# Soils & Geology Report

**for**

# Taylor Mtn Shadows Subdivision

**Teton County, Idaho**

Prepared For:
Dave & Dan Bender
4417 Forge Road
Perry Hill, M.D. 2128

Prepared by:
A-W Engineering, Box 139
Victor, ID 83455, 208-787-2952
&
Charles Woodward, Geologist
Victor Idaho

Jan 14, 2014

2014/2014-111/ soils report

# TABLE OF CONTENTS


| ITEM | PAGE |
|---|---|
| A. General Project Information | 3 |
| B -Soils Report | |
| I. Soils Descriptions | |
| A. Driggs Silt Loam | 4 |
| B. Lantonia Series Silt Loam | 4 |
| II. Engineering Use Table | 4 |
| III. Soil Gradation | 5 |
| IV. Test Hole Summary | 5 |
| C. Geology report | 6 |


## Soils Report APPENDIX INDEX


| | |
|---|---|
| Vicinity Map | Map A |
| Site layout for subdivision Test hole location | Map B |
| SCS Soils Map Soil Type | Map C |
| SCS Soils Descriptions | Data E |
| Teton County Geology | Map F |
| Victor Area Faults | Map G |

## A. GENERAL PROJECT INFORMATION

LOCATION:

Part of S ½ SW 1/4 SE 1/4, Sec 12, Twp. 3 N, Rng. 45 E.,B.M. Teton County, Idaho.(*see Vicinity Map in appendix)*

DEVELOPER:

Dan Bender , & Dave Bender
4417 Forge Road
Perry Hill M.D., 21128
208- 821- 8880

ENGINEER / SURVEYOR:

Arnold W. Woolstenhulme, A-W Engineering, 4 North Main, Victor, Id. 83455.
208-787-2952

CONSULTING GEOLOGIST

Charles Woodward Report of Victor Area

Bender Subdivision is dividing one 13.93 acre parcel into two (2 ) lots.
This property lies just east of the Victor Cemetery , one mile SE of Victor, Idaho.

The twp single family residential lots will be 4.0 and 9.93 acres in size. The lots will have specified building envelopes because of the hill side slope. Both lots will have an area that a sewer drain filed could be placed on that would be less than 10 percent slope./

The property lies just east of the East end of County road "9000 South" at the toe of the Eastern foothills.

This report is prepared to meet specific requirements of Teton County Ordinances, Eastern Idaho District Health Department and for the use of the developer in planning this project. The reports are intended for these uses only.

The soils data was taken from on-site test holes and from SCS Natural Resource Agency Soils Survey Report of Teton Valley.

Mr Charles Woodward geology report on Teton Springs was refereed to for general geology data.

## B. SOILS REPORT

### I- A. Dra Silt Loam DeE and DeG

This soil is well drained moderately fine textured soils underlain by sandstone bedrock. The original vegetation consisted of blue bunch wheatgrass, Idaho fescue, bitter brush, snowberry and sagebrush.
These soils occur on the south hilly to steep slopes on the south mountain foothills.
The erosion hazard is slight. Maintaining or improving the structure of the surface layer is important because the surface seals readily and water enters very slowly, especially if crops are irrigated and no organic matter is added. Most of the acreage is irrigated for alfalfa, wheat, barley and potatoes. If irrigation water is not available, the acreage is dry-farmed for wheat and barley or used for range.
They receive from 16" to 20" annual precipitation.

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The surface consists of dark grayish brown loam or silt loam. It is underlain by brown heavy loam or light clay loam to about 2 feet deep. The substratum is pale brown stony loam that is calcareous. The underlying bedrock is generally fractured in the upper part with some soils materials in the cracks.

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The natural drainage is good, permeability is moderately slow and water capacity is moderate.
The erosion hazard is slight in its natural condition and severe if is cultivated.

**Soils**

The soils within the area of the project are classified in the SCS Soil Survey-Teton area as shown below. Indicators are that the soils would be good topsoil.

| LABEL | NAME | AASHO |
|---|---|---|
| DSA - | Driggs silt loam | A: 4- (8) |
| DeG | Dra silt loam | A:6 |

## II- Engineering Use Table

| *Engineering Use* | *Driggs Silt Loam* | *Dra Silt Loam* |
|---|---|---|
| Topsoil | Surface - good | Surface - poor to fair |
| Sand or gravel | Good | Unsuitable |
| Road fill | Fair; side slope erodible | Fair; slopes erodible |
| Dikes | Piping | Piping |
| Reservoir | Excessive seepage | Excessive seepage |
| Embankment | Piping | Piping |
| Drainage | Subject to erosion | Fair |
| Irrigation | Erodible on steeper slopes; Moderate intake | Unsuitable on steeper slopes; moderate on gentle slopes |
| Septic Limits | Slight | Severe |

## *III- SOIL GRADATION*

The soil from the test holes was evaluated and determined to be silt loam soil.
The top 16" of soil was dark brown / black loam topsoil. It had some deciduous material in it. It was not further tested except by visual inspection.

The soils from 16" to bottom of test hole was light brown in color and had all of the appearance and indicators of being silt loam.
A moist ball of the soil formed a formed a ribbon. It did not feel gritty when pinched.
It felt smooth.
From all appearances it was the silt loam described above in the SCS Soils Report.

## ***V. TEST HOLE SUMMARY***

Test holes dug on Dec 20, 2013 by AW Engineering with their backhoe.
The weather was clear with about 12" of snow on the ground. Top 8" of soil was froze where snow pack was light. The areas safe and accessible were along the driveway constructed by the Cemetery District.
The Test hole locations are shown on the the layout map in the Appendix.

***Test Hole # 1***

| | | |
|---|---|---|
| Topsoil 0- 8" | Black loam with roots & deciduous debris | No Water |
| 8" to 24" | light brown silt loam no rocks | " " |
| 2 to 4.5 ft | Brown silt loam some small rocks | " " |
| 4.5 to 5 ft | Bedrock hard digging | " " |
| +5.0 | Bedrock bottom of hole dug | " " |

### *Test Hole # 2 & 3*

| | | |
|---|---|---|
| Topsoil 0- 8" | Black loam with roots & deciduous debris | No Water |
| 8" to 24" | light brown silt loam no rocks | " " |
| 2 to 6.0 ft | Brown silt loam some small rocks | " " |
| 6.0 to 7 ft | Bedrock hard digging | " " |
| + 7 ft | Bedrock bottom of hole dug | " " |

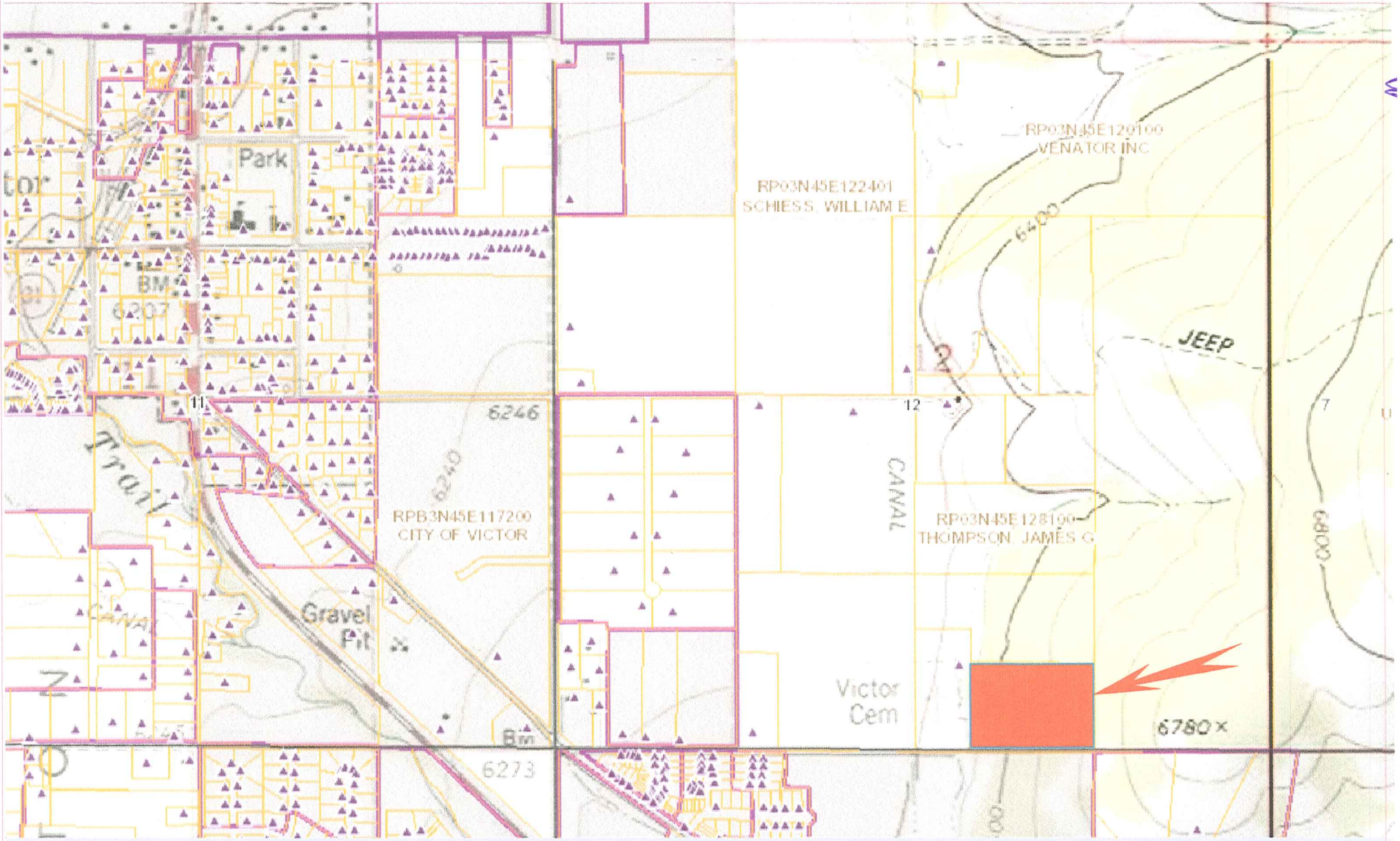
## C. GEOLOGY OF WEST SIDE TETONS

The soils in this area are products of the soil forming process that has taken place in the area over the history of time. The characteristics of the soil are determined by the nature of the parent material from which the soil was formed: climate under which has existed; plant and animal life in and on the soil; relief of the soil and the length of time it has taken to produce said soils.
The soils on the slope ( Dra soils ) were produced from the parent material of hard sedimentary rocks in the area of this property. The soils on the valley floor ( Driggs ) was formed from in an alluvium wash from the surround mountains.

The Alluvium derived from the limestone is predominate on the west side of Victor. There is large amounts of weathered dolomite, sandstone and associated sedimentary rocks in this soil. Driggs soils that formed in this material has a carbonate accumulation near the surface.

The soils on the mountain foot slopes were formed in residuum from the sedimentary formations. These soils formed from the residuum under lying material have not had the mixing of parent soils material that is characteristic of the soils on the alluvial fan.

From geologic and seismic material available in this area it does not appear that any major or Quaternary fault line run through or near this property. A detailed study was done for AW Engineering by Charly Woodward on a near by project a few years ago and a study was done by Tom Woods for the Teton Springs property about 1 mile south of this land. Neither of these studies showed any danger from earth quakes that is above the normal for Teton Valley, which is tagged as a high potential for earth quakes.
One report showed a 50 percent chance of a 5.0 magnitude quake in withing the next 40 years.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BM
6207
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6246
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CITY OF VICTOR
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RP03N45E122401
SCHIESS, WILLIAM E
RP03N45E120100
VENATOR INC
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JEEP
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CANAL
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THOMPSON, JAMES G
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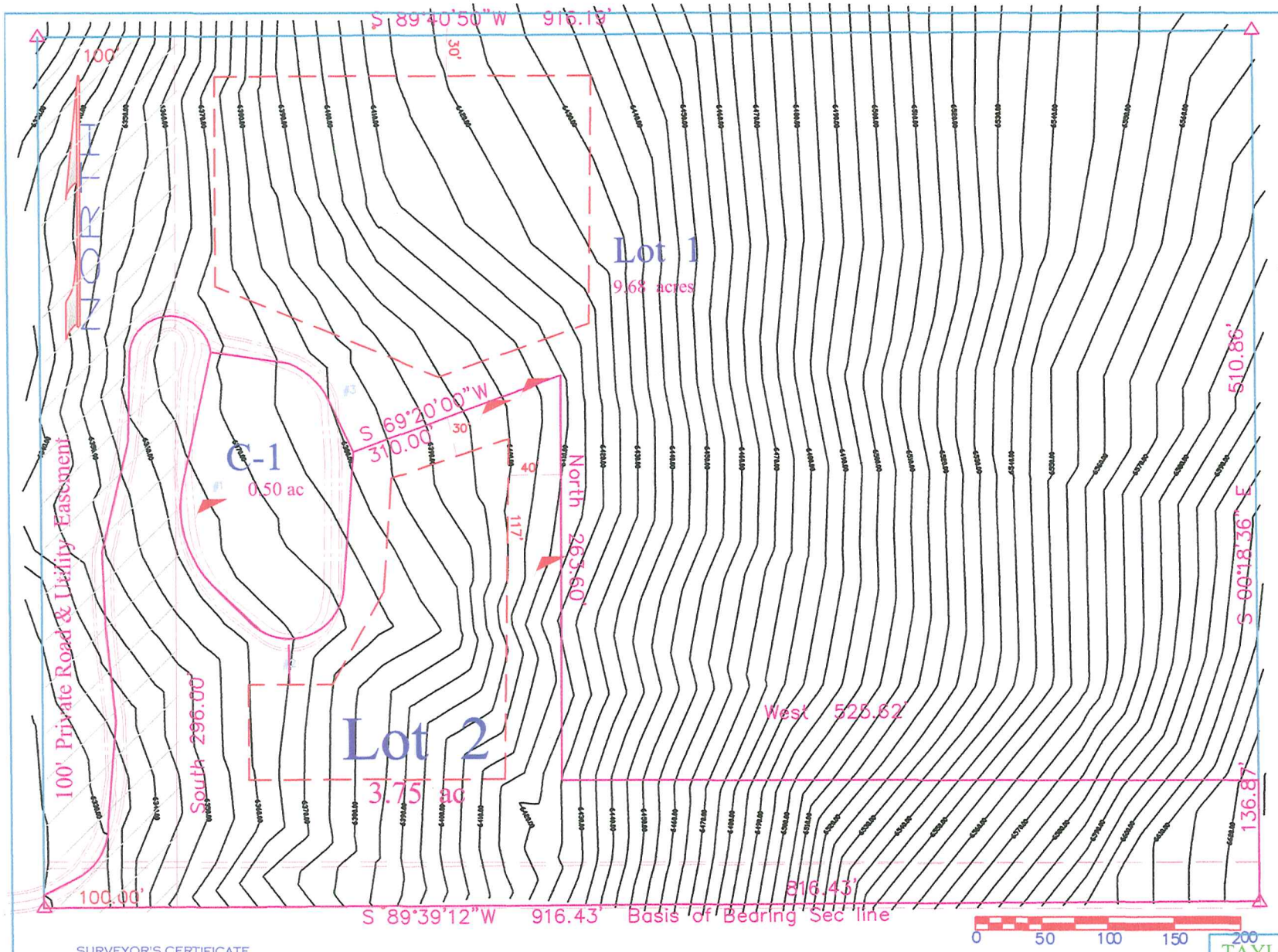



LEGEMD - NOTES

- Found Flags on site
- Soil Test Pits Dug
- Topog lines 10'
- Building Envelope
- Building Setbacls
- Lot Lines
- Improved Roadway
- Property Lines
- 30' wide Trail Easmenj ( Proposed )
- 100' Road Easement

SURVEYOR'S CERTIFICATE

I, ARNOLD W. WOOLSTENHULME, BEING A REGISTERED LAND SURVEYOR / ENGINEER IN THE STATE OF IDAHO, NO. 2860, DO HEREBY CERTIFY THAT I DID CAUSE THE SURVEY OF THE TRACT OF LAND AS HEREIN PLATTED AND DESCRIBED.

PRELIMINARY PLAT NOTES

1- Individual New Water and Sewer Systems on site
2- Building Envelopes less than 10% grade
3- Private lanes road construction
Grades less than 8 %
Lane width of 12 ft wide
Turn outs as necessary or at max 400 12 ft x 10' wide

PROPERTY DESCRIPTION Parcel 2 Plat Instr. #

A portion of the SW ¼ SE ¼ Sectioin 12, Twp 3 N., Rng 45 E., Teton County, Idaho. Being further described as:
From the Southeast SE corner of said Section 12,
THENCE S 89°39'12" W, 916.43 feet to a point;
THENCE N 00°17'20" W, 662.44 feet to a point;
THENCE N 89°40'50" E, 916.19 feet to a point;
THENCE S 00°18'36" E, 662.00 feet to the P.O.B.
Contains 13.93 Acres
Subject to a private 100 foot wide road and utility easement along the western boundary of said property.

PRELIMINARY PLAT

TAYLOR SHADOWS Subivison

PART OF THE W 1/2 SE 1/4 OF SECTION 12, TWP. 3N., RNG. 45E., B.M., TETON COUNTY, IDAHO

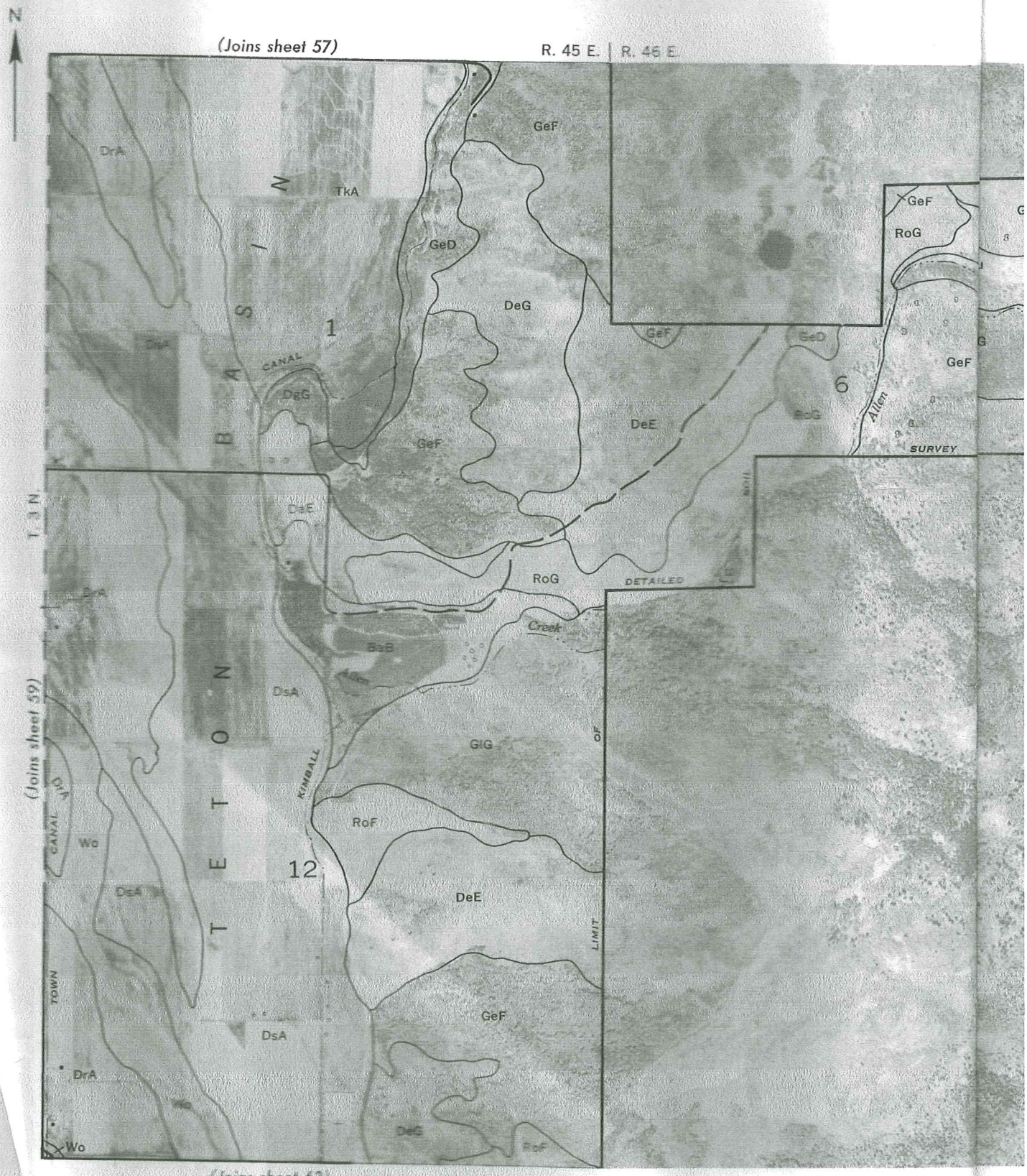
Danniel & Rachel Bender
RP 03N45E 128500
4417 Forge Rd
Perry Hill M.D. 21128

Survey: CLC 12-04-13
Survey file 12-05-13.dat

AW ENGINEERING
255 SOUTH MAIN P.O. BOX 139
VICTOR, IDAHO 83455
(208) 787-2952 aweng@ida.net

Drw aww 12-04-13 rev

Proj # 2013-111 Bender




map "C"

½ Mile

Scale 1:15840

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## Dra Series

The Dra series consists of well-drained, moderately fine textured soils underlain by sandstone bedrock at a depth of 20 to 40 inches. These soils formed in residuum from sandstone mixed, in some places, with loess. The original vegetation consisted of bluebunch wheatgrass, Idaho fescue, bitterbrush, snowberry, and sagebrush.

Dra soils generally occupy hilly to steep south slopes on mountain foothills in the southern part of the Area. They are at an elevation of 6,400 to 7,000 feet and receive from 16 to 20 inches of precipitation annually. The mean annual temperature is 38° F., and there are about 70 days between killing frosts.

The surface layer consists of dark grayish-brown loam or silt loam that is gravelly or stony in places. It is 6 to 9 inches thick and is underlain by brown heavy loam or light clay loam to a depth of about 20 inches. The substratum is pale-brown very stony loam that is strongly calcareous. The underlying bedrock is generally fractured in the upper part, and there is a small amount of soil material in the cracks.

Dra soils are associated with calcareous Ridgecrest soils and deep Dranyon soils.

**Dra silt loam, 12 to 20 percent slopes** (DaE).—This moderately deep soil is on mountain foothills in the southern part of the valley. Included in mapping were small areas of very stony soil and small areas of rock outcrop. Also included were small areas that have a slope of less than 12 percent and some areas that have a slope of more than 20 percent.

Representative profile in the NE¼SE¼SW¼ sec. 1, T. 3 N., R. 45 E., in an area of sagebrush and grass:

A11—0 to 2 inches, dark grayish-brown (10YR 4/2) silt loam that contains a few angular pebbles, cobblestones, and stones, very dark brown (10YR 2/2) when moist; very weak, medium, platy structure breaking to moderate, very fine and fine, granular structure; slightly hard when dry, very friable when moist, and slightly sticky and slightly plastic when wet; plentiful very fine and fine roots; many, very fine, tubular pores; common to few bleached grains of silt; slightly acid (pH 6.4); abrupt, smooth boundary.

A12—2 to 9 inches, dark grayish-brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) when moist; about 15 percent white (10YR 8/2) angular gravel and a few cobblestones and stones, very weak, very coarse, prismatic structure and moderate, medium and fine, granular structure; hard when dry, friable when moist, and slightly sticky and slightly plastic when wet; plentiful fine roots and a few medium and coarse roots; many, very fine, tubular pores; common bleached grains of silt; neutral (pH 6.8); clear, wavy boundary.

B1t—9 to 12 inches, brown (10YR 5/3) heavy loam or light clay loam, dark brown (10YR 3/3) when moist; about 10 percent angular gravel and a few cobblestones and stones; dark grayish-brown (10YR 4/2 when dry) coatings on blocks; moderate, fine, subangular blocky structure, and weak, medium and fine, granular structure; hard when dry, friable when moist, slightly sticky and slightly plastic when wet; few, fine, medium and coarse roots; many, very fine and microtubular pores; few to common bleached grains of silt; thin, patchy clay films in channels; very few half-inch krotovinas that have the same color and texture as the A12 horizon; neutral (pH 7.0); clear, smooth boundary.

B2t—12 to 21 inches, brown (10YR 5/3) light clay loam that contains a few angular pebbles, cobblestones, and stones; dark brown (10YR 4/3) when moist; weak, medium, prismatic structure breaking to moderate, medium and fine, subangular blocky structure; hard when dry, friable when moist, and sticky and plastic when wet; few very fine, fine, and medium roots; many, very fine, tubular pores; thin, patchy or nearly continuous clay films on peds and in channels; films are brown (10YR 5/3) when dry and dark brown (10YR 3/3) when moist; common bleached grains of silt on peds; few, half-inch, very dark grayish-brown (10YR 3/2 when dry) krotovinas or filled cicada holes; larger rock fragments coated with calcium carbonate on lower side; neutral (pH 7.0); abrupt, wavy

Cca—21 to 32 inches, pale-brown (10YR 6/3), very stony heavy loam, brown (10YR 5/3) when moist; weak, medium and fine, subangular blocky structure; hard when dry, friable when moist, slightly sticky and slightly plastic when wet; few very fine and fine roots; many, very fine, tubular pores; strongly or moderately calcareous; moderately alkaline (pH 7.9); abrupt, irregular boundary.

R—32 inches, fractured, fine-grained sandstone bedrock; small quantity of soil material in cracks.

The color value of the A1 horizon ranges from 3.5 to 4 (dry). The depth to the Cca horizon, which is more than 15 percent carbonates, ranges from 20 to 30 inches. The depth to sandstone bedrock ranges from 20 to 40 inches.

Natural drainage is good, permeability is moderately slow, and the available water capacity is moderate. Roots penetrate to bedrock. The organic-matter content and natural fertility are high. The erosion hazard is slight if this soil is used for grazing and severe if it is cultivated.

Most of the areas are grazed, either because they are inaccessible or because they are too small or too gravelly and stony for other purposes. Some areas have been cultivated, but most of these have returned to sagebrush and grass. Control of erosion is important because of the moderate depth to bedrock. (Capability unit IVe–4, dryland; Loamy range site, 16-inch to 19-inch precipitation zone; not in a woodland group)

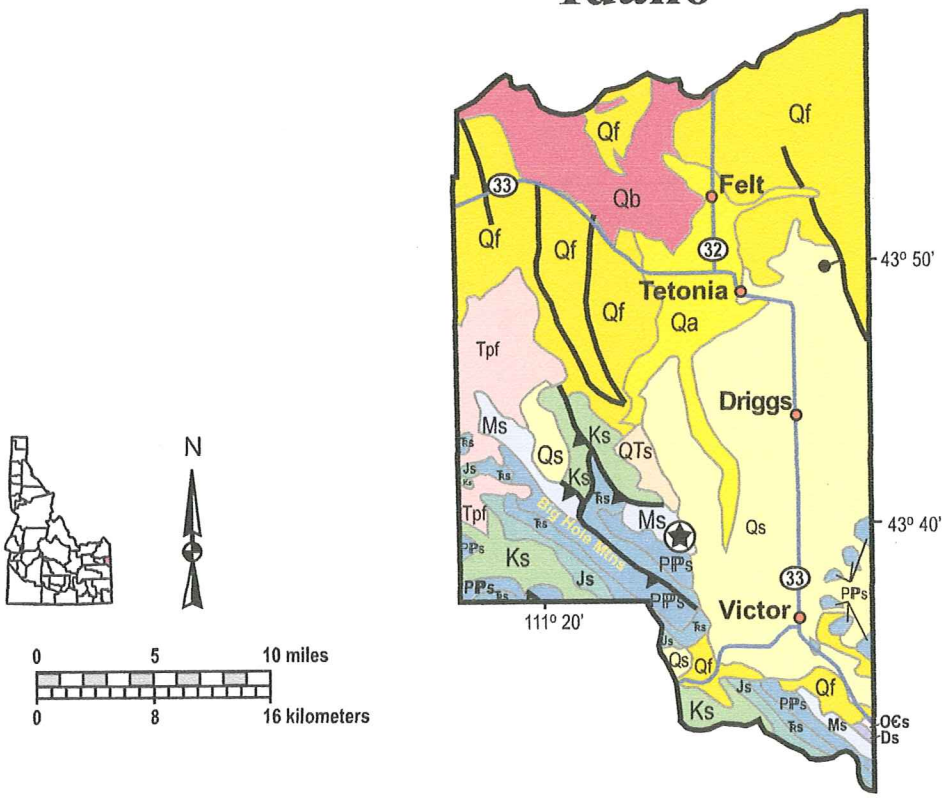
**Dra very stony loam, 12 to 20 percent slopes** (DeE).—This soil is on mountain foothills in the southeastern part of the valley. The stones interfere with cultivation. Small areas that are only slightly stony were included in mapping.

This soil is used for range and is better suited to range than to other uses. (Capability unit VIs–4, dryland; Stony range site; not in a woodland group)

**Dra very stony loam, 30 to 60 percent slopes** (DeG).—This soil is on mountain foothills in the southern part of the valley. Small areas of nonstony soil near Horseshoe Creek and small areas of Dranyon soils were included in mapping. The erosion hazard is moderate.

This soil is used for range. (Capability unit VIIs–1, dryland; South Slope range site; not in a woodland group)

# Teton County,
## Idaho

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http://imnh.isu.edu/digitalatlas
Compiled by Paul K. Link,
Idaho State University, Geosciences Dept.
http://www.isu.edu/departments/geology/

### Teton County

Much of Teton County occupies Pierre's Hole, or the Teton Valley, which lies west of the Teton Mountains and northeast of the Big Hole Mountains. The bulk of the county is underlain by Quaternary sediment, and is thus eminently suited for agriculture, which has dominated the economy until the last 20 years when vacation homes and tourism have become increasingly important.

The Big Hole Mountains, in the southwestern part of the county, contain folded and thrust faulted sedimentary rocks, which in Teton County are mostly of Mesozoic age. Coal is found in Cretaceous strata in the Horseshoe basin west of Driggs. In the 1980s wells were drilled for oil in these mountains.

Teton Pass, at the southeast corner of the county, exposes very complex geology where the north dipping Cache Creek reverse fault, that formed in the Paleocene Laramide orogeny, impinged on rocks carried northeastward by the south-dipping Jackson thrust fault of the Idaho-Wyoming thrust belt

Miocene rhyolite of the Heise and Yellowstone volcanic fields occupies the north end of the Big Hole Mountains, and is incised deeply by the Teton River as it tracks westward toward the Snake.

The eastern border of the county, and the state of Idaho, is in the agricultural area west of the Teton Mountains. The Tetons rise dramatically on dip slopes formed from west-dipping Paleozoic carbonate strata. At the top of the Targhee ski area, the rocks are Mississippian. On Table Mountain they are the Cambrian-Archean unconformity, and on the Grand Teton the rocks are Archean gneiss.

P.K. Link, 9/02

## Descripton of Units for Idaho County Geologic Maps

| | |
|---|---|
| Qa | Quaternary alluvial deposits |
| Qf | Pleistocene silicic volcanic rocks; rhyolite lava and ash-flow tuff (includes Yellowstone Group). |
| Qb | Pleistocene basalt lava, 2 million to 12,000 years old, flows have some vegetation and surface weathering. |
| QTs | Pleistocene and Pliocene stream and lake deposits; sand, gravel and mud; Lake Idaho sediments; Glenns Ferry Formation; Idaho Group. |
| Tpf | Pliocene and Upper Miocene felsic volcanic rocks, rhyolite flows, tuffs, ignimbrites. (in Owyhee County and Mt. Bennett Hills, this should be Tmf). |
| Ks | Cretaceous sedimentary rocks. |
| Js | Jurassic sedimentary rocks. |
| Ꞧs | Triassic sedimentary rocks. |
| PIPs | Permian and Pennsylvanian sedimentary rocks. |
| Ms | Mississippian sedimentary rocks. |
| Ds | Devonian sedimentary rocks. |
| O€s | Ordovician and Cambrian sedimentary rocks. |

### Symbols

Yp — Geologic unit contacts with unit designation.

Normal fault: certain; dashed where approximately located; dotted where concealed.

Thrust fault: certain; dashed where approximately located; dotted where concealed.

Detachment fault: certain; dashed where approximately located; dotted where concealed.

Anticline: trace of axial plane: large arrow indicates direction of plunge.

Syncline: trace of axial plane: large arrow indicates direction of plunge.

Overturned anticline: trace of axial plane.

Overturnedsyncline: trace of axial plane.

Location of ISU Rockwalk rock from each county.

Cities

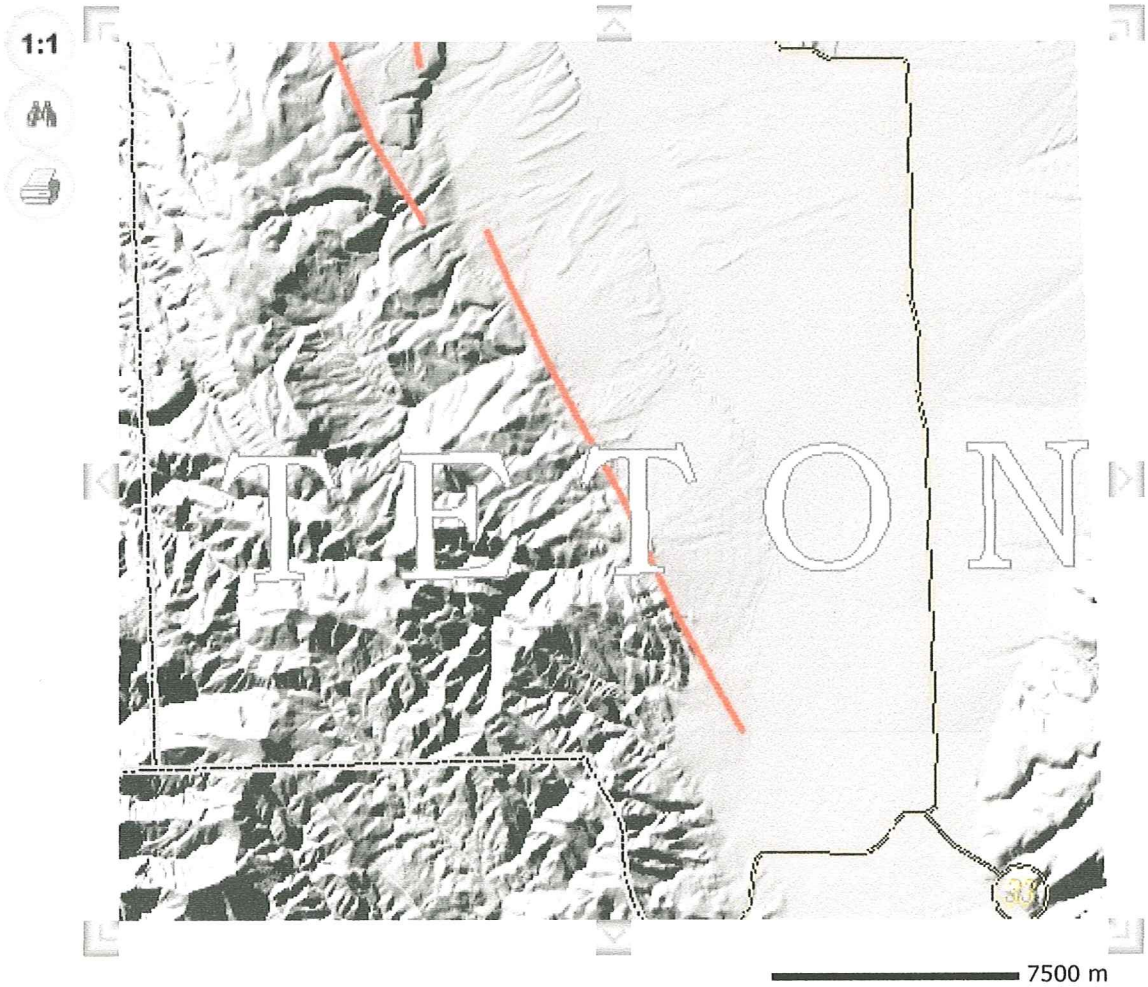
Feature location

Roads

15 Interstate Route

95 U.S. Route

1 State route




Roy M. Breckenridge, Reed S. Lewis, Guy W. Adema, and Daniel W. Weisz
igs@uidaho.edu
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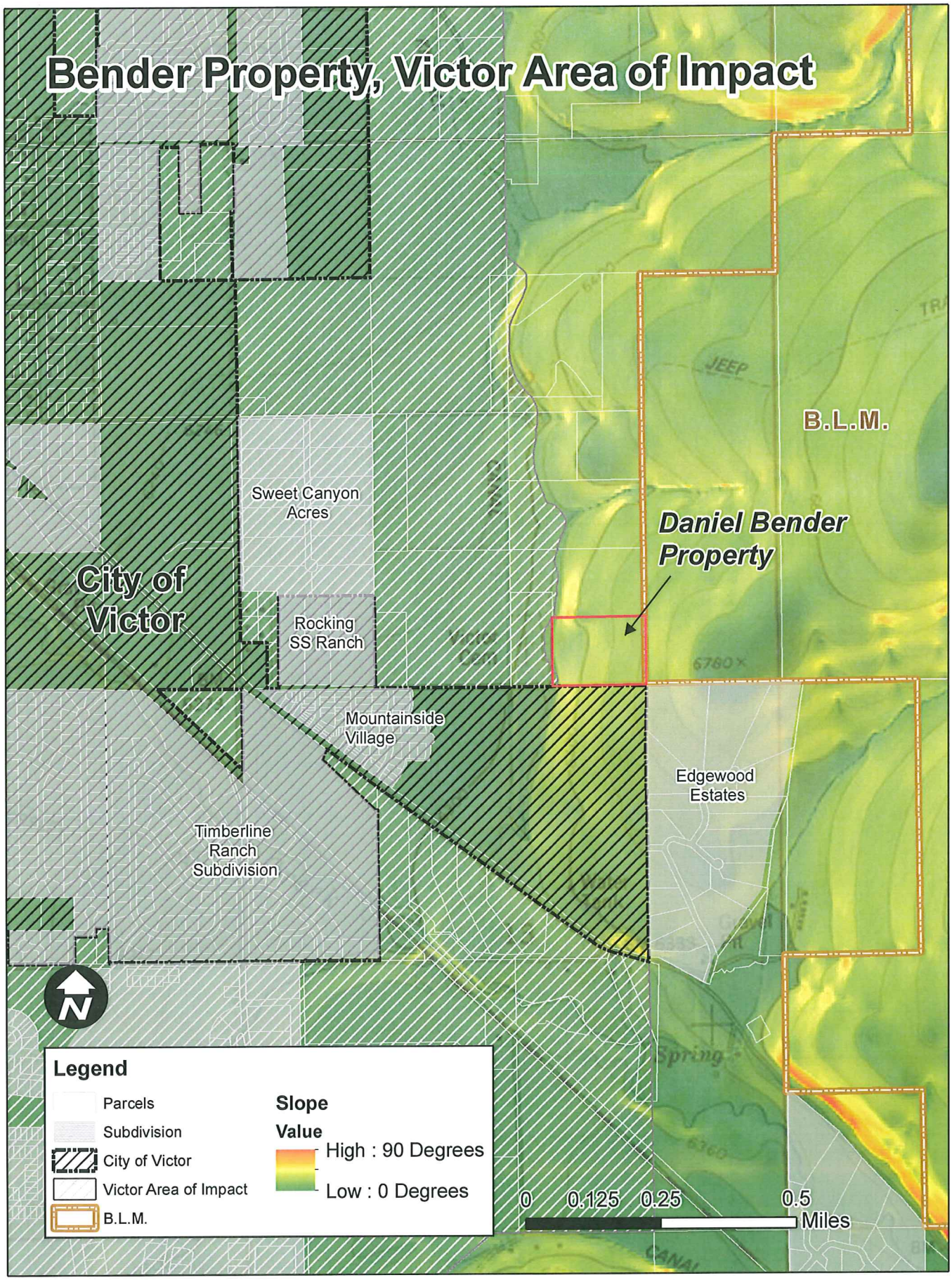

Bender Property, Victor Area of Impact
B.L.M.
Daniel Bender Property
Sweet Canyon Acres
City of Victor
Rocking SS Ranch
Mountainside Village
Edgewood Estates
Timberline Ranch Subdivision
N
Legend
Parcels
Subdivision
City of Victor
Victor Area of Impact
B.L.M.
Slope
Value
High : 90 Degrees
Low : 0 Degrees
0
0.125
0.25
0.5
Miles

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://www.fws.gov/idahoes/


MAR 18 2014

Jason Boal
Planning Administrator
Teton County
150 Courthouse Drive # 107
Driggs, ID 83422

Subject: Proposed City of Victor 2 Lot Subdivision in Teton County, Idaho.
2014-TA-0258 Species Request

Dear Mr. Boal:

The Fish and Wildlife Service (Service) is providing you with a list of endangered, threatened, proposed, and/or candidate species, and designated critical habitat which may occur in the area of the proposed 2 Lot subdivision outside the City of Victor in Teton County, Idaho.

The Endangered Species Act of 1973, as amended (Act) includes provisions for the conservation of listed species on both Federal and non-Federal lands. A private landowner may wish to enter into an agreement with the Service under section 10 of the Act for activities that benefit listed, proposed, and candidate species. Voluntary agreements such as Safe Harbor Agreements or Candidate Conservation Agreements contribute to the conservation of listed, proposed, or candidate species while allowing for management activities on non-Federal lands. In addition, Section 9 of the Act prohibits the "taking" of any listed species without an exemption (issued by the Service) for that take[1]. For private landowners, that exemption is developed through the permit process of Section 10 (through a Habitat Conservation Plan) of the Act. More information on the various mechanisms for take exemption available to private landowners under the Act can be found at http://www.fws.gov/idaho/Landowners.htm.

Section 7 of the Act requires Federal agencies to assure that their actions do not jeopardize any listed species and provides a process for exemption of take for federal agencies. If there is a Federal action (funding, permitting, or direct action) associated with your project, the Federal

1 Take of threatened or endangered animal species is defined as; harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

agency is required to consult with the Service if the action may affect a listed species. Section 7 regulations allow for applicants to be involved in the consultation process. For instance, a Federal agency may designate you or another non-Federal entity to represent them in an informal consultation.

The enclosed list fulfills the requirements for a species list under section 7(c) of the Act. If the project decision has not been made within 180 days of this letter, regulations require that you request an updated list. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at http://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm. Section 7 consultation information specific to Idaho listed species can also be found on the Snake River Fish and Wildlife Office website at http://www.fws.gov/idaho/species.htm.

For more information on grizzly bears, and living and recreating in grizzly bear country, please visit the Service's Mountain-Prairie Region Grizzly Bear Recovery Home Page at: http://mountain-prairie.fws.gov/species/mammals/grizzly/fact_sheets.htm .

If you have any questions about your responsibilities under section 7 of the Act, or require further information, please contact Nisa Marks of our Eastern Idaho Field Office at (208)237-6975 extension 121. Thank you for your interest in endangered species conservation.

Sincerely,

for David Kampwerth
Field Supervisor

Enclosures

TETON COUNTY
TETON COUNTY, IDAHO
SPECIES LIST 2014

| LISTED SPECIES | COMMENTS |
|---|---|
| Grizzly bear *(Ursus arctos)* | LT |

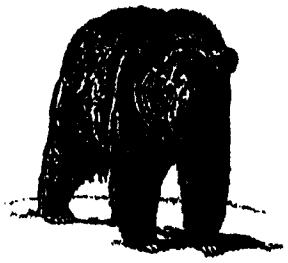
| PROPOSED SPECIES | |
|---|---|
| Yellow-billed cuckoo *(Coccyzus americanus)* | PT |

| CANDIDATE SPECIES[1] | |
|---|---|
| Greater sage-grouse (*Centrocercus urophasianus*) | C |
| North American Wolverine *(Gulo gulo luscus)* | C |

LE - Listed Endangered
LT - Listed Threatened
XN - Experimental/Non-essential population
PT - Proposed Threatened
C - Candidate

[1]Candidate species have no protection under the Act, but are included for your early planning consideration. Candidate species could be proposed or listed during the project planning period, and would then be covered under Section 7 of the Act. The Service advises an evaluation of potential effects on candidate species that may occur in the project area.

U.S. Fish and Wildlife Service
Mountain-Prairie Region, P.O. Box 25486
Lakewood, Colorado 80228
phone 303/236-7905, fax 303/236-3815
website: http://mountain-prairie.fws.gov



# Tips for Residents in Grizzly Country

To reduce the risk of problems with bears on or near your property, we urge you to follow this list of simple precautions. Avoid attracting bears to your residence. Please do your part so people and bears can live together.

**Garbage** should be stored where bears can neither smell nor gain access to it: either in a bear-resistant container or inside a building bears can't get into. Use outside garbage cans for non-food items only. Haul garbage to an approved disposal site as often as possible, but at least once a week, to avoid build-up of odors.

**Fruits trees** attract bears, especially when wild foods are scarce. Electric fencing is the most effective way to keep bears out of orchards. Pick all fruit from trees and the ground as soon as possible; do not leave fruit through the fall.

**Vegetable and flower gardens** also attract bears. Gardens should be located away from forests or shrubs, which bears use for security and travel. Bears will dig up carrots and bulbs, so electric fencing is a good idea.

**Composting** is not recommended, because the odors attract bears. If you do compost, use an electric fence or enclosed, bear-resistant composter. Don't put meat, grease, or bones in a compost pile.

**Livestock and poultry feed**, along with pet food, should be stored in bear-resistant containers – such as a 55-gallon drum with a lid that seals – preferably inside a sturdy building that bears can't get into. Reduce spillage of oats and pellets by feeding from buckets or other containers, and don't leave leftover livestock food out overnight.

**Dogs** and other pets should be kept inside at night. If possible, feed pets inside. If you must feed pets outside, feed only during the day in amounts that will be consumed immediately. Don't leave bowls and pet food out overnight.

**Sheep and pigs** are easy prey for bears. Sheep should be closely herded. Consider electric fencing for pigs, or not keeping pigs. Do not bury dead livestock – bears will dig them up! Haul them to a landfill or rendering plant.

**Bears love honey** as well as bee larvae found in hives. You can protect the hives with electric fencing or by elevating the hives on platforms supported by metal poles that bears can't climb.

**Bird feeders** can also attract bears. Feed suet only during the winter months, and suspend hummingbird feeders out of reach of bears – at least 10 feet off the ground and 4 feet away from any tree trunk or pole.

**Closely supervise children** when they are playing outdoors. Make sure they are home before dusk and not outside before dawn. Talk with children about bears and teach them what to do if they encounter one.

**If bears get into garbage or other food,** REMOVE THE ATTRACTANT IMMEDIATELY. Avoid giving bears a repeated food reward. Bears that associate people and places people live with easy food rewards can become dangerous, and may eventually have to killed.