



**Staff Report**

**McReynolds Special Use Permit for Mineral Extraction, SUP-24-001**

Hearing Date: August 12, 2024

Development Services Department

**Applicant:**

Martin and Shellee McReynolds

**Property Owner:**

Same

**Representative:**

Same

**Planner:**

Jennifer Kharrl

**Parcel Number:**

RP06N01W064913

**Parcel Address:**

809 Sunset Drive

**Lot Size/Project Area:**

45.3 (5.6 acres for extraction area)

**Impact Area:**

N/A

**Current Zone:**

"A-2" (Rural Transitional Agriculture)

**Comprehensive Plan:**

2023 Comprehensive Plan  
Future Land Use: County Residential

**Current Uses:**

Bare Land

**Applicable Zoning Land Use**

**Regulations:** GCC 11-6-5

**Notification:**

- 7/18/24-Agency
- 7/18/24-Mailing
- 7/24/24-Publication
- 7/19/24-Posting

**Exhibits:**

- 1. SUP Application

**Brief Summary of Request**

Shellee and Marty McReynolds are requesting approval of a Special Use Permit (SUP) to allow mineral extraction on their property for the purpose of building a road and a building a pad for their home. The use is proposed at 809 Sunset Drive on property that is zoned A-2, Rural Transitional Agriculture. "Mining and extraction activities" is listed as a "Special Use Permit" in Gem County Code (GCC) 11-5-5, Zoning Matrix. The property lies within the "County Residential" land designation of the Future Land Use Map.

A large portion of the subject property lies with the floodway which prohibits any type of development including extraction. The remaining portion of the property lies within the 100-year floodplain which requires that a no-rise certificate be submitted in order to show that this proposed extraction operation won't have an effect on the floodplain. In addition to the floodway restriction, there is only a small portion of the property that falls within an area that allows for a Mineral Extraction permit due to the 1,000' setback from the cemetery to the north and the Gem Island Sports Complex to the south.



**Description of Character of Surrounding Area**

The immediate vicinity includes a combination of rural residential, agricultural uses and commercial/industrial uses and the Payette River to the South.

	COMP PLAN	ZONING	LAND USE
North	County Residential	A-2	Rural Residential; commercial and industrial businesses
South	County Residential	A-3	Payette River; Gem County Sports Complex
East	County Residential	MX	Storage units; commercial businesses
West	County Residential	A-2	Rural Residential; irrigated agricultural land

**COMPREHENSIVE PLAN POLICIES & GOALS** [Staff comments and analysis are shown in *italics*.]

The Comprehensive Plan defines the "County Residential" category as follows:

"This category describes residential development outside of Emmett's AOCL. These areas should be closer to service connections, existing infrastructure, and supported by the Transportation Plan. The uses in the County Residential category may include large-lot residential and clustered residential. Agriculture, open space, public/quasi public, and educational uses may be appropriate as well. The minimum lot size is 2 acres"

*This property is located in an A-2 zone and within the County Residential designation of the Future Land Use Map.*

*The following policies have been set forth in the Land Use section of the Comprehensive Plan and generally support the application:*

**Land Use Goal 1.F.** Discourage non-compatible commercial and industrial development within or adjacent to County Residential land use areas. (See the Future Land Use Map). *This area includes several commercial and industrial businesses.*

**ZONING ORDINANCE** [Staff comments and analysis are shown in *italics*.]

- A. Schedule of Zoning Regulations: Gem County Code 11-5-5, Zoning Matrix, permits Mining and Extraction Activities with a Special Use Permit in the A-2 zone.
- B. Purpose Statement of Zone: Gem County Code 11-4-2.A. lists the purpose of the A-2, Rural Transitional Agricultural, zone as follows: "Lands lying within those unincorporated portions of Gem County that are likely to undergo a more intensive urban development. The regulations governing this zone are designed to protect agricultural pursuits and provide guidelines for conversion to suburban development."

*The Commission must find that the proposed use is consistent with the purpose of the zone. Mining and Extraction Activities are listed as a permitted use with a Special Use Permit.*

Other: The following section of the Zoning Ordinance directly and addresses the application:

- **11-1-3. Purpose:**
  - A. Provide protection of property rights by conserving existing uses and controlling future development.
  - B. Provide protection from the menace to the public safety that would result from placement of buildings or other structures in such locations, or in such a manner as to interfere with present or future traffic movement, and to promote beauty along the highways and elsewhere.
  - C. Ensure that adequate public facilities and services are provided to the people at a reasonable cost.
  - D. Ensure that the economy of the County and localities is protected and enhanced.
  - E. Encourage the protection of prime agriculture lands for the production of food, and to foster agriculture and industry together with uses related thereto.
  - F. Ensure that the important environmental features of the County and localities are protected and enhanced.
  - G. Encourage urban and urban type development within incorporated cities.
  - H. Avoid undue concentration of population and overcrowding of the land.
  - I. Ensure the development of land is commensurate with the physical characteristics of the land.
  - J. Protect life and property in areas subject to natural hazards and disasters.
  - K. Protect fish, wildlife and recreation resources.



- L. Avoid undue water and air pollution.
- M. Promote the health, morals, convenience, order, prosperity, and general welfare of the inhabitants of the County.
- N. Secure safety from fire, flood, traffic hazards and other dangers.
- O. Ensure public health is protected from diseases resulting from unsanitary, overcrowded conditions.
- P. Protect the tax base.

- **11-6-5.O. Gravel Extraction, Rock Quarries, Sand and Clay Extraction and other Natural Resources of Commercial Value:**

*This section outlines all of the standards for operating said uses and these are as proposed conditions of approval including the areas that a class 2 permit is allowed or prohibited to apply for a SUP. In this case, there is only a small portion of the property that falls within an area that can apply due to the 1,000' setback from the cemetery to the north and the Gem Island Sports Complex to the south.*

**REQUIRED FINDINGS & STAFF ANALYSIS** [Staff comments and analysis are shown in *italics*.]

***\*The following are staff analysis of the findings, refer to the application packet for applicants' statements regarding the findings and public testimony to assist in your decision.***

- A. The use must not create significant negative impact on public health, safety and welfare in the immediate vicinity;

*Staff finds that the proposed mineral extraction business, if operated according to the proposed conditions of approval and operated in accordance with county regulations, it should not create a significant negative impact on health, safety and welfare in the immediate vicinity. The Commission should review this finding in relationship to the proposed conditions and other evidence presented at the hearing.*

- B. The use must not create unsafe conditions to or an excessive burden on existing parks, schools, roads and other public facilities and utilities that serve or are proposed to serve the area;

*Staff finds that the proposed use could be adequately served by the Gem County Sheriff's Department, Gem Rural Fire District #1 and Gem County Road and Bridge Department if applicant complies with the conditions of the Road Mitigation Agreement and the letter submitted. There will be no school impact with this project. The Commission should refer to any comments submitted from impact agencies.*

- C. The use must be sufficiently compatible or separated by distance or screening from adjacent lands so that existing uses will not be hindered in the enjoyment of their property and there will be no deterrence to the legal development of vacant land;

*The Mineral Extraction Map outlines the areas that a Class 2 permit is allowed with a SUP. In this case, the extraction area is prohibited with 1,000 feet of a park (Gem Island Sports Complex) and the cemetery which makes the extraction area very limited. The nearest existing land use (other than native habitat) is a dog grooming/boarding business located approximately 400 feet northeast of the proposed extraction site. The Commission must assess if approval of a new mineral extraction site would deter development on the private parcels adjacent to the proposed operation and if there are any mitigating factors that can be added as conditions of approval.*

- D. The structure and site must have an appearance that will not unreasonably create an adverse effect upon adjacent properties;



*No permanent structures are proposed to be built with this application. The operation will involve temporary extraction activities. The proposed excavation areas will be visible from the adjacent private parcels. "Adverse effect" is typically determined through public testimony. The Commission should review this finding in relationship to the proposed conditions and other evidence presented at the hearing to determine if the finding can be met or if there are conditions that can be placed to help mitigate the site as to not create an adverse effect from the proposed operation.*

- E. The use must be consistent with the purposes of the zoning ordinance and the purposes of the zoning district in which the applicant intends to locate the proposed use;

*The purpose of the A-2 zone is listed in Section 6 above. Mineral extraction has generally been found to be compatible with this zone, when subject to conditions of approval. There are 16 purposes of the Zoning Ordinance listed in GCC 11-1-3 (see section 6 above). Some of these may be interpreted as supporting the application while others may be interpreted as not supporting the application. The Commission must weigh these purpose statements against the evidence presented in the record to determine if this finding can be met.*

- F. The use must be in conformance with the Comprehensive Plan;

*The Comprehensive Plan analysis is provided above. Staff finds that, if operated according to the conditions below, the proposed use could be in accordance with the objectives and policies of the "County Residential" designation on the Future Land Use Map of the Comprehensive Plan due to the commercial and industrial nature of the area.*

- G. The use must not cause a traffic hazard or congestion;

*Staff has received comments back from the Gem County Road and Bridge Department stating that they will require a road mitigation agreement along with a couple other conditions for the driveway and comments back from ITD regarding Washington Avenue. The concerns can be addressed with conditions. The Commission should review this finding in relationship to the proposed conditions and other evidence presented at the hearing.*

- H. Existing land uses nearby must not be adversely affected unreasonably by intrusion of noise, glare, dust, vibration or general unsightliness;

*Staff finds that the mineral extraction operation may create an adverse impact on nearby residences. The noise, dust and vibration from the operation has the potential of adversely affecting the existing land uses nearby. The Commission should review this finding in relationship to the proposed conditions and other evidence presented at the hearing to determine if the finding can be met or if there are conditions that can be placed to help mitigate the impacts.*

- I. The use must not cause significant adverse impact to surface or ground water resources.

*Based on the information presented to date, staff finds that the proposed extraction operation shouldn't have an adverse impact to surface or ground water resources based on the engineer's statements in the application. The Commission should review this finding in relationship to the proposed conditions and other evidence presented at the hearing.*

### Comments

#### **Public Comments**

Public hearing notices were mailed to four hundred and fifty-seven (457) parcels within ½ mile of the subject property. At the time of this report staff received nineteen (19) letters of concern regarding the proposed Special Use Permit.



## **County Agency Comments**

Staff informed applicable agencies of the proposed development and the responses are attached as conditions of approval.

## **Decision Options**

- The Commission may **approve** the SUP; or
- The Commission may **approve with modified conditions of approval**; or
- The Commission may **deny** the SUP.

## **Staff Recommendation**

The Commission must consider the evidence and testimony presented during the public hearing prior to rendering its decision concerning this application. **Staff has raised questions concerning findings “A”, “C”, “D”, “E”, “G”, “H” and “I” that the Commission should address at the public hearing.** Any minor outstanding concerns can be included in the County’s permit as conditions. If the Commission proceeds with approval, we recommend the conditions in Exhibit A be placed on the permit.

## **STAFF REPORT EXHIBIT**

Exhibit A – Proposed Site-Specific Conditions of Approval

## EXHIBIT A

### PRELIMINARY SITE-SPECIFIC CONDITIONS OF APPROVAL MCREYNOLDS FILE #SUP-24-001

1. The Special Use Permit is non-transferable to another property and is only valid at 809 Sunset Drive. It may be transferred to a new owner upon application to the Development Services Department.
2. Hours of operation for mineral extraction, crushing and product hauling shall be limited to the hours of 8:00 AM to 6:00 PM, Monday through Friday.
3. The permit is approved as a Class 2 Permit and applies to operations that will be active for more than 2 years and not greater than 10 years. This does not preclude the ability to apply for a time extension. **The Commission should discuss limiting the duration based on the letter of intent and consider a time limit of 2-3 years.**
4. The permit is subject to an on-site review at the discretion of the Development Services Department to ensure compliance.
5. No business signs were proposed and none are approved with this permit.
6. No extraction or earth movement is allowed within the minimum setback areas, which includes 8 feet from the north and west property lines and 60 feet from the centerline of Sunset Drive in addition to the 1,000-foot setback from the cemetery and island complex. The tops and toes of cut and fill slopes shall remain fully outside the setback areas.
7. Crushing and blasting are not approved with this permit.
8. A 6-barb wire safety fencing, at a minimum of six (6) feet in height, shall be erected around any active extraction areas.
9. The applicant shall comply with the following letters from impact agencies:
  - a. Gem County Road and Bridge Department (Neal Capps), 8/1/24
  - b. Emmett Irrigation District (Carl Hayes), 8/1/24
  - c. Idaho Transportation Department (Niki Benyakhlef), 8/5/24
  - d. Idaho Department of Environmental Quality (Kerry Neil), 7/18/24
10. The applicant shall submit a letter of approval for the access road and driveway from Fire District #1.
11. Prior to the start of any gravel extraction, the applicant shall provide the Development Services Department with a copy of the Reclamation Plan approved by the Idaho Department of Lands.
12. The applicant shall comply with all Idaho Department of Lands, Idaho Department of Environmental Quality, Idaho Department of Water Resources, Idaho Transportation Department, Occupational Safety & Health Administration, Mining Safety & Health Administration, Environmental Protection Agency and any other applicable state or federal regulations.
13. The applicant shall comply with all requirements of the publication, "Best Management Practices for Mining in Idaho," published by the Idaho Department of Lands.
14. All costs incurred to comply with the conditions of approval shall be borne by the owner/operator.
15. The applicant shall comply with the following requirements of Gem County Code 11-6-5.N regarding



grading, earth moving and gravel pit operations. The excavation work shall:

- e. Result in the smallest amount of bare ground exposed for the shortest time feasible;
- f. Use diversions, silting basins, terraces and other methods to trap sediment;
- g. Construct and stabilize sides and bottom of cuts and fills to prevent erosion or soil failure;
- h. Restore topsoil or loam to a depth of not less than four inches.

16. The Commission shall review the status of this permit at the two (2) year anniversary of issuance of the permit. Said review shall be held in a public meeting but not require a public hearing. **To be discussed at the hearing, typically this is a five-year review but because of the potential limited time frame of this permit it should be considered.** If the Commission decides that full compliance with the terms of the permit is not met, the Commission shall give the owner/operator an appropriate time period in which to bring the site into compliance. If, at the end of said period, there is still no compliance, the Commission may begin permit revocation proceedings.

17. Water shall be used during the conveying, screening and stock piling of material to control fugitive dust.

Time Extension Code Section: 11-6-O.11.c

Permit Duration & Time Extensions:

- i. The County shall have the authority to establish operation durations on each permit based upon site specific and neighborhood specific factors. Relevant factors include, but are not limited to, proximity to residential, education or commercial uses, the zoning district, length of operating season, and similar factors. However, in no case shall a Class 2 permit be less than two years or a Class 3 permit be less than three (3) years. Neither a Class 2 nor Class 3 permit shall be greater than ten (10) years. This does not preclude the ability to apply for a time extension.
- ii. All Class 2 and Class 3 permits are eligible to apply for a time extension to the permit. Time extensions require submittal of an application and a public hearing. Public notice for a time extension shall be done in accordance with the same noticing process used for the original Special Use Permit. The Commission shall base its decision upon the original record, relevant code enforcement records, public complaints of record, other regulatory agency records and testimony from the owner/operator, affected parties and staff.

**Gem County**  
Road & Bridge Dept.  
402 N. Hayes Ave.  
Emmett, ID 83617



**Neal Capps, Director**  
Phone: 208-365-3305  
Fax: 208-365-2530  
Email: [gcrb@co.gem.id.us](mailto:gcrb@co.gem.id.us)

August 1, 2024

Jennifer Kharrl  
Development Services  
109 S McKinley Ave.  
Emmett, ID 83617

RE: SUP (Mineral Extraction)

Dear Jennifer,

Gem County Road & Bridge (GCRB) has reviewed the two Special Use Permit applications of McReynolds & Dwyer, for a proposed mineral extraction operation, located on Sunset Drive. The proposed mineral extraction business is not a long-term operation, with no material crushing involved. This business will generate heavy truck traffic along with the established local traffic. GCRB is concerned with the damage this truck traffic may cause to Sunset Drive for the 850 feet from the ingress/egress to State Highway 52.

GCRB recommends the following conditions be added to both Special Use Permit if approved;

1. Applicant shall apply for an access approach permit with GCRB.
2. Applicant shall enter into a road mitigation agreement with GCRB, covering the following items;
  - A. Applicant shall place signage for Heavy Truck Traffic on Sweet-Ola Highway. There shall be a total of two (2) yellow and black signs, with the dimensions of 36" X 36". Signs shall be mounted on an approved breakaway post. See (Att: A)
  - B. Applicant and/or Mineral Extraction Company shall supply GCRB with monthly truck reports of trucks hauling out proposed minerals extracted. These numbers shall be supplied to GCRB by email [gcrb@co.gem.id.us](mailto:gcrb@co.gem.id.us) or hand delivered at the address of 402 N. Hayes Ave., Emmett, ID. These shall be delivered by 5:00 P.M. on the last working day of each month.
  - C. Applicant shall be responsible for any roadway repairs to Sunset Drive from ingress/egress to State Highway 52. Roadway conditions shall remain smooth of potholes and passable for vehicular traffic.
  - D. Upon determination of roadway repairs, and/or the health, welfare and safety of the traveling public, the director of GCRB shall notify the owner/operation in writing of necessary roadway repairs.
  - E. The County shall have the authority to cease operation of said business, if it has been determined the safety and welfare of the traveling public is in jeopardy due to poor roadway conditions.

If you have any questions, please contact me at the office phone number 208-365-3305.

Thank You,

A handwritten signature in blue ink, appearing to read "Neal Capps", is written over a light blue horizontal line.

Neal Capps, Director  
Gem County Road & Bridge Department





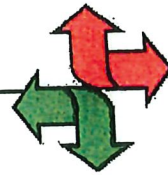
Image © 2021 Airbus

Imagery Date: 5/9/2023 43°53'06.60" N 116°30'02.04" W elev. 2370 ft

EMMETT



# Manual on Uniform Traffic Control Devices (MUTCD)



Knowledge

[Back to Chapter 6F](#)

## 2009 Edition Part 6 Figure 6F-1. Height and Lateral Location of Signs—Typical Installations

Figure 6F-1. Height and Lateral Location of Signs—Typical Installations

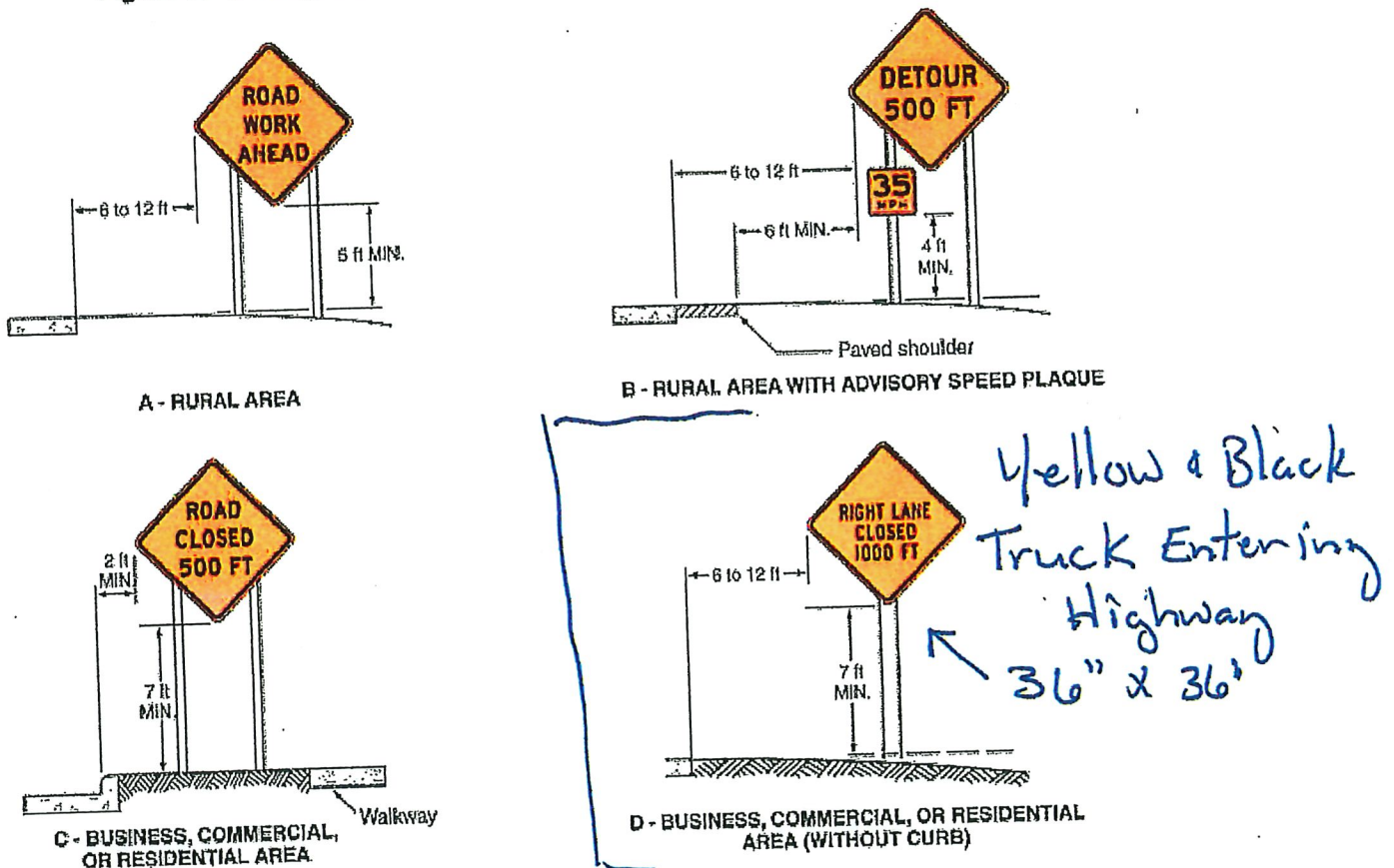


Figure 6F-1. Height and Lateral Location of Signs—Typical Installations

This figure shows four examples of the height and lateral location of signs for typical installations.

The first illustration is labeled "A - Rural Area." The roadway is shown with no shoulder. The sign in this example is a diamond-shaped Road Work Ahead sign. The distance between the edge of the pavement and the near edge of the sign is shown as a dimension of 6 to 12 ft. The distance from the bottom edge of the sign to the level of the edge of the pavement is shown as a dimension of 5 ft MIN.

The second illustration is labeled "B - Rural Area with Advisory Speed Plate." The roadway is shown with a paved shoulder. The sign in this example is a diamond-shaped Detour sign with an advisory speed plaque mounted below it. The distance between the outside edge of the roadway and the near edge of the sign is shown as a dimension of 6 to 12 ft. The distance between the outside edge of the paved shoulder and the near edge of the sign is shown as a dimension of 6 ft MIN. The distance from



**Jennifer Kharrl**

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**From:** emmettirrigationshop@gmail.com  
**Sent:** Thursday, August 1, 2024 12:23 PM  
**To:** Jennifer Kharrl; Olivia Mocnik  
**Subject:** Conditional Use Permit for 809 Sunset Drive and TBD Sunset Drive

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

All,

EID has no district facilities in the area, the only concern I would have is that they allow or make arrangements for wastewater that may pass through the sites to continue to the river.

Thank you,

Carl Hayes  
Manager  
EID



**Your Safety • Your Mobility  
Your Economic Opportunity**

**IDAHO TRANSPORTATION DEPARTMENT**  
P.O. Box 8028 • Boise, ID 83707-2028  
(208) 334-8300 • [itd.idaho.gov](http://itd.idaho.gov)

August 5, 2024

Stephanie Crays  
Development Services Coordinator, Gem County Planning & Zoning  
109 S McKinley St.  
Emmett, ID 83617

**VIA EMAIL**

<b>Development Application</b>	<b>Special Use Permit</b>
<b>Project Name</b>	<b>Gem County Mineral Extraction</b>
<b>Project Location</b>	809 Sunset Drive. Approximately .35 miles west of SH-52 MP 32
<b>Applicant</b>	Shellee McReynolds & Martin McReynolds

The Idaho Transportation Department (ITD) reviewed the referenced application(s) and has the following comments:

1. This project does not abut the state highway system.
2. Trip generation numbers were not provided with this application. Depending on the traffic generation data provided, a Traffic Impact Study (TIS) may be requested. If impacts are identified by the TIS, any necessary mitigation for traffic shall be the responsibility of the applicant to install.
3. ITD reserves the right to make further comments upon review of any submitted traffic generation data or other requested documents.

If you have questions regarding this application, you may contact Niki Benyakhlef at [Niki.Benyakhlef@itd.idaho.gov](mailto:Niki.Benyakhlef@itd.idaho.gov) or (208)334-8337.

Sincerely,

*Niki Benyakhlef*

Niki Benyakhlef  
Development Services Coordinator  
ITD District 3  
[Niki.Benyakhlef@itd.idaho.gov](mailto:Niki.Benyakhlef@itd.idaho.gov)



## Stephanie Crays

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**From:** Kerry Neil <Kerry.Neil@deq.idaho.gov>  
**Sent:** Thursday, July 18, 2024 4:02 PM  
**To:** Stephanie Crays  
**Cc:** James Craft  
**Subject:** RE: Transmittals on 2 mineral Extraction

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Stephanie,

Sand and Gravel Mining is an activity that requires permit coverage for discharges of industrial stormwater. The owners should pursue coverage under the Multisector General Permit for Industrial Stormwater if they will have stormwater leaving the site and going to surface water.

More information can be found on our website: <https://www.deq.idaho.gov/water-quality/wastewater/storm-water/>

### Kerry Neil | Wastewater Permits Bureau Chief

Idaho Department of Environmental Quality  
1410 N. Hilton St., Boise, Idaho 83706  
Office: (208) 373-0278  
[www.deq.idaho.gov](http://www.deq.idaho.gov)

**Our mission:** To protect human health and the quality of Idaho's air, land, and water.

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**From:** Stephanie Crays <scrays@co.gem.id.us>  
**Sent:** Thursday, July 18, 2024 3:53 PM  
**To:** Neal Capps <ncapps@co.gem.id.us>; Sandy Mitchell <samitchell@co.gem.id.us>; Kerry Neil <Kerry.Neil@deq.idaho.gov>; Dean G Johnson <DGJohnson@idl.idaho.gov>; Margheim, Kris <Kris.Margheim@idwr.idaho.gov>; thendrickson@blm.gov; Niki Benyakhlef <Niki.Benyakhlef@itd.idaho.gov>; Mike Welch <mwelch@gemfireems.org>; Kenny Huston <kenny.huston@oer.idaho.gov>; Brenna Garro <Brenna.Garro@oer.idaho.gov>  
**Subject:** Transmittals on 2 mineral Extraction

**CAUTION:** This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

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Please see attached.

Please respond to this even if you have no comment before 8-5-2024. Thanks so much.

Be Blessed

Stephanie Crays  
Development Services Coordinator  
109 South McKinley



# MASTER PUBLIC HEARING APPLICATION

GEM COUNTY DEVELOPMENT SERVICES

109 SOUTH MCKINLEY, EMMETT, IDAHO 83617 WWW.GEMCOUNTY.ORG PHONE: (208) 365-5144

### TYPE OF APPLICATION: (PLEASE CHECK ALL THAT APPLY.)

- APPEAL
- COMPREHENSIVE PLAN TEXT AMENDMENT
- COMPREHENSIVE PLAN MAP AMENDMENT
- DESIGN REVIEW
- DEVELOPMENT AGREEMENT
- PLANNED UNIT DEVELOPMENT
- PLANNED COMMUNITY
- REZONE
- SPECIAL USE PERMIT
- SPECIAL USE PERMIT (MINERAL EXTRACTION)
- SUBDIVISION, PRELIMINARY
- SUBDIVISION, MODIFICATION
- SUPPLEMENTAL AMENDMENT
- VACATION
- VARIANCE
- ZONING TEXT AMENDMENT

PROJECT NAME: MCREYNOLDS SUNSET MINERAL EXTRACTION

### SITE INFORMATION:

(This information can be found on the Assessor's property information assessment sheet.)

Quarter: S 1/2 Section: 6 Township: 6N Range: 1W Total Acres: 45.3

Subdivision Name (if applicable): \_\_\_\_\_

Lot: \_\_\_\_\_ Block: \_\_\_\_\_

Site Address: 809 SUNSET DRIVE City: EMMETT

Tax Parcel Number(s): RP06N01W064913 Current Zoning: A2 Current Land Use: AGRICULTURE

### PROPERTY OWNER:

Name: Shellee McReynolds, Martin McReynolds

Address: 1750 Sandhollow Road

City: Caldwell State: ID Zip: 83607

Telephone: 208 880-0147

Email: shelleeMcReynolds@gmail.com

### APPLICANT:

Name: SAME AS OWNER

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

I consent to this application and allow Development Services staff to enter the property for site inspections related to this application.

I certify this information is correct to the best of my knowledge.

[Signature]  
Signature: (Owner)

1-19-2024  
Date

[Signature]  
Signature: (Applicant)

1-19-2024  
Date

File No.: <u>54P 24-001</u>	Received By: <u>JV</u>	Date: <u>1-19-24</u>	Fee: <u>\$450</u>	Receipt No: _____
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OFFICE USE ONLY



The applicant is responsible to pay any County Engineer fees that are associated with the application.

Applicant's Signature:  Date: 1-17-2024

**\*\*FOR OFFICE USE ONLY\*\***

APPLICATION COMPLETION DATE: \_\_\_\_\_ COMMISSION HEARING DATE: \_\_\_\_\_

# **MATRIX** ENGINEERING, INC.

*(mā'triks') the point from which something originates or develops*

11020 W. Main Street • Suite 100J • Boise, ID 83702 • 208.860.3127

## **Gem County – Mineral Extraction Submittals and Checklist Special Use Permit**

**Shellee & Marty McReynolds**

Township 6N, Range 1W, Section 6  
Gem County, Idaho 2023



### **Prepared For:**

**Shellee McReynolds**  
1750 Sandhollow Road  
Caldwell, ID 83607  
208 880-0147  
[shelleeMcReynolds@gmail.com](mailto:shelleeMcReynolds@gmail.com)

### **Prepared By:**

**Matrix Engineering, Inc.**  
Elwin T. Butler, PE  
1020 W. Main St. Suite 100J  
Boise, ID 83702  
208 739-8668  
[ebutler@mat-eng.com](mailto:ebutler@mat-eng.com)



# **Mineral Extraction Submittals and Checklist Special Use Permit – Document Contents**

## **I. Permit Responses/Narrative**

## **II. Project Contact Data**

## **III. Exhibits**

**Exhibit A – Record of Survey (preliminary)**

**Exhibit B – Setback / Floodplain Display**

**Exhibit C – Site Plan**

**Exhibit D – FEMA Floodplain Panel**

– No Rise Certification

– No Rise Analysis Summary

**Exhibit E – IDWR Well Driller's Reports**

**Exhibit F – Groundwater Depth – *Aggregate Source Evaluation***

**Exhibit G – Ownership – Assessor's Report**

**Exhibit H – Fire Chief Letter**

**Exhibit I – Gem County Mineral Extraction Overlay Area**

**Exhibit J – Private Access Road Plans**

## I. Permit Narrative

This Mineral Extraction Special Use Permit (SUP) Submittals and Checklist document has been prepared by Matrix Engineering, Inc. on behalf of **Shellee and Marty McReynolds**, for a mineral (gravel) extraction operation (producing aggregate products) on Gem County property zoned A-2, Rural Transitional Agriculture. The requirements of the Gem County Special Use Permit, and Gem County Code Title 11, Chapter 6, Section 5 – Provisions for Unique Land Uses: O. Gravel Extraction, Rock Quarries, Sand and Clay Extraction and Other Natural Resources of Commercial Value, are addressed within and align with the format of the Gem County Permit document.

The subject property associated with this Mineral Extraction Special Use Permit is Gem County Assessor Parcel No. RP06N01W064913, consisting of 45.3 acres (+/-), which is zoned as A2 – Rural Transitional Agriculture. The property is further described as being located in a portion of S ½ of Sec. 6, T06N, R01W, B.M. Gem County, Idaho and Parcel A, Record of Survey by Sawtooth Land Surveying, LLC, Instrument No. 340990, shown on Page 5 of this document.

The McReynolds Sunset Mineral Extraction will have an excavated area of less than 10 acres, a Class 2 Gem County SUP is associated with the application. The proposed area of extraction is 5.6 acres as shown on Page 11.

The McReynolds' Sunset Mineral Extraction will be a privately operated facility. Material hauling from the site to the end user will be by the Owner or contracted trucking companies. Public access to the property during the operational periods will be restricted to the contracted trucking company.

➔ *The primary focus of the operation for the McReynolds Sunset Mineral Extraction is to remove/utilize material necessary to build a road and engineered building pads for our future residence. Due to the requirements of the county for this particular location, more than 300 yards of material removed from a parcel requires this Special Use Permit. Due to our location, in the flood plain, Gem County requires a Zero Rise certificate. We need to remove some of the gravel to accommodate materials that need to be brought in for the construction of our new home and driveway. To beautify the property and allow the natural habit of native wildlife to flourish, we will reclaim the extraction site by creating a pond where the gravel is removed.*

*The Special Use Permit will be intermittent and determined by product demand. The extraction operations are anticipated to be scheduled for approximately 6-12 months upon commencement. It is anticipated that operations will be limited to extraction and hauling of gravel aggregate. A Grizzly Rock Screen may be used to remove large aggregate material if necessary. A crushing operation will not take place on this site. It is our anticipation to partner with Knife River for this project. Knife River has a great need for this material for their completion of the Highway 16 expansion. We are requesting approval for a 3-4 year permit only as we would like to be living in our new home as soon as possible.*

*The extraction operation will commence with site dewatering, involving a pump which evacuates the groundwater below the depth in which the mineral extraction will be made. The mineral material is extracted by an excavator or loader, and internally truck transported to the stockpile. The material is off-loaded, screened, and temporarily stockpiled at the same rate that extraction occurs. A portion of this material will be placed for our building pad and driveway structures as well.*



*Site reclamation per the Idaho Department of Lands Reclamation Plan will include concluding steps related to the Mineral Extraction operation. The reclamation will create in-fill (Mineral Extraction) ponds which result in beneficial purposes. Owners may allow Idaho Fish and Game to designate the ponds to serve as viable fish and/or wildlife habitat.*



## MINERAL EXTRACTION SPECIAL USE PERMIT SUBMITTALS AND CHECKLIST

(Not a business license or building permit)

GEM COUNTY DEVELOPMENT SERVICES  
109 South McKinley, Emmett, Idaho 83617  
phone: (208) 365-5144 fax: (208) 365-2499 [www.co.gem.id.us](http://www.co.gem.id.us)

This mineral extraction property is currently agriculture. Contiguous properties are agriculture to the west, agricultural residence lots to the north, commercial properties to the east, and the Payette River to the south. The property is located within setback requirements of the Emmett Cemetery, north, and a public park (Gem Island Sports Complex), south, across the river. The required one thousand feet setback distance from the Emmett Cemetery and Gem Island Sports Complex to the Mineral Extraction will be honored and are depicted on the image shown on Page 11.

Ingress/egress to the McReynolds Sunset Mineral Extraction site is via Highway 52, and Sunset Drive from the east and northeast respectively.

This Parcel is also within the flood hazard area with a portion being in the floodway. The remaining property is within Zone A of the floodplain. Extraction of minerals within the floodway is not allowed by Gem County Code, however, mineral extraction is allowed in the Zone A floodplain. A depiction of the floodway boundary is shown on both drawings, Pages 5 & 11.

The Idaho Department of Lands will require an approved Extraction Permit and Reclamation Plan. This application will be applied for concurrent or after the Gem County SUP approval is granted and before any mineral extraction begins.

The McReynolds Sunset Mineral Extraction SUP site location, land use, zoning, coupled with surrounding land uses, are compatible with this SUP mineral extraction operation.

### **Description of Proposed Special Use:**

A Property Boundary Adjustment via Record of Survey was approved by Gem County on April 21, 2022, Instrument # 340990. The total acres of Parcel A are 45.34 acres. The record of survey obtained from the County is shown on page 5.

This Application to Gem County is for a Class 2 Special Use Permit (SUP) for Extraction, Processing, Storage, and Materials Handling to operate a mineral extraction operation within the McReynolds Sunset Mineral Extraction parcel per Gem County Code 11-6-5-O-2-b. The type of mineral material extracted from this site is a valuable resource for infrastructure construction including roads, bridges, streets, bricks, concrete, and other building commodities.

The operation of the facility will satisfy and comply with the requirements of local and state codes and regulations, as well as specific Gem County Conditions of Approval. To extract mineral material from the expanded areas, the top and subsoil layer of earth will be removed and stockpiled. This material will be used to construct screening berms, and for site reclamation purposes.

The extraction operation will typically involve an excavator and truck to remove, transport and



process mineral material below the existing ground surface, typical of a small open-pit mining operation. Due to the high ground water in this area; the McReynolds Sunset Mineral Extraction, dewatering will be required to facilitate the removal of the material. The mineral deposits to be extracted reside in subterranean and subaqueous layers. The maximum excavation depth to harvest material is estimated to be 30-feet below existing ground elevation. Upon completion of the extraction operation, the site will be reclaimed and rehabilitated in accordance with an approved Idaho Department of Lands Reclamation Plan.

No permanent equipment or structures will be involved with the operation of the gravel mining operation. Portable, temporary gravel processing equipment will be delivered to the site and used for an interim period as the need exists. The gravel extraction operation of the site will not impact or create a hazard to wildlife, waterways, public safety, or ecological conditions.

The operation period of the gravel extraction facility will be limited to day-light hours (8 AM to 6 PM, per County Code). No illumination will be provided. Less than two thousand gallons of fuel will be stored on the subject site.

This site has unique setback requirements.

- 1) The standard 50-foot wide boundary setback: Boundary setbacks are shown on the site map displayed on Page 11.
- 2) FEMA flood hazard floodway: County Code does not allow the excavation or stockpile of material within the delineated floodway. The floodway has been delineated by Sawtooth Land Surveying LLC and is shown on the Record of Survey shown on Page 5 as well as the image on Page 11.
- 3) 1000-foot wide setback from public parks. Sawtooth Land Surveying, LLC has also delineated this setback and is shown on Exhibit B as well as on the site map shown on Page 11.
- 4) 1000-foot wide setback from the Cemetery. Sawtooth Land Surveying, LLC has also delineated this setback and is shown on Exhibit B as well as the site map shown on Page 11.

**Submittal Requirements** (Refer to Gem County Code 11-6-5.0 for requirements and standards):

A copy of ***Gem County Code Title 11; Chapter 6, Section 5 – Provisions for Unique Land Uses: O: Gravel Extraction, Rock Quarries, Sand and Clay Extraction and Other Natural Resources of Commercial Value*** was obtained and referenced in the preparation of this Special Use Permit. The specific submittal requirements of the code have been addressed in the preparation of this Permit and presented below and within this document.

**Gem County Code 11-6-5.0 – Item 5.a: Pre-application Conference.**

A pre-application conference was held on March 09, 2023, with Gem County Planning and Zoning. A Notice to Proceed – Mineral Extraction dated March 09, 2023, was subsequently issued by Jennifer Kharrl, Gem County Planning Director, see a copy of the Notice to Proceed, Page 6.







**NOTICE TO PROCEED  
Mineral Extraction**

Date of Notice to Proceed: March 9, 2023  
Date of Pre-Application Conference: March 1, 2023

Project/Subdivision Name: Sunset Strip

**Applicant/Contact Information:**

Name: Shellee McReynolds	Stefani Dwyer
1750 Sandhallow Road	3875 Birch Lane
Caldwell, ID 83607	Emmett, ID 83617
Phone: 208-880-0147	208-484-7193
E-mail: <a href="mailto:shelleemcreynolds@gmail.com">shelleemcreynolds@gmail.com</a>	<a href="mailto:stefndwyer@gmail.com">stefndwyer@gmail.com</a>

**Site Information:**

Township: 6N Range: 2W Section: 1  
Assessor Parcel No: RP010N01E240000  
Address: 809 Sunset Drive  
Total Acres: 162+/-  
Current Zoning: A-2 - Rural Transitional Agriculture

*NOTE: This is a statement to summarize issues, concerns and recommendations by Gem County staff and participating agencies during the pre-application process. If you are in receipt of this notice, you may proceed with submittal of a mineral extraction special use permit application. Please note that receipt of this notice does not constitute special use permit approval nor does it indicate all of the issues and/or conditions that may arise during the formal application review and/or public hearing(s).*

**Issues & Recommendations:**

- a) The mineral extraction operation shall be 1,000 feet from the Cemetery to the north and the Gem Island Sports Complex to the south. The site plan shall depict those distances.
  - b) The site plan shall show designated rock crusher location on the property, setbacks to property lines, and the phasing direction of extraction work.
  - c) Gem County Code 11-6-5.O.5.c requires that a list of all documented wells (domestic, irrigation, injection) within ½ mile of the property boundary be submitted.
  - d) Gem County Code 11-6-5.O.5.d requires that a baseline groundwater depth be taken from the proposed excavation area. The data source must be provided and it must be no more than one (1) year old.
  - e) Submit a narrative statement that includes the following:
    - a. explanation of the business type (e.g. appointment only, open to public, open to contractors)
    - b. explanation of any use of an on-site crusher
    - c. explanation of traffic plan
    - d. explanation of proposed commencement and completion dates for the operation
    - e. explanation of hours of operation for extraction and crushing
    - f. If explosives are intended for use in the operation, include estimated timeframes, amounts and impacts of explosives
  - f) Submit a phasing plan with the application.
  - g) The mineral extraction application is subject to Gem County Code 11-6-5.N. and 11-6-5.O.
- 
- h) All stormwater shall remain on property or be redirected so it doesn't impact the County Road per Road and Bridge Department standards.
  - i) After these items have been submitted, a public hearing before the Planning and Zoning Commission will be scheduled.

**Next Actions:**

- a) Submit a completed, signed copy of the Mineral Extraction Special Use Permit application, checklist items, and fees.

\_\_\_\_\_  
Administrator

3/9/23  
Date

**Gem County Code 11-6-5.O – Item 5.b: Signed Application Form:**

A signed application is provided at the front of this application.

**Gem County Code 11-6-5.O – Item 5.c: Wells within ½ mile:**

The McReynolds Sunset Mineral Extraction Special Use Permit property resides in the S ½ Section 6, Township 6N, Range 1W, Boise Meridian, in Gem County. The Idaho Department of Water Resources (IDWR) website and data center was used to identify existing wells in the vicinity of the McReynolds Sunset Mineral Extraction. The general locations of the water wells in the surrounding area are identified on the Google Earth image in Exhibit E. In addition, a well data list summary provides specific well information.

Copies of the individual IDWR Well Driller's Reports in the vicinity of the McReynolds Sunset Mineral Extraction are included in Exhibit E.

The property address and depth of wells identified by the Idaho Department of Water Resource website as Domestic – Single Residence, nearest to the extraction site are summarized in the following table:

Well Owner	Address or Well ID	Static Water	Well Depth, Feet
Lee Taylor	379320	6	29
John McDaniel	1435 Shady Ln	57	129
Ralph Skinner	375775	15	106
Sunset Kennels	877 Sunset Dr	3	23
Raymond Wood	427 Lower Bluff Rd	34	74
Harry Lyons	420501	10	54
Katherine Hunt	372911	12	84
Frank Callender	Lot 102 Bonnie Laura Sub.	5	40

**Gem County Code 11-6-5.O – Item 5.d: Baseline Groundwater Depth:**

Due to the proximity of the Payette River and the type of permeable regional soils, high groundwater is present throughout a vast area in the region of Gem County, which includes the McReynolds Sunset Mineral Extraction. Groundwater at the extraction site exists at shallow depths beneath the land surface. The groundwater depth of the property has also been confirmed by activity which has occurred to date. As material is excavated below the existing ground surface, water quickly fills the excavation at a depth equal to the existing ground water elevation.

In addition to the influence of the Payette River, canal water during irrigation season influences the seasonal ground water. Ground water will be at the highest elevation, typically around 4 to 5-feet below the surface during irrigation season at this site. The locale drain ditch around the property boundary is the best indicator of ground water supporting the 4 to 5-feet below existing ground.

As of December 2023, Groundwater depth is 5-feet below ground surface. Matrix Engineering and the Owners have obtained this information. Well logs in this area not located on the surrounding bench range from 3 to 15-feet. This supports the groundwater level at 4 to 5-feet below existing surface.

To facilitate the excavation and removal of the mineral materials, dewatering is necessary. A dewatering pump which lowers the localized water ground water is placed in a trench near the area to be excavated. The pumped effluent is conveyed to, and discharged, onto the



pastureland grasses on site. Groundwater is dewatered to an elevation lower than the area to be excavated for material harvesting. The material extraction does not occur in any standing water and will not impact water quality. In addition, this localized dewatering will not impact local wells. The local dewatering will create a small, inverted cone of ground water. The local wells will be protected by the ground water gradient and short duration of dewatering.

The granular material deposits common throughout the region of Gem County do not produce material containing heavy metals or radionuclides which are disturbed during the material extraction. Surface applied chemical and pollutants such as nitrates and phosphate pose a much higher risk of contaminating groundwater. The high groundwater provides a benefit during the excavation activity in that excavated material is moist which significantly reduces dust generation.

**Gem County Code 11-6-5.0 – Item 5.e: Explosives, estimated time frames, amounts, and impacts of said explosives:**

Explosives **will not** be employed for the mineral extraction operation. Material excavated from this site will utilize mechanical equipment only.

**Gem County Code 11-6-5.0 – Item 5.f: Proposed Commencements and Completion Dates:** Commencement of the mineral extraction will proceed as soon as approvals are obtained. The time duration of extraction is unknown and will be influenced by product demand. To manage site activities, the operation will consist of excavation, dewatering, and stockpiling of the product. The second activity consists of the removal (hauling of the product). These two activities will be repeated based on demand.

**Gem County Code 11-6-5.0 – Item 5.g: Traffic Plan:** During mineral removal from the property, truck traffic numbers will increase. This brief temporary increase of traffic volume is expected to have minimal impact on the existing roads. It is recommended that "TRUCKS ENTERING ROAD" warning signs be posted on both Sunset Road and Washington Avenue, during these brief continuous haul periods. For short intermittent hauls, signs would not be required.



Sunset Drive Looking North on HWY 52



Sunset Drive Looking South on HWY 52





**Access to Sunset Drive Looking North**



**Access to Sunset Drive Looking South**

**Gem County Code 11-6-5.O – Item 6.d: Proposed hours of operation:** The hours of operation for mineral extraction, hauling and crushing will be limited to the hours of 8 AM to 6 PM, Monday – Friday. These activities will occur on site, and may involve an excavator, dozer, loader, and truck. The extraction operation of the McReynolds Sunset Mineral Extraction will not be continuous as summarized in the front of this Permit Application).

**Gem County Code 11-6-5.O – Item 6.g: Fire district letter approving vehicular access to the site.** Access to the McReynolds Sunset Mineral Extraction site is via Highway 52 and Sunrise Drive. These surface roads are both paved with asphalt. The internal road in the McReynolds Sunset Mineral Extraction will be an all-weather gravel surfaced road. The route will be established along the northern boundary and readily provide emergency vehicle access. Access improvements to the SUP property will require an approach permit from the County Road and Bridge Department. Letter included in Exhibit H.

**Gem County Code 11-6-5.O – Item 6.h: Idaho Department of Lands Reclamation Plan.** The Applicant will provide the Gem County Planning and Zoning Department with a copy of the approved Idaho Department of Lands Reclamation Plan prior to the start of mining operations.

**Gem County Code 11-6-5.O – Item 6.i: Comply with all Idaho Department of Lands, Idaho Department of Environmental Quality, Idaho Department of Water Resources, Idaho Transportation Department, Occupational Safety and Health Administration, Mining Safety and Health Administration, Environmental Protection Agency, and applicable state or federal agencies.**

The Applicant, or assigned representative, will validate that all pertinent public agency requirements and mandates are satisfied prior to the commencement of the mineral extraction operation. Proper documentation will be distributed to the agencies in support of obtaining the necessary compliance conditions.

**Gem County Code 11-6-5.O – Item 6.l: Outdoor site lighting.** The operation will not require nor utilize outdoor site lighting.

**Gem County Code 11-6-5.O – Item 6.m: 100-Year Floodplain.** Research of the Federal Emergency Management Agency (FEMA) data base, specifically Community Panel Number 160127 of 0319B, validated that the Special Use Permit property (Parcel No. PR06N01W064913) does reside within in a flood hazard zone regulated under Gem County



Code Title 13. This parcel is within the 100-year floodplain as well as a portion in the floodway. Excavation is not permitted within the floodway but is permitted in the floodplain. The floodway has been delineated on the attached images (see Page 11) and excavation or stockpiles will not be within the floodway. In accordance with Gem County Ordinance No. 2021-13; a "no rise" certification has been prepared and the required back water analysis has been completed.

Theoretically, removal of material from the floodplain will not cause a rise in the flood waters. Mathematical calculations show that the area to store flood water is the same or more and will not cause a rise in floodwater elevation, however, a "no-rise" analysis is required by the agency.

Mitigation considerations are required associated with floodplain/floodway impacts. It is recommended that a berm be constructed along the floodway boundary to insure the floodway boundary does not increase with the removal of material in the floodplain.

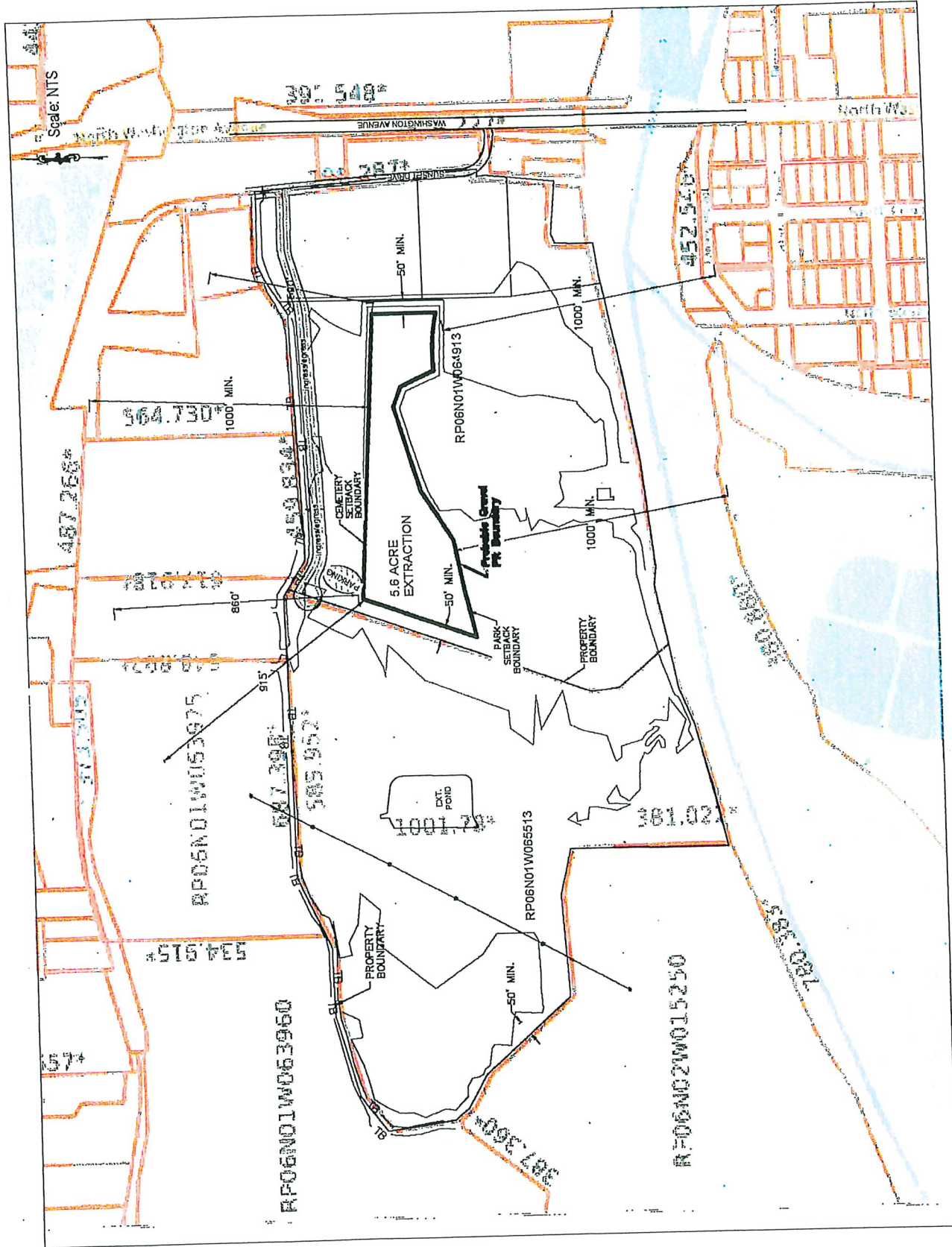
A copy of FEMA Community Panel Number 160127, Panel 319B, "no-rise" certification, and back water analysis is included in Exhibit D.

**Gem County Code 11-6-5.O – Item 7.a: Setbacks:** Excavation and stockpiles will meet or exceed all the three setback requirements: 50-foot boundary, 1000-foot cemetery, and 1000-foot park setbacks. Setbacks are shown on the image below, Page 11. With the limited space and high ground water, stockpiles will have to be stored within portions of the excavation area or removed from this site.

**Gem County Code 11-6-5.O – Item 7.b: Safety fencing,** As the subject mineral extraction operation is in a rural setting, is zoned A-2, Rural Transitional Agriculture, and is on private property with controlled and limited access, the Applicant will install a six (6) foot high safety fence around the extraction area. Locked gates will be provided at the access location which provides access to the McReynolds Sunset Mineral Extraction property. It is recommended that a 6-barb-wire fence be considered to improve the ability of the fence to keep grazing cattle from the excavation area.

Applicant seeks approval for a six-strand barbwire fence around the perimeter of the excavation operations area. This type of fence will 1) conform to the type of fences in this area, 2) allow for protection and the pasture of livestock, 3) is difficult if not impossible to climb, and **most important**, 4) will provide minimum restriction of floodwater flow should the area be become inundated with floodwaters.

**Gem County Code 11-6-5.O – Item 8.a: Location of rock crusher:**  
Rock crushing will not occur on this site.



**McReynolds Sunset Mineral Extraction Site Plan**



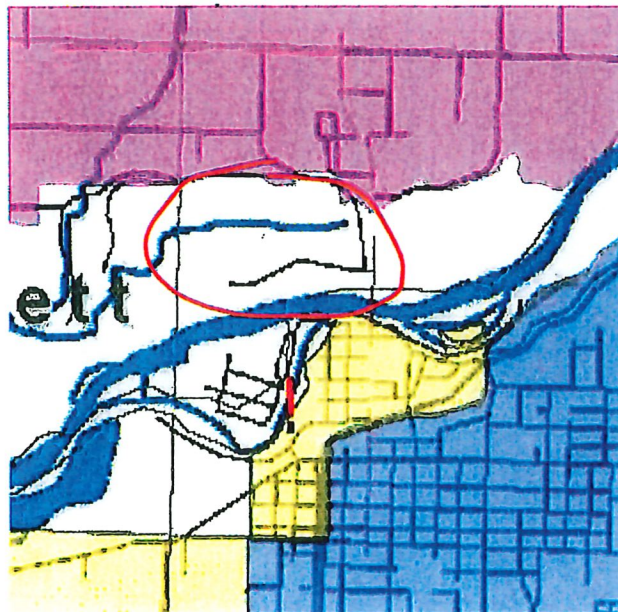
**Gem County Code 11-6-5.O – Item 9.b: Road Mitigation Agreement:** If required by the Gem County Road and Bridge Department, the Developer will enter into an agreement to address impacts to adjacent surface roads associated with the mineral extraction operation. At this point in time a Road Mitigation Agreement does not exist. An access permit for Gem County Road & Bridge will be required for widening and improving the current access onto Sunset Drive.

**Gem County Code 11-6-5.O – Item 11.c.(1) & (2) Permit Duration and Time Extension.** Per the requirements of Gem County Code, the duration of a Class 2 Permit will not be less than three (2) years, and not greater than ten (5) years. Due to the unknown market for the mineral material product extracted from the McReynolds Sunset Mineral Extraction the operating duration may exceed five years. As this SUP is for a Class 2 permit, a time extension may be applied for if the operation timeline exceeds five (5) years. It is understood that a time extension will require submittal of an application and a public hearing per Gem County policy. The proposed phasing of the development of the McReynolds Sunset Mineral Extraction will facilitate identifying areas which may require consideration for Class 2 SUP time extension.

**Fee: Class 2 Permit: 10 Acres or less of excavated area: \$450.00:** The area of the SUP property is 45.3 acres, which will be involved in the mineral extraction operation. Based on this property area the extraction operation will be classified as a Class 2 operation per Gem County Code. For the purpose of advancing the Special Use Permit a payment in the amount of \$450.00, issued by the Developer, is attached to this Special Use Permit Application.

**Site Plan:** A general Site Plan for the mineral extraction property is included on page 11. The Site Plan includes the excavation area, rock crusher area, parking, site ingress/egress and other features associated with the Special Use Permit Application. Buildings are not anticipated on the site. Loading and stockpile areas will be required to be within the pit boundary. This boundary is controlled by the floodway boundary, the clear area boundary from the sports complex, and the clear area boundary from the Emmett Cemetery. Irrigation is currently flood irrigation which will continue. Ditches will be re-routed around the excavation area. Ingress/egress is along the northern boundary. This will be a gravel road; the Owner will be required to provide dust control during mining operations.

As indicated by the *Irrigation Organizations with Service Areas in Gem County* exhibit displayed on page 13, the SUP mineral extraction property is not within an irrigation district. See closeup of map below. This property does have State issued irrigation right through District 65

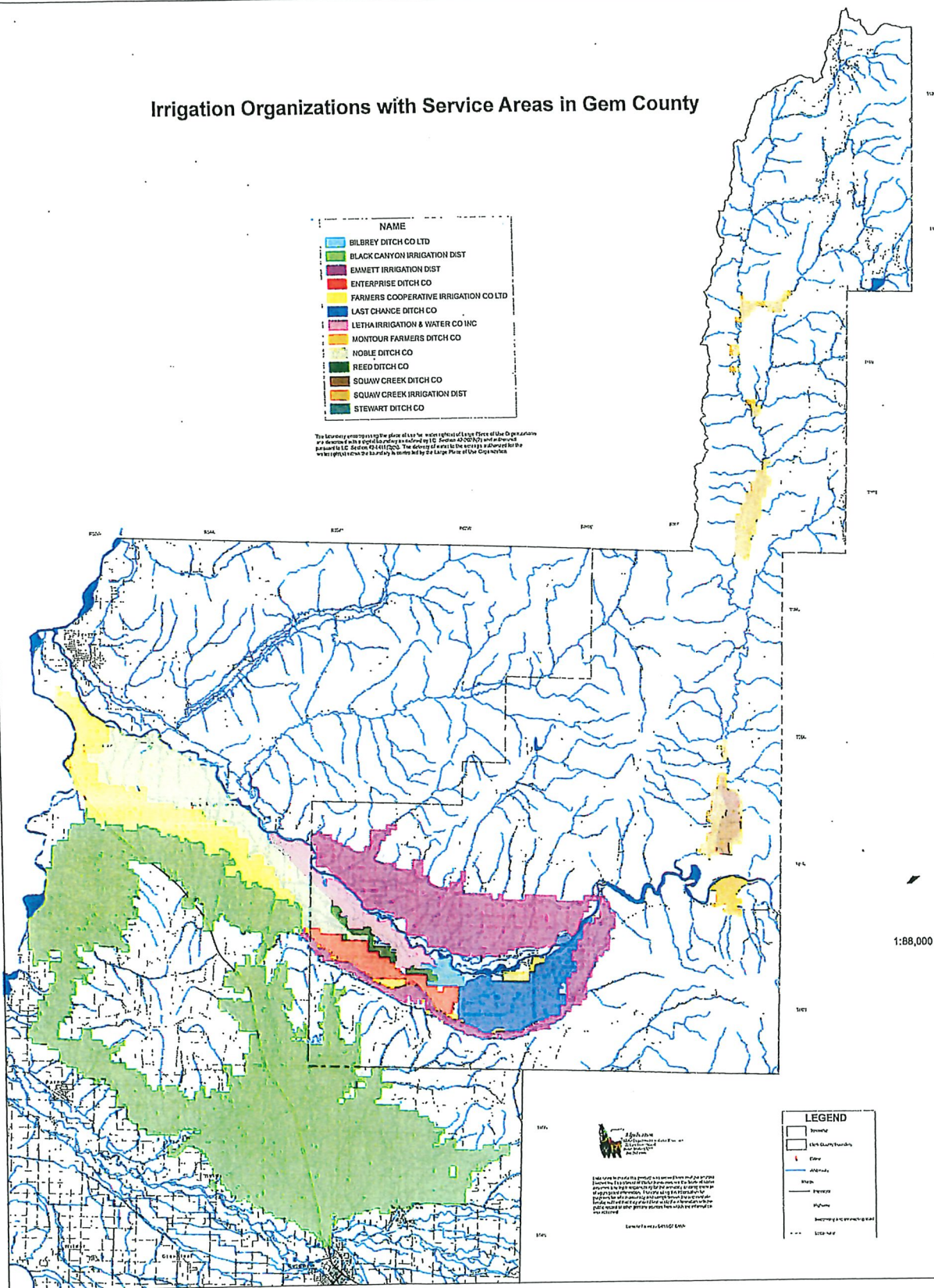




# Irrigation Organizations with Service Areas in Gem County

NAME
BILBREY DITCH CO LTD
BLACK CANYON IRRIGATION DIST
EMMETT IRRIGATION DIST
ENTERPRISE DITCH CO
FARMERS COOPERATIVE IRRIGATION CO LTD
LAST CHANCE DITCH CO
LETHA IRRIGATION & WATER CO INC
MONTOUR FARMERS DITCH CO
NOBLE DITCH CO
REED DITCH CO
SQUAW CREEK DITCH CO
SQUAW CREEK IRRIGATION DIST
STEWART DITCH CO

The boundary representing the place of sale for most rights of large flows of the Organizations are shown with a dotted line as defined by the Section 402(b)(2) and as amended pursuant to C. Section 42-4417(2)(c). The drawing of water to the acreage is subject to the water right (shown by boundary) in accordance with the Large Flow of the Organizations.



# Irrigation Organizations with Service Areas in Gem County



**Mineral Extraction Phasing Plan:**

The commencement and phasing associated with the McReynolds Sunset Mineral Extraction mineral extraction operation will focus on continuous mineral removal. As mentioned above, operations will be dependent upon demand. At the completion of the extraction stage the property will be reclaimed in accordance with the approved Idaho Department of Lands Reclamation Plan, and any applicable Gem County standards and conditions.

**Proof of Ownership or Valid Option Holder:**

See Exhibit F, Current Owners of this property was obtained from the Gem County Assessor's web site. Also, on Page 5, see the Record of Survey for this property.

**Letter of Intent:** A narrative statement addressing each of the nine findings required for the mineral extraction permit follow:

**Statements Related to the Nine (9) Required Findings for  
Mineral Extraction Permit:**

- 1. *The use must not create significant negative impact on public health, safety and welfare in the immediate vicinity.***

All land uses, including the mineral extraction operation, have the potential to affect public health, safety and welfare, however the degree of impact can be mitigated with proper operation of the facility. The McReynolds Sunset Mineral Extraction property addressed via this Special Use Permit application will employ traditional mineral extraction equipment and processes. Processing extracted mineral material is a purely mechanical process of extraction and screening without the need for explosives and/or chemicals.

The McReynolds Sunset Mineral Extraction mineral extraction operation is small with limited space consisting of extraction, stock pile, and haul. These operations do not have a negative impact on public health, safety and welfare.

The Owner will endeavor to maintain the mineral extraction operation in a manner acceptable to adjacent properties, and co-exist within the land uses allowed in Gem County. The operation of the mineral extraction site will follow Gem County Code and State of Idaho regulations. The development of the existing property for the purpose of mineral extraction is compatible with the Code, and with existing like-type facilities. The mineral extraction site will be reclaimed according to the specific requirements of Gem County and the Idaho Department of Lands. The specific concerns of the properties in the immediate vicinity of the mineral extraction operation will be addressed.

- 2. *The use must not create unsafe conditions to or an excessive burden on existing parks, schools, roads and other public facilities and utilities that serve or are proposed to serve the area.***

The subject property, addressed by the Special Use Permit is in a rural location and meets setback distances from the existing park and cemetery. Schools, public facilities and utilities, and like type of municipal amenities are not adjacent or near this property. The primary Gem County asset which will be involved in the operation of the mineral extraction operation is the transport of equipment and materials using public surface roadways, including Washington Avenue and Sunset Drive. It is anticipated that the noise and dust from excavation will not be more and most likely will be less disturbing than a farm tractor tilling soil on the property.



3. ***The use must be sufficiently compatible or separated by distance or screening from adjacent lands so that existing uses will not be hindered in the enjoyment of their property and there will be no deterrence to the legal development of vacant land.***

The McReynolds Sunset Mineral Extraction property fronts the westside of Sunset Drive, and is most visible from Sunset Drive. There are residential properties along the northern side of the property and commercial properties along the east. Pasture/hay land on the east and west side with the Payette River along the south.

Extraction activity from this area will be off-set from the property boundary and pasture/hay lands, & the Payette River. The Developer will also implement appropriate considerations related to the well-being of the residential properties. By meeting the setback requirements of the cemetery and park, there are larger buffers from adjacent properties than is required by the County Code.

The image on Page 11 indicates the distance to the neighboring property from the proposed location of the McReynolds Sunset Mineral Extraction location.

4. ***The structure and site must have an appearance that will not unreasonably create an adverse effect upon adjacent properties.***

The proposed mineral extraction site does not have any current aesthetic appeal, and is anomalous with adjacent landforms. The mineral extraction operation and subsequent reclamation process will produce a landform which is typical within a river corridor. The extraction operation will result in permanent in-fill ponds. The water depth of the ponds will vary based on the depth of the deposits harvested. The groundwater hydrology of the region will result in pond water depth greater than three (3) feet. The surface area of the ponds will be finished and contoured to create meandering edges around the perimeter of the ponds. The operation of the McReynolds Sunset Mineral Extraction will comply with the Idaho Department of Lands – "Best Management Practices for Mining in Idaho".

No permanent structures will be constructed or placed on the site of the mineral extraction operation. The operation will only involve temporary extraction activities and the labor and material resources which are required for such activity. The McReynolds Sunset Mineral Extraction property mineral extraction operation will not have any detrimental effects to surrounding properties, nor will it be contrary to the public interest.

5. ***The use must be consistent with the purposes of the zoning ordinance and the purposes of the zoning district in which the applicant intends to locate the proposed use.***

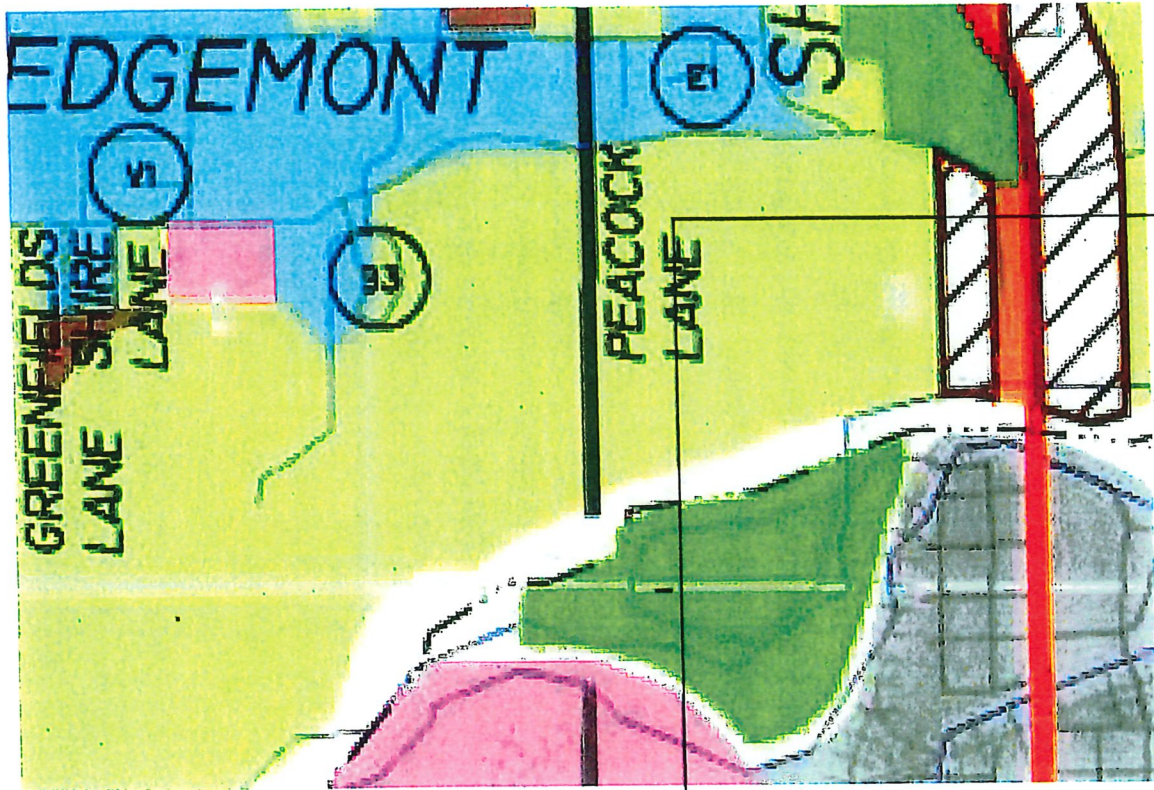
In the preparation of this Special Use Permit, *Gem County Code Title 11, Chapter 6, Section 5 – Provisions for Unique Land Uses: "O. Gravel Extraction, Rock Quarries, Sand and Clay Extraction and Other Natural Resource of Commercial Value"* has been referenced and acknowledged, and will serve as the compliance basis for the operation of the McReynolds Sunset Mineral Extraction.

The mineral extraction property and adjacent property are zoned as: (1) A2 Rural Transitional Agricultural and (2) MX Mixed Use. In both these zones, Gem County land use allows mineral extraction operations. The Gem County Zoning Map below indicates the location of the mineral extraction property in rural Gem County. The proposed mineral extraction operation aligns with



the land use approved for the specific property. This property is not zoned A1 Prime Agriculture.

The operation of the McReynolds Sunset Mineral Extraction is a small operation and will enhance the existing transitional agriculture land. The mineral extraction use of the property is in harmony with the area around it and in conformity with local land uses. A copy of the Gem County Valley Zoning Map is shown on Page 17, an enlarge section showing the McReynolds Sunset Mineral Extraction property identified is below:

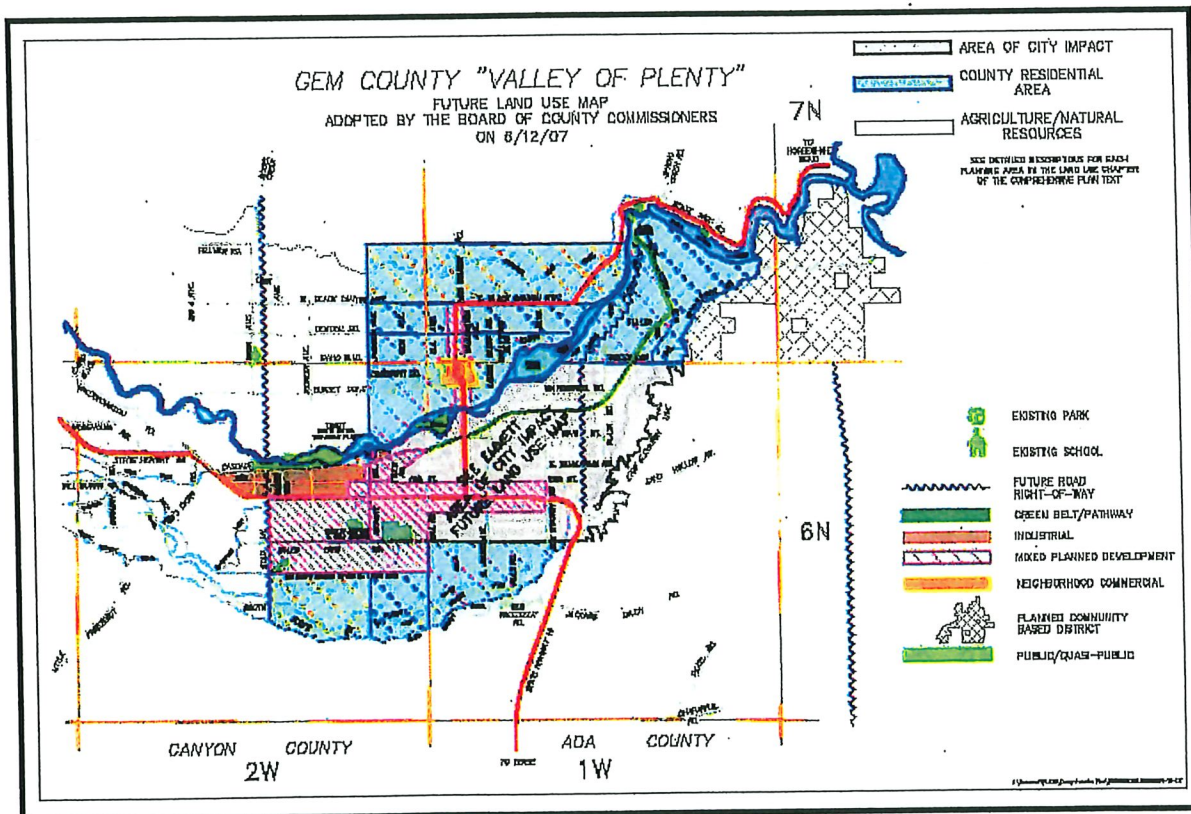






6. *The use must be in conformance with the Comprehensive Plan.*

This Special Use Permit for mineral extraction aligns, and is in conformance with the, **Gem County Comprehensive Plan**, adopted February 16, 2023, with reference to existing zoning and land use. The future land use map shows this property as residential. Rural Residential is defined as 2-acre lots. This property is in the floodway and floodplain. While construction of homes are allowed in these zones, FEMA does not encourage construction of homes in the floodplain. Insurance and the ability to finance homes will only be allowed as long as Gem County continues to comply with and meet FEMA requirements. Each home will include increased insurance premiums to cover their floodplain insurance. The proposed mineral extraction property is currently suitable for dryland crops, pasture, rangeland and mineral extraction. The Gem County Comprehensive Plan designates the site property as R1 Transitional Agriculture property. A mineral extraction landuse is an acceptable use of private property per the Comprehensive Plan.



The extraction of mineral material will provide a natural resource, which is in high demand, which will contribute to the economy. The mineral product operation granted by the approval of the Special Use Permit will serve as an important resource in the development of infrastructure and construction activity in Gem County and beyond. The mineral extraction operation will conform and adhere to the Gem County Joint Comprehensive Plan, while recognizing the important social and environmental factors of the neighboring properties.

The Special Use Permit property is beyond the City of Emmett's AOCI Area and is not included in the Gem County Prohibited Mineral Extraction Overlay Area. Exhibit of the Gem County Prohibited Overlay Area included in Exhibit I.



**7. The use must not cause a traffic hazard or congestion.**

Access to and from the McReynolds Sunset Mineral Extraction site will utilize existing asphalt paved roadways, and an internal private road. Property access (ingress/egress) will follow established traffic patterns which are facilitated and provided via the existing roadways. Mineral product loading and maneuvering will occur internally. Transporters/trucks will travel on Sunset Drive to gain access to Washington Avenue, (Highway 52, a paved State highway). Highway 52 is classified as a Major State Highway, which provides access to the McReynolds Sunset Mineral Extraction by intersection with Sunset Drive. This intersection is controlled via a stop sign on Sunset Drive. The rural setting and low density of this subject area in Gem County results in low traffic volumes, thereby reducing both hazard and congestion.

**8. Existing land uses nearby must not be adversely affected unreasonably by intrusion of noise, glare, dust, vibration or general unsightliness.**

Understanding the appropriate sensitivities of the neighboring property owners associated with the mineral extraction operation, provisions will be implemented by the owner/operator of the facility to reduce adverse noise, glare, dust, vibration, or general unsightliness concerns. The following replies address each one of the "intrusions" individually:

**8.1 Noise:** Any mineral extraction activity will have an inherent noise level. The primary source of noise generated by the mineral extraction operation is produced by the crushing operation and material extracting blasting. Both of these operations are not anticipated with this permit. The mineral processing operation(s) will adhere and be managed to the standard practice in the industry.

Rock crusher nor blasting operations will not be used on this site.

**8.2 Glare:** No physical features will result in glare. No adverse effect with mineral extraction operation.

**8.3 Dust:** The excavation, crushing, processing, and transporting of mineral material has the potential to produce dust. The high groundwater level of the McReynolds Sunset Mineral Extraction property will aid in reducing dust as the excavated material will be below the groundwater table. The nearest rural residential property is approximately 600 feet from the excavation area.

With the exception of the internal private access road, the ingress/egress to the site is provided via paved roadways – Sunset Drive and Highway 52. The low truck traffic counts and the traffic pattern associated with the operation of the McReynolds Sunset Mineral Extraction is not anticipated to create a nuisance dust situation. If necessary, in order to control fugitive dust emissions, Best Management Practice and control methods will be implemented, including the application of magnesium chloride (MgCl) to stabilize the internal private access road. MgCl is an environmentally safe chemical dust suppressant which is commonly used by rural highway districts.

The Developer will work with the Gem County Road & Bridge Department to ensure proper adherence to standards related to the operation of the McReynolds Sunset Mineral Extraction. The operation of the McReynolds Sunset Mineral Extraction will adhere to the dust abatement standards of the Idaho Department of Environmental Quality.



**8.4 Vibration:** No adverse effect with mineral extraction operation.

**8.5 General Unsightliness:** The McReynolds Sunset Mineral Extraction property is located within agriculture lands. Limited residential properties exist in this immediate area. The McReynolds Sunset Mineral Extraction property will have the appearance of a traditional Mineral Extraction operation. The removal of the mineral material will result in the formation of water ponds which will benefit waterfowl and wildlife.

Upon completion of the excavation, the site will be reclaimed. The areas which are not in-fill ponds will be covered with topsoil and be revegetated.

The mineral extraction area is ¼-mile west of Highway 52 (Washington Avenue), and commercial properties along Washington Avenue. fronts agricultural land on the north and west along with a few residential homesites, and Payette River on the south. The mineral extraction will not create an unsightliness condition to the surface transportation systems and the surrounding property.

**9. *The use must not cause significant adverse impact to surface or ground water resources.***

Typical of the regional properties adjacent to the Payette River the depth to groundwater varies from two-feet and beyond. The extraction of materials from the McReynolds Sunset Mineral Extraction will be below the groundwater. Dewatering to the existing grassland when mineral extraction occurs below the water table will recharge the groundwater. The net effects of below-water extraction are normally minor and very localized groundwater depression cone. Discharge of the dewatering onto the pastureland removes sediment, thus, no pollutants are introduced. The depth of the in-fill ponds, and the hydraulic movement of the groundwater will not impact water quality. There are not any significant sensitive features or vegetation in close proximity of the McReynolds Sunset Mineral Extraction operation.

Local wells are deeper than the anticipated level of excavation. The localized dewatering depression cone is not anticipated to affect nearby wells.

The composition of water in a flow-through groundwater pond varies the same way as that of surface water, seasonally. The water table elevation is not static and can fluctuate in different seasons and from year-to-year. As indicated in the Aggregate Source Evaluation the site soils consist of Poorly Graded Gravel with Sand and Cobbles. These types of subsurface materials provide hydraulic connection of groundwater throughout the common aquifer. The water quality of the uncovered flow-through pond will be similar to the groundwater that resides in the covered gravel stratum. Stormwater runoff infiltrates on-site on the subject mineral extraction property, and adjacent properties or land features are not impacted by stormwater runoff from the McReynolds Sunset Mineral Extraction property

As indicated on the topographical survey the land area of the McReynolds Sunset Mineral Extraction involves very little topographic relief. The proximity of the Payette River and the drain ditch provide the primary drainage and are identified in the survey.

## II. Project Contact Data

### Developer

**Shellee McReynolds**  
1750 Sandhollow Road  
Caldwell, ID 83607  
(208) 880-0147  
email: [martybigpine@gmail.com](mailto:martybigpine@gmail.com)

### Consulting Engineer

**Matrix Engineering, Inc.**  
Elwin T. Butler, P.E.  
1020 W. Main Street, Suite 100J  
Boise, ID 83702  
(208) 739-8668  
email: [ebutler@mat-eng.com](mailto:ebutler@mat-eng.com)



### **III. Exhibits**

**Exhibit A – Record of Survey (preliminary)**

**Exhibit B – Setback Floodplain Display**

**Exhibit C – Site Plan**

**Exhibit D – FEMA Floodplain Panel**  
– No Rise Certification  
– No Rise Analysis Summary

**Exhibit E – IDWR Well Driller's Reports**

**Exhibit F – Groundwater Depth – *Aggregate Source Evaluation***

**Exhibit G – Ownership – Assessor's Report**

**Exhibit H – Fire Chief Letter**

**Exhibit I – Gem County Mineral Extraction Overlay Area**

**Exhibit J – Private Access Road Plans**

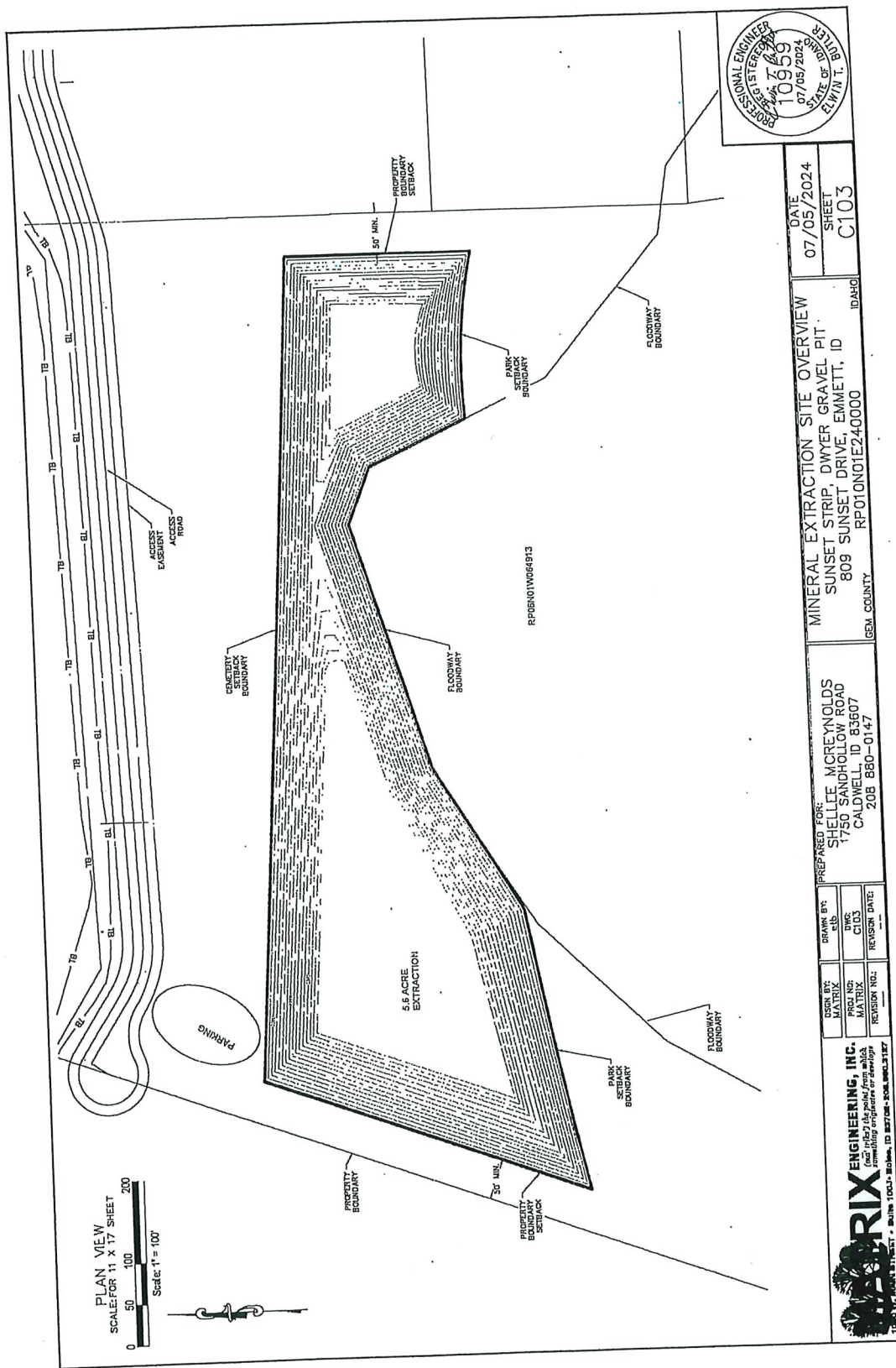








# Exhibit C – Site Plan



PLAN VIEW  
SCALE: FOR 11 X 17 SHEET  
0 50 100 200  
Scale: 1" = 100'



PROFESSIONAL ENGINEER  
STATE OF IDAHO  
LICENSE NO. 10659  
DATE 07/05/2024  
STATE OF IDAHO  
ELWIN L. STUBBINS

DATE 07/05/2024  
SHEET C103

MINERAL EXTRACTION SITE OVERVIEW  
SUNSET STRIP, DWYER GRAVEL PIT  
809 SUNSET DRIVE, EMMETT, ID  
IDAHO IDAHO  
RPT010NOTE240000

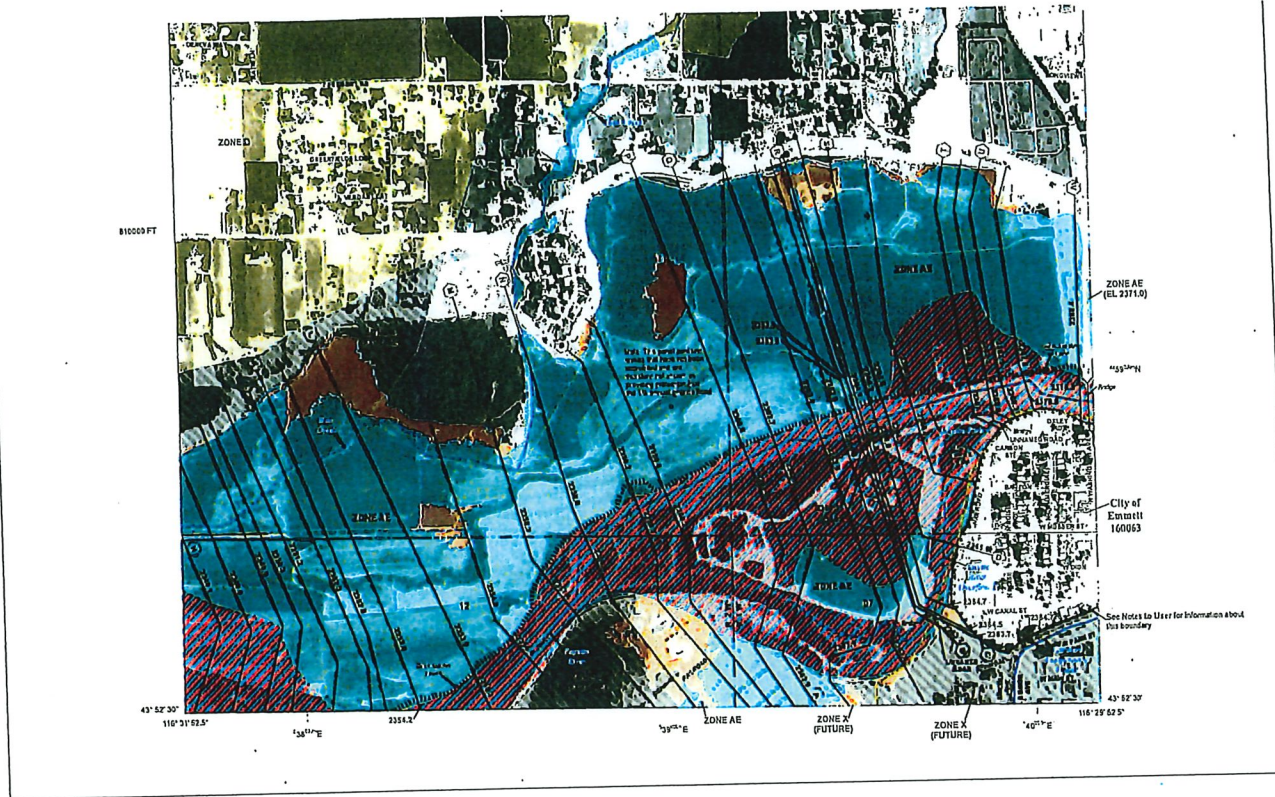
PREPARED FOR:  
SHELLEE MCREYNOLDS  
1750 SANDHOLLOW ROAD  
CALDWELL, ID 83607  
208 880-0147

DESIGN BY:	ESB
DRAWN BY:	ESB
PROJ. NO.:	C103
REVISION NO.:	
REVISION DATE:	

**TRIX ENGINEERING, INC.**  
1750 SANDHOLLOW ROAD, CALDWELL, IDAHO 83607  
TEL: 208-880-0147



# Exhibit D – FEMA Floodplain Panel 319B



## FLOOD HAZARD INFORMATION

SEE THIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP  
 THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING  
 DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT  
[HTTPS://MSC.FEMA.GOV](https://msc.fema.gov)

- SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) ZONE AE (EL. 2271.0)
  - Regulatory Floodway
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depths less than one foot or with drainage areas of less than one square mile (1/4 mi<sup>2</sup>)
  - Future Conditions 1% Annual Chance Flood Hazard 2-in-1
  - Area with Reduced Flood Risk due to Levee (See Notes, Zone X)
  - Areas Determined to be Outside the 0.2% Annual Chance Floodplain 2-in-1
  - Area of Undetermined Flood Hazard Zone X
- OTHER AREAS OF FLOOD HAZARD**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER AREAS**
  - Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
  - Coastal Transect
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Features
  - Base Flood Elevation Line (BFE)
  - Levee Exclusion Zone
  - Limit of Study
  - Jurisdiction Boundary
- GENERAL STRUCTURES**
- OTHER FEATURES**

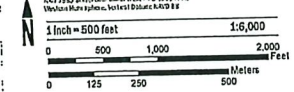
## NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), see the products, standards, and procedures of the National Flood Insurance Program (NFIP) in general, and the 1983 Flood Insurance Study (FIS) of the Boise River Valley in particular. For more information, see the NFIP website at [www.fema.gov](http://www.fema.gov). Available products may include property and area flood hazard maps, Flood Insurance Study (FIS) maps, and Flood Insurance Rate Maps (FIRMs). Flood insurance maps are prepared by FEMA and are subject to change. Flood insurance maps are prepared by FEMA and are subject to change. Flood insurance maps are prepared by FEMA and are subject to change.

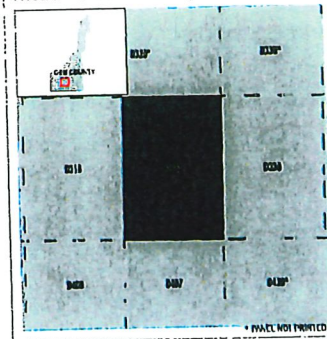
**ATTENTION:** The levee data on other sheets of this FIRM panel has not been shown to comply with Section 6310 of the NFIP Regulations. As such, the FEMA panel is not to be used to update the flood hazard information associated with this structure.

The flood hazard data used on this sheet of the FIRM panel has been reproduced from the previous edition (panel FIRM 16046C0319B) and is not being corrected from NOAA's 2010 data.

## SCALE



## PANEL LOCATOR



**FEMA**  
 National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM**  
 THE FEDERAL GOVERNMENT

**GEM COUNTY, IDAHO**  
 An Incorporated Area

MAP 319 of 475

COMMUNITY	NUMBER	PANEL	SUFFIX
EMMETT CITY OF GEM COUNTY	16046A	0319	A
	16047B	0319	A

VERSION NUMBER: 2.5.3.5  
 MAP NUMBER: 16046C0319B  
 EFFECTIVE DATE: AUGUST 24, 2021

# No Rise Certification

## Engineering "No-Rise" Certification

(for projects located in a mapped floodway)

This is to certify that I am a duly qualified engineer licensed to practice

in the State of Idaho  
(Name of State)

This further certifies that the attached data supports the fact that the

proposed Mc Reynolds Sunset Mineral Extraction  
Sunset Drive - Proposed Gravel Pits  
(Name of Development) will not increase

the 100-year flood elevations, floodway elevations and floodway widths

on Payette River at published sections in the Flood

Insurance Study for Gem County, Idaho, and Incorporated Areas dated  
(Name of Community)

FIS Dated 08/24/2021 and will not increase the 100-year flood

elevations, floodway elevations, and floodway widths at unpublished

cross-sections in the vicinity of the proposed development.

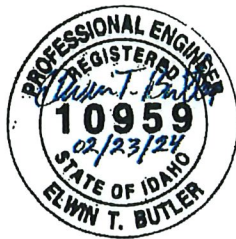
2/23/2024  
(Date)

Elwin T. Butler, PE  
(Signature)

Engineer  
Matrix Engineering, Inc  
(Title)

1020 W Main St. Suite 100J  
Boise, ID 83702  
(Address)

seal:



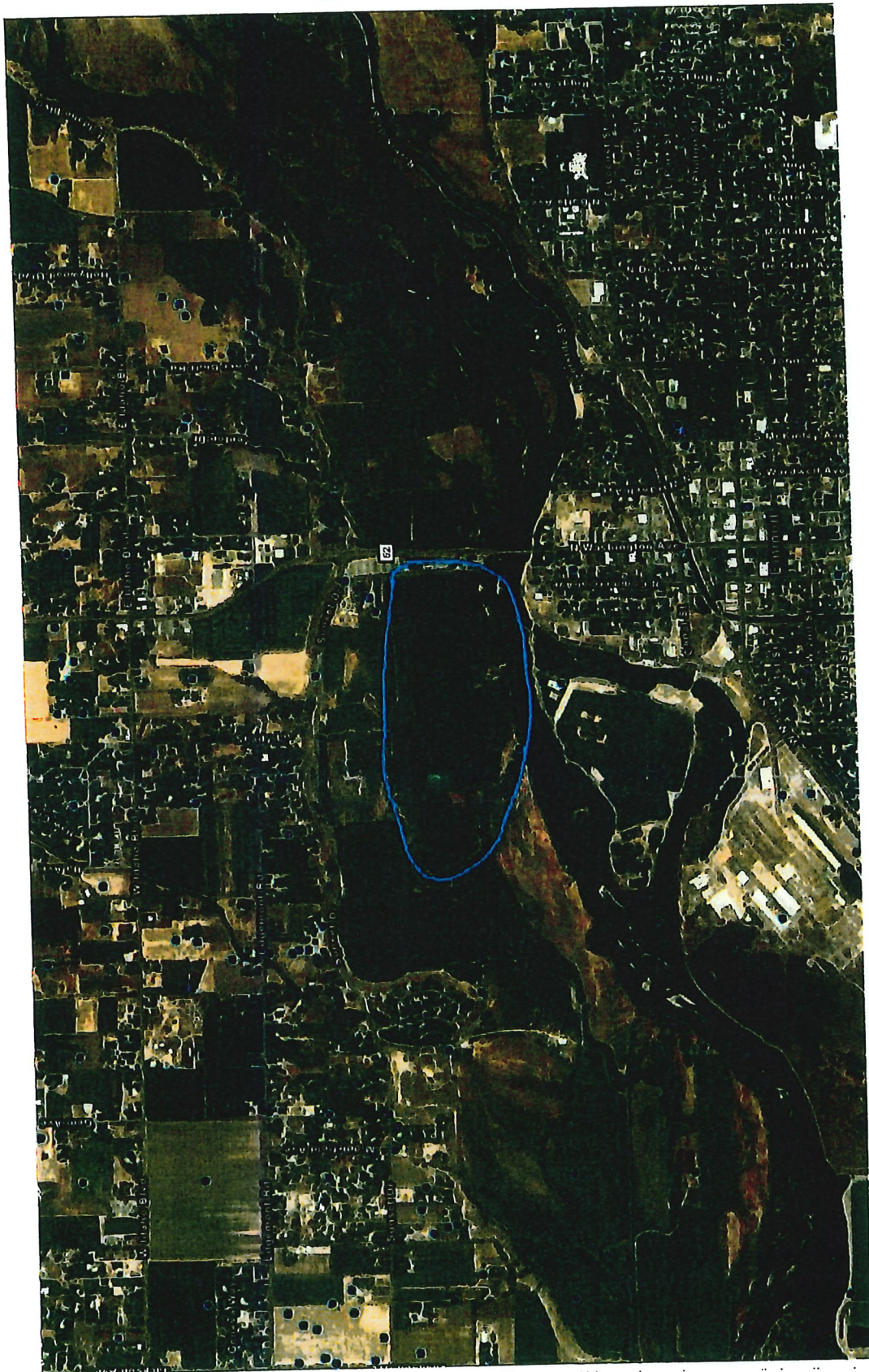
Mail completed form to your local planning office along with the Joint Application for Permits



## No Rise Analysis Summary

**Note: The current FEMA study cross sections appear to have some inconsistencies for this property and are currently being analysed providing a no risk assessment based on the best available data.**

# Exhibit E – IDWR Well Locations & Well Data





Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
PIONEER HOMES INC(Owner/Operator)	12/20/2022	1470 Jackson Ave	06N	02W	1	NWSW	100	60
PIONEER HOMES INC(Owner/Operator)	10/19/2022	1675 Greenfields Loop	06N	02W	1	SEW	100	55
BEVERLY HAIR(Owner/Operator)	6/28/2022	577 E IDAHO BLVD	06N	01W	6	NENE	50	66
LOREN DUGAN(Owner/Operator)	6/6/2022	1950 Dove Crossing	06N	02W	1	NENE	110	47
DALE CLARK CONSTRUCTION(Owner/Operator)	12/30/2021	1757 Jewel Ln	06N	02W	1	SENE	75	49
TERRY GARDNER CONSTRUCTION(Owner/Operator)	12/8/2021	1055 Greenfields Ln	06N	02W	1	NESW	45	57
JAMES LANDIS(Owner/Operator), REBECCA LANDIS(Owner/Operator)	10/25/2021	.1115 W IDAHO BLVD	06N	02W	1	NENE	50	45
DEROLD FRANKS(Owner/Operator)	6/8/2021	1917 Edgemont Rd	06N	02W	1	SWNW	51	64
DEROLD FRANKS(Owner/Operator)	6/3/2021	1917 Edgemont Rd	06N	02W	1	SWNW		66
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/23/2021	1884 Crawford Ln	06N	01W	6	NENE	35	74
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/23/2021	1884 Crawford Ln	06N	01W	6	NENE	35	74
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/22/2021	1874 Crawford Lb	06N	01W	6	NENE	35	74
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/22/2021	1874 Crawford Lb	06N	01W	6	NENE	35	74
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/15/2021	1894 Crawford Ln	06N	01W	6	NENE	30	74
AMERICHoice CUSTOM HOMES(Owner/Operator)	4/15/2021	1894 Crawford Ln	06N	01W	6	NENE	30	74
RITeway BUILDERS(Owner/Operator)	3/18/2021	1915 E EDGEMONT	06N	02W	1	SWNW	35	66
DALE CLARK(Owner/Operator)	3/5/2021	TBD address - lot north of 1733 Jewell Ln	06N	02W	1	SENE	50	69
DALE CLARK(Owner/Operator)	2/26/2021	1733 Jewell Ln	06N	02W	1	SENE	45	70
DEROLD FRANKS(Owner/Operator)	1/7/2021	1917 Edgemont Rd	06N	02W	1	SWNW		66
RITeway BUILDERS(Owner/Operator)	12/31/2020	TBD address - JACKSON AVE	06N	02W	1	SWNW	60	62
RITeway BUILDERS(Owner/Operator)	12/23/2020	1532 Jackson Ave	06N	02W	1	SWNW	50	59
RON SUMMERS(Owner/Operator)	7/20/2020	1840 Sunset Dr	06N	02W	1	SWNW	40	64
RITeway BUILDERS(Owner/Operator)	7/14/2020	1830 Sunset Dr	06N	02W	1	SWNW	50	64
RITeway BUILDERS(Owner/Operator)	7/9/2020	1600 Jackson Ave	06N	02W	1	SWNW	50	64
RITeway BUILDERS(Owner/Operator)	9/18/2019	1580 Jackson Ave	06N	02W	1	SWNW	40	60
JAMES LANDIS(Owner/Operator), REBECCA LANDIS(Owner/Operator)	11/12/2018	1115 W IDAHO BLVD	06N	02W	1	NENE	50	45
AMERICHoice CUSTOM HOMES(Owner/Operator)	7/20/2018	1979 Geneva Way	06N	02W	1	NWNW		63
SUNSET KENNELS(Owner/Operator)	11/6/2017	877 Sunset Dr.	06N	01W	6	SWNE		3
SUNSET KENNELS(Owner/Operator)	10/12/2017	877 SUNSET DR	06N	01W	6	SWNE	33	3
BILL MOORE(Owner/Operator)	8/3/2017	1563 SUNSET DR	06N	02W	1	NESW	41	56
GEORGE BRYCE(Owner/Operator)	6/16/2017	1075 GREENFIELDS LN	06N	02W	1	NESW	75	56
DALE CLARK(Owner/Operator)	5/15/2017	1180 EDGEMONT RD	06N	02W	1	NENE	50	51
JOHN HIENITZ(Owner/Operator)	6/17/2016	1347 SUNSET DR	06N	02W	1	SWSE	60	10
DEON ECHOLS(Owner/Operator)	5/26/2016	1940 DOVE CROSSING	06N	02W	1	NENE	45	42

Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
MILLARD OWENS(Applicant)	6/12/2003	585 E IDAHO BLVD	06N	01W	6	NENE	25	55
SCOTT HEAP(Applicant)	11/25/2002	1328 SUNSET DR	06N	02W	1	SENW	75	51
FRED NUSS BAUMER(Applicant)	9/13/2002	1700 SUNSET DR	06N	02W	1	NWNW	50	64
DARIN YOUNGSTROM(Applicant)	8/28/2002	1990 GENEVA WAY	06N	02W	1	NWNW	20	60
BUILT RITE(Applicant)	7/8/2002	1980 GENEVA WAY	06N	02W	1	SWNW	20	67
IDAHO PRE CUT HOMES(Applicant)	5/21/2002	1978 GENEVA WAY	06N	02W	1	NWNW	30	60
WALKER HOMES INC(Applicant)	4/25/2002	3553 E LOCUST PARCEL 1 SECTION 10	06N	01W	6	SESW	60	20
JOHN REEDER(Applicant)	2/6/2002	GENEVA WAY	06N	02W	1	NWNW	50	60
LARRY KROUS(Applicant)	1/17/2002	1901 EDGEMONT	06N	02W	1	NWNW	40	70
AL COLE(Owner/Operator)	1/16/2002	1347 Edgemont Rd.	06N	02W	1	SWNW	25	45
CHOW CHAVATIPON(Applicant)	11/16/2001	SUNSET & JACKSON	06N	02W	1	NESW	50	55
JANET COLBURN(Applicant)	10/5/2001	1530 Middlefield	06N	01W	6	SWNW	40	57
BRISCOE CONSTRUCTION CO(Applicant)	8/15/2001	DHADE LANE AND IDAHO BLVD	06N	01W	6	NENE	22	52
BRISCOE CONSTRUCTION CO(Applicant)	8/15/2001	DHADE LANE AND IDAHO BLVD	06N	01W	6	NENE	22	52
TINA HEIDEMAN(Applicant)	5/10/2001		06N	02W	1	SENW	100	70
IDAHO PRE CUT HOMES(Applicant)	11/2/2000	GENEVA WAY	06N	02W	1	NWNW	30	60
JAMES ALTHOFF(Applicant)	10/28/2000	1972 GENEVA WAY	06N	02W	1	NWNW	40	60
SCOTT STEVENS(Applicant)	8/21/2000	1115 LOWER BLUFF	06N	01W	6	SWNE	100	62
RUSS CANADAY(Applicant)	4/24/2000	JACKSON EDGEMONT	06N	02W	1	NENE	40	50
BURRIL CONSTRUCTION(Owner/Operator), RON BURRIL(Owner/Operator)	11/19/1999	KATIE LANE	06N	02W	1	NWNW	40	60
JEFF BUSTAMANTE(Owner/Operator)	10/11/1999	1401 TYLER	06N	01W	6	SESE	35	5
EMILY CHRISTENSEN(Owner/Operator)	9/3/1999	1240 EDGEMONT	06N	02W	1	NENE	15	52
JOHN SHAW(Owner/Operator)	8/6/1999	1040 MELROSE	06N	01W	6	SWNW	100	70
DAVE C ERLEBACH(Owner/Operator)	3/15/1999	1189 EDGEMONT RD	06N	02W	1	SWNE	150	50
DELMAR L PHILLIPS(Owner/Operator)	3/4/1998	427 LOWER BLUFF RD	06N	01W	6	SWNE	20	3
TIM MC DANIEL(Owner/Operator)	8/20/1997	1416 SHADY LN	06N	01W	6	NWNW	52	69
GREG MC DANIEL(Owner/Operator)	8/18/1997	1415 SHADY LN	06N	01W	6	NWNW	50	69
DAVE C ERLEBACH(Owner/Operator)	2/20/1997	1189 EDGEMONT	06N	02W	1	SENE	0	
BRUCE KARR(Owner/Operator)	9/25/1996	1801 SUNSET	06N	02W	1	NWSW	50	50
RICHARD HARDING(Owner/Operator)	7/2/1996	555 EDGEMONT RD	06N	01W	6	NWNW	80	70
HART CONSTRUCTION(Owner/Operator)	6/5/1996	EDGEMONT & JACKSON	06N	02W	1	NWNE	25	65
JEFF J JORDAN(Owner/Operator)	5/18/1996		06N	02W	1	NWNW	35	65
JOHN MC DANIEL(Owner/Operator)	4/6/1996	1435 SHADY LN	06N	01W	6	NESW	55	57
CH2M HILL(Representative)	9/21/1995	419 WASHINGTON	06N	01W	6	SESW	0	10
CH2M HILL(Representative)	9/21/1995	419 WASHINGTON	06N	01W	6	SESW	0	10
STEVE LORD(Owner/Operator)	8/7/1995	1997 W IDAHO	06N	02W	1	NWNW	50	64
PETER BARAND(Owner/Operator)	8/1/1995	1689 GREENFIELD LOOP	06N	02W	1	SENW	35	80
TOM JOHN(Owner/Operator)	6/2/1995	SUNSET DR	06N	01W	6	SENW	30	5
ALDEN VAWTER(Owner/Operator)	5/15/1995		06N	02W	1	NWSE	80	15
STEVE CALHOUN(Owner/Operator)	11/2/1994	1563 SUNSET	06N	02W	1	NESW	15	62
DONNA L THOMAS(Owner/Operator)	10/27/1994	EDGEMONT & JACKSON	06N	02W	1	NWNW	50	60



Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
MICHELLE BAREND(Owner/Operator)	7/19/1994	1693 GREENFIELD LOOP	06N	02W	1	NENW	25	58
DAVE ERLBACH(Owner/Operator)	4/6/1994	1189 EDGEMONT DRIVE	06N	02W	1	SWNE	24	
DIANE MONDSFELD(Owner/Operator)	3/8/1994	555 EDGEMONT RD	06N	01W	6	NENE	20	60
DEAN BENDER(Owner/Operator), DAVID BRISCOE(Owner/Operator)	1/17/1994	GREEN FIELD LOOP	06N	02W	1	SWSW	30	60
LARRY STEPHENSON(Owner/Operator)	12/16/1993	993 EDGEMONT	06N	01W	6	SWNW	25	62
JANET PAULUS(Owner/Operator)	12/11/1993	IDAHO STREET	06N	01W	6	NENE	25	50
CHRIS BEITIA(Owner/Operator), PAM BEITIA(Owner/Operator)	11/6/1993	1671 EDGEMONT	06N	02W	1	SENW	30	60
DENNIS GURNEY(Owner/Operator)	10/22/1993	HOLLY HILLS CARE CENTER	06N	01W	6	NENW	30	50
VIOLA M DE MASTERS(Owner/Operator)	9/3/1993	1111 LOWER BLUFF RD	06N	01W	6	SENE	30	65
PEARL BURREST(Owner/Operator), BRUCE STELZRIED(Owner/Operator)	8/31/1993	LOWER BLUFF RD	06N	01W	6	SENE	70	65
ALL AMERICAN CONSTRUCTION(Owner/Operator)	8/14/1993	LOWER BLUFF RD	06N	01W	6	NENE	20	50
ALL AMERICAN CONSTRUCTION(Owner/Operator)	8/14/1993	LOWER BLUFF RD	06N	01W	6	NENE	20	50
JIM MURDOCK(Owner/Operator)	7/14/1993	GREEN FIELD LOOP	06N	02W	1	NENE	20	70
CHRISTIN JUMPER(Owner/Operator)	6/17/1993	1315 W IDAHO	06N	02W	1	NWNE	25	47
BRADLEY WEBB(Owner/Operator)	5/22/1993	LONGVIEW ST	06N	01W	6	NENE	20	40
DAVE ERLBACH(Owner/Operator)	5/12/1993	EDGEMONT ST	06N	02W	1	SENE	20	55
LARRY STERNS(Owner/Operator)	5/10/1993	622 EDGEMONT	06N	01W	6	NENE	20	76
KEITH SCHMALL(Owner/Operator)	2/17/1993	1880 FINTON	06N	01W	6	NENE	20	38
HARRY HAUN(Owner/Operator), LARRY CLARK(Owner/Operator)	11/18/1992	683 W IDAHO	06N	01W	6	NWNW	60	50
G DAVID NICHOLLS(Owner/Operator), MARY KATHLEEN NICHOLLS(Owner/Operator)	8/28/1992	105 S BUTTE	06N	01W	6	SESE	50	10
GERALD M WILKINS(Owner/Operator)	11/27/1990	3750 E BLACK CANYON RD	06N	01W	6	NWNE	20	75
MRS VERN CLARK(Owner/Operator)	4/27/1990		06N	01W	6	NWNW	20	65
WALTER D NEBEKER(Owner/Operator)	9/8/1987		06N	01W	6	NESW	20	5
DAN DUFFE(Owner/Operator)	5/6/1986		06N	01W	6	SWNW	20	3
MRS RAMBO(Owner/Operator)	12/31/1984		06N	02W	1	SWSW	0	55
HERBERT W SMITH(Owner/Operator)	3/29/1984		06N	01W	6	NENW	20	60
ALVIN R CORNWALL(Owner/Operator)	3/23/1984		06N	01W	6	NENW	0	60
MYRTLE N GILTZOW(Owner/Operator)	6/27/1982		06N	02W	1	SWNE	40	67
RONALD WEST(Owner/Operator)	2/22/1982		06N	02W	1	SWNE	0	72
CHURCH OF THE NAZARENE(Owner/Operator)	9/24/1981		06N	01W	6	NWNE	0	53
NOLAN YATES(Owner/Operator)	6/25/1981		06N	01W	6	NENW	0	73
GEORGE ROSANBALM(Owner/Operator)	7/15/1980		06N	02W	1	SENW	20	70
CHARLES L REKOW(Owner/Operator)	6/25/1980		06N	01W	6	SENW	30	3
LARRY FARNSWORTH(Owner/Operator)	4/28/1980		06N	02W	1	SENW	0	70
RALPH W MARTIN(Owner/Operator)	7/5/1979		06N	01W	6	NENE	30	37
GLYDE WHITE(Owner/Operator)	5/30/1979		06N	02W	1	SWNE	60	65
RON KING CONSTRUCTION(Owner/Operator)	3/13/1979		06N	02W	1	SENW	20	68



Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
GORDON LEISHMAN(Applicant)	11/24/1978		06N	02W	1	SENW	20	69
CARL CARLSON(Applicant)	8/16/1978		06N	01W	6	SWNW	20	70
PAUL DARNELL(Applicant)	8/10/1978		06N	01W	6	SWNW	20	70
BILL HEATHERINGTON(Applicant)	8/1/1978		06N	02W	1	NENE	20	56
DOYLE D WOODS(Applicant)	7/7/1978		06N	02W	1	SENW	20	68
GEORGE GOSENBALREN(Owner/Operator)	7/5/1978		06N	02W	1		0	70
NORMAN ROWE(Applicant)	6/30/1978		06N	01W	6	NENW	20	68
RALPH W MARTIN(Applicant)	6/23/1978		06N	01W	6	NENE	20	45
JOHN SHORS(Owner/Operator)	6/15/1978		06N	02W	1	SENW	0	70
WILLIAM W MAKI(Owner/Operator)	6/8/1978		06N	01W	6	SWNW	0	72
LONGSTROTH REALTY(Owner/Operator)	6/8/1978		06N	02W	1		0	70
M DALE GULL(Owner/Operator)	5/17/1978		06N	02W	1	SENE	0	68
HODGINS REALTY(Owner/Operator)	5/10/1978		06N	02W	1	SENW	0	70
GEORGE BRACKETT(Owner/Operator)	3/21/1978		06N	01W	6	NENE	0	32
DOYLE D WOODS(Owner/Operator)	2/2/1978		06N	02W	1	SENW	0	29
RUSSELL REKOW(Owner/Operator)	1/14/1978		06N	02W	1	SENE	0	60
BILLY G WEBB(Owner/Operator)	12/26/1977		06N	01W	6	NWNE	0	47
RONALD A WRIGHT(Owner/Operator)	12/20/1977		06N	02W	1	SENW	0	72
RONALD A WRIGHT(Owner/Operator)	12/19/1977		06N	02W	1	SENW	0	70
JACK R PINGEL(Owner/Operator)	11/17/1977		06N	02W	1	SENE	20	57
RUFUS A THRALL(Owner/Operator)	11/9/1977		06N	01W	6	SENE	20	66
JERRY NASHER(Owner/Operator)	9/22/1977		06N	02W	1	SENW	20	70
HODGINS REALTY(Owner/Operator)	9/16/1977		06N	02W	1	SENW	20	68
ROBERT RYAN(Owner/Operator)	9/8/1977		06N	02W	1	SENW	20	72
GLENN E MUZZY(Owner/Operator)	8/29/1977		06N	02W	1	SENW	20	68
TRIANGLE CONSTRUCTION(Owner/Operator)	3/30/1977		06N	02W	1		0	35
TRIANGLE CONSTRUCTION(Owner/Operator)	3/26/1977		06N	02W	1		0	38
TRIANGLE CONSTRUCTION(Owner/Operator)	3/25/1977		06N	02W	1		0	42
TRIANGLE CONSTRUCTION(Owner/Operator)	3/21/1977		06N	02W	1	NWSW	0	42
ORLO ROGERS(Owner/Operator)	3/15/1977		06N	01W	6	NWNE	0	41
JIM MURSHAN(Owner/Operator)	3/10/1977		06N	02W	1	SENW	0	70
JIM WALKER(Owner/Operator)	11/19/1976		06N	01W	6	NWNE	0	50
GARY HODGES(Owner/Operator)	6/16/1976		06N	01W	6	NENE	0	67
JOHN SOWARD(Owner/Operator)	5/20/1976		06N	02W	1	SWNE	0	75
W BURR(Owner/Operator)	5/6/1976		06N	01W	6	NENE	0	64
LEE ROY STUCKER(Owner/Operator)	3/31/1976		06N	02W	1	SENW	0	72
DALE ADAMSON(Owner/Operator)	2/24/1976		06N	02W	1	SENW	20	72
ERNIE RADKE(Owner/Operator)	2/7/1976		06N	01W	6	SENE	0	37
TOM DOYLE(Owner/Operator)	9/30/1975		06N	01W	6	SWNW	0	58
CHARLES L REKOW(Owner/Operator)	5/2/1975		06N	02W	1	SESW	20	8
JACK ST GERMAIN(Owner/Operator)	4/10/1975		06N	01W	6	SESE	0	9
GRATTON REALTY(Owner/Operator)	1/21/1975		06N	02W	1	SENW	20	62
ELMER FORD(Owner/Operator)	12/12/1974		06N	01W	6	SESE	20	7
DON SHAW(Owner/Operator)	11/1/1974		06N	02W	1	SENE	0	70
DAN BENTLEY(Owner/Operator)	10/3/1974		06N	02W	1	SENW	0	65
CHARLES L REKOW(Owner/Operator)	9/9/1974		06N	02W	1	NWSE	225	2
GRATTON REALTY(Owner/Operator)	9/6/1974		06N	02W	1	SENW	20	65
CHUCK REKOW(Owner/Operator)	7/25/1974		06N	01W	6	NWNE	0	50
KATHERINE HUNT(Owner/Operator)	6/14/1974		06N	01W	6	SENW	0	12
FRED J DANIELSON(Owner/Operator)	5/14/1974		06N	01W	6	NENE	0	40
OSCAR HUBER(Owner/Operator)	4/15/1974		06N	02W	1	SWNE	0	70

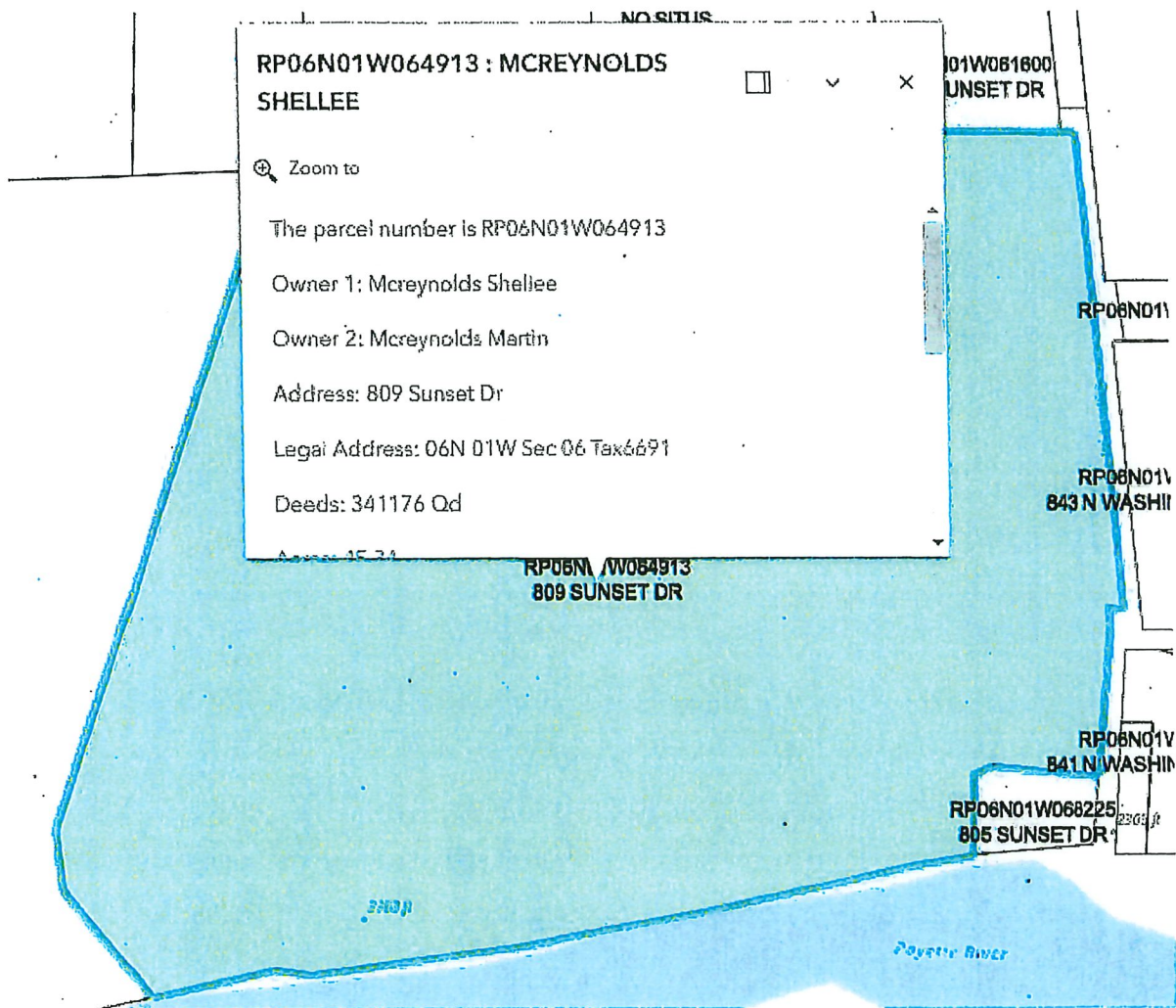


Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
ERNEST MEDLY(Owner/Operator)	10/19/1973		06N	01W	6	SWNW	0	60
BOB CALHOUN(Owner/Operator)	6/23/1973		06N	02W	1	NESW	20	60
BOB JOHNSON(Owner/Operator)	4/25/1973		06N	01W	6	SWNW	0	56
EVERETT HUGHES(Owner/Operator)	3/7/1973		06N	01W	6	SWSE	20	10
DEAN DRAPER(Owner/Operator)	1/8/1973		06N	01W	6	NWNE	20	30
CHARLES L REKOW(Owner/Operator)	9/20/1972		06N	02W	1	NESW	20	30
LEE TAYLOR(Owner/Operator)	9/17/1972		06N	01W	6	SWSW	20	6
CLARENCE HARRLER(Owner/Operator)	9/7/1972		06N	01W	6	NENW	20	65
MAX DUTSON(Owner/Operator)	12/24/1971		06N	02W	1	SWNE	25	30
JAKE L SPOOR(Owner/Operator)	7/10/1971		06N	01W	6	NWNE	20	40
EARL ROSTOCK(Owner/Operator)	5/18/1971		06N	01W	6	NWNE	20	40
GEORGE W RAMBOW(Owner/Operator)	3/3/1971		06N	02W	1	NESW	20	65
AGNES E RYNEARSON(Owner/Operator)	12/1/1970		06N	01W	6	NWNW	20	68
ARNOLD NEAL ADAMS(Owner/Operator)	6/15/1970		06N	02W	1	SWNE	30	60
JOHN CATES(Owner/Operator)	5/23/1970		06N	02W	1	SWNE	0	67
<b>FRANK D CALLENDER(Owner/Operator)</b>	<b>5/13/1970</b>		<b>06N</b>	<b>02W</b>	<b>1</b>	<b>NESE</b>	<b>400</b>	<b>5</b>
ROBERT W CALLENDER(Owner/Operator)	5/4/1970		06N	02W	1	SESW	20	64
<b>FRANK YARNO(Owner/Operator)</b>	<b>3/27/1970</b>		<b>06N</b>	<b>01W</b>	<b>6</b>	<b>SWSE</b>	<b>40</b>	<b>8</b>
EVERETT MURRAY(Owner/Operator)	2/3/1970		06N	01W	6	SESE	20	9
GARLAND HUSKEY(Owner/Operator)	1/5/1970		06N	01W	6	NWNW	10	10
ELMER JONTRA(Owner/Operator)	10/10/1969		06N	01W	6	NENE	20	38
BARBRA STIERS(Owner/Operator)	6/3/1969		06N	02W	1	NESW	20	62
BARBARA L MARSELLE(Owner/Operator)	4/5/1969		06N	01W	6	NWNE	0	47
CHARLIE SMITH(Owner/Operator)	3/24/1969		06N	01W	6	NWNE	0	44
<b>RAYMOND J WOOD(Owner/Operator)</b>	<b>10/31/1968</b>		<b>06N</b>	<b>01W</b>	<b>6</b>	<b>SWNE</b>	<b>20</b>	<b>34</b>
ROYAL A WENIG(Owner/Operator)	6/20/1968		06N	02W	1	SWNE		65
<b>HENRY H ESTILL(Owner/Operator)</b>	<b>6/14/1968</b>		<b>06N</b>	<b>01W</b>	<b>6</b>	<b>SESW</b>	<b>20</b>	<b>5</b>
WANDA L RANKIN(Owner/Operator)	4/24/1968		06N	01W	6	NENE	20	40
CHURCH OF THE NAZARENE(Owner/Operator)	7/21/1967		06N	01W	6	SWNE	45	45
GARY TUCKER(Owner/Operator)	7/16/1967		06N	02W	1		10	62
DUANE HODGINS(Owner/Operator)	6/14/1967		06N	01W	6		10	13
OWEN C WILKERSON(Owner/Operator)	4/20/1966		06N	02W	1	SWNE	25	65
<b>NICK RYNEARSON(Owner/Operator)</b>	<b>3/27/1966</b>		<b>06N</b>	<b>01W</b>	<b>6</b>	<b>SESW</b>	<b>0</b>	<b>10</b>
JOHN PLUGER(Owner/Operator)	2/24/1966		06N	01W	6	NWNE	0	47
E C STORM(Owner/Operator)	12/4/1965		06N	01W	6	NWNW	0	25
OLIVER HOWER(Owner/Operator)	11/24/1965		06N	01W	6	NWNE	20	35
HARRY LYONS(Owner/Operator)	10/27/1965		06N	01W	6	SWSE	20	5
DALE E COOPER(Owner/Operator)	8/20/1965		06N	01W	6	SWNW	20	34
CHARLES G PEARCE(Owner/Operator)	8/11/1965		06N	01W	6	NWNE	20	30
NORMAN O FLIEGEL(Owner/Operator)	6/17/1965		06N	01W	6	NENW	20	60
WILLIAM GARDENER(Owner/Operator)	1/9/1965		06N	01W	6	NWNE	20	50
CHARLES L SAWYER(Owner/Operator)	7/13/1964		06N	01W	6	NWNE	15	40
EARL KEARNS(Owner/Operator)	7/8/1964		06N	01W	6	NWNE	20	40
GALE FISHER(Owner/Operator)	6/24/1964		06N	01W	6	SESE	10	3
VERNON COLBURN(Owner/Operator)	8/1/1963		06N	02W	1	SESW	10	62
<b>HARRY LYONS(Owner/Operator)</b>	<b>7/12/1963</b>		<b>06N</b>	<b>01W</b>	<b>6</b>		<b>15</b>	<b>10</b>
ARLIE J STILES(Owner/Operator)	6/1/1962		06N	02W	1	NENE	20	55
SIDNEY GIBSON(Owner/Operator)	11/20/1961		06N	01W	6		15	50
NORMAN ROWE(Owner/Operator)	9/1/1961		06N	01W	6	NWNW	10	60

Contact	Const Date	Address	T	R	Sec	Tract	gpm	SWL
CLARENCE GASSARVAY(Owner/Operator)	6/12/1960		06N	01W	6		10	45
DICK THIELGES(Owner/Operator)	12/15/1959		06N	02W	1		10	65
ERNEST L BECKMAN(Owner/Operator)	11/28/1959		06N	02W	1		10	10
<b>RALPH SKINNER(Owner/Operator)</b>	<b>8/13/1959</b>		<b>06N</b>	<b>01W</b>	<b>6</b>		<b>10</b>	<b>15</b>
WILLIAM BAURY(Owner/Operator)	4/30/1959		06N	02W	1		10	60
HARRY EBBY(Owner/Operator)	9/30/1958		06N	01W	6		10	45
JOHN H COUCH(Owner/Operator)	7/21/1958		06N	01W	6		15	6
L C MC FARLAND(Owner/Operator)	5/30/1958		06N	01W	6		10	45
JESSE M WILLINGHAM(Owner/Operator)	1/24/1958		06N	01W	6		10	6
L C MC FARLAND(Owner/Operator)	10/24/1957		06N	01W	6	NENE	10	40
PAUL W EASTERBROOK(Owner/Operator)	11/4/1956		06N	02W	1	NENE	10	60
RICHARD D HODGINS(Owner/Operator)	3/6/1956		06N	01W	6	NENE	10	60
NED GARD(Owner/Operator)	2/1/1955		06N	01W	6		7	60
C M HOCK(Owner/Operator)	7/17/1954		06N	01W	6		10	40
CITY OF EMMETT(Owner/Operator)	5/12/1954		06N	01W	6	NENW	182	72
CH2M HILL(Owner/Operator)		419 WASHINGTON	06N	01W	6	SESW	0	6
CH2M HILL(Owner/Operator)		419 WASHINGTON	06N	01W	6	SESW	0	6
BONNIE LAURA SUBDIVISION(Owner/Operator)			06N	02W	1	NWSE	0	0
ARLIE J STILES(Owner/Operator)		1115 EDGEMONT	06N	02W	1	SENE	0	0
TIMOTHY L WALKER(Owner/Operator)		1330 EDGEMONT ROAD	06N	02W	1	NWNW	0	



# Exhibit F – Proof of Ownership Gem County Assessor Website



# Exhibit H – Fire District Letter

Chief: Michael Welch  
 Cell: (208) 899-1981  
 Email: mwelch@gemfireems.org



Commissioners  
 Earl Defur  
 Jason McIntosh  
 David Timony

Phone: (208) 365-2012

Address: 115 W 3<sup>rd</sup> St. Emmett, Idaho 83617

Email: info@gemfireems.org

Mineral Extraction Access Road Request for:  
 Stefani Dwyer & Shellee McReynolds

## Road Application

Date:	11/16/2023		
Owner Name:	Stefani Dwyer & Shellee McReynolds		
Builder/Contractor:	Engineer, Matrix Engineering, Inc. Elwin T. Butler, PE		
Email:	ebutler@mat-eng.com	Phone	: 208 739-8668
Address/Location:	809 Sunset Drive, Emmett, ID		
Notes:	The proposed mineral extraction is for two properties, Owners listed above. Length of the access road is 1437 feet to center of the cul-de-sac. The diameter of cul-de-sac, drivable surface, is 74-feet. Cul-de-sac easement is 100-feet. Sheet C403 shows typical road section, length of road and radius of cul-de-sac		
Application Fee \$100.00 Paid:	\$100.00	Check Number:	7525 Plot map: <input checked="" type="checkbox"/>

Gem County Fire Protection District #1 has met with the responsible party for Initial Inspection, site inspection and discussion of requirements. Final inspection still needed to be completed before occupancy.

### Official Fire Department Signature only

Signature: *Michael Welch* Date: 11/20/23

Big Pine Construction  
 Marty McReynolds  
 1740 Sand Hollow Rd  
 Caldwell, ID 83607

7525  
 81-241840

Nov 17, 2023

PAY TO THE ORDER OF: Gem County Fire \$ 100.00

One hundred and 00/100 DOLLARS

Zions Bank  
 809 Sunset Gravel permit.  
 FOR 208-880-0147 Shellee McReynolds

⑆124000054⑆ 981 23264 811 7525



# Exhibit I – Gem County Prohibited Mineral Extraction Overlay Area





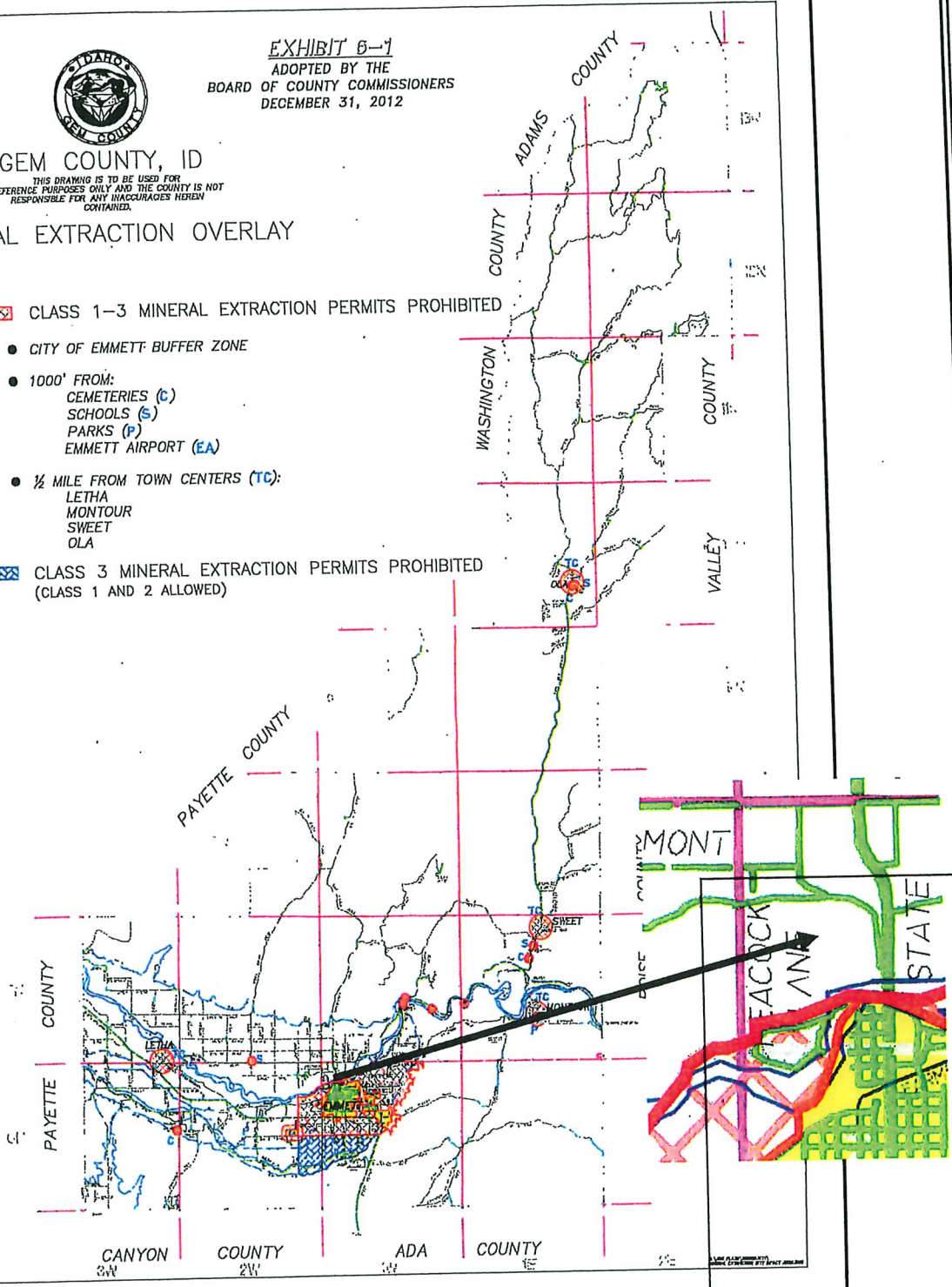
GEM COUNTY, ID

THIS DRAWING IS TO BE USED FOR REFERENCE PURPOSES ONLY AND THE COUNTY IS NOT RESPONSIBLE FOR ANY INACCURACIES HEREIN CONTAINED.

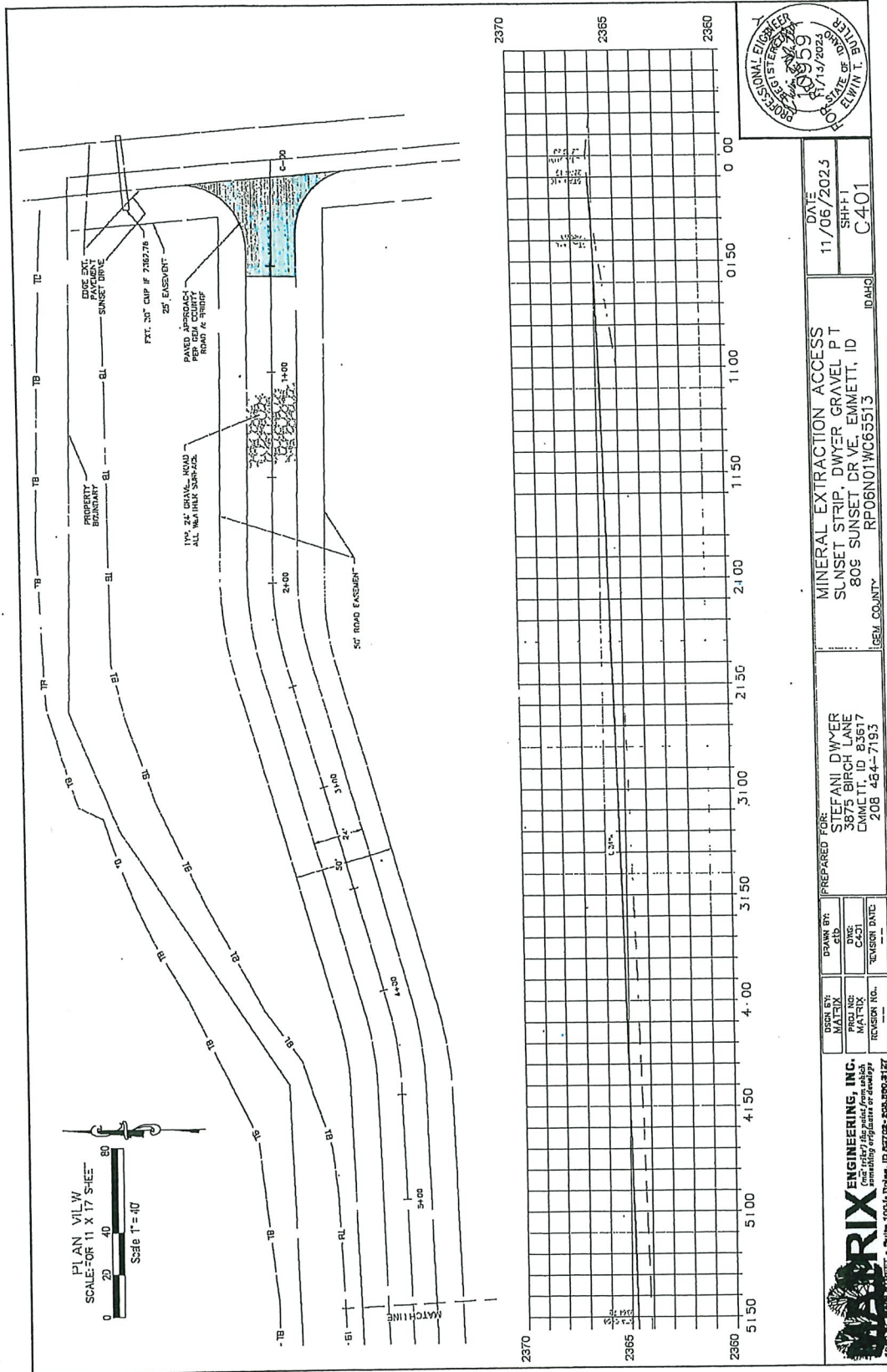
*EXHIBIT 6-1*  
ADOPTED BY THE  
BOARD OF COUNTY COMMISSIONERS  
DECEMBER 31, 2012

## MINERAL EXTRACTION OVERLAY

-  CLASS 1-3 MINERAL EXTRACTION PERMITS PROHIBITED
- CITY OF EMMETT BUFFER ZONE
- 1000' FROM:
  - CEMETERIES (C)
  - SCHOOLS (S)
  - PARKS (P)
  - EMMETT AIRPORT (EA)
- ½ MILE FROM TOWN CENTERS (TC):
  - LETHA
  - MONTOUR
  - SWEET
  - OLA
-  CLASS 3 MINERAL EXTRACTION PERMITS PROHIBITED (CLASS 1 AND 2 ALLOWED)



# Exhibit J – Private Access Road Plans



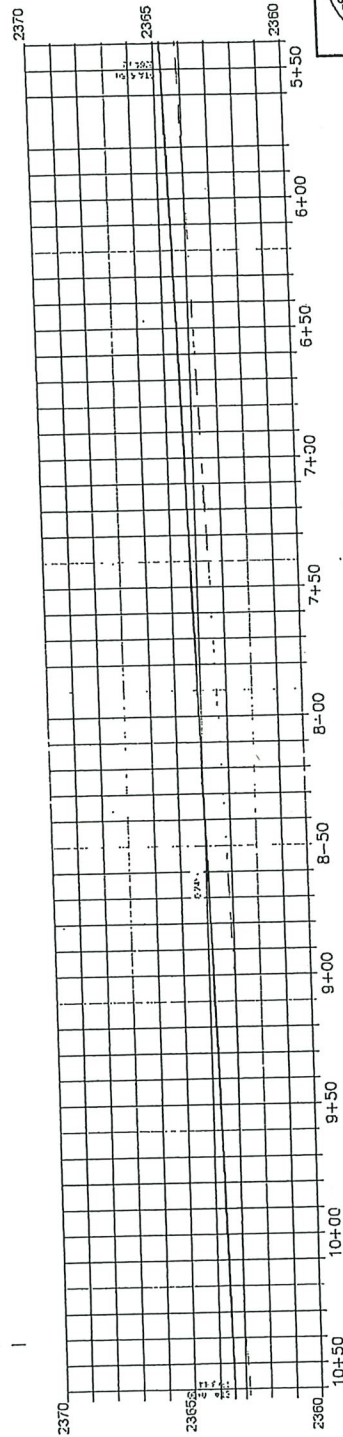
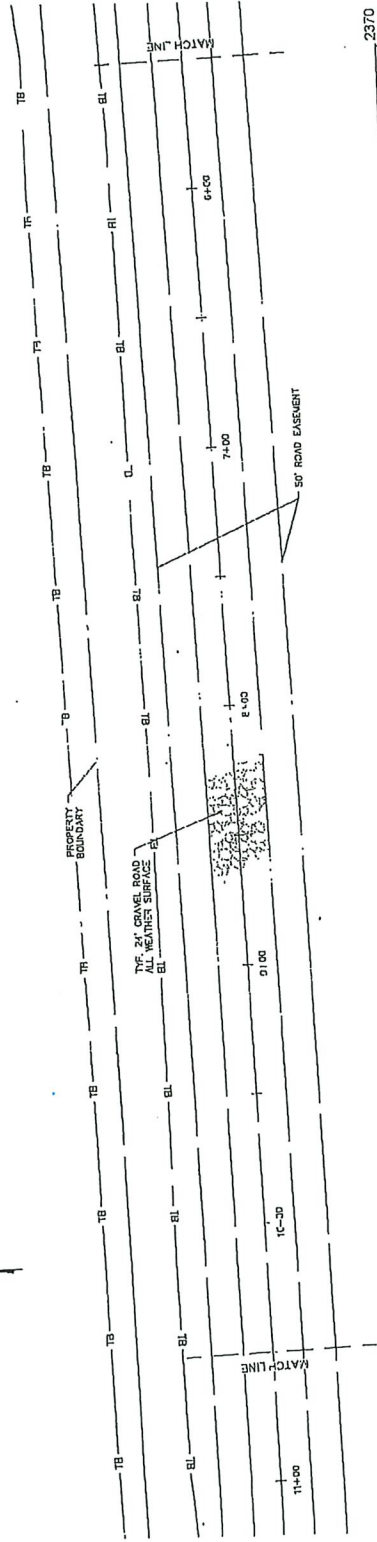
DATE	11/06/2023
DATE	11/13/2023
NO. OF SHEETS	1
SHEET NO.	1
PROJECT	MINERAL EXTRACTION ACCESS
OWNER	SUNSET STRIP, DWYER GRAVEL P T
CLIENT	806 SUNSET DRIVE, EMMETT, ID
LOCATION	EMMETT, ID
PROJECT NO.	RPO6N01WC65513
DATE	11/06/2023
SCALE	C-401

PREPARED FOR:  
STEFANI DWYER  
3875 BIRCH LANE  
EMMETT, ID 83617  
208 484-7193

**ARIX ENGINEERING, INC.**  
1001 W. MAIN STREET • Suite 100A • Emmett, ID 83601-2127  
TEL: 208-484-7193 • FAX: 208-484-7194  
www.arixeng.com

DESIGN BY	DATE
MATRIX	11/06/2023
PROJ. NO.	C-401
MATRIX	
REVISION NO.	
REVISION DATE	





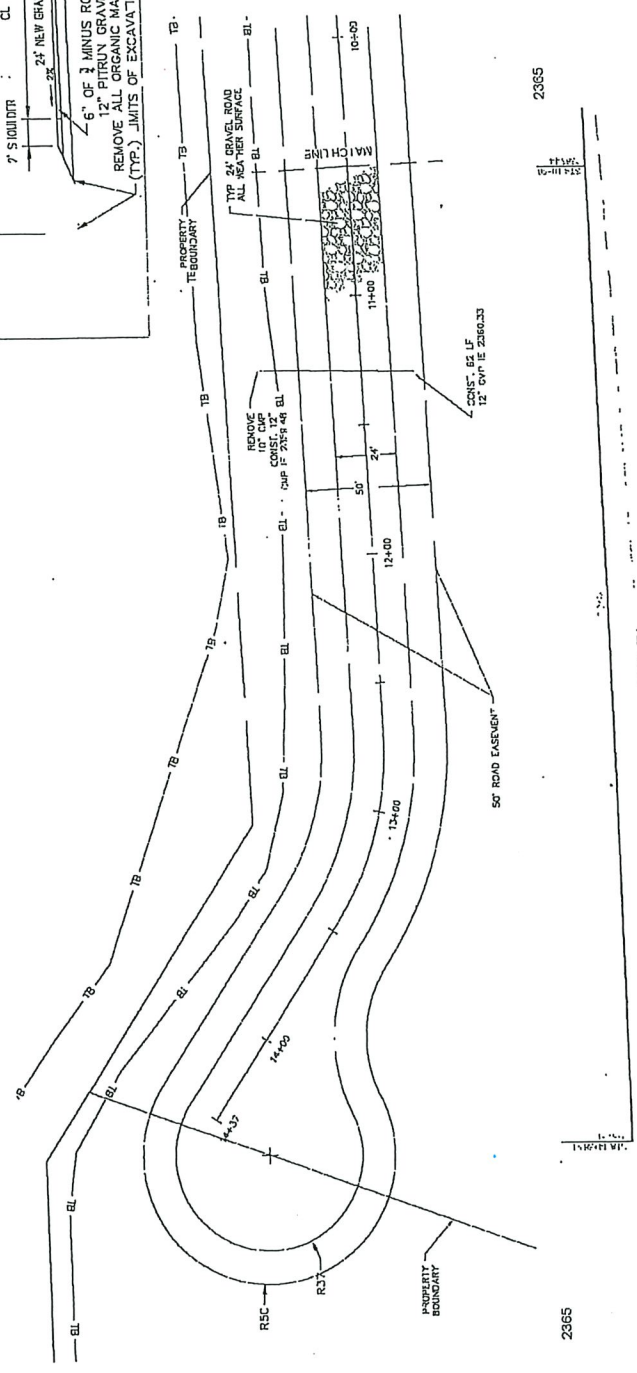
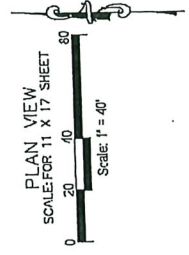
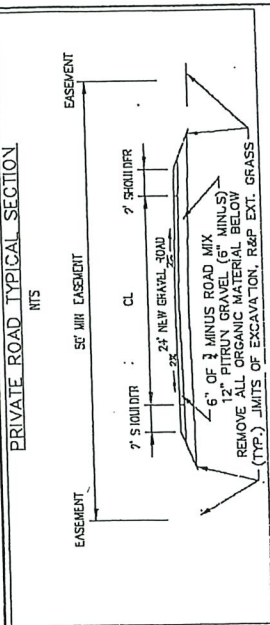
DATE 11/06/2023  
SHEET C402

MINERAL EXTRACTION ACCESS  
SUNSET STRIP, DWYER GRAVEL P T  
809 SUNSET DRIVE, EMMETT, ID  
RFP06N01W065513

PREPARED FOR:  
STEFANI DWYER  
3875 BIRCH LANE  
EMMETT, ID 83617  
208 424-7193

DESIGN BY:	DRAWN BY:	DATE:
MATRIX	CIS	---
REVISION NO.:	DATE:	---
MATRIX	C402	---

**MATRIX ENGINEERING, INC.**  
1200 W. MARK STREET - Suite 1001 - Boise, ID 83725-2000.31127



DATE  
1/06/2023  
SHEET  
C403

MINERAL EXTRACTON ACCESS  
SUNSET STRIP, DWYER GRAVEL PIT  
809 SUNSET DRIVE, EMMETT, ID  
GEM. COUNTY. RPT010N01E24-0000 (IDAHQ)

PREPARED FOR:  
SHELLEE MCREYNOLDS  
1750 SANDHOLLOW ROAD  
CALDWELL, ID 83607  
208 880-0147

DRAWN BY:	MATRIX	DRAWN BY:	CLB
PROJ. NO.:	MATRIX	DWG. NO.:	C403
REVISION NO.:		REVISION DATE:	





# SITE PLAN

SCALE: 1/16" = 1'-0"



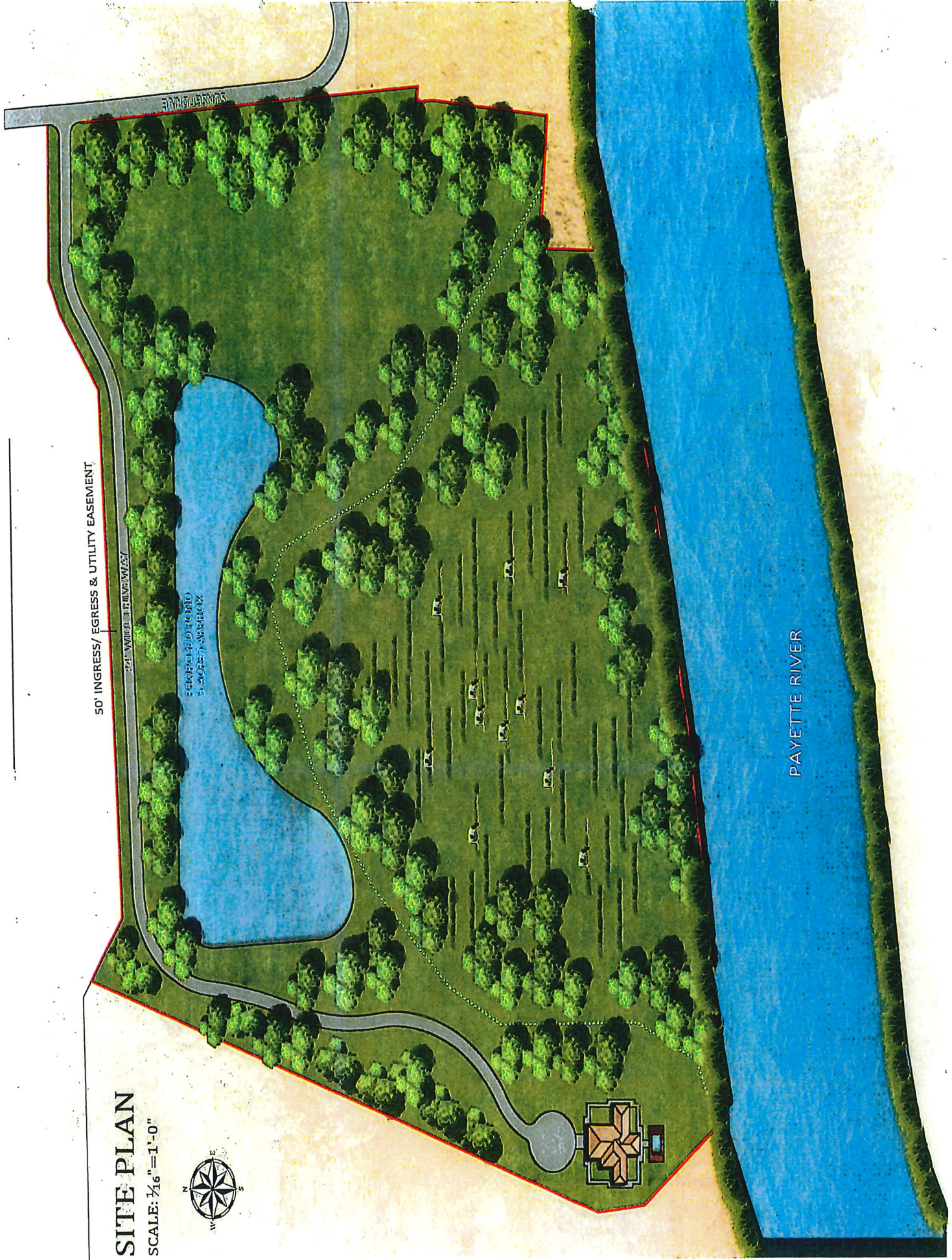
50' INGRESS/ EGRESS & UTILITY EASEMENT

22' WIDE TRAILWAY

ECOLOGICAL POND  
SLOPES APPROX

SPURWAY

PAYETTE RIVER





## Stephanie Crays

---

**From:** C Cozz <cozzd@hotmail.com>  
**Sent:** Thursday, July 25, 2024 1:38 PM  
**To:** Stephanie Crays  
**Subject:** NO- to proposed Mineral Extraction Site

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

My name is Chris Cozzolino at 603 N. Commercial Ave. Emmett ID

I recently received a letter regarding special use permit being proposed for Mineral extraction by Matrix Engineering and Stefani Dwyer.

My vote in a FIRM NO WAY! We here in Emmett are still suffering awful noise and other quality of life concerns from the last special use permit given to the local Blue Vallor racetrack NOISE BOMB! It's absolutely disgraceful and seems you folks really don't give residents any consideration over dollars. These letters are sent out to far too few people in the area, and no one knows anything until afterward these projects are complete.

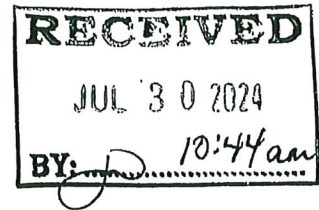
AGAIN, I vote HELL NO to any more quality of life disruptions to the residence of Emmett, include this new proposed Mineral Extraction.

Please stop doing this crazy stuff so close to our little town!

Chris Cozzolino



July 30, 2024



To: Development Services Office  
109 S McKinley Ave  
Emmett ID 83617

**Regarding the Special Use Permits for the two properties on Sunset Drive.**

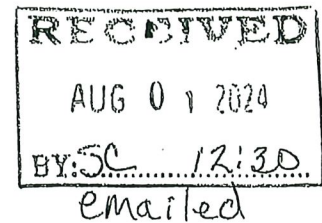
I am opposed to these permits for the following reasons:

1. **The effect on the aquifer.** The maximum excavation depth is stated as 30 feet, which would affect the groundwater that is used by many residences in this area. I do not want my well and other wells in the area to be polluted or run dry by this excavation. What effect would the "dewatering of the subterranean and subaqueous layers" have on our aquifer?
2. **The effect of truck traffic on Sunset.** This portion of Sunset Drive is narrow and has several 90-degree curves, and traffic is already bad on this road. Having large gravel trucks going in and out will cause hazards to drivers, including school buses, and will be dangerous, dusty, and also very noisy. And for large gravel trucks to be pulling out on the highway would be dangerous to those people who use this road and the highway.
3. **This project is too close to the city.** I feel that these projects are so close to the river and to town, that they would affect the people who live close because of the noise of not just the trucks, but of the entire project of excavation.

**Please deny these permits.** To allow these two properties to cause damage to the ground, the water, and create hazardous conditions is not in the best interest of the county.

  
Janet Colburn  
1530 Middlefield Ave.  
Emmett ID 83617  
[Cjanet51@gmail.com](mailto:Cjanet51@gmail.com)  
208-859-6054

Gem County Development Services Department  
Planning and Zoning  
109 S. McKinley Ave  
Emmett ID 83617



8/1/2024

Dear Commission Members,

We are writing to express our strong objection to the proposed special use permit by McReynolds and Dwyer.

The extraction of rock and gravel outlined in the proposal will create noise and dust for the entire area neighboring the property, including the sports complex at the Island and homes on the bench. In addition, having a gravel pit in the area will increase heavy truck traffic which creates more congestion and damage to our roads. As these trucks would need to cross the bridge into town, this could be a significant infrastructure issue for Emmett.

We also have concerns about removing the groundwater in the area. The water level for our home has been decreasing because of new homes requiring additional water for domestic wells, while at the same time resulting in fewer acres being flood irrigated as agricultural land is rezoned for residential housing. This lack of flood irrigation combined with severe drought conditions over the past several years has meant that water is not being saturated back into the land, destabilizing our long term aquifer. Excavating down thirty feet to access the gravel bed will require them to pump out a significant amount of water, drawing down water levels even more. As Gem County seeks to grow as a community with a sustainable future, we must consider how homes in our area can continue to have reliable water supplies.

The proposal to make the pits into ponds also creates more stagnant water for mosquitoes. This increases the potential for diseases like West Nile Virus to spread. As landowners, we have struggled to address these issues ourselves and find it frustrating that people would be seeking to add to the problem instead of finding solutions.

The permit indicates that it is primarily for personal use which means that there will be material sold. The length of time also indicates that this is for commercial purposes. There is no identification as to how much material would be for personal use and how much for commercial purposes. Ultimately, this request would damage the value of other people's properties without adding any community benefits.



For the above concerns we would strongly urge the Commission to deny this special use request. We firmly believe that life in Gem County would not be improved and moving forward with this project could have lasting negative impacts.

We look forward to bringing these concerns to the public hearings as well.

Thank you for your time and consideration,  
Clay and Margie Scofield

1800 Fenton Dr.  
Emmett, ID 83718  
208-365-1785



July 27, 2024

**RE: Special Use Permits Requested By Stephani Dwyer, and Shellee & Marty McReynolds**

Gem County Planning and Zoning Commission,

Thank you for notifying me of two applications for Special Use Permits to allow mineral extraction in the vicinity of my residential property on Carson Street in Emmett.

After studying the Permit Narratives and Submittals completed by Stephani Dwyer, and Shellee and Marty McReynolds, I conclude that BOTH Special Use Permits for this industrial use should be denied.

The following summarizes my concerns about these two requests for Special Use Permits:

- 1) The Permit Narratives for both properties state the owners "are requesting approval for a 3-4 year permit". It seems that a Special Use Permit application should have to state a specific term, but in any event, negatively impacting nearby properties with an incompatible use for even 3 years is too long. To make matters worse, Gem County Code Title 11, Chapter 6, Section 5, Subsection O(11)(c)(1&2), states the owners have the right to apply for a time extension beyond the initial term of the permit. The Permit Narratives say the extracted materials will be used to develop homesites, improve road access to those homesites, and more importantly, to expand Highway 16. The owners may find they need to excavate beyond their anticipated 3 or 4 years, and there is little doubt that the Special Use Permits would be extended if needed to obtain materials to complete that highway project.
- 2) The sizes of the proposed quarries are huge. Dwyer has designated a 10 acre borrow pit that can be excavated to a depth of 25 feet. McReynolds has designated a 5.6 acre borrow pit that can be excavated to a depth of 30 feet – the equivalent of a 3-story building! These two excavation projects will utilize heavy equipment -- excavators and large trucks -- to remove and transport vast amounts of materials to locations on the owners' parcels, as well as offsite for the highway project. They also need to "dewater" the two excavation sites, using pumps of an unspecified size and decibel level. The excavation sites and truck access road are near the southern boundaries of both parcels -- the boundaries which are closest to the residential area in which my property is



located. The noise from this operation will be substantial, and it will carry more easily across the water of the adjacent Payette River than it would across land. There may also be dust created during the excavation. Nearby residents would have to endure these adverse conditions for up to 10 hours per day, for a minimum of 3 years.

**The industrial use which Dwyer and McReynolds have requested is not compatible with residential uses and should not be permitted.**

Thank you, in advance, for considering my opinion.

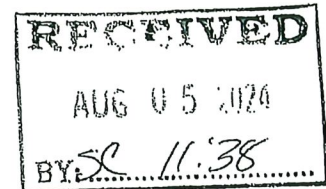
Best,

A handwritten signature in black ink, appearing to read "Wes Hill". The signature is written in a cursive style with a large initial "W".

Wes Hill

To: Gem County Development Services Department  
Planning & Zoning Commission Members

Re: Special Use Permit Applications  
Shellee & Marty McReynolds  
Stephani Dwyer



August 5, 2024

To all concerned:

I will start by saying that we were just made aware of these applications yesterday, August 4, 2024, thanks to a neighbor telling us about them. Apparently, there was a mailing to concerned parties, one of whom is right next door to us; for whatever reason, we did not receive that mailing. We would like to be included in all future mailings regarding these applications.

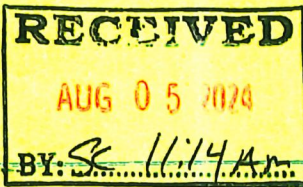
Our concerns regarding this project are:

- Dust and noise from the operation being placed basically right below our home on the rim of the bench
- Why is the permit for such an extended time?
- How can we be assured that there will not be further development and not just the two homes as stated?
- How will our well and water table be affected by the ongoing extraction of water required for the project's completion, i.e. building of homes on that property? Will the fact that the property is in a flood zone require ongoing pumping necessitating a large noisy pump 24/7?
- How will our traffic through town on Washington be impacted as well as the impact on road conditions with that many heavy truckloads over time?
- We purchased and built a home on our property based on the fact that the property below us is zoned agriculture and in a flood zone, leading us to believe that we would be able to enjoy our home noise and relatively dust free for our remaining years. The permit is basically asking for a commercial operation to be allowed for up to 4 years and we are very much against it.

Thank you for considering our concerns in this matter.

Mike and Jan Hillenbrand  
1203 Sunset Drive  
Emmett, Idaho 83617





August 5, 2024

My name is Amy Helwick and I reside at 202 Sunset Drive with my husband Timmy.

I have questions and concerns regarding the proposed gravel pit at 809 Sunset Drive and another address TBD.

Why is 4 years needed to build a driveway access and home site. The request asks for 6-12 months and then 3-4 years in the same paragraph.

The request states that the gravel extraction operation will not impact or create a hazard to wild life, water ways, public safety or ecological conditions. Has there been any consideration to semi trucks hauling heavy loads of gravel from a small county road that isn't even wide enough for a truck and car to pass. Then immediately crossing a bridge? Has a traffic study been done?

The request states set hours of operation 8 a.m to 6 p.m. But will pumps be running 24 hours 7 days a week?

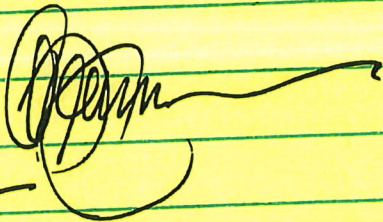


The request states one pond then states 2 ponds. How many ponds? Will these ponds ever be used for public access once they are likely donated to the Fish and Game Department for continued maintenance? Does viable fish and wildlife habitat mean that the ponds will be stocked with fish?

I would like to see these vaguely worded "explanations" clarified.

I will attend the meeting on August 12th with my husband to hear the concerns and questions that I have answered.

Sincerely,  
Amy Helwick  
Timothy Helwick





## Stephanie Crays

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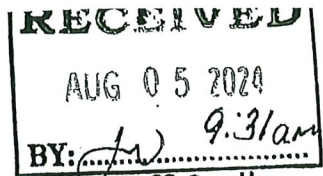
**From:** Church Home <churchohana@gmail.com>  
**Sent:** Monday, August 5, 2024 11:07 AM  
**To:** Stephanie Crays  
**Subject:** Rock quarry

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To whom it may concern,

Please vote NO on putting a rock quarry off of Sunset here in Emmett. It's time you all put Emmett residents before other interests. I have lived in Emmett my whole life and it is so sad how in the last decade it seems the commissioners put investors and outside interests above Emmett residence and our wants/needs. Please stop and vote NO.

Sincerely,  
Amy Church



To: Gem County Development Services Department (including all relevant staff & all Planning & Zoning Commission members)

August 5, 2024

The following are comments and concerns in opposition to two special use minerals extraction permit applications being applied for by Shellee & Marty McReynolds and Stephani Dwyer. My comments and objections apply equally to both applications (I think only one sign exists on the site advertising the permit application.)

1. There is language in the permit narrative "The primary focus for the operation... is to remove/utilize material necessary to build a road and engineered building pads for our future residence(s.) I find this disingenuous at best and certainly not what they are asking for. They are asking for a minerals extraction permit to remove (potentially) 968,000 yards of material.
2. The property is adjacent to the river and in a flood plain. Those of us that were here in 1997 saw several feet of water covering most, if not all of the site. If they attempt to excavate the site per the permit, then large pumps, running 24 hours a day seven days a week will be necessary (if even that will dewater the excavation.). No mention is made of a power source for those pumps (diesel or electric) and will those pumps make noise? Discharge of this water will require a NPDES permit from the EPA.
3. How would pumping that much water effect wells in the surrounding area?
4. The 968,000 yards of material I previously mentioned will have to be trucked off site by trucks. Assuming 20 yards per truck, that is more than 48,000 truck trips down Washington St. through town. Can Washington St. accommodate that much more traffic?
5. If this permit were to be granted, I'd like to see a substantial surety bond posted.

Thank you for your consideration on this matter.

Gordon Barkley  
2200 Pioneer Ave  
Emmett, ID 83617



## Stephanie Crays

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**From:** Debra Shelton <debnjaycats123@yahoo.com>  
**Sent:** Monday, August 5, 2024 9:51 AM  
**To:** Stephanie Crays  
**Subject:** McReynolds and Dwyer Mineral Extraction

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

8/5/24

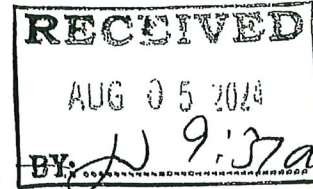
Dear Ms. Crays,

Please consider the following in regard to the McReynolds and Dwyer Mineral Extraction Special Permits Project:

These two "Gravel Pits" will not benefit our County or community in any way. The impact of traffic on already crowded roads (Washington and Sunset Dr.) will be hazardous and frustrating for everyone. The excessive noise, dust and pollution will be detrimental to neighbors, plants and animals. They will also ruin a big, beautiful piece of agricultural land and we have already given up so much for the subdivisions going in around the area. They will jeopardize the water levels for residential wells and the mining will most likely be pumping water 24/7. Not good! The areas of concern are so close to the Payette River where many species of plants and animals live and visit, which would be threatened and may never return. The soil composition will be altered. This is not a good idea for this area. Thank you for your consideration of my points.

Debra Shelton  
1672 Sunset Dr.  
Emmett, ID 83617

To: Gem County Development Services  
Planning and Zoning Commission  
109 S. McKinley Ave.  
Emmett, Idaho 83617



From: Mel and Sue Gunter  
1012 Lilac Lane  
Emmett, Idaho 83617

Re: Special Use Permit Request  
McReynolds and Dwyer

Date: August 3, 2024

To whom it may concern:

We are residents of the Bonnie Laura Subdivision located off Sunset Drive. According to the notice from Gem County Development Services, our subdivision is located in the impact area of the proposed special use permit to allow a quarry/quarries for extraction of gravel. We have several concerns about the McReynolds/Dwyer proposal for the permit.

The Bonnie Laura subdivision's water source is a community well located below the subdivision near the Tin Cup Ranch. It serves 26 homes that makeup the Bonnie Laura subdivision. The community well is also located in the area of the proposed special use permit.

We have several concerns about the McReynolds/Dwyer proposal for the permit.

1. **Traffic and Safety Concerns:** Sunset Drive has a history of more than just vehicles traveling to and from work. During the day one may meet mothers with strollers, kids and adults on bicycles, runners, walkers, and Cross Country teams practicing for competition from the high school and middle school. There is also farm traffic and equipment on the road, and school buses stop for children. In the summer months river floaters also park vehicles on Sunset and cross over to the river on both Washington and Sunset. Currently, there are no walking/bicycle paths marked and NO noticeable crosswalks. In the winter months Sunset may get plowed and may not on the same day of the snow. It is a secondary road.
2. **Traffic Congestion Concerns:** Gravel trucks turning left and exiting off of Washington Avenue onto Sunset Drive will create more congestion by holding up traffic since there is no turn lane. Trucks hauling gravel several times a day, especially at peak traffic hours, will add to the possibility of more accidents and more backed up traffic at the main intersection in town. At times, traffic is already backed up to Cemetery Hill when the train crosses the tracks downtown and which often holds traffic up for 10 minutes or more.
3. **Environmental Concerns:** The land at the center of this special use permit is a home to many migratory birds and animals. For example, deer travel to the Payette River on a daily basis and then return to the higher fields and foothills. This project will interrupt this migration and create the possibility of more accidents as deer try to find other routes and locations as they continue to find food and water. Will the pond/ponds at the extraction site be a real solution for the impacted migrating flocks and other animals? Raising crops and animals is still ongoing on the majority of this area zoned as A-2. Will these farms be negatively impacted with noise, dust, truck traffic, changes in water table, and water availability? Will there be more construction and extraction beyond what is needed for



two homes? Is this a permit for only four years or can the permit be extended? Will the permit allow for additional homes and additional extraction?

4. Additional Concerns: What happens when the flood plain is filled with another 10 homes? What do we need to know about the long term impact of this permit? Will the water table change and the water quality be impacted by the extraction and building? Will the Payette River and those who use the river for irrigation and recreation be impacted? How will the approval of this special use permit impact us and the other Bonnie Laura residents who rely on their community well for all their water needs? Most importantly, what is our recourse if this proposed project does impact our water system?

We feel that this project is not the best fit for the area. In addition, unless the additional documents were requested and read, one may not have the "full picture" of the submitted project. It should also be noted, that after we did request copies of the additional documents, we were disappointed that some of the documents were unreadable and unclear, making one wonder if the powers that be didn't want us to fully understand the true nature of this permit.

Thank you for the opportunity to provide input.

Respectfully submitted,

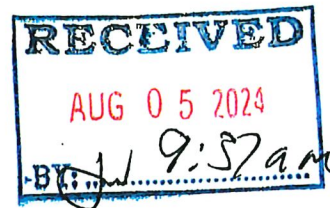
Mel Gunter



Sue Gunter



To: Gem County Development Services  
Planning and Zoning Commission  
109 S. McKinley Ave.  
Emmett, Idaho 83617



From: Steve and Treva Leslie  
1584 Middlefield Ave  
Emmett, Idaho 83617

Re: Special Use Permit Request  
McReynolds and Dwyer

Date: August 3, 2024

To whom it may concern:

We have several concerns about the McReynolds/Dwyer proposal for the permit.

1. **Traffic and Safety Concerns:** Sunset Drive has a history of more than just vehicles traveling to and from work. During the day one may meet mothers with strollers, kids and adults on bicycles, runners, walkers, and Cross Country teams practicing for competition from the high school and middle school. There is also farm traffic and equipment on the road, and school buses stop for children. In the summer months river floaters also park vehicles on Sunset and cross over to the river on both Washington and Sunset. Currently, there are no walking/bicycle paths marked and NO noticeable crosswalks. In the winter months Sunset may get plowed and may not on the same day of the snow. It is a secondary road.
2. **Traffic Congestion Concerns:** Gravel trucks turning left and exiting off of Washington Avenue onto Sunset Drive will create more congestion by holding up traffic since there is no turn lane. Trucks hauling gravel several times a day, especially at peak traffic hours, will add to the possibility of more accidents and more backed up traffic at the main intersection in town. At times, traffic is already backed up to Cemetery Hill when the train crosses the tracks downtown and which often holds traffic up for 10 minutes or more.
3. **Environmental Concerns:** The land at the center of this special use permit is a home to many migratory birds and animals. For example, deer travel to the Payette River on a daily basis and then return to the higher fields and foothills. This project will interrupt this migration and create the possibility of more accidents as deer try to find other routes and locations as they continue to find food and water. Will the pond/ponds at the extraction site be a real solution for the impacted migrating flocks and other animals? Raising crops and animals is still ongoing on the majority of this area zoned as A-2. Will these farms be negatively impacted with noise, dust, truck traffic, changes in water table, and water availability? Will there be more construction and extraction beyond what is needed for two homes? Is this a permit for only four years or can the permit be extended? Will the permit allow for additional homes and additional extraction?
4. **Additional Concerns:** As a resident in Gem County for 50 years there is a great concern regarding disturbing the flood plain with the mineral extraction described. We would like to know why the land was purchased for building homes on land zoned as a flood plain. This should have been approved prior to the construction of a home. It appears the land was purchased for the intent of building a home before planning and zoning was notified. We are concerned any guidelines put in place for them to follow may not be followed



based on past actions regarding starting to work without correct permissions (e.g. appears they have started to extract evidenced by the land disturbance at the present time. What is the need for a 3-4 year permit, when it states the operation is expected to last for approximately 6-12 months. Are the owners planning on subdividing land? This morning I viewed a truck that appeared to be used for transferring gravel located on the parcel of land. What happens when the flood plain is filled with another 10 homes? What do we need to know about the long term impact of this permit? Will the water table change and the water quality be impacted by the extraction and building? Will the Payette River and those who use the river for irrigation and recreation be impacted? What will happen if Emmett experiences a flood similar to one in the early 1990's? Where will the water go? There are many concerns regarding this proposal of extraction operation. For the best interest of the community, the Planning and Zoning board need to explore all consequences if this project goes forward (e.g. loss of agricultural land, loss of floodplain habitat, increase of noise and dust, disturbance of cultural values, changes of scenic quality).

We feel that this project is not the best fit for the area. In addition, unless the additional documents were requested and read, one may not have the "full picture" of the submitted project. It should also be noted, that after we did request copies of the additional documents, we were disappointed that some of the documents were unreadable and unclear, making one wonder if the powers that be didn't want us to fully understand the true nature of this permit.

Thank you for the opportunity to provide input.

Respectfully submitted,

Steve Leslie



Treva Leslie



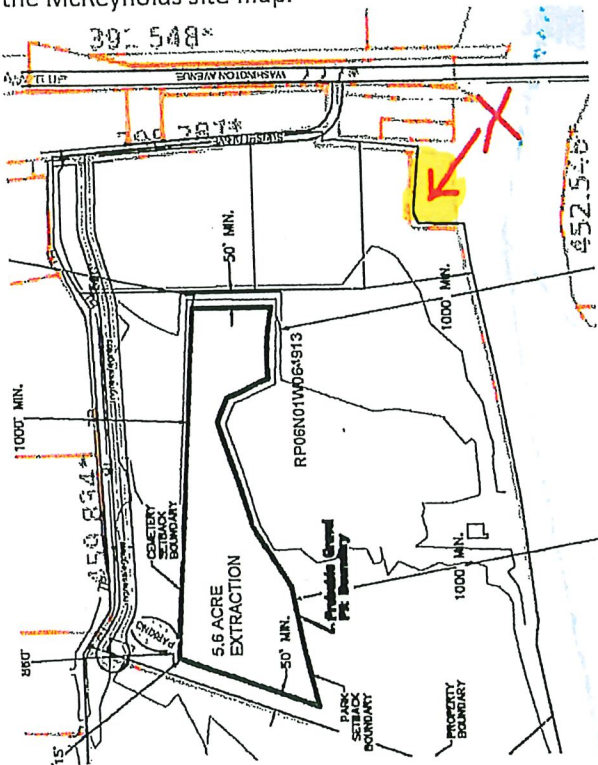
Alan & Kelly Brown  
805 Sunset Dr.  
Emmett, ID 83617  
208.369.6461

August 2, 2024

Gem County Planning and Zoning Commission  
109 S. McKinley Ave.  
Emmett, ID 83617

Dear Commissioners,

I am writing to express my concerns over the McReynolds/Dwyer Special Use Permit applications for gravel pit operations on the property adjacent to our residence. I have owned and lived on my property at 805 Sunset Drive for nearly 13 years and have resided in Gem County for 54 years. For your perspective, I have highlighted my property on the McReynolds site map.



Without knowing what the recommended conditions of approval will be, at this time I am limited to comment on what was sent out in the mail. After the full staff report is available, I most likely will have additional concerns.

- Based on the narrative, the primary focus of the operation is to remove/utilize material necessary to build a road and engineered building pads for a future residence. Further, the narrative indicates they need to remove gravel to accommodate materials which need to be brought onsite for the construction of the new home and driveway. Why are they importing materials when they have plenty of material onsite?
- The site plan does not identify any proposed building pads, nor does it show the locations of the mapped floodplain and floodway areas.
- Paragraph #6 is contradictory. It is indicated the extraction operations are anticipated to be scheduled for approximately 6-12 months upon commencement. Yet, the last sentence indicates they are requesting approval for a 3-4 year permit only because they would like to be living in their new home as soon as possible. So does that mean this operation will possibly be running for 4 years?! There is no guarantee they won't change their mind about building homes on this property and/or their plan to "beautify the property and allow the natural habit of native wildlife to flourish".



- It is also indicated they are anticipating partnering with Knife River to provide material for completion of the State Highway 16 expansion project. Based on what I am reading and seeing, this is nothing but a for-profit gravel pit with no intention of creating building pads for future residences.
- We are concerned about a large reduction in my property value if this is approved. I'd like you to ask yourself if you would want this type of operation in your back yard. I have worked very hard over the last 13 years to make our property a peaceful and serene area on the Payette River. The noise and pollution from this operation is going to impinge on our peace and directly affect our investment. I would really like to see an economic impact study done to determine how these proposed gravel pit operations are going to affect surrounding landowners.
- I am concerned about the noise from this operation as I work full time for the State of Idaho and due to an ADA disability, 80% of my hours are worked from home.
- We are concerned that this operation will have an adverse effect on our well. If this is approved, at a minimum, they should be required to test my well depth (at their cost) prior to commencement of construction to determine a base set and if our well is compromised at any time during operation, they should be required to pay to replace it.
- There is a lot of language in the narrative that leaves things open-ended.
  - "It is anticipated that operations will be limited to extraction and hauling of gravel aggregate." Makes me question what else they will do.
  - "The reclamation will create in-fill (Mineral Extraction) ponds which result in beneficial purposes." Beneficial for whom? What purposes exactly are they referencing?
  - "Owners may allow Idaho Fish and Game to designate the ponds to serve as viable fish and/or wildlife habitat." Why even mention this if they are not willing to commit prior to commencement?
- We are also concerned about truck traffic to and from the operation. None of the site maps indicate where the entrance/exit will be. The condition of Sunset Dr. cannot handle even moderate truck traffic. Pulling out onto Washington Ave. from Sunset is already extremely hazardous with river floaters parking all along the road and traffic to and from the car dealership on the corner.
- They state their hours of operation will be 8 a.m. to 6 p.m. but they do not indicate if that is 5 or 7 days a week. It sounds as if there is a possibility that we will never have a break from the noise and pollution of this operation except after daylight hours are over.
- While we appreciate their willingness to comply with various set-back requirements and local and state codes as well as Gem County Conditions of Approval, it is unfortunate they aren't willing to take into consideration the adverse effect this operation will have on other landowners like us. When I bought this property 13 years ago, I did so because of the location and the peace and quiet. This is our home and our investment. I feel we have a right to have these things.
- The property has always been used for agricultural purposes. Gem County has lost a lot of farmland to subdivision developments, etc. Is this really in the County's best interest?
- In the narrative, they state that "The gravel extraction operation of the site will not impact or create a hazard to wildlife, waterways, public safety, or ecological conditions." I'd like to know what kind of studies have been done that can back up this statement. This operation will surely change the soil condition, and nothing will ever grow there again. There have been studies done that show that the dust from gravel pit operations can be very harmful to fruit trees and vegetable gardens. We have many fruit trees on our property and grow a large garden every year as do most of our neighbors. Big trucks traveling to and from the operation through our town will cause hazardous conditions on our roads, which are not equipped to handle that kind of traffic, which is a public safety concern. Their only option is to go through town to get out to the highway. We entertain all kinds of wildlife in this area – deer, wild turkeys, raccoons, ducks, geese, etc. This operation will most definitely impact them in a negative way.
- What steps will they take to monitor/control dust levels from this operation? They should be required to have a dust mitigation plan.

In closing, we acknowledge that Idaho needs these materials, but these gravel operations will unnecessarily jeopardize our important agricultural industry and our peaceful quality of life here in Gem County. We are asking that you please consider denying these applications.

Thank you.  
Kelly and Alan Brown

## Stephanie Crays

---

**From:** Betty Griffith <griffith611@gmail.com>  
**Sent:** Monday, August 5, 2024 9:23 AM  
**To:** Stephanie Crays  
**Subject:** Gravel pit on sunset

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

I have several concerns about the proposed new gravel pits on Sunset. It is built in a flood plain, I have seen the area completely under water more than once. What is the water table in the area? If and when they have to start pumping water out, what will happen to local wells? Effects on wildlife including birds? The noise and dust is so close to residential areas. Plans for the area when the gravel is extracted? More large truck traffic going through town. Our beautiful farming community has become the land of gravel pits and belly dumps.

Betty Griffith

--  
"Turn to me and be saved, all you ends of the earth; for I am God, and there is no other."  
Isaiah 45:22



## Stephanie Crays

---

**From:** Jannelle Howerton <jannelle.loree@gmail.com>  
**Sent:** Saturday, August 3, 2024 9:40 AM  
**To:** Stephanie Crays  
**Subject:** Mineral Extraction on Sunset Dr.

CAUTION: This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To Whom it May Concern:

I'd like to voice my opposition to the proposed mineral extraction on Sunset Road. The greater good for the constituents specifically on the bench must be considered. The impact on the aquifer on the bench could be massive and more than anticipated, costing individuals tens of thousands of dollars if wells need to be reconfigured as a result. Not to mention the pollution of the water and the health and monetary impacts that will cause.

The additional truck traffic on Sunset would be detrimental to residents, and the condition of the road is already far from ideal. It's narrow. There are no sidewalks in this area and additional pressure from trucks will inevitably create more safety concerns for pedestrians and residents who use the street for recreation and enjoyment- many of whom have been residents spanning back decades and in some cases generations. The infrastructure in the area is not sufficient to accommodate a commercial project of this nature without negatively affecting the people in this area.

Once something has been done, it cannot be undone and we must consider the future of Gem county for our children, grandchildren, and beyond. Does the project go forward with little to no impact to people not only in the area but on Washington and the highway where trucks supporting this project will travel? Would this project be worth the potential impact to drinking water in the Valley? Will this project contribute to the greater good in a meaningful way?

Thank you for your time and consideration.

Respectfully,  
Jannelle Howerton

## Stephanie Crays

---

**From:** Anita Owings <aowings@sbcglobal.net>  
**Sent:** Saturday, August 3, 2024 12:14 PM  
**To:** Stephanie Crays  
**Subject:** Please no gravel pit on Sunset

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

We  
Love Emmett. Please don't destroy it. Think of the impact of another gravel pit.  
Thank you

Anita Owings  
2500 Duchess Trl  
Emmett ID  
83617  
208-861-1276

[Sent from AT&T Yahoo Mail for iPhone](#)



## Stephanie Crays

---

**From:** John Colburn <johnschevy75@gmail.com>  
**Sent:** Monday, August 5, 2024 6:05 AM  
**To:** Stephanie Crays  
**Subject:** Mineral extraction proposal on sunset

**CAUTION:** This email originated from outside of your organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

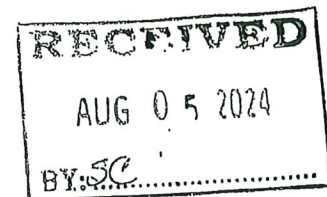
Hello commissioners and those attending,

My primary concern is a gravel pit, or whatever you choose to call this proposal on Sunset Drive by the river and beyond.

This area cannot handle the traffic and congestion of heavy equipment and aggregate conveyance. This town is being developed beyond capacity. Deny this application if you care for your community.

Thank you,  
John Colburn

25 Jul 2024



## Concerns about the Mineral Extraction Project on Sunset Drive

The Gem County Development Services, Planning and Zoning commission and Gem County commissioners have the opportunity to represent the people in doing what is best for the community. Passing this mineral extraction project is not in our best interest. I can't visualize any way that this land will be put back like it is now, which is being claimed. Remaining ponds will only be mosquito ponds like they are on Airport RD. I feel there are just too many unknowns about this project and we may be stuck with an unfortunate situation.

Pros – none

Cons –

**Traffic** coming onto Sunset Dr from Washington Ave is already hazardous. We need a turn out lane there now. Trucks in and out to add to the mix would be very dangerous.

**Beauty** The unsightly mess is another undesirable thing to have in our neighborhood. Just take a drive out W Airport Rd to see what it looks like first hand.

**Noise and dust** - We already have the sawmill and race track. The sawmill has a definite benefit for our community but the extraction project won't.

**Mosquito** haven

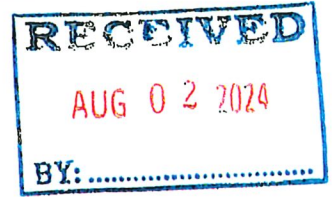
Arlie and Clella Stiles 1115 Edgemont RD



**Stephanie Crays**

---

**From:** Tracey Loftus <tlcloftus@gmail.com>  
**Sent:** Friday, August 2, 2024 3:25 PM  
**To:** Stephanie Crays  
**Subject:** Sunset



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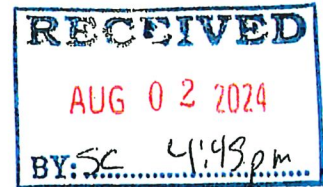
Please no!

We do not need anymore gravel pits in neighborhoods or ruining our streets. They are ruining our wells too. Think about the 1000s of trucks driving our streets. Who is going to pay for the repairs? Who is going to pay for the windshields that these truck break? The previous gravel pits do not follow the rules. This type of business is NOT what Emmett needs. Please no more!!

Thank you, Tracey Loftus

08/02/2024

Nicholas & Marcia Solterbeck  
1612 Greenfields Loop  
Emmett, ID 83617



Gem Co. Planning and Zoning,

It has been brought to our attention that there is a proposed gravel pit to be built on Sunset Dr. 06N, R01W, Section 6, RP06N01W065513 owners Stefani and Donald Dwyer and also 809 Sunset Dr, T06N, R01W, Section 6, RP06N01W067960 owners Shellee and Martin McReynolds.

I would like to make our opinion and feeling known that the installation of a facility such as this in our community is an unwanted detriment to the residents as well as the surface, groundwater, drinking water, and the wildlife near or downstream from the quarry site.

\*\*Please see the information below from the Toronto Environmental Alliance regarding the effects of such operations.

**\*\* 3. The Environmental Impacts of Aggregate Extraction**

With the exception of those who work in the building trades, the closest most of us ever come to "virgin" aggregate (that is, aggregate that comes straight from an aggregate mine and has not been reclaimed from rubble or other debris) is at home building stores. While a bag of stones or gravel may look fairly benign, the process of getting it to us is anything but benign. Aggregate is mined from the earth, either dug out of pits or blasted out of quarries. This process has many significant environmental impacts.<sup>[1]</sup>

Creating the pits or quarries requires the removal of virtually all natural vegetation, top soil and subsoil to reach the aggregate underneath. Not only does this lead to a loss of existing animal wildlife, it also leads to a huge loss of



---

biodiversity as plants and aquatic habitats are destroyed. Moreover, adjacent eco-systems are affected by noise, dust, pollution and contaminated water.

Pits and quarries disrupt the existing movement of surface water and groundwater; they interrupt natural water recharge and can lead to reduced quantity and quality of drinking water for residents and wildlife near or downstream from a quarry site.

Most old pits and quarries are not being properly rehabilitated. As noted in one study "less than half of the land disturbed for aggregate production between 1992 and 2001 has actually been rehabilitated."<sup>[2]</sup> The province classifies pits and quarries as "interim uses of the land" and requires 100% rehabilitation of pits and quarries. Clearly this requirement is not being met. Destroyed ecosystems and source water aquifers are irreplaceable. This is not an interim land use. The landscape is blotted with destructive pits and quarries, and species of all kinds endure permanent negative impacts.

A more detailed picture of the environmental impact of aggregate mining is outlined in a 2005 legal challenge to the expansion of an existing quarry in the Niagara Escarpment. The report focuses on the following potential environmental impacts:<sup>[3]</sup>

- Potential impairment of water quality on the site, including harm to the aquifer
- The water quality of residential wells close by could be harmed
- The water level of on-site lakes could be reduced, detrimentally affecting provincially specific wetlands
- Heightened summer water temperature in an on-site lake could have a detrimental impact on the viability of cold-water fish in an adjacent stream  
Potential harm to on-site and off-site wetlands
- Loss of habitat for the Jefferson Salamander, which is designated as threatened under the federal Species at Risk Act

- 
- Potential loss and fragmentation of continuous natural environment

Of course, each pit or quarry has unique characteristics and impacts, but every pit or quarry will degrade the natural environment. For pits or quarries situated on lands designated as ecologically significant, this degradation has an even greater adverse impact.

For communities, the displacement of water resources is one of the biggest concerns pits and quarries pose. However, there are many other concerns. Beyond the physical changes to the landscape, the daily barrage of noise, dust and exhaust produced by hundreds of dump trucks hauling aggregate can have serious effects on the health of people living nearby.

Please keep Emmett a great place to live and raise a family! We **DO NOT** want this here!

Sincerely,

A handwritten signature in cursive script that reads "Nicholas & Marcia Solterbeck". The signature is written in black ink and is positioned above the printed name.

Nicholas & Marcia Solterbeck



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## Lung Function and Respiratory Health of Populations Living Close to Quarry Sites in Palestine: A Cross-Sectional Study

Maysaa Nemer,\* Rita Giacaman, and Abdullatif Hussein

### Abstract

Environmental exposure to dust from quarrying activities could pose health dangers to the population living nearby. This study aimed to investigate the health effects of dust exposure on people living close to quarry sites and compared them with those who live far from the quarry sites. A cross-sectional comparative study was conducted among 79 exposed participants, who lived less than 500 m away from the quarry sites, and 79 control participants who lived more than 500 m away. All participants answered a questionnaire on dust exposure at home and health effects, as well as performed a lung function test in which both reported and measured health effects were investigated. People who live in close proximity to the quarry sites reported exposure to dust at home (98%), land destruction (85%), plant leaves covered with dust (97%), and an inability to grow crops (92%). The exposed group reported significantly higher eye and nasal allergy (22% vs. 3%), eye soreness (18% vs. 1%), and dryness (17% vs. 3%), chest tightness (9% vs. 1%), and chronic cough (11% vs. 0%) compared to the control group. Lung function parameters were significantly lower among the exposed group compared to the control group; mean forced vital capacity (FVC) was 3.35 L vs. 3.71 L ( $p = 0.001$ ), mean forced expiratory volume in the first second (FEV<sub>1</sub>) was 2.78 L vs. 3.17 L ( $p = 0.001$ ). Higher levels of airway restriction were found among the exposed group. Among the exposed group, lung function parameters worsened with the increasing closeness of home to the quarry site. This study demonstrates the negative health effects of environmental dust exposure among two communities living near quarry sites in Palestine. The results highlight the importance of developing and strictly enforcing rules and regulations in Palestine to protect population health.

Feedback



**Keywords:** environmental exposure, quarry dust, respiratory disease, lung function tests, Palestine

## 1. Introduction

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The stone and marble industry is one of the most important and active industrial sectors in Palestine and contributes to about 25% of Palestine's overall industrial revenues and 4.5% of the total Palestinian Gross National Product [1]. The total number of stone and marble facilities in the West Bank and Gaza Strip is 1124. These vary between quarries, factories, and cutting workshops [2]. Stone quarrying is a multistage process by which rock is extracted from the ground and crushed to produce aggregate, which is then screened into desired sizes for immediate use or for further processing to manufacture secondary products [2].

Despite economic importance, the stone industry has a serious negative impact on the environment at both of its types of sites: quarries and cutting workshops. The rock extraction process in quarries is the main source of dust as well as other problems, including noise, vibration, and land disturbance [3,4]. Quarrying poses a danger to workers due to injuries caused by rocks falling on the workers, accidents during the use of machinery, and dust exposure, which is the main cause of respiratory and pulmonary problems, in addition to eye problems [5,6,7].

Dust exposure in quarries and its health impact on workers has been investigated and reported both internationally and in Palestine. Several epidemiological studies worldwide suggested an association between respiratory impairment and occupational exposure to dust [8]. A high prevalence of silicosis, asthma, and adverse respiratory symptoms like cough, chest pain, and dyspnea have been reported among workers engaged in quarrying [7,9,10]. Considerable lung function impairments have been reported in quarry workers [11,12]. Studies of stone cutting workers in Palestine showed that the workers suffered from several respiratory symptoms including chronic cough, sputum production, recurrent rhinitis and shortness of breath, and had a significant deterioration in lung function [5,6].

Solid materials in the form of smoke, dust, and vapor generated during quarrying can usually suspend over a long distance in the air, and particulate matter in the air is transported from the generation point to other far areas [13]. If the quarries are located in places where there is a living population, people living in the area will also be exposed to dust. Environmental exposure to dust has been raised as an important issue to consider among populations living close to quarries in different areas around the world [13,14]. Previous studies found that people residing close to quarry sites have a higher prevalence of respiratory symptoms compared to those not exposed to quarry dust [15]. Specific reported adverse health effects by people who reside nearby quarry sites include nasal infection, cough, and asthma [13,16]. Additionally, a study investigated how the ecosystem and residents were possibly affected by nearby quarry activity found out that the frequency of certain symptoms such as cough, sneezing, and asthma, and illnesses have increased after quarry activities in the area began [17].



Exposure to quarry dust has been associated with deterioration in lung function among the quarry or mining workers [18,19,20]. Previous studies have shown that quarry and stone cutting workers had lower forced vital capacity (FVC), forced expiratory volume in the first second (FEV<sub>1</sub>), and FVC/FEV<sub>1</sub> compared to unexposed control groups, in China [21], Libya [19], and Palestine [5,6]. Only one study from Nigeria has investigated lung function among a mixed group of workers and residents who live near quarry sites compared to a control group, which found lower lung function parameters among the workers and nearby residents compared to the control group [22].

In Palestine, there was only one study that investigated the overall environmental impacts of stone quarry work in Jammaïn village located in the north of the West Bank. This study found high concentrations of dust particles in the surrounding area of quarry sites, and a high prevalence of reported symptoms among the nearby population, including cough, dyspnea, nasal inflammation, as well as hearing impairment. Asthma was also reported among approximately 30% of the respondents. Approximately 75% of the declared sample reported that they suffered from noise pollution as a result of quarry activities [23].

Although previous research, in Palestine and worldwide, showed that populations living near quarry sites are exposed to dust and suffer from adverse health effects, no previous research has measured the lung function of such populations in comparison with those who live far away from quarry sites. Therefore, this study aimed to investigate the health effects of dust exposure on people living close to quarry sites and compare them with those who live far from the quarry sites in Birzeit, a town community located in the central West Bank.

## 2. Methods

---

### 2.1. Study Design, Site, and Population

A cross-sectional comparative study was conducted between September 2019 and January 2020. The study was conducted in Birzeit, a Palestinian town in the Ramallah Governorate located 7.5 km north of Ramallah City. It has about 7000 inhabitants [24]. The study population consisted of two groups: the exposed group, which included household members who live in houses next to quarry sites by 0–500 m, and the control group, which included household members living in the same town, whose houses are more than 500 m away from the quarry sites. It has been found that, at a distance of more than 500 m, the concentration of suspended particulate matter is significantly reduced [23], which will, therefore, reduce the dust exposure. Thus, the houses of the control group members were located in areas that are more than 500 m away from the quarry sites.

### 2.2. Study Sample

According to the information collected from the Birzeit Municipality, there is a total of three main quarrying and stone cutting sites in Birzeit town. We selected a random sample of around 100 household members who live near each quarry site within a circle of 500 m diameter (exposed group), and a random sample of around 100 household members who live at more than 500 m

away from the quarry site, i.e., populations out of the 500 m radius were selected (control group). The three available quarry sites inside the boundaries of Birzeit town were located on the community map (Q1, Q2, Q3). A circle with the quarry at the center and a radius of 500 m was drawn around each quarry site. All the houses within the area of the circle were included in the exposed group. All the houses outside the area of the circle were included in the control group. The houses were randomly selected from each group until we reached the needed number of houses from each group (30–40 houses) depending on the number of people available in each house.

Inclusion criteria were considered to be all household members who have been living in the house for at least one year, and are 18 years old or above. Exclusion criteria included: any household member who has lived for less than a year in the house, and who is below the age of 18 years.

A total of 192 participants were invited to participate. Of those, 158 agreed to participate, 28 refused to participate, and six have lived in the house for less than a year, thus excluded from the study. Three participants refused to perform the lung function test. This made the total number of participants 158: 79 living in households close to the quarry sites (exposed group), and 79 away from them (control group) (Figure 1).

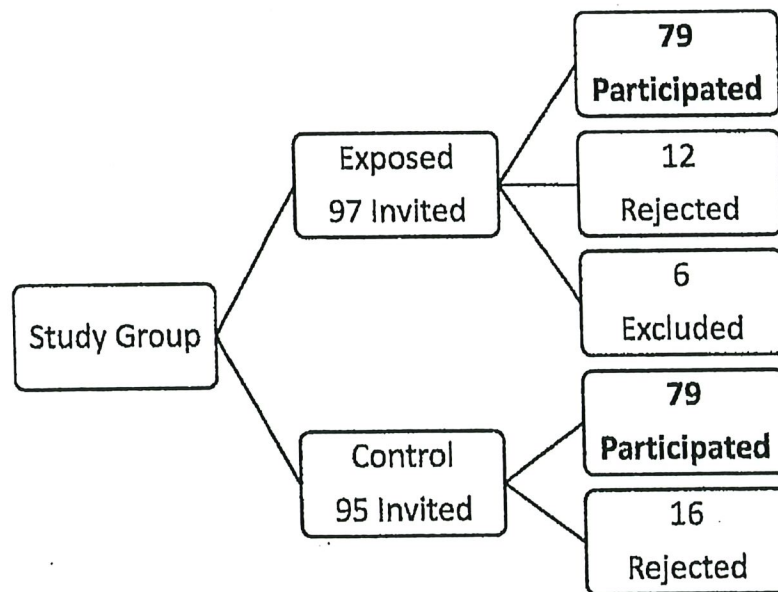


Figure 1

Study population and Sample.

The number of participants who came from the same household ranged from 1–3 participants, with only one household that included three participants, 31 households included two participants each, and the rest of the participants, 93, each came from one household. Having more than one observation from the same household, as in our case, might raise the issue of clustering, as we will have two levels: the participants (level 1), and the household (level 2), known as naturally



occurring clusters. However, as we have a large number of clusters (households), with a very small number of participants in each cluster, a situation known as "sparsely clustered data" [25], we have not used a multi-level model for analysis [25,26].

### 2.3. Questionnaire

The questionnaire was administered face to face and included demographic and socioeconomic information (age, sex, level of education, type of work), smoking habits and history, location of the house from the quarry site (distance), frequency of dust exposure, years of living in the area, the year when the quarry was established nearby, general health conditions, specific respiratory symptoms (used to detect asthma and chronic obstructive pulmonary disease (COPD), and adapted from an internationally standardized respiratory questionnaire) [27], allergic symptoms, eye and nose symptoms, and auditory symptoms related to noise exposure.

### 2.4. Lung Function Test (Spirometry)

Lung function tests (spirometry) have been widely used to detect deterioration in the respiratory function among occupational and non-occupational groups exposed to dust [19,22,28,29,30]. The main lung function parameters are forced vital capacity (FVC) and forced expiratory volume in the first second (FEV<sub>1</sub>) [31,32]. Normal spirometry means that all measured parameters (FVC, FEV<sub>1</sub>, and FEV<sub>1</sub>/FVC) are 80% or higher of the expected values compared to their sex, age, height, weight, smoking, and ethnicity [32,33,34]. An obstructive pattern means that FEV<sub>1</sub> is lower than 80% of the predicted value, FVC is reduced but to a lesser extent than the FEV<sub>1</sub>, and the ratio is also reduced to a lower than 0.7 [32,33]. A restrictive pattern means that both FEV<sub>1</sub> and FVC are reduced to lower than 80% of the predicted value, and the ratio is normal (above 0.7) [32,33].

Lung function tests were performed by a trained researcher using a portable Spirometer (MicroLab, Vyair Medical GmbH, Germany). Measurements were carried out according to standard protocols of the American Thoracic Society (ATS) guidelines [31]. Participants were given enough time to understand the test procedure and provide the required flows. During the test, participants were seated, with the lips firmly applied around the disposable mouthpiece and using a nose clip. Three reproducible attempts were allowed for each participant, and the best flow was automatically selected by the spirometer.

### 2.5. Data Collection

The data collection was conducted by two fieldworkers, who visited the houses, invited the inhabitants to participate, and explained the aim and the process of participation in the study. The fieldwork was conducted in the period from September 2019 to January 2020. After taking informed written consent, the participants were interviewed and asked the questions of the questionnaire and then asked to perform the lung function test.

### 2.6. Statistical Analysis

Descriptive statistics were performed to compare results between the two groups to make sure that they are comparable in terms of demographic and socioeconomic factors. Means and standard deviations were used to present continuous variables, and frequencies were used to present dichotomous variables. Our outcome variables were specific respiratory symptoms, asthma, nasal and eye infections, and lung function parameters (FEV<sub>1</sub>, FVC, and the FEV<sub>1</sub>/FVC ratio). Data on dust exposure at home, environmental effects of quarry activities on the residents, and air pollution from quarry activities were analyzed for the exposed group separately. Comparisons between the two study groups were performed by an independent t-test for continuous variables,  $\chi^2$  test for dichotomous variables, and linear regression was used when comparing the lung function parameters between the two groups, to adjust for sex, age, height, weight, and smoking between them, factors that are known to affect the lung function results. All statistical analyses were performed using the SPSS V.24.0 software for Windows. All *p* values were two-sided, and a *p*-value < 0.05 was considered significant.

### 3. Results

---

There were variations in the exposed and control groups by sex (39 men vs. 8 men and 40 women vs. 71 women, respectively), mean age (37 years vs. 32 years, respectively), smoking status (12 smokers vs. 2 smokers, respectively), and employment status (28 unemployed vs. 47, respectively). These two groups were similar in the mean number of years of education ([Table 1](#)). None of the participants is a quarry or stone cutting worker.



Table 1

General characteristics of the two study groups.

Variable	Exposed (n = 79)	Control (n = 79)	p-Value
Age *	36.76 (11.4)	31.92 (7.1)	0.004
Sex †			
Men	39 (49.4)	8 (10.1)	0.001
Women	40 (50.6)	71 (89.9)	0.001
Years of education *	13.00 (1.9)	13.22 (1.8)	0.8
Occupation †			
Office jobs	11 (13.9)	12 (15.2)	0.5
Industries	33 (41.8)	10 (12.9)	0.04
Education	7 (8.9)	10 (12.9)	0.07
Not working	28 (35.4)	47 (59.5)	0.05
Smoking †, <sup>n</sup>	12 (15.2)	2 (2.5)	0.005
Height *	169.83 (9.40)	165.47 (6.93)	0.001
Weight *	72.99 (12.33)	65.72 (9.22)	0.007

Age and years of education are presented as means (SD). Sex, occupation, and smoking are presented as n (%). \*

Independent sample t-test, †:  $\chi^2$  test. <sup>n</sup> Current smoker.

### 3.1. Environmental Effects of Quarrying Activities on the Population Living Nearby

The mean distance between the houses of the exposed group and the quarry sites was 247.2 m, with a range of 50–500 m. The residents in this group have lived in the area for 9.98 years on average, with a range of 3–33 years. The main environmental effects of the quarrying activities which were reported by the exposed group included land destruction (85%) which means a change in the features of the land and the landscape, inability to grow crops in the surrounding area (92%), and that there is need for land restoration (87%). Only 33% of respondents reported that there were heaps of waste and holes filled with water around the quarry sites, and 8% reported that the farmlands around the quarry sites were filled with water coming from the quarry work. The residents reported that the landscape has changed over the past ten years due to the quarrying activities in the area. Table 2 shows that 67% described the landscape to be vegetative or green 10 years ago, while 20% described it to be vegetative at the time of the study. Additionally, 11% described the landscape to be bare 10 years ago, while 51% described it to be bare at the time of the study.

Table 2

Landscape as described by the population living close to the quarry sites ( $n = 79$ ).

Variable	Landscape in the Last 10 Years		Landscape Now	
	Number	Percentage	Number	Percentage
Vegetative	53	67.1	16	20.3
Rocky	12	15.2	15	16.5
Eroded	5	6.3	8	10.1
Bare	9	11.4	40	50.6

One of the most adverse effects of quarrying activities, as described by the residents, was dust. Almost all the participants (98%) reported that dust settles on their house roofing, surfaces, and clothing at home; 97% reported that the leaves of plants and crops around the house are covered with dust, and 96% reported that plants do not grow well when the dust covers their leaves. On the effects of dust on vision, only 20% of the participants reported that dust prevents them from seeing things a distance away. [Figure 2](#) shows that most participants reported that the main source of dust in their area was the quarry activity and that the dust movement increased during sunny and dry weather. In addition, they reported that vehicles that transport quarry products produce more dust in the area. Participants also reported that quarrying activities are the main source of noise in the area (75%), but few reported that this had affected their hearing (14%). Almost all the participants reported that there are no vibration effects of the quarrying activities, with only one participant reported that quarrying caused cracks of their building due to vibration. [Figure 3](#) includes a picture of one exposed and another unexposed community at Birzeit Town, showing the effects of dust on the exposed community on the nearby houses and the green areas, compared to the unexposed community with more green areas and less amount of dust.



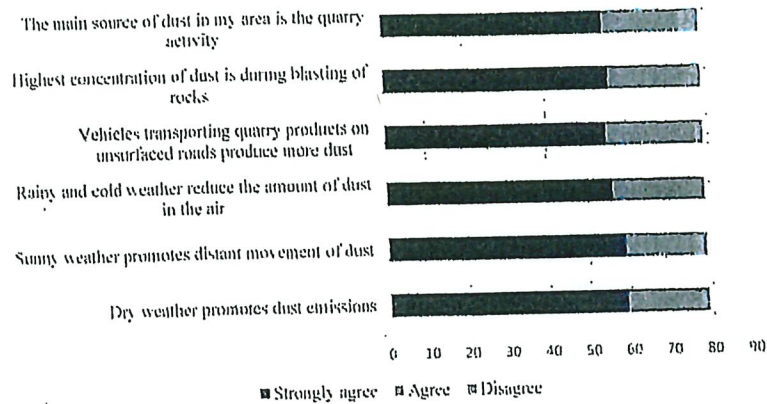


Figure 2

Dust and air pollution from quarry activities as described by the population close to the quarry sites (n = 79).

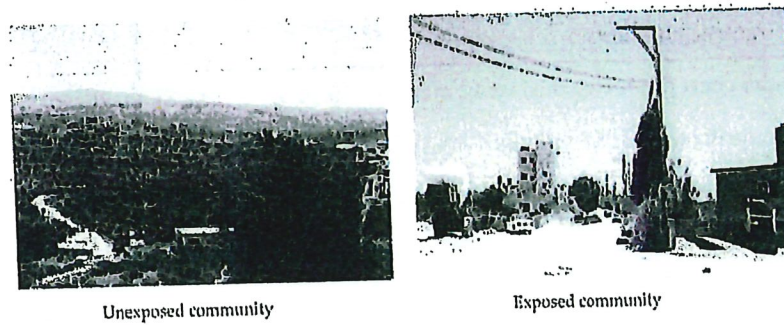


Figure 3

Pictures of exposed and unexposed communities at Birzeit Town.

### 3.2. Reported Symptoms and Diseases

The exposed group reported more rhinitis (13% vs. 3%), eye or nasal allergy (22% vs. 3%), and irritant eye symptoms including tearing (19% vs. 1%), soreness (18% vs. 1%), and dryness of the eye (17% vs. 3%) compared to the control group, Table 3. Asthma and bronchitis were reported by two participants in the exposed group and none in the control group. For the respiratory symptoms, chest tightness, shortness of breath and chronic cough were significantly higher among the exposed group compared to the control group; 9% vs. 1%, 25% vs. 1%, and 11% vs. 0%, respectively, Table 3.

Table 3

Self-reported prevalence of general respiratory symptoms and diseases among the two study groups.

Self-Reported Symptoms and Diseases	Exposed	Control	p-Value
	(n = 79) N (%)	(n = 79) N (%)	
Chronic symptoms and diseases			
Asthma	2 (2.5)	0	0.49
Bronchitis	2 (2.5)	0	0.49
Rhinitis	10 (12.7)	2 (2.5)	0.001
Eye or nasal allergy	17 (21.5)	2 (2.5)	0.001
Eye tearing	15 (19)	1 (1.3)	0.001
Eye soreness	14 (17.7)	1 (1.3)	0.001
Eye dryness	13 (16.5)	2 (2.5)	0.005
Hearing difficulty	3 (3.8)	0	0.24
Respiratory symptoms			
Wheezing or whistling in the chest for during the last 12 months	5 (6.3)	1 (1.3)	0.21
Chest tightness during the last 12 months	7 (8.9)	1 (1.3)	0.06
Shortness of breath at rest in the last 12 months	14 (17.7)	0	0.001
Shortness of breath after physical activity in the last 12 months	20 (25.3)	1 (1.3)	0.001
Cough at night in the last 12 months	9 (11.4)	0	0.05
Cough first thing in the morning in the last 12 months	6 (7.6)	0	0.003

Differences between exposed and control using the  $\chi^2$  test.

### 3.3. Lung Function

The mean values of lung function parameters for the exposed group were lower than those for the control group. When the two groups were compared using a linear regression model, adjusting for sex, age, height, weight, and smoking, the exposed group had significantly lower values of FEV<sub>1</sub>, FVC, and FEV<sub>1</sub>/FVC compared with the control group, [Table 4](#).



Table 4

Means and adjusted differences in lung function parameters between the two study groups.

Lung Function Parameters	Exposed (n = 79)		Control (n = 79)		Difference †		p-Value
	Mean (%)	SD	Mean (%)	SD	Coefficient	95% CI	
FVC (l)	3.357 (84%)	0.543	3.713 (102%)	0.163	0.392	0.254-0.530	0.001
FEV <sub>1</sub> (l)	2.783 (88%)	0.421	3.178 (108%)	0.131	0.401	0.292-0.510	0.001
FEV <sub>1</sub> /FVC	0.82	6.382	0.85	2.663	0.21	0.109-0.418	0.019

Results are presented as mean (% of predicted value) and SD: standard deviation. † Lung function differences, using linear regression, are adjusted for sex, age, height, weight, and smoking. FVC: forced vital capacity. FEV<sub>1</sub>: forced expiratory volume in the first second.

Normal spirometry (normal FVC, FEV<sub>1</sub>, and FEV<sub>1</sub>/FVC ratio) was found among 43 exposed participants compared with 71 control participants. Only one exposed participant showed mild obstruction (low FEV<sub>1</sub>, normal FVC, low ratio), and one showed moderate obstruction (very low FEV<sub>1</sub>, normal FVC, very low ratio). Mild restriction (low FVC, normal FEV<sub>1</sub>, and normal ratio) was found among 15 exposed compared to 7 control participants. Moderate restriction (low FVC, low FEV<sub>1</sub>, and normal ratio) was found among 13 exposed compared to one control participant. Severe restriction (very low FVC, low FEV<sub>1</sub>, and normal ratio) was found among the three exposed participants. The participants in the exposed group differed in lung function parameters according to the distance from the quarry site. The closer to the quarry site, the lower FVC, and FEV<sub>1</sub> they had, [Figure 4](#).

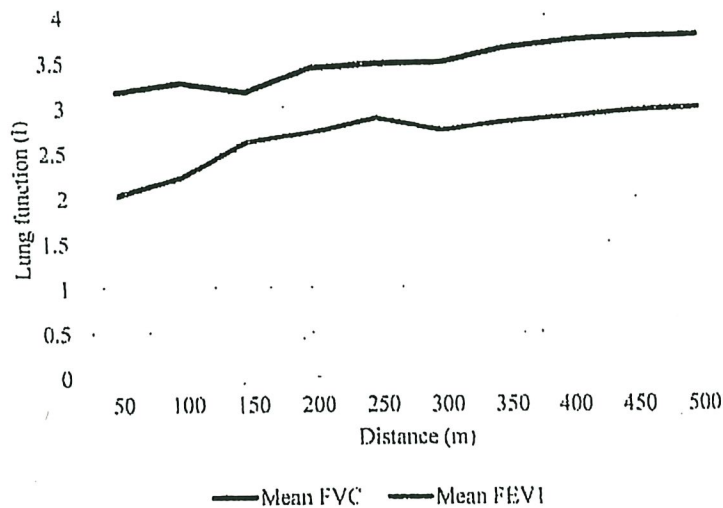


Figure 4

Lung function parameters among the exposed group according to the distance from the quarry site.

### 3.4. Mitigation Measures as Agreed by the Participants

Participants in the two groups were asked about the most important measures for mitigation of adverse effects of the quarrying activities on the environment and the living populations. The main measures agreed on were: establishing barriers around the quarry sites, water should be used when cutting and on the road when transporting the quarry products to decrease the amount of dust, developers should not place residential areas close to quarrying zones, a license should not be given to quarries close to residential places, and violators of rules and regulations should be prosecuted.

## 4. Discussion

This study showed that the population living in close proximity (50–500 m) to quarry sites in Birzeit town are exposed to dust in their households, with 69% reporting that the main source of dust in their area was the quarry activities, and with the dust increasing in dry and sunny weather. Our study confirms what was reported in a case study in another Palestinian village in the north of the West Bank, Jammain village, where 70% of the living populations in the area close to the quarry sites were suffering from the dusty environment with dust increasing during the summer season [23]. Additionally, in a study in Hebron, a southern West Bank Palestinian city, it has been reported that the quarrying and stone cutting activities have an adverse impact on the environment and populations, mainly affecting air quality, surface, and groundwater, and contaminating agricultural soil [35]. Our study participants also reported that quarrying activities caused land



destruction and the inability to grow crops. Other studies in the region found similar results. A case study conducted in Jordan found that stone cutting activities were a main source of contamination of the water and soil in the area, as well as being a main source of noise level [4].

This study also showed that people who live close to quarry sites (exposed group) reported significantly higher respiratory, eye and nasal symptoms compared to people who live far from the quarry sites (control group). Our results indicate that living in close proximity to quarry sites, which is a main source of dust, is a potential factor for increasing the prevalence of eye and respiratory symptoms. It has been found that dust is one of the most invasive and potentially irritating sources for the eyes and respiratory system [14,15,36]. Research has shown that dust concentration, deposition rates, and potential impacts tend to decrease rapidly away from the dust source [3,23]. This explains why our control participants, who live more than 500 m away from the quarry sites, have reported significantly lower symptoms. The study from Jammaïn village has shown that the main reported health effects among the populations living close to the quarry sites were nasal inflammation, cough, and hearing impairment [23]. Although several studies in Palestine and the region have investigated the environmental effects of the quarrying activities in terms of water, air, and soil pollution, there is a limited number of studies that investigated the health effects among the populations who live nearby. Studies from India found silicosis and other respiratory inflammatory diseases among close populations to stone mining [14], while a study conducted in Puerto Rico found an elevated prevalence of bronchitis and nasal allergy among the communities who live close to quarry sites compared to others who live far from them [15].

Lung function parameters were significantly lower for the exposed group compared with the control group, even after adjustment for sex, age, height, weight, and smoking. The lung function parameters showed that 43 out of the 76 exposed participants had normal spirometry, while almost all of the control participants (71 out of 79) had normal spirometry. Obstructive lung function impairment was found among two out of the 76 exposed participants, while restrictive impairment was found among 31 out of the 76 exposed participants. Among the control participants, none showed obstruction, and eight out of 79 showed restriction. Patterns of lung function among people exposed to dust have been mostly reported as obstruction or a combination of obstruction and restriction [28,37,38]. The obstructive pattern indicates a disease caused by the airway to be narrowed or blocked, making it difficult to exhale the air completely, as in asthma and COPD, while restrictive pattern indicates a disorder that makes it difficult to fill the lung completely with air because of interstitial lung problem such as lung fibrosis [39]. Two studies in Palestine which measured lung function for quarry workers found a combination of both obstruction and restriction [5,6]. One of those studies found more restriction among the ones with longer years of exposure [6]. Research studies indicated that the chemical content of the stone could be the main cause of respiratory diseases, such as silica, which was found to be a main causing agent of obstructive and restrictive lung diseases [11,37]. The analysis of the stone from quarries in Palestine has shown that it is mainly composed of calcium carbonate ( $\text{CaCO}_3$ ) from mining limestone, as well as silicon dioxide ( $\text{SiO}_2$ ), also known as silica or quartz [40,41]. Studies found that dust particles, which disperse in the air and are easily inhaled, decrease as it travels to long-distance [13,14]. This explains our findings among the exposed group, which showed that the lung function parameters are lower among the participants who live closer to the quarry sites.



Chronic exposure to dust has been shown to cause deterioration in lung function among several groups of working populations [42,43,44]. Several studies worldwide, including Palestine, have shown that quarry workers had lower lung function than unexposed control groups, and it was lower among the workers with longer duration of work in quarries [6,9,19,21,30,45]. Lower lung function parameters than the expected values generally indicate the possibility of chronic respiratory and lung disease [32]. As the exposed group showed lower lung function parameters than the control group, indicating that people living close to the quarry sites have a stronger possibility of developing lung disease. Previous studies that measured the lung function of people exposed to dust were only conducted among quarry or mining workers [9,11,19,20,30]. Only one study, conducted in Nigeria, assessed lung function among a mixed group of workers and residents who live near quarry sites compared to a control group [22]. The Nigerian study's findings, although including a mixture of workers and residents, were similar to ours, as it found that workers and exposed residents had lower lung function parameters than the unexposed control group [22].

The size class and concentration of the particulate matter released from the quarrying activities in the environment have an effect on the type and extent of the adverse respiratory health effects [46]. Coarse particles larger than 10 micrometers in diameter are usually filtered in the nose and throat, thus not causing significant health problems, while fine particles (1–10 micrometers), as in quarry dust particles may have larger adverse health effects as they can reach the bronchi and cause bronchitis [46,47,48], as reported by some of the exposed participants. Very small particles of less than one micrometer could reach the alveoli [49]. This is also reflected in the lung function impairment since particles of 1–10 micrometers are known to cause more restrictive lung function impairment compared to those smaller than one micrometer, which will result in a more obstructive pattern [50,51].

As far as the authors are aware, this is the first study that investigated both reported and measured respiratory effects of environmental exposure to quarry dust among living populations in Palestine. Using both reported and measured health outcomes helped to understand the extent of the health effects and to reduce recall bias. Additionally, having a control group of the unexposed population, who lived far from the quarry sites but in the same town, helped to compare the health conditions as a result of close quarry dust exposure. However, this study has some limitations. First, the sample distribution that we had resulted in significant differences between the two groups of participants in sex, age, and smoking could have a direct effect on the compared health effects, especially lung function. The reason why the exposed group included a larger number of men than the control group is likely due to the availability of men at the house at the time of the interviews since most of the control group participants were employees, while the exposed group were workers in small workshops with more flexible time and availability at home. Additionally, the control group had a larger number of women, who were mostly unemployed and staying at home most of the time. This also explains the low number of smokers in the control group which constitutes the largest number of women among the participants, who were mostly non-smokers. To reduce the effect of these differences, they were adjusted for in the analysis when comparing lung function. Another limitation of the study is the lack of quantitative sampling of the dust using environmental samplers, which could have added a very important angle of the investigation, in terms of the concentration of the particulate matter and the size class of them. As it is known that the health effects of dust exposure depend on these factors.



## 5. Conclusions

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The present study has investigated the environmental effects of quarrying activities on the populations living nearby and compared the respiratory health status of those populations with a control group of the population who lives at more than 500 m away from quarry sites. To the best of our knowledge, this is the first study in Palestine that assessed both reported and measured respiratory health effects among people living close to quarry sites. The study showed that the population that lives close to quarrying activities is exposed to a harmful amount of dust, as they reported having more respiratory and eye symptoms, and had increased levels of lung function impairment as compared with the unexposed population at the same town. The results of the study highlight the importance of developing and strictly enforcing rules and regulations in Palestine to protect population health, especially those related to the locations of quarries and the need to establish a system inside the quarry locations to reduce the amount of emitted dust in the surrounding environment.

### Author Contributions

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Conceptualization: M.N., A.H., and R.G.; data curation: M.N.; formal analysis: M.N.; investigation: M.N.; methodology: M.N., A.H., and R.G.; writing—original draft: M.N.; writing—review and editing: R.G. and A.H. All authors have read and agreed to the published version of the manuscript.

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### Conflicts of Interest

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The authors declare there are no conflicts of interest.

### Ethics Approval

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Ethical approval was obtained from the Institute of Community and Public Health's Research Ethics Committee at Birzeit University, and the World Health Organization's Research Ethics Review Committee. All participants gave written informed consent.

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