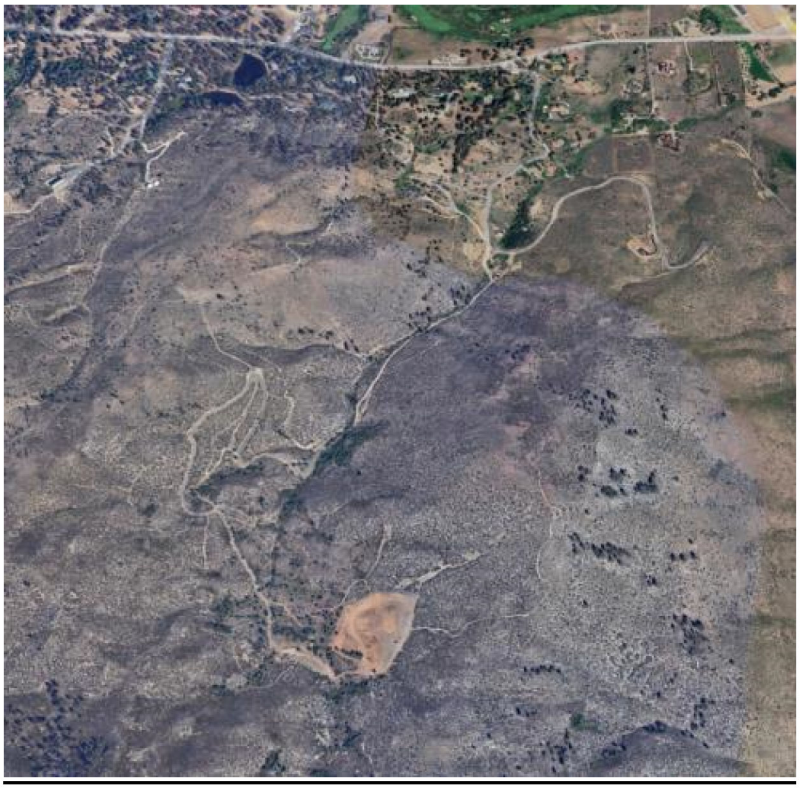
Special Use Permit

Bryan Canyon Road Pond and Restoration

October 2024

Prepared for Mr. John Hurry



Resource Concepts Inc

340 N. Minnesota Street

Carson City, NV 89703

(775)883-1600

WWW.RCI_NV.COM

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

Project Information	**Staff Assigned Case No.:** _____
Project Name:	Bryan Canyon Road Pond and Restoration Special Use Permit
Project Description:	The construction of an approximately 1 acre +/- pond with the restoration of the remaining pre-disturbed area as well as a restoration planting plan.
Project Address:	Bryan Canyon Road
Project Area (acres or square feet):	346.480 +/- acres total, approximately 5 acres of restoration and 1 acre for a pond
Project Location (with point of reference to major cross streets **AND** area locator):	Bryan Canyon Road and Ponderosa

Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
055-301-38	346.480		

Indicate any previous Washoe County approvals associated with this application:
Case No.(s). None

Applicant Information (attach additional sheets if necessary)

Property Owner:		**Professional Consultant:**	
Name: SC Advisors, LLC		Name: Resource Concepts Inc.	
Address: P.O. Box 3390		Address: 340 N. Minnesota Street	
Stateline, CA	Zip: 89449	Carson City, NV	Zip: 89703
Phone:	Fax:	Phone: 775-883-1600	Fax: 775-883-16
Email:		Email: greg@rci-nv.com	
Cell:	Other:	Cell: 775-515-5145	Other:
Contact Person: John Hurry		Contact Person: Gregory Stedfield, PE	
Applicant/Developer:		**Other Persons to be Contacted:**	
Name: SC Advisors, LLC		Name:	
Address: 7170 McDonald Drive, Suite 4		Address:	
Scottsdale, AZ	Zip: 85253		Zip:
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	

For Office Use Only

Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Special Use Permit Application
Supplemental Information

(All required information may be separately attached)

1. What is the project being requested?

   An SUP is being requested to facilitate grading to create a 1 acre pond (approximately 8 feet deep) as well as restore the surrounding area that was disturbed in 2020. The restoration will include vegetation as well as restoring the original grade as close as possible. This should also clear the existing code violation for unauthorized grading

2. Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)

   Please refer to the included grading plan that will show the requested information.

3. What is the intended phasing schedule for the construction and completion of the project?

   It is anticipated that the construction/grading will commence near the end of 2024 as weather permits with the completion prior to the fall of 2025.

4. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

   The location of the pond was chosen for aesthetic reasons and provides a "best fit" with the terrain. The pond also provides a beneficial use to maintain senior water rights and as a water source for wildlife. The pond location is also within the previously disturbed area.

5. What are the anticipated beneficial aspects or affects your project will have on adjacent properties and the community?

   A few anticipated beneficial aspects would be an increase of wildlife use of the pond and could provide potential use for fire fighting.

6. What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?

   No negative impacts are anticipated with this request.

7. Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

   The project is located within private property which is access controlled with a locked gate. Public use is not anticipated. No formal parking area or lighting is planned. Re-vegetation will be incorporated around the proposed pond as well as the restoration area.

8. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

❑ Yes	■ No

9. Utilities:

a. Sewer Service	Not applicable to this project
b. Electrical Service	Not applicable to this project
c. Telephone Service	Not applicable to this project
d. LPG or Natural Gas Service	Not applicable to this project
e. Solid Waste Disposal Service	Not applicable to this project
f. Cable Television Service	Not applicable to this project
g. Water Service	Not applicable to this project

For most uses, Washoe County Code, Chapter 110, Article 422, Water and Sewer Resource Requirements, requires the dedication of water rights to Washoe County. Please indicate the type and quantity of water rights you have available should dedication be required.

h. Permit #	See permits in Appendix D	acre-feet per year	
i. Certificate #		acre-feet per year	
j. Surface Claim #		acre-feet per year	
k. Other #		acre-feet per year	

Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources).

10. Community Services (provided and nearest facility):

a. Fire Station	Truckee Meadows Fire Station #30, 3905 State Route 429
b. Health Care Facility	Carson Tahoe Hospital, 1600 Medical Parkway, Carson City, NV
c. Elementary School	Not applicable to this project
d. Middle School	Not applicable to this project
e. High School	Not applicable to this project
f. Parks	Not applicable to this project
g. Library	Not applicable to this project
h. Citifare Bus Stop	Not applicable to this project

Special Use Permit Application
for Grading
Supplemental Information

(All required information may be separately attached)

1. What is the purpose of the grading?

   To create a natural looking pond to provide recreational uses as well as a watering hole for wildlife and to restore other adjacent areas that were previously graded.

2. How many cubic yards of material are you proposing to excavate on site?

   14,754 cubic yards of cut and fill. The preliminary design balances so no import or export of material is anticipated.

3. How many square feet of surface of the property are you disturbing?

   258,746 of total area, Approximately 1 acre for the proposed pond. The balance is to restore previously graded area.

4. How many cubic yards of material are you exporting or importing? If none, how are you managing to balance the work on-site?

   It is anticipated that all soil material on-site will be used for this project in a "balanced" condition. No import or export of material is anticipated.

5. Is it possible to develop your property without surpassing the grading thresholds requiring a Special Use Permit? (Explain fully your answer.)

   No. In order to complete the pond grading, as well as the restoration of the adjacent areas, a Special Use Permit will be required.

6. Has any portion of the grading shown on the plan been done previously? (If yes, explain the circumstances, the year the work was done, and who completed the work.)

   Yes. The requested SUP is in response to a code enforcement action, WVIO-ENG 20-0015. The requested SUP seeks to provide approval for a smaller pond as well as required restoration work from previous grading.

7. Have you shown all areas on your site plan that are proposed to be disturbed by grading? (If no, explain your answer.)

   Yes.

8. Can the disturbed area be seen from off-site? If yes, from which directions and which properties or roadways?

No. The affected area is located such that it is not visible from any road or adjacent parcels leading to the subject parcel.

9. Could neighboring properties also be served by the proposed access/grading requested (i.e. if you are creating a driveway, would it be used for access to additional neighboring properties)?

The proposed pond is for the private use of the landowner. However, it could serve to provide water for fire supression.

10. What is the slope (horizontal/vertical) of the cut and fill areas proposed to be? What methods will be used to prevent erosion until the revegetation is established?

Slopes within the pond are anticipated to be 3 feet horizontal to 1 foot vertical. Cut slopes outside the pond are anticipated to be 2 feet horizontal to 1 foot vertical. Fill slopes outside of the pond are anticipated to be 4 feet horizontal to 1 foot vertical or shallower.

11. Are you planning any berms?

Yes X	No	If yes, how tall is the berm at its highest? 16.4 feet

12. If your property slopes and you are leveling a pad for a building, are retaining walls going to be required? If so, how high will the walls be and what is their construction (i.e. rockery, concrete, timber, manufactured block)?

No retaining walls are proposed.

13. What are you proposing for visual mitigation of the work?

Visual mitigation of the work is not required since the project site is not visible to other property owners or roads. However, restoration of the previously disturbed area is included in the work.

14. Will the grading proposed require removal of any trees? If so, what species, how many and of what size?

Tree removal is not anticipated.

15. What type of revegetation seed mix are you planning to use and how many pounds per acre do you intend to broadcast? Will you use mulch and, if so, what type?

A combination of grasses, forbs and shrubs, to match existing vegetation, per the revegetation plan included in this application.

16. How are you providing temporary irrigation to the disturbed area?

It is anticipated that due to timing, natural rainfall will provide "irrigation" to the planted areas. If this does not prove adequate, there will be an irrigation plan that will serve as a back-up plan utilizing the existing wells on the site.

17. Have you reviewed the revegetation plan with the Washoe Storey Conservation District? If yes, have you incorporated their suggestions?

The plan has not been reviewed by the Washoe Storey Conservation District.

18. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that may prohibit the requested grading?

Yes	No X	If yes, please attach a copy.

Appendix A

Table of Contents

Note: Record of Survey Map #4473 (Lumos, Recorded October 14, 2004) included in Appendix D is from the previous application and is a part of the Public Record.

Project Description

This application is a request for a Special Use Permit for grading on a portion of the subject parcel. The proposed grading is for a pond that will provide a beneficial use of permitted water that the property owner holds. The pond is proposed to be private but would provide a watering hole for wildlife in the area and an environment for birds. The pond will be stocked for private use by the owner for fishing.

The proposed pond area is located towards the southern portion of APN 055-301-38, a 346.5+/- acre parcel. The proposed pond area grading totals 1.0 +/- acre with approximately 6 acres of restoration grading and planting, which is +\-1.7% of the total site. Washoe County 2017 LiDAR data was used to establish the basis for the restoration grading. The grading plan comes close to re-establishing the original grades prior to the 2020 grading. The plan utilizes available soil and does not depend on the import of additional soil material. It is anticipated that one tree will be removed as part of this plan. The final Landscape Plan will add trees at locations that were removed during the initial grading operation. Erosion Control measures will be designed as part of the formal Grading Plan that will be submitted and approved by Washoe County prior to the commencement of grading operations.

The maximum depth of the pond is 8 feet and impounds 4.99 acre-feet of water at the maximum water elevation. These parameters are well below the thresholds set by the State of Nevada Division of Dam Safety and the Nevada Revised Statute (NRS) that would make this pond regulatory.

There are two existing wells on the property immediately adjacent to the proposed pond location. Mr. Hurry (parcel owner) has water rights associated with the project will use the water to fill and maintain the pond.

This application includes drawings and information to address previous, unpermitted grading activities commenced (in error) by the applicant and their contractor in 2020. With this requested Special Use Permit, certain thresholds associated with grading (Article 438) are specifically requested for review and approval as well as review and approval of Hillside Development (Article 424) considerations.

This application is based on the revised Section 438, which was adopted on August 30, 2024.

Article 438 (Grading) Requests

The following code sections from Section 110.438.28 (Major Grading Permit Thresholds) are specifically included with this application:

Grading on slopes of less than (flatter than) fifteen (15) percent:

- 110.438.28(a)(1)(i)(B) – Area – Grading of 20% an area of more than four (4) acres on a parcel of any size.
- 110.438.28(a)(1)(ii)(A) – Volume – Excavation of fifteen thousand (15,000) CY or more…
- 110.438.28(a)(1)(iii)(A) – Depth – Cut below existing legal ground greater than twenty (20) feet
- 110.438.28(a)(1)(iii)(B) – Depth – Fill above existing legal ground greater than ten (10) feet

Property Location

The subject parcel contains 346.5+/- acres of land but only 6.0+/- acres or +/-1.7% of subject parcel is proposed to be disturbed with this grading. The development site is in the southern portion of the subject parcel. A Vicinity Map is provided below showing the subject parcel and development site that is associated with this request.

Master Plan and Zoning

The subject parcel is master planned General Rural (GR) and zoned General Rural (GR). The proposed grading for the pond is allowed under the existing zoning designation.

Project Summary

Overview – The proposed grading project consists of earthwork on a small portion of the 346.5+/- acre parcel (APN 055-301-38). Allowance of this grading activity will provide a necessary water structure to create a beneficial use for the maintenance of existing water rights. The proposed grading will create a pond (mostly manmade) located near the southern boundary of the parcel and be supplied with water by an existing well located west of the pond.

Revegetation

Native revegetation will be incorporated into the final treatment around this pond area using an appropriate seed mix for the area. There will be a formal landscaping plan that will serve to re-establish the stripped areas. This formal landscaping will attempt to re-create the native vegetation.

Site Hydrology

The preliminary hydrology report is provided in Appendix C of this application.

Hillside Development Site Analysis

Following is a review of the supplemental review items required under Article 424 (Hillside Development) in the Washoe County Development Code. Each review item listed in Section 110.424.15 is provided.

a. Site Analysis

(1) Major topographic conditions including ridgelines, ravines, canyons and knolls;

Below is an excerpt from the South Valleys Area Plan – Development Suitability Map showing the location of the proposed pond being in an area suitable for development and surrounded by topography. The development site sits in a bowl that helps to conceal views of the pond and associated grading from lands in the valley and along public rights-of-way.

(2) Preliminary geological conditions including major rock outcroppings, slide areas and areas underlain with faults that have been active during the Halocene epoch of geological time;

Seismic Considerations are included in the Geotechnical Investigation Report, provided in Tab C of this application package.

(3) Preliminary soil conditions including soil type, expansiveness, slumping, erodibility and permeability;

Soils Conditions are reviewed in the Geotechnical Investigation Report, provided in Tab C of this application package.

(4) Significant surface hydrological conditions including natural drainage courses, perennial streams, floodplains, wetlands and ponding areas;

No significant hydrologic resources are identified to be within the development area.

(5) The location and types of significant vegetation including known rare and endangered plant species and general plant communities;

No rare or endangered plant species are known to be in the area of the proposed pond by the applicant or consultants on this project.

(6) Habitat areas for rare or endangered animal species;

The location of a pond will have no negative impact on any habitat within the area. From review of the Washoe County habitat area maps from the Conservation Element of the Washoe County Master Plan, only Mule Deer appear to have Key winter habitat in the area of the development site. The pond will provide a water supply for the Mule Deer and can be seen as a benefit.

(7) Preliminary viewshed analysis including cross sections of views to and from the development site from all major roadways within one (1) mile of the project site, and from major focal points on the project site;

This image is looking to the southeast with Carson City in the background. The site location is nestled in an existing bowl and is blocked from view on all sides. Bryan Canyon Road can be seen on the left side of the image and provides gated access to the project site.

Looking south from Franktown Road. The project site is located behind the hill with no visibility from Franktown Road.

Looking south from southbound I-580. Project site is located behind the hill with no visibility from I-580.

(8) How the development responds to the unique conditions of the hillside; and

For the most part, the development exists in the lesser slope areas, as is evidenced on the Slope Analysis Map provided as Sheet C6 in Appendix B of this application. The proposed pond could have been naturally occurring with a slightly higher ground being formed, naturally at the northern portion of the bowl. The site is well suited to have a pond (man-made or natural).

(9) A slope analysis, submitted on a topographic map with contour intervals of at least five (5) feet for planning purposes.

(i) 0 - 15 percent;

(ii) 15 - 20 percent;

(iii) 20 - 25 percent;

(iv) 25 - 30 percent; and

(v) Greater than 30 percent.

A Slope Analysis Map is provided as Sheet C6 in Tab B using the slope categories noted above.

b. Developable Area Map.

A developable area map, prepared pursuant to Section 110.424.20(b).

The Existing Site and Preliminary Grading Plans, coupled with the Slope Analysis Map (Sheets C1, C2 and C5), provided with this application adequately address site developable area as the total area of disturbance is only +/-2.8% of the entire subject parcel. The proposed location of the pond, as has been noted previously within this project narrative The total amount of 30% or steeper slopes is only 804+ SF of the 6.0+/- acre development site area or less than 2/10 of 1% of the total development site area.

c. Constraint and Mitigation Analysis.

A detailed analysis of how the identified constraints will be mitigated and incorporated into the project's design. There are no constraints to the development of this site for a pond. As such, there is no mitigation analysis that is foreseen to be necessary.

d. Washoe County Master Plan Amendment.

Not applicable. No Master Plan Amendment is proposed with this application.

Section 110.810.30 -- Findings. Prior to approving an application for a special use permit, the Planning Commission, Board of Adjustment or a hearing examiner shall find that all of the following are true:

a) Consistency. The proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the applicable area plan;

The proposed SUP for grading improvements has been prepared to meet the design requirements set forth under the Washoe County Master Plan and Development Code. The

subject property is contained within the South Valleys Area Plan Suburban Character Management Area.

These measures will be met with the proposed grading and drainage improvements.

SV.1.6 The following Regulatory Zones are permitted within the West Washoe Valley Suburban Character

Management Area:

a. General Rural (GR – One unit per 40 acres).

b. Low Density Rural (LDR – One unit per 10 acres).

c. Medium Density Rural (MDR – One unit per 5 acres).

d. Public/Semi-public Facilities (PSP).

e. Parks and Recreation (PR).

f. Open Space (OS).

g. High Density Rural (HDR – One unit per 2.5 acres).

The development site is zoned GR and appropriate to the Master Plan and the WWVRCMA.

SV.2.3 Site development plans in the South Valleys planning area must submit a plan for the control of noxious weeds. The plan should be developed through consultation with the Washoe County District Health Department, the University of Nevada Cooperative Extension, and/or the Washoe-Storey Conservation District. The control plan will be implemented on a voluntary compliance basis.

A Restoration Planting Plan will be part of the formal Grading Permit Package and will address noxious weeds.

SV.2.14 Development activities should be designed to support the efficient use of infrastructure and the conservation of recharge areas, habitat, and open vistas.

The proposed drainage will provide an additional recharge area for the West Washoe Valley area. There is no formal infrastructure on the property other than a water well located adjacent to the proposed pond.

SV.2.16 The approval of special use permits and administrative permits must include a finding that the community character as described in the Character Statement can be adequately conserved through mitigation of any identified potential negative impacts.

The proposed grading SUP will not negatively impact the surrounding parcels owners nor community character. The pond structure is intended to directly affect the parcel owner by providing a use for existing water rights in the area. Indirectly, the pond structure should provide a water source for wildlife in the area, particularly mule deer and may be available as a water source for fire fighting efforts, if necessary and agreed by all stakeholders in such use. Additionally, the revised pond configuration provides a less intrusive pond and works

b) Site Suitability. The site is physically suitable for the type of development and for the intensity of development;

The pond is suitable within the area in which is it located and with slightly different topography at the northwest corner of the pond, could be naturally occurring. The pond, as proposed with this application, will have less of an impact on the surroundings and with the restoration grading and landscaping, will be more suitable to the surropundings.

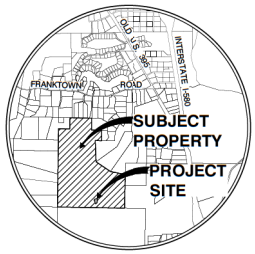
c) Issuance Not Detrimental. Issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area; and

This request would compliment the surrounding area and will not be detrimental to the character of the surrounding area.

d) Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

The closest military installation would be the Nevada Air National Guard at Reno-Tahoe Airport. No detrimental effect would be realized.

Appendix B



VICINITY MAP
NO SCALE

N

N

0 40 80
SCALE:1"=40'

SHEET INDEX

OWNER

SC ADVISORS LLC
CONTACT: JOHN HURRY, OWNER
7170 E. MCDONALD DRIVE, SUITE 4
SCOTTSDALE, ARIZONA 85253
PHONE: 775-770-4322
EMAIL: jhurry@jhurry.com

ENGINEER

RESOURCE CONCEPTS, INC.
CONTACT: GREG STEDFIELD, P.E.
340 NORTH MINNESOTA STREET
CARSON CITY, NEVADA 89703
PHONE: 775.883.1600
EMAIL: greg@rci-nv.com

PROJECT DATA

ASSESSOR'S PARCEL NUMBER:	055-301-38
TOTAL SITE AREA:	346.48 ACRES
MASTER PLAN DESIGNATION:	RURAL
CURRENT ZONING:	GR GENERAL RURAL
FEMA FLOOD HAZARD ZONE:	X (UNSHADED) PANEL 32031C3430G

811
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Carson City, NV 89703-4152
775-883-1600
Resource Concepts Inc.

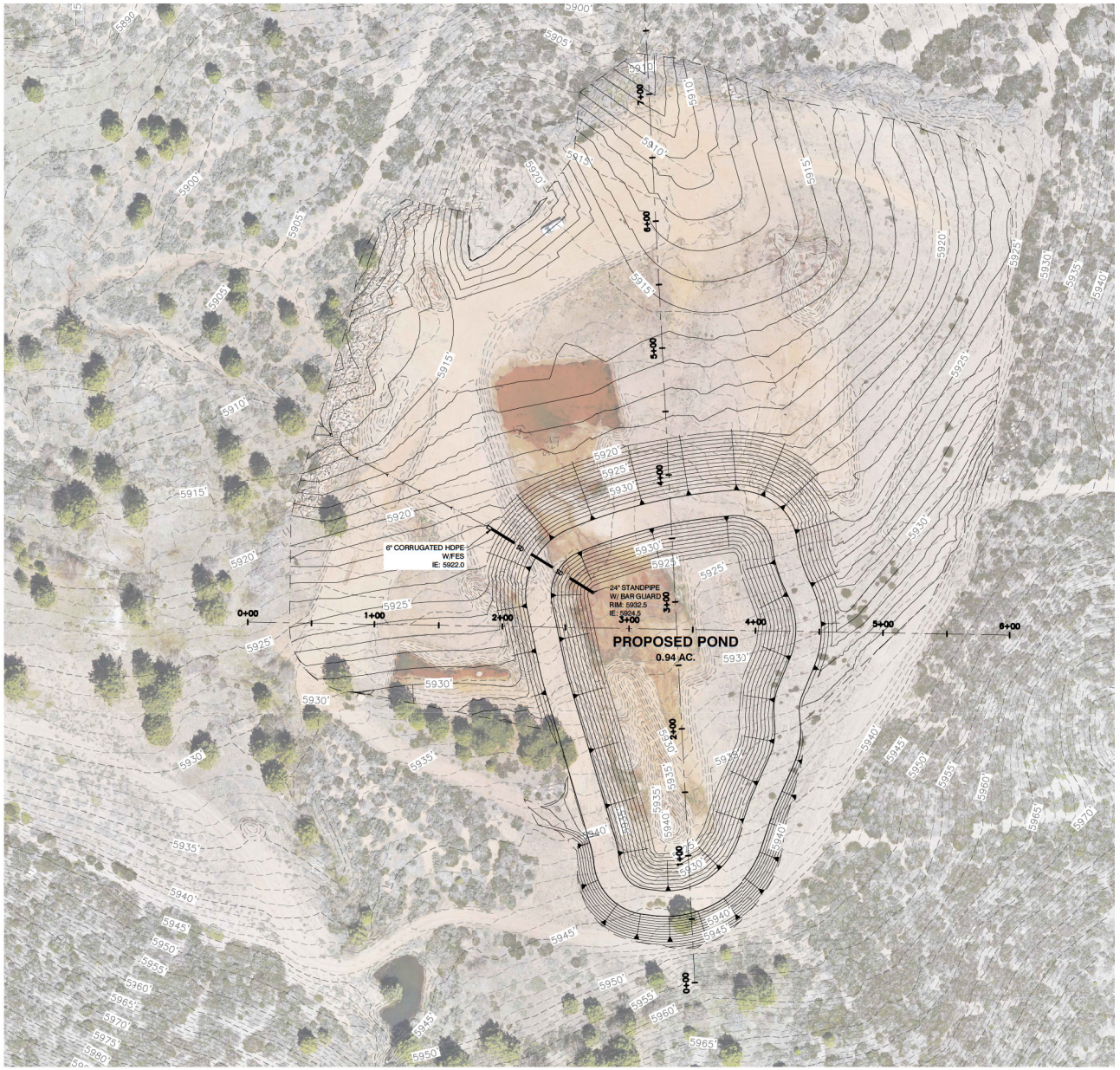
REVISION	DATE

SPECIAL USE PERMIT
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

EXISTING SITE PLAN

JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN :	MB
CHECKED:	DH

C1

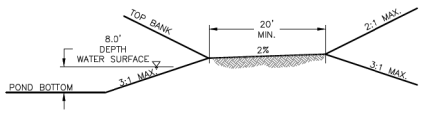


N

0 40 80

SCALE:1" =40'

EARTHWORK TABLE	
DISTURBED AREA - TOTAL	5.94 AC
CUT	14,754 CY
FILL	14,753 CY
TOTAL EARTHWORK VOLUME	1 CY CUT
MAXIMUM DEPTH OF CUT	-18.0'
MAXIMUM DEPTH OF FILL	16.4'
AREA OF CUT GREATER THAN 10'	3,483 SF
AREA OF FILL GREATER THAN 10'	11,665 SF
AREA OF FILL GREATER THAN 6'	21,837 SF
POND VOLUME @ EL 5932.5	4.99 AC./FT
NORMAL WSEL	5932.5'



POND SECTION

N.T.S.

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775-883-1600

Resource Concepts Inc.

REVISION	DATE

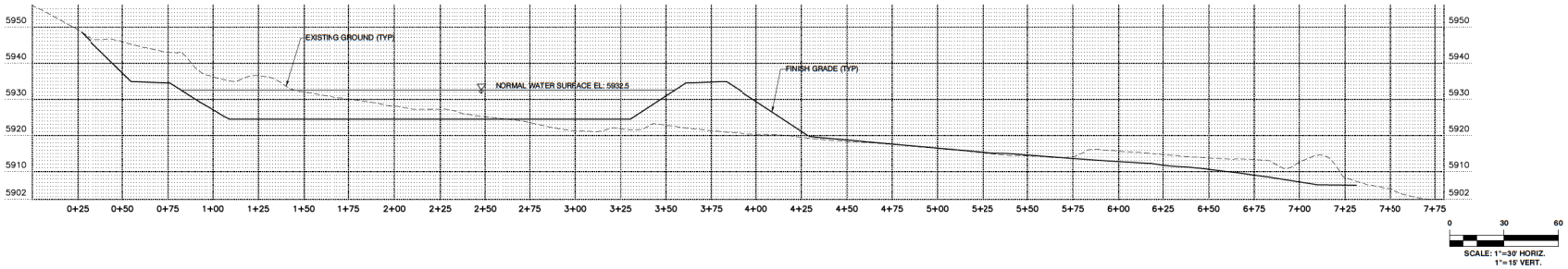
SPECIAL USE PERMIT
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

PRELIMINARY GRADING PLAN

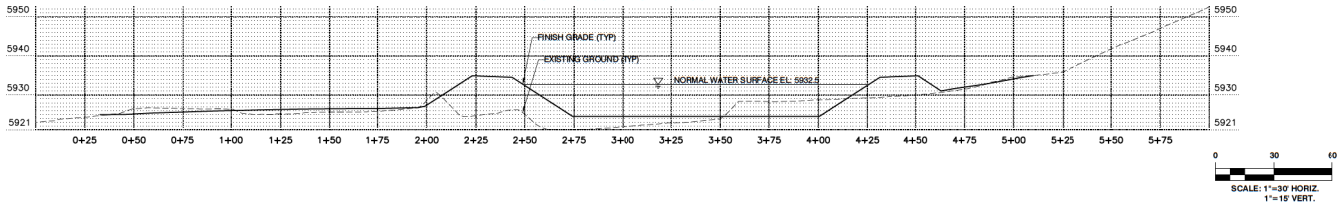
JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN:	MB
CHECKED:	DH

C2

ALIGNMENT - SOUTH NORTH POND
STA 0+00 TO STA 7+80



ALIGNMENT - WEST EAST POND
STA 0+00 TO STA 6+00



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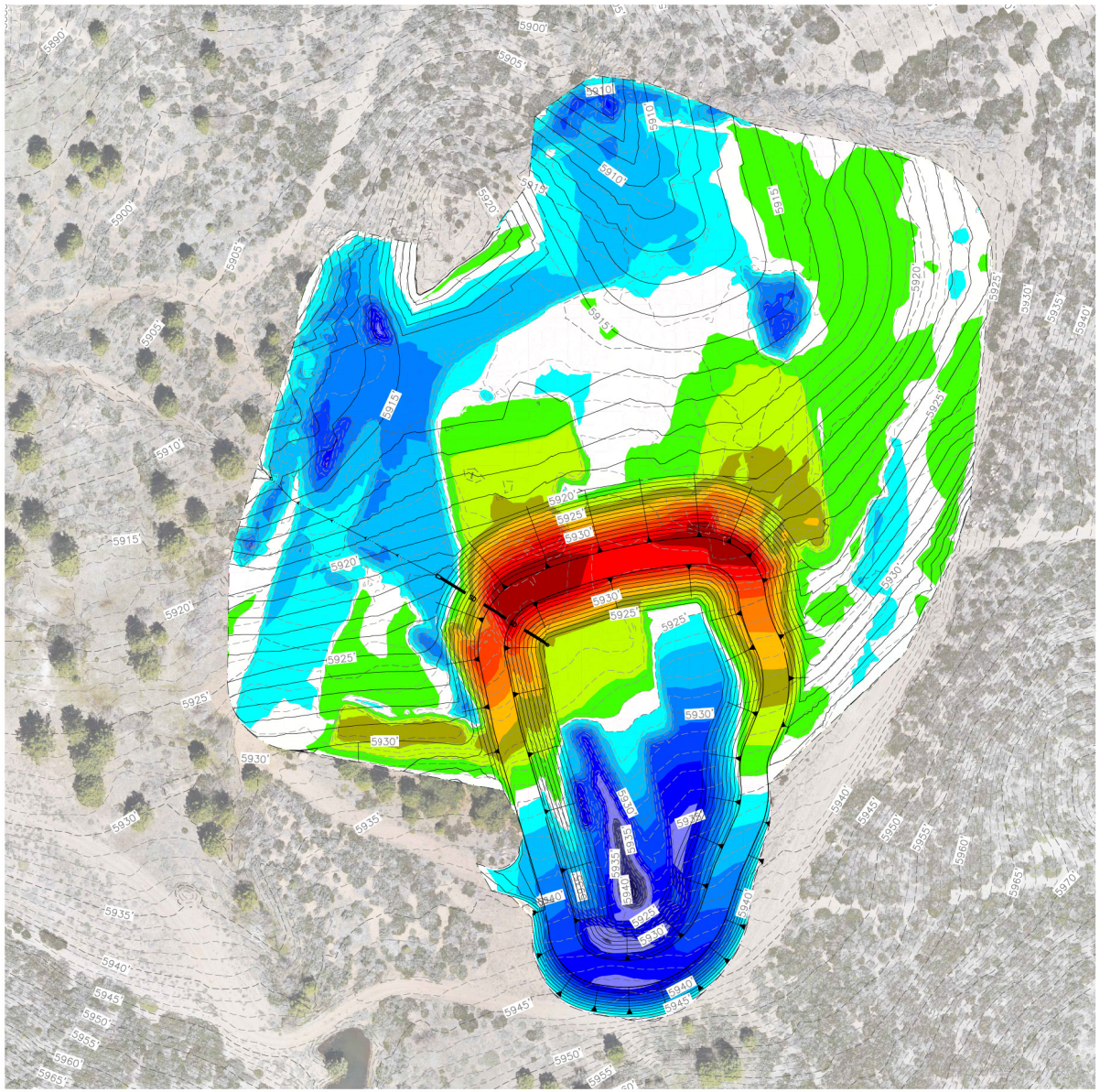
REVISION	DATE

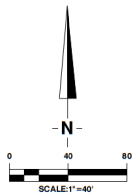
SPECIAL USE PERMIT
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

CROSS SECTIONS

JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN :	MB
CHECKED:	DH

C3





Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Area	Color
1	−17.96	−16.00	118.54	
2	−16.00	−14.00	257.32	
3	−14.00	−12.00	533.45	
4	−12.00	−10.00	2544.42	
5	−10.00	−8.00	7613.99	
6	−8.00	−6.00	8854.49	
7	−6.00	−4.00	17065.66	
8	−4.00	−2.00	34641.44	
9	−2.00	−0.50	33605.68	
10	−0.50	0.50	52688.17	
11	0.50	2.00	48084.08	
12	2.00	4.00	19989.88	
13	4.00	6.00	10891.50	
14	6.00	8.00	5359.73	
15	8.00	10.00	4813.91	
16	10.00	12.00	3722.13	
17	12.00	14.00	4505.12	
18	14.00	16.37	3437.30	

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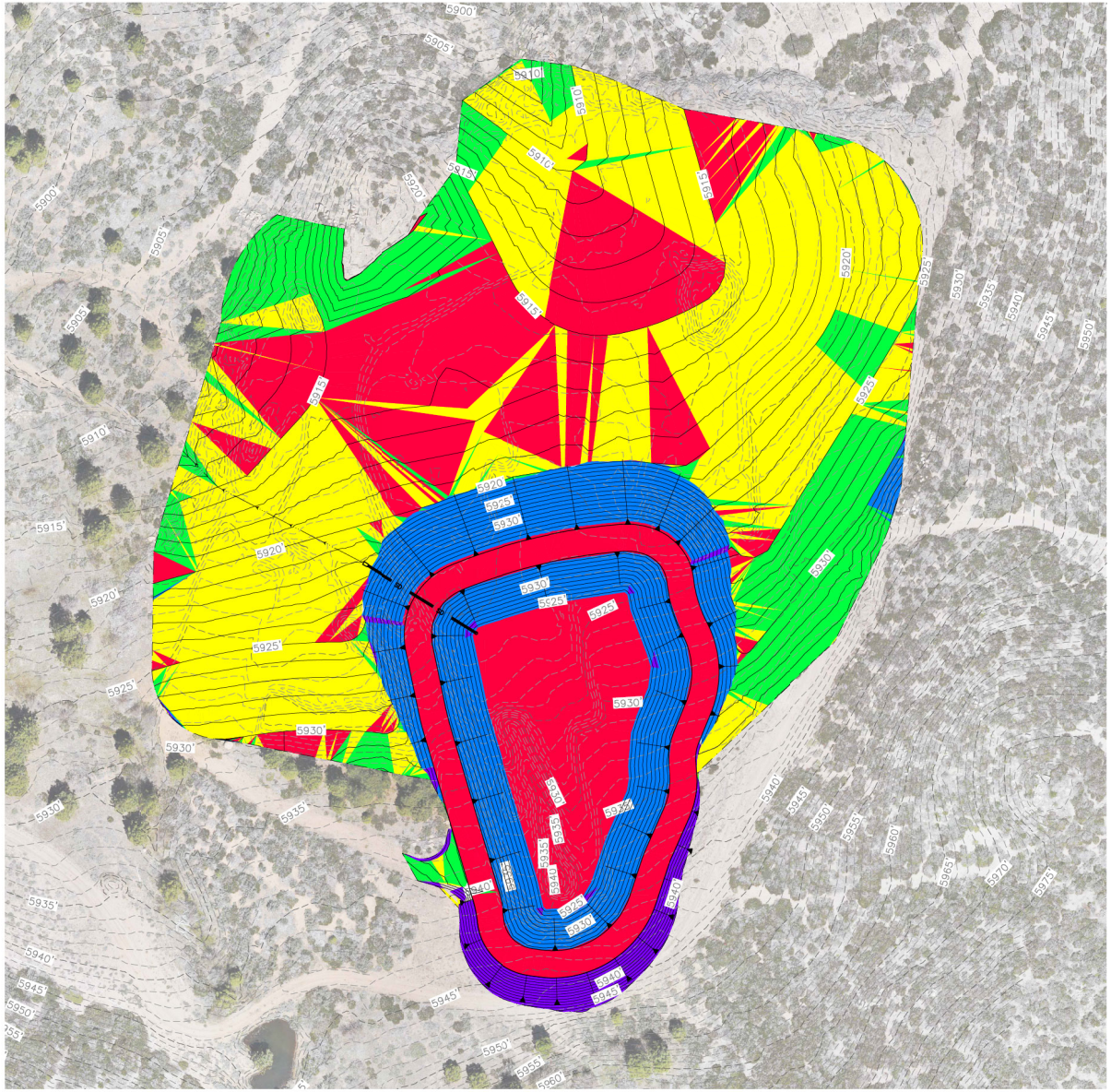
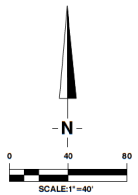
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

CUT/FILL ANALYSIS MAP

JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN:	MB
CHECKED:	DH

C4





SLOPE ARROWS TABLE			
Number	Minimum Slope	Maximum Slope	Color
1	0.00%	5.00%	
2	5.00%	10.00%	
3	10.00%	25.00%	
4	25.00%	34.00%	
5	34.00%	55.00%	

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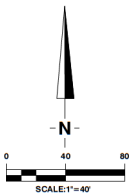
SLOPE ANALYSIS

JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN:	MB
CHECKED:	DH

C5



Planting Specifications

GENERAL NOTES

1. Revegetation treatments shall be installed as per these specifications and notes on the plan sheets and shall consist of seedbed preparation and drill seeding.
2. Seeding should occur in late summer or fall.
3. To the extent practicable, retain all established stands of native vegetation.
4. All machinery must be clean before arriva on site.

SEED MIX

1. Seed shall be clean, new crop seed purchased pre-mixed on a Pure Live Seed basis.
2. Seed shall be delivered to the site in original unopened containers bearing the dealer's guaranteed analysis and germination percentage and shall meet the freedom from noxious weeds requirements as defined by the Nevada Department of Agriculture. No substitutions to the seed mixtures will be accepted without written approval from the RCI's Engineer or Revegetation Specialist.

Seed Tags shall show the following information

- Name and address of testing laboratory.
- Date of test.
- Seed identification - Scientific and Variety names; Lot Number; Net Weight.
- Test results showing the percentages of purity, germination, and weed content.
- Certified weed-free seed.

UPLAND SEED MIXTURE FOR DRILL SEEDING

Species	Common Name	PLS Pounds per Acre
GRASSES		
Achnatherum lettermanii	Letterman's needlegrass	2
Agropyron cristatum	Crested wheatgrass	1.5
Bromus marginatus	Mountain brome	4
Elymus elymoides	Bottlebrush squirreltail	2
Poa secunda ssp. ampla	Sherman big bluegrass	0.5
FORBS		
Balsamorhiza sagittata	Arrowleaf balsamroot	1
Eriogonum umbellatum	Sulphur flower	0.5
Lupinus argentus	Silver lupine	2
SHRUBS		
Artemisia tridentata var. tridentata		0.25
Purshia tridentata	Antelope bitterbrush	2
	Total	**15.75**

Requests for substitutes must be approved by RCI's Project Engineer or Revegetation Specialist.

PROJECT INSTALLATION

1. SEEDBED PREPARATION
   a. Compacted soils should be scarifiec to a cepth of 6 - 12 inches.
   b. Seedbeds should be clean of weeds and sufficiently firm to allow proper seed placement.
   c. Soil firming – prior to drill seeding, the seedbed should be uniformly firm enough to present a ¼inch boot footprint before utilizing a drill seeder on site.

2. DRILL SEEDING AND MULCHING
   a. The RCI's revegetation specialist will remove seed labels from the seed sacks at the time of seeding. Seed labels will include documentation for each type of seed certifying that a recognized laboratory tested the seed within 12 months of the date of delivery. Certifcation shall include the following:
   b. A rangeland drill equipped with a seed box agitator will be used for drill seeding. The Contractor shall check the seed box regularly while seeding to

LEGEND

PROJECT LIMITS

AREA TO BE RESTORED (47 Ac.±)

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WASHOE COUNTY, NEVADA

RESTORATION PLAN

JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN :	MB
CHECKED:	DH

C6

Appendix C

Date Prepared: October 8, 2024

Conceptual Drainage Study

SC ADVISORS, LLC

for

Special Use Permit

APN: 055-301-38

Washoe County, Nevada

10-08-2024

Prepared For:

SC Advisors, LLC
John Hurry, Owner
7170 E. McDonald Dr, Ste 4
Scottsdale, Arizona 85253

Prepared By:

Resource Concepts, Inc.
Rachel Kryder, P.E.
340 N. Minnesota St.
Carson City, Nevada 89703
(775) 883-1600

www.rci-nv.com

TABLE OF CONTENTS

PAGE

EXHIBITS

Introduction

Description of Project

This Conceptual Drainage Study is prepared for SC Advisors, LLC, owner of the subject 346.48-acre parcel (APN 055-301-38), in support of a Special Use Permit (SUP) application for grading for a pond on a portion of the project property. The parcel is located in Washoe Valley, within T16N, R19E, Sections 26 and 27, within unincorporated Washoe County. The portion of the property for this SUP application is located in the SE ¼ of Section 27. See General Location Map as shown in Figure 1, west of Interstate 580 and south of Franktown Road. For the purposes of this report, reference to the project area or existing site refers to that of the disturbed and surrounding areas, not the entire legal property.

The purpose of this study is to analyze site drainage and ensure existing off-site run-off is not impeded by the proposed pond to ensure proposed improvements will not negatively affect surrounding or downstream parcels. This analysis considers the 5-year and 100-year storm events. A comparison of pre- versus post-development flows was conducted to size the drainage infrastructure and to ensure there are no negative effects for adjacent or downstream properties.

The property owner proposes to complete an almost 1-acre pond, with a gravel roadway around the perimeter, standpipe to prevent pond over-topping, and revegetation surrounding the pond area. Materials excavated from the pond area will be disbursed on-site in a manner that avoids disrupting the natural landform.

Existing Site Conditions

The existing site is mostly undeveloped, with some dirt/gravel access roads, a partially graded pond area, and an adjacent well. The project area is on a portion of the legal parcel, near the south property boundary. The existing project property is 346.48-acres in size, with the approximate area of current and proposed disturbance of 5.94 AC, as shown on sheet C2 of the plans that accompany the SUP application. The topography in the area generally slopes to the northwest between approximately 7.5% and 25%, with some localized steeper slopes and varying slope directions. Natural drainage from the subject parcel generally discharges to the north/northwest. There is no existing drainage infrastructure within the project area.

A site soils report for the entire property is included in Appendix D. The project area is primarily composed of Toiyabe-Corbett-Rock outcrop association, moderately steep and Toiyabe-Corbett-Rock outcrop association, steep. The Toiyabe component in both classifications is described as bouldery coarse sand and gravelly coarse sand above bedrock, which occurs at a depth of 13-60 inches. The classification has a Hydrologic Soil Group D designation. The Corbett component is described as gravelly sand and gravelly loamy coarse sand above bedrock, which occurs at a depth of 32 to 60 inches. The Corbett unit has a Hydrologic Soil Group A designation. According to the NRCS Soil Survey, the frequency of flooding and ponding is none for all components discussed here.

The property receives off-site surface run-on via sheet and concentrated flow from higher elevations, but off-site run-on is not impeded by the proposed project and is not discussed further here.

Figure 1: General Location Map

Existing and Proposed Hydrology

Existing and Proposed Drainage Basin Boundaries

The existing property is mostly undeveloped as described previously. The entire project area flows from approximately south to north at slopes ranging from 7.5 to 25%. There is a natural drainage course that runs to the west-northwest from the west side of the project area. Grading surrounding the proposed pond will remain similar to existing slopes, while smoothing out some localized slope variations, and will not change the overall direction of runoff.

Following completion of the proposed pond and associated grading, the pond will capture the storm water that falls directly on the surface of the pond, and will discharge overflow, when needed, via a 6-inch standpipe and storm drain pipe. The storm drain will route water to the northwest and toward the existing natural drainage to the west of the project area as shown on sheet C2 of the accompanying plans.

Existing and Proposed Storm Flow Calculations

Peak flow and storage calculations for existing and proposed conditions were determined using the Rational Method procedure. Precipitation depths and rainfall intensities specific to the project area, based on the Time of Concentration, were derived from NOAA Atlas 14. Once intensities were determined, peak flows for the 5-year and 100-year storm events were determined. The basic equation for the Rational Method is:

$$Q = C * I * A$$

Where:

Q = Peak Rate of Flow (cfs)
C = Run-off Coefficient
I = Rainfall Intensity (in/hr)
A = Contributing Drainage Area (acres)

The run-off coefficients for this project are surface dependent and were selected based on the Truckee Meadows Regional Drainage Manual (TMRDM), consisting of 0.20 and 0.50 for range areas for the 5- and 100-year storms, respectively, and 1.0 for the pond surface itself (this coefficient ignores any infiltration and evaporation within the pond). These factors were used to calculate a weighted factor for use in the Rational Method equation. Refer to Appendix B for the Rational Method calculations.

The existing calculation parameters and resulting peak flows are shown in Table 1, below.

Table 1. Pre-Development Calculation Summary

Sub-basin ID	Area (AC)	Tc (min)	C_5	C_{100}	Q_5 (cfs)	Q_{100} (cfs)
Existing 1	5.94	10*	0.20	0.50	1.98	11.82

*Use minimum 10 minutes for undeveloped time of concentration.

Table 2 includes a summary of the calculation for post-development peak flow.

Table 2. Post-Development Calculation Summary

Sub-basin ID	Area (AC)	Tc (min)	C_5	C_{100}	Q_5 (cfs)	Q_{100} (cfs)
Proposed 1	5.94	7.10	0.31	0.57	3.59	15.60

Peak flows for both the 5-year and 100-year storms are increased based on the rational method calculation shown. It is important to note that this analysis does not take into consideration the storage within the pond before additional discharge would occur. It is expected that the pond surface, while modeled as impervious, would accommodate some storage during storm events.

A single standpipe is proposed to reduce the risk of pond overtopping, with discharge via a storm drain pipe from the pond directed to the west, into an existing natural channel. In order to maintain the post-development flow at or below the existing 100-year peak flow, the pipe must be sized to accommodate the pre-development runoff from the pond surface portion of the site. The flows within the proposed storm drain are summarized in Table 3, below.

Table 3. Proposed Standpipe/Storm Drain Analysis

Proposed Standpipe	
Pipe Diameter	6 inches
Pipe Slope	2.7%
Pipe Capacity	1.20 CFS
Allowed Max. Capacity	1.91 CFS

Drainage Problems

There are no existing drainage problems on the site. No drainage problems are created as a part of this project.

Proposed Drainage Facilities

Flow Routing and Location of Drainage Facilities

Overall drainage for the proposed site still discharges to the northwest, largely as sheet flow. Post-development flow from the pond area will discharge at a rate no greater than the pre-development runoff via a storm drain pipe into an existing natural channel. The current pond design includes a standpipe that limits the flow from the pond to the pre-development flow from the pond area.

Detention/Retention Requirements

With over one foot of freeboard included in the pond design, the pond easily accommodates the full 100-year storm rainfall falling on the pond area. For example, the 100-yr, 24-hr storm corresponds to a precipitation depth of 4.18 inches, which is less than half of the design freeboard. For this reason, no detention or retention is required or proposed.

Floodplain Modifications

The project is located in a X-unshaded flood zone as depicted per the Flood Insurance Rate Map (FIRM) for Unincorporated Washoe County, Map Number 32031C3430G, dated March 16, 2009 and shown in Appendix C. There are no modifications to the existing floodplain as a part of this proposed project.

Conclusions

Compliance with Truckee Meadows Regional Drainage Manual

This project meets the requirements of the TMRDM and applicable Washoe County design criteria and improvement standards.

Compliance with FEMA

The project is located in a X-unshaded flood zone as depicted per the Flood Insurance Rate Map (FIRM) for Unincorporated Washoe County, Map Number 32031C3430G, dated March 16, 2009.

EXHIBITS

A. Drainage Plans

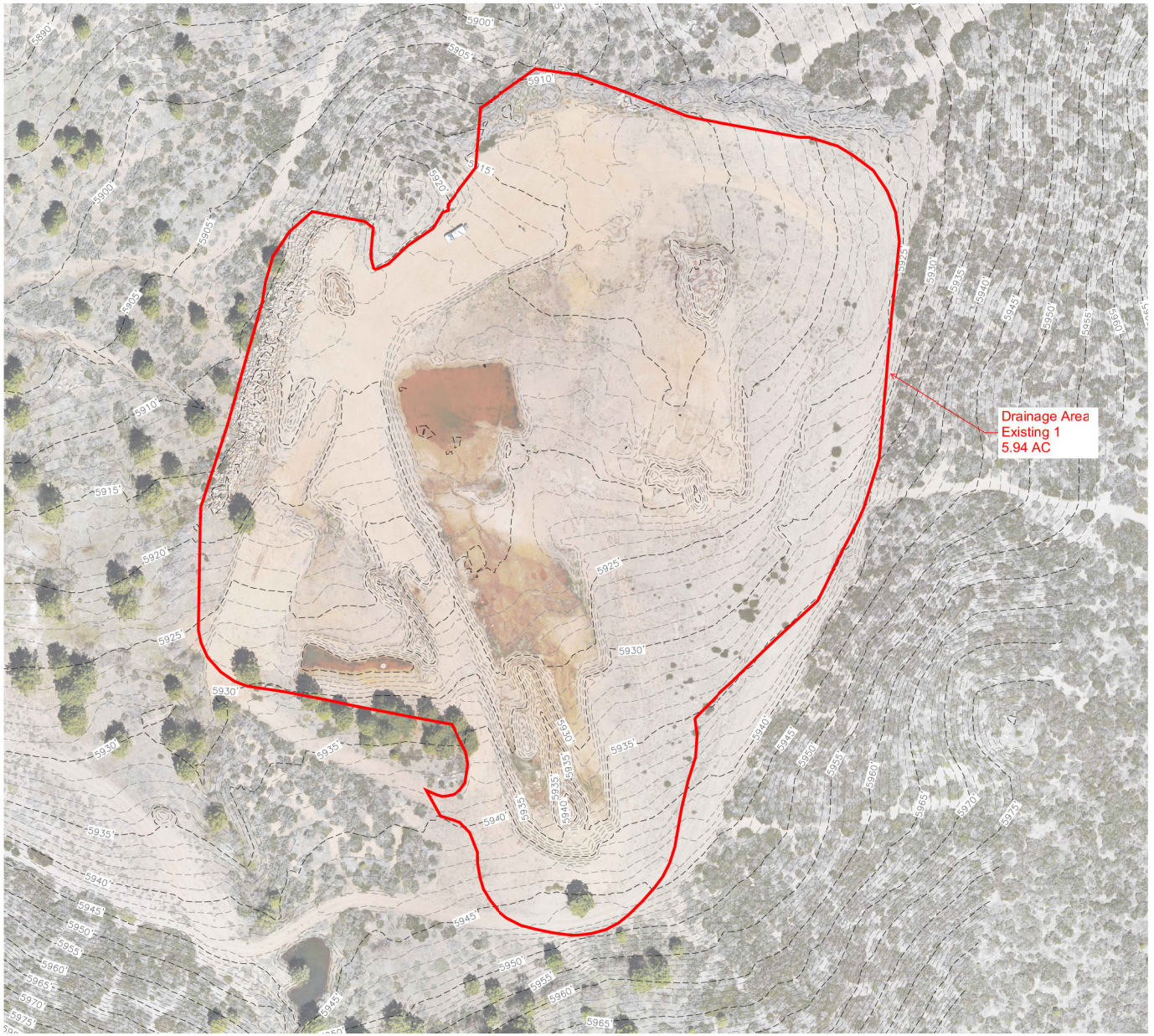
B. Drainage Calculations and Pipe Sizing

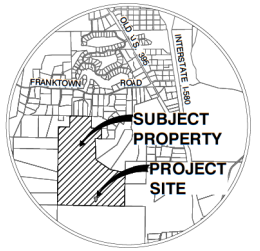
C. FEMA Floodplain Map

D. SCS Custom Soil Resource Report

Appendix A

Drainage Plans





VICINITY MAP
NO SCALE

N

0 40 80
SCALE:1"=40'

SHEET INDEX

OWNER

SC ADVISORS LLC
CONTACT: JOHN HURRY, OWNER
7170 E. MCDONALD DRIVE, SUITE 4
SCOTTSDALE, ARIZONA 85253
PHONE: 775-770-4322
EMAIL: jhurry@jhurry.com

ENGINEER

RESOURCE CONCEPTS, INC.
CONTACT: GREG STEDFIELD, P.E.
340 NORTH MINNESOTA STREET
CARSON CITY, NEVADA 89703
PHONE: 775.883.1600
EMAIL: greg@rci-nv.com

PROJECT DATA

ASSESSORS PARCEL NUMBER:	055-301-38
TOTAL SITE AREA:	346.48 ACRES
MASTER PLAN DESIGNATION:	RURAL
CURRENT ZONING:	GR GENERAL RURAL
FEMA FLOOD HAZARD ZONE:	X (UNSHADED) PANEL 32031C3430G

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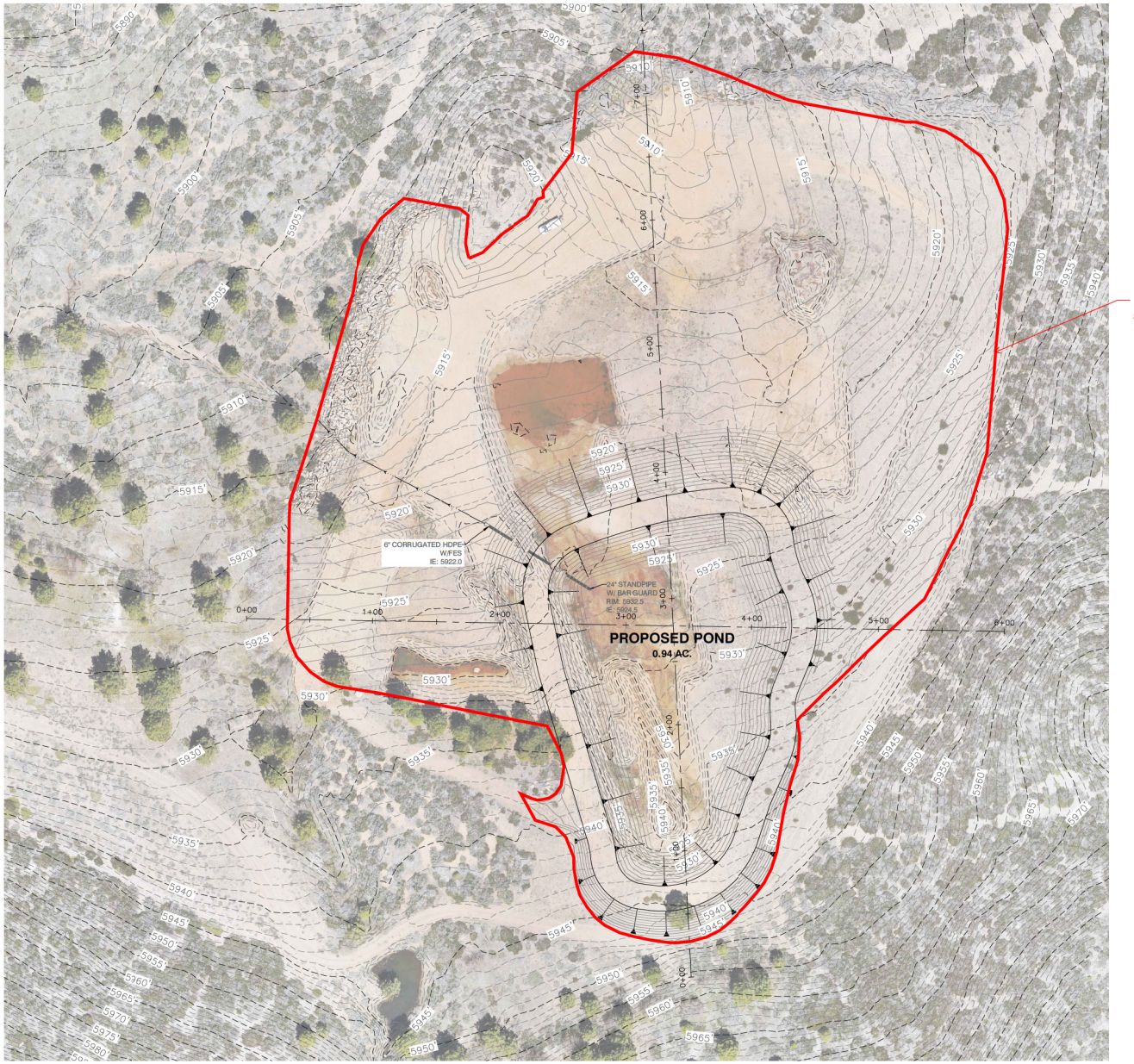
WASHOE COUNTY, NEVADA

EXISTING SITE PLAN

JOB NO.:	24-150
DATE:	10/01/2024
DESIGNED:	DH
DRAWN :	MB
CHECKED:	DH

C1

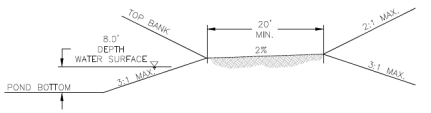


N

0 40 80

SCALE:1" =40'

EARTHWORK TABLE	
DISTURBED AREA - TOTAL	5.94 AC
CUT	14,754 CY
FILL	14,753 CY
TOTAL EARTHWORK VOLUME	1 CY CUT
MAXIMUM DEPTH OF CUT	-18.0'
MAXIMUM DEPTH OF FILL	16.4'
AREA OF CUT GREATER THAN 10'	3,483 SF
AREA OF FILL GREATER THAN 10'	11,665 SF
AREA OF FILL GREATER THAN 6'	21,837 SF
POND VOLUME @ EL 5932.5	4.99 AC./FT
NORMAL WSEL	5932.5'



POND SECTION

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PRELIMINARY GRADING PLAN

JOB NO.:	24-150
DATE:	10/01/2024
DESIGNED:	DH
DRAWN:	MB
CHECKED:	DH

C2

Appendix B

Drainage Calculations and Pipe Sizing

Scap 7 (John Hurry) - Peak Flow & Storage Calculations Pre-Development On-Site

Conceptual Drainage Study - Revised
Project No. 24-150
Time of Concentration: Peak Flow Analysis

Find: Pre-Development Peak flows & Storage volumes for the following storm events
5-Year
100-Year

PRE-DEVELOPMENT

Given:

Total Project Area =	5.94	acres
Impervious Area =	0.00	acres
Remaining Area =	5.94	acres

Assumptions: Run-off coeficients are as follows:

C_5 =	0.20	for existing undeveloped conditions, 5-year storm
C_{100} =	0.50	for existing undeveloped conditions, 100-year stor

Equations: General equations are as follows:
Rational Method:

$Q = C * I * A$

where

Q = Peak Flow (cfs)
C = Run-Off Coefficient (unitless)
I = Rainfall Intensity (in/hr)
A = Drainage Area (acres)

Intensities are obtained from the Time of Concentration, in conjunction with the National Weather Service, NOAA Atlas 14.

Time of Concentration: Peak Flow Analysis

Equations (Cont):

Time of Concentration (Ti): Sheet/Overland Fl

$Ti = [0.007 * (n * L)^{0.8}] / [P^{0.5} * S^{0.4}]$ (ref. NRCS Kinematic Eq.)

where

n = Manning's Roughness Coefficient (unitless)
L = Flow Length (ft) (500 ft maximum)
P = 2-Yr, 24-Hr Precipitation (in)
S = Slope of Hydraulic Grade Line (ft/ft)

Time of Concentration (Tc): Shallow Concentrated or Open Channel Flow

$Tc = L / v$ (ref. NRCS TR-55)

where

L = Flow Length (ft)
v = Velocity (fps)

where

$v = 16.1345 * (S)^{0.5}$ For Unpaved Areas
$v = 20.3282 * (S)^{0.5}$ For Paved Areas

Solution: ***Pre-Development Conditions [EXISTING 1]***

Given:

Total Property Area =	5.94	acres
Impervious Area =	0.00	acres
Remaining Area =	5.94	acres

Assumptions: Run-off coeficients are as follows:

C_5 = 0.20 for existing undeveloped conditions, 5-year storm

C_{100} = 0.50 for existing undeveloped conditions, 100-year stor

Tc = $[0.007 * (n * L)^{0.8}] / [P^{0.5} * S^{0.4}]$

$[0.007 * (0.025 * 500)^{0.8}] / [1.85^{.5} * 0.08^{.4}]$

0.11 hr (Sheet Flow)

383.80 seconds

Tc = Length (ft) / Velocity (fps)

v = $16.1345 * (0.08)^{0.5}$

4.56 fps (Unpaved)

L = 0 ft

Tc = 0.00 seconds

Tc (total) =	383.80	seconds
	6.40	minutes
	0.11	hours

Use 10 min. Tc for undeveloped

Time of Concentration: Peak Flow Analysis

Solution (Cont): For Tc = 10.0 minutes. Intensities are as follows:

Event	**5-Yr**	**10-Yr**	**25-Yr**	**100-Yr**
Intensity	1.67	2.05	2.69	3.98

Rational Method - Pre Development [AREA 1]

Storm Event	Run-Off Coefficient 'C'	Rainfall Intensity 'I'	Drainage Area 'A'	Peak Flow 'Q'
5	0.20	1.67	5.94	1.98
100	0.50	3.98	5.94	11.82

Scap 7 (John Hurry) - Peak Flow & Storage Calculations Post-Development On-Site

Conceptual Drainage Study - Revised
Project No. 24-174
Time of Concentration: Peak Flow Analysis

Find: Post-Development Peak flows & Storage volumes for the following storm events
5-Year
100-Year

POST-DEVELOPMENT

Given:

Total Property Area =	5.94	acres
Impervious Area =	0.83	acres
Remaining Area =	5.11	acres

Assumptions: Run-off coeficients are as follows:

C_5 =	0.20	for existing undeveloped conditions, 5-year storm
C_{100} =	0.50	for existing undeveloped conditions, 100-year storm
C =	1.00	for open water

Equations: General equations are as follows:
Rational Method:

$Q = C * I * A$

where

Q = Peak Flow (cfs)
C = Run-Off Coefficient (unitless)
I = Rainfall Intensity (in/hr)
A = Drainage Area (acres)

Intensities are obtained from the Time of Concentration, in conjunction with the National Weather Service, NOAA Atlas 14.

Time of Concentration: Peak Flow Analysis

Equations (Cont):

Time of Concentration (Tc): Sheet Flow Only

$Tc = [0.007 * (n * L)^{0.8}] / [P^{0.5} * S^{0.4}]$ (ref. NRCS Kinematic Eq.)

where

n = Manning's Roughness Coefficient (unitless)
L = Flow Length (ft)
P = 2-Yr, 24-Hr Precipitation (in)
S = Slope of Hydraulic Grade Line (ft/ft)

Time of Concentration (Tc): Shallow Concentrated or Open Channel Flow

$Tc = L / v$ (ref. NRCS TR-55)

where

L = Flow Length (ft)
v = Velocity (fps)

where

$v = 16.1345 * (S)^{0.5}$ For Unpaved Areas
$v = 20.3282 * (S)^{0.5}$ For Paved Areas

Solution: ***Post-Development Conditions [PROPOSED 1]***

Given:

Total Property Area =	5.94	acres
Impervious Area =	0.83	acres
Remaining Area =	5.11	acres

Assumptions: Run-off coeficients are as follows:

C_5 =	0.20	for existing undeveloped conditions, 5-year storm
C_{100} =	0.50	for existing undeveloped conditions, 100-year storm
C =	1.00	for open water

Tc = $[0.007 * (n * L)^{0.8}] / [P^{0.5} * S^{0.4}]$

$[0.007 * (0.025 * 500)^{0.8}] / [1.67^{.5} * 0.070^{.4}]$

0.12 hr (Sheet Flow)

426.12 seconds

Tc = Length (ft) / Velocity (fps)

v = $20.3282 * (0.08)^{0.5}$

5.75 fps (Paved)

L = 0 ft

Tc = 0.00 seconds

Tc (total) =		
	426.12	seconds
	7.10	minutes
	0.12	hours

Time of Concentration: Peak Flow Analysis

Solution (Cont):

For Tc = 7.10 min. Intensities are as follows:

Event	**5-Yr**	**10-Yr**	**25-Yr**	**100-Yr**
Intensity	1.94			4.61

Rational Method - Post Development [PROPOSED 1]

Storm Event	Run-Off Coefficient 'C'	Rainfall Intensity 'I'	Drainage Area 'A'	Peak Flow 'Q'
5	0.31	1.94	5.94	3.59
10			5.94	0.00
25			5.94	0.00
100	0.57	4.61	5.94	15.60

NOAA Atlas 14, Volume 1, Version 5
Location name: Washoe Valley, Nevada, USA*
Latitude: 39.2257°, Longitude: -119.8255°
Elevation: 5426 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.111 (0.096-0.130)	0.138 (0.120-0.162)	0.183 (0.157-0.215)	0.225 (0.192-0.265)	0.295 (0.245-0.348)	0.359 (0.289-0.427)	0.436 (0.339-0.525)	0.529 (0.394-0.648)	0.679 (0.475-0.851)	0.817 (0.544-1.04)
10-min	0.168 (0.146-0.197)	0.210 (0.183-0.247)	0.278 (0.239-0.327)	0.342 (0.292-0.403)	0.449 (0.372-0.529)	0.546 (0.440-0.650)	0.664 (0.516-0.798)	0.805 (0.599-0.987)	1.03 (0.723-1.30)	1.24 (0.828-1.59)
15-min	0.209 (0.182-0.245)	0.260 (0.227-0.307)	0.344 (0.296-0.406)	0.424 (0.362-0.500)	0.556 (0.461-0.656)	0.677 (0.545-0.806)	0.823 (0.639-0.990)	0.998 (0.743-1.22)	1.28 (0.896-1.60)	1.54 (1.03-1.97)
30-min	0.281 (0.244-0.330)	0.351 (0.306-0.413)	0.464 (0.399-0.547)	0.572 (0.488-0.673)	0.749 (0.621-0.884)	0.912 (0.734-1.09)	1.11 (0.860-1.33)	1.34 (1.00-1.65)	1.72 (1.21-2.16)	2.08 (1.38-2.66)
60-min	0.348 (0.303-0.408)	0.434 (0.378-0.511)	0.574 (0.494-0.677)	0.708 (0.604-0.833)	0.927 (0.769-1.09)	1.13 (0.909-1.34)	1.37 (1.06-1.65)	1.66 (1.24-2.04)	2.13 (1.49-2.68)	2.57 (1.71-3.29)
2-hr	0.466 (0.417-0.528)	0.577 (0.516-0.653)	0.728 (0.648-0.824)	0.862 (0.758-0.976)	1.06 (0.913-1.21)	1.25 (1.04-1.43)	1.45 (1.19-1.70)	1.72 (1.36-2.06)	2.18 (1.64-2.70)	2.60 (1.90-3.32)
3-hr	0.565 (0.512-0.629)	0.702 (0.639-0.784)	0.869 (0.783-0.966)	1.00 (0.900-1.12)	1.20 (1.06-1.34)	1.37 (1.18-1.54)	1.55 (1.32-1.77)	1.81 (1.50-2.10)	2.23 (1.80-2.73)	2.64 (2.08-3.35)
6-hr	0.814 (0.737-0.902)	1.01 (0.916-1.12)	1.24 (1.12-1.37)	1.42 (1.27-1.57)	1.65 (1.46-1.84)	1.83 (1.60-2.06)	2.01 (1.73-2.29)	2.22 (1.88-2.56)	2.55 (2.11-2.98)	2.84 (2.30-3.38)
12-hr	1.10 (0.990-1.23)	1.38 (1.24-1.54)	1.72 (1.54-1.92)	1.98 (1.76-2.21)	2.34 (2.05-2.63)	2.61 (2.26-2.95)	2.88 (2.46-3.30)	3.16 (2.66-3.66)	3.54 (2.89-4.18)	3.82 (3.07-4.59)
24-hr	1.48 (1.33-1.66)	1.85 (1.67-2.08)	2.34 (2.10-2.62)	2.73 (2.44-3.06)	3.28 (2.92-3.67)	3.72 (3.28-4.16)	4.18 (3.65-4.70)	4.65 (4.02-5.26)	5.30 (4.52-6.05)	5.82 (4.89-6.71)
2-day	1.82 (1.62-2.07)	2.29 (2.03-2.61)	2.93 (2.60-3.34)	3.46 (3.05-3.94)	4.20 (3.67-4.81)	4.80 (4.16-5.51)	5.44 (4.67-6.28)	6.12 (5.19-7.11)	7.07 (5.88-8.31)	7.84 (6.42-9.33)
3-day	2.03 (1.79-2.31)	2.57 (2.27-2.93)	3.32 (2.93-3.80)	3.95 (3.47-4.51)	4.84 (4.21-5.54)	5.56 (4.81-6.38)	6.34 (5.42-7.31)	7.17 (6.06-8.31)	8.36 (6.92-9.79)	9.32 (7.59-11.0)
4-day	2.24 (1.97-2.56)	2.84 (2.51-3.25)	3.72 (3.27-4.25)	4.44 (3.89-5.07)	5.48 (4.75-6.26)	6.32 (5.45-7.25)	7.24 (6.17-8.34)	8.23 (6.92-9.51)	9.64 (7.95-11.3)	10.8 (8.77-12.8)
7-day	2.66 (2.34-3.04)	3.40 (2.99-3.88)	4.49 (3.94-5.13)	5.37 (4.70-6.14)	6.62 (5.76-7.58)	7.64 (6.58-8.76)	8.72 (7.44-10.0)	9.87 (8.34-11.4)	11.5 (9.54-13.5)	12.8 (10.5-15.1)
10-day	3.04 (2.66-3.47)	3.90 (3.42-4.45)	5.16 (4.51-5.88)	6.15 (5.37-7.02)	7.54 (6.53-8.62)	8.64 (7.43-9.90)	9.80 (8.36-11.3)	11.0 (9.30-12.7)	12.7 (10.6-14.9)	14.1 (11.6-16.6)
20-day	3.94 (3.48-4.46)	5.05 (4.46-5.72)	6.64 (5.86-7.51)	7.86 (6.92-8.89)	9.53 (8.34-10.8)	10.8 (9.41-12.3)	12.2 (10.5-13.9)	13.5 (11.6-15.5)	15.4 (13.0-17.8)	16.8 (14.0-19.7)
30-day	4.64 (4.11-5.26)	5.96 (5.27-6.74)	7.82 (6.91-8.85)	9.26 (8.15-10.5)	11.2 (9.80-12.7)	12.7 (11.0-14.4)	14.2 (12.3-16.2)	15.8 (13.5-18.1)	18.0 (15.2-20.8)	19.6 (16.4-22.9)
45-day	5.61 (4.96-6.31)	7.20 (6.37-8.09)	9.44 (8.35-10.6)	11.1 (9.81-12.5)	13.3 (11.7-15.0)	15.0 (13.1-16.9)	16.7 (14.5-18.9)	18.4 (15.9-20.9)	20.7 (17.6-23.6)	22.4 (18.9-25.8)
60-day	6.48 (5.70-7.31)	8.36 (7.36-9.42)	11.0 (9.63-12.3)	12.8 (11.3-14.4)	15.2 (13.3-17.1)	17.0 (14.8-19.2)	18.7 (16.2-21.2)	20.4 (17.6-23.1)	22.5 (19.2-25.7)	24.0 (20.4-27.6)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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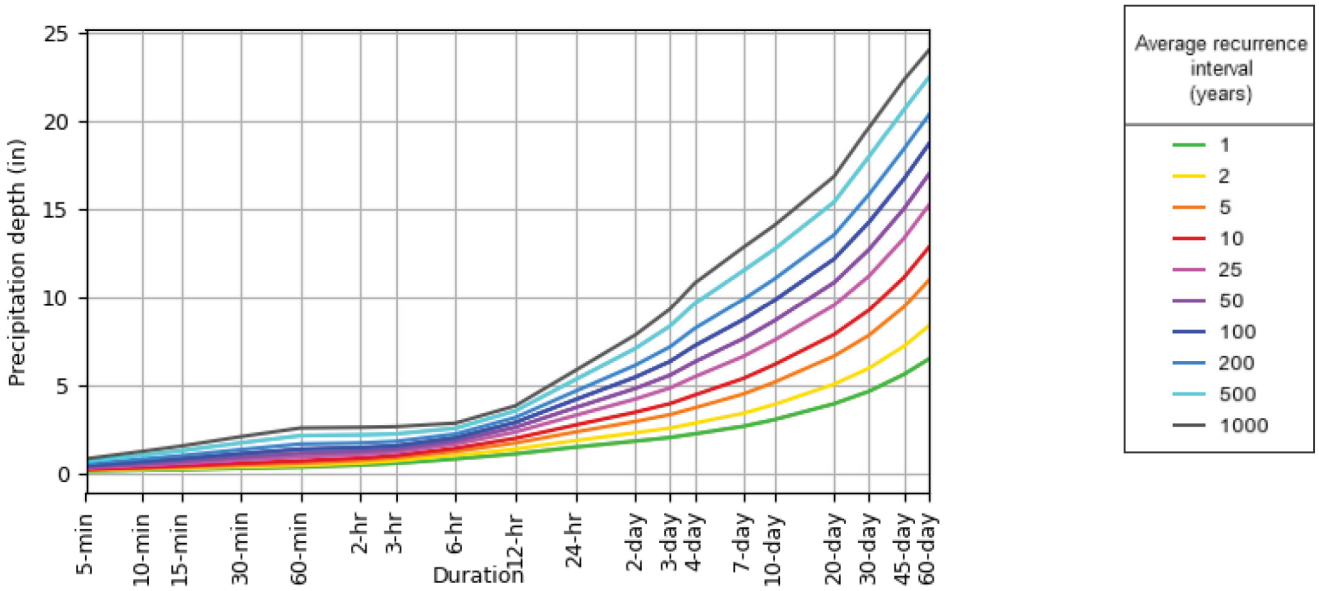
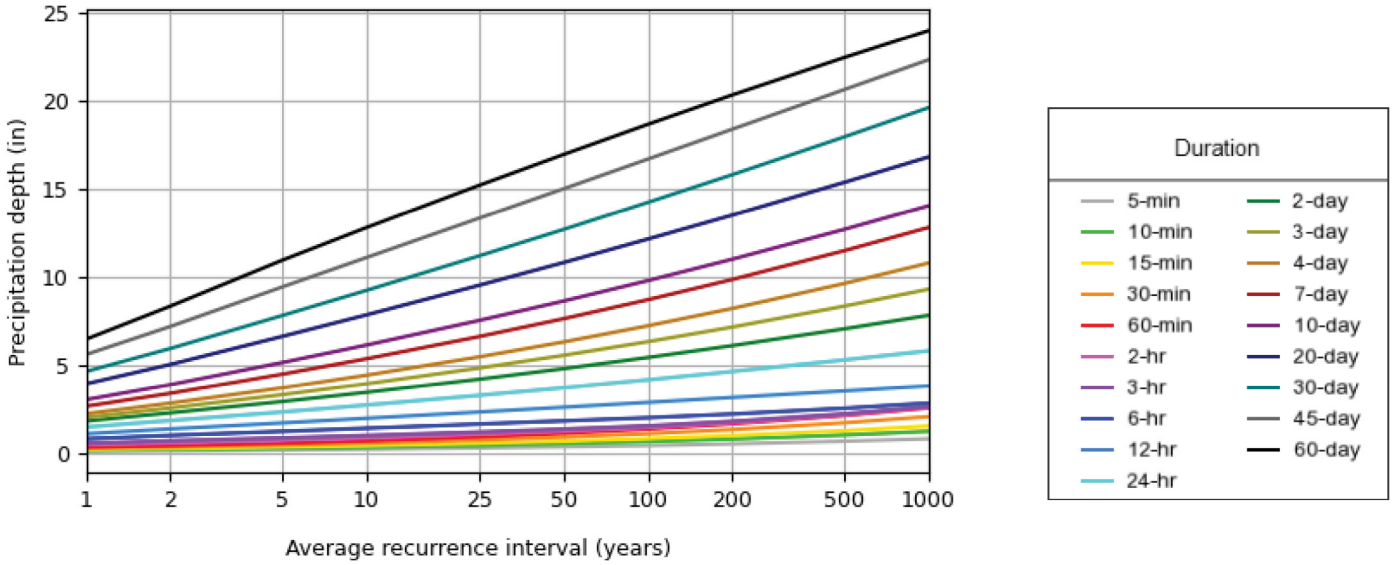
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 39.2257°, Longitude: -119.8255°





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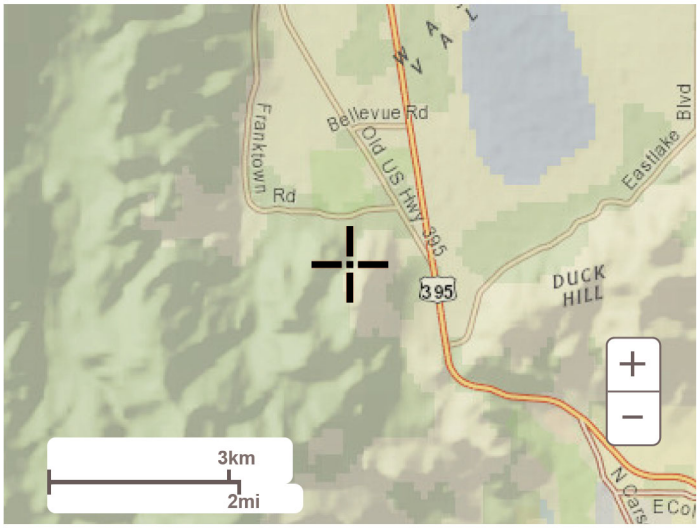
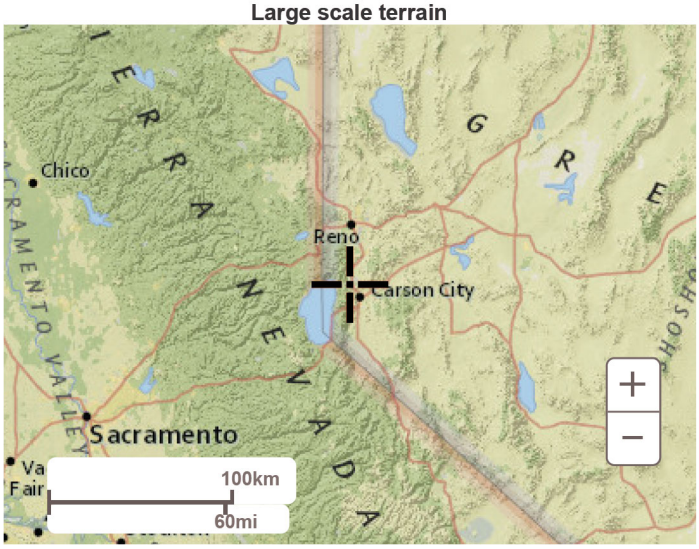
Maps & aerials

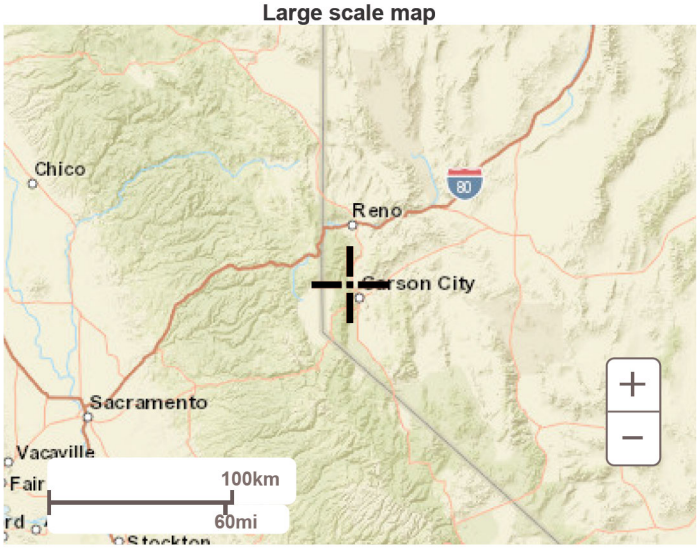
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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NOAA Atlas 14, Volume 1, Version 5
Location name: Washoe Valley, Nevada, USA*
Latitude: 39.2257°, Longitude: -119.8255°
Elevation: 5426 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.33 (1.15-1.56)	1.66 (1.44-1.94)	2.20 (1.88-2.58)	2.70 (2.30-3.18)	3.54 (2.94-4.18)	4.31 (3.47-5.12)	5.23 (4.07-6.30)	6.35 (4.73-7.78)	8.15 (5.70-10.2)	9.80 (6.53-12.5)
10-min	1.01 (0.876-1.18)	1.26 (1.10-1.48)	1.67 (1.43-1.96)	2.05 (1.75-2.42)	2.69 (2.23-3.17)	3.28 (2.64-3.90)	3.98 (3.10-4.79)	4.83 (3.59-5.92)	6.20 (4.34-7.77)	7.46 (4.97-9.55)
15-min	0.836 (0.728-0.980)	1.04 (0.908-1.23)	1.38 (1.18-1.62)	1.70 (1.45-2.00)	2.22 (1.84-2.62)	2.71 (2.18-3.22)	3.29 (2.56-3.96)	3.99 (2.97-4.89)	5.12 (3.58-6.42)	6.16 (4.10-7.89)
30-min	0.562 (0.488-0.660)	0.702 (0.612-0.826)	0.928 (0.798-1.09)	1.14 (0.976-1.35)	1.50 (1.24-1.77)	1.82 (1.47-2.17)	2.22 (1.72-2.67)	2.69 (2.00-3.30)	3.45 (2.41-4.32)	4.15 (2.76-5.31)
60-min	0.348 (0.303-0.408)	0.434 (0.378-0.511)	0.574 (0.494-0.677)	0.708 (0.604-0.833)	0.927 (0.769-1.09)	1.13 (0.909-1.34)	1.37 (1.06-1.65)	1.66 (1.24-2.04)	2.13 (1.49-2.68)	2.57 (1.71-3.29)
2-hr	0.233 (0.208-0.264)	0.288 (0.258-0.326)	0.364 (0.324-0.412)	0.431 (0.379-0.488)	0.532 (0.456-0.605)	0.623 (0.522-0.716)	0.726 (0.593-0.847)	0.858 (0.678-1.03)	1.09 (0.821-1.35)	1.30 (0.949-1.66)
3-hr	0.188 (0.170-0.209)	0.233 (0.212-0.261)	0.289 (0.260-0.321)	0.334 (0.299-0.372)	0.399 (0.351-0.446)	0.454 (0.393-0.513)	0.517 (0.438-0.589)	0.602 (0.500-0.697)	0.743 (0.600-0.908)	0.879 (0.692-1.12)
6-hr	0.135 (0.123-0.150)	0.168 (0.152-0.187)	0.206 (0.186-0.229)	0.236 (0.212-0.262)	0.276 (0.243-0.308)	0.306 (0.267-0.344)	0.336 (0.288-0.381)	0.371 (0.313-0.427)	0.426 (0.351-0.497)	0.474 (0.384-0.564)
12-hr	0.091 (0.082-0.102)	0.114 (0.102-0.127)	0.142 (0.127-0.159)	0.164 (0.146-0.183)	0.193 (0.170-0.218)	0.216 (0.187-0.245)	0.239 (0.204-0.273)	0.262 (0.220-0.304)	0.293 (0.240-0.346)	0.317 (0.254-0.380)
24-hr	0.061 (0.055-0.069)	0.077 (0.069-0.086)	0.097 (0.087-0.109)	0.113 (0.101-0.127)	0.136 (0.121-0.153)	0.154 (0.136-0.173)	0.173 (0.152-0.195)	0.193 (0.167-0.219)	0.221 (0.188-0.252)	0.242 (0.203-0.279)
2-day	0.037 (0.033-0.043)	0.047 (0.042-0.054)	0.061 (0.054-0.069)	0.072 (0.063-0.082)	0.087 (0.076-0.100)	0.100 (0.086-0.114)	0.113 (0.097-0.130)	0.127 (0.108-0.148)	0.147 (0.122-0.173)	0.163 (0.133-0.194)
3-day	0.028 (0.024-0.032)	0.035 (0.031-0.040)	0.046 (0.040-0.052)	0.054 (0.048-0.062)	0.067 (0.058-0.076)	0.077 (0.066-0.088)	0.088 (0.075-0.101)	0.099 (0.084-0.115)	0.116 (0.096-0.135)	0.129 (0.105-0.153)
4-day	0.023 (0.020-0.026)	0.029 (0.026-0.033)	0.038 (0.034-0.044)	0.046 (0.040-0.052)	0.057 (0.049-0.065)	0.065 (0.056-0.075)	0.075 (0.064-0.086)	0.085 (0.072-0.099)	0.100 (0.082-0.117)	0.112 (0.091-0.132)
7-day	0.015 (0.013-0.018)	0.020 (0.017-0.023)	0.026 (0.023-0.030)	0.031 (0.027-0.036)	0.039 (0.034-0.045)	0.045 (0.039-0.052)	0.051 (0.044-0.059)	0.058 (0.049-0.067)	0.068 (0.056-0.080)	0.076 (0.062-0.090)
10-day	0.012 (0.011-0.014)	0.016 (0.014-0.018)	0.021 (0.018-0.024)	0.025 (0.022-0.029)	0.031 (0.027-0.035)	0.036 (0.030-0.041)	0.040 (0.034-0.046)	0.045 (0.038-0.053)	0.052 (0.044-0.061)	0.058 (0.048-0.069)
20-day	0.008 (0.007-0.009)	0.010 (0.009-0.011)	0.013 (0.012-0.015)	0.016 (0.014-0.018)	0.019 (0.017-0.022)	0.022 (0.019-0.025)	0.025 (0.021-0.028)	0.028 (0.024-0.032)	0.032 (0.027-0.037)	0.035 (0.029-0.041)
30-day	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.010 (0.009-0.012)	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.017 (0.015-0.019)	0.019 (0.017-0.022)	0.021 (0.018-0.025)	0.024 (0.021-0.028)	0.027 (0.022-0.031)
45-day	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.010 (0.009-0.011)	0.012 (0.010-0.013)	0.013 (0.012-0.015)	0.015 (0.013-0.017)	0.017 (0.014-0.019)	0.019 (0.016-0.021)	0.020 (0.017-0.023)
60-day	0.004 (0.003-0.005)	0.005 (0.005-0.006)	0.007 (0.006-0.008)	0.008 (0.007-0.010)	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.015 (0.013-0.017)	0.016 (0.014-0.019)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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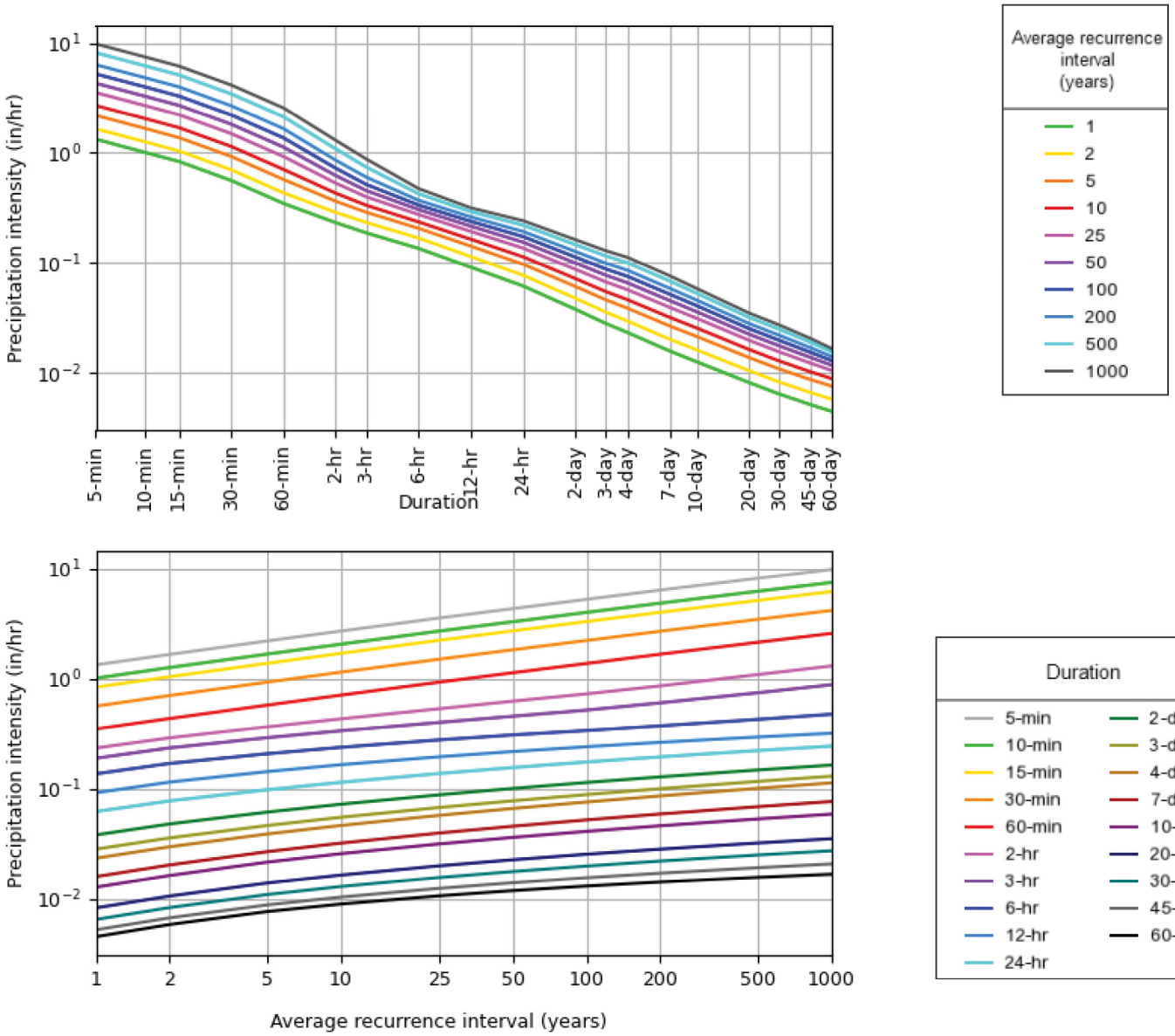
PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 39.2257°, Longitude: -119.8255°



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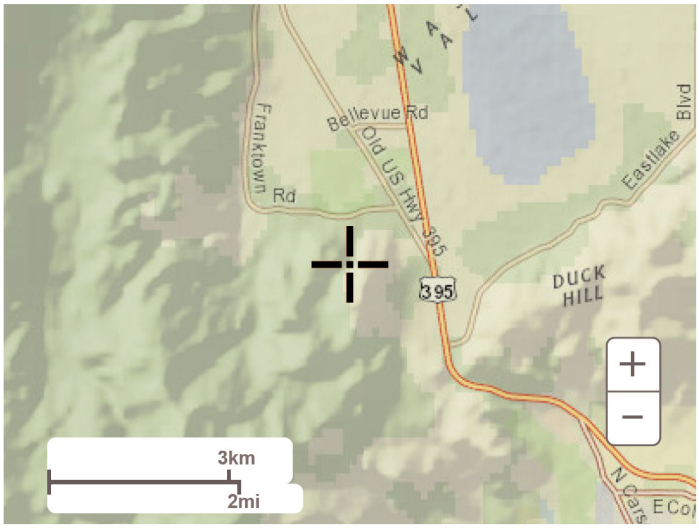
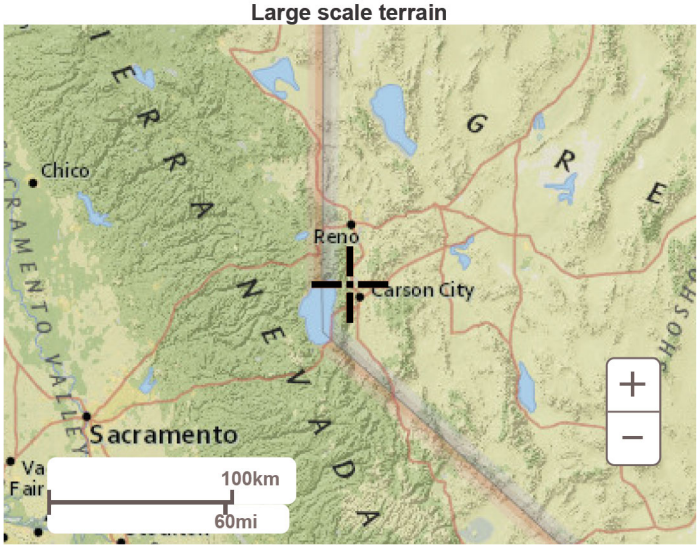
Maps & aerials

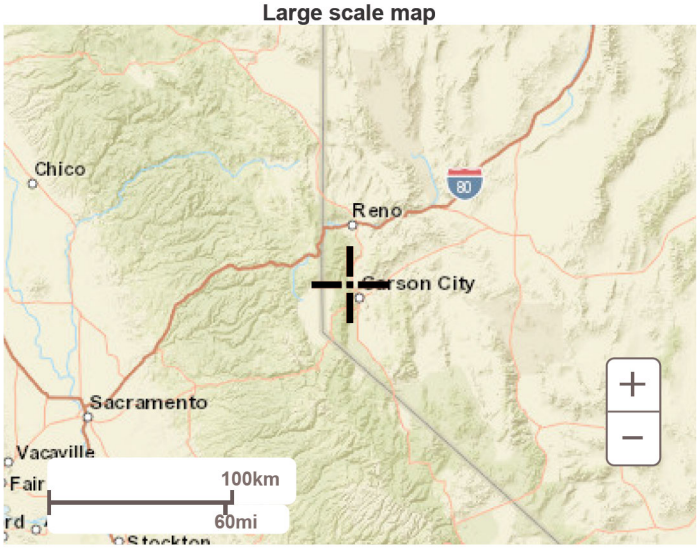
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial

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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Worksheet for Circular Pipe - 6"

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data		
Roughness Coefficient	0.010	
Channel Slope	0.027	ft/ft
Normal Depth	6.0	in
Diameter	6.0	in
Discharge	1.20	cfs

Results		
Discharge	1.20	cfs
Normal Depth	6.0	in
Flow Area	0.2	ft^2
Wetted Perimeter	1.6	ft
Hydraulic Radius	1.5	in
Top Width	0.00	ft
Critical Depth	5.8	in
Percent Full	100.0	%
Critical Slope	0.024	ft/ft
Velocity	6.10	ft/s
Velocity Head	0.58	ft
Specific Energy	1.08	ft
Froude Number	(N/A)	
Maximum Discharge	1.29	cfs
Discharge Full	1.20	cfs
Slope Full	0.027	ft/ft
Flow Type	Undefined	

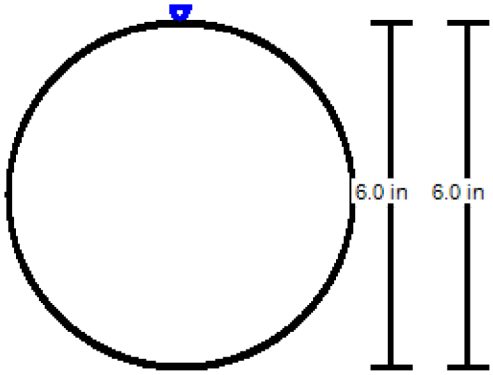
GVF Input Data		
Downstream Depth	0.0	in
Length	0.0	ft
Number Of Steps	0	

GVF Output Data		
Upstream Depth	0.0	in
Profile Description	N/A	
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.0	%
Normal Depth Over Rise	100.0	%
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	6.0	in
Critical Depth	5.8	in
Channel Slope	0.027	ft/ft
Critical Slope	0.024	ft/ft

Cross Section for Circular Pipe - 6"

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.010
Channel Slope	0.027 ft/ft
Normal Depth	6.0 in
Diameter	6.0 in
Discharge	1.20 cfs

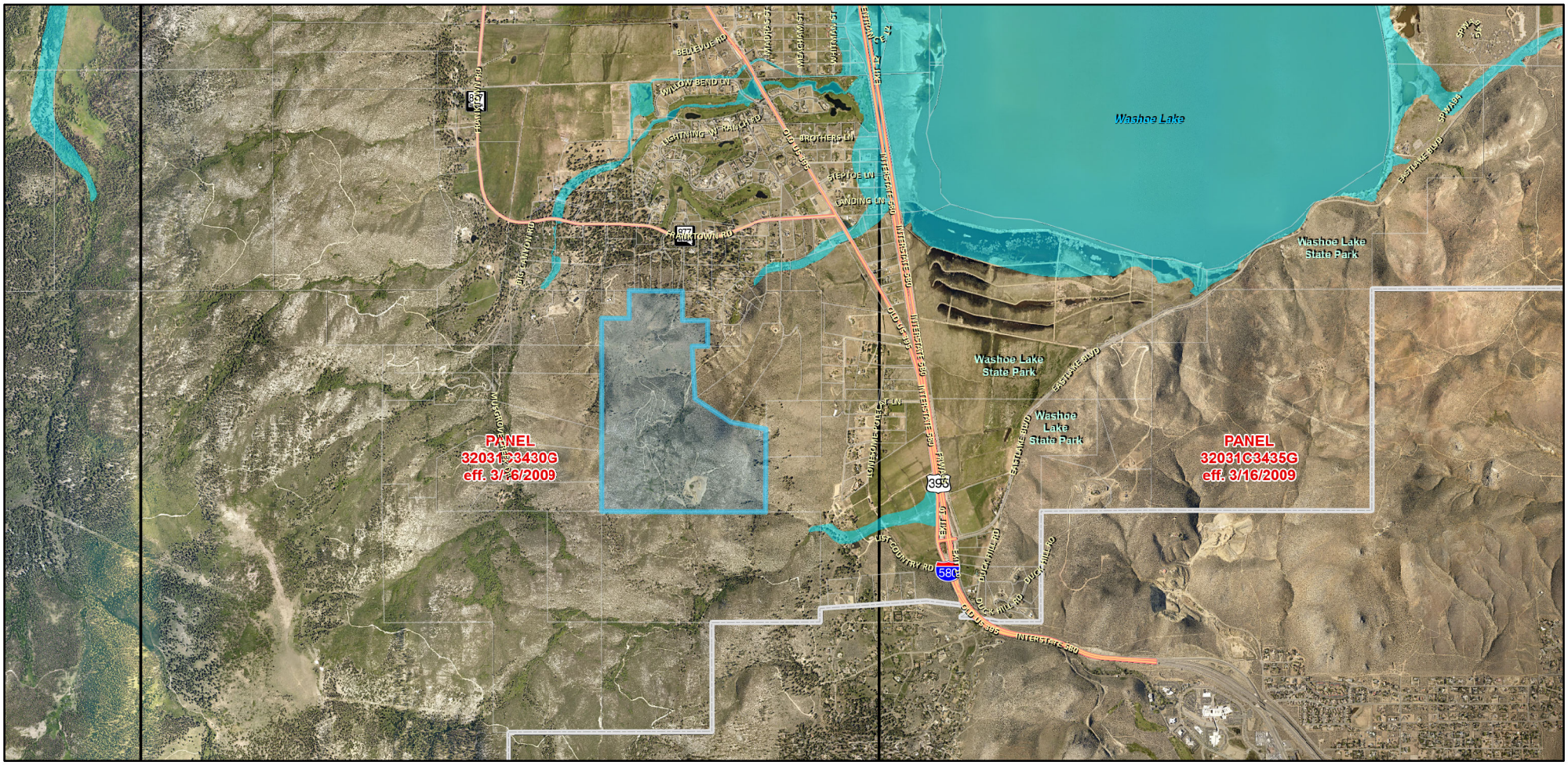


V: 1
H: 1

Appendix C

FEMA Floodplain Map

Hurry Flood Zones



October 7, 2024

Flood Hazard Zones

1% Annual Chance Flood Hazard

FIRM Panels

1:36,112

0 0.33 0.65 1.3 mi

0 0.5 1 2 km

Washoe County GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

This information for illustrative puroposes only. Not be used for

Appendix D

SCS Custom Soil Resource Report

United States Department of Agriculture

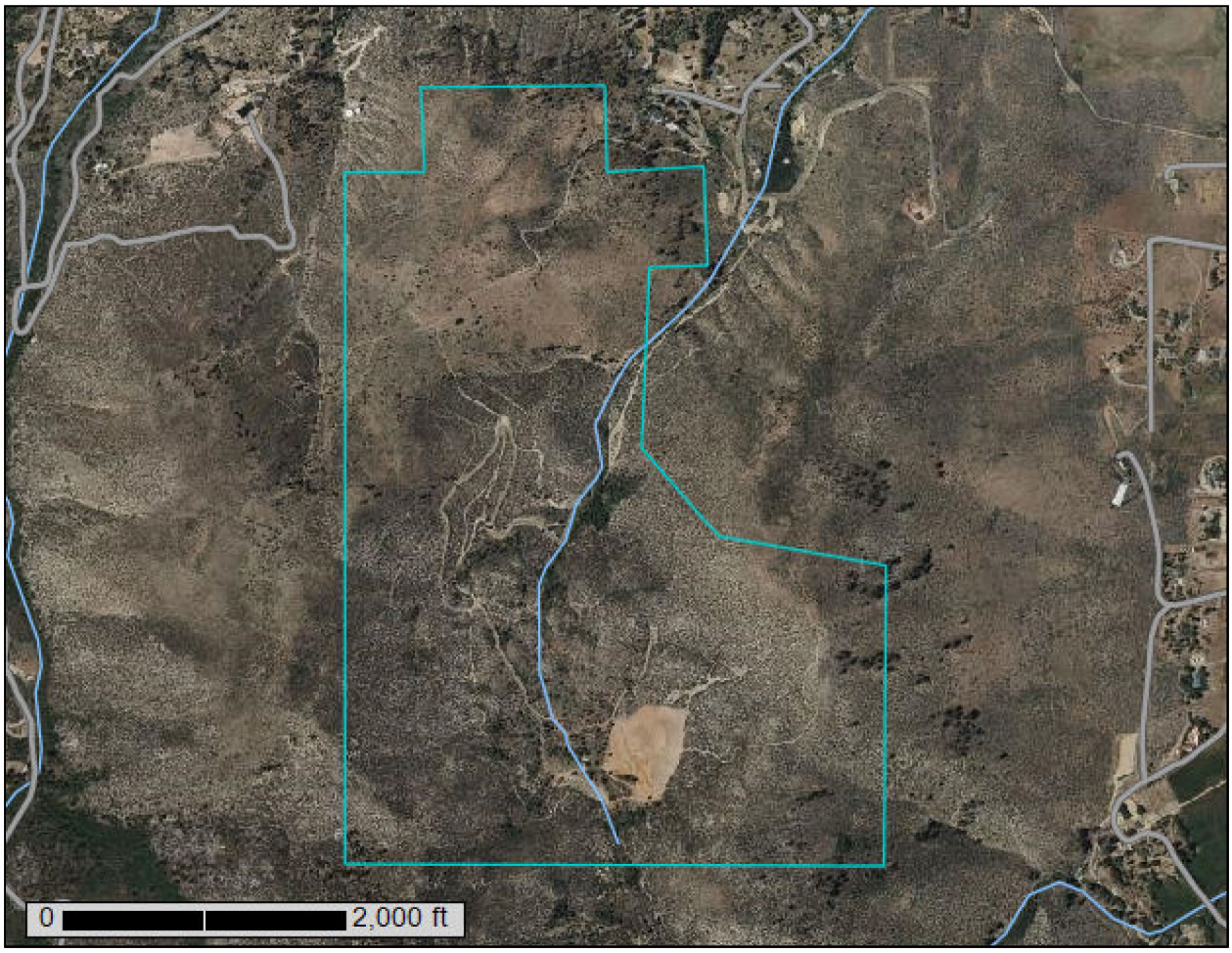
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Washoe County, Nevada, South Part

Hurry Parcel



October 7, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

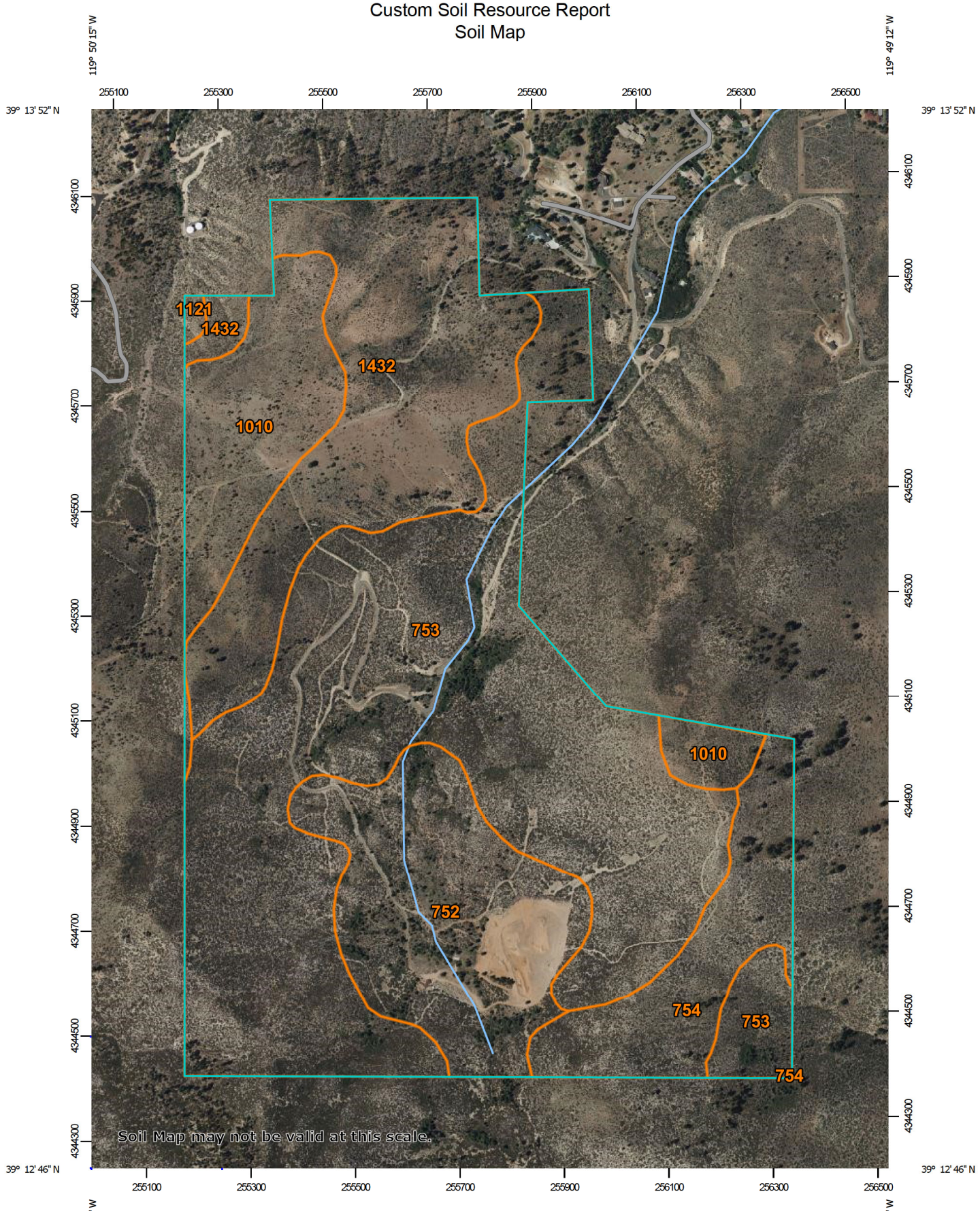
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:9,830 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Washoe County, Nevada, South Part
Survey Area Data: Version 22, Sep 17, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2022—Jun 14, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
752	Toiyabe-Corbett-Rock outcrop association, moderately steep	52.8	14.9%
753	Toiyabe-Corbett-Rock outcrop association, steep	167.6	47.2%
754	Toiyabe-Rock outcrop complex, 50 to 70 percent slopes	28.4	8.0%
1010	Gabica very gravelly sandy loam, 8 to 30 percent slopes	35.9	10.1%
1121	Apmat gravelly sandy loam, 2 to 8 percent slopes	0.8	0.2%
1432	Fraval-Hirschdale-Jumbo association	69.7	19.6%
Totals for Area of Interest		**355.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Washoe County, Nevada, South Part

752—Toiyabe-Corbett-Rock outcrop association, moderately steep

Map Unit Setting

National map unit symbol: hxm7
Elevation: 5,500 to 7,000 feet
Mean annual precipitation: 25 to 35 inches
Mean annual air temperature: 42 to 44 degrees F
Frost-free period: 60 to 80 days
Farmland classification: Not prime farmland

Map Unit Composition

Toiyabe and similar soils: 40 percent
Corbett and similar soils: 35 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toiyabe

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from granitic rocks

Typical profile

H1 - 0 to 8 inches: bouldery coarse sand
H2 - 8 to 13 inches: gravelly coarse sand
Cr - 13 to 60 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F022AY116NV - PIJE/ARTRV/ACOCO
Hydric soil rating: No

Description of Corbett

Setting

Landform: Mountains

Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from granitic rocks

Typical profile

H1 - 0 to 8 inches: gravelly sand
H2 - 8 to 32 inches: gravelly loamy coarse sand
Cr - 32 to 60 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 20 to 39 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Peaks
Down-slope shape: Convex
Across-slope shape: Convex

Minor Components

Graufels

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY026NV - GRANITIC SLOPE 10-12 P.Z.
Hydric soil rating: No

Temo

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY121NV - Pinus contorta-Abies magnifica/Artemisia tridentata ssp. tridentata/Achnatherum occidentale ssp. occidentale-Carex rossii
Hydric soil rating: No

Witefels

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY118NV - ABMA-PICO/ARTRV/BRMA4
Hydric soil rating: No

Aquolls

Percent of map unit: 1 percent
Landform: Swales
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R022AY016NV - WET MEADOW
Hydric soil rating: Yes

753—Toiyabe-Corbett-Rock outcrop association, steep

Map Unit Setting

National map unit symbol: hxm8
Elevation: 5,500 to 7,000 feet
Mean annual precipitation: 25 to 35 inches
Mean annual air temperature: 42 to 44 degrees F
Frost-free period: 60 to 80 days
Farmland classification: Not prime farmland

Map Unit Composition

Toiyabe and similar soils: 55 percent
Corbett and similar soils: 20 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toiyabe

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from granitic rocks

Typical profile

H1 - 0 to 8 inches: bouldery coarse sand
H2 - 8 to 13 inches: gravelly coarse sand
Cr - 13 to 60 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent

Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F022AY116NV - PIJE/ARTRV/ACOCO
Hydric soil rating: No

Description of Corbett

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from granitic rocks

Typical profile

H1 - 0 to 8 inches: gravelly sand
H2 - 8 to 32 inches: gravelly loamy coarse sand
Cr - 32 to 60 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 20 to 39 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Peaks
Down-slope shape: Convex

Across-slope shape: Convex

Minor Components

Graufels

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY026NV - GRANITIC SLOPE 10-12 P.Z.
Hydric soil rating: No

Temo

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY121NV - Pinus contorta-Abies magnifica/Artemisia tridentata ssp. tridentata/Achnatherum occidentale ssp. occidentale-Carex rossii
Hydric soil rating: No

Witefels

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY118NV - ABMA-PICO/ARTRV/BRMA4
Hydric soil rating: No

Aquolls

Percent of map unit: 1 percent
Landform: Swales
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R022AY016NV - WET MEADOW
Hydric soil rating: Yes

754—Toiyabe-Rock outcrop complex, 50 to 70 percent slopes

Map Unit Setting

National map unit symbol: hxm9
Elevation: 5,500 to 7,000 feet
Mean annual precipitation: 25 to 35 inches
Mean annual air temperature: 42 to 44 degrees F
Frost-free period: 60 to 80 days
Farmland classification: Not prime farmland

Map Unit Composition

Toiyabe and similar soils: 80 percent
Rock outcrop: 10 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toiyabe

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from granitic rocks

Typical profile

H1 - 0 to 9 inches: bouldery coarse sand
H2 - 9 to 13 inches: gravelly coarse sand
Cr - 13 to 60 inches: bedrock

Properties and qualities

Slope: 50 to 70 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F022AY116NV - PIJE/ARTRV/ACOCO
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Peaks
Down-slope shape: Convex
Across-slope shape: Convex

Minor Components

Corbett

Percent of map unit: 6 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Graufels

Percent of map unit: 2 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY026NV - GRANITIC SLOPE 10-12 P.Z.
Hydric soil rating: No

Jubilee

Percent of map unit: 2 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY054NV - WET MEADOW 14+ P.Z.
Hydric soil rating: Yes

1010—Gabica very gravelly sandy loam, 8 to 30 percent slopes

Map Unit Setting

National map unit symbol: hxc1
Elevation: 6,000 to 6,800 feet
Mean annual precipitation: 18 to 25 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 70 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Gabica and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gabica

Setting

Landform: Mountains
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from volcanic rocks

Typical profile

H1 - 0 to 9 inches: very gravelly sandy loam
H2 - 9 to 14 inches: very gravelly loam
H3 - 14 to 19 inches: extremely cobbly clay loam
R - 19 to 29 inches: bedrock

Properties and qualities

Slope: 8 to 30 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 14 to 20 inches to lithic bedrock

Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R026XY028NV - MOUNTAIN RIDGE
Other vegetative classification: MOUNTAIN RIDGE (026XY028NV_1)
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 6 percent
Landform: Peaks
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ticino

Percent of map unit: 5 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY009NV - MAHOGANY SAVANNA
Hydric soil rating: No

Jorge

Percent of map unit: 4 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY118NV - ABMA-PICO/ARTRV/BRMA4
Hydric soil rating: No

1121—Apmat gravelly sandy loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: hxcm
Elevation: 5,900 to 7,500 feet
Mean annual precipitation: 20 to 35 inches
Mean annual air temperature: 41 to 44 degrees F
Frost-free period: 50 to 80 days
Farmland classification: Not prime farmland

Map Unit Composition

Apmat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Apmat

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Mixed alluvium, dominately derived from glacial till

Typical profile

H1 - 0 to 10 inches: gravelly sandy loam
H2 - 10 to 21 inches: very gravelly loamy sand
H3 - 21 to 55 inches: very stony sandy loam
H4 - 55 to 60 inches: extremely bouldery loamy coarse sand

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Minor Components

Fraval

Percent of map unit: 4 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Jumbo

Percent of map unit: 4 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex

Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Oest

Percent of map unit: 4 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY010NV - LOAMY 10-12 P.Z.
Hydric soil rating: No

Inville variant

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY107NV - PICO/ARPA6/CAREX
Hydric soil rating: No

1432—Fraval-Hirschdale-Jumbo association

Map Unit Setting

National map unit symbol: hxfz
Elevation: 6,000 to 7,000 feet
Mean annual precipitation: 18 to 45 inches
Mean annual air temperature: 43 to 45 degrees F
Frost-free period: 50 to 60 days
Farmland classification: Not prime farmland

Map Unit Composition

Fraval and similar soils: 35 percent
Hirschdale and similar soils: 30 percent
Jumbo and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fraval

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum derived from volcanic rocks

Typical profile

H1 - 0 to 9 inches: very cobbly loam
H2 - 9 to 27 inches: very cobbly loam
Cr - 27 to 60 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 20 to 39 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Description of Hirschdale

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum derived from altered andesitic rock

Typical profile

H1 - 0 to 6 inches: stony loam
H2 - 6 to 39 inches: clay
Cr - 39 to 60 inches: bedrock

Properties and qualities

Slope: 15 to 50 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 20 to 39 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Description of Jumbo

Setting

Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from volcanic rocks

Typical profile

H1 - 0 to 21 inches: stony loam
H2 - 21 to 54 inches: very cobbly loam
Cr - 54 to 70 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 39 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F022AY130NV - Pinus Jeffreyi/ Artemisia Tridentata Ssp. Vaseyana-Purshia
Hydric soil rating: No

Minor Components

Boomtown

Percent of map unit: 5 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY118NV - ABMA-PICO/ARTRV/BRMA4
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Landform: Peaks
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Macareeno

Percent of map unit: 3 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: F022AY104NV - POTR5/SALIX/ELTRT

Hydric soil rating: No

Booford

Percent of map unit: 2 percent
Landform: Mountains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R026XY005NV - LOAMY 12-14 P.Z.
Hydric soil rating: No

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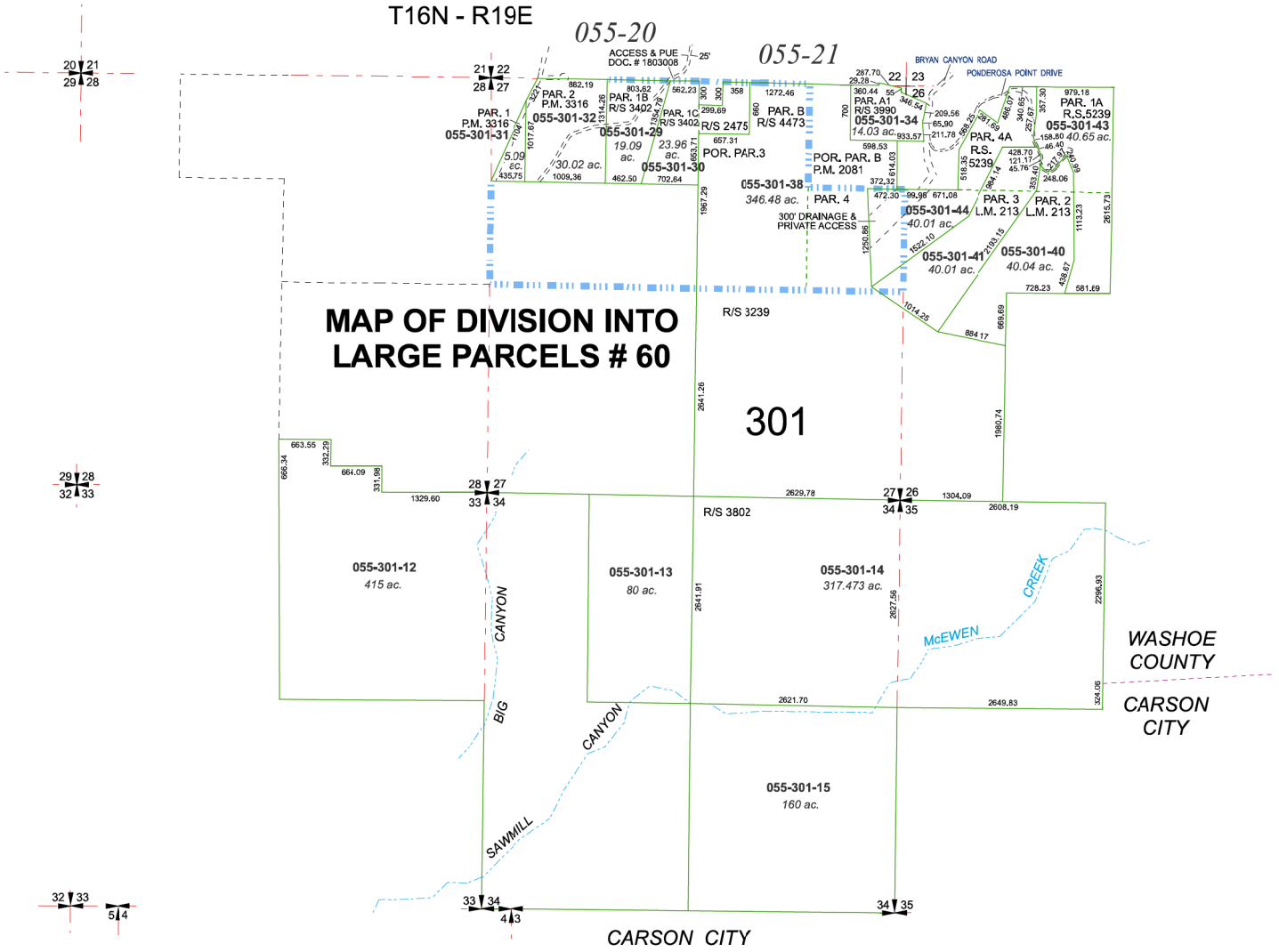
Appendix D

SECTION 34 &
PORTIONS OF SECTIONS 26, 27, 33 & 35
T16N - R19E



Assessor's Map Number

055-30

STATE OF NEVADA

WASHOE COUNTY

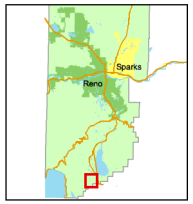
ASSESSOR'S OFFICE

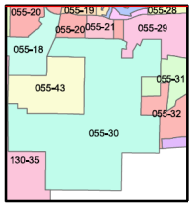
Joshua G. Wilson, Assessor

1001 East Ninth Street
Building D
Reno, Nevada 89512
(775) 328-2231

Feet
0 170340 680 1,020 1,360

1 inch = 1,320 feet





created by: TWT 12/2/2009

last updated: CFB 06/17/2010

area previously shown on map(s)

NOTE: This map was prepared for the use of the Washoe County Assessor for assessment and illustrative purposes only. It does not represent a survey of the premises. No liability is assumed as to the sufficiency or accuracy of the data delineated hereon.

Permit No. 74350

THE STATE OF NEVADA

PERMIT TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

Name of applicant:	**GRANT J. WEISE JR.**
Source:	**BRYAN CREEK AND TRIBUTARIES**
Basin:	**WASHOE VALLEY**
Manner of Use:	**AS DECREED**
Period of Use:	**As Decreed**
Priority Date:	**01/01/1870**

****

APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

This permit to change the point of diversion and place of use of the waters of a portion of the Bryan Creek Tributaries, as heretofore appropriated under Proof V02779, as appears in the Judgment and Decree, in the District Court of the Second Judicial District of the State of Nevada, in and for the County of Washoe, is issued subject to the terms, conditions and irrigation period imposed in said decree and with the understanding that no other rights on the source will be affected by the change proposed herein.

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal and local agencies.

This permit is limited to the irrigation of 8.0 acres within the proposed place of use.

The point of diversion and place of use is as described under items 5 and 7 respectively on the submitted application to support this permit.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, **and not to exceed 0.20 cubic feet per second or 32.0 acre-feet annually, and not to exceed a yearly duty of 4.0 acre-feet per acre of land irrigated from any and/or all sources.**

Work must be prosecuted with reasonable diligence and proof of completion of work shall be filed on or before: **August 21, 2009**

Water must be placed to beneficial use and proof of the application of water to beneficial use shall be filed on or before: **August 21, 2010**

Map in support of proof of beneficial use shall be filed on or before: **August 21, 2010**

IN TESTIMONY WHEREOF, I, TRACY TAYLOR, P.E.,

State Engineer of Nevada, have hereunto set my hand and the seal of my office, this 21st day of **August**, A.D. **2007**

T. Taylor, P.E.

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

Cultural map filed _____

Certificate No. _____ Issued _____

lt

No. 74350

AMENDED

APPLICATION FOR PERMISSION TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

Date of filing in State Engineer's Office JUN 06 2006

Returned to applicant for correction

Corrected application filed JUN 12 2006

Map filed JUN 12 2006 under 74302

****

The applicant **Grant J. Weise, Jr.** hereby make application for permission to change the **Point of Diversion and Place of Use** of water heretofore appropriated under **Claim V02779, In the Matter of the Determination of the Relative Rights in and to the Waters of Bryan Creek and Its Tributaries in Washoe County, Nevada**

****

1. The source of water is **Bryan Creek and Tributaries**

2. The amount of water to be changed **0.2 cfs, not to exceed 32.00 afa**

3. The water to be used for **As Decreed**

4. The water heretofore permitted for **As Decreed**

5. The water is to be diverted at the following point **SE¼ SE¼ Sec. 27, T.16N., R.19E., M.D.M., or at a point from which the SE corner of said Sec. 27 bears S.71°56'17"E., a distance of 635'.**

6. The existing permitted point of diversion is located within **SW¼ SW¼ Section 23, T.16N., R.19E., M.D.B.&M., or at a point from which the SW¼ corner of said Section 23 bears S. 67°19' W., a distance of 1,192 feet**

7. Proposed place of use **W½ SW¼ Sec. 26, E½ Sec. 27, T.16N., R.19E., M.D.M. (8.0 ac.)**

8. Existing place of use **SW¼ SW¼ Sec. 23, T.16N., R.19E., M.D.B.&M. (8.0 ac. in SW¼ SW¼ Sec. 23 to be removed from existing place**

9. Use will be from **As Decreed**

10. Use was permitted from **As Decreed**

11. Description of proposed works **Creek diversion, storage pond, and gravity pipeline distribution system**

12. Estimated cost of works **$10,000**

13. Estimated time required to construct works **2 Years**

14. Estimated time required to complete the application of water to beneficial use **5 Years**

15. Remarks: **Use the Proof of Beneficial Use map filed under Claim 02779 to support the existing Point of Diversion and Place of Use. Use the map filed under Application 74302 to support the Proposed Point of Diversion and Place of Use.**

74350

Water placed to beneficial use under this application will not be supplemental to water rights being sought under ground water Application 74302.

Brian A. Randall, Resource Concepts, Inc.
By s/ Brian A. Randall
340 North Minnesota Street
Carson City, Nevada 89703

Compared sc/ gkl

Protested

****

Permit No. 77786

THE STATE OF NEVADA

PERMIT TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

Name of applicant:	**GRANT J. WEISE, JR.**
Source:	**UNDERGROUND**
Basin:	**WASHOE VALLEY**
Manner of Use:	**IRRIGATION**
Period of Use:	**January 1st to December 31st**
Priority Date:	**07/31/1963**

****

APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

This permit to change the point of diversion and place of use of a portion of the waters of an underground source as heretofore granted under Permit 21413, Certificate 6087, is issued subject to the terms and conditions imposed in said Permit 21413, Certificate 6087 and with the understanding that no other rights on the source will be affected by the change proposed herein. The well shall be equipped with a 2-inch opening and a totalizing meter must be installed and maintained in the discharge pipeline near the point of diversion and accurate measurements must be kept of water placed to beneficial use. The totalizing meter must be installed before any use of the water begins or before the proof of completion of work is filed. If the well is flowing, a valve must be installed and maintained to prevent waste. This source is located within an area designated by the State Engineer pursuant to NRS 534.030. The State retains the right to regulate the use of the water herein granted at any and all times.

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The well must be sealed with cement grout, concrete grout or neat cement from ground level to 100 feet.

The total combined duty of water under Permits 77786 and 77787 shall not exceed 13.94 acre-feet annually for the irrigation of 3.5 acres within the described place of use.

The total combined duty of water from this well under Permits 74302, 77786 and 77787 shall not exceed 32.5 acre-feet annually.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal and local agencies.

(Continued on Page 2)

Application No. 77786

APPLICATION FOR PERMISSION TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

THIS SPACE FOR OFFICE USE ONLY

Date of filing in State Engineer's Office JAN 1 2 2009

Returned to applicant for correction _____

Corrected application filed _____ Map filed JUN 1 2 2006 under 7 4 3 0 2

The applicant Grant J. Weise, Jr.

1 Mill Station Ranch Road (Street Address or P.O. Box) of Washoe Valley (City or Town)

Nevada 89704 (State and Zip Code), hereby make(s) application for permission to change the

☒ Point of diversion ☒ Place of use ☐ Manner of use ☒ of a portion

of water heretofore appropriated under (Identify existing right by Permit, Certificate, Proof or Claim Nos. If Decreed, give title of Decree and identify right in Decree.)
Permit 21413, Certificate 6087

1. The source of water is Underground (Name of stream, lake, underground, spring or other sources.)
2. The amount of water to be changed 0.0256 c.f.s., 12.95 A.F.A. (Second feet, acre-feet. One second foot equals 448.83 gallons per minute.)
3. The water to be used for Irrigation and Domestic (Irrigation, power, mining, commercial, etc. If for stock, state number and kind of animals. Must limit to one major use.)
4. The water heretofore used for Irrigation and Domestic (If for stock, state number and kind of animals.)
5. The water is to be diverted at the following point (Describe as being within a 40-acre subdivision of public survey and by course and distance to a found section corner. If on unsurveyed land, it should be stated.)
   SE¼ SE¼ Section 27, T. 16 N., R. 19 E., M.D.M., or at a point from which the SE corner of said Section 27 bears South 60° 23' 40" East, a distance of 1,028 feet.
   See supporting map filed under Permit 74302.
6. The existing point of diversion is located within (If point of diversion is not changed, do not answer.)
   SW¼ SE¼ Section 22, T. 16 N., R. 19 E., M.D.B.&M., or at a point from which the SE corner of said Section 22 bears South 68° 10' East, a distance of 2,255.0 feet
   See supporting PBU map filed under Permit 18011.

89-WD

7. Proposed place of use (Describe by legal subdivisions. If for irrigation, state number of acres to be irrigated.)

Portions of the W½ SW¼ Section 26 and E½ Section 27, T. 16 N., R. 19 E., M.D.M.
See supporting map filed under Permit 74302.

8. Existing place of use (Describe by legal subdivisions. If changing place of use and/or manner of use of irrigation permit, describe acreage to be removed from irrigation.)

SE¼ SE¼ Section 22, T. 16 N., R. 19 E., M.D.M. (northern 3.5 acres appurtenant to Washoe County APN 55-200-94 being stripped from existing place of use).
See supporting map being filed with this Application.

9. Proposed use will be from January 1 (Month and Day) to December 31 (Month and Day) of each year.

10. Existing use permitted from January 1 (Month and Day) to December 31 (Month and Day) of each year.

11. Description of proposed works. (Under the provision of NRS 535.010 you may be required to submit plans and specifications of your diversion or storage works.)(State manner in which water is to be diverted, i.e. diversion structure, ditches, pipes and flumes or drilled well, pump and motor, etc.)
Drilled well, pump and motor, irrigation lines, and sprinklers.

12. Estimated cost of works $25,000 for well, pipeline, and road

13. Estimated time required to construct works 2 years (If well completed, describe well.)

14. Estimated time required to complete the application of water to beneficial use 4 years

15. Provide a detailed description of the proposed project and its water usage (use attachments if necessary):
(Failure to provide a detailed description may cause a delay in processing.)
Water will be developed from a drilled well and used for irrigation and domestic purposes on a total of 3.5 acres, to be supplemental to a pending application filed to change Permit 21413.

16. Miscellaneous remarks:

2009 JAN 12 PM 3:37
STATE ENGINEER'S OFFICE

(775) 883-1600
Phone No.

E-mail

By Brian A. Randall
Print or type name clearly

Signature, applicant or agent

Resource Concepts, Inc.
Company Name

340 N. Minnesota St.
Street Address or P.O. Box

Carson City, NV 89703
City, State, Zip Code

APPLICATION MUST BE SIGNED BY THE APPLICANT OR AGENT

$150 FILING FEE AND SUPPORTING MAP MUST ACCOMPANY APPLICATION

7. Proposed place of use (Describe by legal subdivisions. If for irrigation, state number of acres to be irrigated.)

Portions of the W½ SW¼ Section 26 and E½ Section 27, T. 16 N., R. 19 E., M.D.M.
See supporting map filed under Permit 74302.

8. Existing place of use (Describe by legal subdivisions. If changing place of use and/or manner of use of irrigation permit, describe acreage to be removed from irrigation.)

SE¼ SE¼ Section 22, T. 16 N., R. 19 E., M.D.M. (northern 3.5 acres appurtenant to Washoe County APN 55-200-94 being stripped from existing place of use).
See supporting map being filed with this Application.

9. Proposed use will be from January 1 (Month and Day) to December 31 (Month and Day) of each year.

10. Existing use permitted from January 1 (Month and Day) to December 31 (Month and Day) of each year.

11. Description of proposed works. (Under the provision of NRS 535.010 you may be required to submit plans and specifications of your diversion or storage works.)(State manner in which water is to be diverted, i.e. diversion structure, ditches, pipes and flumes or drilled well, pump and motor, etc.)
Drilled well, pump and motor, irrigation lines, and sprinklers.

12. Estimated cost of works $25,000 for well, pipeline, and road

13. Estimated time required to construct works 2 years (If well completed, describe well.)

14. Estimated time required to complete the application of water to beneficial use 4 years

15. Provide a detailed description of the proposed project and its water usage (use attachments if necessary):
(Failure to provide a detailed description may cause a delay in processing.)
Water will be developed from a drilled well and used for irrigation and domestic purposes on a total of 3.5 acres, to be supplemental to a pending application filed to change Permit 20648.

16. Miscellaneous remarks:

2009 JAN 12 PM 3:37
STATE ENGINEER'S OFFICE

(775) 883-1600
Phone No.

E-mail

By Brian A. Randall
Print or type name clearly

Brian A. Randall
Signature, applicant or agent

Resource Concepts, Inc.
Company Name

340 N. Minnesota St.
Street Address or P.O. Box

Carson City, NV 89703
City, State, Zip Code

APPLICATION MUST BE SIGNED BY THE APPLICANT OR AGENT

$150 FILING FEE AND SUPPORTING MAP MUST ACCOMPANY APPLICATION

The point of diversion and place of use are as described on the submitted application to support this permit.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, **and not to exceed 0.0256 cubic feet per second or 12.95 acre-feet annually.**

Work must be prosecuted with reasonable diligence and proof of completion of work shall be filed on or before: **August 21, 2010**

Water must be placed to beneficial use and proof of the application of water to beneficial use shall be filed on or before: **August 21, 2010**

Map in support of proof of beneficial use shall be filed on or before: **August 21, 2010**

IN TESTIMONY WHEREOF, I, TRACY TAYLOR, P.E.,

State Engineer of Nevada, have hereunto set my hand and the seal of my office, this 14th day of **September**, A.D. **2009**

T TAYLOR P.E.

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

Cultural map filed _____

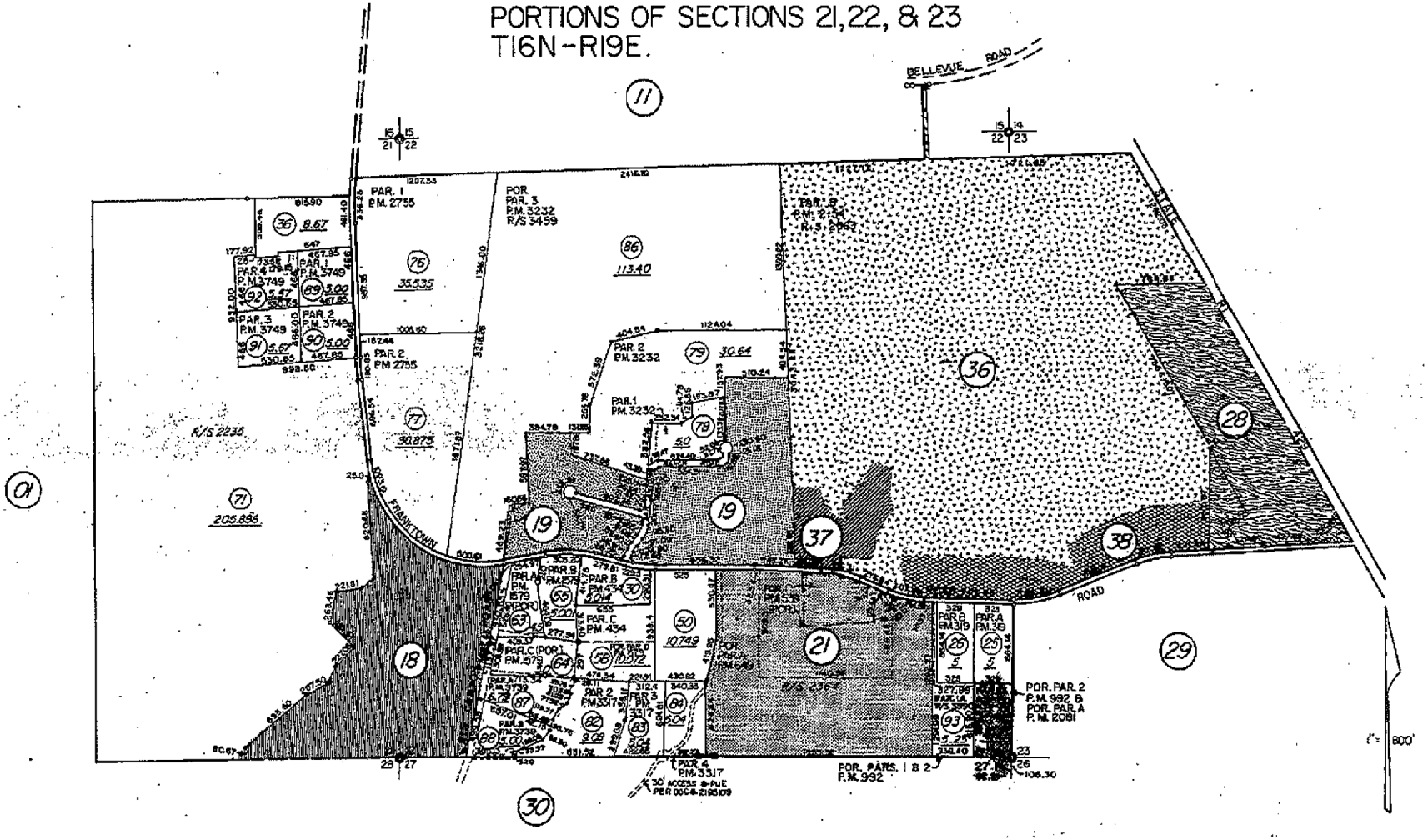
Certificate No. _____ Issued _____

llb

77786

55-20

PORTIONS OF SECTIONS 21,22, & 23 T16N-R19E.



NOTE: This Map is prepared for the use of the Washoe County Assessor for Assessment and illustrative purposes only, it does not represent survey of the premises. No liability is assumed as to the sufficiency or accuracy of the data delineated hereon.

Assessor's Map County of Washoe, Nevada

NOTE – ASSESSOR'S BLOCK NUMBERS SHOWN IN ELLIPSES
ASSESSOR'S PARCEL NUMBERS SHOWN IN CIRCLES

drawn by LS/P 1/66
revised TWT 3/3/01, 4/4/01, 10/24/01
superseded

Permit No. 77787

THE STATE OF NEVADA

PERMIT TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

Name of applicant:	**GRANT J. WEISE, JR.**
Source:	**UNDERGROUND**
Basin:	**WASHOE VALLEY**
Manner of Use:	**IRRIGATION**
Period of Use:	**January 1st to December 31st**
Priority Date:	**08/20/1962**

****

APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

This permit to change the point of diversion and place of use of a portion of the waters of an underground source as heretofore granted under Permit 20648, Certificate 6086, is issued subject to the terms and conditions imposed in said Permit 20648, Certificate 6086 and with the understanding that no other rights on the source will be affected by the change proposed herein. The well shall be equipped with a 2-inch opening and a totalizing meter must be installed and maintained in the discharge pipeline near the point of diversion and accurate measurements must be kept of water placed to beneficial use. The totalizing meter must be installed before any use of the water begins or before the proof of completion of work is filed. If the well is flowing, a valve must be installed and maintained to prevent waste. This source is located within an area designated by the State Engineer pursuant to NRS 534.030. The State retains the right to regulate the use of the water herein granted at any and all times.

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The well must be sealed with cement grout, concrete grout or neat cement from ground level to 100 feet.

The total combined duty of water under Permits 77786 and 77787 shall not exceed 13.94 acre-feet annually for the irrigation of 3.5 acres within the described place of use.

The total combined duty of water from this well under Permits 74302, 77786 and 77787 shall not exceed 32.5 acre-feet annually.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal and local agencies.

(Continued on Page 2)

The point of diversion and place of use are as described on the submitted application to support this permit.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, **and not to exceed 0.0181 cubic feet per second or 12.74 acre-feet annually.**

Work must be prosecuted with reasonable diligence and proof of completion of work shall be filed on or before: **August 21, 2010**

Water must be placed to beneficial use and proof of the application of water to beneficial use shall be filed on or before: **August 21, 2010**

Map in support of proof of beneficial use shall be filed on or before: **August 21, 2010**

IN TESTIMONY WHEREOF, I, TRACY TAYLOR, P.E.,

State Engineer of Nevada, have hereunto set my hand and the seal of my office, this 11th day of **September**, A.D. **2009**

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

Cultural map filed _____

Certificate No. _____ Issued _____

llb

Application No. 77787

APPLICATION FOR PERMISSION TO CHANGE POINT OF DIVERSION, MANNER OF USE AND PLACE OF USE OF THE PUBLIC WATERS OF THE STATE OF NEVADA HERETOFORE APPROPRIATED

THIS SPACE FOR OFFICE USE ONLY

Date of filing in State Engineer's Office JAN 1 2 2009

Returned to applicant for correction _____

Corrected application filed _____ Map filed JUN 1 2 2006 under 7 4 3 0 2

The applicant Grant J. Weise, Jr.

1 Mill Station Ranch Road (Street Address or P.O. Box) of Washoe Valley (City or Town)

Nevada 89704 (State and Zip Code), hereby make(s) application for permission to change the

☒ Point of diversion ☒ Place of use ☐ Manner of use ☒ of a portion

of water heretofore appropriated under (Identify existing right by Permit, Certificate, Proof or Claim Nos. If Decreed, give title of Decree and identify right in Decree.)
Permit 20648, Certificate 6086

1. The source of water is Underground (Name of stream, lake, underground, spring or other sources.)
2. The amount of water to be changed 0.0181 c.f.s., 12.74 A.F.A. (Second feet, acre-feet. One second foot equals 448.83 gallons per minute.)
3. The water to be used for Irrigation and Domestic (Irrigation, power, mining, commercial, etc. If for stock, state number and kind of animals. Must limit to one major use.)
4. The water heretofore used for Irrigation and Domestic (If for stock, state number and kind of animals.)
5. The water is to be diverted at the following point (Describe as being within a 40-acre subdivision of public survey and by course and distance to a found section corner. If on unsurveyed land, it should be stated.)
   SE¼ SE¼ Section 27, T. 16 N., R. 19 E., M.D.M., or at a point from which the SE corner of said Section 27 bears S. 60° 23' 40" E., a distance of 1,028 feet.
   See supporting map filed under Permit 74302.
6. The existing point of diversion is located within (If point of diversion is not changed, do not answer.)
   NW¼ SE¼ Section 22, T. 16 N., R. 19 E., M.D.B.&M., or at a point from which the SE corner of said Section 22 bears S. 46° 43' E., a distance of 2,650.0 feet.
   See supporting PBU map filed under Permit 18011

89-WA

- Permit 74350 grants you .02 cubic feet per second and 32 acre-feet annually. This translates into roughly 10,427, 2447 gallons per year, 868,937.25 gallons per month, and 2,606,811.7 gallons quarterly.

- Permit 77786 grants you .0256 cubic feet per second and 12.95 acre-feet annually. This translates into roughly 4,219,769.7 gallons per year, 351,647.47 gallons per month, and 1,054,942.4 gallons quarterly.

- Permit 77787 grants you .0181 cubic feet per second and 12.74 acre-feet annually. This translates into roughly 4,154, 599.3 gallons per year, 346,216.6 gallons per month, and 1,038,649.8 gallons quarterly.

Adam Torrero

From: Chris Sarman <sarman@reno-realty.com>
Sent: Thursday, January 18, 2018 8:13 AM
To: adam@jhurry.com
Cc: mbanta@confluencewaterresources.com
Subject: Re: FW: Parcel Information - Taxpayer Inquiry

Adam. Ive added Matt Banta to this correspondence. He will likely reach out to you sometime today. Tomorrow may not work but we certainly want to take some neccessay steps with ya.

Thanks

Parcel(s) 055-301-38 and 055-301-44.

All data on this for

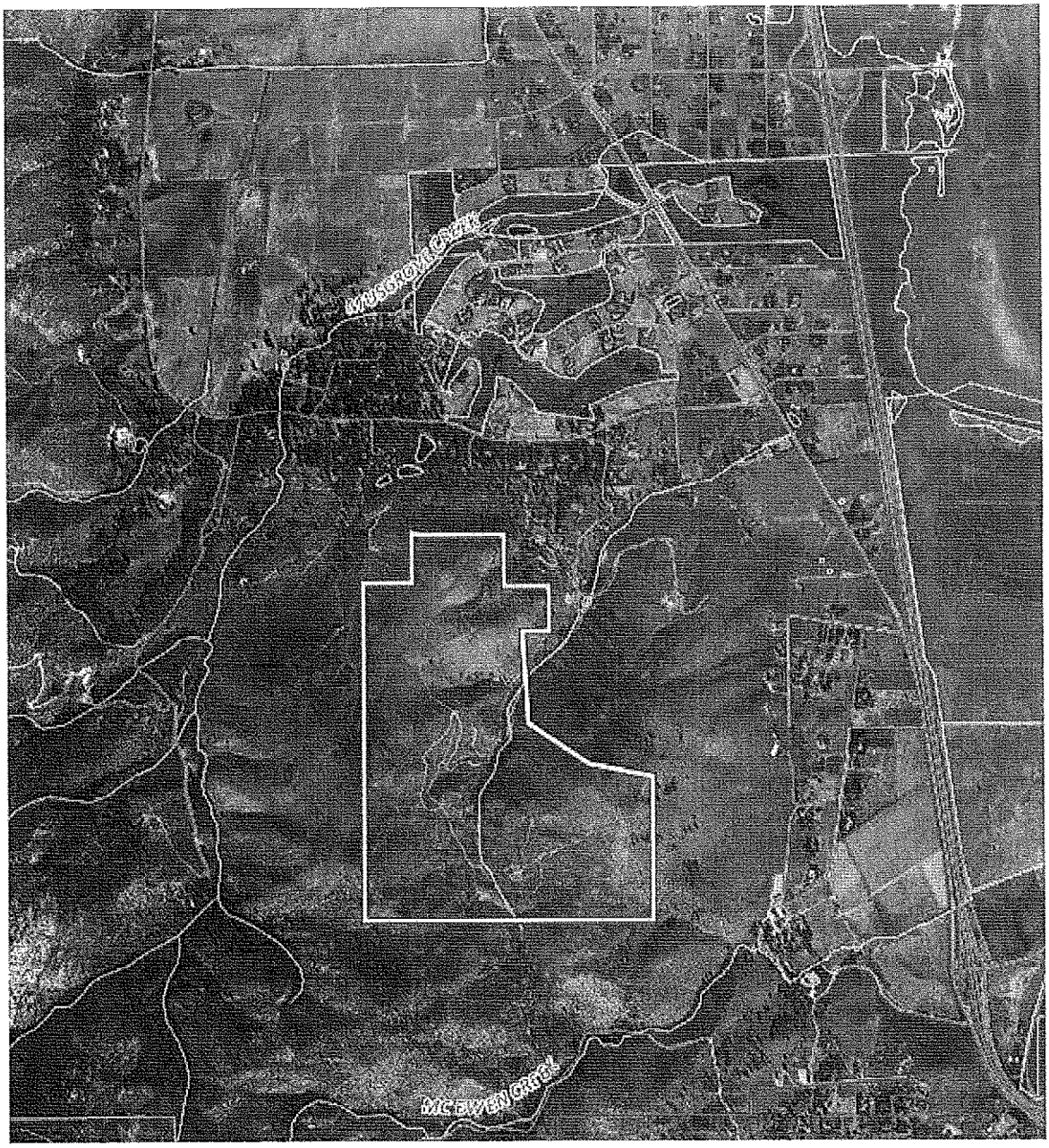
Owner Information & Legal Description			
APN	**055-301-38**	Card 1 of 1	
Previous Parcel	Next Parcel		Neighborhood Map
Parcel Map | Map Index | iLookAbout | Pictometry | GIS WRMS (new quickmap) | Old QuickMap | 2018 VN			
Situs	0 BRYAN CANYON RD		
Owner 1	SCAP 7 LLC		
Owner 2 or Trustee			
Owner 3 or Trustee			
Mail Address Copy to Clipboard	7170 E MCDONALD DR #4		
	PARADISE VALLEY AZ 85253		
Keyline Desc	RS 4473 LT B		
Subdivision	_UNSPECIFIED		
Lot B **Block**		**Section** **Township** 16 **Range** 19	
Record of Survey Map 4473 **: Parcel Map#** **: Sub Map#**			
		Special Property Code	060
2018 Tax Dist	4000	Prior APN	Multiple
2017 Tax Dist	4000	Additional Tax Info	
Tax Cap Status	Use does not qualify for Low Cap, High Cap Applied		
	Last Activity/ Last Permit		

Up to 7 Sales/Transfer Records/Recorded Document (additional information/records)	
Grantor	**Grantee**
WEISE 1981 TRUST	SCAP 7 LLC
WEISE, GRANT J JR & OLIVIA S	WEISE 1981 TRUST
WEISE, GRANT J JR & OLIVIA S	WEISE, GRANT J JR & OLIVIA S
WEISE, GRANT J JR & OLIVIA S	WEISE, GRANT J JR & OLIVIA S
WEISE, GRANT J JR & OLIVIA S	WEISE,GRANT J JR & OLIVIA S

To view sale/

Land Information (additional land information)				
Land Use	100	**Sewer**	None	
Size	346.48 Acre	**Water**	None	

Valuation Information (additional valuation information)


MUSKRAT CREEK
MCELMO CREEK

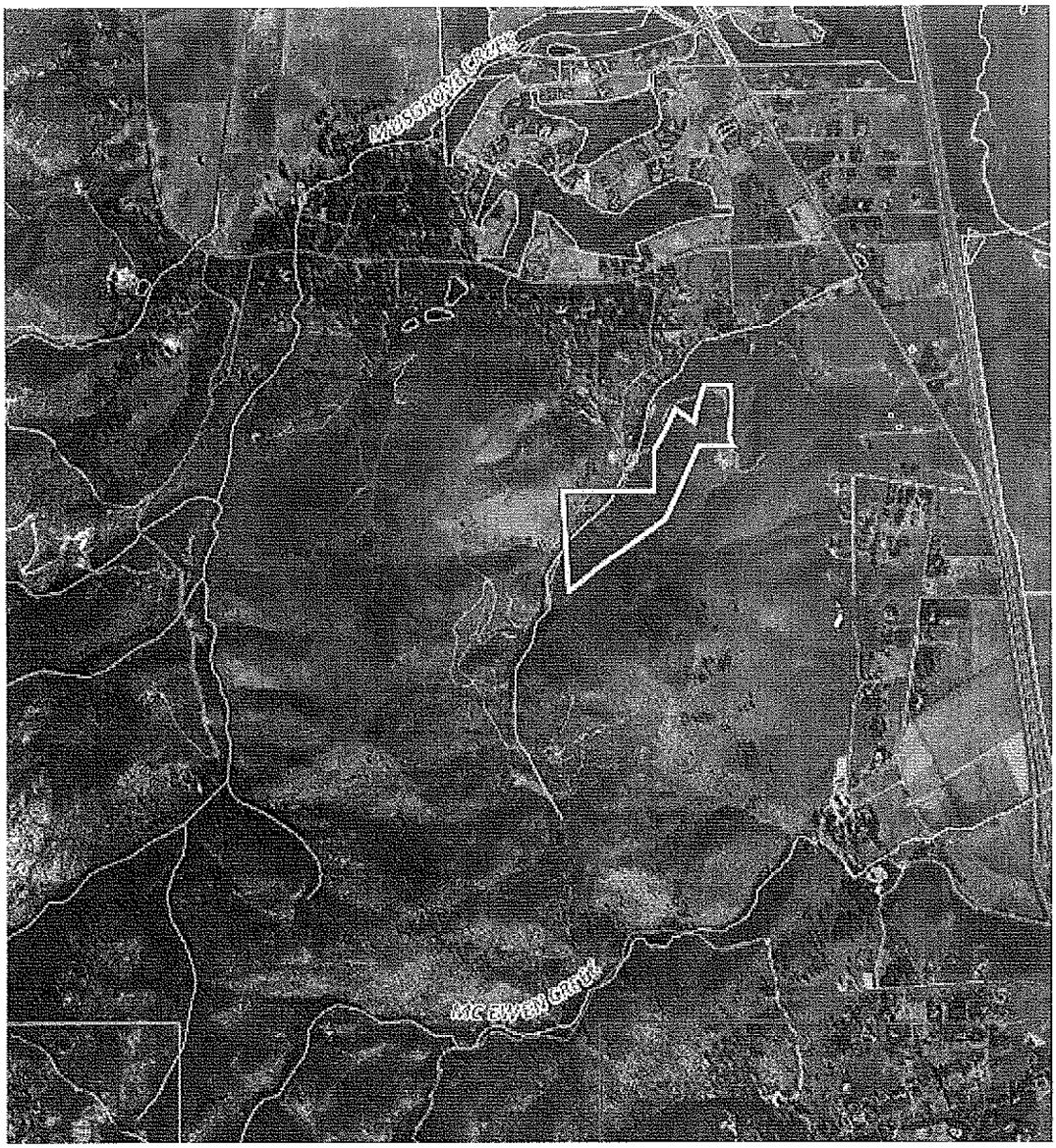
All data on this form

Owner Information & Legal Description			
APN	**055-301-44**	Card 1 of 1	
Previous Parcel	Next Parcel		Neighborhood Maps
Parcel Map | Map Index | iLookAbout | Pictometry | GIS WRMS (new quickmap) | Old QuickMap | 2018 VN			
Situs	300 PONDEROSA POINT DR		
Owner 1	SCAP 7 LLC		
Owner 2 or Trustee			
Owner 3 or Trustee			
Mail Address Copy to Clipboard	7170 E MCDONALD DR #4		
	PARADISE VALLEY AZ 85253		
Keyline Desc	DLM 213 LT 4 ADJ RS 5239 LT 4A		
Subdivision	_UNSPECIFIED		
Lot 4A **Block**		**Section** **Township** 16 **Range** 19	
Record of Survey Map 5239 : **Parcel Map#** : **Sub Map#** 213			
		Special Property Code	
2018 Tax Dist	4000	Prior APN	055-301-42
2017 Tax Dist	4000	Additional Tax Info	
Tax Cap Status	Use does not qualify for Low Cap, High Cap Applied		
		Last Activity/ Last Permit	

Up to 7 Sales/Transfer Records/Recorded Document (additional information/records)	
Grantor	**Grantee**
PONDEROSA LAND/LVSTOCK CO INC	SCAP 7 LLC
PONDEROSA LAND/LVSTOCK CO INC,	PONDEROSA LAND/LVSTOCK CO INC

To view sale/tr

Land Information (additional land information)				
Land Use	120	**Sewer**	None	
Size	40.01 Acre	**Water**	None	



Water Rights

74350	PER		SCAP 7, LLC
77786	PER		SCAP 7, LLC
77787	PER		SCAP 7, LLC

App/Permit: 74350

Status: PERMIT

Certificate: None

General | Maps & Due Dates | Place of Use | Abrogations/Protests/Rulings | Ownership and Title

General

Owner(s): SCAP 7, LLC

Basin: WASHOE VALLEY

Sub Basin:

Basin Status: DESIGNATED

Region: TRUCKEE RIVER BASIN

County: WASHOE

Resource Specialist: Melissa Marr

Previous Applications(Base Rights)

Change of App No	POD	POU	MOU
V02779	Y	Y	

Source: STREAM

Source Description: BRYAN CREEK &

Project Name:

Decree Name:

Use: AS DECREED

Period Start: DECR

Period End: DECR

Point of Diversion Information

Qtr-Qtr:	Qtr:	Section:	Township:	Range:
SE	SE	27	16N	19E

Duty-Balance 32 AFA

Div Balance 0.2

Acre-Feet Storage 0

Well Logs:

Remarks:

App/Permit: 77786
Status: PERMIT
Certificate: None

General | Maps & Due Dates | Place of Use | Abrogations/Protests/Rulings | Ownership and Title

General

Owner(s): SCAP 7, LLC
Basin: WASHOE VALLEY
Sub Basin:
Basin Status: DESIGNATED
Region: TRUCKEE RIVER BASIN
County: WASHOE
Resource Specialist: Melissa Marr

Previous Applications(Base Rights)

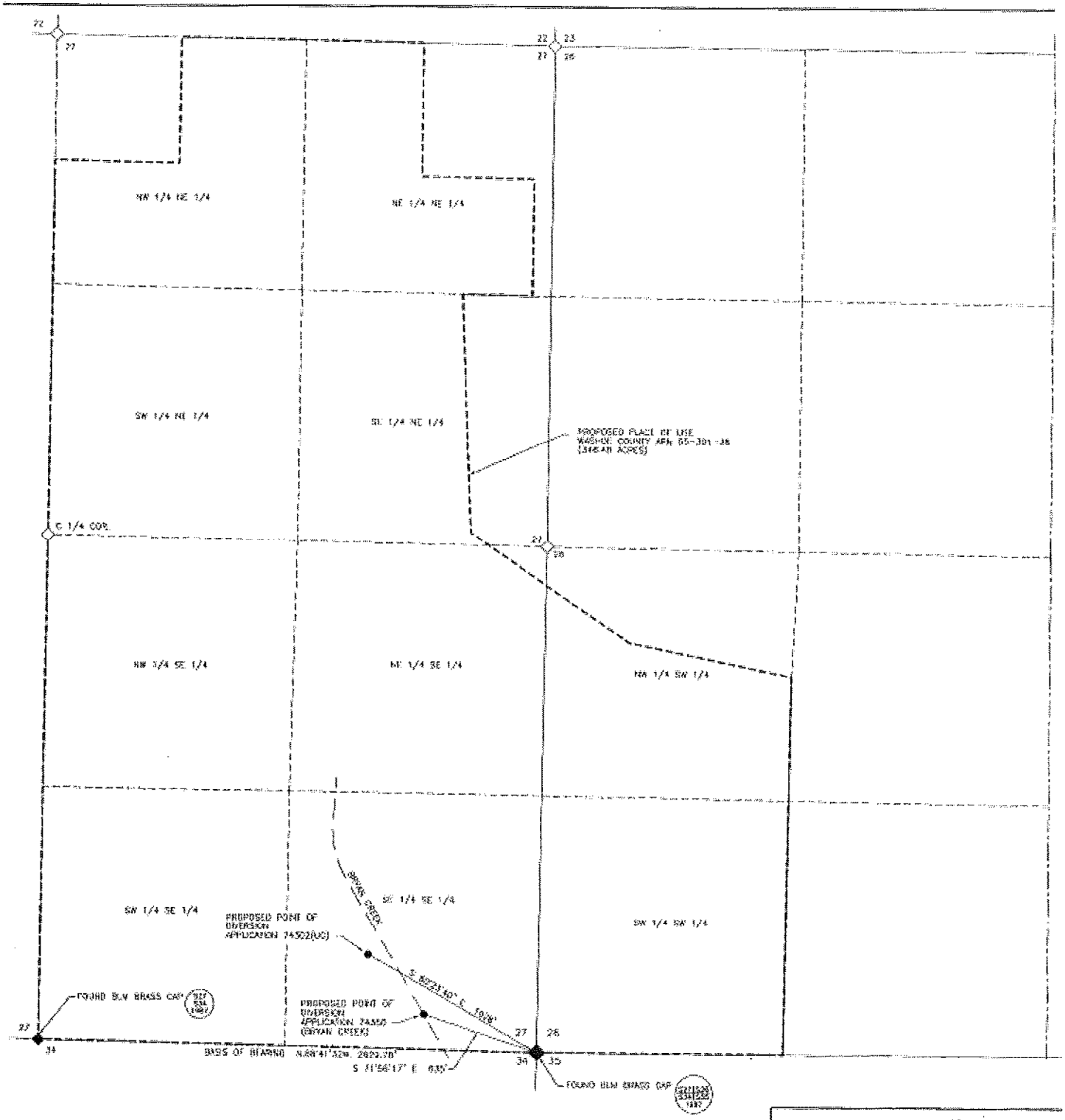
Change of App No	POD	POU	MOU
21413	Y	Y	

Source: UNDERGROUND
Source Description:
Project Name:
Decree Name:
Use: IRRIGATION
Period Start: 0101
Period End: 1231

Point of Diversion Information

Qtr-Qtr:	Qtr:	Section:	Township:	Range:
SE	SE	27	16N	19E

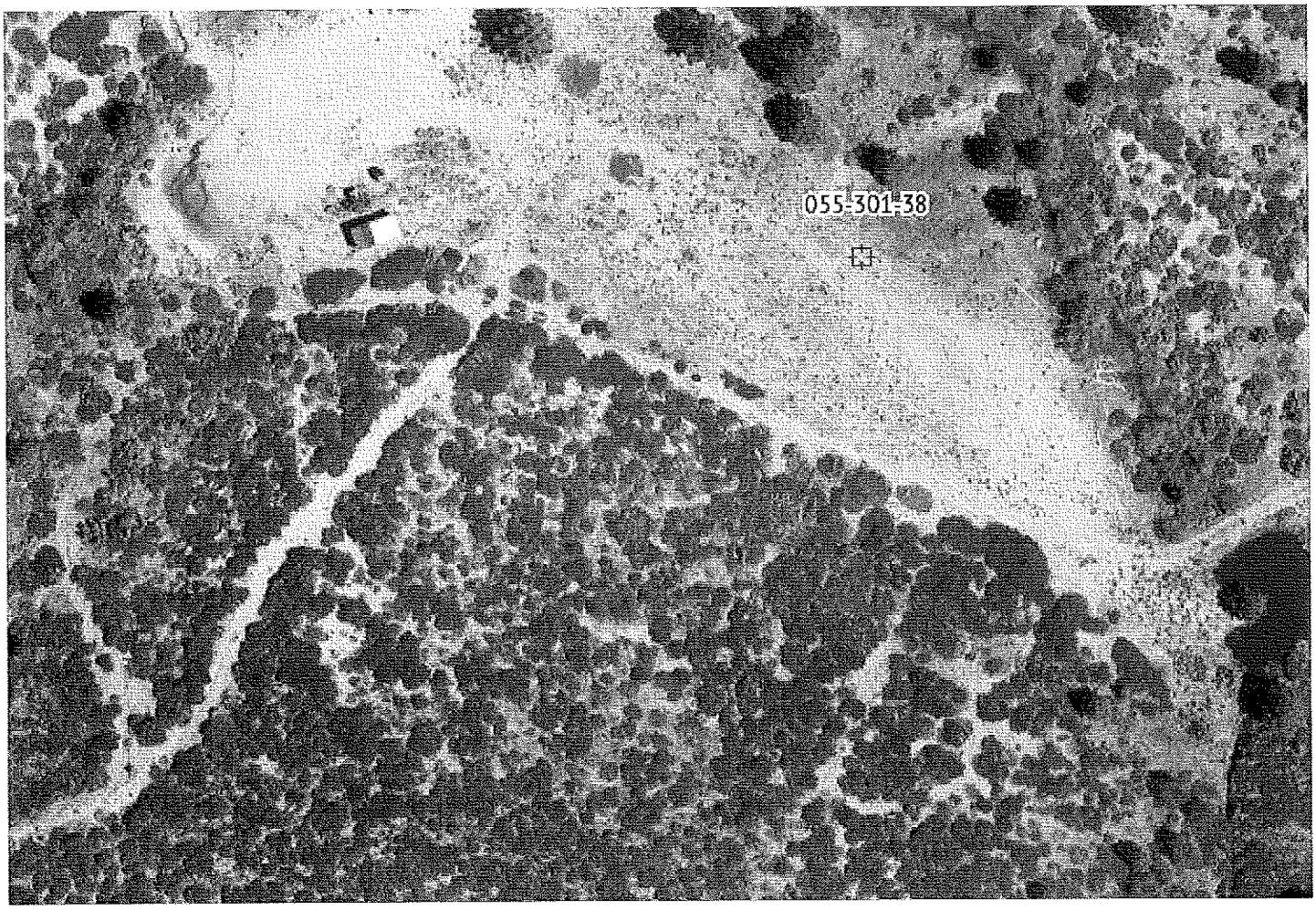
Duty-Balance 12.95 AFA
Div Balance 0.0256
Acre-Feet Storage 0
Well Logs:
Remarks:



PROPOSED PLACE OF USE
SECTIONS 26 AND 27, T.16 N., R.19 E., M.D.M.

STATE ENGINEER'S

8289


055-301-38

Nevada Division of Water Resources

Well Log Details

Download Well Log:

General Information

Well Log No:	111607	**Basin:**	089
Waiver No:	N/A	**Owner:**	WEISE, GRANT
Permit No:	74302	**Well Name:**	N/A
Date Received:	08/26/2010	**Address:**	0 BRYAN CANYON RD
Notice of Intent:	58562		

Location Information

Reference:	Mount Diablo	**Parcel No:**	55-301-38	Latitu
Township:	16N	**Lot No:**	N/A	Longi
Range:	19E	**Subdivision:**	N/A	Count
Section:	27	**Block No:**	N/A	Work
Quarters:	SE SE			Propo

Well Construction

Date Started:	4/28/2009	**Perforations:**	60 ft	Static
Date Completed:	05/01/2009	**From:**	140 ft	Pump
Aquifer Desc:	N/A	**To:**	200 ft	Methc
Hole Depth:	200 ft	**Perforation Interval:**	2	Speci
Surface Casing Diameter:	6.625 in	**Depth of Seal:**	101	Yield:
Cased To:	200 ft	**Draw Down:**	0	Water
Casing Reductions:	0	**Gravel Packed:**	Yes	After
		From:	101 ft	
		To:	200 ft	

Drilling Contractor Information

Contractor's Lic No:	46498	**Name:**	BLAIN DRILLING & PUMP CO
Contractor's Drilling No:	0	**Address:**	P O BOX 1255 CARSON CITY NV 89702
Driller's Lic. No:	2167		

Remarks

Work Type:	N/A	**General:**	N/A	Ad

CHRIS SARMAN - APPRAISER

email: csarman@washoecounty.us | direct phone: (775) 328-2262 | fax (775) 328-3641

Washoe County Assessor's Office

1001 E. Ninth St., Bldg. D, Reno, NV 89512

Connect with us: cMail | Twitter | Facebook | www.washoecounty.us

Nevada Division of Water Resources

Well Log Details

Download Well Log:

General Information

Well Log No:	134554	**Basin:**	089
Waiver No:	N/A	**Owner:**	SCRAP 7 LLC
Permit No:	N/A	**Well Name:**	N/A
Date Received:	07/07/2020	**Address:**	7545 BRYAN CANYON RD WASHOE VALLEY
Notice of Intent:	N2020-316		

Location Information

Reference:	Mount Diablo	**Parcel No:**	055-301-38	**Latitude:**	39.22
Township:	16N	**Lot No:**	N/A	**Longitude:**	119.83
Range:	19E	**Subdivision:**	N/A	**County:**	WASHOE
Section:	27	**Block No:**	N/A	**Work Type:**	Replacement Well
Quarters:	SE SE			**Proposed Use:**	Irrigation

Well Construction

Date Started:	6/1/2020	**Perforations:**	80 ft	**Static Water Level:**	25 ft
Date Completed:	06/08/2020	**From:**	420 ft	**Pumping Water Level:**	25 ft
Aquifer Desc:	N/A	**To:**	500 ft	**Method:**	Air Lift
Hole Depth:	500 ft	**Perforation Interval:**	1	**Specific Capacity:**	0.00
Surface Casing Diameter:	6 in	**Depth of Seal:**	100	**Yield:**	200 gpm
Cased To:	500 ft	**Draw Down:**	0	**Water Temperature:**	45 degrees F
Casing Reductions:	0	**Gravel Packed:**	Yes	**After Hours Pump:**	6
		From:	500 ft		
		To:	100 ft		

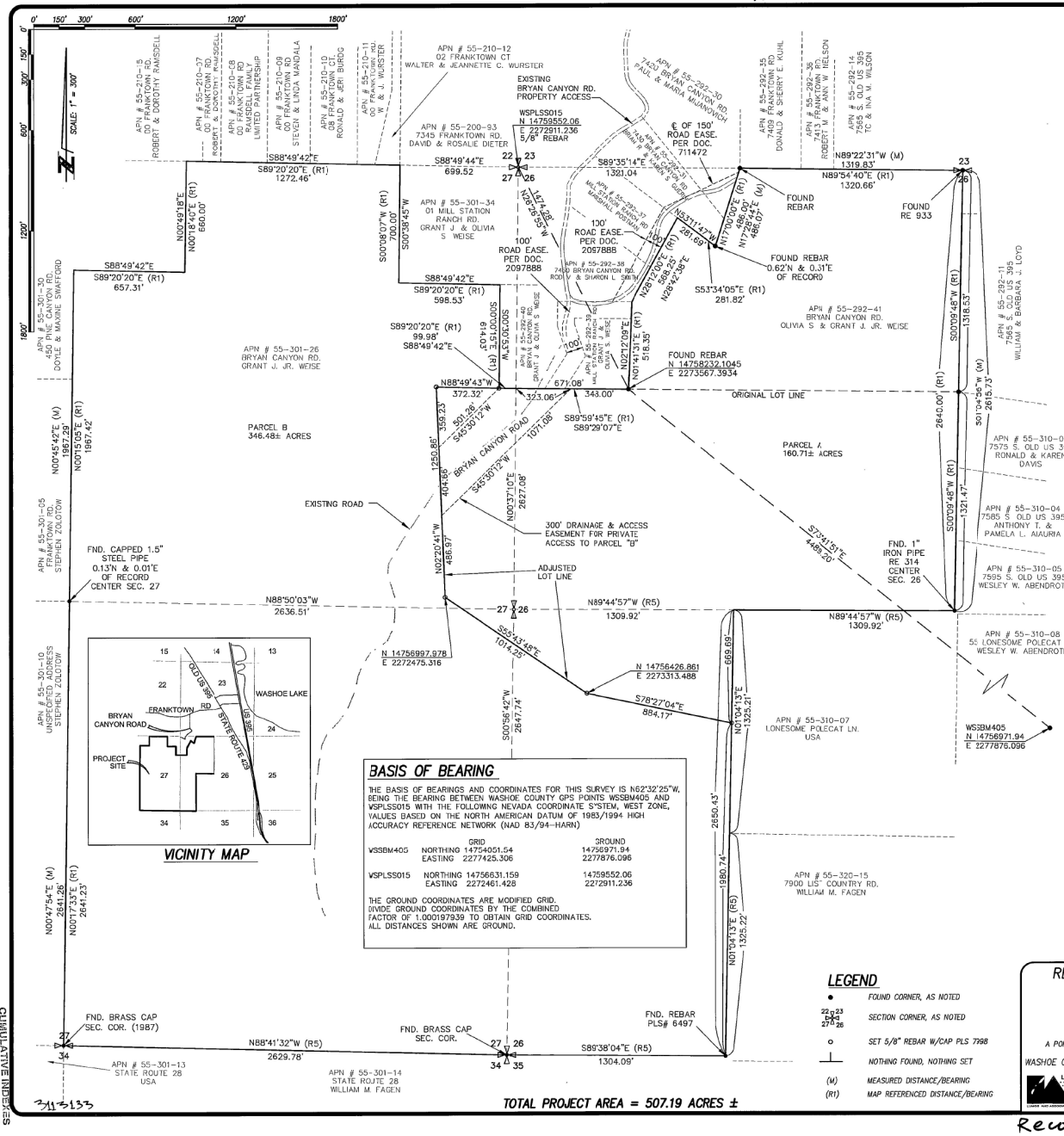
Drilling Contractor Information

Contractor's Lic No:	55548	**Name:**	CAPITAL CITY WELL DRILLING AND PUMP SERVICE INC
Contractor's Drilling No:	0	**Address:**	20 KIT KAT DRIVE CARSON CITY NV 89706
Driller's Lic. No:	2010		

Remarks

Work Type:	REPLACES WELL LOG 111607	**General:**	N/A	**Additional:**	N/A

ELHH



OWNER'S CERTIFICATE

WE THE UNDERSIGNED OWNERS OF THE AFFECTED PARCELS AS SHOWN ON THIS MAP DO HEREBY STATE:
1) WE HAVE EXAMINED THIS PLAT AND APPROVE AND AUTHORIZE ITS RECORDING;
2) WE AGREE TO EXECUTE THE REQUIRED DOCUMENTS CREATING ANY EASEMENT WHICH IS SHOWN HEREON;
3) WE AGREE TO EXECUTE THE REQUIRED DOCUMENTS ABANDONING ANY EXISTING EASEMENT(S) PURSUANT TO THE PROVISIONS OF N.R.S. 278.010 TO 278.630, INCLUSIVE.
4) ALL PROPERTY TAXES ON THE LAND FOR THE FISCAL YEAR HAVE BEEN PAID;
5) ANY LENDER WITH AN IMPOUND ACCOUNT FOR THE PAYMENT OF TAXES HAS BEEN NOTIFIED OF THE ADJUSTMENT OF THE BOUNDARY LINE OR THE TRANSFER OF THE LAND.
6) WE AGREE TO ACCEPT ANY DRAINAGE ONTO OUR PROPERTY RESULTING FROM THIS BOUNDARY LINE ADJUSTMENT.

GRANT J. WEISE, JR.
BY: Grant J. Weise, JR. DATE: 9-27-04
OLIVIA S. WEISE
BY: Olivia S. Weise DATE: 9.27.04

STATE OF NEVADA }ss
COUNTY OF WASHOE }

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS 27th DAY OF SEPTEMBER, 2004, BY GRANT J. + OLIVIA S. WEISE

NOTARY PUBLIC IN AND FOR SAID STATE — MY COMMISSION EXPIRES: NOV 22, 2006

DEBORAH A HUNTER
Notary Public - State of Nevada
Appointment Number 02-79244-2
My Appt. Expires Nov. 22, 2006
AMENDED

SURVEYOR'S CERTIFICATE

I, RANDAL L. BRIGGS, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF NEVADA, DO HEREBY CERTIFY THAT:

1) THIS IS A TRUE AND ACCURATE REPRESENTATION OF THE LANDS SURVEYED UNDER MY SUPERVISION AT THE INSTANCE OF GRANT & OLIVIA WEISE.
2) THE LANDS SURVEYED LIE WITHIN SECTIONS 26 & 27 T. 16 N., R. 19 E., M.D.M., AND THE SURVEY WAS COMPLETED ON JUNE 8, 2004.
3) THIS PLAT COMPLIES WITH THE APPLICABLE STATUTES OF THIS STATE AND ANY LOCAL ORDINANCES IN EFFECT ON THE DATE THAT THE SURVEY WAS COMPLETED, AND THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 625 OF THE NEVADA ADMINISTRATIVE CODE.
4) THIS MAP IS NOT IN CONFLICT WITH THE PROVISIONS OF N.R.S. 278.010 TO 278.630 INCLUSIVE.
5) ALL CORNERS AND ANGLE POINTS OF THE ADJUSTED BOUNDARY HAVE BEEN DEFINED BY MONUMENTS OR WILL BE OTHERWISE DEFINED ON A DOCUMENT OF RECORD AS REQUIRED BY N.R.S. 625.340
6) THE MONUMENTS DEPICTED ON THE PLAT ARE OF THE CHARACTER SHOWN, OCCUPY THE POSITIONS INDICATED, AND ARE OF SUFFICIENT DURABILITY.

RANDAL L. BRIGGS — DATE 9/27/04
RANDAL L. BRIGGS — TITLE
NEVADA LAND SURVEYOR — STATE OF NEVADA — No. 7998
exp 12-31-09

TAXATION CERTIFICATE

THE UNDERSIGNED HEREBY CERTIFIES THAT ALL PROPERTY TAXES ON THIS LAND FOR THE FISCAL YEAR HAVE BEEN PAID AND THAT THE FULL AMOUNT OF ANY DEFERRED PROPERTY TAXES FOR THE CONVERSION OF THE PROPERTY FROM AGRICULTURAL USE HAS BEEN PAID PURSUANT TO NRS 361A.265.

WASHOE COUNTY TREASURER
DEPUTY — DATE 9-28-2004

GOVERNING AGENCY CERTIFICATE

THE UNDERSIGNED HEREBY CERTIFIES THAT THIS MAP HAS BEEN REVIEWED AND APPROVED BY THE COUNTY OF WASHOE.

JACK HOLMES, WASHOE COUNTY SURVEYOR — DATE 10/06/04

REFERENCE DOCUMENTS

R1 RECORD OF SURVEY MAP #3239 FILED FOR RECORD MAY 19, 1997, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 2099100.

R2 PARCEL MAP #2081 FILED FOR RECORD JANUARY 23, 1987, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 1134609.

R3 LAND MAP #60 FILED FOR RECORD FEBRUARY 16, 1984, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 907535.

R4 PARCEL MAP #1185 FILED FOR RECORD DECEMBER 10, 1980, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 711472.

R5 RECORD OF SURVEY #3802 FILED FOR RECORD JUNE 21, 2000, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 2457646.

RECORD OF SURVEY TO SUPPORT A BOUNDARY LINE ADJUSTMENT FOR GRANT & OLIVIA WEISE

PARCELS 5 & 6 OF RECORD OF SURVEY #3239
A PORTION OF THE E 1/2 OF SECTION 27 & THE W 1/2 OF SECTION 26
T. 16 N., R. 19 E., M.D.M.
WASHOE COUNTY NEVADA
DATE: AUGUST, 2004
JOB NO: 5737.004
SHEET 1 OF 1

LUMOS AND ASSOCIATES, INC.

FILE NO.: 3113133
FILED FOR RECORD AT THE REQUEST OF Grant & Olivia Weise
THIS 14 DAY OF October 2004, AT 51 MINUTES PAST 4 O'CLOCK 12 M., IN THE OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA.
Kathryn L. Burke COUNTY RECORDER
BY: C. Bartley DEPUTY
FEE: 21.00

CUMULATIVE INDEXES SHOULD BE EXAMINED FOR ANY SUBSEQUENT CHANGES TO THIS MAP

4473

Record of Survey Map 4473