Applicant these noise levels fall within the range of the sound level of a normal conversation 60-70 dB and the 80dB of a telephone dial tone. The area of Ridge Road in which the facility being proposed is not a residential area as defined by the Noise Ordinance; the nearest residence lies over 1,000 feet north of the proposed facility where the estimated dB is well within acceptable levels for a residential area and the uses along Ridge Road in the vicinity are not residential uses. The analysis described above indicates that the proposed facility would not create substantial noise pollution. Additionally, the use proposed is not adding noise to into an environment where there is little existing ambient noise; the surrounding uses all produce a level of ambient noise. In order to have complete information on the noise level generated at the facility for the three-year review the Land Use Department is recommending that as a Condition of Approval, a sound level meter be used to measure, at each property line, the noise level generated at the facility while the loudest machinery is in use.

To avoid impacts to water quality that could result from construction activities, appropriate stormwater management practices will be implemented. The applicant will obtain a Stormwater Discharge Permit and as a condition of approval, a copy of the stormwater management plan will be provided to the County Transportation Department. The application materials indicate that the installed erosion and sedimentation control device will be maintained throughout the life of the facility.

Staff has determined that this criterion is met; the proposed facility will not cause significant air, odor, water, or noise pollution.

**9. will not require amendment to the Regional Clean Water Plan;**

Staff finds that the proposal will not require amendment to the Regional Clean Water Plan.



**10. will be adequately landscaped, buffered, and screened; and**

The facility is proposed to be setback from Ridge Road a minimum of fifty feet. Also, the existing forest will provide adequate screening from Ridge Road and adjacent properties. Should the Mountain Pine Beetle epidemic destroy the existing tree screening, the Applicant has committed to establishing and maintaining a tree screen.

**11. will not otherwise be detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County.**

The Applicant has proposed to locate wildland fire suppression measures at the facility, should the need arise. The application materials did not indicate the size of the portable pond; however, the referral response from the Wildfire Mitigation Coordinator indicated that an approximately 3,000 gallon pond should be provided; this has been included as a Condition of Approval. The application materials also commit the operators of the site to using the ember screen during periods of sustained 15 mph winds and at the end of each day. The ember screen prevents embers from escaping the air curtain burner and also prevents additional material from being loaded into the air curtain burner. The inability to place more wood on the fire in the air curtain burner effectively means that the fire in the burner begins to burn out once the ember screen is put in place.

The proposal will not be detrimental to the health, safety, or welfare of present or future inhabitants of Boulder County; rather, it will facilitate the residents of Boulder County efforts to secure their health, safety, and welfare in the face of the current beetle epidemics.

**SUMMARY/RECOMMENDATION: As noted in the analysis above, staff finds that this proposal can satisfy the required criteria. The Land Use Staff recommends the Board of County Commissioners CONDITIONALLY APPROVE, Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard Limited Impact Special Review, subject to the following conditions:**

1. The Applicant shall obtain the necessary grading and building permits from the Boulder County Land Use Department prior to the commencement of any construction activities.
2. Prior to the issuance of a grading permit, the Applicant shall submit a copy of the Stormwater Discharge Permit and stormwater management plan to the Land Use and Transportation Departments.
3. The proposed driveway and access shall conform to Section 4.5 and Standard Drawings 5, 12, 14, and 15 of the Boulder County Road Standards and Specifications.
4. At the end of the first operational season, the applicant shall provide the Land Use and Transportation Departments with a report detailing the total trips to and from the site as well as turning movement counts at the access. The data shall be collected each week on the three busiest consecutive days of the week. This information will be reviewed to determine if additional road and/or site changes are necessary. Any recommended road or site changes shall be made prior to operation of the facility the following season.
5. During the second and third year of operation, the applicant shall collect daily data on the number of vehicles accessing the site. This information shall be provided to the Land Use Department at the end of each seasonal operating period.

6. As estimated, the sound levels generated at the facility are acceptable however; a sound level meter shall be used to measure, at each property line, the noise level generated at the facility while the loudest machinery is in use. This information shall be submitted with the application materials at the three year –review.
7. Site restoration, revegetation, and weed management shall occur as outlined in the application materials to ensure that the facility does not have a long term negative impact on the land.
8. Pheromone traps shall be used at the Ridge Road Sort Yard to prevent the Ips Beetle from impacting the adjacent forests.
9. The Applicant shall install a portable pond of approximately 3,000 gallons as required by Wildfire Mitigation Coordinator.
10. The proposed fencing shall be installed prior to facility commencing operations.
11. All woody biomass collected at the facility shall be removed from the property at the end of each operational season, the last day of November.
12. The Applicant shall be subject to the terms, conditions, and commitments of record in the official docket file, including but not limited to the maintenance of tree screening, the use of the ember screen during windy conditions, and adherence to months and daily hours of operation.
13. This facility is approved for operation for three years (2009, 2010, and 2011 operating season). Prior to any use of the facility beyond the 2011 operating season, the facility shall be reviewed and approved through the Limited Impact Special Review process, to determine if the Special Use Criteria (Article 4-601.A) continue to be met and to determine if the facility continues to be needed by the community.

# Land Use Department Pre-Application Location Map



This map is for informational purposes only and, in itself, does not indicate whether property will conflict with any Comprehensive Plan or Environmental Resources. Review processes may also reveal environmental resources not found on County maps.

## Legend

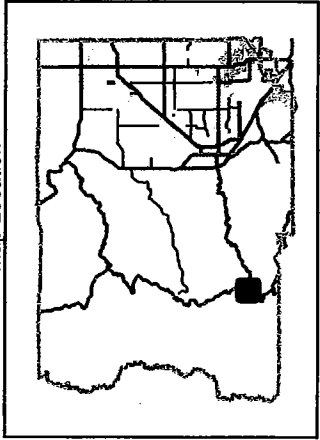
- Archeologically Sensitive Travel Routes
- Municipalities
- Archeologically Sensitive Areas
- Open Corridors, Roadside
- Open Corridors, Streamside
- Overland Habitat Connectors
- Stream Habitat Connectors
- Significant Riparian Corridors
- Critical Wildlife Habitats
- Rare Plant Areas
- Floodplain - FO Zoning District
- Environmental Conservation Areas
- Natural Landmarks and Areas
- Significant Natural Communities
- Significant Agricultural Lands
- National Importance
- Statewide Importance
- Local Importance



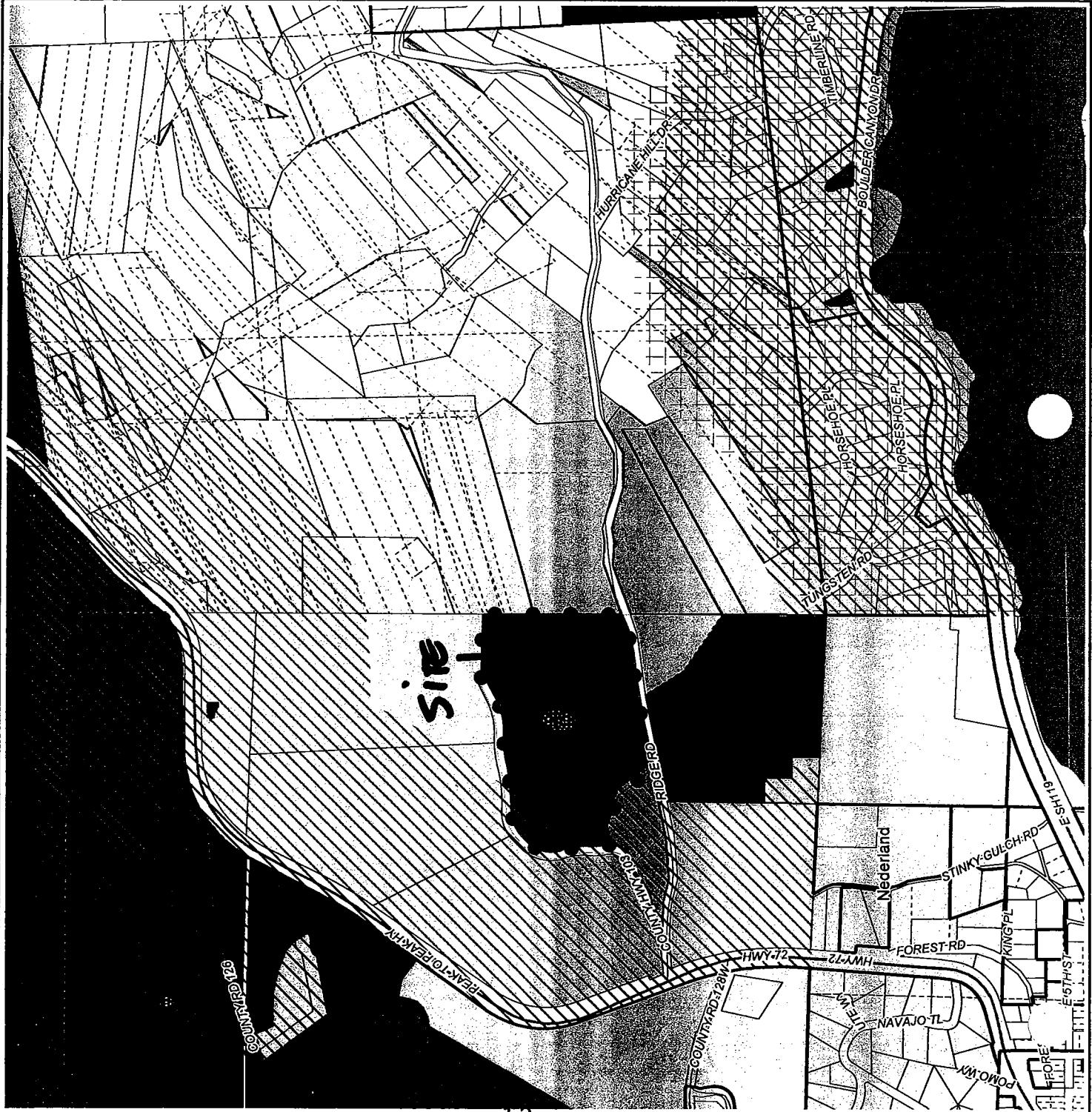
Feet

0 940 1,880

Map Location



This map is for illustrative purposes only, and is not suitable for parcel-specific decision making. The areas depicted here are approximate. More site-specific studies may be required to draw accurate conclusions.  
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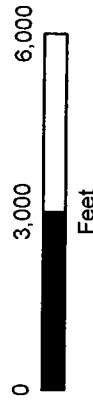
# Land Use Department Pre-Application Vicinity Map



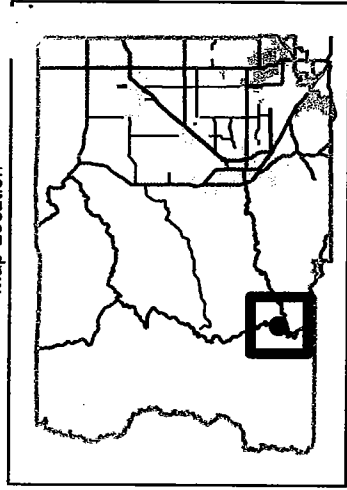
This map is for informational purposes only and, in itself, does not indicate whether property will conflict with any Comprehensive Plan or Environmental Resources. Review processes may also reveal environmental resources not found on County maps.

## Legend

- |  |                               |  |                    |
|--|-------------------------------|--|--------------------|
|  | <b>Open Space</b>             |  | <b>Subdivision</b> |
|  | <b>Federal</b>                |  | <b>Lots</b>        |
|  | <b>State</b>                  |  | <b>Nu.</b>         |
|  | <b>Local</b>                  |  |                    |
|  | <b>Conservation Easements</b> |  |                    |
|  | <b>Gravel resources</b>       |  |                    |
|  | <b>Utilities and other</b>    |  |                    |
|  | <b>FO Zoning District</b>     |  |                    |



Map Location



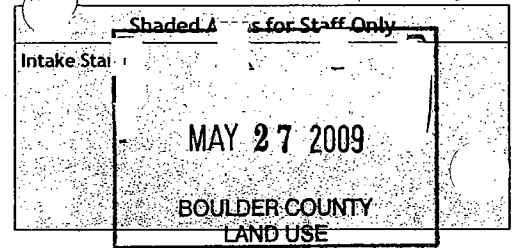
This map is for illustrative purposes only, and is not suitable for parcel-specific decision making. The areas depicted here are approximate. More site-specific studies may be required to draw accurate conclusions.

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# Boulder County Land Use Department

Courthouse Annex Building  
 2045 13th Street • PO Box 471  
 Boulder, Colorado 80302  
 Phone: 303-441-3930 • Fax: 303-441-4856  
 Email: planner@bouldercounty.org •  
 http://www.bouldercounty.org/lu/  
 Office Hours: Monday – Friday 8:00 AM to 4:30 PM



## Application Form

Project Number <b>LU-09-0010</b>		Project Name	
* No Application Deadline	* Application Deadline: First Wednesday of the Month	* Application Deadline: Second Wednesday of the Month	
<input checked="" type="checkbox"/> Limited Impact Special Use <input type="checkbox"/> Limited Impact Special Use Waiver <input type="checkbox"/> Site Plan Review <input type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> Exemption Plat <input type="checkbox"/> 1041 State Interest Review <input type="checkbox"/> Other: _____	<input type="checkbox"/> Variance <input type="checkbox"/> Appeal	<input type="checkbox"/> Sketch Plan <input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Final Plat <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Special Use/SSDP	<input type="checkbox"/> Rezoning <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Location and Extent <input type="checkbox"/> Road Name Change
Location(s)/Street Address(es) <b>Ridge Road Open Space County Road 128e Parcel # 158312000003</b>			
Subdivision Name <b>Tr, nbr 901 Nederland Area</b>			
Lot(s)	Block(s)	Section(s) <b>12</b>	Township(s) <b>1S</b>
Area in Acres <b>36</b>	Existing Zoning	Existing Use of Property <b>Open space</b>	Range(s) <b>73</b>
Proposed Water Supply <b>N/A</b>	Proposed Sewage Disposal Method <b>portable toilet</b>		

### Applicants:

Applicant/Property Owner <b>County of Boulder</b>		Email Address <b>tglowacki@bouldercounty.org</b>	
Mailing Address <b>5201 St. Urain Road</b>			
City <b>Longmont</b>	State <b>CO</b>	Zip Code <b>80503</b>	Phone <b>303 678-6206</b>
Applicant/Property Owner/Agent/Consultant		Email Address	
Mailing Address			
City	State	Zip Code	Fax
Agent/Consultant		Email Address	
Mailing Address			
City	State	Zip Code	Fax

### Certification: (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

All landowners are required to sign application. If additional space is needed attach additional sheet signed and dated.

Signature of Property Owner <b>Ronald Stewart, Dir POS</b>	Date <b>5/26/09</b>	Signature of Property Owner	Date
Other Signature	Date	Other Signature	Date

\* Only if the Land Use Director waives the landowner signature requirement for good cause shown under the applicable provisions of the Land Use Code.

# Site Plan Review Waiver Fact Sheet

The applicant(s) is/are required to complete each section of this Fact Sheet is required to be completed, even if the information is duplicated elsewhere in the application. Completed Fact Sheets cut application review time, and assist staff in expediting determinations. Please make duplicates of this page if the project involves more than two structures. Please note: If a project is granted a SPR Waiver but the building permit floor area calculations result in new floor area exceeding 2,000 sq.ft., then the project will trigger a full SPR prior to issuance of a building permit.

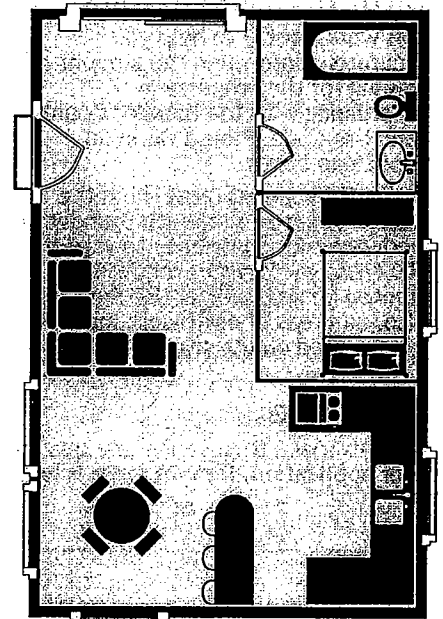
<b>Project Identification:</b>	
Project Name:	Community Forest Soil Yard
Property Address/Location:	CR 128 e Ridge Rd. Need
Current Owner:	Boulder County
Size of Property in Acres:	36 ac

## Structure #1 Information

Type of Structure: (e.g. residence, studio, barn, etc.)					
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)			sq. ft.	Demolish:	sq. ft.
Are new floor areas being proposed where demolition will occur?					
<input type="checkbox"/> Yes (include the new floor area square footage in the table below)					
<input type="checkbox"/> No					
<b>Proposed Floor Area (New Construction Only)</b>					
	Finished	Unfinished	Total	Height (above existing grade)	
Basement:	sq. ft.	sq. ft.	sq. ft.		
First Floor:	sq. ft.	sq. ft.	sq. ft.	Exterior Wall Material	
Second Floor:	sq. ft.	sq. ft.	sq. ft.	Exterior Wall Color	
Garage: <input type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.	Roofing Material	
Covered Deck:	sq. ft.	sq. ft.	sq. ft.	Roofing Color	
Total:	sq. ft.	sq. ft.	sq. ft.	Total Bedrooms	

## Determining Floor Area

Floor Area is measured in terms of square feet. The total square footage is as everything within the exterior face of the outside walls which includes garages and basements. The shaded area on the diagram indicates the area counted as square feet.



**Note:** If an existing wall(s) and/or roof(s) are removed and a new wall(s)/roof(s) are constructed, the associated floor area due to the new wall(s)/roof(s) are considered new construction and must be included in the calculation of floor area for the Site Plan Review and shown on this Fact Sheet.

If a Limited Impact Special Review is required, then call 303-441-3930 and ask for a new Preapplication conference for the Limited Impact Special Review.

## Structure #2 Information

Type of Structure: (e.g. residence, studio, barn, etc.)					
Total Existing Floor Area: (Finished + Unfinished square feet including garage if attached.)			sq. ft.	Demolish:	sq. ft.
Are new floor areas being proposed where demolition will occur?					
<input type="checkbox"/> Yes (include the new floor area square footage in the table below)					
<input type="checkbox"/> No					
<b>Proposed Floor Area (New Construction Only)</b>					
	Finished	Unfinished	Total	Height (above existing grade)	
Basement:	sq. ft.	sq. ft.	sq. ft.		
First Floor:	sq. ft.	sq. ft.	sq. ft.	Exterior Wall Material	
Second Floor:	sq. ft.	sq. ft.	sq. ft.	Exterior Wall Color	
Garage: <input type="checkbox"/> Detached <input type="checkbox"/> Attached	sq. ft.	sq. ft.	sq. ft.	Roofing Material	
Covered Deck:	sq. ft.	sq. ft.	sq. ft.	Roofing Color	
Total:	sq. ft.	sq. ft.	sq. ft.	Total Bedrooms	

## Floor Area

Please Note: If a project is granted a SPR Waiver but the building permit floor area calculations result in new floor area exceeding 2,000 sq. ft., then the project will trigger a full SPR prior to issuance of a building permit.

## Grading Calculation

Cut and fill calculations are necessary to evaluate the disturbance of a project and to verify whether or not a Limited Impact Special Review (LISR) is required. A LISR is required when grading for a project involves more than 500 cubic yards (minus normal cut/fill and backfill contained within the foundation footprint).

If grading totals are close to the 500 yard trigger, additional information may be required, such as a grading plan stamped by a Colorado Registered Professional Engineer.

## Earth Work and Grading

This worksheet is to help you accurately determine the amount of grading for the property in accordance with the Boulder County Land Use Code. Please fill in all applicable boxes.

Note: Applicant(s) must fill in the shaded boxes even though foundation work does not contribute toward the 500 cubic yard trigger requiring Limited Impact Special Use Review. Also, all areas of earthwork must be represented on the site plan.

## Narrative

Use this space to describe any special circumstances that you feel the Land Use Office should be aware of when reviewing your application. If more room is needed, feel free to attach a separate sheet.

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## Is Your Property Gated and Locked?

Note: If county personnel cannot access the property, then it could cause delays in reviewing your application.

## Certification

I certify that the information submitted is complete and correct. I agree to clearly identify the property (if not already addressed) and stake the location of the improvements on the site within four days of submitting this application. I understand that the intent of the Site Plan Review process is to address the impacts of location and type of structures, and that modifications may be required. Site work will not be done prior to issuance of a Grading or Building Permit.

Signature: Thomas Howarth Date: 5/22/09

## Earth Work and Grading Worksheet:

	Cut	Fill	Subtotal
Driveway and Parking Areas	170 cu yds	170 cu yds	340 cu yds
Berm(s)			
Other Grading			
Subtotal			340 cu yds. <small>Box 1</small>
* If the total in Box 1 is greater than 500 cubic yards, then a Limited Impact Special Review is required.			
	Cut	Fill	Total
Foundation			
Material cut from foundation excavation to be removed from the property			

Excess Material will be Transported to the Following Location:

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# Boulder County Community Forestry Sort Yard - Site Map

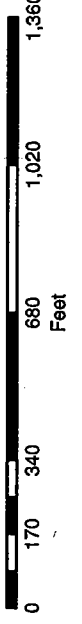


**Legend**

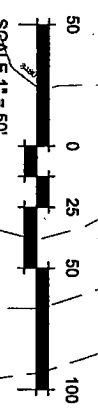
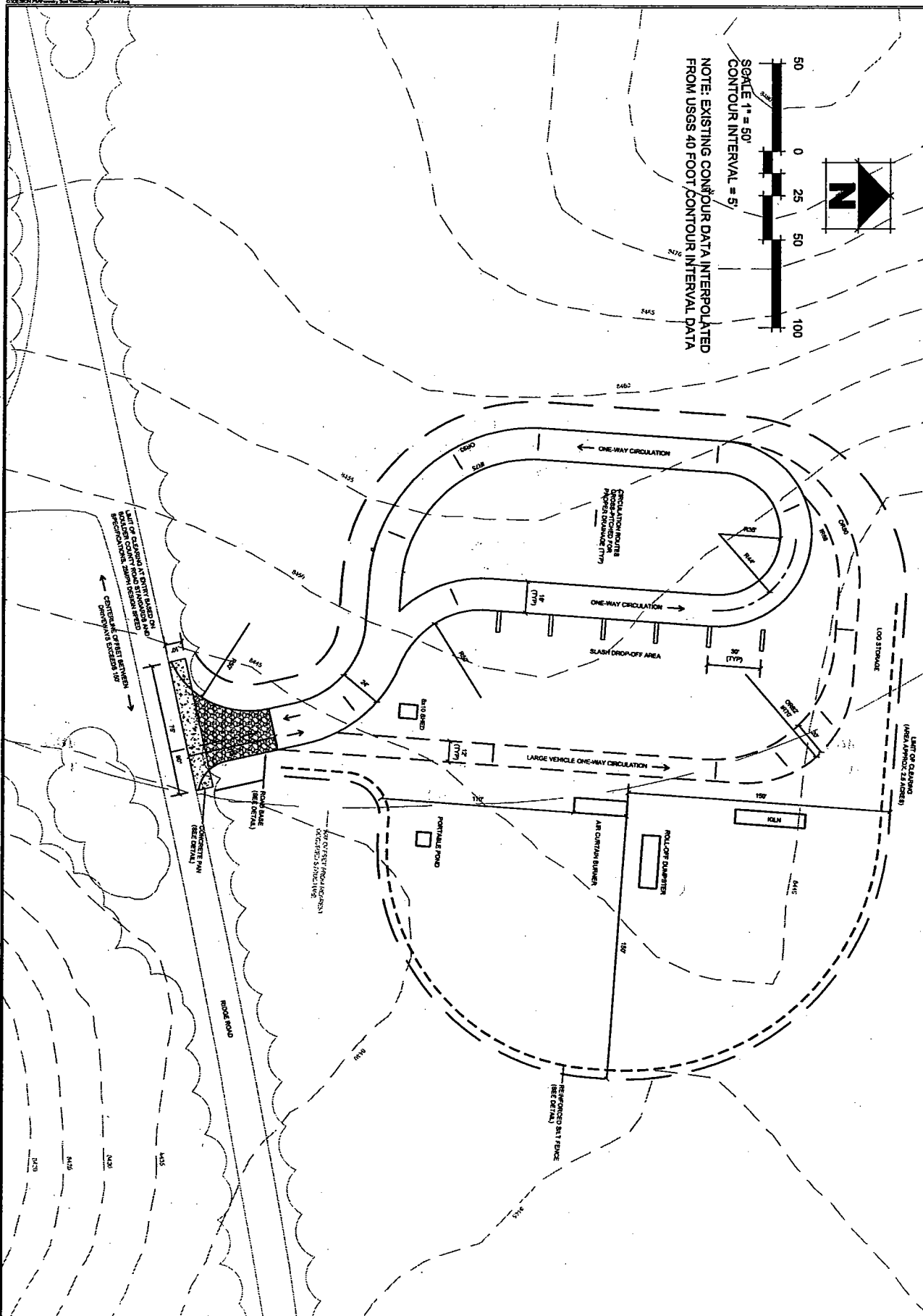
- Ridge Road Open Space
- Limit of Clearing
- Social Trails



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Map by: VLM/JH - 05/09



NOTE: EXISTING CONTOUR DATA INTERPOLATED FROM USGS 40 FOOT CONTOUR INTERVAL DATA

DATE	MAY 22, 2008
SCALE	1" = 50'
DRAWN BY	JH
CHECKED BY	JH/WH
APPROVED BY	TJ
PROJECT NO.	08009
SHEET	1 OF 2

# Site Plan Schematic

## Community Forestry Sort Yard Ridge Road (CR128e), Nederland

Boulder County  
Parks & Open Space  
5201 St. Vrain Road  
Longmont, CO 80503  
Phone: (303) 676-6000  
Fax: (303) 676-6100  
www.BoulderCounty.org



L1





# Parks and Open Space

5201 St. Vrain Road • Longmont, Colorado 80503  
303.678.6200 • Fax: 303.678.6177 • [www.bouldercounty.org](http://www.bouldercounty.org)

## Limited Impact/Special Review Application Narrative May 22, 2009

### Ridge Road Community Forestry Sort Yard

#### I. RESOLUTION 2009-35

Resolution 2009-35, which was approved by the BOCC on February 24, 2009, provides authorization for the creation of a Community Forestry Sort Yard also known as a Forestry Processing Sort Yard:

**A RESOLUTION APPROVING BOULDER COUNTY LAND USE DOCKET #DC-08-003: PROPOSED TEXT AMENDMENTS TO SECTION 4-504 OF THE BOULDER COUNTY LAND USE CODE, TO ADD A NEW FORESTRY USE ENTITLED "FORESTRY PROCESSING AND SORT YARD" (See Appendix A for full language.)**

#### II. Description of the Need

There is a need for forest management and wildfire mitigation projects in Boulder County due to forest health issues, such as the Mountain Pine Beetle epidemic. Forest managers and communities are actively pursuing wildfire mitigation fuel reduction projects and ecosystem restoration projects in an attempt to increase forest health and reduce susceptibility to stand-replacing wildfires. Currently Colorado is experiencing widespread tree mortality due to epidemic conditions of mountain pine beetle infestations. Mountain pine beetle activity has increased dramatically from 2006 to 2008 in Boulder County (2006-2008 Flight Maps) and is forecast to increase exponentially over the next several years.

Forest management activities have dramatically increased the amount of forest biomass that is being removed from forested landscapes. The majority of woody biomass is too small for traditional sawmill operations and/or small-diameter mill locations are too far away to feasibly transport products. In addition to regular biomass disposal problems, bark beetle infested trees have certain disposal requirements to prevent further spread of the beetles. In order to effectively utilize small diameter material and biomass, collection sites are critical in order to economically sort, dispense, and treat this material. Treating mountain pine beetle infested material can be expensive, labor intensive, and time consuming especially in large quantities. Removal of material offsite is expensive to transport and to dispose of.

Boulder County, in an effort to help private landowners dispose of slash, has purchased an air curtain burner to help alleviate the present and future increase in forest management related biomass. The air curtain burner provides a safe and economical way to reduce forest residue on-site. The units are compliant with the acceptable air quality performance, which is regulated by the State of Colorado and are fire-safe when operated correctly.

### **III. Definition of Woody Biomass Sort Yard/Collection Site**

Community Forestry Sort Yards (CFSY) are designated areas with the goal of improving utilization, quality, and distribution of forest products or efficient disposal of unusable material. These sort yards are primarily for small-diameter material generated from forest management activities on private lands. Material will be sorted and processed for highest current value, including products such as poles, rails, posts, logs, firewood, mulch, or biomass energy. In addition, a major objective for these sort yards is to provide areas to collect infested trees as well as slash with various approved on-site disposal and mechanical treatment options. These sites are temporary and will only be in place when specific forest management practices are occurring on nearby lands. Equipment that could be utilized on site or in conjunction with the project may include: air curtain burners, grinders, wood chippers, log handling and processing equipment, and transport trucks and trailers.

### **IV. Description of Activities**

#### **A. Description of Site**

The Ridge Road property is 36.32 acres of land (Site Map) located in SE ¼ of S 12, T1S, R73W, approximately 1 mile NE of the Town of Nederland. Ridge Road is a paved road off of Highway 72. This parcel was obtained through an Intergovernmental Agreement (IGA) between Boulder County and the Town of Nederland as a part of the Mud Lake Open Space acquisition; it was not purchased with open space tax dollars. The site includes an existing industrial use in the form of a bus barn, is across the street from the County Road Maintenance yard, and near the USFS field station, the Nederland Recycling Facility and regional CDOT maintenance facility. There are residences located adjacent to this site, with the closest being approximately 825 feet from the northeast corner of the parcel.

Wildlife Specialists and Resource Planners with the Boulder County Parks and Open Space Department also reviewed the Ridge Road site to assess the potential impact of the CFSY on this parcel. The following items were noted in their comments:

- The proposed Ridge Road parcel is at 8,440 feet and is composed of a mixed conifer stand, lodgepole pine (dominant species) and ponderosa pine. It also contains an isolated one-acre patch of aspen located in the middle of the parcel.
- Although there is a human presence on the site (social trails), there are signs of wildlife use; specifically signs of deer, elk, snowshoe hare, coyote and pine squirrel. Additionally, black-capped chickadees, a downy woodpecker, and a northern goshawk were observed. The Ridge Road parcel contains suitable foraging habitat for goshawks and there are known nearby nesting territories. But based on the forest structure and aspect of the site, no suitable areas for a goshawk-nesting stand exist.
- Wildlife habitat at the Ridge Road site is already heavily impacted due to its proximity to permanently developed industrial sites, local homes and subdivisions, and Highway 72. Additionally, the site is directly encircled by roads and surrounded on three sides by privately owned land. Its eastern side borders an isolated, 23-acre parcel of USFS land.

- Under the Boulder County Comprehensive Plan, the Ridge Road site is designated as Open Roadside Corridor (Peak-to-Peak Highway) and contains a small aspen patch and a wetland area.
- The topography of the site is relatively flat.

The Community Forestry Sort Yard will be located on a maximum of 5 acres within the Ridge Road property. The site will be cleared of vegetation for fire safety and to accommodate adequate vehicular circulation. During construction, we will install all necessary erosion control structures in accordance with state permits. We will also maintain long-term erosion control measures such as silt fences and hay bales, as delineated on Figure L1. We will check these twice monthly during site operation to assure they are effectively controlling any site run-off.

### **B. Road Access and Interior Circulation**

See the Site Map and Figure L1 for the location of the access point that will allow the public to access the site. It is located over 150 feet from the nearest intersection (for the County's road maintenance yard). It is not directly north of that intersection due to the topography of the site.

The site access will be aligned perpendicular to Ridge Road for safe ingress and egress. Vegetation will be cleared to accommodate site distance as specified in the Boulder County Road Standards and Specifications for a 25 mph design speed. The speed limit on this access road will be 10 mph.

There will be a concrete apron at the entry that is a minimum of 6 inches thick and 10 feet long that will abut the existing asphalt roadway. This concrete pan will allow proper drainage alongside Ridge Road and it will minimize road base migration onto Ridge Road. Beyond the apron, we will stabilize 40 additional feet of the entry with road base.

We will create two natural surface interior circulation routes for small vehicles and large trucks. These routes will have adequate turning radii so vehicles can safely and effectively move through the site (Figure L1). The native soil on the site is decomposed granite that has good infiltration. The site is relatively flat but we will grade the circulation routes for proper drainage. We estimate that 340 cubic yards of material will be moved as a result of this grading.

### **C. Hours of Operation**

This CFSY may operate up to 6 days per week from April through November. With current staff and shared resources, this site will be open for approximately 2 to 4 consecutive months at this site. The hours of operation will be from 7:30 am to 6:00 pm, with approximately 8 hours within this time frame being open to the public.

### **D. Signs, Barriers and Traffic Flow**

Boulder County Parks and Open Space (BCPOS), in order to ensure a safe perimeter around the air curtain burner, will provide all signs and barriers. Barriers will be constructed around the air curtain burner and other processing areas to keep the public at an established safe distance. Designated drop-off areas will be delineated to insure an orderly, organized site and facilitate efficiency. In addition, security measures, such as a locked gate and fencing, will

be in place to ensure safety and security for people and machinery when sites are closed for operation. The gate will be located at the end of the road base area of the entry to allow safe pull-off from Ridge Road. Fencing will link the gate to the forest edge to prevent cars from circumventing the gate. Boulder County Sheriff's Office deputies and BCPOS Rangers will be notified of sites in use as well as hours of operation and closure in order to facilitate patrol.

#### **E. Staff**

Employees of, or contractors supervised by, BCPOS will be in charge of the site. A minimum of one fully trained site operator will be on site during operational hours. Boulder County will be responsible for safety, security, operations, logistics, and public interaction.

#### **F. Equipment**

Equipment that could be used on site or in conjunction with the project may include: air curtain burners, grinders, wood chippers, log handling and processing equipment, and transport trucks and trailers.

#### **G. Air Curtain Burner Standard Operating Guidelines**

The Air Curtain Burner (ACB) will be used on site to dispose of wood and slash (see Appendix B). The ACB will be operated at a distance of at least 500 feet from the nearest occupied structure. The ACB will be located at least 100 feet from the forest clearing (Figure L1). Wildland fire suppression apparatus will be on site at all times during the operation of the air curtain burner. No ACB operations will take place during red flag days or when not exempted during fire restrictions. The ACB will be covered with the ember screen (which prohibits sparks from escaping) when sustained wind speeds reach 15 mph and at the conclusion of each operational period (day).

#### **H. Excess material**

In the event of excess infested material being on site during established MPB flight time, methods other than the ACB may be used such as chippers, grinders, debarkers, and transportation to insure that infested material does not reside at the site for more than one (1) operational period. Material that is not infested and meets the sort yard standards for merchantability will be transported off site as needed.

#### **I. Screening and Landscaping**

The site will be no more than 5 acres of cleared land, located at least 100 feet from Ridge Road. It will be screened from the road with existing trees at least 50 feet deep. This is shown in Figure L1. Since the site is currently forested, there is no landscaping plan. Site access from Ridge Road will be cleared to meet transportation safety standards, and no additional vegetation will be planted. In the event that mountain pine beetle destroys the trees providing the screening, the County will encourage natural aspen and shrub regeneration to provide the screening benefit.

#### **J. Noise**

By locating the operation within the forest with a 100 foot buffer from Ridge Road to the south and the bus barn, and a much greater distance from the east and north sides of the property, we will be using the existing vegetation to buffer noise.



**K. Buildings**

The County would like to locate a portable office on site to allow for the site supervisor to escape from dangerous weather, including lightening and snow. The portable office would be a shed or storage container 8' x 10', similar in nature to the shelter provided by Land Use at the Recycling Drop-Off facilities in the County.

**L. Site Use and Trips Per Day**

There will be one access point cleared that will serve as ingress and egress to the site. All trees and shrubs will be removed and the entry will be compacted for an all-weather surface. We anticipate an average of 100 trips per day (50 <sup>ROUND TRIP</sup> ~~one-way~~) over the course of the site use. This is based on our experience at the Meeker Park sort yard, which averaged 50 trips per day for 3.5 months of operation, plus allowing for an increase in use. The majority of these 100 trips/day will be small personal pick-up trucks or SUVs, sometimes with a trailer attachment. Large semi-trucks will be making an average of less than 6 trips/week. There will be an average of 6 people on the site at any given time, with peak times of 12 people, and low times of one person on the site.

**M. Electricity, Restrooms and Water**

There will be no electricity or running water on the site. Staff will have access to the County Transportation shop across the street for restroom facilities.

**N. Emergency Response**

In the event of an emergency, we will rely on the Town of Nederland Police and the Nederland Fire Department. BCPOS has a Deputy stationed as a caretaker at Caribou Ranch therefore his services will be available through dispatch. This site is located only 1 mile from the Town of Nederland and is easily accessible for emergency response.

**O. Mountain Pine Beetle Transport**

In response to the outbreak of Mountain Pine Beetle, and the concern of spreading the beetle, the County will not be accepting beetle-infested wood during the beetle's flight time, July 15 through September 15. This guideline will be reassessed annually.

**P. Site Restoration**

At the end of the specified use of the site as a Community Forestry Sort Yard, Boulder County Parks and Open Space will reclaim the site. The compacted soil will be ripped to relieve the compaction. Soil amendments may be added if needed. The area will be reseeded using the following seed mix.

<i>Ridge Road Community Forestry Sort Yard Site Seed Mix</i>				
<b>Common Name</b>	<b>Latin name</b>	<b>Variety</b>	<b>% of mix</b>	<b>PLS/Acre</b>
Canada Wildrye	<i>Elymus canadensis</i>	VNS	15	3.40
Squirrel Tail	<i>Elymus elymoides</i>	VNS	25	3.41
Thickspike Wheatgrass	<i>Elymus lanceolatus</i>	Critana	11	1.87
Slender Wheatgrass	<i>Elymus trachycaulus</i>	San Luis	11	1.81
Rocky Mtn. Fescue	<i>Festuca saximontana</i>	VNS	11	2
Junegrass	<i>Koeleria macrantha</i>	Native	15	0.17
Yarrow	<i>Achillea millefolium</i>	Mud Lake Collection*	3	0.03

Fringed Sage	<i>Artemesia frigida</i>	VNS	4	0.02
Lousiana Sage	<i>Artemesia ludoviciana</i>	VNS	2	0.01
Sulphur Flower	<i>Eriogonum umbellatum</i>	Mud Lake Collection*	3	0.37
<b>Totals</b>			<b>100.00</b>	<b>11.31</b>
Rate is for drilled seed. Double rate for broadcast.				
Denotes seed from BC/POSAWRA seed collections.				

After seeding, the site will be mulched to provide moisture retention for improved seed germination. Boulder County POS will manage for weeds annually on the site for 5 years after reseeding and as needed thereafter.

**Attachments:**

- Vicinity Map
- Location Map
- Site Map
- Plan Schematic (L1)
- Construction Details (L2)
- Earthwork and Grading Worksheet
- Appendix A – Resolution 2009-35
- Appendix B – Air Curtain Burner Description

# Appendix A

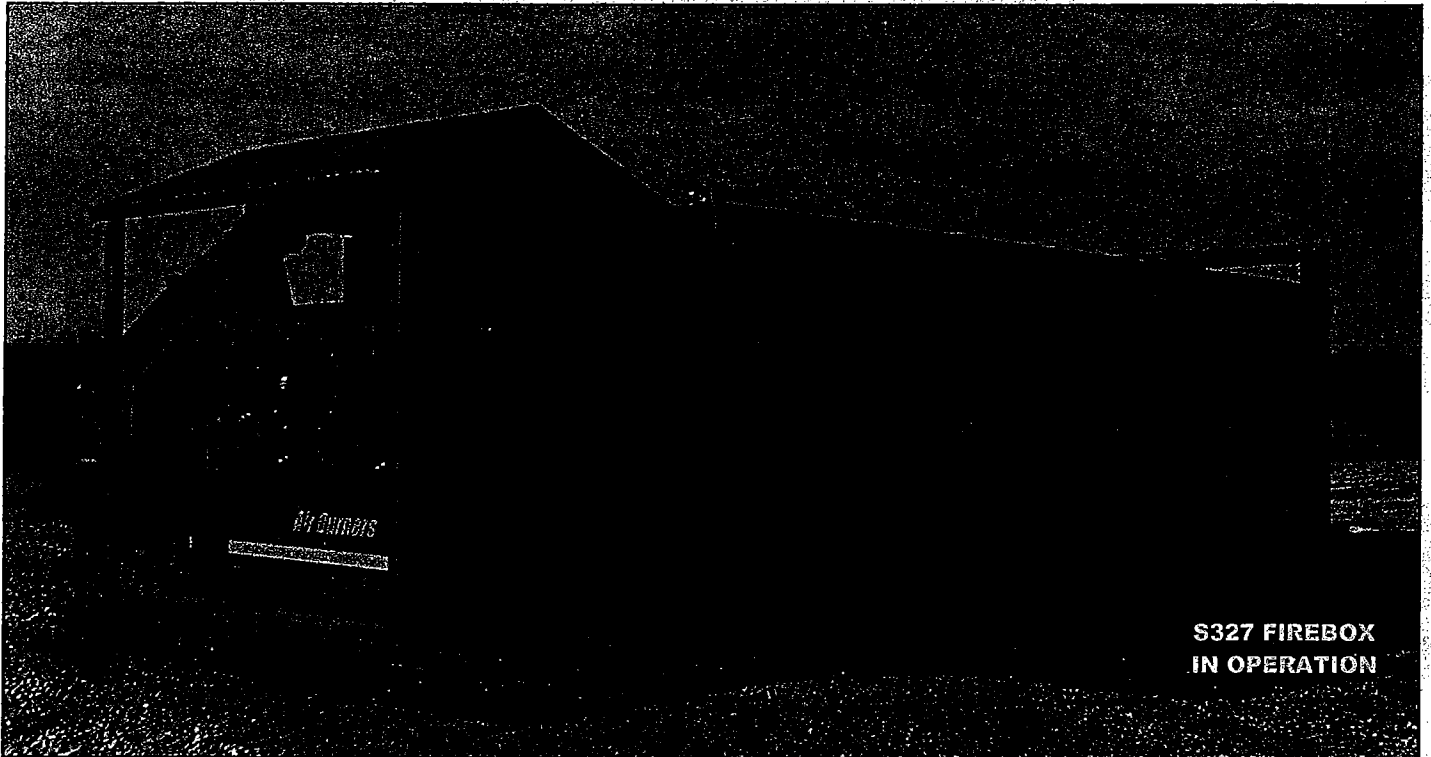
## EXHIBIT A TO RESOLUTION 2009-35 (TEXT AMENDMENTS TO ADD A FORESTRY PROCESSING AND SORT YARD USE AS SECTION 4-504.B. OF THE BOULDER COUNTY LAND USE CODE, EFFECTIVE MARCH 3, 2009)

### 4-504 Forestry Uses

#### B. Forestry Processing and Sort Yard

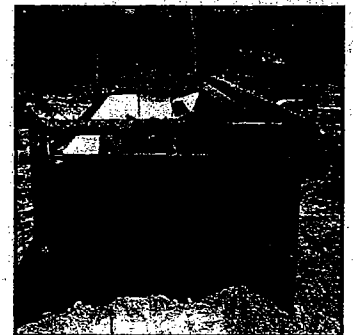
1. Definition: A facility designed to accept wood, slash, or other woody biomass material removed from another property in order to facilitate forest health management and promote recycling of woody biomass material. Materials may be processed and recycled onsite and/or may be transferred to an approved offsite location for processing.
2. Districts Permitted: By limited impact special review in F, MI, A
3. Parking Requirements: To be determined through limited impact special review
4. Loading Requirement: To be determined through limited impact special review
5. Additional Provisions:
  - a. The minimum parcel size shall be 3 acres.
  - b. All activities, except driveways, shall be setback a minimum of 50 feet from any adjacent right-of-way or private property.
  - c. This use is not required to be located on a building lot, or comply with the minimum lot size requirements for the district in which it is located.
  - d. Times and frequencies of operation shall be determined through limited impact special review.
  - e. All approved facilities shall be reviewed by the Board of County Commissioners every three years to ensure continued compliance with the special use criteria.
  - f. Access to the site shall be secured so that unauthorized persons may not use the facility when it is closed.
  - g. Upon permanent cessation of this use, the disturbed area must be reclaimed and revegetated.
  - h. These facilities shall not be the final disposal place for woody biomass materials and shall promote the recycling of all received materials to the maximum extent possible.

## *An Environmentally Friendly Alternative to Grinding*



### **Benefits Include:**

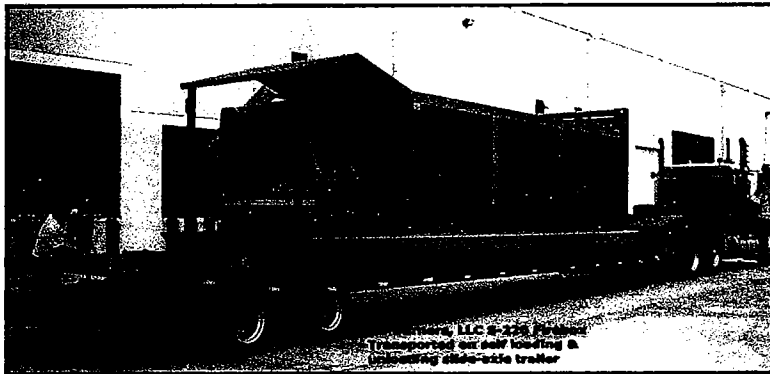
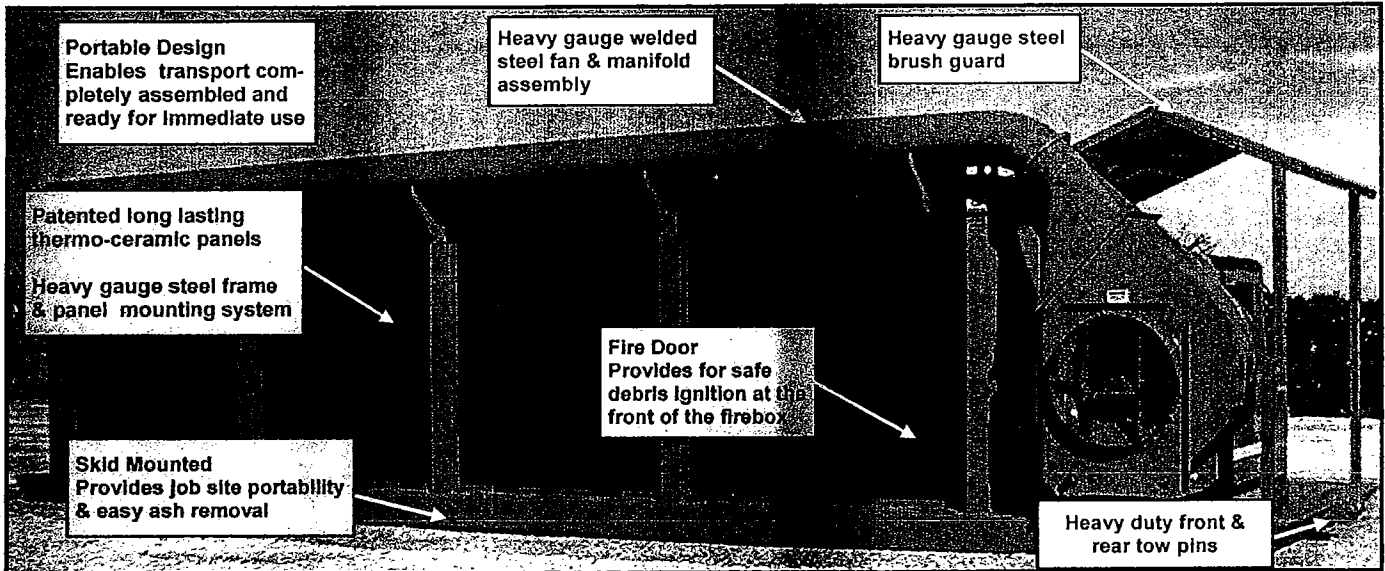
- Low capital investment, FireBoxes price range, from \$59,000 to \$127,000
- High mass reduction 95 to 98% waste reduction (100 tons of wood = 2 - 5 tons ash) increases landfill life
- High through-put, up to 10 tons/50 cubic yards per hour
- Dramatically reduced operating costs when compared to grinding
- Environmentally friendly. Fully tested by the USEPA and exceeds EPA regulations for Air Curtain Incinerators
- Ash can be used as a soil additive
- One operator can monitor and load one or two machines
- FireBoxes are fully self contained, no set up or assembly
- Energy Recovery is available on all FireBoxes



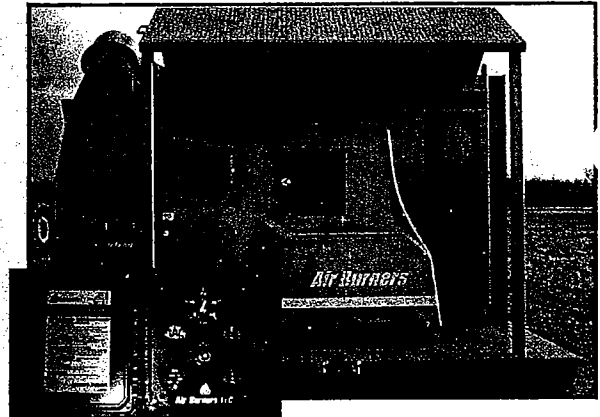
3 x 10/20/99H



# FireBox Standard Features



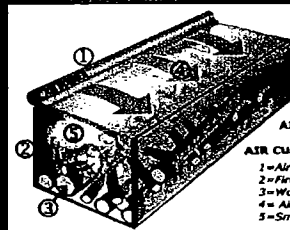
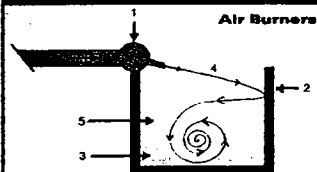
Portable Design. No disassembly required for transportation. Ready for immediate use at the time of delivery.



Engine, fuel system and all mechanical components are protected by a fire retardant fiberglass cowling. Engine controls, over center clutch lever and gauges are located on the side of the cowling for easy access.

## Principles of Operation

The Waste is the Fuel



AIR BURNERS, LLC  
PRINCIPLE OF  
AIR CURTAIN INCINERATION  
1=Air Manifold  
2=Firebox Refractory Wall  
3=Wood Waste or Wood Fuel  
4= Air Curtain (left to right)  
5=Smoke (PM)

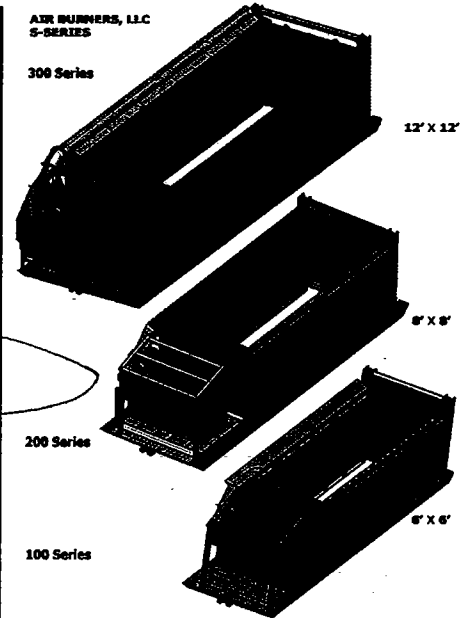
1. High velocity curtain (4) traps particles under the curtain
2. Particles under curtain (5) are returned





# FireBox vs. Chipper Cost Comparison

S-SERIES SYSTEM COMPARISON					
Model	Overall Size L x W x H	Fire Box L x W x H	Weight lbs.	Fuel Consumption gal/hr*	Average Thru-put tons/hr*
S-327	37' 4" x 11' 10" x 9' 7"	27' 2" x 8' 5" x 8' 1"	52,000	3.5	6-10
S-321	31' 4" x 11' 10" x 9' 7"	21' 2" x 8' 5" x 8' 1"	46,000	3.5	5-8
S-220	30' 2" x 8' 6" x 8' 6"	19' 8" x 6' 2" x 7' 1"	33,500	2.5	3-6
S-217	27' x 8' 6" x 8' 6"	16' 5" x 6' 2" x 7' 1"	30,000	2.5	2-5
S-116	20' x 7' 5" x 7' 8"	16' x 5' x 6'	24,000	1.5	1-4
S-111	16' x 7' 5" x 7' 8"	11' x 5' x 6'	21,300	1.5	0.5-2



\* Approximate Values

Disposal of 100 tons wood waste	S220 Air Curtain Burning	Chipping & Landfill Disposal	Direct Landfill Hauling & Disposal
<b>Cost of Machine</b>	\$89,860	\$219,370	-
<b>OPERATING COSTS</b>			
<b>Fuel Cost</b> (S220: 13 hrs; Chipper: 6 hrs)	\$98	\$540	-
<b>Maintenance and Repairs</b> (S-220: \$0.60/hr; Chipper: \$16.00/hr)	\$8	\$96	-
<b>Hauling of Residual to Landfill</b> (50 Miles @ \$4.00/mile with 20-ton Dump Truck)	\$200 (1 load)	\$2,400 (12 loads)	\$5,000 (25 loads)
<b>Tipping Fees at Landfill</b> (\$30 per Ton)	\$90	\$2,940	\$3,000
<b>Total Disposal Cost for 100 tons</b>	\$396	\$5,976	\$8,000

**NOTES:**

1. Chipper, approx. 400HP, Diesel fuel consumption: approx. 30 gal/hr. Diesel fuel at \$3.00/gal.
2. Chipping process and chip handling produces large amounts of particulate matter (PM) in the form of wood dust that can cause serious illness in exposed workers. Wood dust is a proven carcinogenic (cancer-causing). Chipping losses, mostly in form of wood dust, are approx. 2% or 2 tons in this example. Only 98 tons of wood chips are deposited into the landfill.
3. Air Curtain Burner residual is 3 tons of ash, hauled by 1 truck, but is usually land-applied on site; Chipper residual yields no weight reduction, but does provide significant volume reduction. In this example, waste is hauled by at least 12 trucks, each carrying approximately 22 cubic yards or 5 – 6 tons.
4. The S-220 is a medium size above ground refractory walled firebox. Larger and smaller models and trench burners are also available. See [www.airburners.com](http://www.airburners.com)



## Hippely, Hannah

---

**From:** Glowacki, Therese  
**Sent:** Friday, June 05, 2009 4:48 PM  
**To:** Hippely, Hannah  
**Cc:** Himick, Jason  
**Subject:** FW: LU-09-0010 Forestry Processing and Sort Yard

Hi Hannah,

Attached is the modified Site Plan Schematic with the contours labeled (thanks to Jason Himick). Also, the following paragraph is for clarification on the grading:

Once trees are removed, a road grader will be used to smooth the surface of the circulation routes and provide the proper cross pitch for positive drainage. As the existing soil is primarily decomposed granite, with little organic matter, there is no overburden to remove to achieve a firm drivable surface. We estimate that no more than six (6) inches of soil will be moved per square foot of area covered by the circulation routes. This equates to eight (8) cubic feet of material per linear foot of the sixteen (16) foot wide circulation route and six (6) cubic feet of per linear foot of the twelve (12) foot wide circulation route. The total surface area of the circulation routes is approximately 18,300 square feet, which equals a maximum of 340 cubic yards of material moved. There will be no other grading on the site (cut or fill) as the primary infrastructure is located on the most level portion of the site. The site improvements on this working sort yard will not be as refined as a residential and commercial development.



Site Plan Schematic  
2009\_06\_03...

Thanks, and let us know if there is anything else you need.

Therese

*Therese Glowacki, Manager  
Resource Management Division  
Boulder County Parks and Open Space  
(303) 678-6206*

-----Original Message-----

**From:** Hippely, Hannah  
**Sent:** Tuesday, June 02, 2009 11:32 AM  
**To:** Glowacki, Therese  
**Subject:** LU-09-0010 Forestry Processing and Sort Yard

Hi Therese,

I will be processing this docket for the Land Use Department. It should be sent out on referral in the next day or so, I am currently working on securing a BOCC hearing date and time.

I reviewing the application materials I noticed a few things and wanted to give you a heads up. First, there is not any title information in the application materials; if you could send that my way as soon as you can that would be great. Secondly, the site plan shows some contour information but it would be helpful if the existing and proposed contours were shown and if the contours were labeled, so we have a better understanding of what the grading on the site entails. We should be able to send the referrals packets out without these items but will need them as soon as you can.



# Parks and Open Space

5201 St. Vrain Road • Longmont, Colorado 80503  
303.678.6200 • Fax: 303.678.6177 • www.bouldercounty.org

## MEMO

To: Hannah Hippley, Land Use Planner  
FROM: Therese Glowacki, Resource Manager  
Scott Golden, Forestry Specialist  
DATE: July 8, 2009  
RE: LU 09-0010

Following are our responses to questions raised in the LI/SR reviews for LU 09-0010, Community Forestry Sort Yard at Ridge Road.

1. The Site Plan shows the 'Limit of Clearing' as 2.5 acres yet the application narrative refers to a 5-acre area, please clarify which number is correct.
  - a. We would like the ability to expand to no more than 5 acres over the life of the sort yard however the original clearing will only be 2.5 acres.
2. The site plan also shows a portable pond and the narrative refers to wildland fire suppression apparatus. Is the portable pond the wildfire suppression apparatus? Please explain in more detail that the wildland fire suppression and prevention measures.
  - a. The portable pond is a part of the wildland fire suppression apparatus. At a minimum, there will be a pump and fire hose in addition to this portable pond.
3. The site plan shows a kiln and roll off dumpster but does not explain the use of these items, please provide the details of use for these items. (What their purpose is, how often they will be used, how often the dumpster will be removed and replaced, etc.)
  - a. The kiln is a modified modular storage container that would be used for heat-treating infested wood. It would provide a place to put logs that are currently infested so they could be sanitized. This would allow the wood to be used for firewood locally or in forested areas, without worry that MPB would spread if the logs were taken off site. The roll-off is for cold ash disposal. Local recycling/landscape companies will use this for soil amendments.
4. The narrative also notes that the "no ACB operation will take place during red flag days or when not exempted during fire restrictions". What entity is responsible for determining when the ACB is exempted from fire restrictions? How will this exemption be determined?
  - a. In Boulder County it is the Sheriff's Office. The Sheriff's Office has several levels of fire restrictions and the ACB is not affected by all levels. We will comply with all restrictions that include the ACB.
5. The narrative also notes that the ACB will be covered with an ember screen when sustained wind speeds reach 15mph and at the conclusion of operation each day. Is there a wind speed at which operation of the ACB would cease completely?
  - a. By covering the ACB with an ember screen, it means we can no longer add more material to burn, so operations are being shut down. At the same time, the engine is being turned down, so less air is being added to the fire (again another measure of shutting it down). If wind speeds remain sustained at 15 mph or greater, the ACB would not be started again that day.
6. Section H of the narrative notes that infested material will not reside at the site for more than one operational period. What is an operational period?
  - a. Mountain Pine Beetle infested material will not remain at the site for more than one operational period during established flight time (7/15-9/15). The definition of an operational period for this purpose is 24 hours. Currently MPB infested wood is not being accepted at the sort yards during established flight time so this is somewhat of



a moot point at the current time. Ips beetle infested material will continue to be accepted throughout the operational season and is not subject to removal off of site within one operational period. Ips pheromone traps are currently being used, which mitigate spread into the surrounding forest and also draw in and trap existing populations from the surrounding forest.

7. If chippers, grinder, and debarkers are to be used on an as needed basis it is possible that this machinery could be in use a significant portion of time. What noise level is generated by this machinery (dBA)? Have you considered restricting the use of the noisiest machinery to specific periods of time? I understand that the vegetation is thought to buffer most of the noise generated by the site, what is the expected dBA at the property line when the noisiest of the machinery is in operation?
  - a. See attached report. Projected maximum noise level is less than 30dB at the closest residence ~825' in the distance. This level falls well below the accepted levels for daytime residential areas.
8. I understand that the proposed ACB will exceed EPA regulations for Air Curtain Incinerators, please provide information regarding what the emissions associated with the ACB are expected to be and how this is monitored.
  - a. The ACB will meet EPA regulations for Air Curtain Incinerators. This unit has a temporary permit issued by the Colorado Department of Public Health and Environment. It is granted subject to all rules and regulations of the Colorado Air Quality Control Commission and the Colorado Air Pollution Prevention and Control Act C.R.S. (25-7-101 et seq), to those general terms and conditions included in the permit. They have specific terms outlined in the temporary permit.

This unit is expected to emit 1.1 pounds of PM 2.5 per ton of wood burned, compared to 25.5 pounds per ton burned in slash piles.

It also burns cleaner than an EPA certified wood stove. According to EPA, <http://www.epa.gov/woodstoves/efficiently.html> old inefficient wood stoves emit between 15 - 30 g/hr while certified stoves emit 2 - 7 g/h. The EPA paper and site below [http://www.airburners.com/DATA-FILES\\_Tech/EPA\\_paperVegDebris080307.pdf](http://www.airburners.com/DATA-FILES_Tech/EPA_paperVegDebris080307.pdf), on line 178 notes PM concentrations .97 kg/hr (970 g/hr). So this would give us between 30 - 60 old stoves. Fireplaces, also according to EPA, emit 20 times more PM than certified stoves and six times more than uncertified. So using the mid ranges for certified and uncertified stoves, fireplace emissions would be 100 - 130 g/hr. So that would be 7 to 10 fireplaces.

The reference, C. A. Miller and P. Lemieux, 2007, *Emissions from the Burning of Vegetative Debris in Air Curtain Destructors*, J. AWMA, 57, 959-967, also explains:

*"The average CO measured was 140 ppm, with CO2 at 0.75%. PM levels were reported as "too low to measure," although opacities were reported to be at ½ Ringlemann smoke number (5%) for 95% of the operating time. During unit startup, the opacity was reported to be 40% (Ringlemann2), and when diesel fuel was introduced to ignite the bed, Ringlemann numbers as high as 8 were noted. 12"*

Air quality is monitored by the Colorado Department of Public Health and Environment. The County Public Health representatives often conduct the on site opacity testing for the State.

9. Should the screening currently provided by existing vegetation be destroyed the application materials indicate that natural aspen and shrub regeneration will be encouraged. The new vegetative screening would likely take some time to accomplish the screening necessary, please provide an interim, screening plan.
  - a. As the infested lodgepole trees die, they will remain standing if they are not a current hazard to public Right of Way, staff, or site users. There is a significant aspen component to the vegetation on site, which will take advantage of the increased sunlight and resources and begin expanding before the trees are taken down. We feel the natural vegetation and regeneration will be sufficient for the short and long term.
10. The narrative notes that a portable office may be located on the site. Is this the shed identified on the site plan? If not what is the use of the shed shown? If the shed is less than 120 sq. ft. it will not need a Building Permit. If the shed is the temporary office then as any occupied structure it will need a building permit. Will the office structure be temporary (on site for less than 6 months)? If the structure is not temporary then it will be required to be constructed as a permanent structure and meet all applicable building codes.
  - a. The shed on the site plan is the one we would use as a portable office. If and when we were to put this in place, as an occupied structure, we would get a building permit.
11. Slash would need to be hauled (by a front-end loader?) from the public drop-off area to the air curtain burner. This heavy-use area crosses the designated large vehicle circulation route. Should the ABC be placed west of the large vehicle route to avoid this potential conflict?
  - a. The designated large vehicle circulation route is used very infrequently. We located the ACB to be the furthest away from the public drop off areas as possible, therefore we would prefer to keep the ACB to the east of the large vehicle circulation route.
12. The fencing proposal is unclear. Would the entire site be fenced, and what type of fence would be used? How does just fencing proposed prevent access to the site from the north, east or west? It is acknowledged that this property is already used in an unauthorized manner (the social trail network) and a County road borders the property on the north. Full screening of the site seems more appropriate, please explain why only the vehicle access is proposed for fencing?
  - a. We don't intend on fencing the whole site. The proposed fencing is an added precaution for erosion control to mitigate potential site run-off. The gate across the entry road and the existing trees surrounding the site will prevent vehicles from accessing the site after hours.
13. Screening and Landscaping, first three sentences: This states that the clearing will be at least 100 feet from Ridge Road, but only (at least) 50 feet of trees would screen it. Since the edge of Ridge Road is treed throughout this area, this is confusing. Further, "This is shown in Figure L1," but it is not apparent on the drawing except perhaps by scale.
  - a. The proposed clearing of 2.5 acres leaves the cleared area 100 feet from Ridge Road. If we were to expand into the full 5 acres, the cleared area may expand but would not be less than 50 feet (with trees as screening) from Ridge Road.
14. M. Electricity, Restrooms and Water. Using the restroom facilities in the Transportation shop does not seem practical when only a single staff person is on site. The site would be occasionally unattended. Will the site be closed if staff has left to use the facilities at the County Transportation shop is an on-site facility (portable toilet) necessary?
  - a. There will be a portable toilet on site.
15. Section O notes that the facility will not accept beetle-infested wood during the beetle's flight time of July 15 to September 15. Does this refer to just the Mountain Pine Beetle or will no beetle infested wood (regardless of beetle type) be accepted during that time? Additionally will all the beetle-infested wood accepted previous to July 15<sup>th</sup> be processed or removed from the site prior to the flight time so that during beetle flight time not only does the site no accept beetle-infested wood, but it will also not be storing or processing beetle infested wood?

- a. This refers to only MPB infested wood. At the Meeker site we are using Ips pheromone traps, which are very effective at mitigating the spread of Ips to near-by trees. All MPB infested wood accepted prior to July 15<sup>th</sup> would be processed prior to established flight time.
16. The narrative notes that the guideline in section O will be 'reassessed annually', what does this mean? What would be contemplated during this reassessment?
  - a. We would assess whether the outbreak is so widely spread that moving infested wood would not compound the problem. We would rely on recommendations from the Colorado State Forest Service as to whether we change our "no infested wood" policy.
17. The application provided information regarding site restoration but does not mention site maintenance during operation. Will the beetle-affected trees on the property be removed and processed on the site?
  - a. We will treat all trees within the 5-acre area. There are definitely more trees on the property that are infested, however, like other County managed properties in the lodgepole forests, we will not be taking every infested tree down.
18. The application materials do not provide any information regarding how long the facility is expected to be in operation?
  - a. We don't have an exact date where this site would be no longer useful to the community. The infestation could go on for 10 to 15 years or more, and the after effects may last even longer. That is why we will review this on a three-year cycle with Land Use to be sure the use still necessary.
19. In the definition section of the narrative (section III) it notes that 'material will be sorted and processed for highest current value, including products such as poles, rails, posts, logs, firewood, mulch or biomass energy' and that "equipment that could be utilized on site or in conjunction with the project may include; air curtain burners, wood chippers, log handling and processing equipment, and transport trucks and trailers". I am unclear as to the extent of the processing that will take place on the site. Will products such as poles, rails, posts, logs, firewood, mulch or biomass energy be produced on site? What is the scope of the activities that will take place on the site?
  - a. We may chip or grind material on site, allow the public to take firewood if the wood is not infested, and set logs aside for posts. All these means of dealing with the wood that will come in are currently in use at the Meeker Park sort yard. As material comes in, the site supervisor separates out the wood into useable material then burns the rest. Peak-to-Peak wood has helped arrange for the useable posts, logs and chips to be moved off site. The intent is to utilize local material for local uses whenever possible.
20. How is the ash generated by the ACB disposed of?
  - a. The ash is stored in the onsite roll off container, soaked with water, and utilized by local recycling/landscape suppliers as a soil amendment.
21. As noted by the referral agencies a Stormwater Discharge Permit and Air Pollution Emissions Notice will be required, please provide timeline for obtaining these permits.
  - a. We will obtain a Stormwater Discharge Permit in conjunction with the grading permit. We have already applied for the Air Pollution Emissions and we have a temporary permit. The final should be issued by the fall of 2009.

# Anticipated Noise Levels at Proposed Ridge Road Community Forestry Sort Yard

C. Scott Golden  
Resource Specialist – Forest Health & Utilization  
Boulder County Parks & Open Space

July 7, 2009

## Introduction

This report and literature search was compiled to address concerns voiced by neighboring constituents of the proposed Community Forestry Sort Yard site on Ridge Road. Although not zoned as industrial, this site is located in the same immediate area as the Boulder County Road Maintenance Facility, Boulder County Transfer Station, Nederland School Bus Storage & Maintenance Facility, CDOT Maintenance Facility, and USFS Work Station. Specifically, this report outlines noise levels produced by equipment with the greatest impact as well as the noise buffering effect created by distance and surrounding forest cover.

## Equipment

Grinders & chippers have the greatest noise impact potential of any of the equipment that will be operated on site. Therefore, the focus will be on specific units that we currently operate or have operated in the past for this operation, specifically, a Morbark 18" Whole-Tree Chipper and Vermeer HG6000 Horizontal Grinder. Specifications are as follows:

**Morbark 18" Chipper with 250HP Caterpillar Engine**  
80 dB rating @ 50', fully operational (mfr. rating)

**Vermeer HG6000 Horizontal Grinder with 630HP Caterpillar Engine**  
105 dB rating @ 10', fully operational (mfr. rating)

An example of current use in the area would be the Nederland Transfer Station where BOCO Resource Conservation runs the community slash-chipping program. Contractors utilized for the program normally use chippers in the 12-18" class. A comparable machine would be:

**Vermeer 2100XL (20") Chipper with ~150-175HP Engine**  
99.2 dB rating @ operator station, fully operational (mfr. rating)

There is also concern regarding the noise level of the Air Curtain Burner, S-220 unit. Noise impact from this unit is less than either grinders or chippers and is rated at:

**Air Curtain Burner S-220 with 59HP Kubota Engine**  
**88 dB rating (avg) @ 10', fully operational (mfr. rating)**

**Comparisons**

The following chart outlines other miscellaneous activities for comparison purposes:

**Sound Level Decibel Loudness Comparison Chart**

Environmental Noise	
Weakest sound heard	0dB
Whisper Quiet Library	30dB
Normal conversation (3-5')	60-70dB
Telephone dial tone	80dB
City Traffic (Inside car)	85dB
Train whistle at 500', Truck Traffic	90dB
Subway train at 200'	95dB
<i>Level at which sustained exposure may result in hearing loss</i>	<i>90 - 95dB</i>
Power mower at 3'	107dB
Snowmobile, Motorcycle	100dB
Power saw at 3'	110dB
Sandblasting, Loud Rock Concert	115dB
<i>Pain begins</i>	<i>125dB</i>
Pneumatic riveter at 4'	125dB
<i>Even short term exposure can cause permanent damage - Loudest recommended exposure WITH hearing protection</i>	<i>140dB</i>
Jet engine at 100', Gun Blast	140dB
Death of hearing tissue	180dB
Loudest sound possible	194dB
Perceptions of Increases in Decibel Level	
Imperceptible Change	1dB
Barely Perceptible Change	3dB
Clearly Noticeable Change	5dB
About Twice as Loud	10dB
About Four Times as Loud	20dB
Sound Levels of Music	
Normal piano practice	60 -70dB
Fortissimo Singer, 3'	70dB
Chamber music, small auditorium	75 - 85dB
Piano Fortissimo	84 - 103dB
Violin	82 - 92dB
Cello	85 -111dB
Oboe	95-112dB
Flute	92 -103dB
Piccolo	90 -106dB
Clarinet	85 - 114dB
French horn	90 - 106dB
Trombone	85 - 114dB
Tympani & bass drum	106dB
Walkman on 5/10	94dB
Symphonic music peak	120 - 137dB
Amplifier rock, 4-6'	120dB
Rock music peak	150dB

Statistics for the Decibel (Loudness) Comparison Chart were taken from a study by Marshall Chasin , M.Sc., Aud(C), FAAA, Centre for Human Performance & Health, Ontario, Canada. There were some conflicting readings and, in many cases, authors did not specify at what distance the readings were taken or what the musician was actually playing. In general, when there were several readings, the higher one was chosen.

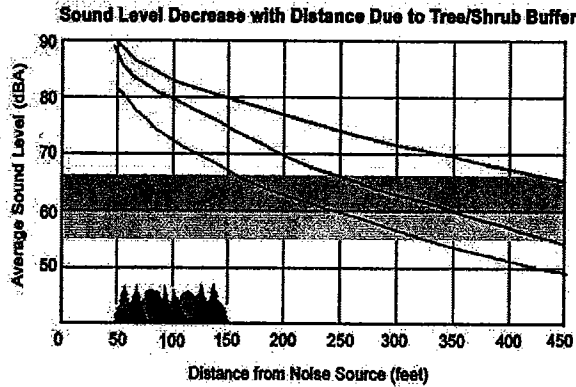
*(Courtesy of Reliability Direct)*

[http://www.reliabilitydirect.com/RDIStorePDF/RDI\\_DecibalChart.pdf](http://www.reliabilitydirect.com/RDIStorePDF/RDI_DecibalChart.pdf)

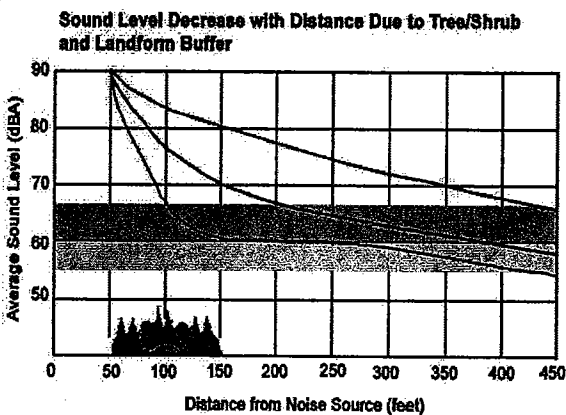
## Noise Reduction

Noise impact may be mitigated by several means. In the case of the proposed site we will utilize two natural existing methods; distance and forest buffer. According to Diagram 1 it is apparent that distance and tree buffers have a substantial dampening effect on noise. The closest residence to the proposed site is 825' (horizontal plane). Calculating the effect of dampening due to distance alone <http://www.numericalexample.com/content/view/18/33> and using the highest noise impact equipment as a model, the Vermeer HG6000, the effective sound level at the residence would be ~ 66 dB. Referring to Diagram 2, the noise reduction range for a forest buffer is 5-8 dB per 100' of width. Forest canopy is predominantly continuous to the nearest residence. The calculation of  $(825'/100') * 5\text{dB} = 41.25\text{ dB}$  of additional dampening.  $66\text{dB} - 41.25\text{dB} = 24.75\text{dB}$  of projected measurable sound at the closest residence. This level falls well below the 55-60 dB range for acceptable noise levels for daytime residential areas.

DIAGRAM 1



- Control - (No tree/shrub buffer - truck noise at 55 mph)
- Truck noise with 100-ft wide tree/shrub buffer
- Car noise with 100-ft wide tree/shrub buffer

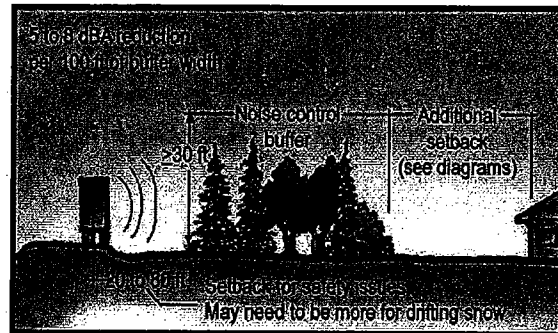


- Control - (No tree/shrub buffer - truck noise at 55 mph)
- Truck noise with 100-ft wide tree/shrub buffer & 4-ft high landform
- Truck noise with 100-ft wide tree/shrub buffer & 12-ft high landform

- 60 to 65 dBA acceptable noise levels for outdoor conversation
- 55 to 60 dBA acceptable noise levels for daytime residential areas

USDA, National Agroforestry Center

DIAGRAM 2



USDA, National Agroforestry Center

## Cumulative Effect

Although it may appear that the effect of simultaneously operating machines would significantly increase the noise generated, that would not be a factual statement. US Army Corp of Engineers DEIS Appendix 6 – Noise Measurements and Influencing Factors, explains this in detail:

### *Combining Multiple Sound Sources*

When sounds are being generated in the same general area by more than one source, either at the same levels or at different levels, it is possible to determine the total contribution of these sources to the noise environment. As mentioned earlier, since sound is measured on a logarithmic scale, it is not possible to get the combined effect by simply adding the measured values together (i.e. 180 dB + 180 dB  $\neq$  360 dB). Two examples are provided below showing how the total overall noise levels are derived from sounds generated at the same level, and from sounds generated at different levels.

(a) Combining sounds generated at the same level. Adding multiple sources of the same sound pressure level (SPL) is based on the following formula:

$$SPL_{total} = (10 * \log (\# \text{ of sources})) + SPL \text{ of one source}$$

For instance, 3 tugs operating at 140 dB would be calculated thusly:

$$SPL_{total} = (10 * \log (3)) + 140 \cong 145 \text{ dB re } 1 \mu\text{Pa}$$

If sounds at a 140 dB level were produced by two sources in the same area, the total sound level would be logarithmically calculated to be 143 dB. If the 140 dB sounds were generated from five sources in the same area, the total sound level would be 147 dB. If ten sources were each generating a 140 dB sound in the same area, the total sound would be 150 dB. This means that in general, for every 10 sources in the same area generating sounds at the same level, the overall sound level increases by 10 dB.

In consideration of the above statement, concurrent use of multiple machines of a lesser/equal dB rating than the Vermeer Grinder would only have the potential to increase the overall dB rating by a few points. Any equipment used at the proposed site will have a lower/equal dB rating than the Vermeer Grinder.

### Summary

It is apparent that with the dB ratings provided by manufacturers coupled with the dampening effect of both distance and forest cover that noise disturbance will be minimal. Adjoining residences to the proposed site will experience noise levels that are well within acceptable levels. In addition, multiple machines running concurrently will not increase the dB rating beyond acceptable levels.

## References & Acknowledgements

In addition to online sources cited within the text:

**Air Curtain Burners** - Matt Connor, e-mail

**Morbark Equipment** - Kevin Edwards, phone conversation

**Vermeer Equipment** - Dale Messenger, e-mail

**CDOT** - Jill Schlaefel, e-mail

**Department of Defense, Army Corp of Engineers, DEIS - Appendix 6**, (date & author unknown), <http://www.poa.usace.army.mil/en/cw/delong/14 APPENDIX 06 Noise Measurement and Influencing Factors.pdf>

**Conservation Buffers - 6.4 Buffers for Noise Control**, (date and author unknown), [http://www.unl.edu/nac/bufferguidelines/guidelines/6\\_aesthetics/4.html](http://www.unl.edu/nac/bufferguidelines/guidelines/6_aesthetics/4.html)

### **USDA-NAC, Appendix of additional references:**

#### **6.4 References**

Anderson, L.M.; Mulligan, B.E.; Goodman, L.S. 1984. Effects of vegetation on human response to sound. *Journal of Arboriculture*. 10: 45-49.

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Fang, C.F.; Ling, D.L. 2005. Guidance for noise reduction provided by tree belts. *Landscape and Urban Planning*. 71: 29-34.

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**USDA-NAC, Appendix of additional references (cont.):**

- Kragh, J. 1979. Pilot study on railway noise attenuation by belts of trees. *Journal of Sound and Vibration*. 66: 407-415.**
- Kragh, J. 1981. Road traffic noise attenuation by belts of trees. *Journal of Sound and Vibration*. 74: 235-241.**
- Martens, M.J.M. 1981. Noise abatement in plant monocultures and plant communities. *Applied Acoustics*. 14: 167-189.**
- Reethof, G. 1973. Effect of plantings on radiation of highway noise. *Journal of the Air Pollution Control Association*. 23: 185-189.**
- Reethof, G.; Heisler, G.M. 1976. Trees and forests for noise abatement and visual screening. In: *Gen. Tech. Rep. NE-22*. Upper Darby, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station: 39-48.**
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- Whitcomb, C.D.; Stowers, J.F. 1973. Sound abatement with hedges. *HortScience*. 8: 128-129.**

# PINE BEETLE UPDATE



GENE MACKEY

## Machine power

A large excavator feeds slash into the curtain burner. The machine is rented this year but Boulder County may buy one for this purpose by next summer.

## GENE MACKEY ALLENSPARK

### Allenspark Sort Yard a much needed success

The Boulder County/Larimer County sort yard is in its second year of operation just north of the Boulder County line near Allenspark. Last year was a rushed start. This year the organization has been streamlined and the operation has easily handled slash and beetle infested wood from the surrounding area.

The heart of the beetle solution is the Boulder County curtain burner, a dumpster sized enclosed firebox that burns the wood and slash to white ash. Designed originally to burn organic debris from natural disasters, it is an efficient and safe method to dispose of woody biomass. Visitors to the site have been genuinely surprised at how quiet the burner is and how little smoke is given out. The secret is the small diesel engine that drives fans that blow air onto the fire, which keeps the fire at a high temperature, as well as driving

any sparks and smoke back into the fire for complete burning. The burner is only operated during normal daytime hours. Last year the fire was completely extinguished every night and then started again the next day. This year Boulder County has bought a screen that fits on the top of the burner to totally encapsulate whatever hot ash may be in the burner overnight. This has resulted in greater efficiency and more completely burned material.

Another addition to the operation this year is using an excavator to feed the burner. They use a bobcat to manage the piles and feed the pile that the excavator can grab and put into the burner. This has made it possible to keep up with the infested slash so that it can be burnt very quickly.

All material is sorted as it comes in to separate piles of regular slash, slash that contains ips beetles, wood that contains beetles, and wood that is from fire mitigation and is not infested. Scott Golden, one of the organizers of the yard, learned many years ago to handle wood efficiently. The wood

is used for marketable products as much as possible, with much of the wood being sent to Bustamante's wood lot outside Boulder to be made into posts, boards, or firewood. Logs cut to specific lengths of 6' 3", 8' 3", or 10' 3" help this wood utilization. No wood containing mountain pine beetles will be accepted past July 18, as that is considered the latest to accommodate the disposal of this wood and yet not spread the beetles further.

All operators of the sort yard have had wildfire fighting training and a charged hose line is in place around the perimeter just in case anything happens. Clever pheromone ips monitoring stations have also been set around the perimeter to catch ips beetles that may be flying from the facility. In all, the operation is very efficiently run and well organized. Operator Wayne Harrington even tries to use the energy given off as heat from the curtain burner as he heats up his breakfast burrito on the machine every morning. Now that's dedication!

# BEETLE CONTROL COMMUNITY INFORMATION MEETING

## ALLENSPARK

Allenspark Beetle Control (ABC) will hold an informational meeting Saturday, July 11 at 7:00 p.m. at the Allenspark Fire Department Community Room, 14861 Highway 7, Allenspark.

Don't let the pine beetles bug you. Here's your chance to find out about problems facing our forests. Come to the insect event of the season and learn all about beetles and what to do to protect your trees.

This meeting is our annual outreach for all those folks who've somehow missed the beetles/forest health message: It's very basic, so even if you don't know a beetle from a bumblebee, please join us! Meet the beetles, meet the pros, and get all your buggie questions answered!

Guest speaker will be Jeff Witcosky, Entomologist, US Forest Service. Agency representatives are: Chris Dahl - Forester, Rocky Mountain National Park; Ryan Ludlow, Forestry Education and Outreach Coordinator, Boulder County; John Mack - Branch Chief of Natural Resources, Rocky Mountain National Park; and Kevin Zimlinghaus - Silviculturist, US Forest Service. Everyone is invited.



United States  
Department of  
Agriculture

Forest  
Service

Boulder  
Ranger District

2140 Yarmouth Avenue  
Boulder, CO 80301-1615

Voice: (303) 541-2500

Web: [www.fs.fed.us/r2/arnf](http://www.fs.fed.us/r2/arnf)

Fax: (303) 541-2515

RECEIVED  
JUN 26 2009  
BOULDER COUNTY  
LAND USE

File Code: 1560

Date: JUN 23 2009

Boulder County  
Land Use Department  
Attn: Hannah Hippely  
P.O. Box 471  
Boulder, CO 80306

To Boulder County Commissioners,

I applaud you and Boulder County's Parks and Open Space Department in your effort to provide a location for citizens of Boulder County to dispose of biomass related to forest management and wildfire mitigation projects due to forest health issues, such as the Mountain Pine Beetle epidemic. This facility will provide a great benefit to mountain residents. In the past, residents have struggled with how to dispose of material associated with their efforts to add defensible space around their property and to deal with Mountain Pine Beetle infected trees.

As a manager of a near by property, our Work Center across Kidge Rd from the proposed site, I have some concerns about how the site may potentially impact our facility but I am confident we can work out those concerns with Open Space site managers if they become a reality once the site is operational.

Again, I support this valuable benefit to the residents of Boulder County and thank you for your continued support of forest management and wildfire mitigation projects.

Sincerely,

CHRISTINE M. WALSH  
District Ranger





# Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

**MEMO TO:** Agencies  
**FROM:** Hannah Hippely, AICP, Planner II  
**DATE:** June 3, 2009  
**RE:** Docket LU-09-0010

**Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard  
Limited Impact Special Review**

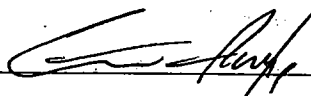
**Request:** A Limited Impact Special Review for a Forestry Processing and Sort Yard.  
**Location:** At 291 Ridge Road, north of and adjacent to Ridge Road approximately 0.15 miles east of Highway 72 (Peak to Peak Highway) in the SE1/4 of Section 12, Township 1S, Range 73W.  
**Zoning:** Forestry (F)  
**Applicant:** Therese Glowacki, Boulder County Parks and Open Space

Limited Impact Special Review is required of proposed uses that may have greater impacts on services, neighborhoods, or the environment than those allowed by right under the Boulder County Land Use Code. This process will review conformance of the proposed use with the Boulder County Comprehensive Plan and the Land Use Code.

This process includes a public hearing before the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of this hearing. The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter. Late responses will be reviewed as the process permits; all comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to review the entire file at the Land Use Department. If you have any questions regarding this application, please contact me at (303) 441-3930 or [hhippely@bouldercounty.org](mailto:hhippely@bouldercounty.org).

Please return responses to the above address by **June 18, 2009**.

We have reviewed the proposal and have no conflicts.  
 Letter is enclosed.

Signed  PRINTED Name ERIC PHILLIPS, WILLAGE MT CORP.  
Agency or Address BOULDER COUNTY

# WILDFIRE MITIGATION REFERRAL RESPONSE



To: Land Use Planner  
From: Eric Philips, Wildfire Mitigation Coordinator  
Subject: Wildfire mitigation referral comments

Docket: LU - 09 - 0010

Name: BOULDER COUNTY SALT YARD

Address: 291 Ridge Road

**Referral deadline:**  
6, 18, 09

Comments:

1. Is a WFP is required? If a WFP plan was submitted, has it been reviewed?

- |  |   |
|--|---|
| <input type="checkbox"/> WMP required  | <input checked="" type="checkbox"/> No WMP required for this proposal |
| <input type="checkbox"/> WMP submitted | <input type="checkbox"/> WMP not yet received                         |
| <input type="checkbox"/> WMP reviewed  | <input type="checkbox"/> WMP needs revisions                          |

2. Site Location - Is the proposed location of the structure ok from a wildfire hazard/d-space perspective? (See comments below)

- Yes  No

3. Construction Materials - Are the proposed materials ok? If not, what is.

- Moderate Hazard Site IR-3 - Wood siding ok
- High Hazard Site - IR-2 - No wood siding, limited wood exterior trim
- Extreme Hazard Site - IR-1 - Non-combustible exterior required

3. Driveway Access for Emergency Vehicles - Are improvements necessary for the driveway/private access?

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Turnaround required | <input checked="" type="checkbox"/> Pullout(s) required |
| <input checked="" type="checkbox"/> Driveway grading    | <input checked="" type="checkbox"/> Driveway clearance  |

4. Emergency Water Supply - is a community cistern an option, or will an individual cistern be required (and what capacity)?

Individual cistern required

Capacity: PORTABLE POND ~~3000~~ ~ 3000 gallons

Community cistern available

Contribution: \$ \_\_\_\_\_

Hydrants in the area

(Owner will need to contact FPD about this)

5. Do you recommend that a sprinkler system be installed (even if the Building Code does not require it)?

Yes

No

6. Are there any other issues related to wildfire hazard we should be aware of, or that could affect approval of the proposal? (See comments below)



# Boulder County Parks and Open Space

## MEMORANDUM

**TO:** Hannah Hippely, Land Use Department  
**FROM:** Ron West, Natural Resource Planner  
**DATE:** June 23, 2009  
**SUBJECT:** Docket LU-09-0010, Boulder County Forestry Processing and Sort Yard

---

### Site Conditions

I have reviewed the materials submitted by the applicant, and am familiar with the parcel. It is dominated by lodgepole pine, with a few mixed conifer species. Ground cover and shrub layers are sparse to none. Less than one acre of aspen is also present, in a single stand.

### County Comprehensive Plan Designations

The parcel has the following designations in the Boulder County Comprehensive Plan, and from other resource inventories.

- County Open Space – Mud Lake property
- Wetland
- Open Corridor, Roadside
- Adjacent to Public Lands – USFS, on east

### Discussion

There are seven semi-industrial sites in the immediate vicinity of Ridge Road:

<u>Site</u>	<u>Approx. Footprint in Acres</u>
County road maintenance	4.7
Nederland road maintenance (under construction)	3.0
State road maintenance	2.1
County recycling	0.8
School district bus barn	2.4
US Forest Service workstation	2.9
Private boneyard/historic mining site (to north)	5.0
<u>Total</u>	<u>20.9</u>

The proposed facility would clear and occupy 5 acres of the 36-acre open space property. Although this would cumulatively add to the disturbances in the locale, it would be a temporary

impact; the site is to be restored to native conditions. Additionally, since the site is virtually all lodgepole pine, impacts to wildlife habitat would be minor. A pure stand of lodgepole is the least diverse and the least important wildlife community type in the montane zone of the mountains.

There are no formal public trails on the property, though a number of “unauthorized” social trails have developed through local use. The facility would avoid these features.

The 0.1-acre wetland/pond was mapped by Wright Water Engineers in 1993, and classified as palustrine, shrub-dominated, seasonally flooded with emergent vegetation. It would be about 250 feet from the edge of the site and would not be impacted. Aspen would also be avoided.

The parcel’s Open Roadside Corridor designation is associated with the Peak to Peak Highway, not with Ridge Road. The facility would not be visible from the highway. The entire landscape in the vicinity will likely change significantly from the on-going beetle epidemic.

### Recommendations

- A state stormwater management plan (SWMP) should be required.
- A “kiln” is shown on Figure L1, though its use is not explained in the application. Similarly, a portable pond is depicted but is unexplained.
- Slash would need to be hauled (by a front-end loader?) from the public drop-off area to the air curtain burner. This heavy-use area crosses the designated large vehicle circulation route. Should the ABC be placed west of the large vehicle route to avoid this potential conflict?
- The fencing proposal is unclear. Would the entire site be fenced, and what type of fence would be used?
- I. Screening and Landscaping, first three sentences: This states that the clearing will be at least 100 feet from Ridge Road, but only (at least) 50 feet of trees would screen it. Since the edge of Ridge Road is treed throughout this area, this is confusing. Further, “This is shown in Figure L1,” but it is not apparent on the drawing except perhaps by scale.
- M. Electricity, Restrooms and Water. Using the restroom facilities in the Transportation shop does not seem practical when only a single staff person is on site. The site would be occasionally unattended. Is a portable toilet necessary?
- Does the application include an estimate of the time (years) the facility is expected to be operational?





# Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

**MEMO TO:** Agencies  
**FROM:** Hannah Hippely, AICP, Planner II  
**DATE:** June 3, 2009  
**RE:** Docket LU-09-0010

**Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard  
Limited Impact Special Review**

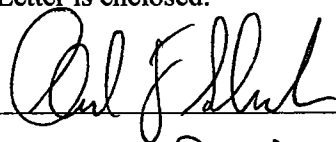
**Request:** A Limited Impact Special Review for a Forestry Processing and Sort Yard.  
**Location:** At 291 Ridge Road, north of and adjacent to Ridge Road approximately 0.15 miles east of Highway 72 (Peak to Peak Highway) in the SE1/4 of Section 12, Township 1S, Range 73W.  
**Zoning:** Forestry (F)  
**Applicant:** Therese Glowacki, Boulder County Parks and Open Space

Limited Impact Special Review is required of proposed uses that may have greater impacts on services, neighborhoods, or the environment than those allowed by right under the Boulder County Land Use Code. This process will review conformance of the proposed use with the Boulder County Comprehensive Plan and the Land Use Code.

This process includes a public hearing before the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of this hearing. The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter. Late responses will be reviewed as the process permits; all comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to review the entire file at the Land Use Department. If you have any questions regarding this application, please contact me at (303) 441-3930 or [hhippely@bouldercounty.org](mailto:hhippely@bouldercounty.org).

Please return responses to the above address by **June 18, 2009**.

We have reviewed the proposal and have no conflicts.  
 Letter is enclosed.

Signed  PRINTED Name Chad F. Schroeder  
Agency or Address Boulder County Department of Transportation



# Transportation Department

2525 13th Street, Suite 203 • Boulder, Colorado 80304 • Tel: 303.441.3900 • Fax: 303.441.4594  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

June 18, 2009

TO: Hannah Hippely, Staff Planner, Land Use Department

FROM: Chad Schroeder, Development Review Planner *CFS*

SUBJECT: Docket # LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard Limited Impact Special Use Review

The Transportation Department has reviewed the above referenced docket and has the following comments about the development.

1. The Transportation Department will issue an access permit to Ridge Road during the building permit process.
2. Due to over one acre of disturbance, a Stormwater Discharge Permit will need to be obtained from the State of Colorado and a Stormwater Management Plan sent to Boulder County to be kept on file.
3. The proposed driveway and accesses shall conform to Section 4.5 and Standard Drawings 5, 12, 14 and 15 of the Boulder County Road Standards and Specifications.
4. Staff requests that the applicants acquire the services of a traffic engineer registered in the State of Colorado to do an analysis on the proposed facility's traffic generation based upon the Institute of Transportation Engineers methodology and to then provide a traffic impact letter containing his/her findings. The letter shall provide an estimation of the projected trip generation for all traffic related to the proposed use (drop-offs, employees, supplies, etc) along with providing an assessment of the sight conditions. The Transportation Department will collaborate with the applicants to produce an acceptable traffic impact letter.

This concludes our comments at this time.



# Transportation Department

2525 13th Street, Suite 203 • Boulder, Colorado 80304 • Tel: 303.441.3900 • Fax: 303.441.4594  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

June 30, 2009

TO: Hannah Hippely, Staff Planner, Land Use Department  
FROM: Chad Schroeder, Development Review Planner *CFS*  
SUBJECT: Docket # LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard Limited Impact Special Use Review

The Transportation Department has reviewed the above referenced docket and has the following addendum comments about the development which complements the referral dated 18 June 2009.

1. The proposed interior roads for the sort yard are situated in the ideal locations for minimizing the amount of grading and disturbance for road construction due to the relative flat grades. Laying out a road network over other areas on the affected parcel could potentially require steeper sloped-roads requiring more grading than the proposed road alignments, which would also create a greater potential of road base erosion. Additionally, the proposed location minimizes the length of driveway from Ridge Road to a potential proposed site on the parcel.
2. Staff notes that the projected trip generation level of the sort yard summarized in the Traffic Review is acceptable for Ridge Road. However, given that the sort yard is a new use with limited historic traffic data, staff requests on a monthly basis that the applicants, during the typical three busiest consecutive days in the week, provide the total trips to and from the site as well as turning movement counts at the access. Contact the Transportation Department for any questions on traffic counting details. After one year, the Transportation Department will review and evaluate the traffic information and make recommendations at that time on any road and/or site changes as well as determine future traffic documenting needs.

This concludes our comments at this time.



# Transportation Department

2525 13th Street, Suite 203 • Boulder, Colorado 80304 • Tel: 303.441.3900 • Fax: 303.441.4594  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

July 14, 2009

## Traffic Impact Review: Ridge Road Community Forestry Sort Yard

To: Boulder County Parks and Open Space Department  
Boulder County Land Use Department

This Traffic Review is for a Limited Impact/Special Review Application of the Ridge Road Community Forestry Sort Yard. The 5-acre site within a 36-acre Parks and Open Space parcel is located 150 feet east of the entrance to the Boulder County Road Maintenance Yard. Boulder County Parks and Open Space may operate 6 days a week, April through November, 7:30 am to 6:00 pm. With current Boulder County Parks and Open Space Staff, they anticipate this site will be open approximately 2 to 4 months per year.

The Institute of Transportation Engineers (ITE) Trip Generation Manual does not include land use or trip generation numbers for Forestry Sort yard sites. Currently the site has no traffic use. Boulder County Parks and Open Space staff estimates that the Average Daily Traffic (ADT) for the intended sort yard will be approximately 100 trips per day.

Boulder County Parks and Open Space operates a Meeker Park Sort yard – approximately 10 miles from Estes Park (pop. approx 6200) in Larimer County – that generates 50 ADT. The Ridge Road Sort Yard will be approximately 1.5 miles from Nederland (pop. Approx 1360) and Parks and Open Space has estimated the ADT at 100. An estimate of ADT between 50 and 100 appears reasonable for the location.

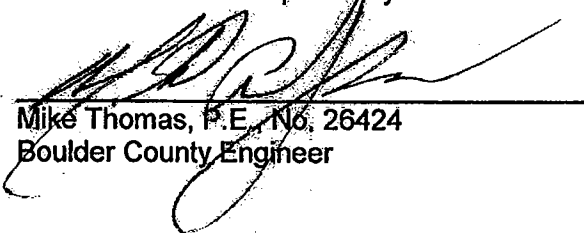
Ridge Road is a paved County Road with a current ADT of approximately 900. Peak Hour turning volumes are estimated to be 10 to 20 and based on this estimate, do not warrant a turn lane into the site. On site there is approximately 150 feet of storage length on the entrance road, which will allow 5 or 6 vehicles to stack in this area off Ridge Road.

The entrance is located along a straight section of Ridge Road allowing for adequate on-road sight distance. Parks and Open Space have stated they will clear the entrance road to provide sight distance per Boulder County standards.

The speed limit on Ridge road is 25 MPH. The minimum stopping sight distance for this speed limit is 155 feet, which is met along Ridge Road.

### Conclusions:

The traffic volumes (based on similar use assumptions) for the Ridge Road Sort Yard have been evaluated with no significant traffic impacts anticipated on Ridge Road. The entrance area should be cleared per the Boulder County Transportation Department intersection sight distance guidelines. Once the site is operational, traffic counts should be conducted to determine the actual peak day volume for further impact analysis.

  
Mike Thomas, P.E., No. 26424  
Boulder County Engineer

Date: 7/14/09



# Public Health

## Water Quality Program

June 19, 2009

Hannah Hippely, Planner II  
Boulder County Land Use

RE: Docket LU-09-0010: Boulder County Road Forestry Processing and Sort Yard Limited Impact Special Review

Dear Hannah:

The materials for the above referenced proposal have been reviewed. It is understood the proposal is for a forestry processing and sort yard. The property is located at 291 Ridge Road, S12 T1S R73. Based on our file review we have the following comments to offer:

### Drinking Water

No drinking water is proposed.

### Wastewater Treatment

No toilet facilities are proposed. Staff will have access to the County Transportation shop across the street for restroom facilities. It is recommended that restroom facilities for this site be designed and installed, especially since an office building is proposed.

### Air Quality

For the following comments and information, contact Susan Martino at (303) 441-1176. Included are comments and (2) Air Pollution Emission Notice applications, one for land clearing and one for stationary source emissions, which should accompany them.



FormAPCD-200-Gen APENLandDevelopm ent.pdf BCForestryProcessi ng\_SortYard\_...

If you have any questions, please feel free to contact me at (303) 441-1157.

Sincerely,

Iris Sherman-Boemker  
Environmental Health Specialist

Cc: Therese Glowacki, Boulder County representative  
File



# Land Use

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Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

**MEMO TO:** Agencies  
**FROM:** Hannah Hippely, AICP, Planner II  
**DATE:** June 3, 2009  
**RE:** Docket LU-09-0010

**Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard  
Limited Impact Special Review**

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**Applicant:** Therese Glowacki, Boulder County Parks and Open Space

Limited Impact Special Review is required of proposed uses that may have greater impacts on services, neighborhoods, or the environment than those allowed by right under the Boulder County Land Use Code. This process will review conformance of the proposed use with the Boulder County Comprehensive Plan and the Land Use Code.

This process includes a public hearing before the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of this hearing. The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter. Late responses will be reviewed as the process permits; all comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to review the entire file at the Land Use Department. If you have any questions regarding this application, please contact me at (303) 441-3930 or [hhippely@bouldercounty.org](mailto:hhippely@bouldercounty.org).

Please return responses to the above address by **June 18, 2009**.

We have reviewed the proposal and have no conflicts.  
 Letter is enclosed.

Signed Jeff Dwight PRINTED Name JEFF DWIGHT  
Agency or Address \_\_\_\_\_



# Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

RECEIVED  
JUN 09 2009

BOULDER COUNTY  
LAND USE

**MEMO TO:** Agencies  
**FROM:** Hannah Hippely, AICP, Planner II  
**DATE:** June 3, 2009  
**RE:** Docket LU-09-0010

**Docket LU-09-0010: BOULDER COUNTY Forestry Processing and Sort Yard  
Limited Impact Special Review**

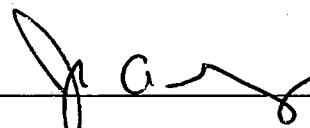
**Request:** A Limited Impact Special Review for a Forestry Processing and Sort Yard.  
**Location:** At 291 Ridge Road, north of and adjacent to Ridge Road approximately 0.15 miles east of Highway 72 (Peak to Peak Highway) in the SE1/4 of Section 12, Township 1S, Range 73W.  
**Zoning:** Forestry (F)  
**Applicant:** Therese Glowacki, Boulder County Parks and Open Space

Limited Impact Special Review is required of proposed uses that may have greater impacts on services, neighborhoods, or the environment than those allowed by right under the Boulder County Land Use Code. This process will review conformance of the proposed use with the Boulder County Comprehensive Plan and the Land Use Code.

This process includes a public hearing before the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of this hearing. The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter. Late responses will be reviewed as the process permits; all comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to review the entire file at the Land Use Department. If you have any questions regarding this application, please contact me at (303) 441-3930 or [hhippely@bouldercounty.org](mailto:hhippely@bouldercounty.org).

Please return responses to the above address by **June 18, 2009**.

We have reviewed the proposal and have no conflicts.  
 Letter is enclosed.

Signed  509 PRINTED Name Commander Joseph A. Gang  
Agency or Address Boulder County Sheriff's office

## Hippely, Hannah

---

**From:** Ludlow, Ryan  
**Sent:** Wednesday, July 01, 2009 12:02 PM  
**o:** Hippely, Hannah  
**Subject:** FW: Updates: Public Hearing for Nederland Sort Yard has been rescheduled for a later date.

FYI- message from a landowner about the proposed sort yard.  
~ryan

---

Ryan Ludlow  
Forestry Education and Outreach Coordinator  
Boulder County Land Use

---

**From:** penny carlisle [mailto:pennyacarlisle@hotmail.com]  
**Sent:** Tuesday, June 30, 2009 9:51 PM  
**To:** Ludlow, Ryan  
**Subject:** RE: Updates: Public Hearing for Nederland Sort Yard has been rescheduled for a later date.

Ryan,

We will be out of town at the time of the meeting. We support the proposal for a Boulder County Forestry Processing and Sort Yard. We realize neighbors have concerns, but we feel the sort yard is for the good of the whole county. The beetle infestation will only get worse and residents need a place to take infected trees.

Thank you,

Penny Ann Carlisle  
Robert Carlisle



EMAILING FOR THE GREATER GOOD

Join me

---

Date: Tue, 30 Jun 2009 16:05:18 -0600  
From: [rludlow@bouldercounty.org](mailto:rludlow@bouldercounty.org)  
Subject: Updates: Public Hearing for Nederland Sort Yard has been rescheduled for a later date.  
To: [BCFORESTHEALTH@LISTSERV.BOULDERCOUNTY.ORG](mailto:BCFORESTHEALTH@LISTSERV.BOULDERCOUNTY.ORG)

**Updates: Public Hearing for Nederland Sort Yard has been tabled to a later date.**

Please be informed that at the request of staff, the Board of County Commissioners hearing for the Docket LU-9-0010: Boulder County Forestry Processing and Sort Yard on Ridge Rd has been tabled from July 9th at 2pm to the new date: **August 4, 2009 at 4:30pm.**



June 28, 2009

RECEIVED  
JUL 01 2009  
BOULDER COUNTY  
LAND USE

RE: LU 09-0010

Hannah Hippely  
Boulder County Land Use Department  
2045 13th Street  
PO Box 471  
Boulder, CO 80302

Dear Ms Hippely:

Our neighbors and we are extremely concerned about the proposal to locate a Forestry Processing & Sort Yard ("Yard") on Boulder County Open Space on Ridge Road in Nederland. This operation has the potential to seriously disrupt the quiet lifestyle we currently enjoy in the mountains.

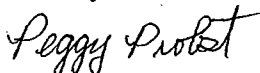
The potential noise level, especially of the grinders, is of great concern. My husband and I work out of home offices, so limiting the hours of operation to weekdays 9-5 does nothing to mitigate the noise level we could be exposed to.

Boulder County made certain specific verbal agreements at past public hearings, such as those regarding hours of operation and the temporary nature of the facility. Why do these agreements not appear now in the official application? We propose limiting the operation to a 5 year lifespan. And we further propose that the facility not use any noise producing machinery on weekends.

Another critical desire is that no truck traffic headed to or from the Yard be allowed to use Hurricane Hill Road. This road is very windy, and many cars cannot remain on their own side of the road when coming around the curves. I often encounter vehicles in my lane. I DO NOT want to encounter a large truck in my lane. All trucks using the Yard should be required to approach and exit via the Peak to Peak Highway.

Please do not allow this operation to negatively impact our lives in the mountains.

Sincerely,



Peggy and Kevin Probst  
10 Timberline Road  
Nederland, CO 80466

caymangal@nedernet.net

**John and Annie Bonvouloir  
PO Box 1264 – 1423 Ridge Rd.  
Nederland, CO 80466**

June 30, 2009

RE: LU 09-0010

Hannah Hippely  
Boulder County Land Use Department  
2045 13<sup>th</sup> Street  
PO Box 471  
Boulder, CO 80302

Dear Ms Hippely:

Our family is concerned about the proposal to locate a Forestry Processing & Sort Yard ("Yard") on Boulder County Open Space on Ridge Road in Nederland. We understand that the Nederland Board of Trustees had supported the application with the greater good of Nederland in mind. However please consider our concerns as we have lived at our current location on Ridge Road since 1993 and are worried about the impact this facility will have on our lives and possible future resale value of our property. Unlike high profile complaints by neighbors to passing jets by DIA, we were already here not after the fact. With that in mind please consider our following requests and comments.

### **Hours of Operation**

Boulder County publicly stated that the Yard would be open approximately 60 days each year. The application states that the Yard will be open 2 to 4 months each year. Please help keep Boulder County's promise to the public by limiting operations to 2 months each year.

We want the Yard's hours of operations limited to weekdays between 9 AM and 5 PM so that noise and smoke from this facility will not effect our daily lives. Allowing 2 hours for proper shut-down of the Air Curtain Burner ("ACB"), the Yard receives its last delivery no later than 3:00 PM.

Further, Boulder County stated in past public meetings that the Yard will be closed when the ACB is not on site. This is missing from the application and should be added.

### **Noise**

The use of front-end loaders, other log handling machinery, chainsaws, chippers, grinders, and the ACB itself constitutes a significant source of noise pollution in the neighborhood. Please limit the Yard to a single chipper which should be used only on weekdays (i.e. not Saturday). Grinders have 1000 hp diesel engines and due to the tremendous noise they product (96+ dbA or equivalent to a passing freight train), should not be used in the Yard at any time.

### **Fire**

Please ensure that Yard operations follow the ACB manufacturer's guidelines in regard to wind speed and distance to trees and stored brush piles.

Please make sure that Yard operations follow the recommendations outlined in section 6.4.10 "Fire Hazard Rating and Related Control Measures" in the "Hazard Control Plan" document written by Michael E. Dennis of Los Alamos National Laboratory.

Due to the high winds this site experiences, Boulder County should perform a study of winds prior to constructing the Yard to determine whether safe ACB operation is feasible during the expected operation schedule.

### **Beetle flight times**

I am greatly concerned over the Yard's operations during beetle flight time and its impact on our neighborhood's forest health. Boulder County repeatedly stated that the Yard would close and cease operation during beetle flight time. The application does not reflect that promise and should be updated to match their public assurances.

### **Traffic**

Trucks and vehicles involved in the operation and maintenance of the Yard including removing ash and wood chips, delivering equipment and supplies, and other activities should be allowed on Ridge Road only to the west of the Yard entrance. Turning east on Ridge Road requires vehicles to navigate through tight turns and steep roads and will cause undue danger for the neighborhood traffic.

### **Length of Service**

Boulder County made statements promising that this Yard would be temporary. This promise is not reflected in the application. Other Limited Impact Special Use applications (e.g. LU-08-009) specify start and end dates of operation. Please limit the Yard's operations to 5 years.

Statements made by representatives from Boulder County Commissioners Office during a public hearing in Nederland helped to assuage the fears of community residents and the Nederland Board of Trustees and played a significant role in building support for this site. However, the commitments made during that meeting have since disappeared and are not reflected in the application. Please keep Boulder County true to their word and enforce the promises they made to the community.

Sincerely,

John and Annie Bonvouloir

ROSS + SUSAN DICKEN  
PO Box 2076  
Nederland, CO 80466  
501 Ridge RD

RECEIVED  
JUL 02 2009  
BOULDER COUNTY  
LAND USE

June 28, 2009

RE: LU 09-0010

Hannah Hippely  
Boulder County Land Use Department  
2045 13<sup>th</sup> Street  
PO Box 471  
Boulder, CO 80302

Dear Ms Hippely:

My family is extremely concerned about the proposal to locate a Forestry Processing & Sort Yard ("Yard") on Boulder County Open Space on Ridge Road in Nederland. The impact of Yard operations is unprecedented in our neighborhood and represents an order of magnitude beyond anything else around it.

### Hours of Operation

Boulder County publicly stated that the Yard would be open approximately 60 days each year. The application states that the Yard will be open 2 to 4 months each year. Please help keep Boulder County's promise to the public by limiting operations to 2 months each year.

We want the Yard's hours of operations limited to weekdays between 9 AM and 5 PM so that noise and smoke from this facility will not effect our daily lives. Allowing 2 hours for proper shut-down of the Air Curtain Burner ("ACB"), the Yard receives its last delivery no later than 3:00 PM.

**NO WEEKEND OPERATION PLEASE.**

Further, Boulder County stated in past public meetings that the Yard will be closed when the ACB is not on site. This is missing from the application and should be added. **ABSOLUTELY !!**

### Noise

The use of front-end loaders, other log handling machinery, chainsaws, chippers, grinders, and the ACB itself constitutes a significant source of noise pollution in the neighborhood. Please limit the Yard to a single chipper which should be used only on weekdays (i.e. not Saturday). Grinders have 1000 hp diesel engines and due to the tremendous noise they product (96+ dbA or equivalent to a passing freight train), should not be used in the Yard at any time.

### Fire

Please ensure that Yard operations follow the ACB manufacturer's guidelines in regard to wind speed and distance to trees and stored brush piles.

Please make sure that Yard operations follow the recommendations outlined in section 6.4.10 "Fire Hazard Rating and Related Control Measures" in the "Hazard Control Plan" document written by Michael E. Dennis of Los Alamos National Laboratory.

Due to the high winds this site experiences, Boulder County should perform a study of winds prior to constructing the Yard to determine whether safe ACB operation is feasible during the expected operation schedule.

**Beetle flight times**

I am greatly concerned over the Yard's operations during beetle flight time and its impact on our neighborhood's forest health. Boulder County repeatedly stated that the Yard would close and cease operation during beetle flight time. The application does not reflect that promise and should be updated to match their public assurances.

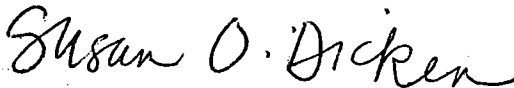
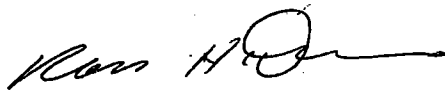
**Traffic**

Trucks and vehicles involved in the operation and maintenance of the Yard including removing ash and wood chips, delivering equipment and supplies, and other activities should be allowed on Ridge Road only to the west of the Yard entrance. Turning east on Ridge Road requires vehicles to navigate through tight turns and steep roads and will cause undue danger for the neighborhood traffic. *DO NOT PERMIT EAST SIDE TRUCK TRAVEL AS THIS IS WHERE OUR NEIGHBORHOOD BEGINS - I'M LESS THAN 1000FT FROM THIS*  
**Length of Service site -**

Boulder County made statements promising that this Yard would be temporary. This promise is not reflected in the application. Other Limited Impact Special Use applications (e.g. LU-08-009) specify start and end dates of operation. Please limit the Yard's operations to 5 years.

Statements made by representatives from Boulder County Commissioners Office during a public hearing in Nederland helped to assuage the fears of community residents and the Nederland Board of Trustees and played a significant role in building support for this site. However, the commitments made during that meeting have since disappeared and are not reflected in the application. Please keep Boulder County true to their word and enforce the promises they made to the community.

Sincerely,



## Hippely, Hannah

---

**From:** Fred Johnson [gfredj@yahoo.com]  
**Sent:** Tuesday, June 30, 2009 1:02 PM  
**o:** Hippely, Hannah  
**Subject:** Fw: Forestry Processing & Sort Yard on Ridge Rd., Nederland

----- Forwarded Message -----

**From:** Fred Johnson <gfredj@yahoo.com>  
**To:** www.hhippely@bouldercounty.org  
**Sent:** Tuesday, June 30, 2009 1:55:14 PM  
**Subject:** Forestry Processing & Sort Yard on Ridge Rd., Nederland

Fred Johnson  
1455 Ridge Rd.  
Nederland, CO 80466

June 30, 2009

RE: LU 09-0010

Hannah Hippely  
Boulder County Land Use Department  
2045 13th Street  
PO Box 471  
Boulder, CO 80302

Dear Ms Hippely:

My family is extremely concerned about the proposal to locate a Forestry Processing & Sort Yard ("Yard") on Boulder County Open Space on Ridge Road in Nederland. The impact of Yard operations is unprecedented in our neighborhood and represents an order of magnitude beyond anything else around it.

**Hours of Operation**  
Boulder County publicly stated that the Yard would be open approximately 60 days each year. The application states that the Yard will be open 2 to 4 months each year. Please help keep Boulder County's promise to the public by limiting operations to 2 months each year. We want the Yard's hours of operations limited to weekdays between 9 AM and 5 PM so that noise and smoke from this facility will not effect our daily lives. Allowing 2 hours for proper shut-down of the Air Curtain Burner ("ACB"), the Yard receives its last delivery no later than 3:00 PM. Further, Boulder County stated in past public meetings that the Yard will be closed when the ACB is not on site. This is missing from the application and should be added.

**Noise**  
The use of front-end loaders, other log handling machinery, chainsaws, chippers, grinders, and the ACB itself constitutes a significant source of noise pollution in the neighborhood. Please limit the Yard to a single chipper which should be used only on weekdays (i.e. not Saturday). Grinders

have 1000 hp diesel engines and due to the tremendous noise they product (96+ dbA or equivalent to a passing freight train), should not be used in the Yard at any time.

#### Fire

Please ensure that Yard operations follow the ACB manufacturer's guidelines in regard to wind speed and distance to trees and stored brush piles.

Please make sure that Yard operations follow the recommendations outlined in section 6.4.1b "Fire Hazard Rating and Related Control Measures" in the "Hazard Control Plan" document written by Michael E. Dennis of Los Alamos National Laboratory.

Due to the high winds this site experiences, Boulder County should perform a study of winds prior to constructing the Yard to determine whether safe ACB operation is feasible during the expected operation schedule.

#### Beetle flight times

I am greatly concerned

over the Yard's operations during beetle flight time and its impact on our neighborhood's forest health. Boulder County repeatedly stated that the Yard would close and cease operation during beetle flight time. The application does not reflect that promise and should be updated to match their public assurances.

#### Traffic

Trucks and vehicles involved in the operation and maintenance of the Yard including removing ash and wood chips, delivering equipment and supplies, and other activities should be allowed on Ridge Road only to the west of the Yard entrance. Turning east on Ridge Road requires vehicles to navigate through tight turns and steep roads and will cause undue danger for the neighborhood traffic.

#### Length of Service

Boulder County made

statements promising that this Yard would be temporary. This promise is not reflected in the application. Other Limited Impact Special Use applications (e.g. LU-08-009) specify start and end dates of operation. Please limit the Yard's operations to 5 years.

Statements made by

representatives from Boulder County Commissioners Office during a public hearing in Nederland helped to assuage the fears of community residents and the Nederland Board of Trustees and played a significant role in building support for this site. However, the commitments made during that meeting have since disappeared and are not reflected in the application. Please keep Boulder County true to their word and enforce the promises they made to the community.

Sincerely,

Fred Johnson

**Hippely, Hannah**

---

**From:** webmaster@bouldercounty.org  
**Sent:** Tuesday, June 09, 2009 5:37 PM  
**o:** #LandUsePlanner  
**Subject:** Ask a Planner - Web Inquiry

\*\*\*\*\*

**Name:** Wendy Cookler  
**Email\_Address:** [cookler@indra.com](mailto:cookler@indra.com)  
**Docket\_Number:** LU-09-0010  
**Remote User:**  
**HTTP User Agent:** Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10\_4\_11; en) AppleWebKit/525.27.1 (KHTML, like Gecko) Version/3.2.1 Safari/525.27.1

**Comments\_to\_Planner:**

We are very concerned about the additional traffic on Ridge and Hurricane Hill and request that the entry road be designed in a manner that makes turning to the east more difficult. Ot, perhaps a "no-left turn" sign at the exit. All trucks that come from the county should be directed not to go down Hurricane Hill to the canyon, but rather to Peak to Peak Highway and through Nederland. Please consider this since everytime a new use is added to Ridge Road, the traffic increases past residences. Thank you.



**Hippely, Hannah**

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**From:** Haverfield, Carrie  
**Sent:** Tuesday, June 23, 2009 12:51 PM  
**To:** Hippely, Hannah  
**Subject:** FW: Forestry Processing and Sort Yard

-----Original Message-----

**From:** Andrew Cookler [mailto:cookler@indra.com]  
**Sent:** Monday, June 22, 2009 12:12 PM  
**To:** Boulder County Board of Commissioners  
**Subject:** Forestry Processing and Sort Yard

Dear County Commissioners,

Regarding the Processing and Sort yard that is under consideration for Ridge Road north of Nederland, it is incumbent upon the county to be as good stewards of their land as they hope the private landowners will be of theirs. To that end, we, the neighbors, expect the county to cut and dispose of all the trees infested and killed by the various beetles on the county open space lands surrounding the sort yard site.

It would be a real shame if the county failed to set a good example for the local landowners to follow, especially with the processing facility next door.

Thank you very much,,,,,,,Andrew Cookler

## Hippely, Hannah

---

**From:** Stephen Whinston [whinston@hotmail.com]  
**Sent:** Wednesday, June 24, 2009 4:23 PM  
**To:** Hippely, Hannah  
**Subject:** LU 09-0010 Forestry Processing & Sort Yard  
**Importance:** High

Stephen Whinston  
PO Box 882  
Nederland, CO 80466

June 23, 2009

RE: LU 09-0010

Hannah Hippely  
Boulder County Land Use Department  
2045 13th Street  
PO Box 471  
Boulder, CO 80302

Dear Ms Hippely:

My family is extremely disturbed and concerned about the proposal to locate a Forestry Processing & Sort Yard ("Yard") on Boulder County Open Space on Ridge Road in Nederland. This is an industrial facility adjoining a parking lot for school buses and a garage for county & state vehicles. The Forest Service field station is home to fire fighters during the summer months. This is not an industrial area as the document tries to describe. This is our neighborhood. We live here with our families and friends.

A Forestry Processing & Sort Yard is an open air factory. Raw materials arrive at the Processing Yard and are transformed through mechanical processes such as chipping, grinding, and burning. These mechanical processes occur continuously throughout each day's operations and are noisy and highly intrusive. This is not just another maintenance facility on Ridge Road. The impact of Yard operations is unprecedented in the neighborhood and represents an order of magnitude beyond anything else around it.

The proposed hours of Yard operations are completely out of line with what is acceptable for our neighborhood. As proposed, when I wake up in the morning and leave my home for work, the Processing Yard is open and in operation. When I arrive home in the evening and sit down to dinner with my family, operations at the Yard continue. When I awake Saturday morning, the Yard begins operations for the day. Throughout the day on Saturday, my peaceful weekend is constantly intruded upon by noise, smoke, pollution, and traffic from the Yard's operation. Sunday is the only day of respite the Yard affords my family.

It seems crazy to place an Air Curtain Burner ("ACB"), highly sensitive to wind conditions, mere yards away from where a large wind turbine was destroyed by 100+ mph winds less than one week after installation. At the very least, placing an ACB on the windward side of the aptly named Hurricane Hill demands a study of the site's wind conditions to determine whether safe operation is even feasible. In fact, wind speed played absolutely no role in the County's choice of this site.

What is the plan for monitoring air quality? What is the plan for conforming to state and Federal air quality regulations? What is the plan for making adjustments when the Yard is not in compliance? These are important long-term, operational concerns that are not addressed in the application.

Statements made by representatives from Boulder County Commissioners Office during a public hearing in Nederland helped to assuage the fears of community residents and the Nederland Board of Trustees and played a significant role in building support for this site. However, the commitments made during that meeting have since disappeared and are not reflected in the application.

For example, the community expressed great concern over the Yard's operations during beetle flight time. Boulder County repeatedly stated that the Yard would close and cease operation during beetle flight time. However, this promise is explicitly broken in the text (III. O.) of this application.

Another example is the repeated assurance that the Yard is a temporary facility. Other Limited Impact Special Use applications (e.g. LU-08-009) specify start and end dates of operation. However, this application avoids specifying a period of use and implies the Yard as being a facility in perpetuity. Why should this application be exempt from that expectation?

Please keep Boulder County true to their word. Help them enforce the promises they made to the community.

1. Require that the Yard be shut during beetle flight time.
2. Place a hard cap of 5 years on the Yard's length of service after which the Yard is permanently shut.
3. Limit the scale of Yard operations to a single ACB, chipper, and grinder so as not to unduly impact the quality of life in the neighborhood.
4. Limit Yard operations to between 9:00 AM and 4:00 PM
5. Boulder County stated that the intent is for the Yard to be open 60 days per year. Enforce this claim with a requirement that the Yard be open no more than 60 days per year.
6. Ensure that the current Boulder County Open Space Management Plan remains in effect for the Ridge Road Open Space parcel except for the 3 - 5 acres reserved for the Yard.

Does Boulder County have liability insurance covering the Yard's operations? While the chance of wildfire caused by ACB operation is relatively low (when done in compliance with manufacturer recommendations), over the lifetime of the Yard this becomes a significant risk. Even a single ember-sparked wildfire could cause catastrophic damage to life and property. Boulder County should be required to demonstrate an ability to mitigate this risk with financial instruments.

Another serious issue with this application that demands close attention is the fact that, as of the current date, the proposed site continues to be managed as Boulder County Open Space as outlined in the Mud Lake IGA. The language of the IGA expressly prohibits the use of this parcel as a Forestry Processing and Sort Yard. Accepting this application may well violate these legal contracts.

While evaluating the merits of this application, please take into account the severe impact this Yard has on our neighborhood and community. Our family and neighbors appreciate your consideration of these items and are interested in working together to ensure that the interests of all stakeholders are met.

Sincerely,

Stephen Whinston

Hippely, Hannah

---

From: Haverfield, Carrie  
Sent: Thursday, June 11, 2009 4:39 PM  
o: Hippely, Hannah  
Subject: FW: curtain burner

Please include as public comment for the Ridge Rd. forestry sort yard docket.

-----Original Message-----

From: Anne Reach [mailto:dravr@mindspring.com]  
Sent: Wednesday, June 03, 2009 8:49 AM  
To: Boulder County Board of Commissioners  
Subject: curtain burner

>  
> Dear County Commissioner,  
  
June 2, 2009  
  
>  
>  
> I am writing you because of my concern about the curtain burner you  
> plan to install on my road. I live at 1159 Ridge Road, less than  
> a mile from the proposed burning site. I bought this house last  
> July for health reasons. I suffer from extreme chemical  
> sensitivity, having been exposed to highly toxic fumes in New York  
City during the 9/11 terrorist attack. One of my biggest problems  
> is with my lungs: they function at about half their normal  
> capacity. Exposure to toxins brings on acute spasms in my lungs  
> reducing my ability to breathe even more. Wood smoke, even the  
> smallest amount, is one of the toxins that cause such acute  
> reactions. The curtain burner will obviously emit wood smoke in  
> addition to pesticides sprayed on the trees.  
>  
> If you continue with your current plans for the curtain burner on  
> Ridge Road I will have to vacate my house. However, I have nowhere  
> to go and I don't have the money to purchase another house. I  
> paid \$600,000. for the house and other necessities to make it  
> habitable. Is the county willing to purchase my house so that I  
> will have the money to move elsewhere? Even with the money,  
> finding a safe place to live given my health issues is extremely  
> difficult. It would obviously be in my best interest if you  
> decided to site the curtain burner elsewhere. If you need the  
> names and phone numbers of doctors who have treated me I will be  
> pleased to provide them.  
>  
>  
> Sincerely,  
>  
>  
> Anne Reach  
> (303) 258-7401  
>  
>

## Hippely, Hannah

---

**From:** Roger W Cornell [Cornell@colorado.edu]  
**Sent:** Wednesday, June 17, 2009 9:07 AM  
**To:** #LandUsePlanner  
**Subject:** Docket # LU-09-0010 - Forestry Processing and Sort Yard

Dear Hannah Hippely,

I have walked the site and have just a few comments.

The entire use area could be moved about 50 feet to the west to put it right adjacent to the bus barn. The trees there are dead and by scraping just a little material a good portion of the project would be tucked behind the existing knoll and hidden from view.

I hope that the project stays at the 2 to 2.5 acre limit which seems like it should be plenty of space for this project. Please keep it small and use a second phase if there is a need for more area.

I suggest that the hours be 8:00 - 4:00 which is the same as the green box across the road. There should be a 6 month review of the project to look at the impact and noise that has affected the neighbors. I'm not worried about the curtain burner as much as I am about all the truck traffic and the noise from the skid loader. Also, a chipper if used will add to the noise levels.



# Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930

Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

March 19, 2020

Boulder County Parks & Open Space  
c/o Stefan Reinold  
5201 St. Vrain Road  
Longmont, CO 80503

Dear Applicant:

This letter certifies that a hearing of the Board of County Commissioners, County of Boulder, State of Colorado, was duly called and held on February 27, 2020, in consideration of the following request:

**Docket LU-19-0041: Parks and Open Space Forestry Processing and Sort Yard**

Limited Impact Special Use Review to allow the continued operation of an existing Forestry Processing and Sort Yard on a 36.32 acre parcel located at 291 Ridge Road; submitted by Stefan Reinold and Boulder County Parks & Open Space, and the County of Boulder; in accordance with the Boulder County Land Use Code. The proposed project is in the Forestry Zoning District, at 291 Ridge Road, approximately 1700 feet east of the intersection of Ridge Road and State Highway 72, Section 12, Township 1S, Range 73W.

The Board of County Commissioners has determined that the request is CONDITIONALLY APPROVED, subject to the terms in the attached resolution.

Your approval may have included certain conditions that must be met. Please contact the Community Planning & Permitting Department for more information on any necessary requirements.

If you have any additional questions, please feel free to contact me at 720-564-2613, or via email at [sgambrel@bouldercounty.org](mailto:sgambrel@bouldercounty.org).

Sincerely,

Sean Gambrel, CNUa, Planner II  
Planning Division  
Community Planning & Permitting Department

## RESOLUTION 2020-26

### **A resolution conditionally approving Boulder County Land Use Docket LU-19-0041: Parks and Open Space Nederland Forestry Processing and Sort Yard**

#### Recitals

A. Boulder County Parks and Open Space (the “Applicant”), applied to Boulder County for Limited Impact Special Use Review under Article 4-600 of the Boulder County Land Use Code (the “Code”) for re-approval of the existing sort yard originally approved as Docket LU-09-0010 and last approved as LU-16-0041.

B. The subject property is located at 291 Ridge Road, approximately 1,700 feet east of its intersection with State Highway 72, in Section 12, Township 1 South, Range 73 W, in a Forestry zoning district in unincorporated Boulder County.

C. In 2009, the Boulder County Board of County Commissioners (the “Board”) approved a Community Forestry Sort Yard (“CFSY”) on Ridge Road to serve the Nederland area. The original sort yard approval was in response to the mountain pine beetle and ips beetle epidemic taking place at that time. The approval was valid for a three-year period, and the use was reviewed and re-approved in 2014 and 2017. In years since the original approval, the majority of materials received at the sort yard has shifted from those generated by pest issues to those generated by wildfire mitigation efforts. The popularity of the sort yard since its creation has proven the need for a publicly-accessible facility where forestry materials may be brought for processing. This has been essential in advancing county programs in forest insect/disease control and wildfire mitigation. Additionally, materials processed at the yard are utilized as a biomass heating fuel source by county facilities. For of these reasons, the sort yard has proven to be an important and beneficial asset to Boulder County and residents of the Nederland area.

D. Site improvements required in the 2009 approval were installed for the initial 2010 season. These included gating and fencing, an access drive built to county standards, internal circulation, and a storage shed. Electricity was later added on the site, allowing for the placement of a security light near the entrance of the site and providing electrical access for the workers on site.

E. The CFSY has operated annually between the months of April and October since 2010. Originally, sort yard operations were split between the Allenspark sort yard and the Ridge Road facility, with each generally operating during periods when the other was not. The popularity of the facilities has led to both sites being open from April through November.

F. Some changes to the operation have occurred since the original approval. The county initially operated an air-curtain burner on the site to process materials. This burner unit used an ember screen but was subject to a number of operating restrictions to reduce fire hazards, based on meteorological conditions such as wind. Because there were numerous periods when the air curtain burner could not be operated, the county discontinued its use and no longer owns the equipment. A mobile grinder was purchased in 2013, allowing the county to produce biomass that could be used for heating and compost. The proposed primary method for processing materials on site continues to be the grinder unit. However, the Applicant would like to maintain the option of an air-curtain burner on the site if desired in the future.

G. During operations, staff regularly grinds slash piles to process and remove the material in a very short time-frame, and with minimal restrictions; when grinding slash material there is a 60% reduction of volume which helps decrease transportation costs. A semi-truck can hold up to 120 cubic yards of ground slash, and up to four truckloads can be processed in a day. Typically, a minimum of two loads are ground at a time to limit the number of grinding days and minimize noise.

H. In addition to operations during the April – November season, there is occasionally the need to store and/or process materials during the winter months. For instance, a spike in wood volume that could be processed and stored for use in biomass heating facilities at county facilities occurred after the Cold Spring Fire. Providing a Christmas tree drop-off facility for area residents is another need during the current off-season.

I. Two of the primary concerns at the time of the original approval were potential impacts from traffic and noise. At each of the prior approvals, the Applicant committed to continued monitoring of traffic and noise impacts. Monitoring has taken place throughout the periods of operation over the succeeding years, and the Applicant has provided those results for review.

J. While this application does not seek to change the primary characteristics of the use from the previous approvals, the Applicant proposes to extend the season that the facility operates. The Applicant would like to extend operations to be open during the months of December through March. The Applicant proposes that the facility be open for material storage and processing by staff on Monday through Saturday, and that the facility be open to the public on Fridays and Saturdays. As with current operations, the facility will only be open for an 8-hour period between 7:00 a.m. and 6:30 p.m., and grinding operations may only occur between 8:00 a.m. and 5:00 p.m.

K. The above-described request was processed and reviewed as Boulder County Land Use Docket LU-19-0041 (the “Docket”), as further described in the memorandum and written recommendation to the Board by Boulder County Community Planning & Permitting Department (formerly the Land Use Department) planning staff dated February 27, 2020, together with its



attachments (the “Staff Recommendation”). The Staff Recommendation found that the Docket could meet the criteria for approval with recommended conditions, and therefore, recommended that the Board conditionally approve the Docket.

L. At a public hearing on the Docket held February 27, 2020 (the “Public Hearing”), as further reflected in the official record of the Public Hearing, the Board considered the Staff Recommendation, as well as documents and testimony presented by County Community Planning & Permitting Department planning staff. The Board also heard testimony from County Parks and Open Space Department staff Wayne Harrington and Stefan Reinold on behalf of the Applicant. No members of the public spoke at the Public Hearing.

M. Based on the Public Hearing, the Board finds that the Docket meets the criteria for Limited Impact Special Use approval for a Forestry Processing and Sort Yard as set forth in Articles 4-601 and 4-505.B of the Code, subject to the conditions stated below.

N. Therefore, the Docket can be approved, subject to the conditions stated below.

Therefore, the Board resolves:

Docket LU-19-0041 is approved on the basis and terms set forth in this Resolution, above, and subject to the following conditions:

1. In accordance with the provisions of Article 4-505.5.e of the Code, the facility is approved for operation for a minimum period of three years (2020, 2021, and 2022 operating seasons). Prior to any use of the facility beyond the 2022 operating season, the Board must review the facility to ensure that requirements and conditions continue to be met and to determine if the facility continues to be needed by the community. During the three-year review, the Board may set such additional terms and conditions necessary for continued compliance with the Code or determine that operation of the facility shall cease.
2. From April to November, the facility may be open to the public for an 8-hour period between 7:00 a.m. and 6:30 p.m. Monday through Saturday.
3. From December to March, the facility may be open to the public for an 8-hour period between 7:00 a.m. and 6:30 p.m. on Fridays and Saturdays only. The facility may be utilized by county staff only, not open to the public, during the same hours, Monday through Thursday.
4. Operation of the grinder shall occur only between the hours of 8:00 a.m. and 5:00 p.m.

5. If an air curtain burner or similar burning unit is utilized on the site, it may only be operated between 8:00 a.m. and 5:00 p.m., and must be operated within the following parameters:

- a. Nederland Fire Protection District must be allowed to inspect the unit and must be notified at the commencement and cessation of use.
- b. The burner unit must be located at least 500 feet from the nearest occupied structure and at least 100 feet from the edge of the forested area during operation.
- c. Wildfire suppression apparatus must be on site at all times during burner operation.
- d. The burner unit may not be used during red flag warnings or when not exempted during fire restrictions.
- e. An ember screen will be placed on the unit when not in use and at any time that the unit is operated when winds are in excess of 15 miles per hour.

6. The sound levels generated at the facility are acceptable, subject to the limitations on operating hours cited above. A sound level meter shall be used to periodically measure, at each property line, the noise level generated at the facility while the loudest machinery is in use. This information shall be submitted with the application materials at the three-year review.

7. The sort yard shall be limited to a maximum size of three acres, the approximate size of the facility at the time of this approval. If the Applicant intends to expand the facility, Community Planning & Permitting Department staff will need to determine whether the request is a minor or major modification to this review and approval.

8. Maintenance of all aspects of the site must continue as necessary, including but not limited to vegetative screening, the access drive, fencing, and erosion control measures.

9. Upon permanent cessation of this use, site restoration, revegetation, and weed management shall occur as outlined in the application materials to ensure that the facility does not have a long-term negative impact on the land.

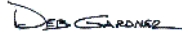
10. The Applicant shall be subject to the terms, conditions, and commitments of record in the file for Docket LU-19-0041: Parks and Open Space Forestry Processing and Sort Yard.

**[Signature Page to Follow]**

A motion to approve the Docket was made by Commissioner Matt Jones, seconded by Commissioner Elise Jones, and passed by a 3-0 vote.

**ADOPTED** as a final decision of the Board on this 24th day of March 2020.

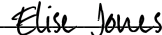
**BOARD OF COUNTY COMMISSIONERS  
OF BOULDER COUNTY:**



\_\_\_\_\_  
Deb Gardner, Chair

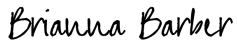


\_\_\_\_\_  
Matt Jones, Vice Chair



\_\_\_\_\_  
Elise Jones, Commissioner

ATTEST:



\_\_\_\_\_  
Clerk to the Board

## **RESOLUTION 2017-42**

### **A resolution conditionally approving Boulder County Land Use Docket LU-16-0041: Boulder County Forestry Processing and Sort Yard**

#### Recitals

A. In August 2009, the Board of County Commissioners (“Board”) approved Boulder County Land Use Docket LU-09-0010, as further described in Board Resolution 2009-113, allowing a Forestry Processing and Sort Yard under Article 4-504.B. of the Land Use Code to be constructed at 291 Ridge Road, north of and adjacent to Ridge Road approximately 0.15 miles east of Highway 72 (Peak to Peak Highway) in the SE 1/4 of Section 12, T1S, Range 73W (“the Property”), in the Forestry Zoning District in unincorporated Boulder County.

B. The Board in the 2009 approval required that, prior to any use of the facility beyond an initial term of three years from the date that the facility opened, the facility must be reviewed and approved through the Limited Impact Special Review process, to determine if the criteria in the Land Use Code continued to be met, and if the facility continued to be needed by the community.

C. In July 2014, the Board performed the three year review and approved Boulder County Land Use Docket LU-14-0008, as further described in Board Resolution 2014-61, to continue operating the community sort yard for an additional three years (the 2014, 2015, and 2016) to meet the needs of the surrounding community.

D. Boulder County Parks and Open Space Department (“Applicant”) now requests approval of its limited impact special use review application (the “Application”) for the facility to continue its operations on the same property, as the need for addressing pine beetle infestation and mitigating wildfire risk remains.

E. The Application was processed and reviewed as Boulder County Land Use Docket LU-16-0041 (“the Docket”), all as further described in the Boulder County Land Use Department Planning Staff’s Memorandum and written recommendation to the Board dated January 24, 2017, with its attachments (“the Staff Recommendation”).

F. On January 24, 2017, the Board held a duly-noticed public hearing on the Docket (“the Public Hearing”), at which time the Board considered the Staff Recommendation, and also considered the documents and testimony presented by the County Land Use Department Planning Staff, representatives of the Applicant, and no members of the public, all as further reflected on the official record of the Public Hearing.

G. Based on the Public Hearing, the Board finds that the Docket meets the criteria for limited impact special use approval set forth in Article 4 of the Land Use Code, and therefore approves the request in the Docket, subject to the conditions stated below.

Therefore, the Board resolves:

Docket LU-16-0041 is approved on the basis and terms set forth in this Resolution, above, and subject to the following conditions:

1. In accordance with the provisions of Article 4-505.5.e, the facility is approved for operation for a minimum period of three years (2017, 2018, and 2019 operating seasons). Prior to any use of the facility beyond the 2019 operating season, the facility must be reviewed by the BOCC to ensure that requirements and conditions continue to be met and to determine if the facility continues to be needed by the community. During the three-year review, the BOCC may set such additional terms and conditions as may be necessary for continued compliance of the Boulder County Land Use Code, or determine that operation of the facility shall cease.
2. The operation of the grinder shall occur only between the hours of 8:00 a.m. and 5:00 p.m.
3. The security light at the facility must be replaced with a fully shielded light fixture not more than 12 feet tall as required in Article 7-1600 of the Land Use Code.
4. The sound levels generated at the facility are acceptable, subject to the limitations on operating hours cited in Condition 2 above. A sound level meter shall be used to periodically measure, at each property line, the noise level generated at the facility while the loudest machinery is in use. This information shall be submitted with the application materials at the three-year review.
5. Upon permanent cessation of this use, site restoration, revegetation, and weed management shall occur as outlined in the application materials to ensure that the facility does not have a long term negative impact on the land.
6. The sort yard shall be limited to a maximum size of three acres, the approximate size of the facility in 2014. If the applicant intends to expand the facility, Land Use staff will need to determine whether the request is a minor or major modification to this review and approval.
7. Maintenance of all aspects of the site must continue to occur when necessary, including but not limited to, the access, fencing, pheromone traps, and erosion control measures.
8. The Applicant shall be subject to the terms, conditions, and commitments of record in the official docket file, including but not limited to the maintenance of tree screening, the use of the ember screen during windy conditions, and adherence to months and daily hours of operation.

**[Signature page to follow]**

A motion to approve the Docket on the basis stated above, was made by Commissioner Domenico, seconded by Commissioner Jones, and passed by a 3-0 vote.

ADOPTED as a final decision of the Board on this 28 day of February 2017.

**BOARD OF COUNTY COMMISSIONERS  
OF BOULDER COUNTY:**



Deb Gardner

Deb Gardner, Chair

Cindy Domenico

Cindy Domenico, Vice Chair

Elise Jones

Elise Jones, Commissioner

ATTEST:

Cecilia S. Lacey

Clerk to the Board



# Parcel Report

Land Use Department  
 Courthouse Annex  
 2045 13th St. - 13th & Spruce Streets  
 P.O. Box 471 Boulder Colorado 80306-0471  
 www.bouldercounty.org  
 Planning 303-441-3930 Building 303-441-3925

Parcel Number <b>158312000003</b>	Section <b>12</b>	Township <b>1S</b>	Range <b>73</b>
Subdivision <b>TR, NBR 901 NEDERLAND AREA</b>			

## SITE ADDRESS (1)

R0081009 291 RIDGE RD UNINCORPORATED, 80466

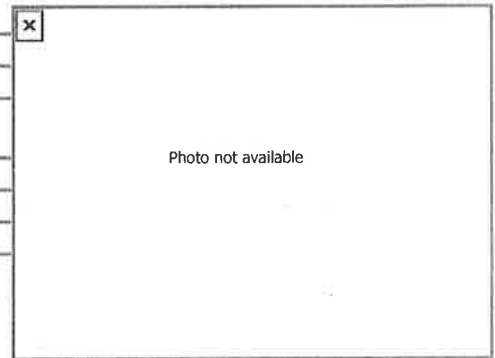
## OWNER INFORMATION (1)

Account	Name	Mailing Address
R0081009	COUNTY OF BOULDER	C/O BOULDER COUNTY PARKS & OPEN SPACE, 5201 ST VRAIN RD BLDG 1, , LONGMONT, CO 80503

## LOCATION INFORMATION

Note: The estimate acres will likely not match the recorded acreage of the property, please see the legal description, plat, or deed for the actual acreage. Because of small inconsistencies in the locations of lines in the map layers, this location information searches may show information from adjacent parcels even though no overlap is visible on the screen. View the map at an appropriate scale to resolve any uncertainty.

On or Adjacent to Parcel	
Estimated Area	1,516,435 ( 34.81a.)
Zoning	F (34.81a.)
Floodplain	No
	X(FEMA) (34.81a.)
Open Space Ownership	MUD LAKE (34.81a.)
County Plats	No
Wind and Snow Load	175 mph. 55 lbs/sqft.
Fire Protection	NEDERLAND FIRE



## LEGAL DESCRIPTION (1)

		ACRES
R0081009	PT E 1/2 12-1S-73 36.32 AC M/L TAX AGREEMENT PER LEASE AGREEMENT//SPLIT TO ID#500553	R0081009 36.32

## PERMIT AND DOCKET HISTORY (12)

Note: Parcel numbers and addresses may change over time. Only permits/dockets with the exact same parcel number or address at the time of application are shown.

On Parcel Number: 158312000003

Permit/Docket Parcel Numbers(s)	Type Permit/Docket Address(es)	Application Name Application Date	Application Status	Status Date Permit Value
<b>PAC-19-0331</b> 158312000003	PreApplication Conference 291 RIDGE 7698 ST VRAIN	Reinold 7/30/2019	PAC Scheduled	7/30/2019
LISU- (1) 291- Forestry Processing & Sort Yard. (2) 7698- Possibility of additional forestry process & sort yard per KS./FJD				
<b>BP-17-0438</b> 158312000003	Commercial Electric 291 RIDGE	291 Rdige Rd 3/15/2017	Permit Complete	8/31/2017
Replace existing pole light fixture with new light fixture and re-feed electrical power to existing shed				\$2000.00
<b>LU-16-0041</b> 158312000003	Limited Impact Special Use Review 291 RIDGE	Boulder County Forestry Processing and Sort Yard 11/9/2016	Approval Final & Complete	8/17/2017
A Limited Impact Special Review for a Forestry Processing and Sort Yard.				
<b>PAC-16-0347</b> 158312000003	PreApplication Conference 291 RIDGE	Harrington, Wayne 7/14/2016	PAC Held	8/30/2016
Limited impact spcl use per to re-evaluate the Forestry Sort Yard				
<b>LU-14-0008</b> 158312000003	Limited Impact Special Use Review 291 RIDGE	BOULDER COUNTY Ridge Road Community Facility Sort Yard 3/24/2014	Approval Final & Complete	3/20/2015
Reapproval of the existing sort yard originally approved as Docket #LU-09-0010.				
<b>PAC-13-0005</b> 158312000003	PreApplication Conference 291 RIDGE	Harrington, Wayne 1/9/2013	PAC Held	1/9/2013
LU 3 year Review of Sort Yard				

<b>BP-10-1066</b>	Commercial Remodel	291 Ridge Rd		
158312000003	291 RIDGE	7/6/2010	Permit Complete	6/5/2013
Electrical Service Panel & Security Lighting (re: LU-09-0010)				\$5000.00
<b>BP-10-0335</b>	Grading	291 RIDGE RD		
158312000003	291 RIDGE	3/12/2010	Permit Issued	3/29/2010
GRADING FOR THE SORT YARD (re: LU-09-0010)				\$150000.00
<b>LU-09-0010</b>	Limited Impact Special Use Review	Boulder County Forestry Processing & Sort Yard		
158312000003	291 RIDGE	5/28/2009	Approval Final & Complete	3/11/2010
A Limited Impact Special Review for a Forestry Processing and Sort Yard.				
<b>PAC-09-0013</b>	PreApplication Conference	GLOWACKI		
158312000003	291 RIDGE	4/6/2009	Complete	4/16/2009
Pre-app for an LU for an air curtain burner outside Nederland.				

*These Permits/Dockets are on a different parcel number, but have an address that is associated with the parcel*

<b>PAC-19-0331</b>	PreApplication Conference	Reinold		
131701000003	291 RIDGE	7/30/2019	PAC Scheduled	7/30/2019
LISU-				
(1) 291- Forestry Processing & Sort Yard.				
(2) 7698- Possibility of additional forestry process & sort yard per KS./FJD				

<b>TAP-4468</b>	Access Permit	291 Ridge Rd		
	291 RIDGE	3/19/2010	Issued	3/19/2010
291 Ridge Road. Access permits issued prior to 2012 may have been modified by the addition of the TAP prefix and/or a numerical suffix where duplicate permit numbers occurred. Imported on 7-14-2015.				

### RECENT DEEDS (4)

Date	Type	Reception No	Amount	Grantor	Grantee
8/3/2001	SW	2180977	\$0		
8/3/2001	QD	2180978-9	\$0		
7/21/2000	WD	2062890	\$260,000		
1/3/1980	WD	377464	\$417,000		

### ASSESSOR'S STRUCTURE INFORMATION

Account	Class	Design	Year Built	Remodeled
R0081009				

Building	Floor Area Description	Size	Structure Information

### ESTIMATED RESIDENTIAL FLOOR AREA

Floor Area Description

### ROOMS

Size Account Bld Rooms Bed Bath Bath 3/4 Bath 1/2  
R0081009

### ACCOUNT ASSESSED VALUE

Account	Land	Structures	Total
R0081009	\$254,200	\$0	\$254,200

### TAXING DISTRICT

#### COUNTY

BOULDER CO TEMP HS SAFETY NET FUND  
BOULDER COUNTY CAPITAL EXPEND FUND  
BOULDER COUNTY CONTINGENCY FUND  
BOULDER COUNTY DEVEL DISABILITY FUND  
BOULDER COUNTY GENERAL OPERATING  
BOULDER COUNTY HEALTH & HUMAN SERVICES  
BOULDER COUNTY JUDGMENT LEVY FUND  
BOULDER COUNTY PUBLIC WELFARE FUND  
BOULDER COUNTY PUBLIC WORKS  
BOULDER COUNTY REFUND ABATEMENT  
BOULDER COUNTY RETIREMENT FUND  
BOULDER COUNTY ROAD & BRIDGE  
BOULDER COUNTY SELF INSURANCE FUND  
BOULDER COUNTY SOLID WASTE FUND  
ECOPASS DISTRICT  
NEDERLAND ECOPASS DISTRICT  
FIRE PROTECTION DISTRICT  
NEDERLAND FIRE DIST BOND REDEMPTION  
NEDERLAND FIRE DIST GENERAL OPERATING  
NEDERLAND FIRE DIST PENSION  
NEDERLAND FIRE DISTRICT OTHER  
NEDERLAND FIRE DISTRICT REFUND/ABATE  
LIBRARY DISTRICT  
NEDERLAND LIBRARY DIST BOND REDEMPTION  
NEDERLAND LIBRARY DISTRICT GENERAL OPER



SCHOOL DISTRICT  
BOULDER VALLEY RE-2 INSURANCE  
BOULDER VALLEY RE-2 RESERVE  
BOULDER VALLEY RE-2 TAX CREDIT  
BOULDER VALLEY RE2 ABATEMENT REFUND  
BOULDER VALLEY RE2 BOND REDEMPTION  
BOULDER VALLEY RE2 CAPITAL CONSTRUCTION  
TECHNOLOGY & MAINTENANCE  
BOULDER VALLEY RE2 GENERAL OPERATING  
BOULDER VALLEY RE2 OVERRIDES  
BOULDER VALLEY RE2 TRANSPORTATION  
TRANSPORTATION DISTRICT  
RTD GENERAL OPERATING  
UNINCORP CTY PLACE HOLDER DISTRICT  
UNINCORP CTY PLACE HOLDER DISTRICT

Report Date: 8/5/2019 9:16:27 AM

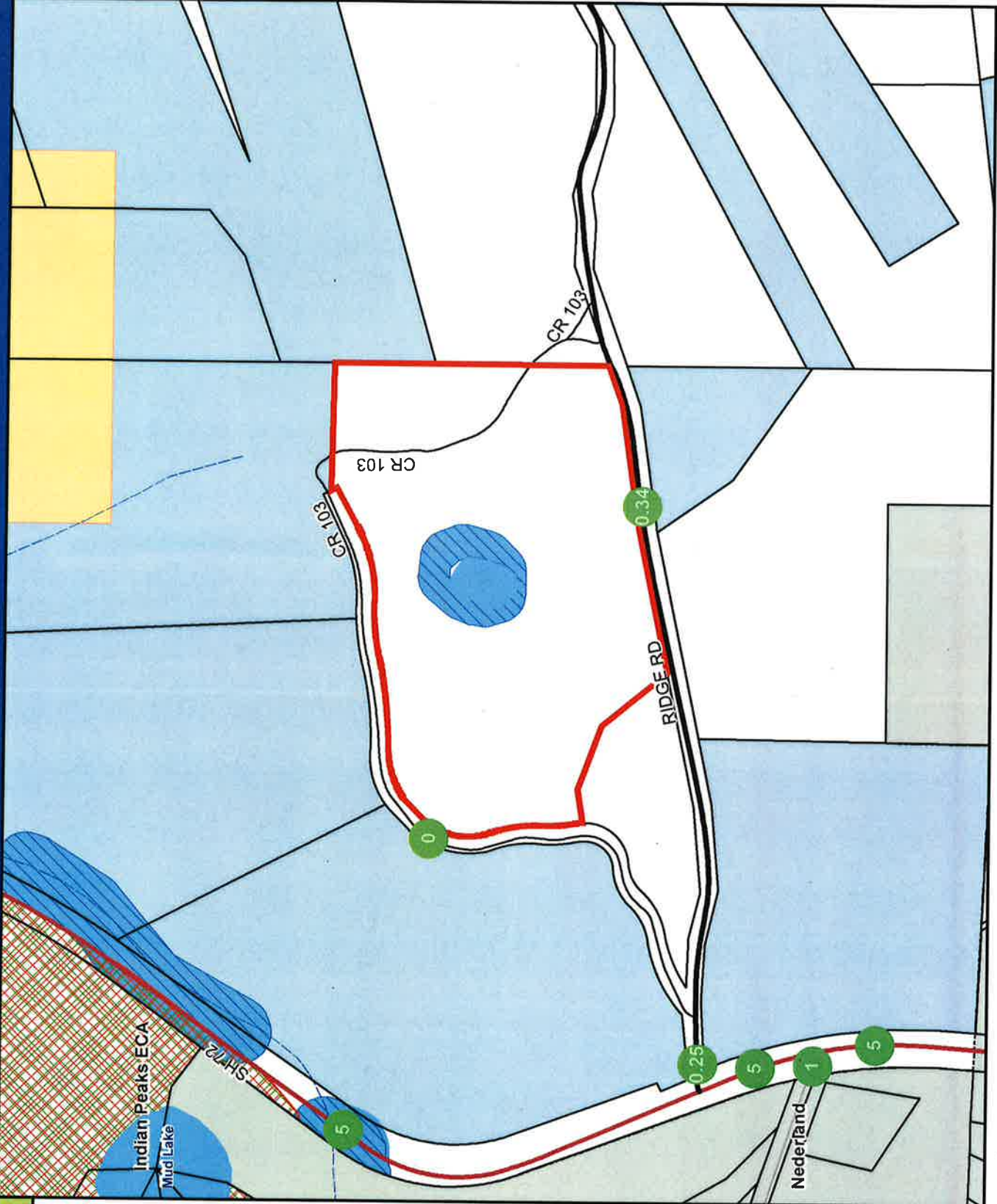
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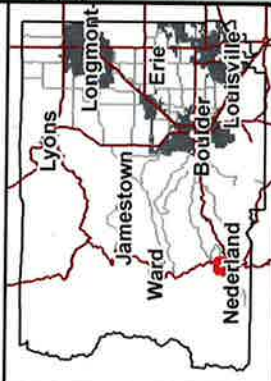


**Legend**

- Subject Parcel
- Critical Wildlife Habitats
- Environmental Conservation Areas
- Riparian
- Wetlands
- Significant Natural Communities
- Peak to Peak Scenic Corridor



Area of Detail Date: 8/5/2019



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# Boulder County Land Use Department

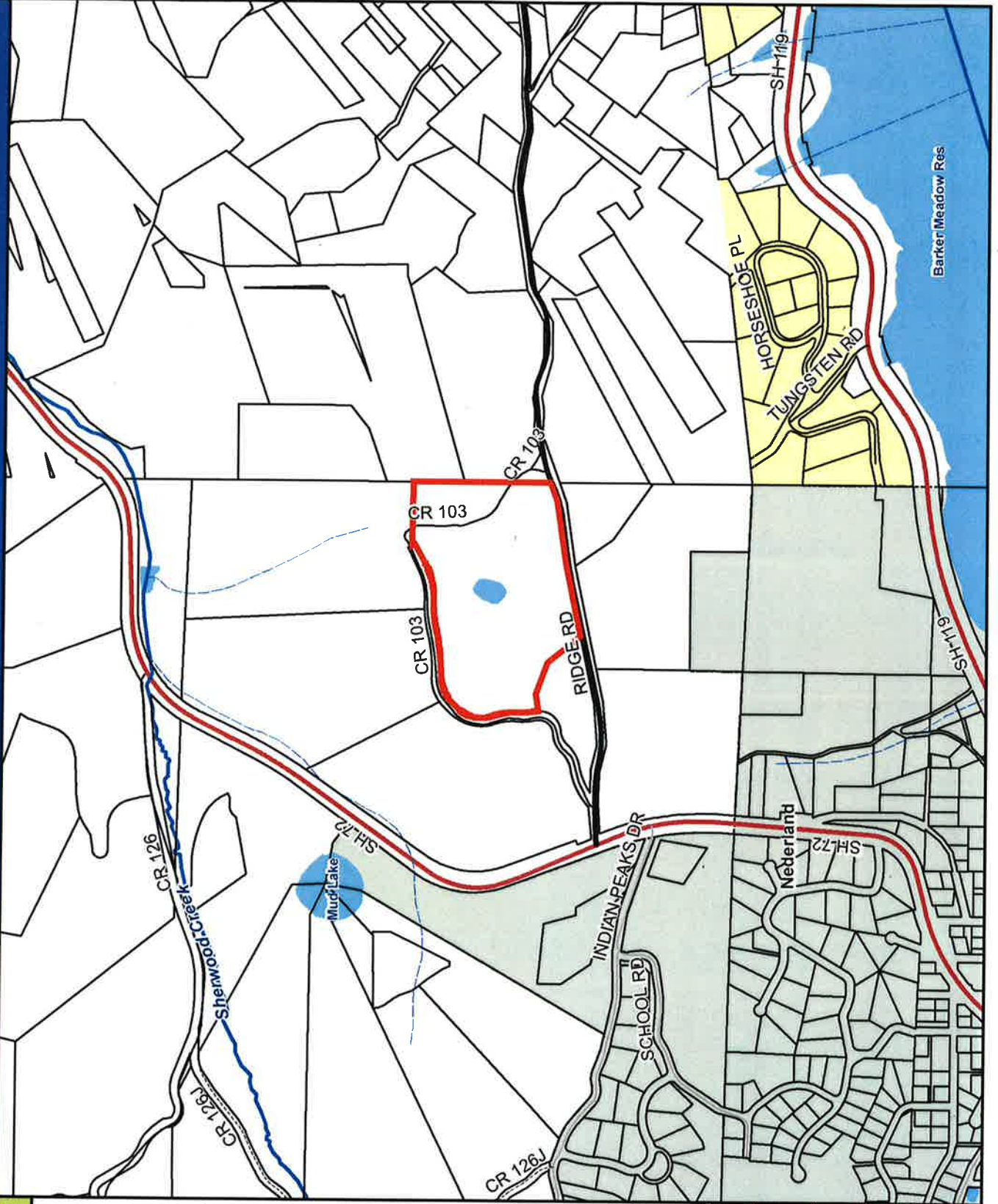
2045 13th Street, Boulder, CO 80302 303-441-3930 [www.bouldercounty.org/lu](http://www.bouldercounty.org/lu)



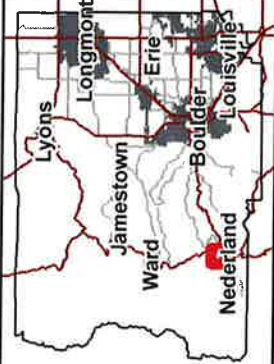
Location  
291 RIDGE RD

## Legend

-  Subject Parcel
- Subdivisions**
-  Subdivisions



Area of Detail Date: 8/5/2019



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# Boulder County Land Use Department

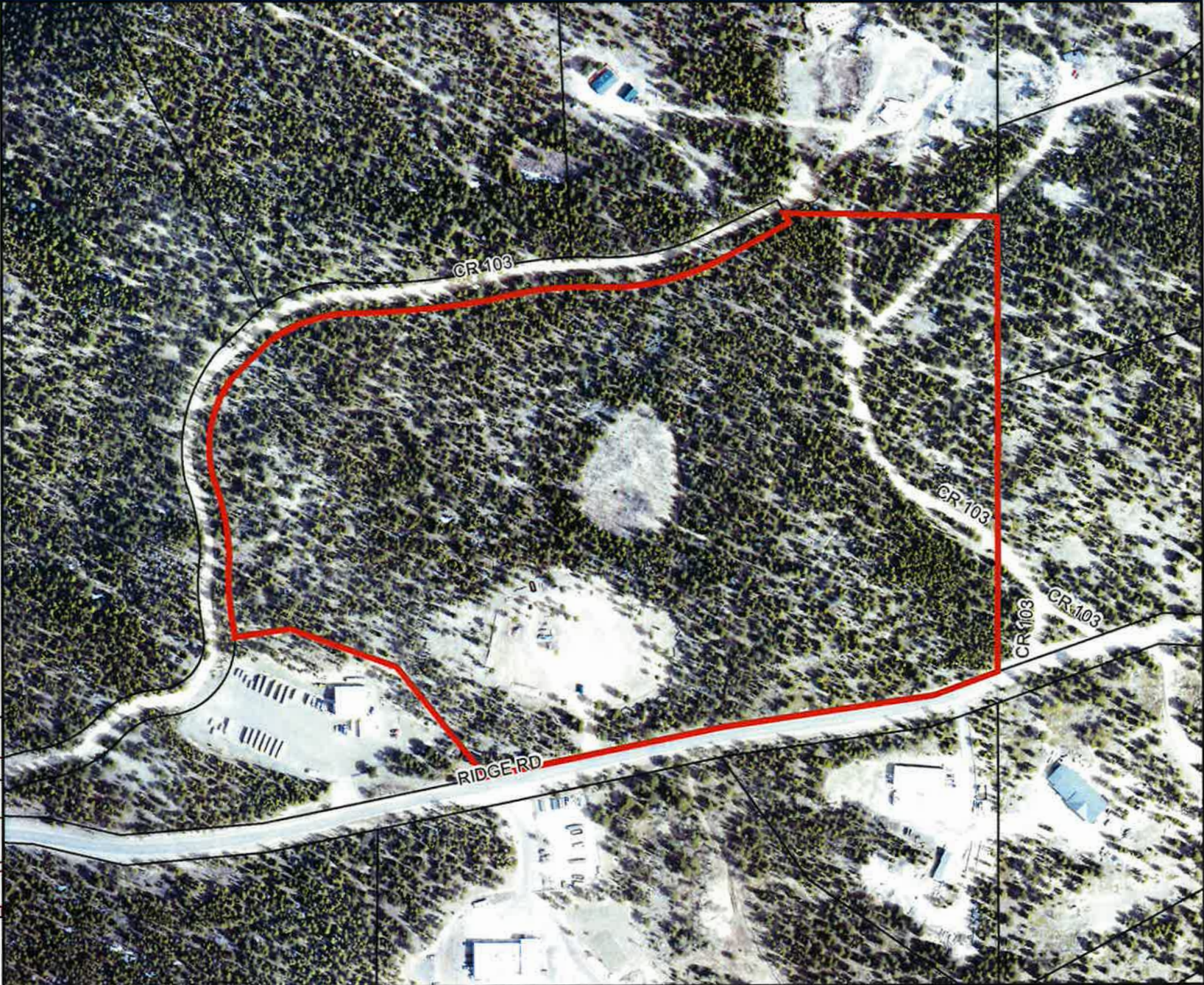
2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

Aerial

291 RIDGE RD

## Legend

 Subject Parcel



NORTH 1 inch = 300 feet

Area of Detail Date: 8/5/2019

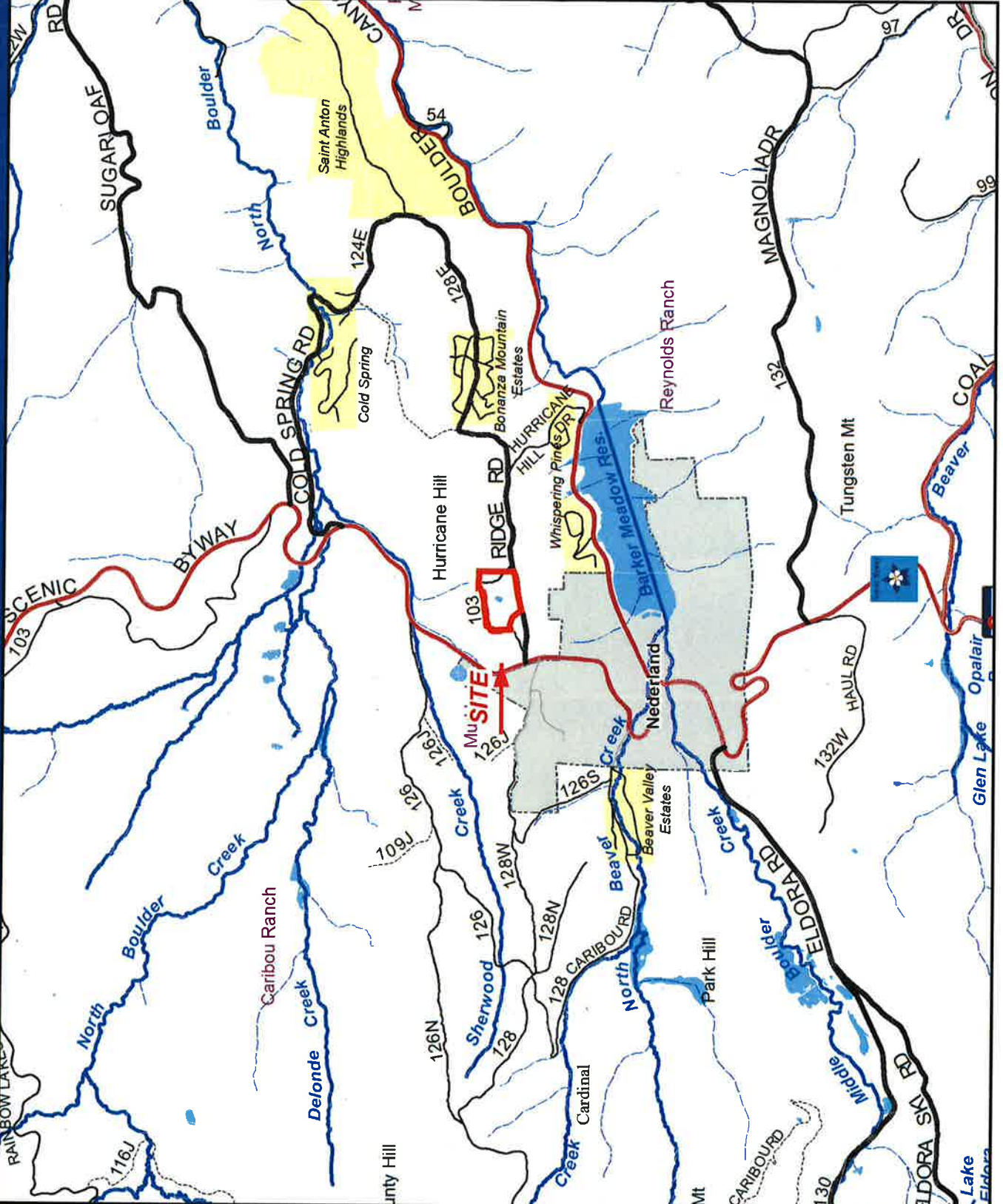


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# Boulder County Land Use Department

2045 13th Street, Boulder, CO 80302 303-441-3930 [www.bouldercounty.org/lu](http://www.bouldercounty.org/lu)

Vicinity  
291 RIDGE RD



## Legend

- Subject Parcel
- County



Area of Detail Date: 8/5/2019



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Boulder County  
 Parks & Open Space  
 5201 St. Vrain Road  
 Longmont, CO 80503  
 Phone: (303) 678-6200  
 Fax: (303) 678-6180  
 www.BoulderCounty.org

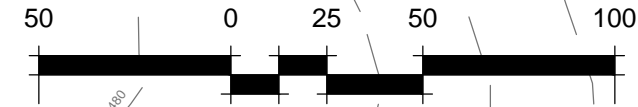
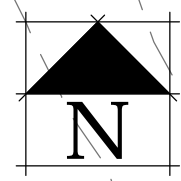
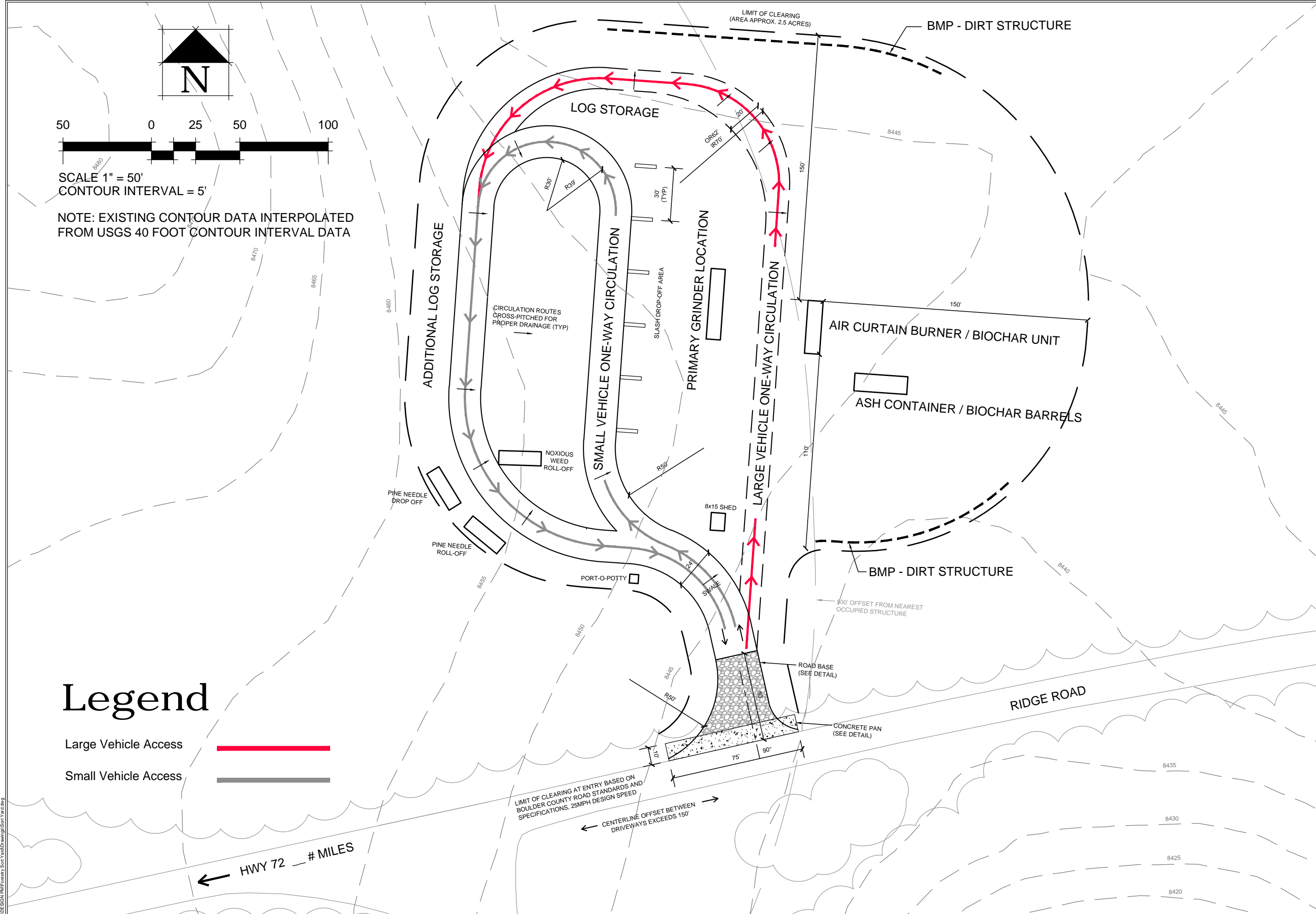
**RFI Site Plan**  
**ACB / Biochar Operation**  
 Community Forestry Sort Yard  
 291 Ridge Road (CR128e), Nederland

DATE: July 2016  
 SCALE: 1" = 50'  
 DRAWN BY: SCS  
 DESIGNED BY: WH  
 CHECKED BY: WH

REVISIONS:	DATE

SHEET: 1 OF 2

**L1**



SCALE 1" = 50'  
 CONTOUR INTERVAL = 5'

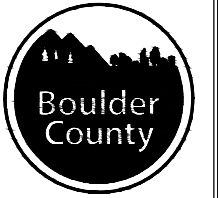
NOTE: EXISTING CONTOUR DATA INTERPOLATED FROM USGS 40 FOOT CONTOUR INTERVAL DATA

**Legend**

- Large Vehicle Access
- Small Vehicle Access

← HWY 72 — # MILES

CLDESIGN R\Forestry\_Sort\_Yard\Drawings\Sort\_Yard.dwg



Boulder County  
 Parks & Open Space  
 5201 St. Vrain Road  
 Longmont, CO 80503  
 Phone: (303) 678-6200  
 Fax: (303) 678-6180  
 www.BoulderCounty.org

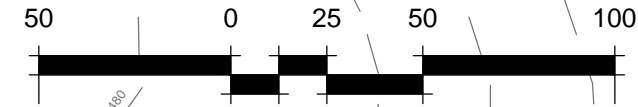
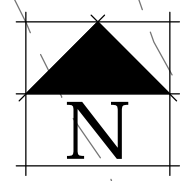
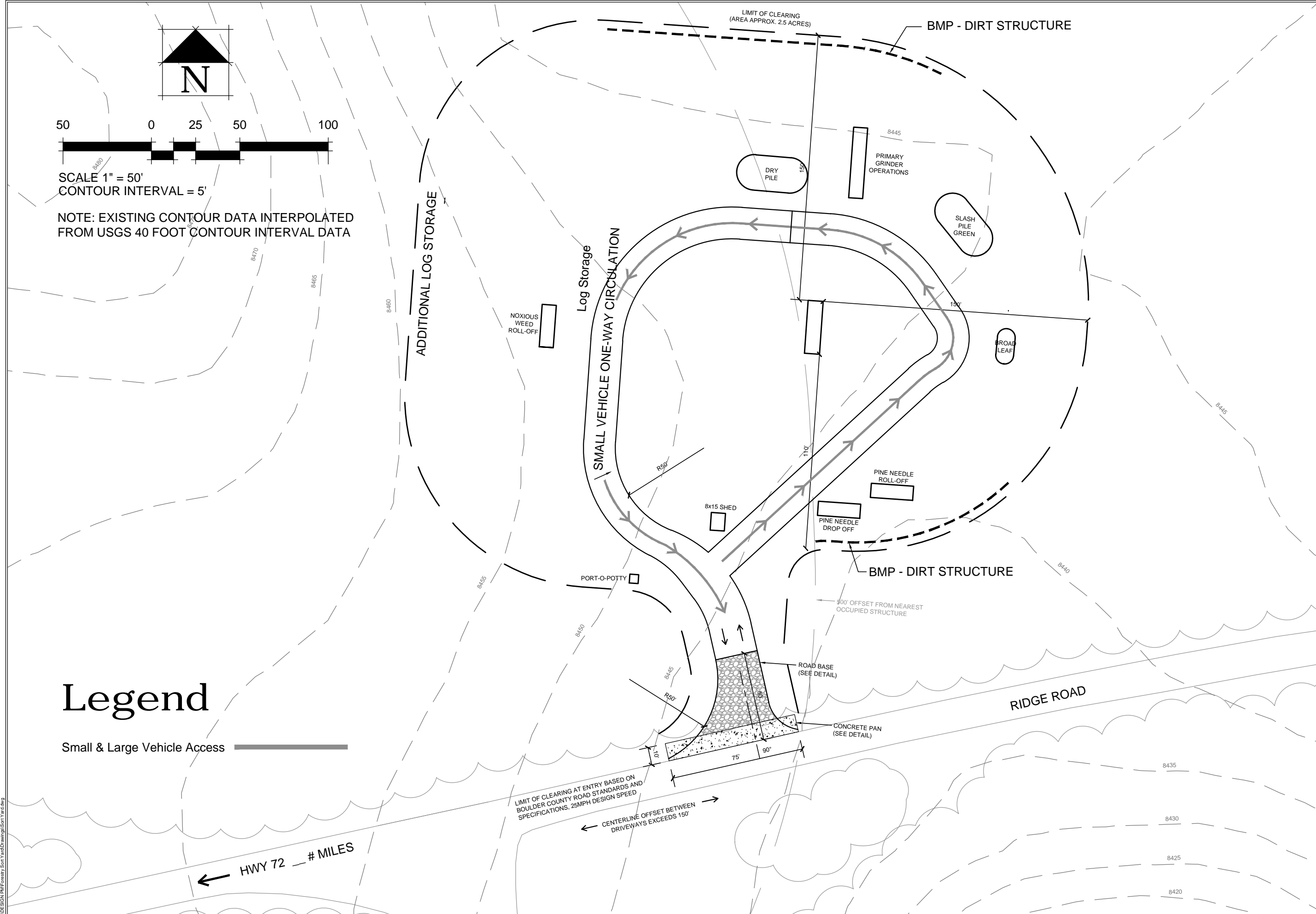
**RFI Site Plan  
 Grinder Operations**  
 Community Forestry Sort Yard  
 291 Ridge Road (CR128e), Nederland

DATE: July 2016  
 SCALE: 1" = 50'  
 DRAWN BY: SCS  
 DESIGNED BY: WH  
 CHECKED BY: WH

REVISIONS:	DATE

SHEET: 1 OF 2

**L1**



SCALE 1" = 50'  
 CONTOUR INTERVAL = 5'

NOTE: EXISTING CONTOUR DATA INTERPOLATED FROM USGS 40 FOOT CONTOUR INTERVAL DATA

**Legend**

Small & Large Vehicle Access

← HWY 72 — # MILES

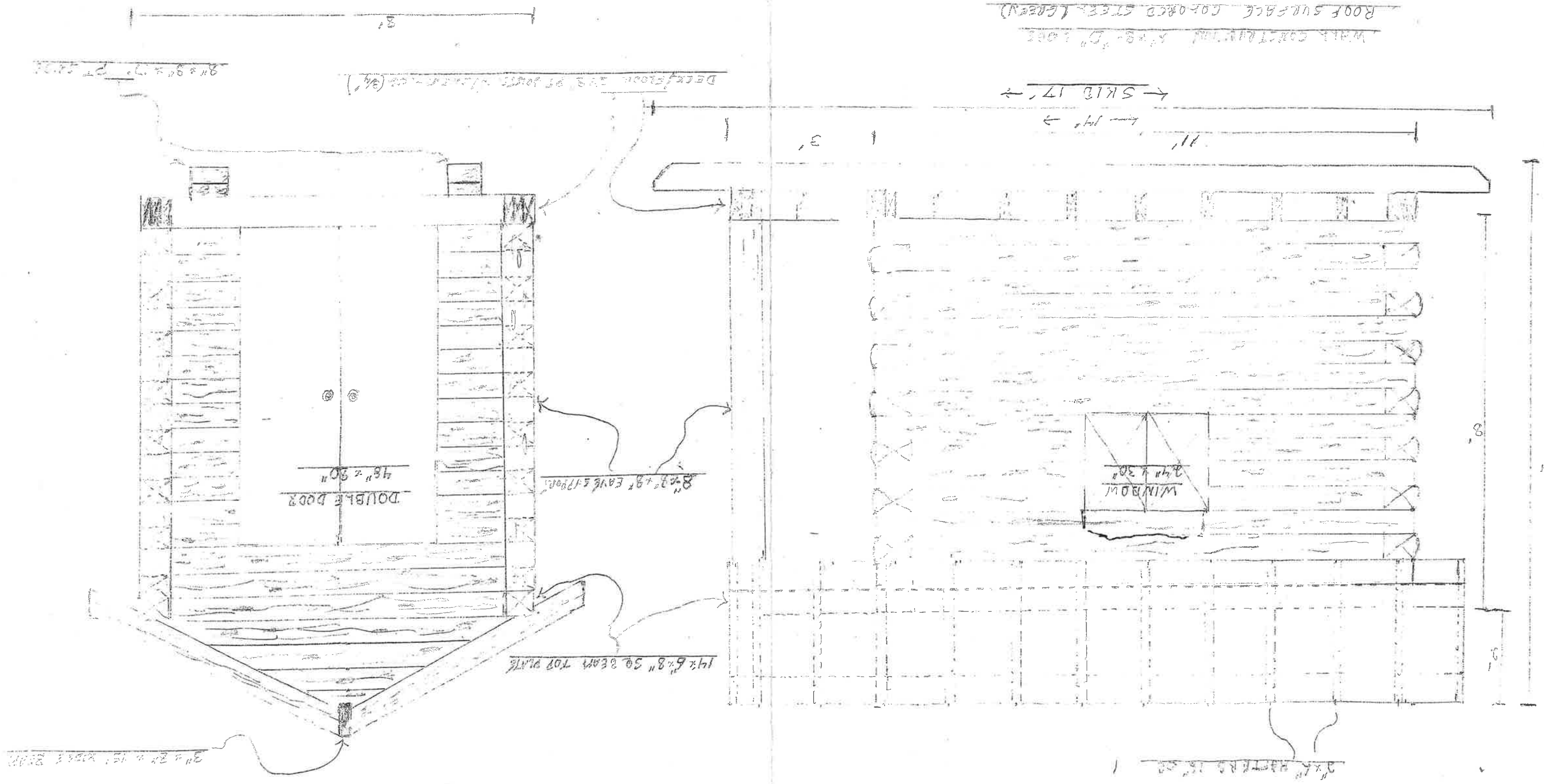
CLIENT: Community Forestry Sort Yard; Designer: SCS



# C.S.F.Y. SHED

SCALE 1/8" = 1'

SG 28/10



\* ALL MEASUREMENTS ARE APPROXIMATE AND MAY BE SUBJECT TO CHANGE \*

	A	B	C	D	E	F	G	H	I	J
1	ID	Date	ReadLocation	Maximum	Minimum	Average	ReadType	ProcessEquipment	ProcessEquipment2	Comment
2	NED04	11/1/2010	CFSY Driveway	81.0	0.0	0.0	Processing	Horizontal Grinder		Max only
3	NED05	11/1/2010	County Road Mntnc Driveway	88.0	0.0	0.0	Processing	Horizontal Grinder		Max only
4	NED02	7/1/2011	CFSY Northwest Corner	94.0	0.0	0.0	Processing	Horizontal Grinder		50ft from grinder
5	NED04	7/1/2011	CFSY Driveway	77.0	0.0	0.0	Processing	Horizontal Grinder		
6	NED05	7/1/2011	County Road Mntnc Driveway	67.0	0.0	0.0	Processing	Horizontal Grinder		Max only
7	NED07	7/1/2011	West of NED06 approx 140ft	63.0	0.0	0.0	Processing	Horizontal Grinder		
8	NED08	7/1/2011	CDOT Driveway	68.0	0.0	0.0	Processing	Horizontal Grinder		
9	NED09	7/1/2011	Green Gate	71.0	0.0	0.0	Processing	Horizontal Grinder		
10	NED10	7/1/2011	Northeast Property Corner	74.0	0.0	0.0	Processing	Horizontal Grinder		
11	NED11	7/1/2011	End of CR 103	63.0	0.0	0.0	Processing	Horizontal Grinder		
12	NED13	7/1/2011	CR 103 Power Cut	70.0	0.0	0.0	Processing	Horizontal Grinder		
13	NED14	7/1/2011	CR 103 Big Pondo	63.0	0.0	0.0	Processing	Horizontal Grinder		
14	NED15	7/1/2011	CR 103 Bus Yard Fence Corner	65.0	0.0	0.0	Processing	Horizontal Grinder		
15	NED02	10/1/2011	CFSY Northwest Corner	0.0	0.0	0.0	Processing	Tub Grinder		
16	NED04	10/1/2011	CFSY Driveway	0.0	0.0	0.0	Processing	Tub Grinder		Avg only, Straight line of sight
17	NED06	10/1/2011	First Gravel Rd East of CFSY drive on left	64.0	50.0	57.0	Processing	Tub Grinder		
18	NED09	10/1/2011	Green Gate	66.0	50.0	58.0	Processing	Tub Grinder		
19	NED10	10/1/2011	Northeast Property Corner	58.0	45.0	51.5	Ambient			
20	NED11	10/1/2011	End of CR 103	70.0	50.0	60.0	Processing	Tub Grinder		
21	NED12	10/1/2011	CR 103 #85 Private Gate	63.0	50.0	56.5	Processing	Tub Grinder		Squirrel in background
22	NED13	10/1/2011	CR 103 Power Cut	72.0	60.0	66.0	Processing	Tub Grinder		
23	MKR01	11/1/2011	South Yard	100.0	82.0	91.0	Processing	Horizontal Grinder		Windy
24	MKR02	11/1/2011	East Yard	100.0	75.0	87.5	Processing	Horizontal Grinder		Windy
25	MKR03	11/1/2011	North Yard	96.0	75.0	85.5	Processing	Horizontal Grinder		Windy
26	MKR04	11/1/2011	West Yard	97.0	75.0	86.0	Processing	Horizontal Grinder		Windy, facing loading shoot
27	MKR05	11/1/2011	CFSY Driveway	80.0	55.0	67.5	Processing	Horizontal Grinder		Windy
28	MKR06	11/1/2011	North gate	80.0	55.0	67.5	Processing	Horizontal Grinder		Windy
29	MKR07	11/1/2011	First gravel rd south of CFSY drive on left	80.0	55.0	67.5	Processing	Horizontal Grinder		
30	MKR08	11/1/2011	East of pt06 approx 0.1mi	75.0	59.0	67.0	Processing	Horizontal Grinder		Windy
31	MKR09	11/1/2011	First gravel drive south of CFSY drive on right	73.0	55.0	64.0	Processing	Horizontal Grinder		Windy
32	MKR10	11/1/2011	First driveway gate	70.0	45.0	57.5	Processing	Horizontal Grinder		Windy
33	MKR11	11/1/2011	Big Owl Rd	70.0	45.0	57.5	Processing	Horizontal Grinder		
34	MKR12	11/1/2011	South on Big Owl Rd approx 0.1mi	72.0	45.0	58.5	Processing	Horizontal Grinder		Windy
35	NED01	10/24/2012	At 10/24/2012 TG Location	94.0	89.0	91.5	Processing	Tub Grinder		
36	NED02	10/24/2012	CFSY Northwest Corner	70.0	57.0	63.5	Processing	Tub Grinder		
37	NED03	10/24/2012	CFSY Northeast Corner	90.0	79.0	84.5	Processing	Tub Grinder		
38	NED04	10/24/2012	CFSY Driveway	77.0	68.0	72.5	Processing	Tub Grinder		
39	NED05	10/24/2012	County Road Mntnc Driveway	69.0	53.0	61.0	Processing	Tub Grinder		Max read during car drive-by
40	NED06	10/24/2012	First Gravel Rd East of CFSY drive on left	55.0	45.0	50.0	Processing	Tub Grinder		
41	NED07	10/24/2012	West of NED06 approx 140ft	59.0	45.0	52.0	Processing	Tub Grinder		
42	NED08	10/24/2012	CDOT Driveway	66.0	45.0	55.5	Processing	Tub Grinder		
43	NED09	10/24/2012	Green Gate	59.0	45.0	52.0	Processing	Tub Grinder		
44	NED10	10/24/2012	Northeast Property Corner	55.0	45.0	50.0	Processing	Tub Grinder		
45	NED11	10/24/2012	End of CR 103	56.0	45.0	50.5	Processing	Tub Grinder		
46	NED12	10/24/2012	CR 103 #85 Private Gate	57.0	45.0	51.0	Processing	Tub Grinder		
47	NED13	10/24/2012	CR 103 Power Cut	68.0	45.0	56.5	Processing	Tub Grinder		
48	NED14	10/24/2012	CR 103 Big Pondo	59.0	45.0	52.0	Processing	Tub Grinder		
49	NED15	10/24/2012	CR 103 Bus Yard Fence Corner	69.0	45.0	57.0	Processing	Tub Grinder		
50	NED16	10/24/2012	CR 126 green gate	70.0	45.0	57.5	Processing	Tub Grinder		
51	NED17	10/24/2012	Ned City Limit Sign	70.0	45.0	57.5	Processing	Tub Grinder		Heavy Traffic Present
52	NED01	7/10/2013	Center of CFSY	93.0	91.0	92.0	Processing	Horizontal Grinder		
53	NED01	7/10/2013	Center of CFSY	101.0	90.0	95.5	Processing	Horizontal Grinder		2nd reading
54	NED02	7/10/2013	CFSY Northwest Corner	81.0	76.0	78.5	Processing	Horizontal Grinder		
55	NED02	7/10/2013	CFSY Northwest Corner	83.0	76.0	79.5	Processing	Horizontal Grinder		2nd reading
56	NED03	7/10/2013	CFSY Northeast Corner	77.0	69.0	73.0	Processing	Horizontal Grinder		
57	NED03	7/10/2013	CFSY Northeast Corner	74.0	68.0	71.0	Processing	Horizontal Grinder		2nd reading
58	NED04	7/10/2013	CFSY Driveway	82.0	71.0	76.5	Processing	Horizontal Grinder		
59	NED04	7/10/2013	CFSY Driveway	86.0	79.0	82.5	Processing	Horizontal Grinder		2nd reading
60	NED05	7/10/2013	County Road Mntnc Driveway	76.0	72.0	74.0	Processing	Horizontal Grinder		
61	NED05	7/10/2013	County Road Mntnc Driveway	80.0	72.0	76.0	Processing	Horizontal Grinder		2nd reading
62	NED06	7/10/2013	First Gravel Rd East of CFSY drive on left	64.0	54.0	59.0	Processing	Horizontal Grinder		
63	NED06	7/10/2013	First Gravel Rd East of CFSY drive on left	69.0	63.0	66.0	Processing	Horizontal Grinder		2nd reading
64	NED07	7/10/2013	West of NED06 approx 140ft	66.0	54.0	60.0	Processing	Horizontal Grinder		plane overhead
65	NED07	7/10/2013	West of NED06 approx 140ft	62.0	56.0	59.0	Processing	Horizontal Grinder		2nd reading
66	NED08	7/10/2013	CDOT Driveway	65.0	59.0	62.0	Processing	Horizontal Grinder		street traffic
67	NED08	7/10/2013	CDOT Driveway	78.0	64.0	71.0	Processing	Horizontal Grinder		2nd reading
68	NED09	7/10/2013	Green Gate	67.0	55.0	61.0	Processing	Horizontal Grinder	Wheeled Loader	
69	NED09	7/10/2013	Green Gate	74.0	56.0	65.0	Processing	Horizontal Grinder		2nd reading
70	NED10	7/10/2013	Northeast Property Corner	64.0	50.0	57.0	Processing	Horizontal Grinder		
71	NED10	7/10/2013	Northeast Property Corner	70.0	53.0	61.5	Processing	Horizontal Grinder		2nd reading, plane overhead
72	NED11	7/10/2013	End of CR 103	62.0	52.0	57.0	Processing	Horizontal Grinder	Wheeled Loader	
73	NED11	7/10/2013	End of CR 103	64.0	50.0	57.0	Processing	Horizontal Grinder		2nd reading, crow overhead
74	NED12	7/10/2013	CR 103 #85 Private Gate	62.0	51.0	56.5	Processing	Horizontal Grinder	Wheeled Loader	
75	NED12	7/10/2013	CR 103 #85 Private Gate	68.0	55.0	61.5	Processing	Horizontal Grinder		2nd reading, plane overhead
76	NED13	7/10/2013	CR 103 Power Cut	70.0	60.0	65.0	Processing	Horizontal Grinder	Wheeled Loader	
77	NED13	7/10/2013	CR 103 Power Cut	69.0	58.0	63.5	Processing	Horizontal Grinder		2nd reading
78	NED14	7/10/2013	CR 103 Big Pondo	67.0	52.0	59.5	Processing	Horizontal Grinder	Wheeled Loader	
79	NED14	7/10/2013	CR 103 Big Pondo	70.0	57.0	63.5	Processing	Horizontal Grinder		2nd reading
80	NED15	7/10/2013	CR 103 Bus Yard Fence Corner	64.0	54.0	59.0	Processing	Horizontal Grinder	Wheeled Loader	
81	NED15	7/10/2013	CR 103 Bus Yard Fence Corner	66.0	53.0	59.5	Processing	Horizontal Grinder		2nd reading
82	NED16	7/10/2013	CR 126 green gate	70.0	50.0	60.0	Processing	Horizontal Grinder	Wheeled Loader	plane overhead

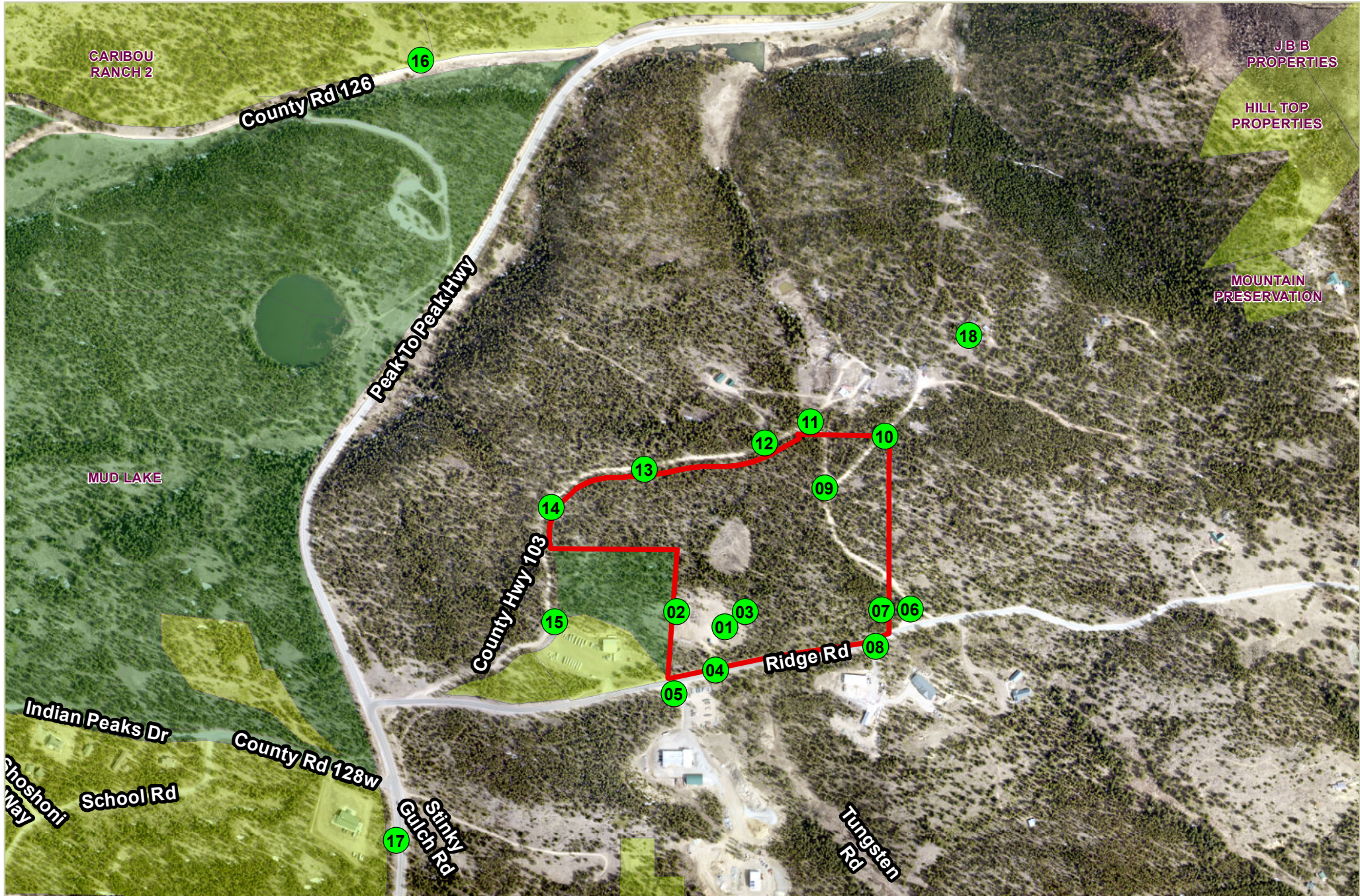
	A	B	C	D	E	F	G	H	I	J
1	ID	Date	ReadLocation	Maximum	Minimum	Average	ReadType	ProcessEquipment	ProcessEquipment2	Comment
83	NED16	7/10/2013	CR 126 green gate	65.0	54.0	59.5	Processing	Horizontal Grinder		2nd reading, plane overhead
84	NED17	7/10/2013	Ned City Limit Sign	70.0	61.0	65.5	Ambient			large vehicle traffic
85	NED17	7/10/2013	Ned City Limit Sign	69.0	52.0	60.5	Ambient			2nd reading, heavy road traffic
86	NED01	6/23/2015	Center of CFSY	86.0	83.0	84.5	Processing	Horizontal Grinder		
87	NED02	6/23/2015	CFSY Northwest Corner	82.0	76.0	79.0	Processing	Horizontal Grinder		
88	NED03	6/23/2015	CFSY Northeast Corner	87.0	84.0	85.5	Processing	Horizontal Grinder		
89	NED04	6/23/2015	CFSY Driveway	74.0	71.0	72.5	Processing	Horizontal Grinder		
90	NED05	6/23/2015	County Road Mntnc Driveway	73.0	70.0	71.5	Processing	Horizontal Grinder		
91	NED06	6/23/2015	First Gravel Rd East of CFSY drive on left	66.0	55.0	60.5	Processing	Horizontal Grinder		cars on road
92	NED07	6/23/2015	West of NED06 approx 140ft	61.0	54.0	57.5	Processing	Horizontal Grinder		
93	NED08	6/23/2015	CDOT Driveway	68.0	64.0	66.0	Processing	Horizontal Grinder	Other See Comments	CDOT loader running in background
94	NED09	6/23/2015	Green Gate	63.0	57.0	60.0	Processing	Horizontal Grinder		
95	NED10	6/23/2015	Northeast Property Corner	64.0	57.0	60.5	Processing	Horizontal Grinder		
96	NED11	6/23/2015	End of CR 103	67.0	62.0	64.5	Processing	Horizontal Grinder	Other See Comments	private backhoe in background
97	NED12	6/23/2015	CR 103 #85 Private Gate	67.0	60.0	63.5	Processing	Horizontal Grinder	Other See Comments	private backhoe in background
98	NED13	6/23/2015	CR 103 Power Cut	63.0	59.0	61.0	Processing	Horizontal Grinder		
99	NED14	6/23/2015	CR 103 Big Pondo	64.0	57.0	60.5	Processing	Horizontal Grinder		
100	NED15	6/23/2015	CR 103 Bus Yard Fence Corner	71.0	65.0	68.0	Processing	Horizontal Grinder	Other See Comments	school yard bobcat in background
101	NED16	6/23/2015	CR 126 green gate	64.0	52.0	58.0	Processing	Horizontal Grinder		car drove by
102	NED17	6/23/2015	Ned City Limit Sign	70.0	62.0	66.0	Processing	Horizontal Grinder		traffic present
103	NED02	10/30/2015	CFSY Northwest Corner	76.0	74.0	75.0	Processing	Horizontal Grinder	Wheeled Loader	
104	NED03	10/30/2015	CFSY Northeast Corner	80.0	73.0	76.5	Processing	Horizontal Grinder	Wheeled Loader	
105	NED04	10/30/2015	CFSY Driveway	76.0	73.0	74.5	Processing	Horizontal Grinder	Wheeled Loader	
106	NED06	10/30/2015	First Gravel Rd East of CFSY drive on left	0.0	0.0	0.0	Processing	Horizontal Grinder	Wheeled Loader	behind hill
107	NED07	10/30/2015	West of NED06 approx 140ft	53.0	50.0	51.5	Processing	Horizontal Grinder	Wheeled Loader	
108	NED08	10/30/2015	CDOT Driveway	68.0	58.0	63.0	Processing	Horizontal Grinder	Wheeled Loader	CDOT Building exhaust, plane overhead
109	NED11	10/30/2015	End of CR 103	57.0	52.0	54.5	Processing	Horizontal Grinder	Wheeled Loader	plane overhead
110	NED12	10/30/2015	CR 103 #85 Private Gate	0.0	0.0	0.0	Processing	Horizontal Grinder	Wheeled Loader	
111	NED13	10/30/2015	CR 103 Power Cut	68.0	54.0	61.0	Processing	Horizontal Grinder	Wheeled Loader	
112	NED14	10/30/2015	CR 103 Big Pondo	54.0	51.0	52.5	Processing	Horizontal Grinder	Wheeled Loader	
113	NED15	10/30/2015	CR 103 Bus Yard Fence Corner	58.0	56.0	57.0	Processing	Horizontal Grinder	Wheeled Loader	
114	NED01	7/26/2016	Center of CFSY	93.0	90.0	91.5	Processing	Horizontal Grinder		
115	NED02	7/26/2016	CFSY Northwest Corner	66.0	61.0	63.5	Processing	Horizontal Grinder		
116	NED03	7/26/2016	CFSY Northeast Corner	68.0	66.0	67.0	Processing	Horizontal Grinder		
117	NED04	7/26/2016	CFSY Driveway	75.0	67.0	71.0	Processing	Horizontal Grinder		
118	NED05	7/26/2016	County Road Mntnc Driveway	61.0	56.0	58.5	Processing	Horizontal Grinder		
119	NED06	7/26/2016	First Gravel Rd East of CFSY drive on left	70.0	62.0	66.0	Processing	Horizontal Grinder		
120	NED07	7/26/2016	West of NED06 approx 140ft	64.0	58.0	61.0	Processing	Horizontal Grinder		
121	NED08	7/26/2016	CDOT Driveway	80.0	73.0	76.5	Processing	Horizontal Grinder		
122	NED09	7/26/2016	Green Gate	66.0	59.0	62.5	Processing	Horizontal Grinder		
123	NED10	7/26/2016	Northeast Property Corner	61.0	53.0	57.0	Processing	Horizontal Grinder		
124	NED11	7/26/2016	End of CR 103	61.0	54.0	57.5	Processing	Horizontal Grinder		
125	NED12	7/26/2016	CR 103 #85 Private Gate	59.0	51.0	55.0	Processing	Horizontal Grinder		
126	NED13	7/26/2016	CR 103 Power Cut	59.0	51.0	55.0	Processing	Horizontal Grinder		
127	NED14	7/26/2016	CR 103 Big Pondo	56.0	49.0	52.5	Ambient			grinder off
128	NED15	7/26/2016	CR 103 Bus Yard Fence Corner	54.0	49.0	51.5	Ambient			grinder off
129	NED16	7/26/2016	CR 126 green gate	58.0	55.0	56.5	Processing	Horizontal Grinder		
130	NED17	7/26/2016	Ned City Limit Sign	63.0	50.0	56.5	Processing	Horizontal Grinder		
131	NED18	7/26/2016	Neighbor House	68.0	52.0	60.0	Processing	Horizontal Grinder		
132	NED01	9/16/2016	Center of CFSY	82.0	78.0	80.0	Processing	Horizontal Grinder		
133	NED02	9/16/2016	CFSY Northwest Corner	71.0	67.0	69.0	Processing	Horizontal Grinder		
134	NED03	9/16/2016	CFSY Northeast Corner	93.0	84.0	88.5	Processing	Horizontal Grinder		
135	NED04	9/16/2016	CFSY Driveway	71.0	67.0	69.0	Processing	Horizontal Grinder		
136	NED05	9/16/2016	County Road Mntnc Driveway	71.0	65.0	68.0	Processing	Horizontal Grinder		
137	NED06	9/16/2016	First Gravel Rd East of CFSY drive on left	63.0	59.0	61.0	Processing	Horizontal Grinder		Truck in the background
138	NED07	9/16/2016	West of NED06 approx 140ft	63.0	56.0	59.5	Processing	Horizontal Grinder		
139	NED08	9/16/2016	CDOT Driveway	65.0	60.0	62.5	Processing	Horizontal Grinder		
140	NED09	9/16/2016	Green Gate	64.0	60.0	62.0	Processing	Horizontal Grinder		
141	NED10	9/16/2016	Northeast Property Corner	70.0	56.0	63.0	Processing	Horizontal Grinder		
142	NED11	9/16/2016	End of CR 103	70.0	67.0	68.5	Processing	Horizontal Grinder		Strong winds
143	NED12	9/16/2016	CR 103 #85 Private Gate	74.0	70.0	72.0	Processing	Horizontal Grinder		Vehicle in background
144	NED13	9/16/2016	CR 103 Power Cut	61.0	53.0	57.0	Processing	Horizontal Grinder		Fixed wing aircraft overhead
145	NED14	9/16/2016	CR 103 Big Pondo	56.0	50.0	53.0	Processing	Horizontal Grinder		
146	NED15	9/16/2016	CR 103 Bus Yard Fence Corner	58.0	52.0	55.0	Processing	Horizontal Grinder		Ravens in background
147	NED16	9/16/2016	CR 126 green gate	56.0	53.0	54.5	Processing	Horizontal Grinder		
148	NED17	9/16/2016	Ned City Limit Sign	80.0	66.0	73.0	Processing	Horizontal Grinder		Excessive road noise
149	NED18	9/16/2016	Neighbor House	58.0	50.0	54.0	Processing	Horizontal Grinder		
150	NED01	10/25/2017	Center of CFSY	97.0	93.0	95.0	Processing	Horizontal Grinder		Second reading
151	NED01	10/25/2017	Center of CFSY	87.0	85.0	86.0	Processing	Horizontal Grinder		
152	NED02	10/25/2017	CFSY Northwest Corner	71.0	67.0	69.0	Processing	Horizontal Grinder		
153	NED02	10/25/2017	CFSY Northwest Corner	75.0	64.0	69.5	Processing	Horizontal Grinder		Second reading
154	NED03	10/25/2017	CFSY Northeast Corner	77.0	73.0	75.0	Processing	Horizontal Grinder		
155	NED03	10/25/2017	CFSY Northeast Corner	86.0	77.0	81.5	Processing	Horizontal Grinder		Second reading
156	NED04	10/25/2017	CFSY Driveway	83.0	78.0	80.5	Processing	Horizontal Grinder		
157	NED04	10/25/2017	CFSY Driveway	89.0	81.0	85.0	Processing	Horizontal Grinder		Second reading
158	NED05	10/25/2017	County Road Maint Driveway	75.0	72.0	73.5	Processing	Horizontal Grinder		
159	NED05	10/25/2017	County Road Maint Driveway	77.0	71.0	74.0	Processing	Horizontal Grinder		Second reading
160	NED06	10/25/2017	First Gravel Rd East of CFSY drive on left	61.0	56.0	58.5	Processing	Horizontal Grinder		
161	NED06	10/25/2017	First Gravel Rd East of CFSY drive on left	67.0	58.0	62.5	Processing	Horizontal Grinder		Second reading
162	NED07	10/25/2017	West of NED06 approx 140ft	62.0	56.0	59.0	Processing	Horizontal Grinder		Second reading
163	NED07	10/25/2017	West of NED06 approx 140ft	61.0	56.0	58.5	Processing	Horizontal Grinder		

1	A	B	C	D	E	F	G	H	I	J
ID	Date	ReadLocation	Maximum	Minimum	Average	ReadType	ProcessEquipment1	ProcessEquipment2	Comment	
164	NED08	10/25/2017	CDOT Driveway	70.0	64.0	67.0	Processing	Horizontal Grinder		
165	NED09	10/25/2017	Green Gate	65.0	61.0	63.0	Processing	Horizontal Grinder		
166	NED09	10/25/2017	Green Gate	63.0	59.0	61.0	Processing	Horizontal Grinder		Second reading
167	NED10	10/25/2017	Northeast Property Corner	61.0	57.0	59.0	Processing	Horizontal Grinder		Second reading
168	NED10	10/25/2017	Northeast Property Corner	65.0	60.0	62.5	Processing	Horizontal Grinder		
169	NED11	10/25/2017	End of CR 103	59.0	54.0	56.5	Processing	Horizontal Grinder		Second reading
170	NED11	10/25/2017	End of CR 103	65.0	62.0	63.5	Processing	Horizontal Grinder		Plane flying overhead
171	NED12	10/25/2017	CR 103 #85 Private Gate	63.0	57.0	60.0	Processing	Horizontal Grinder		Second reading
172	NED12	10/25/2017	CR 103 #85 Private Gate	60.0	54.0	57.0	Processing	Horizontal Grinder		
173	NED13	10/25/2017	CR 103 Power Cut	57.0	53.0	55.0	Processing	Horizontal Grinder		
174	NED13	10/25/2017	CR 103 Power Cut	64.0	56.0	60.0	Processing	Horizontal Grinder		Second reading
175	NED14	10/25/2017	CR 103 Big Pondo	59.0	54.0	56.5	Processing	Horizontal Grinder		
176	NED14	10/25/2017	CR 103 Big Pondo	52.0	50.0	51.0	Processing	Horizontal Grinder		Second reading
177	NED15	10/25/2017	CR 103 Bus Yard Fence Corner	65.0	63.0	64.0	Processing	Horizontal Grinder		Second reading
178	NED15	10/25/2017	CR 103 Bus Yard Fence Corner	66.0	63.0	64.5	Processing	Horizontal Grinder		
179	NED16	10/25/2017	CR 126 Green Gate	52.0	50.0	51.0	Processing	Horizontal Grinder		
180	NED16	10/25/2017	CR 126 Green Gate	54.0	50.0	52.0	Processing	Horizontal Grinder		Second reading
181	NED17	10/25/2017	Ned City Limit Sign	65.0	61.0	63.0	Processing	Horizontal Grinder		Road side traffic
182	NED17	10/25/2017	Ned City Limit Sign	67.0	64.0	65.5	Processing	Horizontal Grinder		Second reading
183	NED01	7/31/2019	Center of CFSY	102.0	92.0	97.0	Processing	Horizontal Grinder		
184	NED02	7/31/2019	CFSY Northwest Corner	69.0	65.0	67.0	Processing	Horizontal Grinder		
185	NED03	7/31/2019	CFSY Northeast Corner	90.0	84.0	87.0	Processing	Horizontal Grinder		
186	NED04	7/31/2019	CFSY Driveway	80.0	76.0	78.0	Processing	Horizontal Grinder		
187	NED05	7/31/2019	County Road Maint Driveway	72.0	69.0	70.5	Processing	Horizontal Grinder		
188	NED06	7/31/2019	First Gravel Rd East of CFSY drive on left	56.0	52.0	54.0	Processing	Horizontal Grinder		Jet flying above
189	NED07	7/31/2019	West of NED06 approx 140ft	58.0	55.0	56.5	Processing	Horizontal Grinder		
190	NED08	7/31/2019	CDOT Driveway	68.0	61.0	64.5	Processing	Horizontal Grinder		
191	NED09	7/31/2019	Green Gate	65.0	61.0	63.0	Processing	Horizontal Grinder		
192	NED10	7/31/2019	Northeast Property Corner	71.0	62.0	66.5	Processing	Horizontal Grinder		
193	NED11	7/31/2019	End of CR 103	60.0	55.0	57.5	Processing	Horizontal Grinder		Jet flying overhead
194	NED12	7/31/2019	CR 103 #85 Private Gate	63.0	55.0	59.0	Processing	Horizontal Grinder		
195	NED13	7/31/2019	CR 103 Power Cut	79.0	67.0	73.0	Processing	Horizontal Grinder		Large wind blowing
196	NED14	7/31/2019	CR 103 Big Pondo	80.0	65.0	72.5	Processing	Horizontal Grinder		Large wind blowing
197	NED15	7/31/2019	CR 103 Bus Yard Fence Corner	74.0	64.0	69.0	Processing	Horizontal Grinder		
198	NED16	7/31/2019	CR 126 Green Gate	90.0	84.0	87.0	Processing	Horizontal Grinder		Large wind blowing, cannot hear the sort yard
199	NED17	7/31/2019	Ned City Limit Sign	71.0	61.0	66.0	Processing	Horizontal Grinder		Heavy roadside traffic

# Nederland CFSY Sound Reading Locations



Parks & Open Space



2019

- Reading Location
- Nederland CFSY
- County Open Space
- County Conservation Easement



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COspHARNNorth83 1:7,500  
FILE: V:\gispa\Forestry\ArdMap\_Projects\201910\_NedsoundReadingLoc\_WHarrington\_85x11\_land.mxd

# Nederland Community Forestry Sort Yard Traffic Data: 2019-2022

## Direction of Travel for Nederland CFSY 2019

Summary of traffic flow on Ridge Road leading to the sort yard

Week	Dates	East (Turned right into the yard)	West (Turned Left into the yard)	Grand Total	Notes
Week 1	May 2-4	47	87	134	Opening Week
Week 2	May 8-11	32	22	54	Closed May 9
Week 3	May 15-18	76	159	235	
Week 4	May 22-25	21	51	72	Closed May 22 & 23
Week 5	May 29- June 1	21	116	137	
Week 6	June 5-8	37	141	178	
Week 7	June 12-15	44	119	163	
Week 8	June 19-22	27	120	147	
Week 9	June 26-29	30	128	159	1 N/A Load
Week 10	July 3-6	21	123	144	Closed July 4
Week 11	July 10-13	39	134	173	
Week 12	July 17-20	30	155	185	
Week 13	July 24-27	29	135	164	
Week 14	July 31- Aug 3	46	132	178	
Week 15	August 7-10	40	115	155	Last week of summer break for BVSD
Week 16	August 14-17	32	132	164	
Week 17	August 21-24	34	142	189	
Week 18	August 28- 31	42	113	155	
Week 19	September 4-7	36	129	165	
Week 20	September 11-14	55	125	180	
Week 21	September 18-21	25	163	188	
Week 22	September 25-28	37	131	168	
Week 23	October 2 -5	31	147	178	
Week 24	October 9 -12	22	128	150	Closed Oct 10
Week 25	October 16 -19	44	214	258	Busiest Week
<b>Grand Total</b>		<b>898</b>	<b>3161</b>	<b>4060</b>	

## Direction of Travel for Nederland CFSY 2020

Summary of traffic flow on Ridge Road **leading** to the sort yard

Week	Dates	West (Turned right into the yard)	East (Turned Left into the yard)	Grand Total	Notes
Week 1	June 3-6	370	100	470	Opening Week
Week 2	June 10-13	277	75	352	
Week 3	June 17-20	206	45	251	
Week 4	June 24-27	213	53	266	
Week 5	July 3-4	159	37	196	<i>Closed July 4</i>
Week 6	July 8-11	204	56	260	
Week 7	July 13-18	179	29	208	<i>WFP loads on Mon&amp; Tues</i>
Week 8	July 20-25	157	40	197	
Week 9	July 27-Aug 1	205	32	237	
Week 10	Aug 5-8	166	34	200	
Week 11	Aug 12-15	178	43	221	
Week 12	Aug 19-22	205	28	233	
Week 13	Aug 26-29	122	18	140	
Week 14	Aug 31-Sept 5	180	27	207	
Week 15	Sept 7-12	76	18	94	Yard closed Sept 9, snow
Week 16	Sept 16-19	228	36	264	
Week 17	Sept 23- 26	200	35	235	
Week 18	Sept 30-Oct 3	216	43	259	
Week 19	Oct 7-10	243	43	286	
Week 20	Oct 14-17	300	92	392	<i>Oct 17, original closing day</i>
Week 21	Oct 28-31	91	23	114	<i>Oct 28, yard reopened</i>
Week 22	Nov 4-7	211	33	244	
Week 23	Nov 11-14	40	5	45	<i>Closed Nov 11 Veterans Day</i>
Week 24	Nov 18-21	179	47	226	<i>Last Day Nov 21</i>
<b>Grand Total</b>		<b>4605</b>	<b>992</b>	<b>5597</b>	

### Direction of Travel for Nederland CFSY 2021

Summary of traffic flow on Ridge Road leading to the sort yard

Week	Dates	West (Turned right into the yard)	East (Turned left into the yard)	Grand Total	Notes
Week 1	April 28- May 1	25	7	32	<i>Opening Week/ Closed April 28</i>
Week 2	May 5-8	76	12	88	
Week 3	May 12-15	60	10	70	
Week 4	May 19-22	129	12	141	
Week 5	May 26-29	118	12	130	
Week 6	June 2-5	156	26	182	
Week 7	June 9-12	170	32	202	
Week 8	June 16-19	144	41	185	
Week 9	June 23-26	139	48	187	
Week 10	June 30 -July 3	134	39	173	
Week 11	July 7-10	136	18	154	
Week 12	July 14-17	183	28	211	
Week 13	July 21-24	172	29	201	
Week 14	July 28-31	188	19	207	
Week 15	Aug 4-7	169	26	195	
Week 16	Aug 11-14	152	28	180	
Week 17	Aug 18-21	139	24	163	
Week 18	Aug 25-28	151	22	173	
Week 19	Sept 1-4	152	19	171	
Week 20	Sept 8-11	142	26	168	
Week 21	Sept 15-18	151	7	158	
Week 22	Sept 22-25	169	11	180	
Week 23	Sept 29 -Oct 2	105	15	120	
Week 24	Oct 6-9	142	16	158	
Week 25	Oct 13-16	144	15	159	
Week 26	Oct 20-23	278	63	341	<i>146 loads on Saturday Oct 23</i>
<b>Grand Total</b>		<b>3,724</b>	<b>605</b>	<b>4,329</b>	



### Direction of Travel for Nederland CFSY 2022

Summary of traffic flow on Ridge Road **leading** to the sort yard

Week	Dates	West (Turned right into the yard)	East (Turned left into the yard)	Grand Total	Notes
Week 1	May 4-7	150	40	190	<i>Opening Week</i>
Week 2	May 11-14	229	37	266	<i>Second Busiest Week</i>
Week 3	May 18-21	135	23	158	<i>Snow Closer May 21</i>
Week 4	May 25-28	131	17	148	
Week 5	June 1-4	147	31	178	
Week 6	June 8-11	220	37	257	
Week 7	June 15-18	224	35	259	
Week 8	June 22-25	230	14	244	
Week 9	June 29-July 2	204	9	213	
Week 10	July 6-9	201	11	212	
Week 11	July 13-16	191	8	199	
Week 12	July 20-23	164	8	172	
Week 13	July 27-30	205	19	224	
Week 14	August 3-6	137	23	160	
Week 15	August 10-13	127	29	156	
Week 16	August 17-20	154	32	186	
Week 17	August 24-27	157	39	196	
Week 18	Aug 31- Sept 3	185	33	218	
Week 19	September 7-10	127	13	140	<i>Slowest Week</i>
Week 20	September 14-17	152	12	164	
Week 21	September 21-24	141	15	156	
Week 22	Sept 28-Oct 1	158	20	178	
Week 23	October 5-8	187	30	217	
Week 24	October 12-15	229	36	265	
Week 25	October 19-22	264	48	312	<i>Busiest Week</i>
<b>Grand Total</b>		<b>4449</b>	<b>619</b>	<b>5068</b>	

# 2019 CFSY Biomass Tons



## Biomass By Town

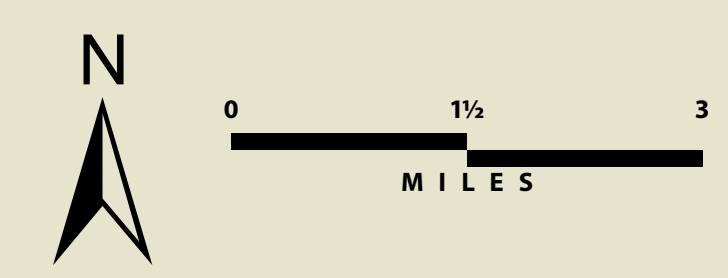
Town	Biomass Tons
Allenspark	185.3
Black Hawk	20.5
Boulder	152.4
Coal Creek	14.8
Drake	1.9
Eldora	12.6
Estes Park	228.7
Glen Haven	5.4
Gold Hill	1.0
Golden	86.8
Jamestown	0.7
Lafayette	0.1
Longmont	0.1
Lyons	35.0
Meeker Park	7.2
Nederland	631.7
Peaceful Valley	1.9
Pinecliffe	12.7
Raymond	0.7
Rollinsville	18.8
Thornton	0.3
Ward	52.1
Incorrect Geocode*	0.4

**TOTAL: 1471.1**

### Tonnage

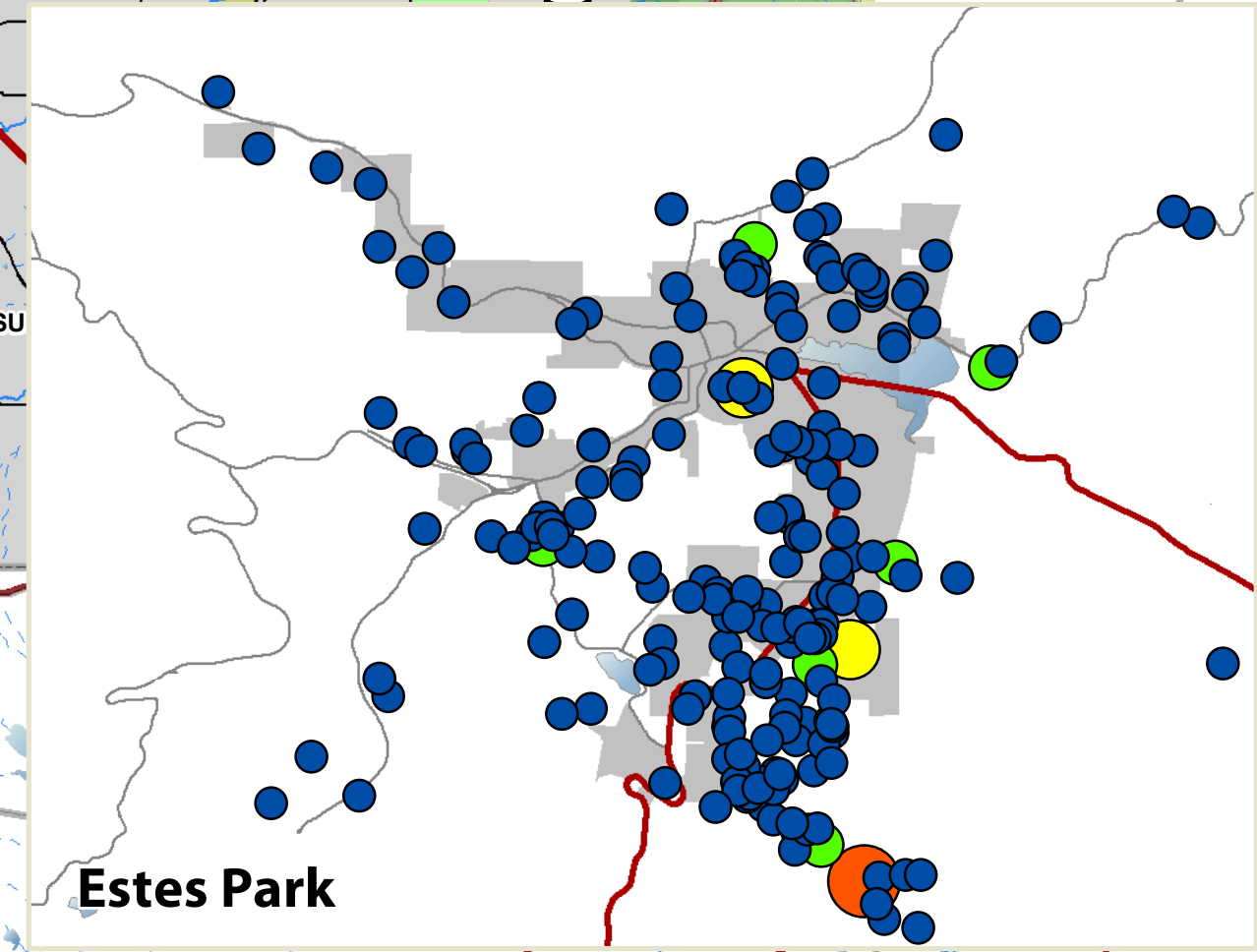
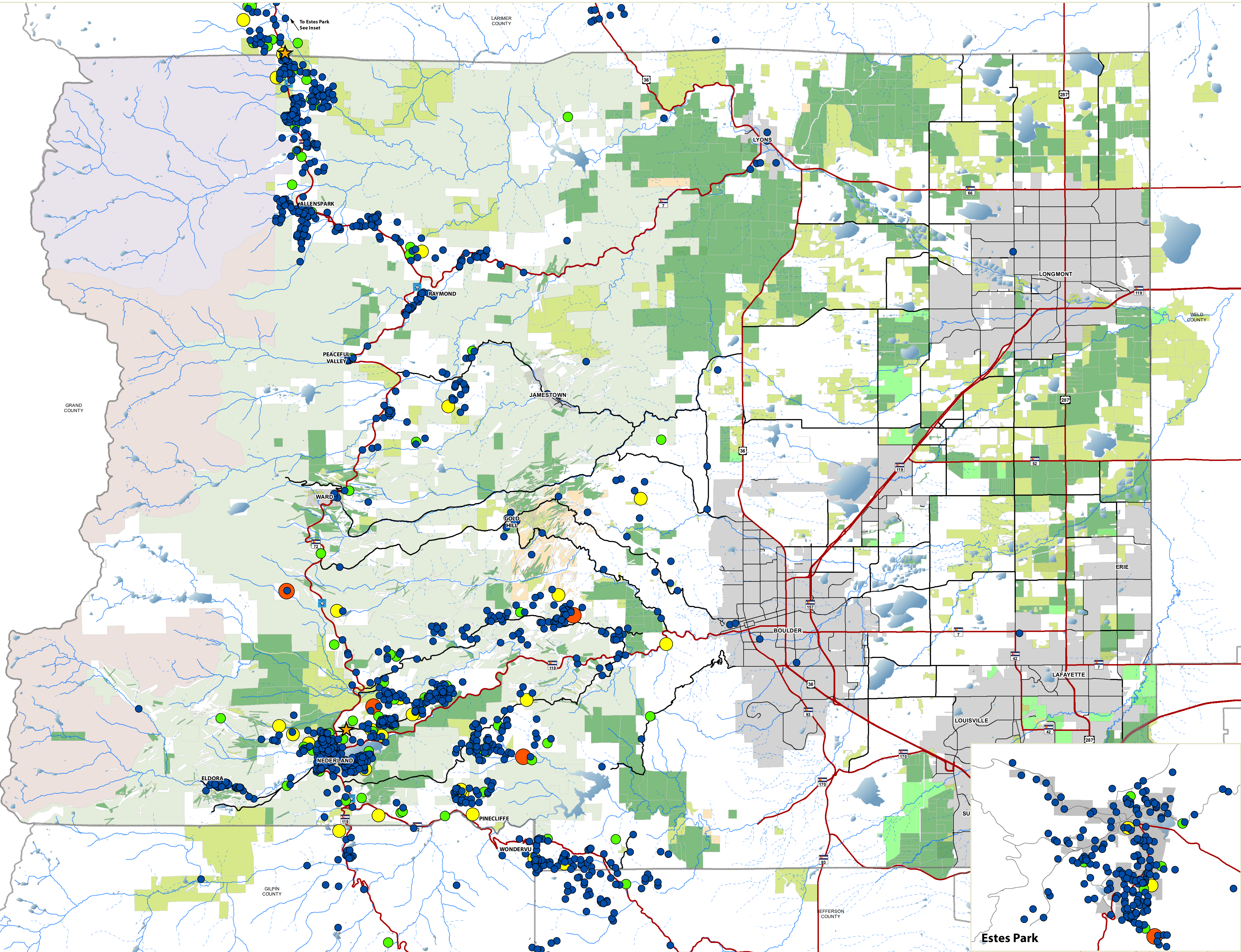


- ★ Sort Yard
- County Open Space
- Joint County and Municipal Open Space
- County Conservation Easement
- County Miscellaneous Easement
- BLM Land
- Indian Peaks Wilderness
- Rocky Mountain National Park
- USFS Land



\*Unable to geocode or geocoded to postal code

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# 2020 CFSY Biomass Tons



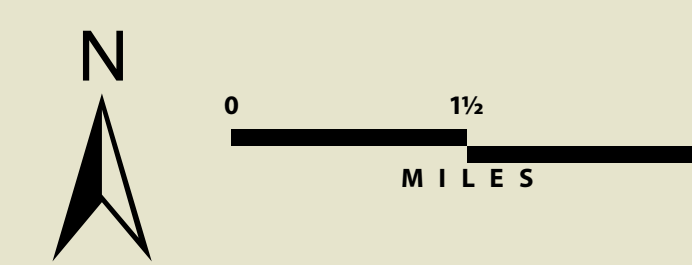
## Biomass By Town

Town	Biomass Tons
Allenspark	239.7
Black Hawk	63.6
Boulder	109.9
Coal Creek	6.0
Drake	1.0
Eldora	18.2
Eldorado Springs	2.8
Erie	0.3
Estes Park	239.6
Glen Haven	3.4
Gold Hill	12.7
Golden	92.0
Jamestown	2.8
Lyons	51.5
Meeker Park	3.4
Nederland	599.8
Peaceful Valley	5.6
Pinecliffe	9.6
Raymond	0.3
Rollinsville	12.5
Ward	33.8
Wondervu	0.6
Incorrect Geocode*	1.5
<b>Total:</b>	<b>1510.5</b>

### Tonnage

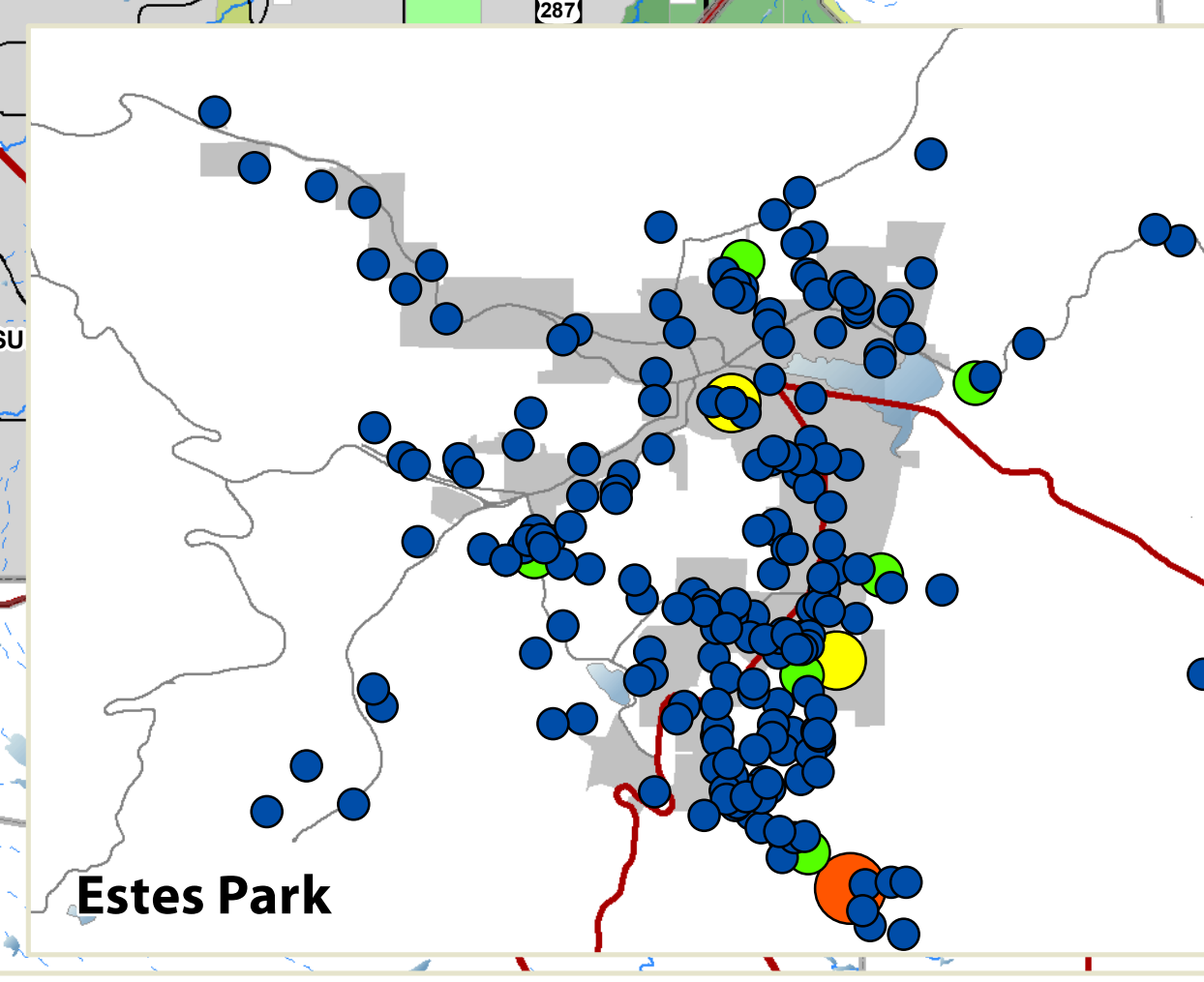
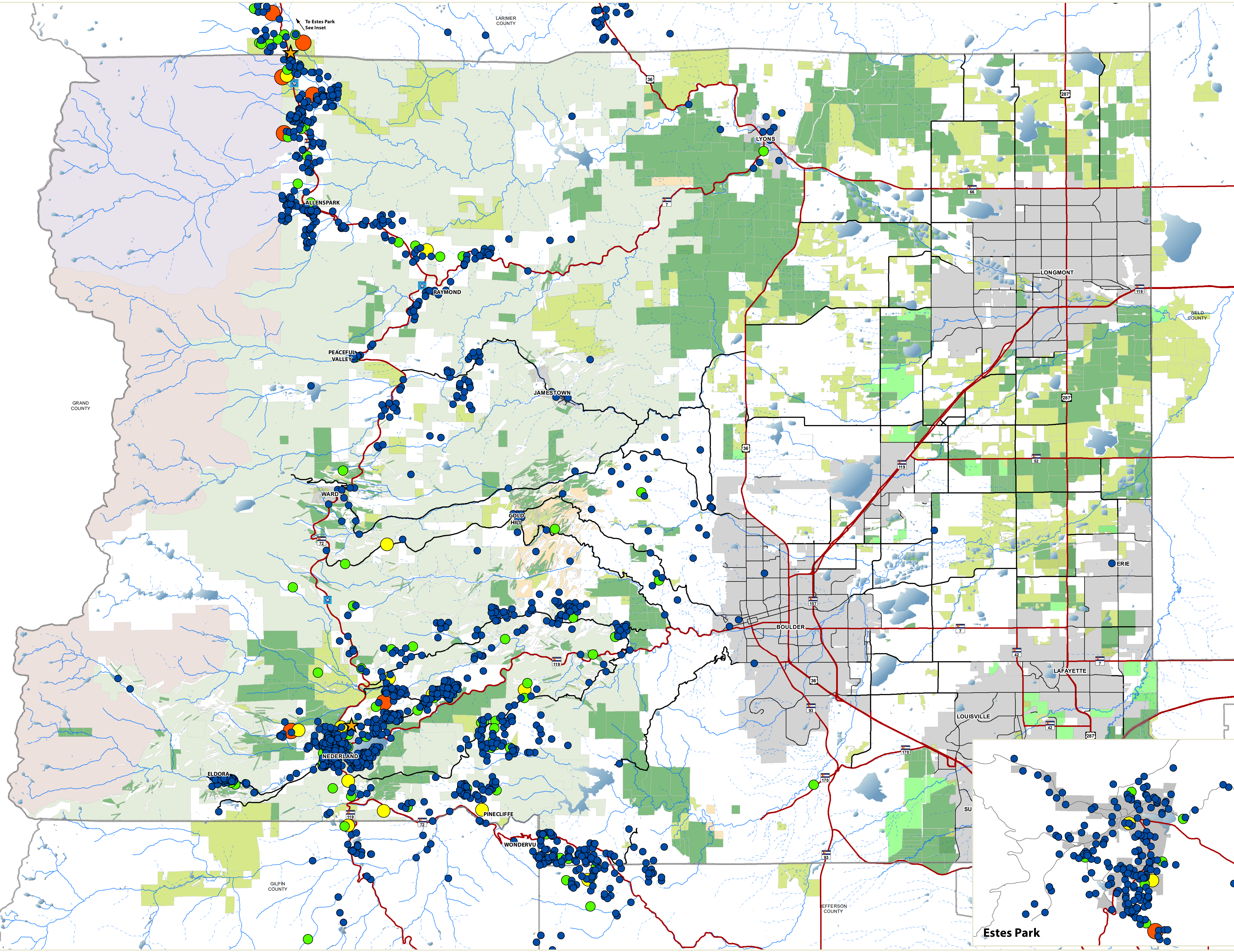


- ★ Sort Yard
- County Open Space
- Joint County and Municipal Open Space
- County Conservation Easement
- County Miscellaneous Easement
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# 2021 CFSY Biomass Tons



## Biomass By Town

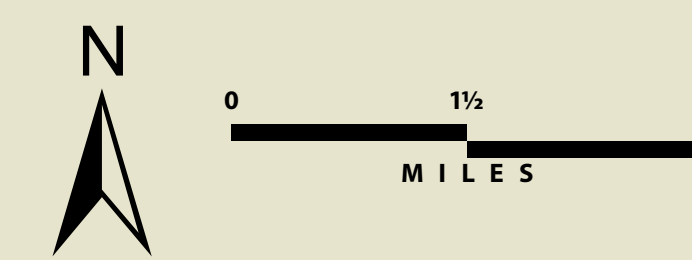
Town	Biomass Tons
Allenspark	400.6
Black Hawk	26.6
Boulder	98.4
Broomfield	0.1
Coal Creek	0.3
Drake	10.8
Edgewater	0.0
Eldora	18.2
Erie	0.1
Estes Park	546.3
Firestone	0.2
Fort Collins	1.1
Glen Haven	7.0
Gold Hill	0.0
Golden	95.6
Jamestown	7.2
Longmont	0.9
Lyons	125.8
Meeker Park	5.6
Nederland	390.8
Peaceful Valley	3.2
Pinecliffe	8.7
Raymond	0.6
Rollinsville	14.5
Ward	38.6
Incorrect Geocode*	3.1

**TOTAL: 1804.1**

### Tonnage

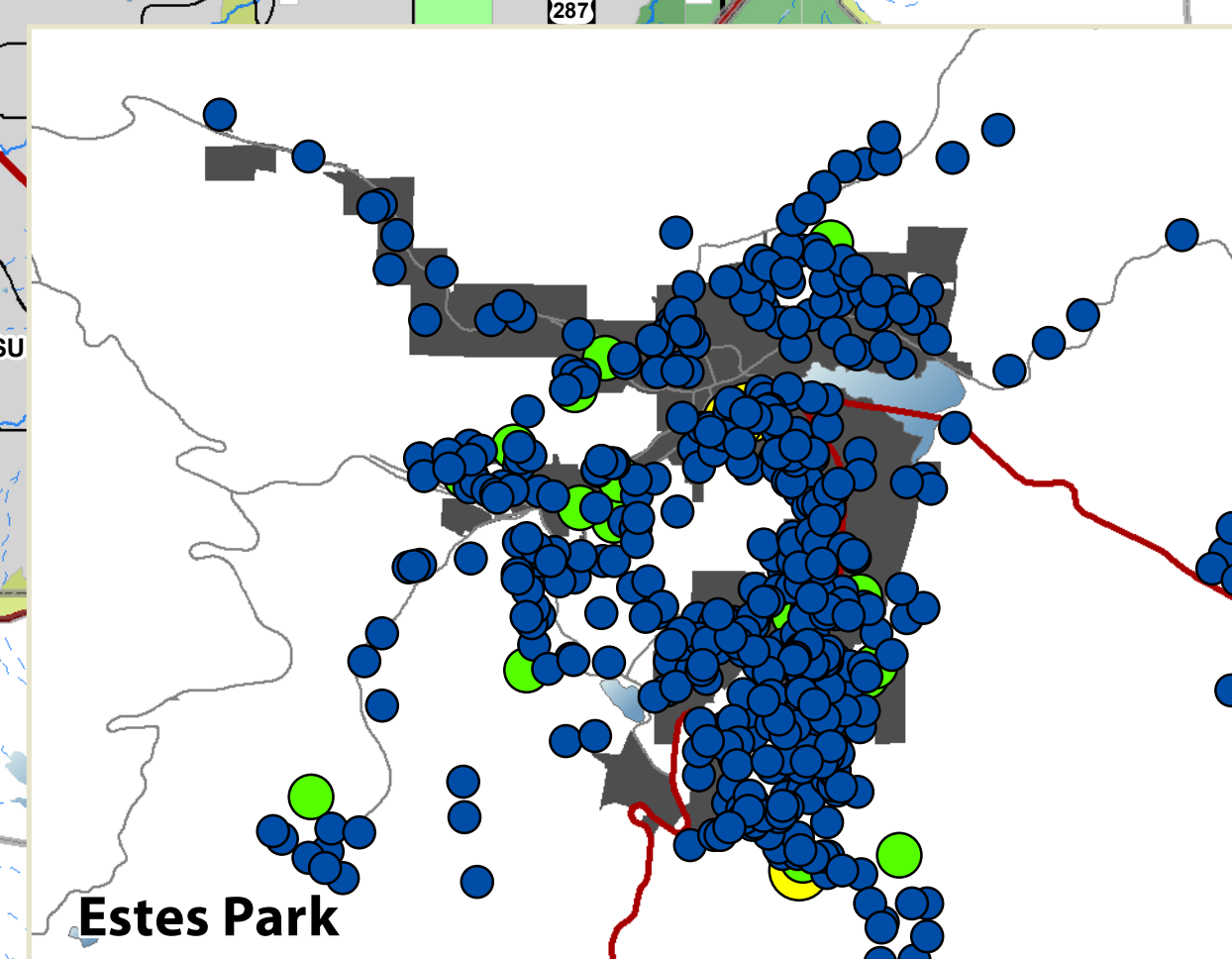
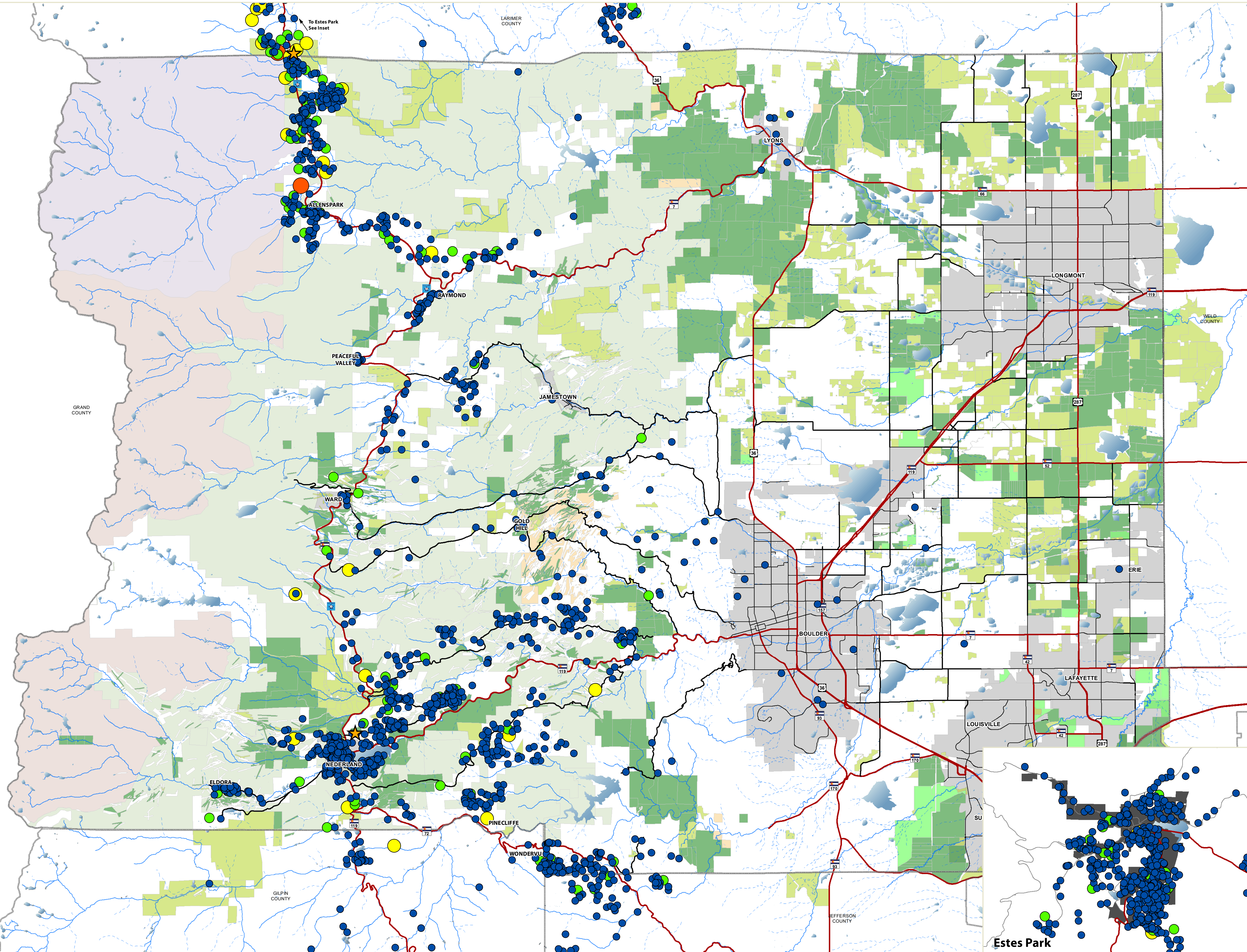


- Sort Yard
- County Open Space
- Joint County and Municipal Open Space
- County Conservation Easement
- County Miscellaneous Easement
- BLM Land
- Indian Peaks Wilderness
- Rocky Mountain National Park
- USFS Land



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# 2022 CFSY Biomass Tons



## Biomass By Town

Town	Biomass Tons
Allenspark	235.3
Arvada	0.2
Black Hawk	35.3
Boulder	113.4
Coal Creek	0.6
Drake	6.2
Eldora	14.2
Estes Park	417.5
Glen Haven	0.3
Gold Hill	2.1
Golden	97.1
Jamestown	10.4
Lafayette	0.5
Lyons	62.9
Meeker Park	5.1
Nederland	464.8
Peaceful Valley	4.0
Pinecliffe	15.7
Raymond	0.1
Rollinsville	10.0
Superior	0.3
Ward	37.3

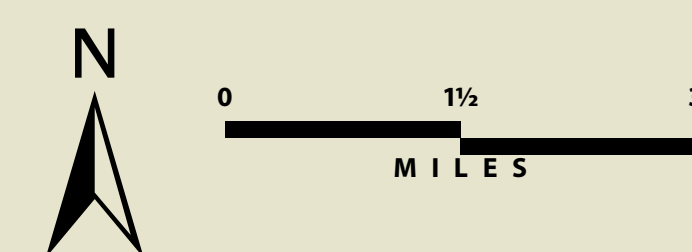
**Total: 1533.5**

Note: Towns with no Biomass Tons for 2022 are not present in the table above

### Tonnage

- 0.00 - 2.50
- 2.51 - 7.00
- 7.01 - 18.00
- 18.01 - 35.00
- > 35.00

- ★ Sort Yard
- County Open Space
- Joint County and Municipal Open Space
- County Conservation Easement
- County Miscellaneous Easement
- BLM Land
- Indian Peaks Wilderness
- Rocky Mountain National Park
- USFS Land



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