ENVIRONMENTAL IMPACT REPORT

THE EVERGREEN

VAIL, COLORADO

prepared for:

THE SOLARIS GROUP

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1.0 INTRODUCTION

The Solaris Group is planning to redevelop the existing Evergreen Lodge, which was constructed in 1974, into a modern, sustainability-focused hotel known as The Evergreen. The Evergreen Lodge is located at 250 South Frontage Road West in Vail, Colorado. Specifically, it is in Section 6 of Township 5 South and Range 80 West in Eagle County (Figures 1 & 2).

To aid in project planning, an Environmental Impact Report was prepared for the Evergreen Lodge project site and two adjacent parcels that border the property on its western side, encompassing the Middle Creek riparian corridor. This report discusses the existing and proposed conditions of the Evergreen Lodge parcel and adjacent Middle Creek parcels in accordance with the EIR guidelines outlined in Chapter 12 of Vail's Town Code; it discusses other required permits and coordinating agencies; and provides a summary and analysis of impacts. Please note, all Figures are included in Section 6.0, Tables are in Section 7.0, and Photos are in Section 8.0. Appendix A contains a discussion of air quality prepared by the Colorado Department of Public Health and Environment (CDPHE).

2.0 ENVIRONMENTAL SETTING

The EIR study area consists of three parcels located in Eagle County in the town of Vail (Figures 1 & 2). The Evergreen Lodge parcel covers approximately 2.45 acres. The grounds surrounding the existing hotel building are predominately paved with small areas of ornamental landscaping and a pool on the western side (Photos 1 & 2).

Middle Creek, a perennial stream, is located immediately west of the Evergreen Lodge and flows through two adjacent parcels owned by the town of Vail and the Eagle River Water and Sanitation District. Middle Creek flows into Gore Creek approximately 750 feet to the south of the project area.

The surrounding area in Vail is developed with businesses, hotels, and recreational amenities. The project site is located just south of I-70, on the south side of the I-70 frontage road. The recently updated Vail Health building abuts the property to the south and east; the Dobson Ice Arena, Vail Public Library, and Vail International Condominiums are to the west across Middle Creek.

Elevations of the project area range from a high of approximately 8,195 feet at the northern portion of the Evergreen parcel to a low of 8,158 feet at the southernmost extent of the study area on the Eagle River Water and Sanitation District (ERWSD) parcel.

3.0 EXISTING CONDITIONS

3.1 Hydrology

3.1.1 Surface Water

The EIR study area includes approximately 760 linear feet of Middle Creek, a perennial stream located in the ERWSD and Town of Vail parcels west of the Evergreen Lodge (Figure 2). Middle Creek enters the northern end of the Town of Vail parcel through a 6-foot culvert beneath Interstate 70 and the South Frontage Road (Photo 3). Along the upper portion, the creek is armored with large boulders and cobble which was recently placed as a part of drainage improvements (Photos 4 & 5). As it continues southward, the stream banks are more densely vegetated with riparian vegetation (Photos 6 & 7). In a few locations adjacent to the Evergreen Lodge, the banks are steep and actively eroding (Photos 8 & 9).

A box culvert is located in the southern portion of the Town of Vail parcel for a pedestrian crossing. Two additional culverts are located at the Meadow Drive crossing at the south end of the study area (Photo 10). Middle Creek joins Gore Creek approximately 750 feet south of the project site.

Stormwater from the project site is currently discharged to Middle Creek with no water quality treatment. Water from the western half of the site primarily sheet flows into Middle Creek (Photo 11). Runoff from the eastern half is collected in area inlets, conveyed around the eastern side and then to the south of the existing building, then is discharged to Middle Creek just downstream of the box culvert and pedestrian crossing. A small discharge is also located north of the pool area, where a foundation drain creates saturated soil conditions that connect back to the creek (Photo 12).

3.1.2 Groundwater

A geotechnical study was performed by Cesare, Inc on the Evergreen Lodge parcel (December 13, 2021). Five borings were drilled and completed as groundwater monitoring wells at various locations throughout the parcel (Figure 3). Groundwater was encountered at depths of between approximately 12 to 15 feet below grade in borings B-1, B-2, and B-5 at the time of drilling. Groundwater was remeasured at depths of between 16.5 and 49.7 feet below grade in borings B-1, B-2, B-3, and B-5 between 1 and 43 days after drilling. Groundwater was not encountered in B-4 during or after drilling.

3.1.3 100-Year Floodplain

Figure 4 illustrates the extent of the 100-year floodplain. The 100-year flood event is contained within the Town of Vail and Eagle River Water and Sanitation District parcels. The Evergreen Lodge is outside of the FEMA 100-year floodplain for Middle Creek.

3.1.4 Stream Setback

Current Town of Vail regulations specify a 30-foot setback from the centerline of Middle Creek, and The Evergreen Lodge is in compliance with this setback.

3.2 Atmospheric Conditions

The Colorado Department of Public Health and Environment (CDPHE) provided data on the estimated ambient air concentrations of six air pollutants for the Evergreen Lodge project site (Table 1). Please note, local air monitoring data do not exist for Vail, Colorado; therefore, CDPHE developed best estimates for the general geographic area using available CDPHE data. Eagle County is in an attainment area as summarized by Table 1. For further details, please refer to CDPHE's correspondence in Appendix A.

3.3 Biotic Conditions

3.3.1 Vegetation

As described above, the Evergreen Lodge parcel is developed with the building footprint and paved parking areas covering most of the lot (Photo 1; Figure 2). Small areas of ornamental landscaping occur around the buildings, some of which incorporate native trees including blue spruce *(Picea pungens)* and aspen *(Populus tremuloides)* (Photo 2). On the west side of the building near the pool area, a pipe discharge from a foundation drain creates saturated soil conditions that support a narrow wetland area extending down to the creek (Photo 12).

The Middle Creek riparian corridor is lined by native trees and shrubs including narrowleaf cottonwood *(Populus angustifolia)*, balsam poplar *(Populus balsamifera)*, thinleaf alder *(Alnus tenuifolia ssp. incana)*, Engelmann spruce *(Picea engelmanii)*, and several species of willows *(Salix geyeriana; S. monticola; S. drummondiana)* (Photos 6 & 7). The herbaceous understory is a mixture of a few weeds growing with desirable native species such as fireweed *(Epilobium angustifolium)*, cow parsnip *(Heracleum sphyondylium)*, and chiming bells *(Mertensia ciliata)*. Noxious weeds also occur, particularly in the more disturbed areas in the north, but do not form any large stands (Photos 13 & 14). These include plumeless thistle *(Carduus acanthoides)*, oxeye daisy *(Leucanthemum vulgare)*, and Canada thistle *(Cirsium arvense)*. Steep, actively eroding areas are characterized by low vegetation cover (Photos 8 & 9).

3.3.2 Wildlife

The Evergreen Lodge parcel consists of an existing development that does not provide significant wildlife habitat. Moreover, the ERWSD and Town of Vail parcels are surrounded by development, the Middle Creek riparian corridor is narrow, and it is crossed by multiple roads and trails between I-70 and Gore Creek. This limits the wildlife habitat value of this area.

As shown by Figure 5, the project site is outside American Elk winter range mapped by CPW. In addition, it is not included in the areas that have been mapped as potential habitat for lynx (Figure 6).

3.4 Soils

Figure 7 illustrates the NRCS soil types for the project area. The entire study area is mapped as Haplocryolls-Cryoquolls complex at 0 to 15 percent slopes. The Haplocryolls-Cryoquolls complex originated in parent materials consisting of alluvium derived from igneous and sedimentary rock. The Haplocryolls soil type is not rated as a hydric soil while the Cryoquolls portion is rated as a hydric soil type by the NRCS.

Borings from the Cesare geotechnical study revealed that the soil types present onsite classify as Type D, according to the 2015 IBC. Asphalt pavement about 5 to 12 inches thick was encountered in all borings. Sand and gravel fill with cobbles and occasional boulders was identified to depths of between about 3 and 15 feet in all borings, except Boring B-3; however, distinguishing fill from native granular material with the ODEX method of drilling was challenging. Fill may be present in the location of Boring B-3.

Overburden soil consisting of sand and gravel with boulders and cobbles was encountered to the maximum depths of each boring, which was between about 21 and 63 feet deep. Boulders up to 3 feet in dimension were encountered in some locations. Flowing sands were observed in the overburden soil at about 5 to 25 feet deep in Boring B-2, 12 to 19 feet deep in Boring B-5, and 39 to 47 feet deep in Boring B-5. Bedrock was not encountered in any of the borings.

3.5 Geology

The geology of the site is described in Figure 8, which was included in the Cesare Geotechnical Report (2021). The "Geologic Map of the Eastern Half of the Vail 30' x 60' Quadrangle, Eagle, Summit, and Grand Counties, Colorado" by Karl S. Kellogg, Ralph R. Shroba, Wayne R. Premo, and Bruce Bryant, (2011), indicates that surficial deposits onsite likely consist of the following unit: "Qtp: Till of Pinedale age (late Pleistocene). For further details on the geology of the surrounding areas, please refer to the geotechnical report by Cesare Inc.

3.5.1 Geologic Hazards

In order to address potential geologic hazards to the proposed project, Town of Vail's Geologic Hazard Mapping portal was accessed. Figures 9-11 illustrate the geologically sensitive areas within the Town of Vail as they relate to debris flows, avalanches, and rock falls. The Evergreen Lodge parcel is outside these geologic hazard areas identified by the Town of Vail. The Geotechnical Report prepared by Cesare, Inc. (2021) states that the potential for radon gas is likely and recommends the site and/or planned structure be evaluated by specialists in radon gas detection and management.

3.6 Noise & Odors

The site is in the developed downtown of Vail, Colorado and is directly adjacent to the South Frontage Road as well as the Interstate 70 corridor. Both road systems generate noise and odors from traffic. There are no significant sources of noise or odors from the existing Evergreen Lodge parcel.

3.7 Visual/Scenic Resources

The Evergreen Lodge consists of a 9-story building based on a 1970's post-modern architecture. The current structure offers an outdated lodging product and has been described as largely incongruous with its surroundings.

3.8 Land Uses

The Evergreen Lodge was originally constructed in 1974. With the exception of a lobby which was added in the 1980's, little has changed since its original construction. The Evergreen site was incorporated into the Lionshead Master Plan (LHMP) and zoned Lionshead Mixed Use-1 in 2005 (Figure 12).

The current Evergreen Lodge includes the following uses:

- 128 Accommodation Units
- 19 Condominium Dwelling Units
- The Altitude Club Restaurant
- Annapurna Restaurant
- Hotel Lobby and offices
- 3,600 ft^2 of Conference space
- Hotel amenities such as swimming pool, hot tub, showers, and sauna
- Venture Sports Retail

3.9 Population

According to the DOLA Profile for the Town of Vail (Appendix B), the Town's population in 2020 was 4,803. The total number of housing units is 7,303 and occupied housing units in 2020 were 2,372. The 2020 persons per household was 2.08 per owner-occupied unit and 3.14 per rental unit. The existing Evergreen Lodge contains 19 dwelling units and 128 accommodation units. The Evergreen Lodge estimates its average occupancy per accommodation unit at 1.5 persons per unit. The maximum possible population for existing Evergreen Lodge, is estimated at 251.66 persons (assumed the 19 dwelling units were rental units) assuming 100% occupancy. The Evergreen Lodge estimates its annual occupancy rate to be 60%. Therefore, the estimated actual population of the Evergreen is 151, comprised mostly of a transient, lodging population.

3.10 Traffic

McDowell Engineering, LLC of Eagle, Colorado prepared a Traffic Impact Study to analyze the traffic generated from the existing Evergreen Lodge. Weekday traffic counts were obtained on Thursday, December 30, 2021, on the South Frontage Road at the site access between 7:00 AM and 6:00 PM. The morning peak hour occurred between 10:15 AM and 11:15 AM. The evening peak hour occurred between 4:00 PM and 5:00 PM. Saturday traffic counts were obtained on Saturday, January 1, 2022, between 7:00 AM and 6:00 PM. The Saturday peak hour occurred between 3:30 PM and 4:30 PM.

Traffic counts were obtained the week between the Christmas and New Year's holidays of December 2021 and January 2022. This is a peak traffic week due to skier traffic over the holiday season.

Using the Institute of Transportation Engineers' Trip Generation Manual, on the average weekday, the existing site is expected to generate 1,098 vehicle trips per day (vpd). Peak hour traffic on a weekday generates approximately 99 vph during the morning peak hour, 109 vph during the evening peak hour, and 127 vph during the Saturday peak hour.

However, observed traffic counts indicate when the hotel is at or near capacity, the existing site generates 38 vehicle trips per hour (vph) in the morning peak hour, 64 vph in evening peak hour, and 35 vph in the Saturday peak hour. It should be noted that observed traffic was approximately 30 – 60% of ITE's anticipated traffic volumes for the existing land uses. The report indicates this may be due, in part, to increased use of multimodal transportation.

3.11 Sustainability

The current Evergreen Lodge is outdated, and the structure offers little in the way sustainability. The mechanical systems are failing, and they lack current technology. The structure stands at 9-stories and remains disconnected visually and ecologically from its surroundings with outdated architecture and surface parking. The extensive hardscaping surrounding the property impedes infiltration and groundwater recharge while also causing potential impairments to water quality in the adjacent Middle Creek. Surface runoff from parking and loading areas currently drains into Middle Creek without filtration, other than a narrow riparian buffer. The site does not currently use renewable energy.

4.0 PROPOSED PROJECT

The proposed project will be the redevelopment of the Evergreen Lodge property with plans to enhance the site by adhering to a set of ecologically sustainable values set forth by the American Institute of Architects Committee on the Environment. Further, the redevelopment of the Evergreen Lodge will be guided by the architectural styles of the

surrounding buildings as outlined in the Lionshead Redevelopment Master Plan. The future Evergreen facility will feature a significant number of upgrades to the current Evergreen Lodge (Figure 13). The renderings in this section were produced by Snow Kreilch Architects of Minneapolis, Minnesota.

4.1 Hotel Units and Size

The building will feature 233,884 sq. ft. of Gross Residential Floor Area (GRFA) consisting of 128 attached accommodation units and 135 dwelling units. The overall site coverage will be 85,706 sq. ft. (80.2%). The above grade portion totals 67,946 sq. ft. (35%).

Building height and massing will respond to the parcel topography as well as reflect the proportions of adjacent buildings. The proposed reconstruction of the Evergreen Lodge will consist of a 6-story northern façade which faces the frontage road and I-70 while to

the south, the building will feature a 4-story façade along Meadow Drive. Massing will decrease in the west as the topography drops towards Middle Creek.

4.2 Employee Housing

The site will include 13 on-site employee housing units as well as an additional 4 off-site employee housing units.

4.3 Access and Parking

Site access will be provided by a new roundabout constructed by the Town of Vail at the I-70 South Frontage Road. A two-way paved road will provide direct access to the recently constructed roundabout. Parking will be moved to a below-ground garage with 203 parking spaces.

A sidewalk has been installed along the South Frontage Road connecting to the nearby amenities. The path is contiguous across the frontage of the project site and consists of a concrete path with curb and gutter. Residents and visitors of The Evergreen will have easy access to the Town of Vail Transit System. The West Vail Red and Green, the West Vail Express and the Lionshead Loop bus routes travel along the South Frontage Road adjacent to the project site. There is a bus stop located directly adjacent to the new roundabout at the site access. (McDowell Engineering, 2022).

4.4 Stormwater Management

All runoff from the Evergreen site will be treated for water quality before it is discharged to Middle Creek. Figure 14 is the Storm Sewer Plan prepared by Alpine Engineering. The proposed development will improve the existing conditions for stormwater by capturing runoff and filtering it with hydrodynamic separators to remove sediments, oil and trash before water is discharged to Middle Creek. In addition, the site will incorporate green

roofing and replace hardscaping with green spaces to promote natural filtering and slow the flow of stormwater from the site. This will have a positive impact on water quality and facilitate natural recharge of groundwater.

4.5 Landscaping and Open Space

The central portion of the Evergreen Lodge parcel is planned as a Landscape Plaza which will be open to the public with the intention of promoting walkability between neighboring parcels. A portion of the parking area of the Vail Health hospital will be covered by a "landscape lid" and the site will have a green roof. The landscape plan for The Evergreen will incorporate native species into the planting plan and will be designed to blend into the Middle Creek Riparian Corridor.

The sitework character and function draws inspiration from the adjacent Gore Creek and from the landscape types within the valley. The site will be planted with a diverse range of native and climate adapted trees, shrubs and perennials in amended soils that will establish deep root systems encouraging water infiltration. This strategy also provides an expanded habitat for birds and pollinators.

The landscaping and site development would consist of 24,407 sq. ft. of softscape and 13,151 sq. ft. of hardscape for a total area of 37,558 sq. ft. (35%). Please note that these figures do not account for the green roofs.

4.6 Utilities

4.6.1 Sanitary Sewer

The existing sewer main behind the existing Evergreen building will be removed back to West Meadow Drive. The main lies under the footprint of the proposed building. A new dead-end manhole will be placed on the existing 8" PVC main owned by ERWSD. A 6" PVC commercial sewer service will extend from the dead-end main and enter the building at the sites low point in the southwest corner of Lot 10.

4.6.2 Water

The existing ERWSD sewer service is a large 12" DIP water service behind the existing Evergreen Lodge and under the footprint of the proposed building. This service will be removed back to the west along Middle Creek where it forms a loop around Dobson Ice Arena. The water service for the proposed building will be from the north along South Frontage Road, where an existing 12" DIP stub is already in place and installed during the roundabout improvements.

4.6.3 Electric Service

Electric will be provided by Holy Cross Energy. There is existing infrastructure along the northern property line between the proposed building and South Frontage Road. Connection will be made from an existing electric splice vault and extend to a newly placed and properly sized 3-phase transformer. There is an existing transformer in the rear of the existing building that will be removed during demolition.

4.6.4 Gas Service

Gas will be provided by Xcel Energy. There is a gas main behind the existing building that will be removed back to the east side of Middle Creek to be out of the proposed building footprint. The gas service will extend into the building from this location.

4.6.5 Communications

Lumen (Century Link) and Comcast both have facilities along the entire front of the building between South Frontage Road and the proposed structure. An existing Lumen splice vault can be easily accessed for connection to existing cable tv and phone. There is a Lumen fiber vault at the intersection of Middle Creek and South Frontage Road, directly adjacent to the south roadway asphalt. Fiber can be extended from this vault to the east along the existing landscape strip. Comcast facilities are present along South Frontage Road, however the exact location has not been verified with the provider yet.

4.7 Sustainability

The Solaris Group is actively pursuing opportunities for sustainable green building certifications for the Evergreen. Up to 9,000 square feet of the roof area is available for solar panels to generate renewable energy onsite. In addition, the green roofs will help to control stormwater runoff and they provide a reduction in the urban heat island effect, which can improve the efficiency of mechanical equipment potentially reducing

greenhouse gas emissions. Green spaces with native plant materials and improved vegetation along the buffer of Middle Creek will improve the space for people and urban adapted wildlife that utilize the area.

5.0 IMPACTS & MITIGATION

5.1 Hydrology

5.1.1 Surface Water

The Evergreen seeks to prioritize the health of Gore Creek and Middle Creek by working to address three known causes of water quality degradation identified in the Gore Creek Strategic Action Plan:

1). **Pollutants from Land Use Activities:** The site has been thoughtfully redesigned to incorporate changes that will improve water quality. Parking has been moved underground and green spaces will replace impervious surfaces to promote infiltration of runoff. Green roofs will also be used to filter runoff.

2). **Drainage from Impervious Surfaces:** Runoff that currently flows from parking areas and buildings into Gore Creek will be captured and filtered through hydrodynamic separators to remove sediments, oil, and trash.

3). **Loss of Riparian Streamside Vegetation.** The Solaris Group will work with the Town of Vail and ERWSD to implement vegetation improvements and biostabilization of eroding banks along the bordering area of the Middle Creek Riparian Corridor. Landscaping along the creek edge will be designed to blend into the native riparian plant community with appropriate native species.

5.1.2 Groundwater

The redevelopment of the Evergreen Lodge parcel includes a significant reduction of existing hardscape while maximizing open landscape areas and incorporating green roofs. These characteristics will work to slow the flow of water over the landscape and will promote infiltration and groundwater recharge, and improvement over the existing condition.

Cesare states that groundwater levels will impact design and construction of the below grade garage and shoring system during excavations. Cesare anticipates that dewatering will be required during construction and for the permanent condition unless a submerged condition is acceptable.

5.1.3 100-Year Floodplain

Figure 4 illustrates the extent of the 100-year floodplain. The project will not impact the 100-year floodplain.

5.1.4 Stream Setback

The Evergreen would be in compliance with the Town of Vail's requirement for a 30-foot setback from the centerline of Middle Creek, as illustrated by the Proposed Development Plan on Figure 13.

5.2 Atmospheric Conditions

There would be a short-term increase in hydrocarbon pollutants and dust during the construction process. Over the long-term, the proposed project would have a small and unmeasurable impact on air quality due to a projected increase in traffic, and the increased number of rooms in the hotel. However, it should be noted that the design is planned to maximize a photovoltaic array within a 9,000 square foot area on the roof, which will provide renewable energy onsite and reduce atmospheric emissions. Over time, increased use of multimodal transportation could reduce the effects of increased traffic.

5.3 Biotic Conditions

5.3.1 Vegetation

The project will have no impact on native plant communities because none occur within the Evergreen Lodge parcel. The landscape plan for The Evergreen will incorporate native species into the planting design and will include more connected green spaces. Landscaping along the creek edge will be designed to blend into the native riparian plant community with appropriate native species.

The riparian corridor along Middle Creek presents some opportunities for enhancement with additional native plantings, restoration of eroded streambanks, and noxious weed management. The Solaris Group will work with the Town of Vail and ERWSD to implement vegetation improvements and biostabilization of eroding banks along the bordering area of the Middle Creek Riparian Corridor.

5.3.2 Wildlife

The Evergreen Lodge parcel consists of an existing development that does not provide significant wildlife habitat (Figures 5 & 6). The adjacent parcels to the west which contain Middle Creek, are surrounded by additional developments that limit the wildlife habitat potential in the Middle Creek riparian corridor. Redeveloping the site should not cause significant new impacts to wildlife.

It should be noted that The Evergreen will incorporate dark-sky lighting which is known to be less disruptive to wildlife, and the use of native species in the landscape with an increase in green space, will be an improvement over the existing condition.

5.4 Soils

The soil types of the project site classify as Type D. Based on this classification, the geotechnical report prepared by Cesare, Inc. (2021) includes detailed recommendations for building construction.

5.5 Geology & Hazards

The project site is outside the geologic hazard areas identified by the Town of Vail and the proposed project should not be affected. Appropriate measures will be taken as necessary to address potential impacts from radon gas.

5.6 Noise & Odors

The proposed project consists of the redevelopment of an existing lodging facility in a heavily developed area. There will be a short-term increase in noise and odors during the construction phase but will subside following the completion of the project.

5.7 Visual Impacts

The Evergreen incorporates the Architectural Design Guidelines of the Lionshead Redevelopment Master Plan and the more modern architecture of the surrounding civic uses and Vail Health. Expanding on the concept of the "Landscape Lid," The Evergreen Design Team has designed guest-accessible green roofs for the structure, with a landscaped courtyard that creates a park-like environment within the site.

The Evergreen focuses on a connection with nature, with little distinction between in-doors and out- doors. The intent is that when viewed from above, The Evergreen appears more as landscape than structure. The result of this is that The Evergreen is proposed with flat roofs, a deviation from the Lionshead Architectural Design Guidelines, but consistent with other buildings in this neighborhood, most notably, Vail Health.

The Vail Library was also used as a design inspiration, as with its dominant flat green roof, the library feels like an extension of the native vegetation associated with the Middle Creek stream tract.

5.8 Land Uses

The Evergreen consists of 135 dwelling units within a voluntary short-term rental program, with 128 attached accommodation units. This is a significant increase of the current 128 accommodation units and 19 dwelling units within the current Evergreen Lodge. The lodge property goes from 147 keys to 263 keys, a 179% increase. In terms of bedrooms, The Evergreen goes from a total of 163 bedrooms today to a total of approximately 328 bedrooms with the proposed redevelopment, a 201% increase in live beds. This bedroom count does not include the onsite employee housing being provided.

5.9 Population

Using the same assumptions from section 3.9 for the existing hotel, the estimated population for The Evergreen is 518 persons at 100% occupancy. The estimated actual population is 311 assuming 60% annual occupancy, with a portion of the population (41 persons) being full-time locals occupying the workforce housing component. This increased local population would be located in an area zoned for such purpose, with easy access to transportation, including multi-modal transportation, community services, amenities, and commerce that will support such growth.

5.10 Traffic

McDowell Engineering, LLC of Eagle, Colorado prepared a traffic study to analyze potential changes in traffic as a result of the construction of the new Evergreen facility. Below is an excerpt from the report which summarizes the results of the traffic study.

The Evergreen is conservatively anticipated to generate 1,694 vehicle trips per day (vpd) on the average weekday. Peak hour traffic on a weekday at project buildout is anticipated to be 128 vph in the morning peak hour, 141 vph during the evening peak hour, and 157 vph during the Saturday peak hour. This is approximately a 54% increase in daily trips compared to the current Evergreen Lodge traffic.

It should be noted that the trip generation analysis summarized above is considered very conservative. The actual traffic data collected at the existing Evergreen Lodge suggests that there is very high multimodal use from this site compared to the national average trip generation rates and 20% multimodal reduction that were used for this analysis.

The Town of Vail and CDOT completed the construction of a new roundabout at the site access in Year 2021. The newly constructed roundabout is currently operating at a LOS A. It is anticipated to continue operating well, with a LOS A or better through Year 2043 with project traffic. The available sight distance at the roundabout exceeds the FHWA[7] requirements.

The site access will be designed as a two-way paved access per CDOT and Town of Vail engineering requirements.

The proposed project traffic is anticipated to increase traffic by more than 20% from existing traffic volumes. Therefore, a State Highway Access Permit will need to be obtained for the redevelopment project onto the frontage road at the new roundabout. The permit volume should be 157dhv per this analysis.

5.11 Permits & Coordinating Agencies

McDowell Engineering's report states that a State Highway Access Permit be required be obtained for the redevelopment project onto the frontage road at the new roundabout.

A wetland evaluation will be conducted for the foundation drain area. If this is a jurisdictional wetland, any necessary permits would be obtained from the U.S. Army Corps of Engineers.

Because site grading will disturb more than one acre, a stormwater permit will likely be required from the Colorado Department of Public Health and Environment (CDPHE).

The team will coordinate with ERWSD regarding water rights, water, and sewer service permits.

6.0 SUMMARY OF ENVIRONMENTAL IMPACTS

The construction of the proposed project will likely provide significant upgrades and benefits to the current Evergreen Lodge site.

- The proposed project plans to significantly reduce impervious surfaces while incorporating green spaces where possible. By greatly reducing hardscaping, the flow of stormwater runoff entering Middle Creek will be slowed and allowed to infiltrate into the soil.

- The Stormwater Management Plan incorporates SciClone hydrodynamic separators to remove sediments, oil and trash from runoff before it is discharged to Middle Creek. This is a significant improvement over the existing condition.

- Green roofs will help to control stormwater runoff. They also provide a reduction in the urban heat island effect, which can improve the efficiency of mechanical equipment potentially reducing greenhouse gas emissions.

- Renewable energy will be generated onsite through a rooftop solar array.

- The project is a redevelopment of an existing parcel within heavily developed and populated area which lacks native plant communities and wildlife habitat. Construction of the Evergreen will not have any long-term negative impacts on native vegetation or wildlife habitat.

- Green spaces with native plant materials and improved vegetation along the buffer of Middle Creek will improve the space for people and urban adapted wildlife that utilize the area.

- A traffic study performed by McDowell Engineering, LLC indicates that daily trips are expected to increase by 54% as compared to the traffic generated by the current Evergreen Lodge site; however, opportunities for increased use of multimodal transportation could lessen this effect over time. The site is located within the Lionshead area of Vail which makes it more accessible to pedestrians and cyclists and is on a bus route.

- A short-term increase in hydrocarbons and dust is expected during construction activities. Over the long term, there will be some Impact from increased traffic.

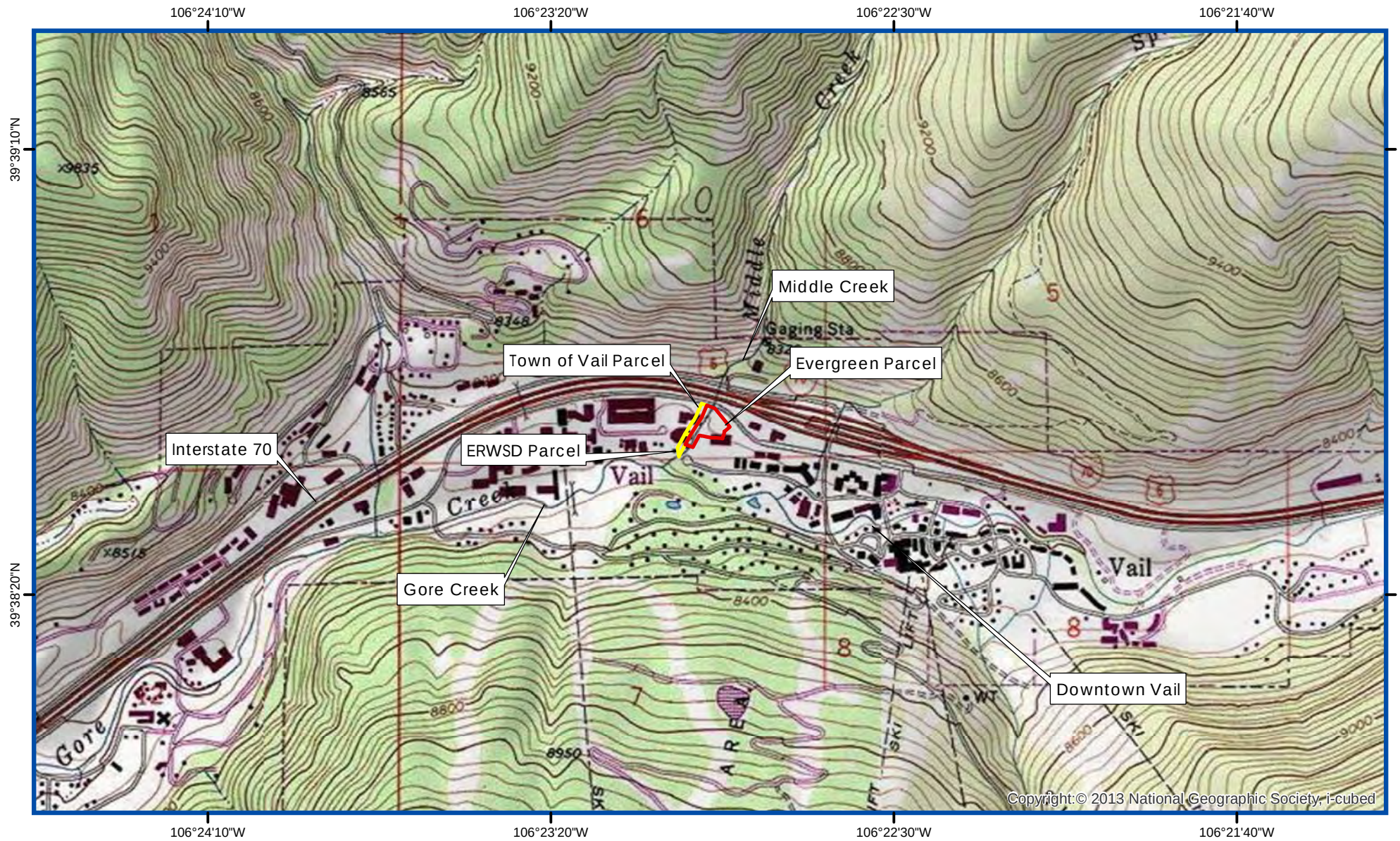
- There may be short-term impacts from noise and odors during the construction phase of the redevelopment. There should be no significant long-term impacts from noise or odors based on the proposed uses.

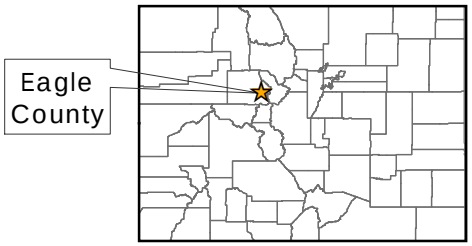
- The construction of the Evergreen will incorporate ecologically sound building practices and will reflect the architectural styles of the surrounding buildings as outlined in the Lionshead Redevelopment Master Plan. The concept of

"ecological camouflage" is being utilized to minimize visual impacts and blend with the surrounding mountain landscape.

- The Evergreen will have a 201% increase in live beds, which will bring more people to the area. However, it would be located in an area that is zoned for such purpose, with easy access to transportation, especially multimodal transportation, community services, and retail activities that support such growth.

6.0 FIGURES





LEGEND

- Project Boundary
- Middle Creek Parcels

N

1:24,000

0 600 1,200 2,400

Feet

Figure 1. Project Location Map
The Evergreen
February 2022

Prepared by:
Birch Ecology LLC
429 Main Street
P.O. Box 170
Lyons, CO 80540
(720) 350-2530
www. birchecology.com

LEGEND

- Evergreen Lodge Parcel
- Middle Creek Parcels
- Middle Creek

N

1:2,000

0 75 150 300

Feet

Figure 2. Aerial Photo
The Evergreen
February 2022

Prepared by:

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www. birchecology.com

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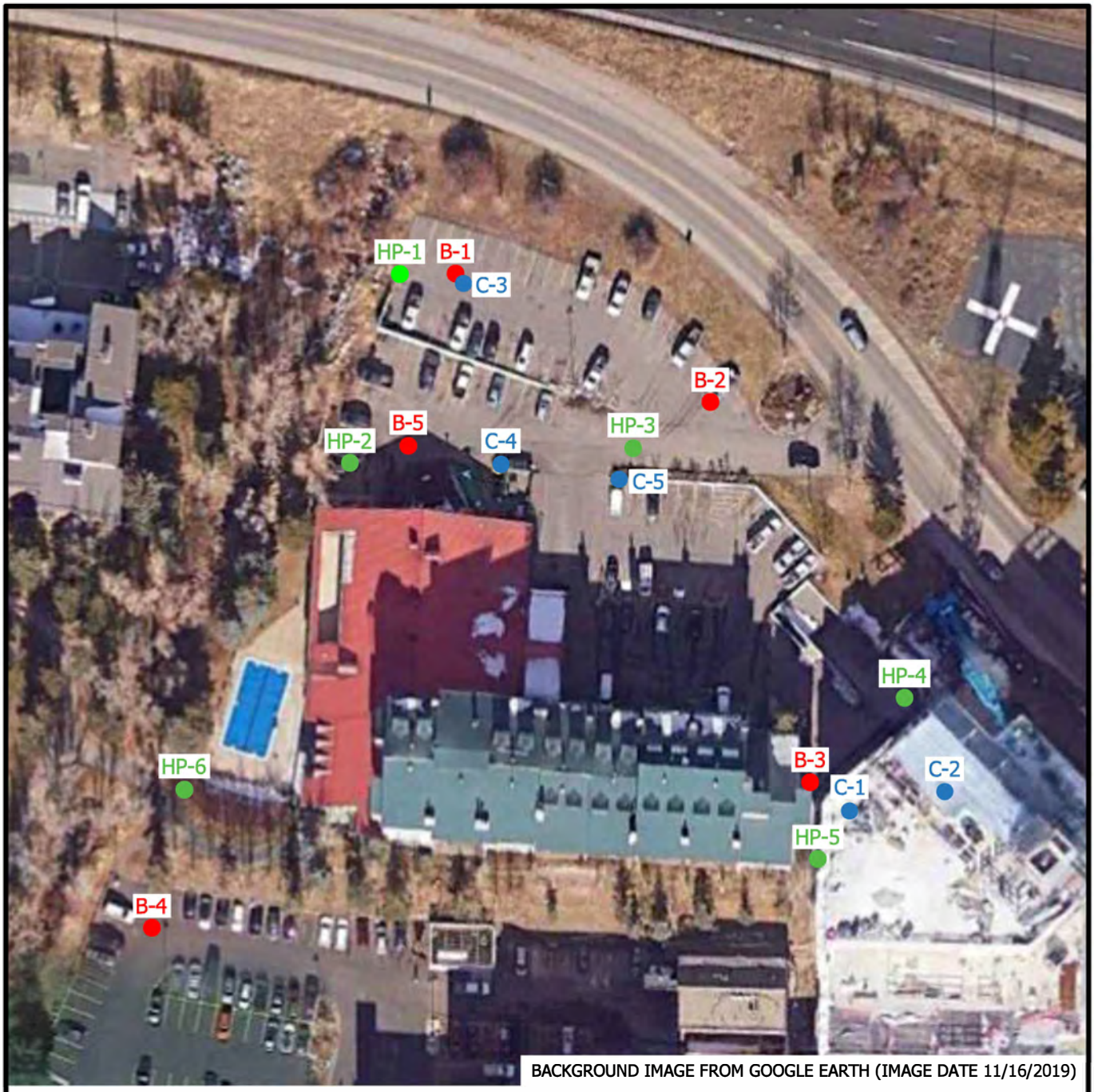


BACKGROUND IMAGE FROM GOOGLE EARTH (IMAGE DATE 11/16/2019)

LEGEND:

B-1 CESARE BORING NUMBER AND APPROXIMATE LOCATION

HP-1 HPG BORING NUMBER AND APPROXIMATE LOCATION

C-1 CHEN BORING NUMBER AND APPROXIMATE LOCATION

N

0 80' 160'

APPROXIMATE SCALE: 1 INCH = 80 FEET

Site Plan and Boring Locations

PROJECT NO:	21.5054		
PROJECT NAME:	Evergreen Vail		
DRAWN BY:	JBE/BPV	CHECKED BY:	BPV
DWG DATE:	11.30.21	REV. DATE:	--

CESARE, INC.
Geotechnical Engineers & Construction Materials Consultants

FIGURE 3. GEOTECHNICAL BORINGS

LEGEND

- 100-Year Floodplain*
- Evergreen Lodge Parcel
- Middle Creek Parcels

*Source: FEMA Flood Map Service Center: https://msc.fema.gov

N

1:2,000

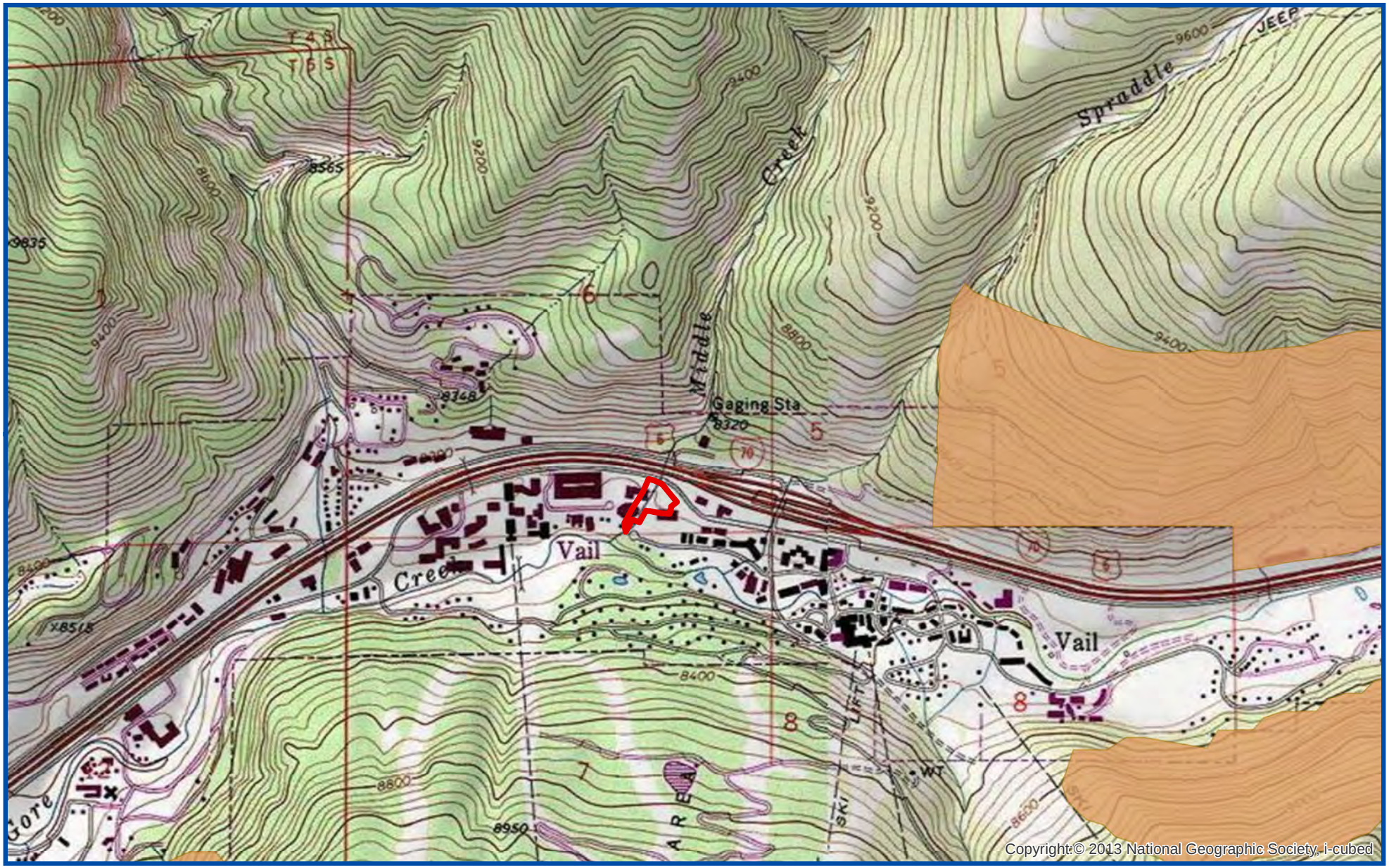
0 75 150 300

Feet

Figure 4. 100-Year Floodplain Map
The Evergreen
February 2022

Prepared by:

Birch Ecology LLC
429 Main Street
P.O. Box 170
Lyons, CO 80540
(720) 350-2530
www. birchecology.com



LEGEND

- Elk Winter Range
- Project Boundary

N

1:24,000

0 600 1,200 2,400

Feet

Figure 5. Elk Winter Habitat
The Evergreen
February 2022

Prepared by:

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429 Main Street
P.O. Box 170
Lyons, CO 80540
(720) 350-2530
www. birchecology.com

LEGEND

Canada Lynx Potential Habitat

Project Boundary

N

1:24,000

0 600 1,200 2,400

Feet

Figure 6. Canada Lynx Habitat Map
The Evergreen
February 2022

Prepared by:

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Lyons, CO 80540
(720) 350-2530
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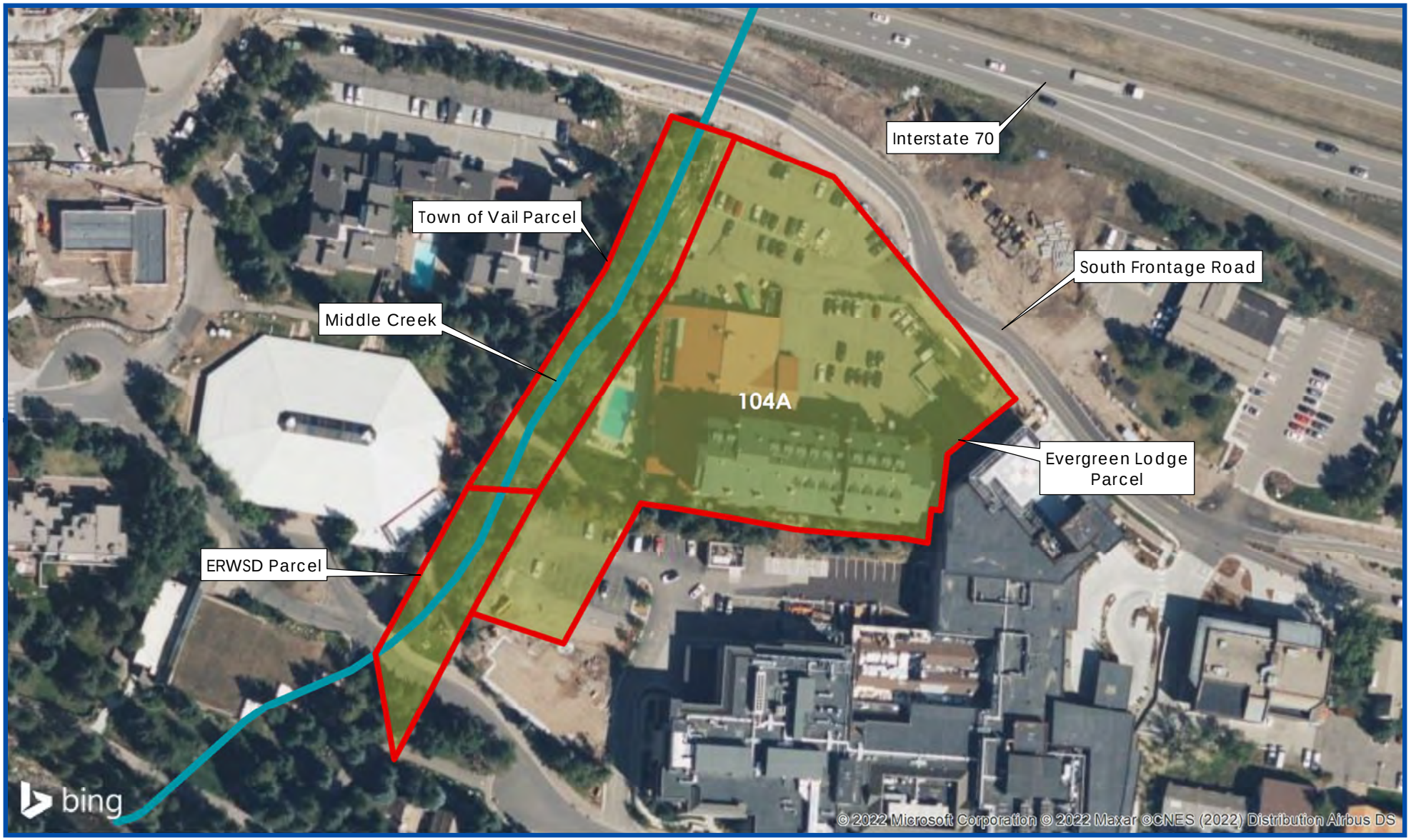

LEGEND

Project Boundary

Middle Creek

NRCS Soil Type

104A - Haplocryolls-Cryaquolls Complex, 0-15%

N

1:2,000

0 75 150 300

Feet

Figure 7. NRCS Soil Map
The Evergreen
February 2022

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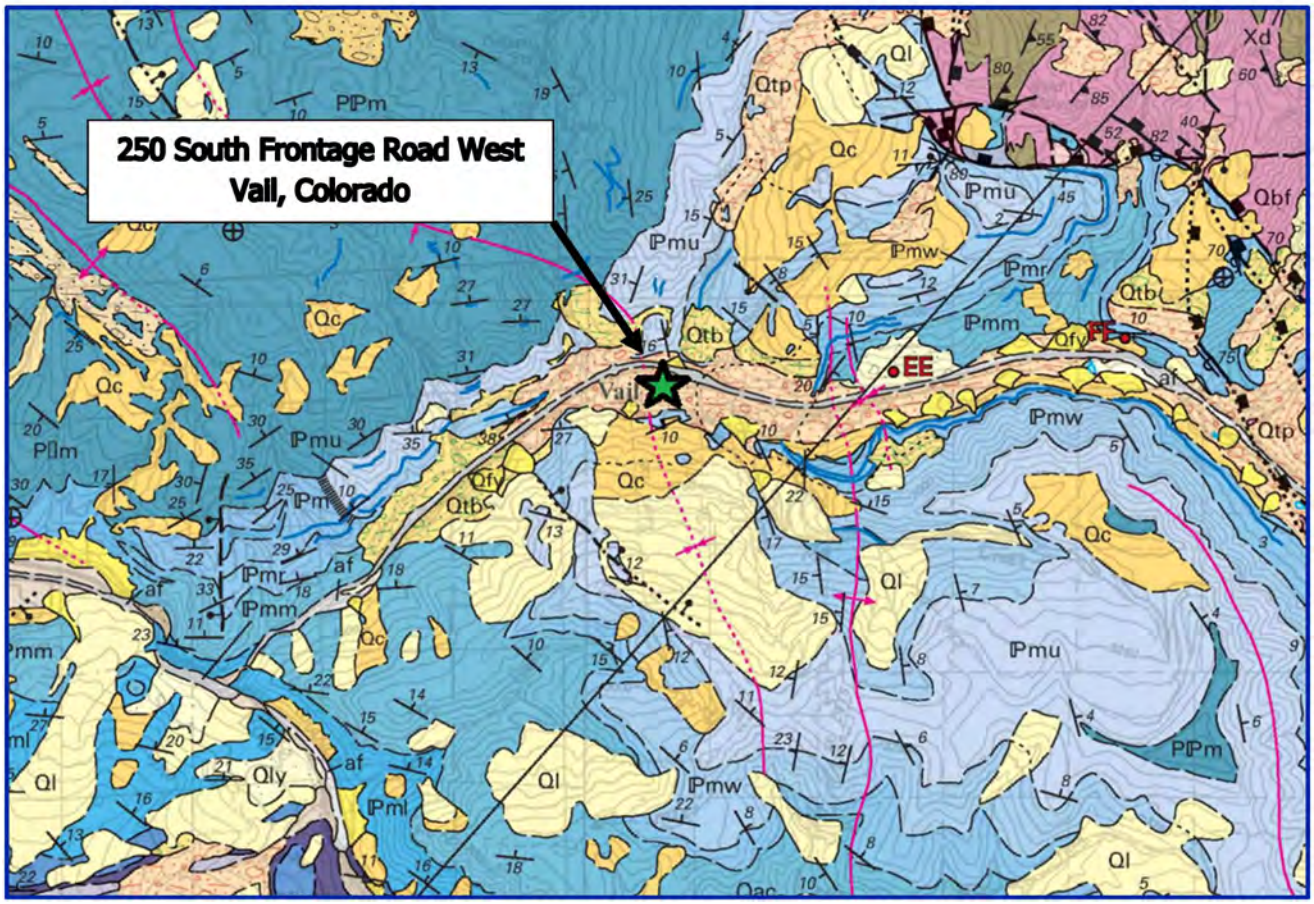
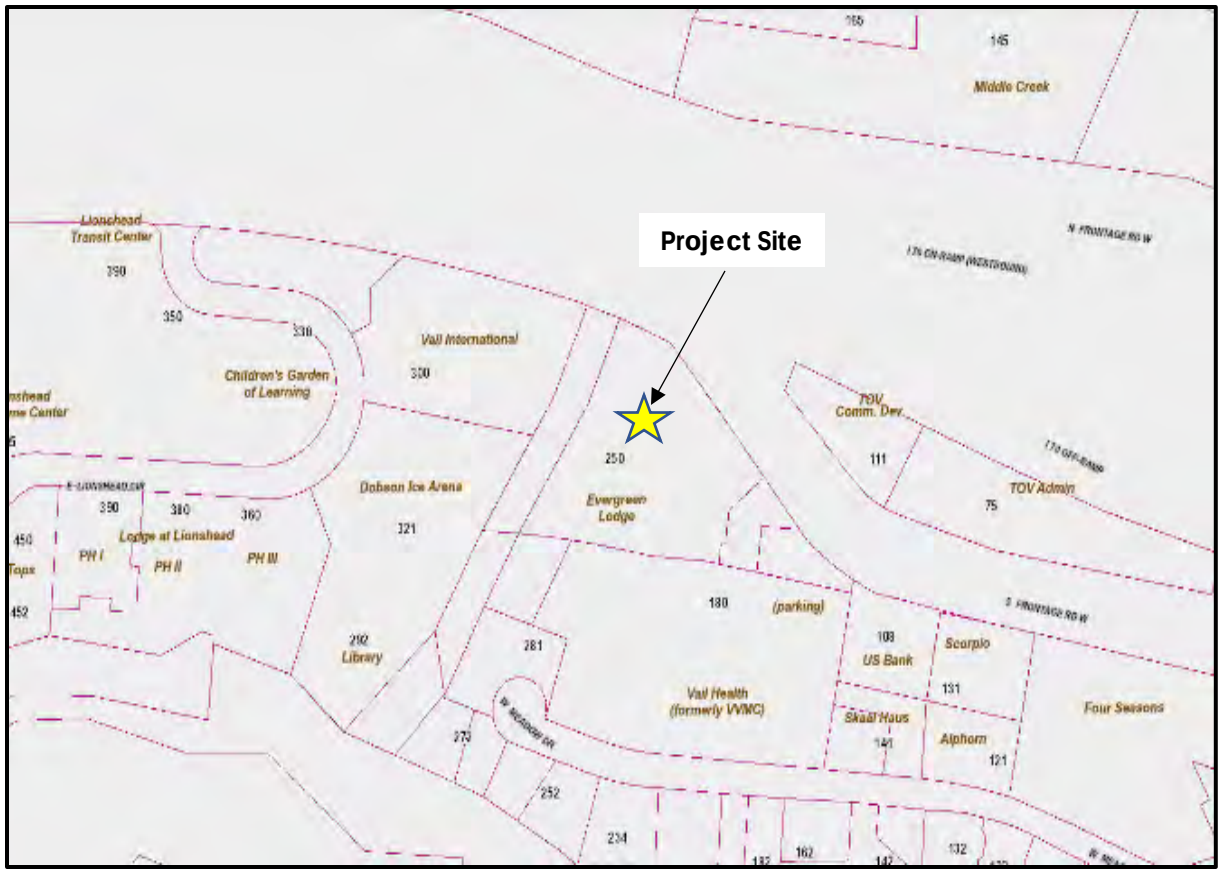


EXHIBIT 2. Snapshot of "Geologic Map of the Eastern Half of the Vail 30' x 60' Quadrangle, Eagle, Summit, and Grand Counties Colorado" by Karl S. Kellogg, Ralph R.

Figure 8. Geologic Map

source: Geotechnical Study prepared by Cesare, Inc. December 13, 2021

FIGURE 9. AVALANCHE HAZARD MAP
Evergreen Lodge
February 2022



Avalanche Hazard Zones

- High Hazard Avalanche - Red Zone
- Moderate Hazard Avalanche - Blue Zone
- Possible Avalanche Influence Zone
- Powder Blast Zone

Official Town of Vail
Avalanche Hazard Map

Adopted by Town Council
Resolution No. 13, Series of 2000
October 17, 2000

Map updated: March 5, 2014

Official Avalanche Hazard Map

Town of Vail, Colorado

N
W E
S

Source: Town of Vail:
https://www.vailgov.com/government/departments/public-works/gis/gis-map-downloads

Prepared by:

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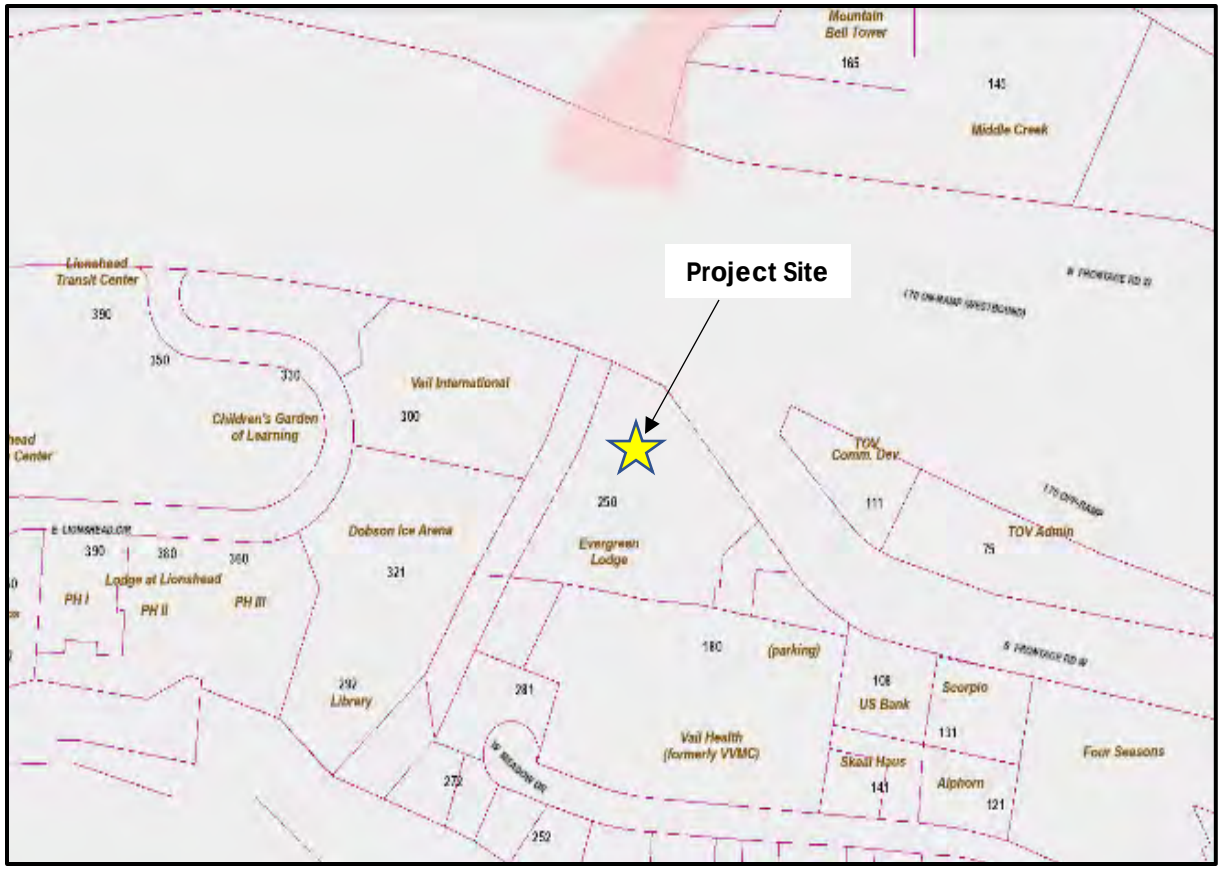

FIGURE 10. DEBRIS FLOW HAZARD MAP
Evergreen Lodge
February 2022

Hazard Zones

- High Hazard Debris Flow
- Moderate Hazard Debris Flow
- High Hazard Debris Avalanche

This is to certify that this is the Official Debris Flow Hazard Map of the Town of Vail, Colorado as adopted by Council on October 17, 2000 in accordance with Resolution No. 13, Series of 2000.

Official Debris Flow Hazard Map

Town of Vail, Colorado

N
W E
S

Source: Town of Vail:
https://www.vailgov.com/government/departments/public-works/gis/gis-map-downloads

Prepared by:

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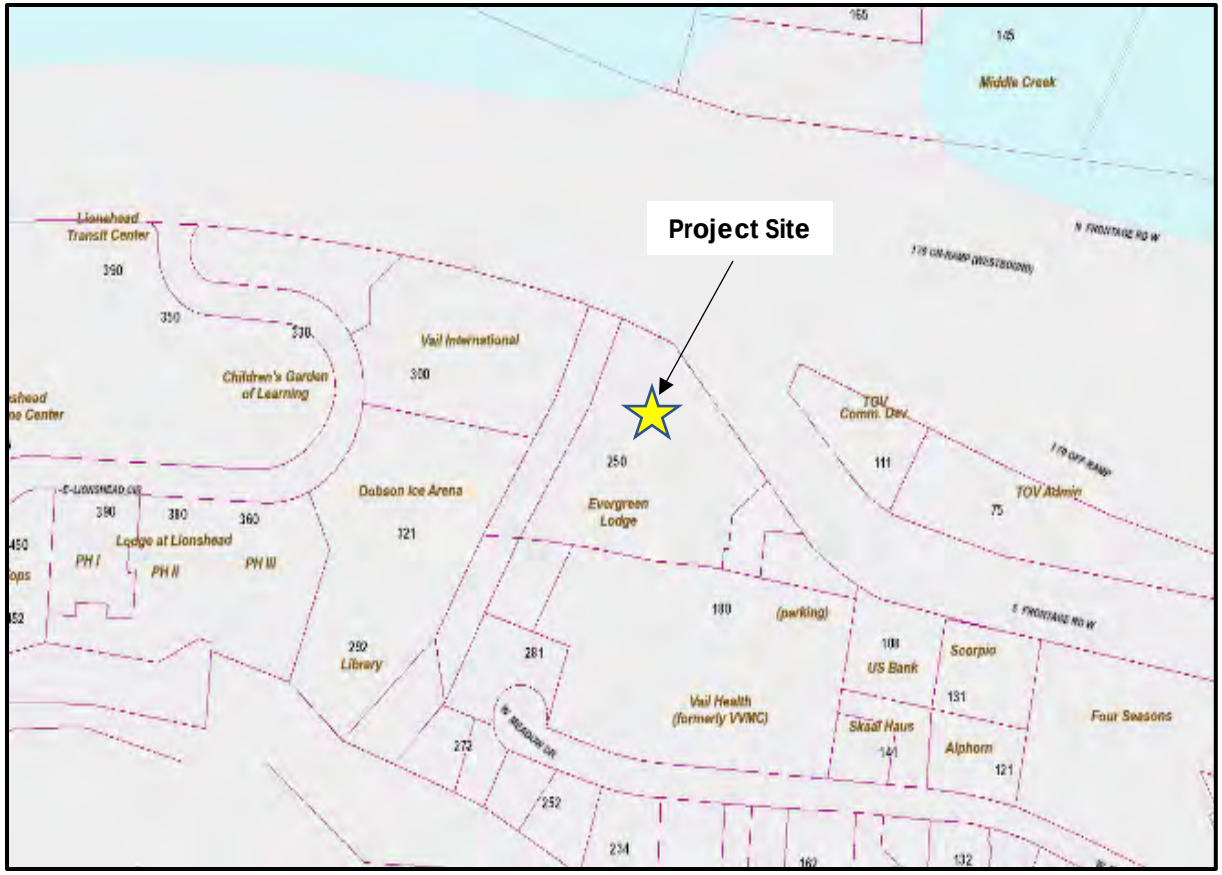

FIGURE 11. ROCKFALL HAZARD MAP
Evergreen Lodge
February 2022

Hazard Zones

- Rockfall Hazard with Approved Mitigation
- High Severity Rockfall
- Medium Severity Rockfall

This is to certify that this is the Official Rockfall Hazard Map of the Town of Vail, Colorado as adopted by Council on October 17, 2000 in accordance with Resolution No. 13, Series of 2000.

Official Rockfall Hazard Map

Town of Vail, Colorado

N
W E
S

Source: Town of Vail:
https://www.vailgov.com/government/departments/public-works/gis/gis-map-downloads

Prepared by:

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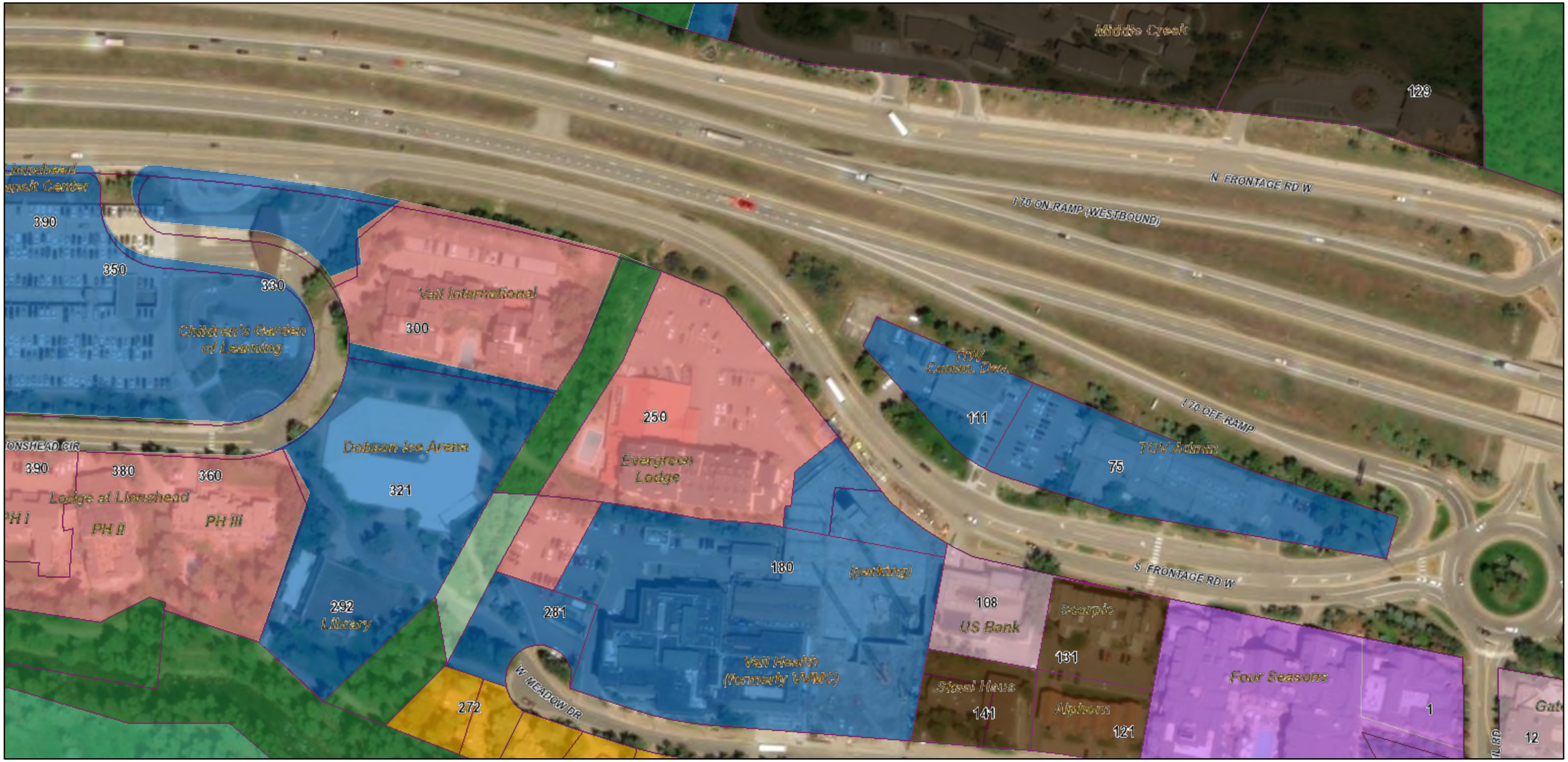
www.birchecology.com



2/17/2022, 8:19:53 PM

Town Boundary

Parcels

Zoning

- Hillside Residential (H)
- Single-Family Residential (SFR)
- Two-Family Residential (R)
- Two-Family Primary/Secondary Residential (PS)
- Residential Cluster (RC)
- Low Density Multiple-Family (LDMF)
- Medium Density Multiple-Family (MDMF)
- High Density Multiple-Family (HDMF)
- Vail Village Townhouse (VVT)
- Housing (H)
- Public Accommodation (PA)
- Public Accommodation-2 (PA-2)
- Commercial Core 1 (CC1)
- Commercial Core 2 (CC2)
- Commercial Core 3 (CC3)
- Lionshead Mixed Use 1 (LMU-1)
- Lionshead Mixed Use 2 (LMU-2)
- Commercial Service Center (CSC)
- Arterial Business (ABD)
- Heavy Services (HS)
- Outdoor Recreation (OR)
- Agricultural and Open Space (A)
- Natural Area Preservation (NAP)
- Ski Base/Recreation (SBR)
- Ski Base/Recreation 2 (SBR-2)
- Parking (P)
- General Use (GU)
- Not Designated

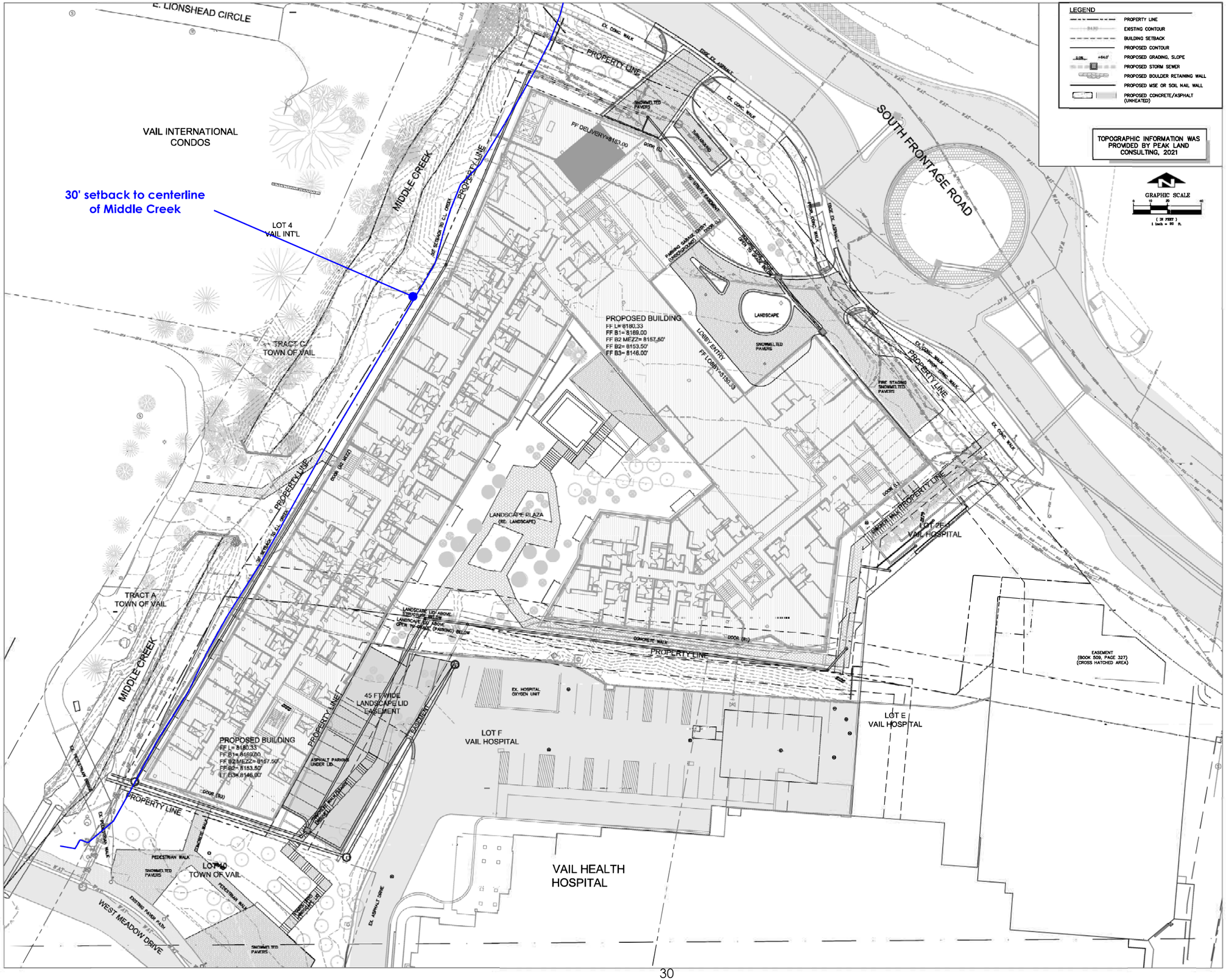
1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Maxar, Microsoft, Vail GIS, Eagle County GIS

FIGURE 12. ZONING MAP



ALPINE ENGINEERING INC.
34510 HWY 6 UNIT 16 PO BOX 97
EDWARDS CO 81632 / 970.926.3373
WWW.ALPINECIVIL.COM

SNOW KREILICH ARCHITECTS
219 NORTH SECOND STREET
SUITE 120
MINNEAPOLIS, MN 55401
612 359 9430
WWW.SNOWKREILICH.COM

THE EVERGREEN

250 S Frontage Road West
Vail, CO 81657

CLIENT
Sharon Cohn
141 E Meadow Drive- Suite 211
Vail, CO 81657

CIVIL ENGINEER
Alpine Engineering Inc.
34510 Highway 6, Unit A-9
Edwards, CO 81632
970-926-3373

LANDSCAPE ARCHITECT
Ten x Ten
807 Broadway St NE, Suite 221
Minneapolis, MN 55413
612-440-4369

STRUCTURAL ENGINEER **CONSULTANT**
KL&A
1717 Washington Avenue, Suite 100
Golden, CO 80401
303-384-6910

MEP ENGINEER
BG Buildingworks, Inc.
251 Linden Street, Suite 200
Fort Collins, CO 80524
970-221-5691

FIRE PROTECTION AND CODE
Rondinelli Life Safety
15272 West Warren Drive
Lakewood, CO 80228
303-807-3321

FACADE CONSULTANT
STUDIO NYL
2995 Baseline Road, Suite 314
Boulder, CO 80303
303-558-3145

NOT FOR CONSTRUCTION
FOR REFERENCE ONLY

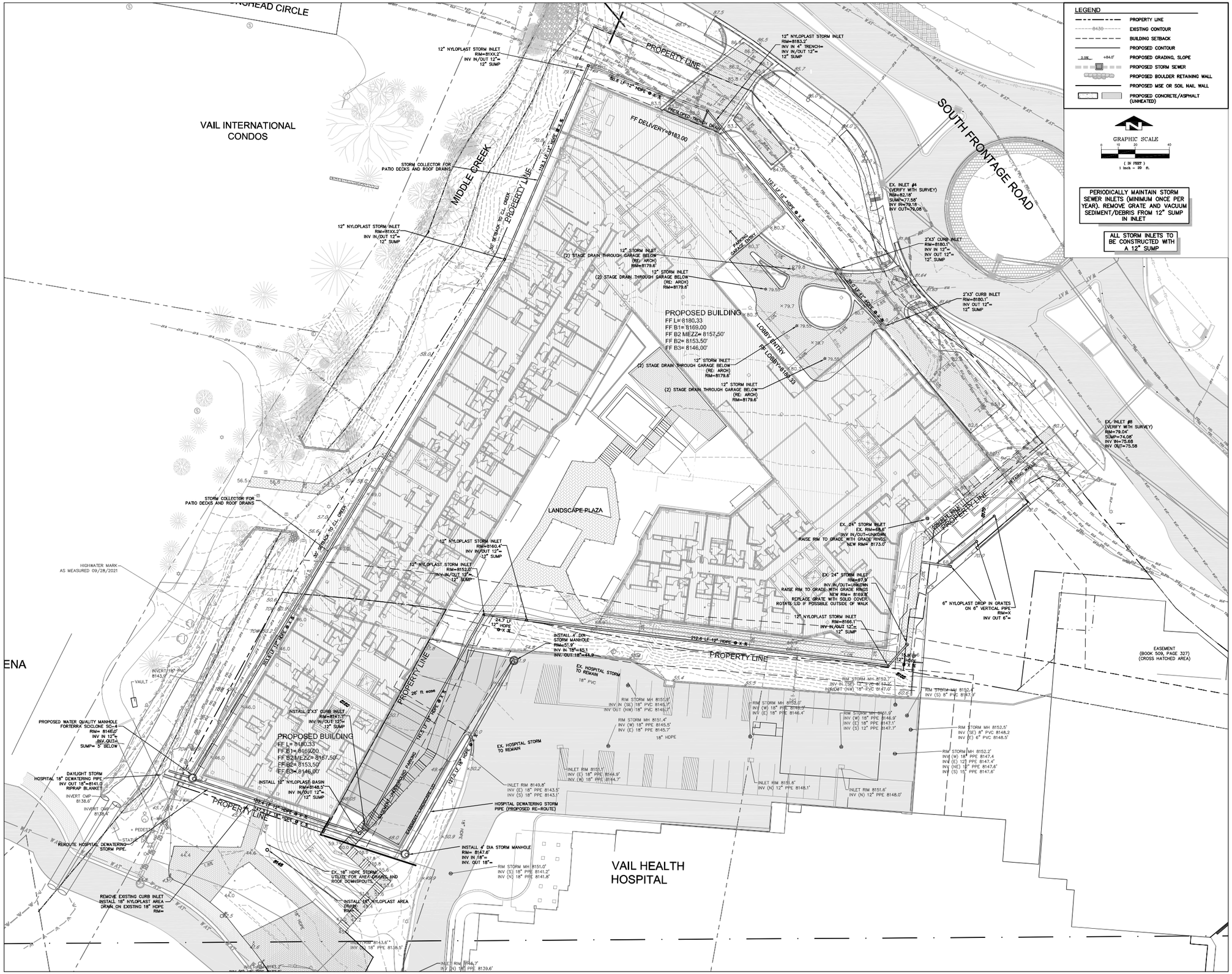
100% SD/PEC/DRB	02/11/2022

74230	MCW
Project Number	Drawn By

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the State of Minnesota.

Signature
MATTHEW WADEY
Typed or Printed Name
39865, CO

FIGURE 13.
PROPOSED DEVELOPMENT PLAN



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NOT FOR CONSTRUCTION FOR REFERENCE ONLY

100% SD/PEC/DRB	02/11/2022

74230	MCW
Project Number	Drawn By

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the State of Minnesota.

Signature

MATTHEW WADEY
Typed or Printed Name

39855, CO
Registration Number

FIGURE 14. STORM SEWER PLAN

C3.01

7.0 TABLES

Table 1. CDPHE Ambient Air Concentration Estimates*

Pollutant	Averaging Time	Standard	Estimate	Data Source
Carbon Monoxide (CO)	1-Hour Second Maximum	35 ppm	1 ppm	Grand Junction, 2016-2018
	8-Hour Second Maximum	9 ppm	1 ppm	
Ozone (O3)	8-Hour Fourth Maximum	0.070 ppm	0.064 ppm	Palisade, 2017-2019
Sulfur Dioxide (SO2)	1-Hour 99th Percentile	0.075 ppm	0.012 ppm	RM Steel Print Shop, Pueblo, 2013-2015
	3-Hour Second Maximum	0.5 ppm	0.008 ppm	
	24-Hour Second Maximum		0.003 ppm	
	Annual Mean		0.001 ppm	
Nitrogen Dioxide (NO2)	Annual Mean	0.053 ppm	0.009 ppm	RM Steel, Pueblo, 2013-2015
	1-Hour 98th Percentile	0.100 ppm	0.04 ppm	
PM10	24-Hour Second Maximum	150 (ug/m3)	38 (ug/m3)	Aspen, 2017-2019
PM2.5	Annual Mean	12 (ug/m3)	7 (ug/m3)	Steamboat, 2002-2004
	24-Hour 98th Percentile	35 (ug/m3)	17 (ug/m3)	
Lead (Pb)	3-Month Average	0.15 (ug/m3)	0.006 (ug/m3)	Denver Municipal Animal Shelter, 2009

*Additional details are included in Appendix A.

8.0 PHOTOS

Photo 1. View of the exterior of the Evergreen Lodge and paved parking area north of the building. (12/7/21).

Photo 2. Landscaped area on the south side of Evergreen Lodge. (9/28/21).

Photo 3. Recently placed cobble and new culvert at the upstream end of Middle Creek, where it flows from below the South Frontage Road. (9/28/21).

Photo 4. Boulder bank treatments along the upper part of the reach with a low cover of desirable riparian plants. (9/28/21).

Photo 5. Recently placed cobble and riparian vegetation along the upper reach. (9/28/21).

Photo 6. Willows, narrowleaf cottonwoods, and balsam poplar grow with blue spruce along the Middle Creek riparian corridor. (9/28/21).

Photo 7. Riparian vegetation with a cottonwood overstory along Middle Creek. (9/28/21).

Photo 8. Eroded streambank adjacent to the Evergreen Lodge. (9/28/21).

Photo 9. Steep, eroded streambank adjacent to the Evergreen Lodge. (12/7/21).

Photo 10. Culverts at the Meadow Drive crossing at the bottom end of the study area. (9/28/21).

Photo 11. Untreated runoff from the parking area sheet flows into Middle Creek. (12/7/21).

Photo 12. Saturated soils occur within a small, constructed swale extending from the foundation dewatering system to the creek. (12/7/21).

Photo 13. Disturbed area along the upper reach with a lack of riparian trees and shrubs. (9/28/21).

Photo 14. Canada thistle and other weeds are most common along the upper reach. (9/28/21).

9.0 REFERENCES

Ackerfield, J. 2015. The Flora of Colorado. BRIT Press, Ft. Worth, Texas. 818 p.

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University of Colorado Herbarium (COLO). Specimen Database of Colorado Vascular Plants. http://cumuseum.colorado.edu/Research/Botany/Databases/search.php

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APPENDIX A. CDPHE AIR QUALITY DATA

COLORADO
Air Pollution Control Division
Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

Heather Houston
By email: heather@birchecology.com

February 7, 2022

Dear Ms. Houston,

You recently requested background estimates for air pollution in the area of the following project:

Evergreen Lodge
Solaris Redevelopment Company

County:		Eagle	
Latitude:	NAD83:	34.6442	AND / OR NAD27
Longitude:		-106.3827	

The estimates, and their bases, are given below.

Pollutant Standard	Standard	Estimated Concentration	Basis for Estimate
CO requested? **Yes**			
CO 1 Hour Second Maximum (ppm)	35	1	Grand Junction, 2016 - 2018.
CO 8 Hour Second Maximum (ppm)	9	1	
O3 requested? **Yes**			
O3 8 Hour Fourth Maximum (ppm)	0.070	0.065	Palisade, 2017 - 2019.
SO2 requested? **Yes**			
SO2 1 Hour 99th Percentile	0.075	0.012	RM Steel Print Shop, Pueblo, 2013 - 2015.
SO2 3 Hour Second Maximum (ppm) (Secondary Standard)	0.5	0.008	
SO2 24 Hour Second Maximum (ppm)		0.003	
SO2 Annual Mean (ppm) .		0.001	
NO2 requested?) **Yes**			
NO2 Annual Mean (ppm)	0.053	0.009	RM Steel, Pueblo, 2013 - 2015.
NO2 1 Hour 98th Percentile (ppm)	0.100	0.04	
PM10 requested? **Yes**	150	38	Aspen, 2017 - 2019.
PM10 24 Hour Second Maximum (ug/m3)			
PM2.5 requested? **Yes**			
PM2.5 Annual Mean (ug/m3)	12.0	7	Steamboat, 2002 - 2004.
PM2.5 24 Hour 98th Percentile (ug/m3)	35	17	
Pb requested? **Yes**			
Pb Rolling 3-Month Average (ug/m3)	0.15	0.006	Denver Municipal Animal Shelter, 2009.

Any ozone concentrations provided here are for informational purposes only. They are not for use in modeling. Ozone concentrations for use in modeling (AERMOD / OLM) should be requested separately.

Upon request, refinement of a single value background concentration listed above may be conducted by the modeling staff (email: emmett.malone@state.co.us), if applicable, appropriate, and justified.

These estimates are derived from ambient monitored concentrations that are available to the Division to represent background levels (added to the impacts of the project emissions and emissions from other nearby sources) in cumulative ambient air impacts for comparison to the NAAQS. They are not suitable for applications beyond that scope of use. The quantity of data is sometimes limited and may be of uncertain quality. The ambient background concentrations -

1. Do not necessarily substitute for on-site monitoring data; i.e., for permitting actions subject to PSD rules, pre-construction monitoring may be required.

2. Indicate the ambient levels in general geographic areas, not a specific location. This is particularly true for particulate concentration values.

3. Are subject to change without notice as new information is acquired.

Use of these background estimates should be accompanied by an appropriate citation that indicates their source and their limitations. Referencing this letter would be adequate, but an expanded explanation is suggested.

If you have questions, I can be reached at 303-692-3226, or email: nancy.chick@state.co.us.

Sincerely,

Nancy D. Chick
Environmental Protection Specialist
Air Pollution Control Division

C:\background concentration\request no. 231

4300 Cherry Creek Drive S., Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe
Jared Polis, Governor | Jill Hunsaker Ryan, Executive Director

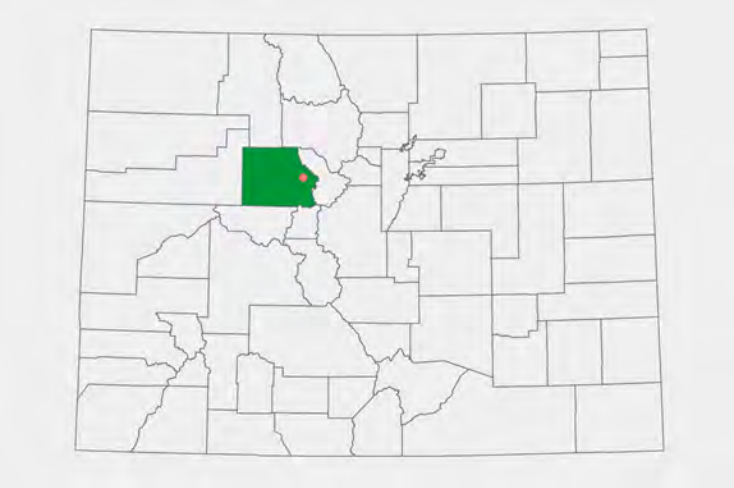
APPENDIX B. DOLA COMMUNITY PROFILE FOR VAIL

State Demography Office Colorado Demographic Profile

Print Date: 02/17/2022

Community Profile for Vail

Demographic information is critical for making informed decisions at the local, state and national level. This demographic profile is a summary of trends in a community. The dashboard provides charts, text, data and additional links to assist in the exploration and understanding of demographic trends for counties and municipalities in Colorado. The following collection of tables and charts establishes the context for assessing potential impacts and for decision-making.



Basic Statistics

The population base and trends of an area determine the needs for housing, schools, roads and other services. The age, income, race and ethnicity, and migration of the population of a community are all vital in planning for service

provision. The most significant demographic transitions for Colorado and its communities are related to disparate growth, aging, downward pressure on income, and growing racial and ethnic diversity.

Table 1: Community Quick Facts

	Vail	Eagle County	Colorado
Population (2020)+	4,803	55,624	5,782,914
Population Change (2010 to 2020)+	-482	3,567	732,582
Total Employment (2020)+	8,634	39,482	3,300,173
Median Household Income^	$80,987	$84,790	$72,331
Median House Value^	$773,700	$562,300	$343,300
Percentage of Population with Incomes lower than the Poverty Line^	9.0%	8.0%	10.3%
Percentage of Population Born in Colorado^	16.9%	32.8%	42.4%

+Source: State Demography Office
^Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

Population Trends

The tables and plots in this section highlight trends and forecasts for the total population inVail. The table shows the overall population growth rate for Vail, Eagle County and the State of Colorado. Additional plots show the overall population trends, forecasts for along with the overall components of change for Vail.

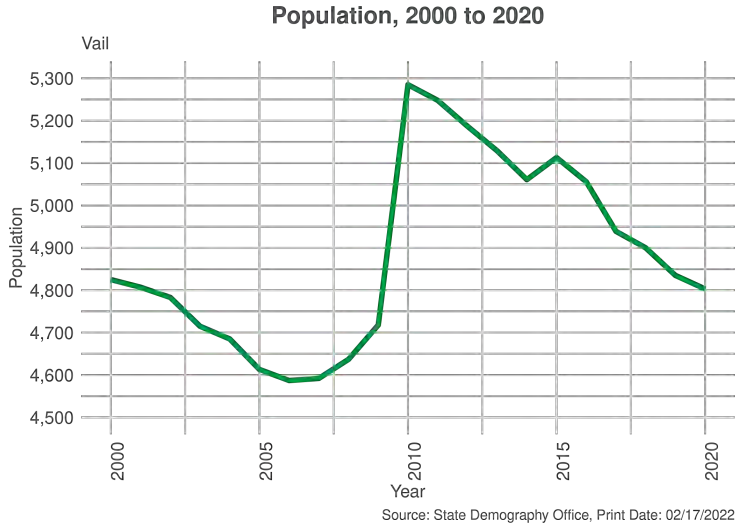
Table 2: Population Growth Rate

	Vail		Eagle County		Colorado	
Year	Population	Growth Rate	Population	Growth Rate	Population	Growth Rate
1990	3,716		21,928		3,294,473	
1995	4,488	3.8%	30,883	7.1%	3,811,074	3.0%
2000	4,825	1.5%	43,289	7.0%	4,338,801	2.6%
2005	4,613	-0.9%	47,278	1.8%	4,662,534	1.4%
2010	5,285	2.8%	52,057	1.9%	5,050,332	1.6%
2015	5,113	-0.7%	52,780	0.3%	5,446,594	1.5%
2020	4,803	-1.2%	55,624	1.1%	5,782,914	1.2%

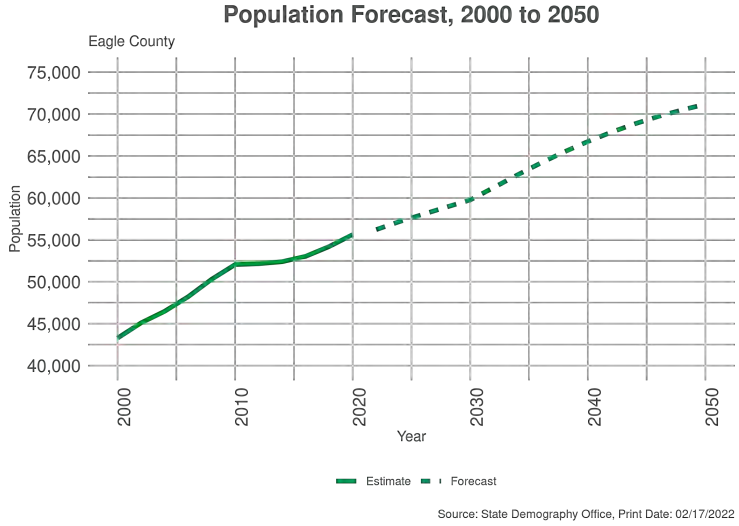
Note:
Source: State Demography Office, Print Date: 02/17/2022

At the end of 2020 the estimated population of Vail was 4,803, a decrease of

-310 over the population in 2015. The growth rate for Vail between 2015 and 2020 was -1.2 percent compared to 1.1 percent for Eagle County and 1.2 percent for the State of Colorado.

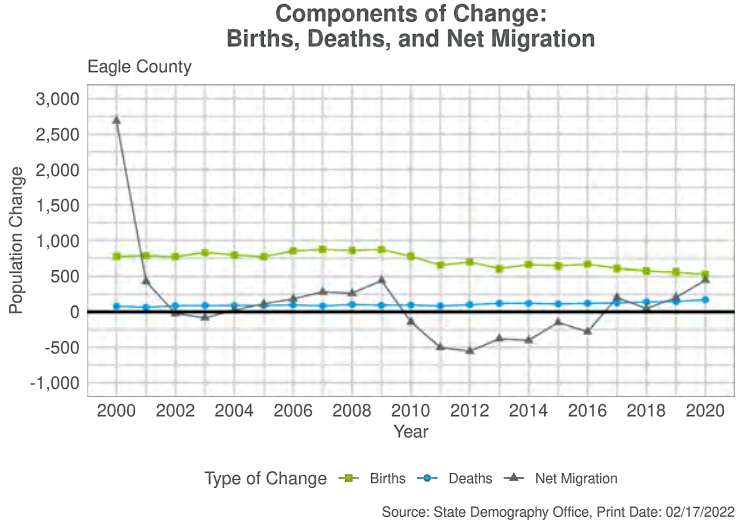


The population of Eagle County is forecast to reach 55,626 by 2020 and 66,725 by 2040. Overall, the growth rate for Eagle County is expected to increase between 2020 and 2040. Between 2010 and 2020 the forecast growth rate was 0.7 percent, between 2020 and 2030 the forecast growth rate is 0.7 percent, while the forecast growth rate between 2030 and 2040 is 1.1 percent. The change is due in part to population aging and changes in the proportion of the population in childbearing ages. Note: Population forecasts are only provided for Colorado counties.



Components of Population Change

Births, deaths and net migration are the main components of population change. Net migration is the difference between the number of people moving into an area and the number of people moving out. Change in net migration typically causes most of the changes in population trends because migration is more likely to experience short-term fluctuations than births and deaths. Migration also tends to be highly correlated to job growth or decline in communities where most of the residents work where they live. For many counties with negative natural increase (more deaths than births), this makes migration especially important for population stability and growth.

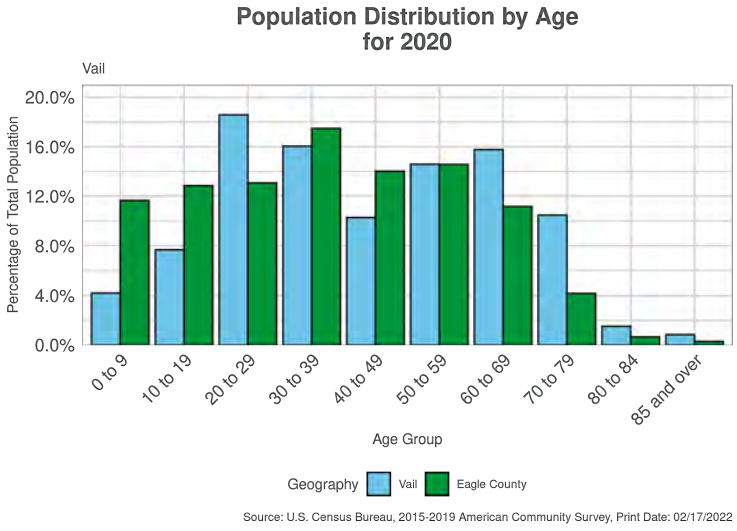


Over the past five years, between 2016 and 2020, the population of Eagle County has increased by 2,844 people. The total natural increase (births - deaths) over this period was 2,760 and the total net migration (new residents who moved in minus those who moved out) was 466. Note: Components of Change data are only available for Colorado counties.

Age Characteristics

Every community has a different age profile and is aging differently. People in different age groups work, live, shop, and use resources differently and these differences will impact the economy, labor force, housing, school districts, day care facilities, health services, disability services, transportation, household income, and public finance. An aging population may put downward pressure on local government tax revenue due to changes in spending on taxable goods.

The age distribution of the population of Vail and Eagle County are shown here.



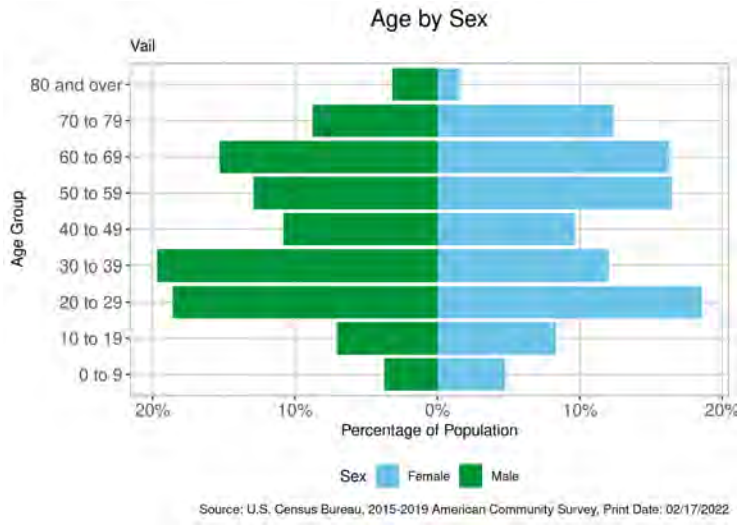
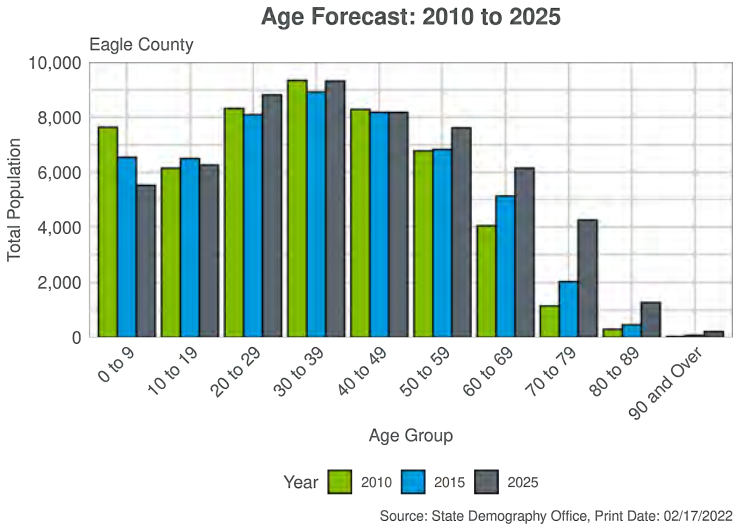


Table 3: Median Age by Sex Comparison

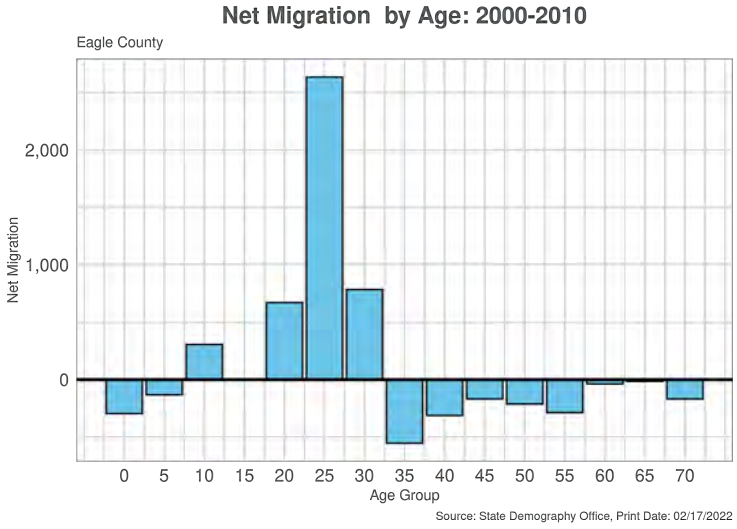
	Vail		Eagle County			
Sex	Median Age	MOE	Median Age	MOE	Signficant	Direction
Total	43.6	4.7	37.0	0.6	Yes	Older
Male	41.7	6.7	37.2	1.0	No	
Female	46.0	7.2	36.8	0.7	Yes	Older

Note:
Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

The median age of Vail is 9.2 years older than Eagle County. Women in Vail are significantly older than women in Eagle County but men are not significantly older or younger than men in the county.



The changing age distribution of the population of Eagle County for the period from 2010 through 2025 is shown here. The changes in proporion of different groups can highligh the need for future planning and service provision. Many areas have a larger share of older adults, indicating the need to evaluate housing, transportation and other needs of the senior population.



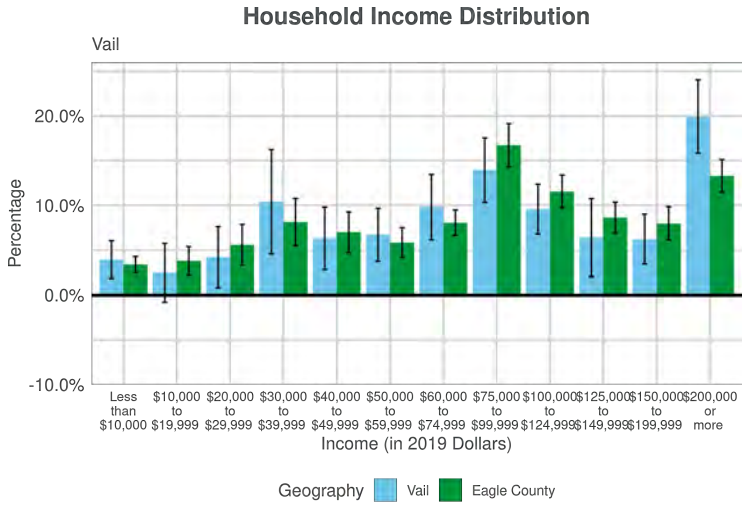
This plot shows the net migration by age in Eagle County. Colorado typically draws many young adults as migrants. Areas with colleges and resorts draw a

number of 18 to 24 year olds. Areas with a growing economy tend to account mostly 25 to 35 year olds and areas attractive to retirees tend to draw both workers and older adults.

Population Characteristics: Income, Education and Race

The plots and tables in this section describe the general population characteristics of Vail. The bars on the plots show the width of the 90 percent confidence interval. Categories where the bars do not overlap are significantly different.

Household Income The household income distribution plot compares Vail to household incomes for Eagle County. Household income comes primarily from earnings at work, but government transfer payments such as Social Security and TANF and unearned income from dividends, interest and rent are also included. Income and education levels are highly correlated; areas that have lower educational attainment than the state will typically have lower household incomes.



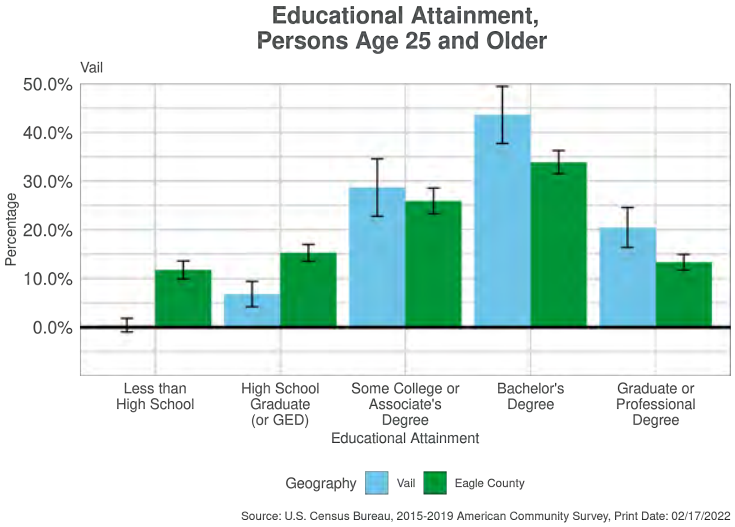
The Houselold Income Source(s) Table shows household income sources and amounts for housholds in Eagle County. Households will have multiple sources of income, so this table is not mutually exclusive. Mean income values reflect values from the cited source.

Table 4: Household Income Source(s)

Eagle County				
	Total Households		Mean Income	
Income Source	Estimate	MOE	Estimate	MOE
All Households	18,171	501	$112,163	$ 7,985
With earnings	89.8%	3.1%	$109,179	$ 8,521
With interest, dividends or net rental income	25.2%	2.5%	$ 46,552	$13,903
With Social Security income	18.5%	1.6%	$ 21,837	$ 2,104
With Supplemental Security Income (SSI)	1.2%	0.6%	$ 12,872	$ 9,319
With cash public assistance income	0.8%	0.5%	$ 3,095	$ 2,560
With retirement income	9.9%	1.6%	$ 35,587	$ 7,153

Note:
Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

Educational Attainment The education attainment plot is provided for persons older than Age 25, i.e., those who have likely completed their education.



Race and Ethnicity The Race Trend table shows the changing racial and ethnic composition of Vail beginning in 2000 and continuing to the present.

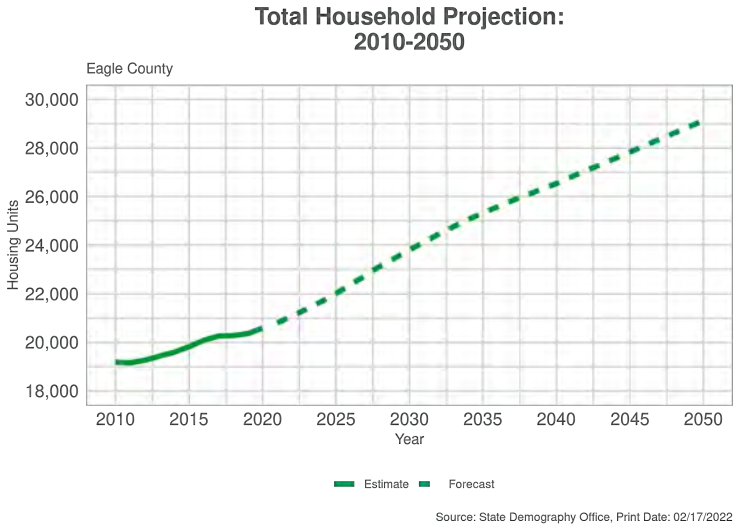
Table 5: Race Trend

	Vail			Eagle County		
Race	2000	2010	2019	2000	2010	2019
Hispanic	6.2%	7.4%	6.5%	23.2%	30.1%	29.6%
Non-Hispanic	93.8%	92.6%	93.5%	76.8%	69.9%	70.4%
Non-Hispanic White	89.7%	88.9%	91.8%	74.2%	67.3%	67.2%
Non-Hispanic Black	0.3%	0.6%	0.5%	0.2%	0.5%	1.1%
Non-Hispanic Native American/Alaska Native	0.4%	0.3%	0.0%	0.4%	0.3%	0.2%
Non-Hispanic Asian	1.6%	1.7%	0.9%	0.8%	1.0%	0.7%
Non-Hispanic Native Hawaiian/Pacific Islander	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%
Non-Hispanic Other	0.2%	0.2%	0.0%	0.1%	0.2%	0.0%
Non-Hispanic, Two Races	1.5%	0.9%	0.3%	1.0%	0.8%	1.2%
Total Population	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Note:
Sources
[1] 2000: 2000 Census
[2] 2010: 2010 Census
[3] 2019: Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

Housing and Households

Understanding the current housing stock is critical for understanding how the community can best address current and future demands. This section begins with a projection of households. The projection of households is derived by county specific headship rates for the population by age. Beyond the numbers and characteristics, understanding the value and affordability of housing units is vital. Are the housing prices prohibitive to new families? Are the housing prices at such a high price that once the current work force ages and sells, those housing units will most likely go into the vacation seasonal market? Or are housing prices reasonable and suddenly the community is experiencing growth in families with children? How many total housing units are there? What types of new units are being built - multi-family vs single family?



The Household Estimates plot shows the current and projected number of households in Eagle County between 2010 and 2050.

The next several tables provide an overview of the housing stock in an area. The availability of land and the cost of land can dictate whether housing is less dense, with a greater number of single family units or more dense with a number of multifamily apartments and condos. Median home values and median gross rents are often considerably lower than current market prices as the values are computed from a 5-year average that runs through 2016. The number of people per household can offer insights as to the composition of the households . Areas with a larger number of people per household often have more families with children under 18 or a number of roommates living together to share housing costs. Those with a smaller number of persons per household, likely have a larger share of single-person households.

Table 6: Housing Units: Vail, 2020

Vail	
Housing Type	Value
Total Housing Units	7,303.0
Occupied Housing Units	2,372.0
Vacant Housing Units	4,931.0
Vacancy Rate	67.5%
Total Population	4,803.0
Household Population	4,795.0
Group Quarters Population	8.0
Persons per Household	2.02

Note:
Source: State Demography Office, Print Date: 02/17/2022

Table 7: Characteristics of Housing Units

	Vail				
	Owner-Occupied Units		Rental Units		All Units
Housing Unit Type	Units	Percent	Units	Percent	Units
All Housing Units	1,639	71.4%	657	28.6%	2,296
Single Unit Buildings	906	86.1%	146	13.9%	1,052
Buildings with 2 to 4 Units	211	59.6%	143	40.4%	354
Buildings with 5 or More Units	513	58.2%	368	41.8%	881
Mobile Homes	9	100.0%	0	0.0%	9
RVs, Boats, Vans, Etc.	0		0		0
Median Year of Construction	1979		1979		1979
Average Number of Persons Per Household	2.08		3.14		2.39

Note:
Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

Table 8: Comparative Housing Values

Variable	Vail	Eagle County
	Value	Value
Median Value of Owner-Occupied Households (Current Dollars)	$773,700	$562,300
Percentage of Owner-Occupied Households paying 30% or more of income on housing	27.9%	33.2%
Percentage of Owner-Occupied Households paying 30-49% of income on housing	13.5%	17.5%
Percentage of Owner-Occupied Households paying 50% or more of income on housing	14.4%	15.8%
Median Gross Rent of Rental Households (Current Dollars)	$1,597	$1,594
Percentage of Rental Households paying 30% or more of income on housing	45.4%	50.9%
Percentage of Rental Households paying 30-49% of income on housing	34.7%	31.3%
Percentage of Rental Households paying 50% or more of income on housing	10.7%	19.6%

Note:

Source: U.S. Census Bureau, 2015-2019 American Community Survey, Print Date: 02/17/2022

Commuting

Commuting plays an important role in the economy of an area because not all workers live where they work. Commuting impacts local job growth, access to employees, and transportation infrastructure.The Commuting diagram identifies three groups of people:

- People who work in Vail, but live elsewhere.
- People who live in Vail, but work elsewhere.
- People who live and work in Vail.

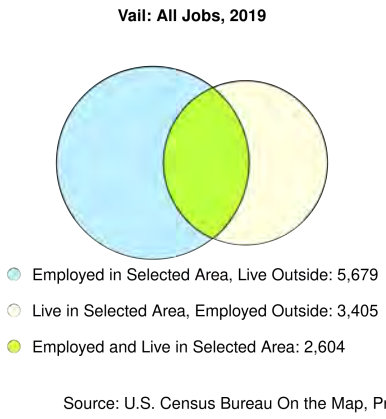
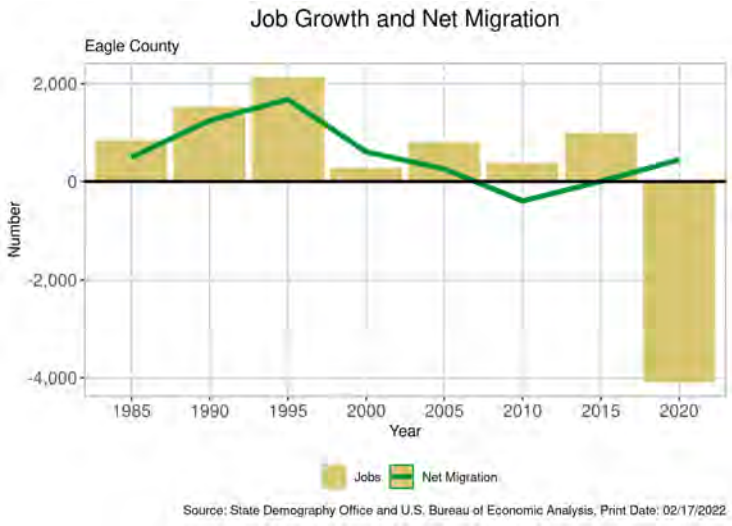


Table 9: Commuting Patterns for Vail

Location	Count	Percent
Employees in Vail living elsewhere		
Edwards CDP CO	638	11.9%
Minturn-Red Cliff CCD (Eagle CO)	346	6.5%
Avon town CO	310	5.8%
Eagle town CO	302	5.6%
Denver city CO	242	4.5%
Gypsum town CO	194	3.6%
Eagle-Gypsum CCD (Eagle CO)	157	2.9%
Leadville city CO	138	2.6%
Minturn town CO	118	2.2%
Leadville North CDP CO	89	1.7%
Other Municipalities/Places	2,828	52.7%
Edwards CDP CO	692	12.2%
Minturn-Red Cliff CCD (Eagle CO)	**395**	**7.0%**
Avon town CO	330	5.8%
Eagle town CO	265	4.7%
Denver city CO	229	4.0%
Gypsum town CO	196	3.5%
Minturn town CO	139	2.4%
Eagle-Gypsum CCD (Eagle CO)	125	2.2%
Leadville city CO	110	1.9%
Breckenridge CCD (Summit CO)	90	1.6%
Other Municipalities/Places	3,108	54.7%
Total	11,041	200.0%
Residents of Vail working elsewhere		
Avon town CO	770	23.0%
Minturn-Red Cliff CCD (Eagle CO)	307	9.2%
Edwards CDP CO	270	8.0%
Denver city CO	248	7.4%
Breckenridge town CO	164	4.9%
Eagle town CO	154	4.6%
Colorado Springs city CO	83	2.5%
Broomfield city CO	72	2.1%
Keystone CDP CO	69	2.1%
Steamboat Springs city CO	60	1.8%
Other Municipalities/Places	1,158	34.5%
Avon town CO	846	24.8%
Minturn-Red Cliff CCD (Eagle CO)	336	9.9%
Edwards CDP CO	279	8.2%
Denver city CO	204	6.0%
Breckenridge town CO	146	4.3%
Eagle town CO	126	3.7%
Colorado Springs city CO	91	2.7%
Keystone CDP CO	73	2.1%
Aspen city CO	60	1.8%
Aurora city CO	60	1.8%
Other Municipalities/Places	1,184	34.8%
Total	6,760	200.0%

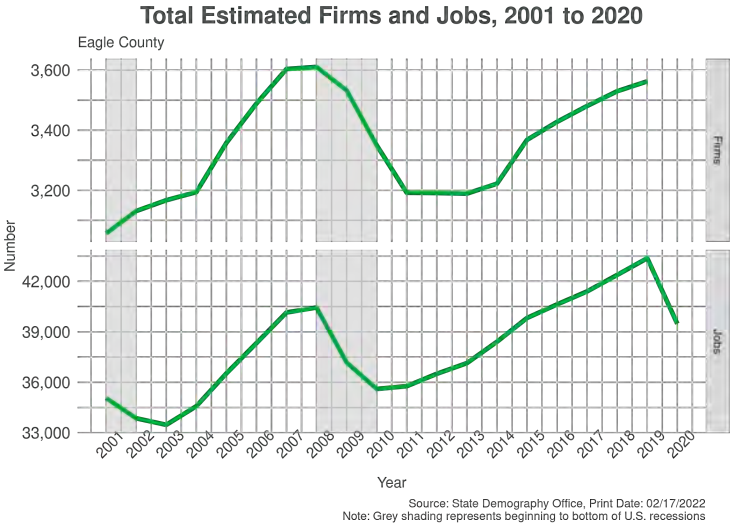
Note:
Source: U.S. Census Bureau On the Map, Print Date: 02/17/2022



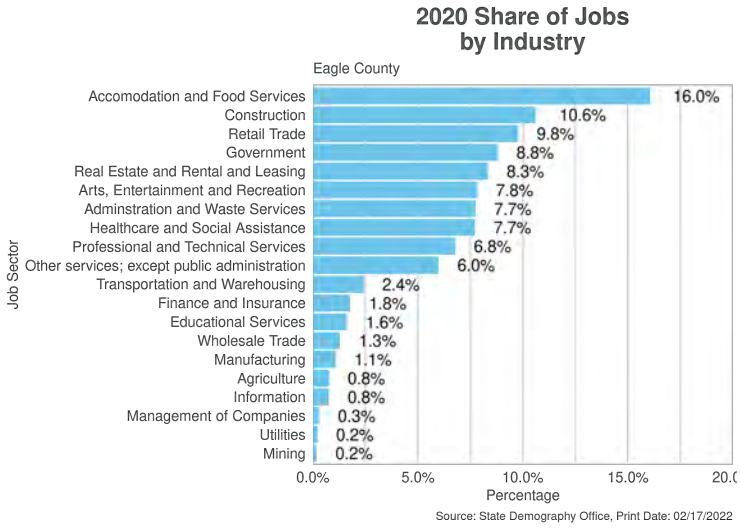
The Job Growth and Net Migration plot shows the relationship between job gowth and migration in Eagle County. Generally, migration patterns follow changes in job growth demand.

Employment by Industry

Identifying the industries which may be driving the growth and change within a community is a vital part of understanding community dynamics. Growth in jobs often results in growth in residents from migration within a community. Identifying the trends of growth or decline of jobs and the types of jobs available within the community is important.



The Estimated Firms and Jobs series created by the SDO gives a comprehensive look at the number of firms and jobs located within Eagle County. It is broad in scope, capturing both wage and salary workers as well as most proprietors and agricultural workers. A more diverse economy is typically more resilient too; when looking at the employment trends recently and after a recession (shaded in gray) it is also important to look at the current share of employment by industry. Areas dependent on a single industry such as agriculture, mining or tourism can suffer from prolonged downturns due to drought, shifting demand for commodities, and the health of the national economy.



The total estimated jobs are subdivided into 3 categories:

- *Direct Basic:* jobs that bring outside dollars into the community by selling goods or services outside the county, such as manufacturing or engineering services,
- *Indirect Basic:* jobs that are created as the result of goods and services purchased by direct basic such as accounting services or raw material inputs, and
- *Local (Resident) Services:* jobs that are supported when income earned from the base industries is spent locally at retailers or are supported by local tax dollars to provide services like education and public safety.

This plot shows the jobs by industry profile for Eagle County. The relative rank of high-paying sectors, such as mining, information and finacial and insurance services versus mid-range jobs (e.g., contsruction, health casre and government) and lower-paying industrices such as retail trade and accomodation and food services, will have an impact on a counties' overall economic health.

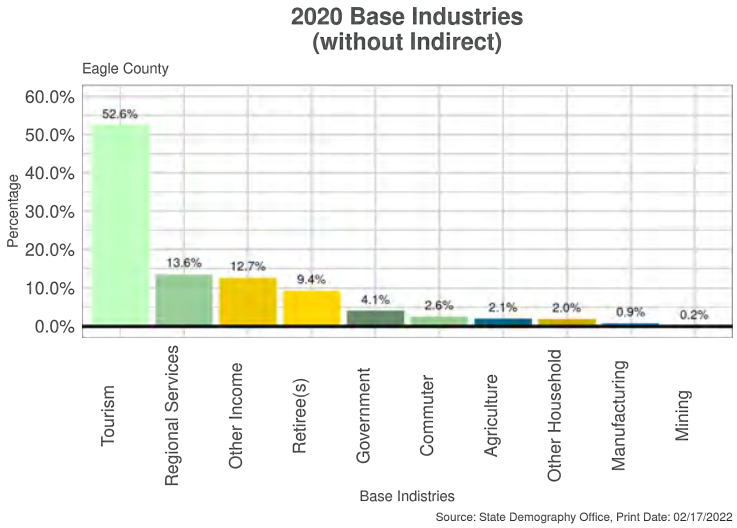


Table 10: Jobs by Sector: Eagle County, 2020

Employment Type	Number of Jobs	Percentage
Direct Basic Employment	29,722	75.3%
Indirect Basic Employment	6,963	17.6%
Local Services Employment	2,793	7.1%
Total Employment	39,478	100.0%
Total Population, 16+	0	

Note:

Source: State Demography Office, Print Date: 02/17/2022

Similar to the industry employment, areas with large amounts of diversity in their base industries tend to suffer less during downturns and recover more quickly. *Regional Services* is a diverse base industry that encompasses all services and goods that a region sells to those in surrounding areas; examples include specialized health care, construction, air or rail transportation, and large item retail purchases like autos or appliances. *Retirees* are considered basic since they spend money from social security or other pensions, Medicare and savings. *Government* typically only includes employment in Federal Government and State Government. *Tourism* not only includes traditional tourist services like accommodation and food, but also includes 2nd homes, property management and transportation of tourists by airlines, car rental, car sharing and shuttles.

Employment Forecast and Wage Information

Understanding the types of jobs forecast to grow in a community, if jobs are forecast to increase, will aid in further understanding potential changes in

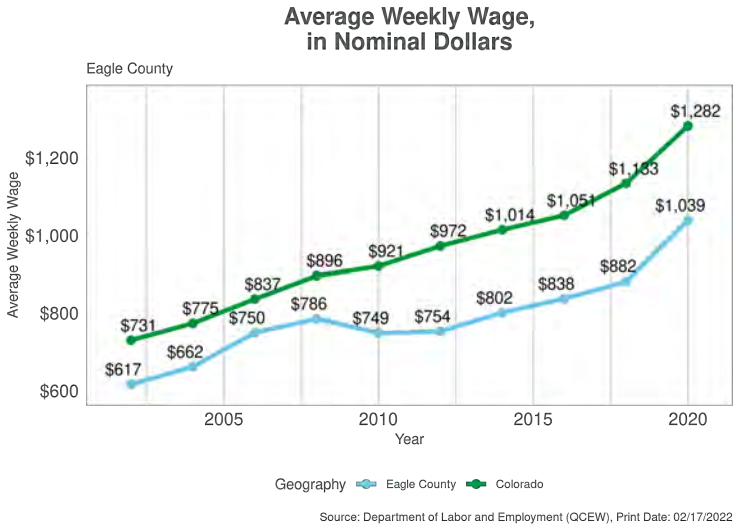
population, labor force, housing demand, and household income. Important questions to ask include; What is the current forecast for job growth based on the current industry mix? What types of jobs are forecast to grow? What are the wages for those jobs? What are the labor force trends for the community? Is the labor force expected to grow or slow down?

Table 11: Jobs and Population Forecast

Eagle County					
Year	Type	Jobs	Annual Growth Rate: Jobs	Population	Annual Growth Rate: Population
2010	Estimate	35,607		52,057	
2015	Estimate	39,823	3.7%	52,786	0.7%
2020	Estimate	39,482	-9.0%	55,626	1.5%
2025	Forecast	42,300	1.8%	57,618	0.8%
2030	Forecast	44,652	1.0%	59,764	0.7%
2035	Forecast	47,162	1.1%	63,462	1.2%
2040	Forecast	49,692	1.0%	66,725	0.9%

Note:
Source: State Demography Office, Print Date: 02/17/2022

The total jobs forecast and population forecast are for Eagle County shown here. The two lines diverge over time due to the aging of our population and continued growth in our under 18 population – two segments of the population that are less likely to be employed. Growth in the 65 plus population in the labor force through 2040 compared to the universe population of those over the age of 16 since labor force participation declines with age, especially among those eligible for pensions or social security.



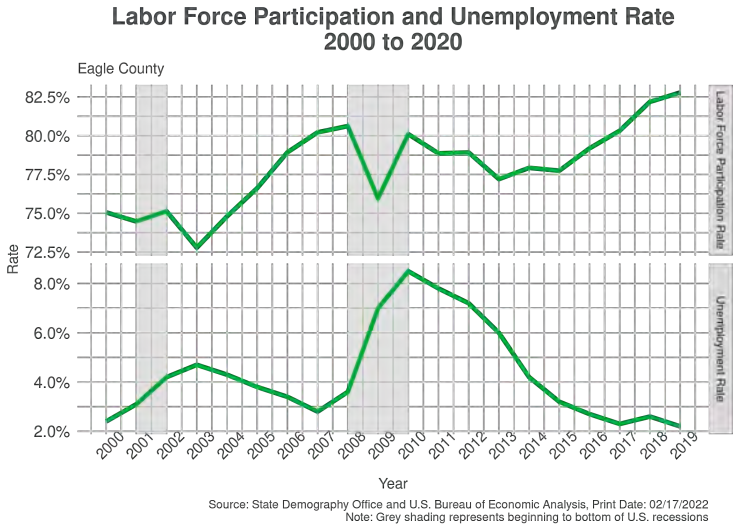
The unajdusted (nominal) average weekly wages for Eagle County and Colorado are shown here. The gain or loss of a major employer such as a mine or a hospital can have a significant impact on a county's average weekly wage. These wages are shown only for jobs located within that county and do not include most proprietors. Household income can be influenced by the average weekly wage, but in areas that have considerable amounts commuting or unearned income this relationship is not particularly strong.

This table compares the forecast residential labor force to the forecast population of person age 16 and older for Eagle County.

Table 12: Forecast Resident Labor Force and Population, Age 16 +

Eagle County					
Year	Type	Labor Force	Annual Growth Rate: Labor Force	Persons Age 16+	Annual Growth Rate: Persons Age 16+
2010	Estimate	32,404		40,508	
2015	Estimate	32,677	1.0%	42,767	1.5%
2025	Forecast	39,484	1.6%	51,589	2.0%

Note:
Source: State Demography Office, Print Date: 02/17/2022



The labor force participation and employment plot compares the percentage of persons age 16 and older in the labor force to the unemployment rate. The pattern of labor force partipation and unemployment in Eagle County are closely related. The downward trend in labor force partipation is related to the aging patterns in the county, along with the availability and character of employment. Additionally, as unemployment falls, the incentive for people to enter the labor force increases.