November 17, 2022

San Juan County Planning Commission Attn: Lisa M. Adair PE, Planning Director 1557 Greene Street Silverton, Colorado 81433

# Subject: Application for Improvement Permit - Sketch Plan Review

Proposed Careaga Cabin located at TBD County Road 99, Sandusky Lode, MS #1345A, near Picayune Gulch, San Juan County, Colorado.

Ms. Lisa Adair and Commissioners,

This submittal has been prepared to describe the proposed improvements at Sandusky Lode MS# 1345A, owned by Aaron and Kate Careaga of Animas Forks Land Holding Company LLC.

The attached documents have been prepared for a San Juan County Application for Improvement Permit as a "Sketch Plan Review". The Applicant requests review of this project by the Planning Commission at their meeting on December 13, 2022, and to consider approval contingent upon receiving a favorable geotechnical report for the proposed structure location.

The proposed improvements consist of a 950 SF cabin, 100 SF attached uncovered deck, 200 SF carport accessory building, and associated utility improvements, all of which can be accessed by a new driveway off County Road 99.

Thank you for your consideration of this application for improvements. Please contact Mountain Grain, LLC if you have any questions.

Sincerely,

Christopher M. Clemmons Mountain Grain, LLC

To whom it may concern,

We'd like to introduce ourselves and share some background on our goals with improving the Sandusky Lode in Picayune Gulch. We are Aaron and Kate Careaga, and we live on a small farm in Montrose, Colorado. Aaron is a software engineer and Kate is a nursing assistant at Montrose and Delta Hospitals. Kate is also the owner of Peak Bees, a growing beekeeping business that manages 50+ hives between Delta and Ouray. We have lived in Colorado since 2015 and moved to the Western Slope in 2021. Our day to day revolves around our community, work, and animals; Bernese Mountain Dogs and livestock.

Ever since visiting the San Juans, we have known that we want to live near these mountains and have made it our goal to spend as much time as possible outdoors in this special part of Colorado. The natural beauty is awe inspiring and the history pulls us in. During the summer months, you can find us hiking and riding dirt bikes on the Uncompany Plateau and across the San Juans. As avid snowsports lovers, we ski on average 40 days a season and are growing our skills with snowmobiling. We take the risks associated with recreating in remote areas seriously, and continue to push our avalanche and first aid training.



We started our search for a mountain property in 2016 and have kept an eye on the Sandusky Lode for four years before purchasing. After much deliberation and saving, we moved forward in January 2022 because of the property location, size, and surrounding natural amenities. The purchase

was made through our LLC as we want to ensure the property stays in our family for generations to come. Our goal is that the Sandusky Lode and future cabin are the homebase for our family to explore and grow.

As outdoor enthusiasts, we understand and respect the importance of protecting nature. Our approach to the planning process takes into account all possible methods of ensuring the natural environment and scenic quality of Picayune Gulch is not adversely affected. Although the cabin is a new addition to the area, we want the impact to be minimal and the views to feel as though it has been there since before the Treasure Mountain Mine was active.

This is not a vacation home for us, but rather where we plan to spend a significant portion of our time when the conditions allow. We are active members of the San Juan community and will continue to support local organizations and businesses as much as possible. We care deeply about local issues and are members of the San Juan Historical Society and the Silverton Snowmobile Club.

We look forward to your feedback and working together in this building process. Thank you for considering our application.

Best regards,

Aaron and Kate Careaga

# **Application for Improvement Permit**

Sketch Plan Submittal

# Careaga Cabin

TBD County Road 99, Picayune Gulch Sandusky Lode, MS#1345A San Juan County, Colorado



Applicant: Aaron and Kate Careaga Animas Forks Land Holding Company LLC 57621 Ida Rd Montrose, CO 81403 (253) 677-7669

> Prepared By: Mountain Grain, LLC 801 Florida Rd, Suite 12 Durango, Colorado 81301 (970) 515-7882

# Table of Contents

- 1. San Juan County Application for Improvement Permit
- 2. Warranty Deed
- 3. Survey Plat
- 4. Maps of Adjacent Landowners
- 5. List of Adjacent Landowners
- 6. Project Narrative
- 7. Project Plans
  - a) Vicinity Map
  - b) Sketch Plan with County Avalanche Map
  - c) Sketch Plan with County Geohazards Map
  - d) Sketch Plan with Topography
  - e) Sketch Plan with Aerial Image
  - f) Enlarged Site Plan
  - g) Draft Floor Plans
  - h) Draft Building Elevations
- 8. San Juan Basin Public Health Septic Permit Application
- 9. Letter of Feasibility for Septic Design
- 10. Proof of Water Rights Notice of Intent to Make Absolute Application
- 11. Avalanche Hazard Assessment & Mapping
- 12. San Juan County Driveway and Road Access Permit Forms
- 13. San Juan County Relationship to County Road and State Highway Systems Form
- 14. Scenic Quality Report

# San Joan County, Colorado Application for Improvement Permit

	Name	Aaron & Kate Careaga		APPROVAL CHECKLIST	Initial	Date		
plicant	Address	57621 Ida Rd, Montrose, CO 81403		Land Use Administrator				
Ap		(253) 677-7669	Phor	e Ownership of Surface				
	Name	Animas Forks Land Holding Company	/ LLC	Ownership of Minerals				
)wner	Address	Same as Applicant		Vicinity Map				
Ŭ		Same as Applicant	Phor	e Certified Survey Plat				
actor	Name			Monumentation				
Contr	Address			Basic Plan Map				
			Phor	e Plans and Drawings				
L	egal Descr	iption of Property:		Road System Relationship				
				Zoning Compatibility				
				State Mining Permit				
	MS 1	345A Sandusky Lode		Owner Notification				
	Picay San	rune Gulch Iuan County, CO		Avalanche Hazard				
	•••••	,, ,		Geologic Hazard				
				Floodplain Hazard				
				Wildfire Hazard				
	Townsh	ip 42N, Range6W, Section 7		Mineral Resource Impact				
N	ature of In	nprovement Planned:		Wildlife Impact				
				Historic Site Impact				
	Propose	d single-family cabin and shed	structure, with	Watershed Gearance				
	associate	ed utility and access improveme	ents					
				County Building Inspector				
				Building Permit				
				State Electrical Inspector	-			
L	and Use Z	one: Mountain Zone		Electrical Permit				
A	pplicant Si	ignature		San Juan Basin Health Unit				
	C	èr,		Sewage Disposal: Test				
				Design				
Da	ate Applic	ation Requested		Central Sewage Collection				
Da	ate Submi	tted for Permit		State Division of Water Resources				
Da	ate Permit	Issued		Adequate Water Source				
Da	ate Permit	Denied		Well Permit				
R	eason for l	Denial		. Central Water Distribution				
				U.S. Forest Service/BLM	-			
				Access Approval				
				State Division of Highways				
R	eceipt	FEE PAYMENT Amount	Date	Driveway Permit				
		Application						
		Building Permit						
		Subdivision/PUD		Subdivision Variance				
		Hearing Notice		Subdivision Approval				
				PUD Approval				

154296 Page 1 of 1 SAN JUAN COUNTY, COLORADO LADONNA L. JARAMILLO, RECORDER 05-10-2022 01:35 PM Recording Fee \$21.50

RECORDING REQUESTED BY : KENT TAYLOR 5402 Bull Run Circle Austin, Texas 78727

SEND FUTURE TAX STATEMENTS TO: AND WHEN RECORDED MAIL TO: Animas Forks Land Holding Company LLC. ) 57621 Ida Rd. ) Montrose, CO. 81403 )

)

)

)

# WARRANTY DEED

Kent Taylor, as Grantor for the consideration of Eighty Five Thousand Dollars (\$85,000.00), hereby conveys, grants, warrants, and deeds to, Animas Forks Land Holding Company LLC, whose address is 57621 Ida Rd. Montrose, CO. 81403, as Grantee, the following property locally known as, and furthermore described as: Apn#47730070050008; Sandusky MS# 1345, San Juan County, Colorado

San Juan County, Colorado.

On this  $5^{\frac{m}{2}}$  day of <u>May</u> 2022, in the County of <u>Williamson</u>, State of Texas, I/we herewith sign this Grant Deed.

TAYLOR KENT

1F- 850

State of Texas ) ) ss County of <u>Williamson</u>)

On this the  $5^{\frac{n}{2}}$  day of May, 2022, before me, the undersigned, a notary public in and for said County and State, personally appeared Kent Taylor, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.





# Results of Survey

MS 1345A Sandusky Lode Un-surveyed Township 42 North, Range 6 West, New Mexico Principal Meridian San Juan County, Colorado

# MS 1345B Sandusky MS 1345A Sandusky Detail "A" / Found a $2\frac{1}{2}$ " Aluminum cap on a #6 rebar LS 12457 Preliminary Found a #6 rebar. Placed a $2\frac{1}{2}$ " aluminum cap on rebar. Corner was verified by the original bearing tree RO

CERTIFICATE OF SURVEY:

I, Brian Dirk Hatter, a Registered Land Surveyor in the State of Colorado, do hereby certify that this plat accurately represents that the surveying services addressed herein have been performed by the professional land surveyor or under the professional land surveyor in charge. Is based upon the professional land surveyor's knowledge, information and belief. Is in accordance with applicable standards of practice. Is not a guaranty or warranty, either expressed or implied. I further certify that the monuments shown hereon actually exist, and that their positions are as shown. I further certify that this Boundary Agreement is in accordance with CRS 38-44-112 and that no new parcels were created.

> Signature PLS No. 26597

Seal

Date

# Preliminary



Reestablished corner at record bearing and distance from original bearing tree.

# Legend



Found Monument - See Description Set 2-1/2" alum. cap/#6 rebar - LS 26597 ——— Boundary Line Record

NORTH

SCALE: 1"=100' U.S. Survey Feet

BASIS OF BEARING:

The line between corners 3 and 4 of MS 1345A Sandusky lode is assumed to bear N. 63°46'59" W. and is monumented as shown hereon. All other bearings are relative thereto.

SAN JUAN COUNTY CLERK AND RECORDER'S ACCEPTANCE : This plat was accepted for filing in the office of the Clerk and Recorder of San Juan County, Colorado, on this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_\_; Reception Number \_\_\_\_\_ Time \_\_\_\_, Book \_\_\_\_, Page \_ , Page \_\_\_\_

U.S. MINERAL S REGISTERED LAND IN COLOR	URVEYORS SURVEYORS ADO	SouthWest LAND SURVEYING LLC 1205 H Lane, Delta, CO 81416 (970) 387-0600silverton (970) 874-2880Delta (970) 874-0883fax EMAIL: dhatter@itcresources.us					
<i>PLAN SCALE:</i> 1"=100'	REVISIONS:		Aaron	& Kata Careaga			
<i>FIELD CREW:</i> BCD, ECH, DLR, BAB		MS 1345A Sandusky Lode	57621 Ida Road Olathe Colorado, 81403				
<i>DRAFTER:</i> BDH	]	Un-surveyed T 42 N., R 6 W., N.M.P.M. San Juan County, Colorado		/			
SHEET 1 of 1	┫		FW: 08/25/22	<i>JOB #:</i> 09-22 Careaga			

# Map of Adjacent Landowners within 1,500 ft



# List of Adjacent Landowners within 1,500 ft

HOUGHTON MINERALS LLC; c/o San Juan Land Holding Company LLC PO BOX 98 BRECKENRIDGE CO 80424-0076

ZIESMER DANIEL AND AMY 308 W UTE ST FARMINGTON NM 87401-6056

BENHAM WILBUR F 200 9TH ST FT LUPTON CO 80621-2604

BRIDGEWATER FRANK OR ELOYDA 607 W ROSS ST FARMINGTON NM 87401-5866

PLACER GULCH PROPERTIES LLC; c/o San Juan Land Holding Company LLC PO BOX 98 BRECKENRIDGE CO 80424-0076

LOKEY JIMMIE PO BOX 346 SILVERTON CO 81433-0346 STEINER LEIF; c/o MOXIE SOZO 2831 SHADOW LAKE RD LAFAYETTE CO 80026-8970

SANKO THEODORE J 912 WRIDGE NORTON KS 67654

TACTICAL STRATEGIES LLC; c/o San Juan Land Holding Company LLC PO BOX 98 BRECKENRIDGE CO 80424-0076

STEWART ROBERT J JR & CRAIG H 810 ORMAN DR BOULDER CO 80303-2617

KEITH MCFARLAND PO BOX 617 SILVERTON, CO 81433

# **Project Narrative**

# Applicant Name and Address:

Aaron and Kate Careaga Animas Forks Land Holding Company LLC 57621 Ida Rd Montrose, CO 81403 (253) 677-7669

# Project Location:

TBD County Road 99, Picayune Gulch Sandusky Lode, MS #1345A San Juan County, Colorado

# Legal Description

Sandusky Lode MS #1345A, Township 42 North, Range 6 West, Section 7 of the New Mexico Principal Meridian, San Juan County, Colorado.

# Proposed Development:

950 SF cabin, 100 SF uncovered deck, 200 SF carport accessory building, gravel driveway, septic system, surface water system, and associated site and utility improvements.

# <u>Zoning:</u>

Mountain Zoning District

# Acreage:

10.33 acres

# Water Service:

The applicant has obtained conditional approval for an increment in surface water right under the Animas Service Area to use the Picayune Gulch surface water as their primary water source for their cabin. The applicant has begun work on water diversion and has constructed a water holding pond located approximately 150-200 feet west of the proposed cabin, which is shown on the plans included with this application. The water will eventually be piped underground to a holding tank near the cabin. Documentation for conditional approval is included with this application for reference.

Once the applicant has put the water to beneficial use and collected data, they will go through the process of obtaining a decree from the Division 7 Water Court. If for whatever reason the surface water right cannot be adjudicated as absolute by the Division 7 Water Court, the applicant will install a water storage tank and haul water to the property.

# <u>Sewer Service:</u>

An on-site wastewater treatment system (OWTS) is proposed for the cabin and will be located northeast of the cabin as shown on the included site plan. The septic system will be engineered by a Colorado licensed professional engineer in accordance with San Juan Basin Public Health regulations.

Due to limited vehicular site access, and until conditional approval of the Driveway Permit (included with this Sketch Plan Submittal), the test pits and septic design have not been completed. However, the septic engineer has provided a letter of feasibility for the proposed OWTS on the property. The San Juan Basin Public Health permit application and feasibility letter are included with this application.

# Power:

The cabin will be off-grid and powered by solar panels with battery storage. All appliances are planned to be electric including the water heater. The solar panels will be mounted on the cabin roof oriented to receive the most sunlight possible. The applicant also plans to have a propane backup generator for the project as the backup power source. The applicant intends to haul medium sized propane tanks to the property as needed to power the backup generator. The generator location is shown on the site plan included with this application.

# Phone:

There is no phone service proposed at this property.

# Access from County Roads:

The property is accessed by County Road 99 via County Road 9. County Road 99 originates and terminates at County Road 9. County Road 9 originates from County Road 2 near Grouse Gulch approximately 3 miles north of Eureka. The proposed cabin will be accessed by a new driveway off the north side of County Road 99. The driveway will comply will all comments received by the County Department Supervisor pertaining to required culvert, turning radius, and setbacks.

# <u>Heating:</u>

The applicant plans to use a wood burning stove as the primary source of heat for the cabin, and small portable electric heating units as supplemental heat where necessary.

# Exterior Lighting:

Exterior lighting will be incorporated near the cabin entrance and deck space for safe egress in, out and around the exterior of the cabin. All exterior lighting will be in conformance with the San Juan County Dark Sky requirements.

# Solid Waste Management:

The applicant will be responsible for trash removal from the property. On-site trash will be contained within the building or within a wildlife/bear-resistant trash receptacle at all times until it is disposed at the Transfer Station for the required fee.

# Landscaping:

Revegetation and landscaping screening can be provided by the applicant in accordance with the requirements of San Juan County to preserve the natural appearance of the area and minimize visual impact as seen from County Road 9 and 99. The applicant will create a defensible space around the proposed cabin by removal of combustible ground cover and thinning of trees and shrubs near the cabin, as recommended by the Colorado State Forest Service Firewise Practices.

# Surveying:

A boundary survey for this lot was prepared by Dirk Hatter of Southwest Land Surveying LLC. A copy of this survey is included with this application.

# Subsurface Conditions:

Subsurface conditions will be tested and recorded by Trautner Geotech LLC once a Driveway Permit is issued, and the driveway is constructed to allow a site visit. The final design for the proposed cabin foundation will take into consideration the characteristics of the soils, slopes and potential geological hazards in a manner intended to protect the health, safety and welfare of the applicant and users in the area.

# **Building Envelope and Siting:**

The proposed cabin site and building envelope will be located off the north side of County Road 99, on the east third of the parcel, as shown on the included site plan. The siting best utilizes the natural topography, with the cabin situated on a lesser sloped bench that contains less vegetation, which will require less disturbance at the building site. The cabin site also promotes a good balance of privacy, safe and feasible driveway access, and constructability.

# County Avalanche Map:

An Avalanche Hazard Assessment was prepared by Wilbur Engineering, Inc., which includes recommendations for avoiding and reducing exposure to avalanche hazards at the site. According to the findings in the assessment, there are three types of hazard zones on the property: high, moderate, and white. The proposed building site is within the white zone, which is outside of any avalanche hazard zones. A copy of this assessment is included with this application.

The Sketch Plan and Avalanche Hazard Assessment zones have been overlaid onto the County Avalanche Map which is included with this application for review.

# County Geohazards Map:

The Sketch Plan for this project has been overlaid onto the County Geohazards Map, which is included with this application for review. According to the County Geohazards Map, the entire parcel is in an area of colluvial slopes, specifically accelerated colluvial slopes (csa), defined as areas of accelerated colluvial activity on slopes where deposits are less than six feet thick. Unlike higher risk areas categorized as "cst", areas categorized as "csa" have significantly less risk of mass failure.

The proposed foundation for the cabin will follow all excavation and foundation design recommendations outlined by the geotechnical engineer for the specific soils found at the building site.

# Foundation:

The intended foundation for the proposed cabin will consist of a shallow foundation with stem wall and strip footers, and potentially pier and spot footers, that will extend below frost depth and 12" minimum below native grade. The deck will include wood posts with concrete spot footings that will extend below frost depth.

# Elevation at Structure:

The floor elevation of the proposed cabin is approximately 11,710 feet, which is above the 11,000 feet County limit on square footage limitations which requires a maximum floor area of 1,000 SF.

# Cabin and Garage Size and Height:

The proposed cabin has a current floor area of 950 SF with a 100 SF uncovered deck. Since the deck is uncovered and more than 30 inches above grade, the 100 SF is calculated at 50% of the actual area, so a total of 50 SF, making the combined area 1,000 SF. The overall footprint of the cabin is T-shaped with a rectangular deck off the north side. The cabin will have a 12:12 sloped gable roof as the principal roof, which is flanked by two 4:12 sloped shed roofs on either side.

The maximum height of the cabin, which is measured from the lowest adjacent native grade up to the peak of the 12:12 roof, is approximately 28'-0", which is below the County height limit of 30 feet.

# **Building Plans:**

Preliminary building plans for the proposed cabin are included with this application.

# Cabin Style:

The simple form and material selection most reflect the mountain contemporary style, with a focus on the surrounding views to the north and east by orienting the cabin and deck towards the views.

# **Building Materials:**

The applicant plans to use colors and materials that embody the local area and mining history. A colorized rendering of the cabin, which shows proposed building materials and design vernacular, is included in the Scenic Quality Report for your review. The proposed materials consist of the following:

- Native rock found at the site for lower siding
- Rustic/weathered metal and or/wood for upper siding
- Dark colored rustic/weathered metal roof with matching trim
- Dark colored window sashes/frames to match metal and/or wood siding
- Minimal metal posts and railing at deck
- Low-reflective glass on more expansive glazing

![](_page_14_Picture_0.jpeg)

MOUN MOUN ARC DURANGO 970[51] info@mtng mtngro	HITECTURE CC 81301 517882 grain.com in.com	
PROJECT #: 2201	ASSESSOR'S PARCEL #: 47730070050008	2
NEW CONSTRUCTION OF:: THE CAREAGA CABIN	SANDUSKY LODE MS 1345A SILVERTON, CO	IMPROVEMENT PERMIT SKETCH PLAN REVIEW   11.17.202
SCALE:	TY MAP <b>4</b> 1'' = 1000'	

SKETCH PLAN REVIEW PERMIT **IMPROVEMENT** 

![](_page_15_Figure_0.jpeg)

![](_page_16_Figure_0.jpeg)

**IMPROVEMENT PERMIT SKETCH PLAN REVIEW** 

![](_page_17_Figure_0.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_19_Figure_0.jpeg)

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DETBACK	MO DURA 97 info( m		TAIN TAIN Drain TECTURE CO 81301 17882 rain.com	
S	PROJECT #:	2201	ASSESSOR'S PARCEL #: 47730070050008	
C CONTOURS	NEW CONSTRUCTION OF:: THE CAREAGA CABIN		SANDUSKY LODE MS 1345A SILVERTON, CO	
	EN SHEEL TILE	ilai te f	rged Plan	
CULVERT AS REQUIRED	# B SCALE:	F	<b>-</b> " = 30'-0"	

IMPROVEMENT PERMIT SKETCH PLAN REVIEW | 11.1

![](_page_20_Figure_0.jpeg)

IMPROVEMENT PERMIT SKETCH PLAN REVIEW | 11.17.2022

![](_page_21_Figure_0.jpeg)

# SAN JUAN BASIN public health

# **On-Site Wastewater Treatment System (OWTS) Permit Application**

Owner: Animas Forks Land Holding Company LLC	Phone: 253-677-7669							
Project Address (street, town/city, zip): TBD County Road 9	9, Silverton, CO 81433							
Assessor's Parcel #* 47730070050008	Subdivision: Lot#:							
Lot Size: 10.33 (acres) # of Dwellings: 1 # of Bedu	rooms: 2 Water Supply: Surface Water							
List Commercial Uses (e.g., office, factory, event venue): Not	ne							
Owner's Mailing Address: 57621 Ida Rd, Montrose, C	O 81403							
Owner's Email Address: aaroncareaga@gmail.com								
*For detailed parcel information please visit your county	<pre>v assessor's website or see your property tax statement*</pre>							
<u>On-site Wastewater Treatment System (OWTS) Permit Types</u> Choose the most applicable permit type from the list below and check the box in upper-left corner								
✓ New Construction - (\$1023.00)	Alteration - (\$973.00)							
For new OWTS and complete system replacement	For changes/additions to existing permitted OWTS							
Contact Registered Soil Technician and/or Professional	Contact Registered Soil Technician and/or Professional							
Engineer (PE) or system designer for analysis and	Engineer (PE) or system designer for analysis and							
design development. A PE may be required dependent	design development. A PE may be required dependent							
on site and soil conditions.	on site and soil conditions.							
<ul> <li>A design must be submitted to SIBPH. SIBPH must have navment and application to review designs for</li> </ul>	<ul> <li>A design must be submitted to SIBPR. SIBPR must have navment and application to review designs for</li> </ul>							
permit issuance.	permit issuance.							
Change Of Use (\$472.00)	Minor Bonair (\$272.00)							
Enange Of Ose - (3473.00)	For replacement of QWTS components with no change to							
without system modifications. OR new service connections	nermitted use							
(e.a., garages, shops) added to an existing permit	Submit application with payment transfer of title							
For expanded use provide a certification report from	inspection report (if available) and a simple site plan							
a Professional Engineer (PE) or system designer.	showing location of repairs.							
• For new service connections, provide a proposed site	• List repairs/scope of work below (e.g. tank							
plan and describe scope of work below.	replacement, aerators, pipe repairs, etc.)							
Change of Use does NOT allow for connection of new	<ul> <li>A permit is NOT required for repair of components</li> </ul>							
uses (e.g., second dwellings, ADUs) unless the system	that do not provide treatment (e.g., fencing, tank lids,							
was originally designed for it – use Alteration instead	inspection ports)							

#### Please describe in detail work to be completed: \_

Construction of new OWTS for a new 1,000 SF single-family in San Juan County, CO

<u>I acknowledge</u>: (1) This application does <u>not</u> guarantee that an On-site Wastewater Treatment System ("OWTS") can be installed or a building permit issued; (2) The issuance of the OWTS permit does <u>not</u> imply any warranty by San Juan Basin Public Health as to the operation of the OWTS; (3) The OWTS must be constructed in accordance with the San Juan Basin Public Health On-site Wastewater Treatment System Regulations and any Conditions of Approval set by SJBPH; and (4) The owner of the property assumes the responsibility and liability for the proper maintenance of the OWTS.

Owner's Signature:

Date: Nov 16, 2022

Submit completed application to eh@sjbpublichealth.org or at one of our office locations.

This is NOT a permit; this application does not authorize construction or repairs. All OWTS construction/repair work must be performed by an installer licensed by SJBPH.

November 18, 2022

Aaron and Kate Careaga c/o Christopher Clemmons, RA, NCARB Mountain Grain Architecture 801 Florida Rd, Suite 12 Durango, Colorado 81301 chris@mtngrain.com

**TRAUTNER GEOTECHLLC** GEOTECHNICAL ENGINEERING, MATERIAL TESTING

AND ENGINEERING GEOLOGY

Project No. 57292GE

# Subject: Onsite Wastewater Treatment System Feasibility Evaluation Sandusky Lode Silverton, San Juan County, Colorado

Dear Mr. and Mrs. Careaga:

As requested, Trautner Geotech performed a limited Onsite Wastewater Treatment System (OWTS) feasibility assessment for the proposed residence at the subject property. The services were performed as a supplemental service in accordance with our proposal to you dated August 22, 2022, Proposal No. 22057P. Our observations and findings are discussed in greater detail below.

#### Project Site and Geomorphology

The approximate 9.3-acre project site is currently vacant. The project site is located off Picayune Gulch Road approximately 8 miles northeast of Silverton, Colorado. The project site location is shown below.

![](_page_23_Picture_8.jpeg)

Figure 1: Project Site Location. Adapted from Google Earth (Image Date 9/11/2019).

The ground surface at the building site and location of the proposed onsite wastewater treatment system (OWTS) is moderately to gently sloping down to the north-northwest. Vegetation consists primarily of mature coniferous trees and grasses.

#### **OWTS Feasibility**

We have not yet been able to access the site with excavation equipment to perform a subsurface exploration. Based on our review of photographs, aerial photographs and the Geologic Map of the Handies Peak Quadrangle, the site appears to lie within an area mapped as glacial drift (Luedke and others, 1987). Glacial drift material consists of sediment transported directly by glacial ice or meltwater from a glacier. This material often contains a variety of sizes of materials from clay to boulders. The glacial drift material is likely underlain by the Burns Member bedrock of the San Juan Volcanics. The glacial drift material likely contains greater than 35 percent rock sized material and may not be suitable for effluent treatment per the CDPHE Regulation #43.

Although the soil may not be suitable per Regulation #43, we feel a conforming OWTS is likely feasible for the site given the relatively large size of the property and relatively shallow angle slopes. Design of the OWTS for the site may require a mounded sand filter or below grade unlined sand filter. Soil replacement for "Type R" soils may also be an option. Prior to design and final determination of the OWTS type, at least two exploratory test pits must be excavated adjacent to the proposed soil treatment area (STA). A site and soil evaluation per the requirements of Regulation #43 will be necessary prior to completion of OWTS design documents.

#### Limitations

This limited feasibility assessment was completed in accordance with generally accepted principles and practices in this area at this time. We make no warranty either express or implied. The opinions outlined in this letter are based on limited data and do not include detailed field reconnaissance or subsurface exploration. A site and soil evaluation per the requirements of Regulation #43 will be required prior to preparation of the final OWTS Design.

If you have any questions or need additional information, please feel free to contact us.

Respectfully submitted, TRAUTNER GEOTECH

Jason A. Deem, P.G. Senior Engineering Geologist

1-24-22 500

#### Notice of Intent to Make Absolute

N.O.I. # 0038 (Assigned by SWCD)

The below identified applicant hereby notices its intent to make absolute an increment of the Animas Service Area conditional water right decreed in **Case No. 06CW127** consistent with the terms and conditions decreed therein. Use additional pages as needed.

#### Applicant Information:

Name: Animas Forks Land Holding Company LLC Telephone: 253-677-7669

Email Address: aaroncareaga@gmail.com

Mailing Address: 57621 Ida Rd, Montrose, CO 81403

(The approved NOI will be mailed to this address)

Prospective Water Right Increment Information:

Proposed Use of Water (e.g. domestic, irrigation, commercial):

Domestic use in one home, irrigation of one acre of lawns and gardens, domestic animal watering (2 horses) and fire protection

Proposed Source (groundwater, surface water):

Picayune Gulch surface water

Proposed Place of Use (include parcel # if possible):

Sandusky MS#1345, Parcel #47730070050008

Anticipated Amount of Depletions (number of acres irrigated, stock use, domestic surface area, and pond evaporation, etc. in the time periods per the 06CW127 decree):

See attached table

The applicant is advised and recognizes that the execution of this Notice of Intent to Make Absolute confers no right, title, or interest in water beyond the right to perfect an increment of the Animas Service Area conditional water right consistent with the decree in Case No. 06CW127.

Applicant is hereby given authority by Southwestern Water Conservation District and La Plata County to file an application to make the conditional water right absolute pursuant to the terms and conditions in Case No. 06CW127. The Southwestern Water Conservation District and La Plata County reserve the right to file opposition to such claim if deemed necessary.

Signed for the Applicant, (Title)

5/26/2022

(Date)

Aaron M Careaga

Printed Name

**Governmental Endorsements:** 

La Plata County

7-21-22 (Date)

STARKEBAUM **Printed Name** 

L. Well

SWCD

<u>5/27/22</u> (Date)

STEVEN LA WOLFE

Printed Name

		Depletion R	tates (cfs)	
Time Period	Domestic	Livestock (2 horses)	Irrigation (1 acre)	TOTAL
January 1 through January 31	0.000081	0.000046	0.00000	0.000127
February 2 through February 28 (29)	0.000081	0.000046	0.00000	0.000127
March 1 through March 31	0.000081	0.000046	0.00000	0.000127
April 1 through April 14	0.000081	0.000046	0.000202	0.000329
April 15 through April 30	0.000081	0.000046	0.000202	0.000329
May 1 through May 31	0.000081	0.000046	0.004032	0.004159
June 1 through June 14	0.000081	0.000046	0.007124	0.007251
June 15 through June 30	0.000081	0.000046	0.007124	0.007251
July 1 through July 14	0.000081	0.000046	0.006650	0.006777
July 15 through July 31	0.000081	0.000046	0.006650	0.006777
August 1 through August 31	0.000081	0.000046	0.004975	0.005102
September 1 through September 30	0.000081	0.000046	0.004015	0.004142
October 1 through October 31	0.000081	0.000046	0.001203	0.001330
November 1 through November 30	0.000081	0.000046	0.00000	0.000127
December 1 through December 31	0.000081	0.000046	0.00000	0.000127
			Annual Depletion	0.044082

# AVALANCHE HAZARD ASSESSMENT & MAPPING

for

# SANDUSKY LODE CLAIM U.S. SURVEY NO. 1345A ASSESSOR PARCEL NO. 47730070050008 COUNTY ROAD 99 PICAYNE GULCH ROAD SAN JUAN COUNTY, COLORADO

Prepared for:

Aaron Careaga 57621 Ida Road Montrose, CO 81403

Prepared by:

Wilbur Engineering, Inc. Durango, Colorado

June 13, 2022

150 East 9 St., Suite 201 • Durango CO 81301 (970) 247-1488 • chris @mearsandwilbur.com

June 13, 2022

Aaron Careaga 57621 Ida Road Montrose, CO 81403 via email

RE: Avalanche Hazard Assessment Sandusky Lode, Eureka Mining District, USMS # 1345A Assessor Parcel No. 47730070050008 County Road 99, Picayune Gulch, San Juan County, Colorado

Dear Mr. Careaga:

At your request, we have completed our avalanche hazard assessment. We have also developed recommendations for avoiding and reducing exposure to avalanche hazards at the site.

If you have any questions, please contact me at (970) 247-1488.

Sincerely, Wilbur Engineering, Inc.

no nill

Chris Wilbur, P.E.

# Contents

1.	Introduction	1
2.	Objectives	3
3.	Limitations	3
4.	Methods	4
5.	Avalanche History	4
6.	Snow Climate	5
7.	Terrain	5
8.	Vegetative Indicators	7
9.	Avalanche Dynamics Modeling	8
10.	Findings	9
11.	Recommendations1	0
12.	References 1	1

# Figures

Figure 1 – Site Location Map	. 1
-igure 2 – Site on Caltopo Slope Map	2
Figure 3 – Site Topo Map with Google Earth Image	2
Figure 4 – Historic Avalanches Map from Reference 4	4
Figure 5 – Profiles of Avalanche Paths affecting the Site	6
Figure 6 – LiDAR Slope Angle Map	6
Figure 7 – LiDAR Slope Aspect Map	7
Figure 8 – Vegetation and Non-ground LiDAR Reflections	8
Figure 9 – RAMMS Run 10 Predicted Maximum Flow Heights	9
Figure 10 – RAMMS Run 10 Predicted Maximum Velocities	9
-igure 11 – Avalanche Hazard Map1	2

# Appendix

Climate Data	A-1
RAMMS Parameters & Summary of Results	B-1
Site Photos	C-1

# 1. Introduction

This report describes snow avalanche hazards for the Sandusky Lode Mining Claim south of Picayne<sup>1</sup> Gulch accessed from Eureka Mountain Road. Figure 1 shows the site location about 9 miles NW of Silverton. Figure 2 shows the site on a Caltopo slope angle map. Figure 3 shows a georeferenced Google Earth aerial with LiDAR topography.

This report describes the avalanche hazards at the site, including a map delineating high and moderate avalanche hazard zones, and provides recommendations for the planned site development of a remote high elevation cabin.

![](_page_31_Picture_3.jpeg)

Figure 1 – Site Location Map (source Gaia GPS.com)

<sup>&</sup>lt;sup>1</sup> Picayne Gulch is also spelled Picayune.

![](_page_32_Picture_0.jpeg)

Figure 2 – Site on Caltopo Slope Map (Site boundaries are approximate)

![](_page_32_Figure_2.jpeg)

![](_page_32_Figure_3.jpeg)

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

# 2. Objectives

This report has the following **objectives**:

- 1. Delineate avalanche hazard zones for High (Red) Avalanche Hazard and Moderate (Blue) Avalanche Hazards at the site.
- 2. Provide recommendations for avoiding, reducing and mitigating snow avalanche hazards.

# 3. Limitations

This report also has the following **limitations**, which must be understood by all those relying on the results, conclusions, and recommendations:

- Avalanches larger than the design-magnitude<sup>2</sup> avalanche are possible, will travel farther, spread wider, and possess greater impact pressures; the probability of such events is small enough that it is generally considered within acceptable limits of risk in this location at this time for the type of land use proposed.
- This study is site and time specific; it should not be applied to adjacent lands nor should it be used without updating in the future when additional data and improved methods become available.
- 3. The avalanche hazard assessment is based on current forest and climatic conditions. Changes in forest cover and/or climatic conditions could increase or decrease the avalanche hazard.
- 4. No avalanche mitigation design specifications are provided. Avalanche design loads cannot be determined until the location, orientation and geometry of buildings and other structures have been determined. If mitigation is needed, additional analyses will be required to determine avalanche impact and static loads on walls, roofs, eaves and other exposed objects. A structural engineer, experienced in applying dynamic and static snow loads must be retained to design any structures to resist design snow and avalanche loads.
- 5. Access to the site requires crossing numerous large destructive avalanche paths. Off-site hazard and risk analyses are not within the scope of this report.
- 6. The scope of work does not include evaluation of any other geologic hazards, except for snow avalanches processes.

<sup>&</sup>lt;sup>2</sup> The *Design-Magnitude Avalanche* has an approximate annual probability of one-percent, or an average return period of 100-years.

# 4. Methods

The avalanche hazard assessment, mapping and recommendations presented in this report are based on:

- 1. Review of reference documents listed in Section 12 of this report.
- 2. Terrain analyses using a 3-meter topographic map derived from LiDAR data downloaded from the USGS 3D Elevation Program (3DEP);
- 3. Site observations of vegetation and ground conditions made by Chris Wilbur on June 6, 2022, during mostly snow-free conditions.
- 4. Analysis of various sources of aerial imagery, including Google Earth, Bing, USGS, USDA, and San Juan County GIS Department.
- 5. Review of historic weather data, including SNOTEL, Coop Weather Stations, Colorado Avalanche Information Center (CAIC) and the Center for Snow and Avalanche Studies (CSAS);
- Avalanche dynamic modeling with the Swiss program, RAMMS, Version 1.7.20 utilizing a 3-meter resolution digital elevation model (DEM) developed from LiDAR data.
- 7. Our local and regional knowledge of terrain, climate and avalanche hazards.

# 5. Avalanche History

No record of historic avalanches or damages are documented for the site in Reference 4. The nearest site with historic avalanches reported is the Scotia and Felice on the north side of Picayne Gulch (Figure 4).

![](_page_34_Figure_11.jpeg)

Figure 4 – Historic Avalanches Map from Reference 4

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

# 6. Snow Climate

The site is located in the Colorado Avalanche Information Center's (CAIC) Northern San Juan recreational forecast zone. The region is characterized by a high elevation, high solar radiation, continental snow climate. This snow climate is widely known for its characteristic structure with a generally shallow cold snowpack and development of early season persistent weak layers that can last throughout the winter and spring, especially on northerly aspects. The weak lower snowpack can become overloaded by snow slabs that form during large storms and wind events, resulting in widespread avalanche activity.

Long-term weather records are available from a COOP weather station in Silverton and a SNOTEL station on Red Mountain Pass. In addition, the Center for Snow and Avalanche Studies has weather instrumentation at three sites near Red Mountain Pass, including an anemometer at the Putney weather station (elevation 3757 meters). Selected weather and climate data are presented in Appendix A.

# 7. Terrain

The site is located just below timberline in the Picayne Gulch basin near elevation 3580 meters. We identified two generalized north-facing avalanche starting zones<sup>3</sup> with the potential to reach the site. The larger western starting zone is between 3720 and 3650-meters elevation. The smaller east starting zone is between 3680 and 3630 meters. Figure 5 shows avalanche path profiles and their locations. Both starting zones are above timberline and can be strongly affected by wind loading from southwest flows. The west starting zone has a potential release area of about 2.2 hectares with a mean slope angle of 33 degrees and northerly aspect. The east starting zone has a potential release area of about 0.7 hectares and mean slope angle of 30-degrees, also with a northerly aspect. Most avalanches in the east path will stop on the 6-8-degree sloping bench near elevation 3610 meters, but the design magnitude avalanche will cross the site. Figure 6 shows a slope angle map of the avalanche terrain derived from LiDAR data. Figure 7 shows a slope aspect map.

<sup>&</sup>lt;sup>3</sup> The Starting Zone of an avalanche is the area where snow releases, accelerates and increases in mass.

![](_page_36_Figure_0.jpeg)

Figure 5 – Profiles of Avalanche Paths affecting the Site

![](_page_36_Figure_2.jpeg)

Figure 6 – LiDAR Slope Angle Map (Site boundary approximate)

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

![](_page_37_Figure_0.jpeg)

Figure 7 – LiDAR Slope Aspect Map (Site boundary approximate)

The East and West avalanche paths have weak to moderately channelized tracks<sup>4</sup> and flow off-site with slope of about 18-20-degrees below the site. The total vertical elevation drops to the upper site limits of the West and East paths are about 160 meters and 80 meters, respectively. The runout zone<sup>5</sup> for the West path is near elevation 3450 at Picayne Creek and the East path design-magnitude avalanche will stop in forested terrain near elevation 3540 meters.

# 8. Vegetative Indicators

The high elevation spruce-fir forest at the site provides vegetative indicators for historic and undocumented avalanches, including lateral and vertical extents. Figure 8 shows the non-ground LiDAR reflections that indicate tree canopy height and density. Tree diameters and ages are variable the tree density is not sufficient to prevent avalanche release in steep areas. Photos of trees and vegetation are presented in Appendix C.

<sup>&</sup>lt;sup>4</sup> The *Track* of an avalanche is the area where maximum velocity and mass are attained.

<sup>&</sup>lt;sup>5</sup> The *Runout Zone* of an avalanche is the area where deceleration occurs and the avalanche stops.

![](_page_38_Figure_0.jpeg)

![](_page_38_Figure_1.jpeg)

# 9. Avalanche Dynamics Modeling

We used the Swiss avalanche dynamics program RAMMS Release 1.7.20 to evaluate flow directions, thickness and velocities for the design-magnitude avalanche. Figure 10 shows representative model results for the maximum flow heights for the designmagnitude avalanche, Figure 10 shows predicted maximum velocities. The model calibration was based on our experience with other avalanches in Colorado, including well-documented historic avalanches and regional runout statistics. Model assumptions and parameters for the design magnitude avalanche are presented in Appendix A.

![](_page_39_Figure_0.jpeg)

Figure 9 – RAMMS Run 10 Predicted Maximum Flow Heights

![](_page_39_Figure_2.jpeg)

Figure 10 – RAMMS Run 10 Predicted Maximum Velocities

# 10. Findings

Based on the observations, analyses and methods described in this report, we developed the Avalanche Hazard Zone Map shown in Figure 11. The Moderate Hazard Zone (or Blue Zone) represents an area of low frequency avalanches and low to moderate impact pressures. The High Hazard (or Red Zone) is also shown in Figure 11. This represents an area that includes frequent avalanches (less than 30-year average return periods) and areas where the design-magnitude avalanche impact pressures

exceed 30 kPa (600 pounds per square foot (psf)) on a flat surface normal to the flow direction. Powder avalanche pressures are expected to be non-destructive at the site.

The deep snow depths at the site will result in potentially large static snow loads caused by creep and glide of the snowpack on or immediately beneath slopes of about 15degrees or steeper. These loads are site and structure-specific and cannot be determined until the locations, terrain, ground roughness, and structure geometry and orientations are known.

# 11. Recommendations

Based on the methods and findings described above, we offer the following recommendations:

- 1. Avoidance of avalanche hazards is the most reliable form of mitigation. If practical, we recommend placing structures outside of the Blue and Red Avalanche Hazard Zones.
- 2. If structures are placed in the Blue Zone, we recommend placing them as far from the Red Zone as practical and designing the structures to withstand impact. This form of mitigation is known as "direct protection." Avalanche impact loads cannot be determined until the location, geometry and orientation of the structure are known. It is possible to achieve a high level of avalanche protection for building occupants, but persons outside will not be protected.
- 3. No permanent structures should be placed in High Avalanche Hazard (Red) Zones.
- 4. Prior to selecting a building site, a professional land surveyor should determine the claim boundaries in relation to terrain shown in this report. The approximate claim corners shown in this report should not be relied upon. All avalanche zones are based on LiDAR derived terrain.
- 5. County and private roads to access the site cross several large avalanche paths. This study does not assess hazards or risks of any of the off-site avalanche paths.
- 6. It is prudent for occupants and guests of residential buildings in and near avalanche hazard zones to become educated and keep current on local avalanche conditions, including the local and regional avalanche danger forecasts. However, reliance upon forecasts and avoiding avalanche terrain during elevated avalanche danger conditions can reduce, but not eliminate avalanche risk, especially to persons outside of buildings.

# 12. References

- 1. "Avalanche Hazard Map, San Juan County", prepared by Rebecca Summer and Margaret Squier, INSTAAR (Institute of Arctic and Alpine Research), Boulder, Colorado, for San Juan County in 1976
- "Natural Hazards of San Juan County, Colorado", prepared by Michael J. Bovis, Institute of Arctic and Alpine Research, Boulder, Colorado, for San Juan County in 1976
- 3. "Avalanche Atlas, San Juan County, Colorado", prepared by Len Miller, Betsy R. Armstrong and Richard L. Armstrong, Institute of Arctic and Alpine Research, for San Juan County in 1976, published as Occasional Paper No. 17 by INSTAAR
- "Century of Struggle Against Snow: A History of Avalanche Hazard in San Juan County, Colorado", prepared by Betsy R. Armstrong, Institute of Arctic and Alpine Research, for San Juan County in 1976, published as Occasional Paper No. 18 by INSTAAR "Overall Hazard Map", prepared by INSTAAR for San Juan County in 1976.

![](_page_42_Figure_0.jpeg)

#### LEGEND

- High (Red) hazard zone area where avalanches can be destructive <u>and/or</u> frequent; these are areas where avalanches have average return periods of 30 years of less and/or can produce impact pressures of 600 pounds per square ft (psf) or more on flat surfaces normal to the flow.
- 2. Moderate (Blue) hazard zone area where avalanches are not as frequent and are less destructive than in the high-hazard zone; these are areas where avalanches have average return periods of 30 to 100 years <u>and</u> produce impact pressures of less than 600 pounds per square ft (psf).
- 3. White zone areas outside the avalanche hazards zones defined above.

#### NOTES

- Avalanche Hazard Zones are subject to limitations described in the accompanying report.
   The avalanche hazard zones are based on LiDAR topography projected onto
- The avalanche hazard zones are based on LiDAR topography projected ont UTM Zone 8N.
- The parcel boundaries are based on San Juan County GIS maps and are approximate. The UTM coordinates of the corners shown on this map are:
  - NW 274093, 4199023 NE - 274492, 4198836
  - SE 274454, 4198754
  - SW 274051, 4198944
- Prior to selecting a building site, the parcel boundaries should be surveyed and compared with this avalanche zone map to confirm the avalanche zone of the building site.

![](_page_42_Figure_13.jpeg)

Figure 11 - Avalanche Hazard Map

Wilbur Engineering, Inc. June 13, 2022 Sandusky Lode, USMS 1345A, San Juan County, Colo.

# Appendix A RAMMS Parameters & Results

# \*\*\* Important Note: \*\*\*

Interpretation of avalanche dynamics model results requires an understanding of the model assumptions, simplifications and limitations of the underlying equations of motion. The models do not accurately show wet avalanche runouts, flow heights or impact pressures, nor the variations in avalanche properties with depth, including density and velocity.

		Release			cohesion	Commonts	
run	res.	name	ht. (m)	vol. (m3)	Friction	(Pa)	Comments
run1	3.0	R1	1.3	17,600	S100	0	N-face rel
run2	3.0	R2	1.3	11,900	S100	0	sli E rel
run3	3.0	R3	1.3	21,000	S100	0	3 rel
run4	3.0	R4	1.3	36,700	S100	0	S-face rel
run5	3.0	R3	1.6	26,700	S100	100	big run3-w c
run6	3.0	R5	1.3	27,300	M100	0	wider single R
run7	3.0	R5+	2.0	65,000	L100	0	add SW wind load; decr f
run8	3.0	R6	1.6-2.0	76,000	L100	0	refine SZs
run9	3.0	R6	1.6-2.0	76,000	M100	100	incr f, C
run10	3.0	R6	1.6	61,900	M100	0	decr rel, no C

![](_page_43_Picture_4.jpeg)

Release R6

![](_page_44_Figure_0.jpeg)

Run 3 - Maximum Velocities

![](_page_44_Figure_2.jpeg)

Run 7 – Maximum Pressure

![](_page_45_Figure_0.jpeg)

Run 8 – Maximum Flow Height

![](_page_45_Figure_2.jpeg)

Run 8 – Maximum Velocity

# Appendix B

# Weather and Climate

![](_page_46_Figure_2.jpeg)

# **Regional Map with Weather Stations**

# SILVERTON, COLORADO (057656)

#### Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1906 to 12/31/2005

	Jan	Feb	Mar	Apr	May	Jun	Jı	11	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	34.0	36.6	40.6	47.3	57.6	i (	57.9	73.1	70.5	64.7	55.1	43.2	35.1	52.2
Average Min. Temperature (F)	-1.9	1.0	8.1	18.5	5 26.4	- 1	31.9	37.9	37.2	30.3	22.0	9.5	0.2	18.4
Average Total Precipitation (in.)	1.68	1.75	2.30	1.72	2 1.46		1.39	2.72	3.10	2.81	2.34	1.49	1.73	24.50
Average Total SnowFall (in.)	25.8	25.3	28.4	17.3	3 4.3		0.3	0.0	0.0	0.9	8.5	20.0	24.0	154.8
Average Snow Depth (in.)	21	27	26	11	ι Ο	)	0	0	0	0	) 1	4	12	9
Percent of possible observations	Percent of possible observations for period of record.													
Max. Temp.: 94.1% Min. Temp.: Check <u>Station Metadata</u> or <u>Metad</u>	93.9% P lata grapi	recipitation hics for n	ercent of possible observations for period of record. Tax. Temp.: 94,1% Min. Temp.: 93.9% Precipitation: 95% Snowfall: 95.2% Snow Depth: 85.8% heck <u>Station Metadata</u> or <u>Metadata graphics</u> for more detail about data completeness.											

Western Regional Climate Center, <u>wrcc@dri.edu</u>

![](_page_47_Figure_0.jpeg)

Silverton Coop Snow Height and 24-hour Snowfall Data

![](_page_47_Figure_2.jpeg)

Putney Air Temperatures (data courtesy of the Center for Snow and Avalanche Studies)

![](_page_48_Figure_0.jpeg)

Putney Wind Rose (data courtesy of the Center for Snow and Avalanche Studies)

![](_page_48_Figure_2.jpeg)

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

Wilbur Engineering, Inc. June 13, 2022

![](_page_49_Figure_0.jpeg)

Molas SNOTEL Snow Water Equivalent (El. 3200 meters)

Appendix C – Site Photos

![](_page_50_Picture_1.jpeg)

![](_page_51_Picture_0.jpeg)

1400 - looking up at west starting zone

![](_page_51_Picture_2.jpeg)

1400 – looking down

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

![](_page_52_Picture_0.jpeg)

1413

![](_page_52_Picture_2.jpeg)

Below 1413

Avalanche Hazard Assessment Sandusky Lode, USMS 1345A San Juan County, Colorado

![](_page_53_Picture_0.jpeg)

Gate damaged by snow creep Survey pin in post foundation

#### SAN JUAN COUNTY, COLORADO

#### DRIVEWAY AND ROAD ACCESS PERMIT

Improvement Permit No.

Applicant: Aaron & Kate Careaga

Animas Forks Land Holding Company LLC

57621 Ida Rd

Montrose, CO 81403

Location of Proposed Driveway or Access on County Road No. 99 :

County Road 99 (Picayune Gulch) runs through the property. The proposed driveway will start

on the north side of County Road 99 and run northwest towards the proposed cabin.

The driveway is approximately 13 miles from Silverton.

Description of Proposed Driveway or Access, including materials to be used: <u>The proposed driveway will be approximately 10 feet wide and will consist of native gravel soil</u> <u>and be constructed with as minimal cut and fill as possible. The driveway will have a culvert</u> <u>and/or other drainage improvements deemed neccessary.</u>

Comment and Recommendations of County Road Supervisor:

Terms and Conditions of Issuance of Permit (or reason for denial):

Permit Approved \_\_\_\_\_ or Denied \_\_\_\_\_. Date: \_\_\_\_\_ Land Use Administrator:

# BOARD OF COUNTY COMMISSIONERS San Juan County

P.O. Box 466

Silverton, Colorado 81433

970-387-5671

#### RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. \_\_\_\_\_, San Juan County, Colorado, do hereby acknowledge the following facts:

- The real property' which is the subject of said application is on this date located approximately <u>1.8 miles</u> from County Road No. <u>2</u>, the nearest designated and publicly maintained county road.
- 2. Said County Road No. 2 is on this date maintained on an year-round basis by San Juan County.
- 3. The real property which is the subject of said application is on this date located approximately <u>13 miles</u> from Colorado State Highway No. 550 , the nearest designated state or federal highway.
- 4. Said Colorado State Highway No. <u>550</u> is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.
- 5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed	and	dated	this	16th	day of	November	,	2022	•
				day		month		year	
						Ger,			
ATTEST:						Applic	ant		

Position:

# BOARD OF COUNTY COMMISSIONERS San Juan County

P.O. Box 466

Silverton, Colorado 81433

970-387-5671

#### RELATIONSHIP OF PROPERTY TO COUNTY ROAD AND STATE HIGHWAY SYSTEMS

I, the undersigned, applicant engaged in the processing of Application for Improvement Permit No. \_\_\_\_\_, San Juan County, Colorado, do hereby acknowledge the following facts:

- The real property' which is the subject of said application is on this date located approximately <u>0 feet</u> from County Road No. <u>99</u>, the nearest designated and publicly maintained county road.
- 2. Said County Road No. 99 is on this date maintained on an seasonal basis by San Juan County.
- 3. The real property which is the subject of said application is on this date located approximately 13 miles from Colorado State Highway No. 550 , the nearest designated state or federal highway.
- 4. Said Colorado State Highway No. <u>550</u> is on this date maintained on a year-round basis by either San Juan County or the Colorado Division of Highways.
- 5. A Driveway Permit will be necessary for any private access or egress relating to said real property which intersects any designated Colorado State Highway or Federal Highway.

Signed and dated this  $16th_{day}$  day of November ,  $2022_{year}$ .

Applicant

ATTEST:

Position:

# Scenic Quality Report

# 1. INTRODUCTION AND SITE LOCATION

San Juan County regulations state the following:

All residential development shall be required to submit a Scenic Quality Report at the time of sketch plan submittal.

The following is a Scenic Quality Report for the proposed Careaga Cabin, located on Sandusky Lode, MS #1345A, near Picayune Gulch, San Juan County, Colorado.

This property is accessed off County Road 99 via County Road 9 via County Road 2, none of which are maintained year-round near the property (County Road 2 is plowed to Eureka year-round). The applicant will be limited to seasonal vehicular access and OHV access during winter months.

A Vicinity Map showing the general project location is included in this application for reference.

# 2. PROJECT SITE AND PROPOSED CABIN LOCATION

County regulations require that this Scenic Quality Report adhere to the following:

The designated view sheds shall include natural and historic features as seen from and toward the site. Provide written descriptions of these view sheds and how they will be preserved. Existing site photos and graphic depictions of the proposed development shall be submitted so that staff, the Planning Commission and the Board of County Commissioners can assess the visual impacts of the project on the view shed and the effectiveness of proposed mitigation measures.

The property consists of 10.33 acres of dispersed evergreens with several large clearings and grassy meadows. The entire lot slopes down continuously towards Picayune Gulch from south to north. The property is located off County Road 99, which runs through the southeast corner of the property.

The proposed building envelope is not visible from County Road 2 since it is approximately 1.8 miles away from the road junction, and due to the mountainous terrain and elevation change between road and site. At the junction of County Road 2 and County Road 9 (Picayune Gulch) near the Animas River, the elevation is approximately 10,800 feet, around 910 feet lower than the project site at 11,710 feet.

While traveling on County Road 9 or 99 from County Road 2 towards the property, visibility of the proposed cabin site will be largely obstructed by the evergreens in the direct vicinity of the cabin site.

The proposed cabin siting is the best balance of privacy, safety from natural hazards, accessibility, and buildability available on the property. The applicants chose the siting for the cabin due to the generally moderate topography, natural clearing with fewer evergreens, and proximity to County Road 99, which cuts through the property.

The following photo shows the proposed cabin site, shown dashed (approximate).

![](_page_58_Picture_4.jpeg)

# 3. VISIBILITY OF THE CABIN FROM COUNTY ROAD 2

As mentioned in No. 2, the proposed cabin is not visible to someone traveling in either direction on County Road 2. Due to this, it was not possible to provide an image showing the visibility of the cabin from County Road 2. Below is a view of a person traveling south on County Road 2 at the Picayune Gulch (County Road 9) junction.

![](_page_59_Picture_3.jpeg)

# 4. VISIBILITY OF THE CABIN FROM COUNTY ROAD 9B (BURNS GULCH)

County Road 9B originates near Picayune Gulch on the opposite side of the Animas River. The surface of County Road 9B is a naturally graded dirt road used seasonally for recreation. Below is a photo taken by a person traveling on County Road 9B looking towards the cabin site. As you can see in the photo, due to a ridge east of the property, the cabin site is hidden by the ridge. The adjacent neighbor to the southeast is shown for location reference.

![](_page_59_Picture_6.jpeg)

# 5. VISIBILITY OF THE CABIN FROM COUNTY ROAD 9

County Road 9 (Picayune Gulch) originates from County Road 2 near Grouse Gulch, opposite the Animas River from County Road 9B, approximately 3 miles north of Eureka. The surface of County Road 9 is a naturally graded dirt road used seasonally for recreation. After traveling approximately <sup>3</sup>/<sub>4</sub> mile up County Road 9, the subject property will become visible to someone traveling in either direction, looking south towards the gulch. The image below is taken on County Road 9 near this location.

![](_page_60_Picture_3.jpeg)

# 6. VISIBILITY OF THE CABIN FROM COUNTY ROAD 99

County Road 99 originates and terminates at County Road 9. The surface of County Road 9 is a naturally graded dirt road used seasonally for recreation. The County Road 99/9 intersections are approximately 1/2 mile and 1 1/2 miles up County Road 9 from County Road 2. County Road 99 travels through the southeast corner of the subject property, with proposed driveway off the north side of the road. The proposed cabin will not be visible from the top of the driveway due to the shape of the driveway, change in elevation, and dense trees. The cabin will be visible to a driver traveling on County Road 99 as they pass directly south of the cabin due to a natural clearing in the evergreens. However, because of the dense evergreen on either side of the clearing, the steep grade, and 200-foot separation between the cabin and road, the cabin will only be briefly visible from the county road.

The image on the following page shows the proposed cabin superimposed onto the site to show approximate scale and visibility from County Road 99.

Careaga Cabin Sandusky Lode **Scenic Quality Report** 

![](_page_61_Picture_1.jpeg)

# 7. VIEWS FROM THE PROPOSED CABIN

In the County Scenic Quality Report regulations, it is requested that information about the view from the building envelope is provided. Photos are included below and on the following page that show views from the proposed cabin looking north, east, south, and west (approximately).

![](_page_62_Picture_3.jpeg)

VIEW NORTH

VIEW EAST

![](_page_63_Picture_1.jpeg)

(LOOKING TOWARDS CR 99)

VIEW WEST

# 8. LOCATION OF STRUCTURE MINIMIZES VISIBILITY FROM PUBLIC LANDS & EXISTING TRAILS

The County Scenic Quality regulations require the following information:

Evidence shall be provided to show that the location of the structure is designed to minimize the visual impacts and that it does not detract from the scenic quality of adjacent public lands, existing trails or historic resources.

The property is surrounded primarily by BLM land and the remainder by privately owned parcels on the north and west sides. The existing public lands and trails surrounding the property include the Picayune Gulch OHV route which includes both County Road 9 and 99. This route brings seasonal recreational visitors through the property on County Road 99.

# Relative to County Road 9:

The exterior building materials of the proposed cabin will be subdued to blend with the surrounding environment to minimize visibility for someone traveling on County Road 9 looking towards the site from across the gulch. The dense evergreens surrounding the cabin site will also help limit visibility of the cabin from this road.

Relative to County Road 99:

The proposed location of the cabin is in a clearing of trees on a moderately sloping bench, which was selected in part to minimize the amount of disturbance to the natural vegetation and cut and fill. The downside to this site location is the exposure and visibility of the cabin to people traveling on County Road 99 since there are less trees to create a natural screen. Because of this, the applicant selected the site as far away from the county road as practical, while still allowing safe and proper driveway access to the cabin. Due to the difference in elevation between the cabin and road, and large number of evergreens surrounding the building site on either side of the clearing, the cabin will only be visible briefly to someone traveling on County Road 99 in either direction.

If recommended by the County, the applicants will add natural screening in the form of vegetation to limit the visual impact from both county roads and to maintain the scenic quality of the area for the public.

# 9. BUILDING DESIGN AND THE NATURAL TOPOGRAPHY AND VEGETATION

County regulations require that the Scenic Quality Report includes information regarding the following:

Evidence to demonstrate that the site improvements are designed and/or oriented in ways that allow them to blend in with and utilize the natural topography and vegetation. The report shall include, but not be limited to, site photos, perspective sketches, photo-simulations and/or three-dimensional models at an appropriate scale.

The proposed cabin is sited within an existing clearing on one of the most buildable and level portions of the lot. The floor elevation of the cabin will be approximately 90 feet lower than the road, with the driveway following the existing slope towards the site to limit the cut and fill.

The proposed cabin design is shown on the applicant's draft floor plans and elevations included with this application.

# 10. TOPSOIL, UTILITIES, LIGHTING AND DRIVEWAYS

This section describes design features associated with topsoil, location of utilities, exterior lighting, and any proposed driveways.

a) Topsoil

County regulations require that the project should include the following:

Plans to remove and save topsoil, prior to any grading or excavation, and how it will be replaced and reused for re-grading and re-vegetation purposes.

The topsoil removed at the cabin site during excavation will be reused as backfill and building pad for the cabin or used in the grading of the new driveway. Any additional removed topsoil will be used for vegetation and landscaping as desired by the applicant and/or required by the County.

b) Utilities

County regulations require that the project should include the following:

Location and installation of utilities in ways that will minimize impacts to the view shed and natural environment.

The project includes a proposed underground septic system and leach field, surface water holding pond with piping to an underground holding tank, solar panels with battery storage, and a propane powered backup generator.

<u>Septic:</u> The septic system location was selected based on site accessibility and proximity to the chosen cabin site. Once the driveway permit is approved, the applicant can proceed with constructing the driveway to permit access to the site to do soils testing for the septic design. Once the existing soils and site conditions are known, the septic system location can be confirmed by the engineer. The septic system will maintain a 100-ft minimum clear radius from existing and proposed water source.

<u>Water:</u> Surface water from the Picayune Gulch will provide water to the cabin. The applicant has obtained conditional approval for an increment in surface water right under the Animas Service Area to use the Picayune Gulch surface water as their primary source of water. The applicant has constructed a water holding pond located west of the cabin, which is minimally visible for anyone traveling in the surrounding area. Water will be piped from the holding pond to an underground holding tank near the cabin. As a backup plan, the applicant can alternatively install an underground water storage tank and haul water to the property.

<u>Power/heating</u>: The primary heat source is proposed to be a wood burning stove, with portable individual electric heating units as supplemental heat. Electric appliances and heating units will be powered by solar power or with the backup generator, depending on circumstances. The solar panels will be located on the cabin roof oriented to receive the most sunlight possible. All the utilities will be installed with the least amount of disturbance possible to the natural environment.

c) Exterior Lighting

County regulations require that the project should include the following:

Exterior lighting shall preserve the Dark Sky environment and view of the stars. Provisions requiring shielding of exterior lighting to prevent direct visibility of light bulbs from off-site, directing of all exterior lighting toward either the ground or the surface of a building and prohibiting high intensity sodium vapor or similar lighting.

The proposed exterior lighting for the project will be incorporated in all locations necessary to safely access the cabin and uncovered deck. All exterior lighting will be fully shielded, will be compatible with the rural mountain character of the area, and will be in conformance with the requirements of San Juan County Dark Sky requirements.

d) Driveways

County regulations require that the project should include the following:

Design and construction plans for roads and associated structures that bear a logical relationship to existing topography to minimize the need for cuts and fills.

There is currently one proposed driveway for this project, which will be located off the north side of County Road 99. The starting elevation is approximately 11,790 and descends 80 feet to the cabin elevation of 11,710. The driveway will maintain a similar slope to the adjacent undisturbed land, minimizing cut and fill and controlling erosion. A low retaining wall may be constructed as necessary along the south edge of the parking area near the cabin.

# **11. BUILDING MATERIALS**

County regulations require that the Scenic Quality Report includes information regarding the following:

Provide written descriptions and photos of the proposed building materials, colors and textures. Utilizing and integrating elements, colors and textures found naturally in the landscape and prohibition of reflective materials, such as highly reflective glass or metals.

The proposed cabin will include the following materials:

- Native rock found at the site for lower siding
- Rustic/weathered metal and or/wood for upper siding

- Dark colored rustic/weathered metal roof with matching trim
- Dark colored window sashes/frames to match metal and/or wood siding
- Minimal metal posts and railing at deck
- Low-reflective glass on more expansive glazing

The following photos are examples of the proposed cabin style and building materials selected by the applicant:

![](_page_67_Picture_6.jpeg)

![](_page_67_Picture_7.jpeg)

![](_page_67_Picture_8.jpeg)

![](_page_68_Picture_1.jpeg)

# **12. CONCLUSION**

This project aims to conform to the County Scenic Quality Regulations as shown in this report and is believed to do so as summarized below:

- The applicant has chosen a building site that will have less impact to the natural landscape and overall visibility while still having a buildable site and maintaining reasonable access from County Road 99.
- The cabin is one-story which helps to minimize the overall and perceived height.
- All proposed utilities will be installed to minimize visual obstructions.
- The material palette allows the structure to blend and not compete with its natural surroundings.

Thank you for your review and consideration of the proposed Careaga Cabin located on the Sandusky Lode near the Picayune Gulch. If you have any questions or need additional information, please contact Chris Clemmons or Ashley Clemmons of Mountain Grain, LLC at (970) 515-7882.