Board of Adjustment Staff Report

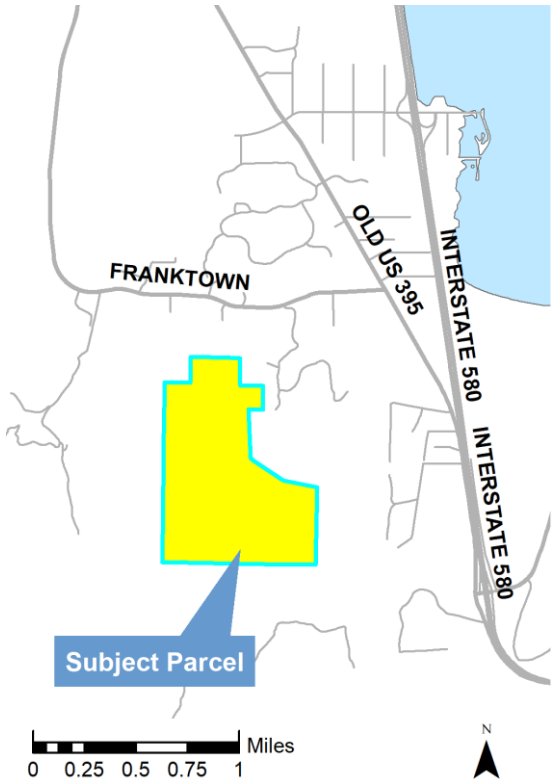
Meeting Date: December 5, 2024 **Agenda Item: 8E**

SPECIAL USE PERMIT CASE NUMBER:	WSUP24-0015 (Bryan Canyon Road Pond and Restoration)
BRIEF SUMMARY OF REQUEST:	Request for a major grading permit to rectify illegal grading done in the past.
STAFF PLANNER:	Courtney Weiche, Senior Planner Phone Number: 775.328.3608 E-mail: cweiche@washoecounty.gov

CASE DESCRIPTION

For hearing, discussion and possible action to approve a special use permit for major grading resulting in up to 6-acres of land disturbance, 14,754 cy of cut & 14,753 cy of fill, to create a dam structure to build a pond and rectify past illegal grading. The application includes a request to vary grading standards to allow for more than 10ft of difference from the natural grade.

Applicant / Owner:	SC Advisors, LLC
Location:	0 Bryan Canyon Road
APN:	055-301-38
Parcel Size:	346.48 acres
Master Plan:	Rural
Regulatory Zone:	General Rural
Area Plan:	South Valleys
Development Code:	Authorized in Article 438 810, Special Use Permits
Commission District:	2 – Commissioner Clark



Vicinity Map

STAFF RECOMMENDATION

APPROVE **APPROVE WITH CONDITIONS** **DENY**

POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP24-0015 and the request to vary final grade height above 10ft for SC Advisors, LLC, with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30:

(Motion with Findings on Page 11)

Staff Report Contents

Exhibits Contents

Special Use Permit

The purpose of a special use permit is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. If the Board of Adjustment grants an approval of the special use permit, that approval is subject to conditions of approval. Conditions of approval are requirements that need to be completed during different stages of the proposed project. Those stages are typically:

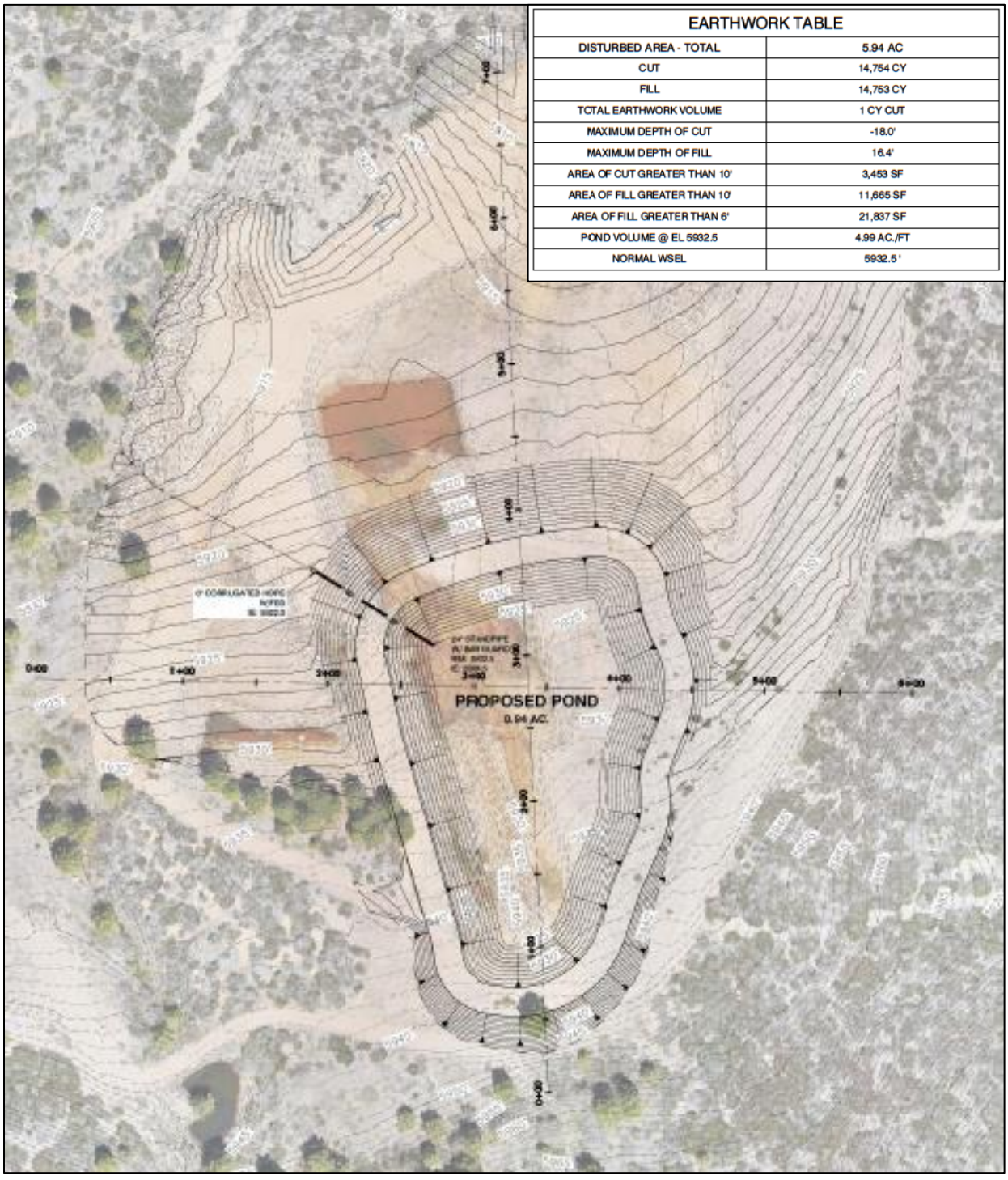
- Prior to permit issuance (i.e. a grading permit, a building permit, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure
- Prior to the issuance of a business license or other permits/licenses
- Some conditions of approval are referred to as "operational conditions." These conditions must be continually complied with for the life of the business or project.

The conditions of approval for Special Use Permit Case Number WSUP24-0015 are attached to this staff report and will be included with the action order.

The applicant has met the thresholds for major grading as outlined under Article 438, Grading. Therefore, the applicant is seeking approval of a major grading special use permit from the Board of Adjustment.

Additionally, Article 810, Special Use Permits, allows the Board of Adjustment to vary development code standards in conjunction with the approval process per WCC 110.810.20(e). The Board of Adjustment will be ruling on the request(s) to vary standards below:

Variance(s) Requested	Relevant Code
Change in grade greater than 10ft	110.438.45(c)


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' 3,453 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 '
PROPOSED POND
0.94 AC.

Site Plan

Project Evaluation

This application is a request for a special use permit to rectify past illegal grading on a portion of the subject parcel to construct a 1-acre pond and to remedy an open code enforcement violation for illegal grading. The major grading request is for up to 6-acres of land disturbance, 14,754 cy of cut & 14,753 cy of fill, to create a dam structure to build a pond and rectify illegal grading. The application states "*the pond is proposed to be private but would also 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 subject parcel is 346.48-acres and located at 0 Bryan Canyon Road (APN 055-301-38). The parcel has a regulatory zone of General Rural (GR) and is mostly undeveloped with some dirt/gravel access roads, a partially graded pond (subject request) and well(s).

The application is in response to a prior code enforcement case, WVIO-ENG20-0015, for illegal grading, ground disturbance and excavation for a private pond exceeding the thresholds established in Article 438. The property owner is intending to remedy the prior work that was completed without a permit. The filing of this special use permit application shows the applicant's due diligence in completing the work in compliance with the Development Code and enforcement action has ceased pending the outcome of the Board of Adjustment hearing.

The proposed grading for the pond 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 area necessary for grading restoration. The grading plan utilizes on-site soil and does not depend on the import of additional soil material.

The maximum depth of the pond is 8-ft and impounds 4.99 acre-feet of water at the maximum water elevation. There are two existing wells on the property immediately adjacent to the proposed pond location. The owner has identified appurtenant water rights that they propose to utilize for this pond. Water right change applications must be approved by the Nevada Division of Water Resources for these water rights to be usable for this pond.

Due to the location of the pond behind the hill, the proposed grading will have no impact on viewsheds from Washoe Valley, as demonstrated in the images below:

Looking south from Franktown Road

Looking south from south bound I-580

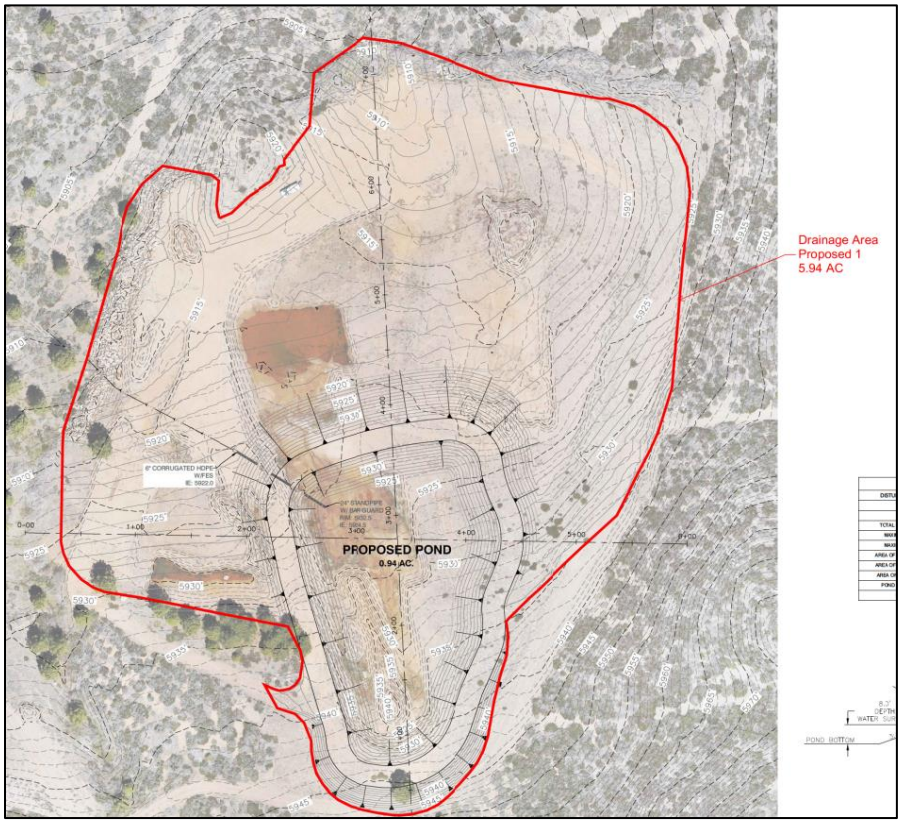
Background

As previously indicated, the subject application is in response to a code enforcement violation from 2020 for illegal grading (WVIO-ENG20-0015). The applicant subsequently submitted WSUP21-0024 to resolve the illegal grading. At the October 7, 2021, Board of Adjustment public hearing the requested special use permit was denied. In March of 2023, Code Enforcement staff issued an Administrative Penalty Notice "First Notice" siting there has been no attempt to rectify the grading of the pond and that corrective action needed to be taken to avoid further enforcement. The applicant has modified their SUP request by reducing the size of the pond and dam from the previous submittal, which had proposed 9.6 acres of land disturbance, 29,062 cy of cut, and 29,003 cy of fill.

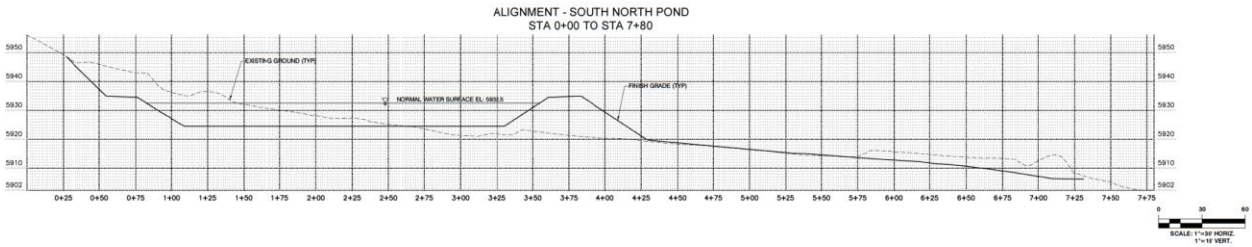
Code Enforcement Photos

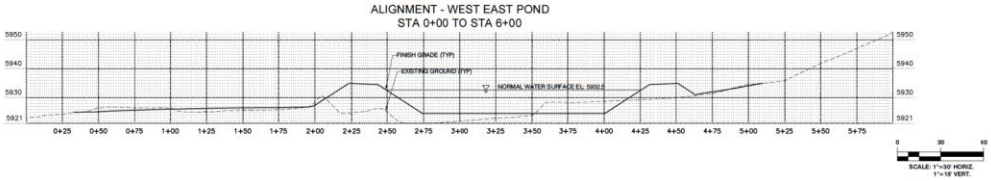
Article 438 – Grading

The applicant is proposing up to 6 acres of ground disturbance with cuts up to 16-ft and fill up to 16.4-ft to even out the pond bed and adequately contain the water, see the below two images for representation. It is staff's opinion that the request to vary standards are necessary for the dam structure to function properly and conditions are provided regarding the varying of this standard specific to the construction of the pond.

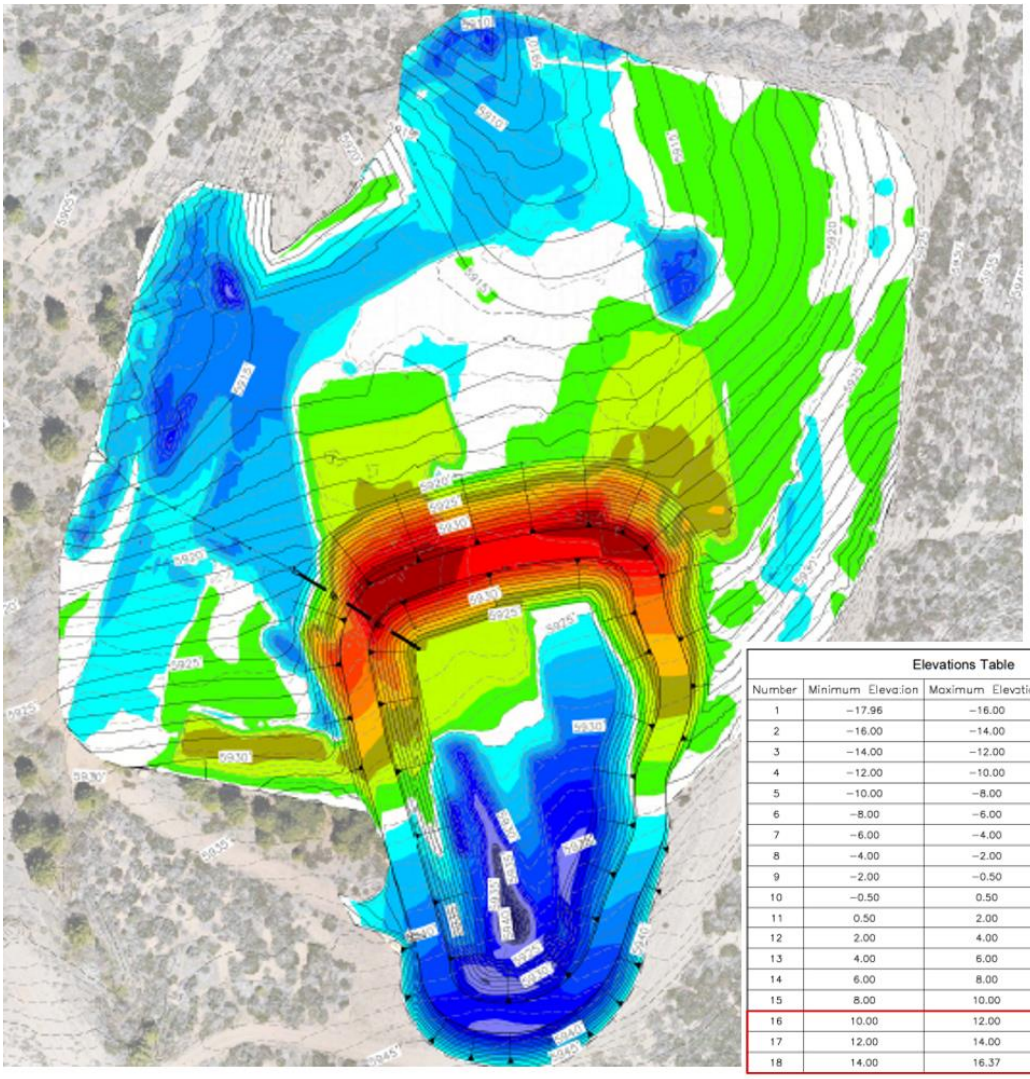


Area of Disturbance





Cross Sections



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	

Cut/Fill Analysis Map

Master Plan Evaluation

The proposed grading is consistent with the Envision Washoe 2040 (EW2040) Master Plan South Valleys Vision Statement as described in Table 1.

Table 1: Master Plan Conformance

Vision Statement	Explanation of Conformance with Vision Statement
"...To protect the rural, agricultural, historic character, and visual quality of the area, commercial development should be limited to the existing commercial areas and uses which support the local community."	The proposed grading will remedy past illegal grading. Appropriate conditions of approval are required to mitigate any potential adverse impacts associated with the grading.

The proposed grading aligns with applicable EW2040 Priority Principles & Policies as described in Table 2.

Table 2: Master Plan Element Conformance Priority Principles & Policies

Master Plan Element	Priority Principles & Policies	Explanation of Conformance with Priority Principles & Policies
NCR Principle 1. Maintain scenic resources within the County.		
	NCR 1.1 – Collaborate with all planning partners to identify and protect the region's significant visual gateways and viewsheds including ridge lines, buttes, mountains, and riparian corridors.	As illustrated in the photo simulations above, the proposed grading for a private pond will not be visible from any public viewsheds.
NCR Principle 4. Protect and improve water resources.		
	NCR 4.2 - Buffer water bodies, seeps, springs, playas, wetlands, and riparian areas from development.	There is no existing or proposed development associated with the requested grading.

Reviewing Agencies

The following agencies/individuals received a copy of the project application for review and evaluation.

Agencies	Sent to Review	Responded	Provided Conditions	Contact
Army Corps of Engineers	X			
BLM - US Fish & Wildlife	X			
Environmental Protection	X			
NDF - Endangered Species	X			
NDOW (Wildlife)	X			
NV Water Resources	X	X	X	Steve Shell, sshell@water.nv.gov
Washoe County Building & Safety	X	X		
Washoe County Parks & Open Space	X			
Washoe County Sewer	X			
Washoe County Traffic	X			
Washoe County Water Resource Planning	X			
Washoe County Water Rights Manager (All Apps)	X	X	X	Timber Weiss, tweiss@washoecounty.gov
Washoe County Engineering (Land Development) (All Apps)	X	X	X	Rob Wimer, rwimer@washoecounty.gov; Janelle Thomas, jkthomas@washoecounty.gov
Washoe County Engineering & Capital Projects Director (All Apps)	X			
NNPH Air Quality	X			
NNPH Environmental Health	X	X	X	Kristen deBraga, kdebraga@washoecounty.gov
TMFPD	X	X		
Nevada State Historic Preservation	X			

All conditions required by the contacted agencies can be found in Exhibit A, Conditions of Approval.

Staff Comment on Required Findings

WCC Section 110.810.30, Article 810, *Special Use Permits*, requires that all of the following findings be made to the satisfaction of the Washoe County Board of Adjustment before granting approval of the request. Staff has completed an analysis of the special use permit application and has determined that the proposal is in compliance with the required findings as follows.

(a) Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the South Valleys Planning Area.

Staff Comment: The proposed use of major grading is consistent with the action programs, policies, standards, and maps of the Master Plan with the conditions recommended in Exhibit A.

(b) Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.

Staff Comment: There are no required utilities, roadway improvements, or sanitation improvements required. Engineering staff have required a detailed drainage study as part of the conditions of approval outlined in Exhibit A. The applicant has identified appurtenant water rights they intend to utilize for this pond. Water right change applications must be approved by the Nevada Division of Water Resources for these water rights to be usable for this pond.

(c) Site Suitability. That the site is physically suitable for major grading and for the intensity of such a development.

Staff Comment: The site is physically suitable for major grading. Specifically, the grading is located in areas considered most suitable for development in the South Valleys Area Plan map.

(d) Issuance Not Detrimental. That 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.

Staff Comment: The site is vacant, and the proposed grading shall have a minimal overall impact to the surrounding parcels. Conditions of approval have been included to mitigate any negative potential impacts and there will not be any significant 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.

(e) 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.

Staff Comment: The proposed grading will have no effect on a military installation.

Recommendation

After a thorough analysis and review, Special Use Permit Case Number WSUP24-0015 is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

Motion

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP24-0015 for Applicant Name, with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30:

(a) Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the South Valleys Planning Area;

(b) Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;

(c) Site Suitability. That the site is physically suitable for major grading and for the intensity of such a development;

(d) Issuance Not Detrimental. That 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;

(e) 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.

Appeal Process

Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days from the date the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant.

Property Owner:	SC Advisors, LLC PO Box 3390 Stateline, CA 89449
Representatives:	Resource Concepts, Inc. greg@rci.com

Conditions of Approval

Special Use Permit Case Number WSUP24-0015

The project approved under Special Use Permit Case Number WSUP24-0015 shall be carried out in accordance with the conditions of approval granted by the Board of Adjustment on December 5, 2024. Conditions of approval are requirements placed on a permit or development by each reviewing agency. These conditions of approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act.

Unless otherwise specified, all conditions related to the approval of this special use permit shall be met or financial assurance must be provided to satisfy the conditions of approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Planning and Building Division.

Compliance with the conditions of approval related to this special use permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of the special use permit may result in the institution of revocation procedures.

Washoe County reserves the right to review and revise the conditions of approval related to this Special Use Permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

Conditions of approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy.
- Prior to the issuance of a business license or other permits/licenses.
- Some “ conditions of approval” are referred to as “operational conditions.” These conditions must be continually complied with for the life of the project or business.

The Washoe County Commission oversees many of the reviewing agencies/departments with the exception of the following agencies.

- **The DISTRICT BOARD OF HEALTH, through Northern Nevada Public Health (NNPH), has jurisdiction over public health matters. Any conditions set by NNPH must be appealed to the District Board of Health.**

1001 E. Ninth St., Reno, NV 89512-2845
Telephone: 775.328.6100 – Fax: 775.328.6133
www.washoecounty.gov/csd/planning_and_development

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

Washoe County Planning and Building Division

1. The following conditions are requirements of Planning and Building, which shall be responsible for determining compliance with these conditions.

   Contact Name – Courtney Weiche, Senior Planner, 775.328.3208, cweiche@washoecounty.gov

   a. The applicant shall attach a copy of the action order approving this project to all permits and applications (including building permits) applied for as part of this special use permit.

   b. The applicant shall include a condition response memorandum with each subsequent permit application. That memorandum shall list each condition of approval, shall provide a narrative describing how each condition has been complied with, and the location of the information showing compliance with each condition within the improvement plan set that has been submitted.

   c. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit.

   d. The applicant shall submit construction plans, with all information necessary for comprehensive review by Washoe County, and initial building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits.

   e. A note shall be placed on all construction drawings and grading plans stating:

      NOTE

      Should any cairn or grave of a Native American be discovered during site development, work shall temporarily be halted at the specific site and the Sheriff's Office as well as the State Historic Preservation Office of the Department of Conservation and Natural Resources shall be immediately notified per NRS 383.170.

   f. Construction hours are 7am to 7pm Monday through Saturday. Any construction machinery activity or any noise associated with the construction activity are also limited to these hours.

   g. Finish grading may vary from the natural slope by more than ten (10) feet in elevation as part of the dam and pond construction. All other areas are required to meet the provisions outlined in WCC 110.438.45.

   h. Applicant shall provide a plan for control of noxious weeds as part of the final grading plans and building permit application submittal.

   i. The following **Operational Conditions** shall be required for the life of the business:

      i. Failure to comply with any of the conditions of approval shall render this approval out of conformance and subject to revocation.

      ii. The applicant and any successors shall direct any potential purchaser/operator of the site and/or the administrative permit to meet with Planning and Building to review conditions of approval prior to the final sale of the site and/or the administrative

permit. Any subsequent purchaser/operator of the site and/or the administrative permit shall notify Planning and Building of the name, address, telephone number, and contact person of the new purchaser/operator within 30 days of the final sale.

Washoe County Engineering and Capital Projects

2. The following conditions are requirements of the Engineering Division, which shall be responsible for determining compliance with these conditions.

   Contact Name – Robert Wimer, P.E. (775) 328-2059

   a. Applicant shall indicate on the plans the specific location/business exported materials will be taken and a grading permit shall be obtained for the import site.

   b. Exported materials shall not be sold without the proper business license.

   c. The applicant shall include a condition response memorandum with each subsequent permit application. That memorandum shall list each condition of approval, shall provide a narrative describing how each condition has been complied with, and the location of the information showing compliance with each condition within the improvement plan set that has been submitted.

   d. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed to be conveyed onto adjacent property.

   e. Operations and Maintenance (O&M) Manual: The developer shall submit an O&M manual for use by the property owner that identifies ongoing and long-term maintenance of infrastructure items including, but not necessarily limited to, private roadways, graded slopes, private storm drainage infrastructure, landscaping, retaining walls, rockery walls, and the irrigation pond for review and approval by the County Engineer prior to the approval of any grading or building permit for this project. The O&M manual shall address inspection frequency, storm intensity triggers for inspection and/or repair, types of equipment to be used for the operation and maintenance of the improvements, and a site plan that graphically depicts the access points and features that will be owned and maintained by the property owner.

   f. Prior to Grading Permit approval, provide a Dam Permit from the Nevada Division of Water Resources, or written acknowledgement that no permit is required.

   DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)

   Contact Information: Robert Wimer, P.E. (775) 328-2059

   g. A detailed hydrology/hydraulic report, in conformance with the standards included in the Truckee Meadows Regional Drainage Manual, prepared by a professional engineer licensed in the State of Nevada shall be submitted to the Engineering Division for review and approval. The report shall include the locations, points of entry and discharge, flow rates, and flood limits of all 5- and 100-year storm flows impacting onsite and offsite areas and the methods for handling those flows. The report shall include all storm drain pipe and ditch sizing calculations, including a discussion of and mitigation measure design for any

impacts on existing offsite drainage facilities and properties. Additionally, any increase in storm water runoff resulting from the development and based upon the 5- and 100-year storms shall be detained on site and attenuated to existing flow rates for discharge to the satisfaction of the County Engineer.

h. Standard reinforced concrete headwalls or other approved alternatives shall be placed on the inlet and outlet of all drainage structures and rip rap shall be used to prevent erosion at the inlets and outlets of all pipe culverts to the satisfaction of the County Engineer.

i. The following note shall be added to the construction drawings; "All properties, regardless of if they are located within or outside of a FEMA designated flood zone, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties."

DAM SAFETY (NRS 535)

Contact Information: Timber Weiss, P.E. (775) 954-4626

j. Prior to the issuance of the first building permit, the Owner shall provide an Emergency Action Plan for this dam, in compliance with FEMA Publication No. P-64 guidelines, including implementation of FEMA Homeland Security Exercise and Evaluation Program (HSEEP) standards. The Owner shall have a Professional Engineer determine the hazard classification, dependent on potential downstream impacts, to the satisfaction of the County Engineer. The Emergency Action Plan shall include an authorization hierarchy contact list, notification plan, inundation mapping, and any other required components to the satisfaction of the County Engineer. This plan shall be updated annually starting with the approval date of the building permit for this dam.

k. Prior to final inspection of the first building permit, the Owner shall establish an inspection program for this dam, whereby a licensed engineer shall inspect this dam at a time interval corresponding to the hazard rating of this dam, to the satisfaction of the county engineer. The licensed engineer conducting the inspection shall submit an inspection report to Washoe County within ten days from the date of inspection. Any deficiencies shall be remedied by the Owner of this dam within 60 days from the date of inspection and provide an analysis by a licensed engineer to confirm the deficiencies have been remedied. The Owner shall be responsible for adherence to the annual inspection requirement for the lifespan of the dam.

l. Prior to issuance of the first building permit, the Engineering permit reviewer shall attach the following condition on the parcel: "If the Owner ceases to comply with the annual inspection requirement in excess of 6 months, Washoe County will contract the inspection completion and assign those costs for reimbursement to the County to the Owner's property through a lien on the property on the following tax year."

m. Prior to the issuance of the first building permit, the Owner shall provide an access easement to Washoe County to authorize its staff and consultants access to the dam, pond, well, water diversion system, inlet and outlet infrastructure, and any other areas related to the operation and stability of the dam.

n. Prior to issuance of the first building permit, the Owner shall provide a hold harmless agreement to Washoe County, removing any liability held by Washoe County should any damages to any property or individual be caused by any failure of this dam.

o. Prior to the issuance of the first building permit, the Owner shall provide a breach analysis to Washoe County, completed by a licensed engineer with experience in the design and

construction of dams and with dam breach analyses. The Owner shall address vulnerabilities identified in the breach analysis and incorporate recommended mitigation measures in the design to reduce the likelihood of dam breach or failure.

p. Prior to the issuance of the first building permit, the Owner shall provide a dam decommission plan to the satisfaction of the County Engineer.

q. Prior to issuance of the first building permit, the Engineering permit reviewer shall attach the following condition on the parcel: "If the owner fails to comply with the required inspection requirement for three consecutive inspection intervals, Washoe County shall contract the decommission of the dam per the approved decommission plan. Washoe County will assign those costs for reimbursement to the County to the Owner's property through a lien on the property on the following tax year."

r. In lieu of a State of Nevada Dam Safety review, all pertinent plans, reports, and analyses shall be peer-reviewed by a licensed engineer who has experience in dam design. With the submittal of the building permit application, the Owner shall provide the findings analysis completed by said licensed engineer.

s. Prior to the issuance of the first building permit, the Owner shall provide a geotechnical analysis report completed by a licensed engineer who has experience in dam design. The report shall include comprehensive stability and seepage analyses and shall include design to ensure stability with pond bottom, sides, and dam structure.

t. Prior to the issuance of the first building permit, the Owner shall provide a seismologic analysis completed by a licensed engineer to verify the suitability of the site for dam construction.

u. Prior to the issuance of the first building permit, the Owner shall provide a hydrologic analysis report that considers all drainage areas upstream of the dam that will contribute runoff flows into the pond. The dam shall be designed to adequately receive runoff from any adjacent area to the satisfaction of the County Engineer.

v. Prior to the issuance of the first building permit, the Owner shall provide a financial assurance in the amount determined by the County Engineer to support the construction, maintenance, and operation of this dam facility.

w. With submittal of the first building permit, the Owner shall provide plans which include the following revisions:

   1. Incorporate an emergency spillway in the dam or a low-level outlet to drain the pond in case of an emergency.
   2. Incorporate an engineered liner into the pond bottom and sides. Provide cross-section drawings to show liner features and widths for construction.
   3. Incorporate slope stabilization design features for the outlet of the pond.
   4. Determine adequate freeboard for the dam to account for wave runup, earthquake loads, or for settlement of the embankment. Provide supporting engineering analysis to determine adequate freeboard.
   5. Show fire protection for the HDPE outlet pipe so that the outlet does not burn, or become inoperable in case of a wildfire.
   6. Verify corrugated HDPE pipe roughness used in flow calculations, and account for fittings, trash rack, etc.
   7. Show the pipeline from the well to the pond on the site plan.

8. Float switches hard-wired to the pump controls and other safety redundancies shall be designed to prevent overtopping and failure caused by clogged piping.
9. Provide a reliable and permanent power source for the well system and dam facility. Appropriate utility and power permits are to be identified on the plan.

WATER RIGHTS (County Code 422)

Contact Information: Timber Weiss, P.E. (775) 954-4626

x. The application identifies water right Permits 77786 and 77787 to be utilized to provide water for this pond. These permits both identify their manners of use as Irrigation and Domestic. The proposed works under those permits include "Drilled well, pump and motor, irrigation lines, and sprinklers." The Proofs of Completion of Work for both permits were filed on August 17, 2010, which confirm the described distribution system, including a 2,500-gallon underground tank, reservoir, and sprinkler system were constructed at that time. The special use permit application specifies water rights will be used for wildlife purposes, by means of a pond.

y. Prior to the issuance of the first building permit, the owner shall provide approved water right permits for the proposed manner of use.

z. If water under Permit 74350 is to be used for this pond, a diversion structure on Bryan Creek and a method of conveyance shall be shown on the site plan.

Nevada Division of Water Resources

3. The following condition is a requirement of Nevada Division of Water Resources, which shall be responsible for determining compliance with this condition.

   Contact Name – Steve Shell, Water Rights Specialist II, 775.684.2836, sshell@waternv.gov

   a. A change of place and of manner of use will be required before the water can be impounded for storage use.

Northern Nevada Public Health (NNPH), Environmental Health Division (EHS)

4. The following conditions are requirements of Northern Nevada Public Health (NNPH), Environmental Health Division (EHS), which shall be responsible for determining compliance with these conditions.

   Contact Name – James English, REHS, CP-FS, EHS Supervisor, 775.900.7239, jenglish@washoecounty.gov

   a. If the application is approved, the developed wells shall be protected during construction activities to prevent damage.

Washoe County Regional Parks and Open Space

5. The following condition is a requirement of Regional Parks and Open Space, which shall be responsible for determining compliance with this condition.

   Contact Name – Faye-Marie Pekar, Park Planner, 775.328.3623, FPekar@washoecounty.gov

   a. Any earthen materials imported to the site shall be "certified weed free" to prevent the spread of noxious and invasive weeds.

   b. The project shall comply with Washoe County Code Section 110.412.67, Revegetation.

c. Prior to the issuance of building or grading permits, the applicant shall submit a revegetation/planting plan, prepared by a biologist or other qualified professional to the Parks Program for review and approval. At a minimum, the plan will include: the selection of native/perennial adapted plants or seed mixes to be utilized on the undeveloped, disturbed areas of the subject site; revegetation success criteria; appropriate monitoring provisions; and measures to prevent the spread of noxious and invasive weeds.

d. All undeveloped areas disturbed as a result of project activities shall be revegetated utilizing a native seed mix as reviewed and approved by the Washoe Storey Conservation District and/or Washoe County Regional Parks and Open Space.

*** End of Conditions ***

Date: November 5, 2024

To: Courtney Weiche, Senior Planner

From: Janelle K. Thomas, P.E., C.F.M., Senior Licensed Engineer
Robert Wimer, P.E., Licensed Engineer

Re: Special Use Permit for ***Bryan Canyon Road Pond and Restoration WSUP24-0015***
APN 055-301-38

GENERAL PROJECT DISCUSSION

Washoe County Engineering staff have reviewed the above referenced application. The Special Use Permit is for the construction of a pond and restoration grading and is located on approximately 346.48 acres at the end of Bryan Canyon Road. The Engineering and Capital Projects Division recommends approval with the following comments and conditions of approval which supplement the applicable County Code and are based upon our review of the site and the application prepared by Resource Concepts Inc. The County Engineer shall determine compliance with the following conditions of approval.

For questions related to sections below, please contact the staff's name referenced.

GENERAL CONDITIONS
Contact Information: Robert Wimer, P.E. (775) 328-2059

Discussion:

1. Applicant shall indicate on the plans the specific location/business exported materials will be taken and a grading permit shall be obtained for the import site.
2. Exported materials shall not be sold without the proper business license.

Conditions:

1. The applicant shall include a condition response memorandum with each subsequent permit application. That memorandum shall list each condition of approval, shall provide a narrative describing how each condition has been complied with, and the location of the information showing compliance with each condition within the improvement plan set that has been submitted.
2. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed to be conveyed onto adjacent property.

3. Operations and Maintenance (O&M) Manual: The developer shall submit an O&M manual for use by the property owner that identifies ongoing and long-term maintenance of infrastructure items including, but not necessarily limited to, private roadways, graded slopes, private storm drainage infrastructure, landscaping, retaining walls, rockery walls, and the irrigation pond for review and approval by the County Engineer prior to the approval of any grading or building permit for this project. The O&M manual shall address inspection frequency, storm intensity triggers for inspection and/or repair, types of equipment to be used for the operation and maintenance of the improvements, and a site plan that graphically depicts the access points and features that will be owned and maintained by the property owner.
4. Washoe County staff shall be present on the project site through the duration of the construction of the dam and pond infrastructure.

DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)
Contact Information: Robert Wimer, P.E. (775) 328-2059

Conditions:

1. A detailed hydrology/hydraulic report, in conformance with the standards included in the Truckee Meadows Regional Drainage Manual, prepared by a professional engineer licensed in the State of Nevada shall be submitted to the Engineering Division for review and approval. The report shall include the locations, points of entry and discharge, flow rates, and flood limits of all 5- and 100-year storm flows impacting onsite and offsite areas and the methods for handling those flows. The report shall include all storm drain pipe and ditch sizing calculations, including a discussion of and mitigation measure design for any impacts on existing offsite drainage facilities and properties. Additionally, any increase in storm water runoff resulting from the development and based upon the 5- and 100-year storms shall be detained on site and attenuated to existing flow rates for discharge to the satisfaction of the County Engineer.
2. Standard reinforced concrete headwalls or other approved alternatives shall be placed on the inlet and outlet of all drainage structures and rip rap shall be used to prevent erosion at the inlets and outlets of all pipe culverts to the satisfaction of the County Engineer.
3. The following note shall be added to the construction drawings; “All properties, regardless of if they are located within or outside of a FEMA designated flood zone, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties.”

TRAFFIC AND ROADWAY (COUNTY CODE 110.436)
Contact Information: Mitchell Fink, P.E. (775) 328-2050

Conditions: No Traffic Conditions.

UTILITIES (County Code 422 & Sewer Ordinance)
Contact Information: Katrina Pascual, P.E. (775) 954-4648

Conditions: No Utilities Conditions.

DAM SAFETY (NRS 535)
Contact Information: Timber Weiss, P.E. (775) 954-4626

Discussion:

1. Washoe County Engineering has reviewed this application and supports its approval only under the following conditions. The following requirements shall be met by the Owner. Failure to comply with these conditions will result in disciplinary action authorized to Washoe County Code Enforcement.

Conditions:

1. Prior to the issuance of the first building permit, the Owner shall provide an Emergency Action Plan for this dam, in compliance with FEMA Publication No. P-64 guidelines, including implementation of FEMA Homeland Security Exercise and Evaluation Program (HSEEP) standards. The Owner shall have a Professional Engineer determine the hazard classification, dependent on potential downstream impacts, to the satisfaction of the County Engineer. The Emergency Action Plan shall include an authorization hierarchy contact list, notification plan, inundation mapping, and any other required components to the satisfaction of the County Engineer. This plan shall be updated annually starting with the approval date of the building permit for this dam.
2. Prior to final inspection of the first building permit, the Owner shall establish an inspection program for this dam, whereby a licensed engineer shall inspect this dam at a time interval corresponding to the hazard rating of this dam, to the satisfaction of the county engineer. The licensed engineer conducting the inspection shall submit an inspection report to Washoe County within ten days from the date of inspection. Any deficiencies shall be remedied by the Owner of this dam within 60 days from the date of inspection and provide an analysis by a licensed engineer to confirm the deficiencies have been remedied. The Owner shall be responsible for adherence to the annual inspection requirement for the lifespan of the dam.
3. Prior to issuance of the first building permit, the Engineering permit reviewer shall attach the following condition on the parcel: “If the Owner ceases to comply with the annual inspection requirement in excess of 6 months, Washoe County will contract the inspection completion and assign those costs for reimbursement to the County to the Owner’s property through a lien on the property on the following tax year.”
4. Prior to the issuance of the first building permit, the Owner shall provide an access easement to Washoe County to authorize its staff and consultants access to the dam, pond, well, water diversion system, inlet and outlet infrastructure, and any other areas related to the operation and stability of the dam.
5. Prior to issuance of the first building permit, the Owner shall provide a hold harmless agreement to Washoe County, removing any liability held by Washoe County should any damages to any property or individual be caused by any failure of this dam.
6. Prior to the issuance of the first building permit, the Owner shall provide a breach analysis to Washoe County, completed by a licensed engineer with experience in the design and construction of dams and with dam breach analyses. The Owner shall address vulnerabilities identified in the breach analysis and incorporate recommended mitigation measures in the design to reduce the likelihood of dam breach or failure.
7. Prior to the issuance of the first building permit, the Owner shall provide a dam decommission plan to the satisfaction of the County Engineer.
8. Prior to issuance of the first building permit, the Engineering permit reviewer shall attach the following condition on the parcel: “If the owner fails to comply with the required

inspection requirement for three consecutive inspection intervals, Washoe County shall contract the decommission of the dam per the approved decommission plan. Washoe County will assign those costs for reimbursement to the County to the Owner's property through a lien on the property on the following tax year."

9. In lieu of a State of Nevada Dam Safety review, all pertinent plans, reports, and analyses shall be peer-reviewed by a licensed engineer who has experience in dam design. With the submittal of the building permit application, the Owner shall provide the findings analysis completed by said licensed engineer.
10. Prior to the issuance of the first building permit, the Owner shall provide a geotechnical analysis report completed by a licensed engineer who has experience in dam design. The report shall include comprehensive stability and seepage analyses and shall include design to ensure stability with pond bottom, sides, and dam structure.
11. Prior to the issuance of the first building permit, the Owner shall provide a seismologic analysis completed by a licensed engineer to verify the suitability of the site for dam construction.
12. Prior to the issuance of the first building permit, the Owner shall provide a hydrologic analysis report that considers all drainage areas upstream of the dam that will contribute runoff flows into the pond. The dam shall be designed to adequately receive runoff from any adjacent area to the satisfaction of the County Engineer.
13. Prior to the issuance of the first building permit, the Owner shall provide a financial assurance in the amount determined by the County Engineer to support the construction, maintenance, and operation of this dam facility.
14. With submittal of the first building permit, the Owner shall provide plans which include the following revisions:
    a. Incorporate an emergency spillway in the dam or a low-level outlet to drain the pond in case of an emergency.
    b. Incorporate an engineered liner into the pond bottom and sides. Provide cross-section drawings to show liner features and widths for construction.
    c. Incorporate slope stabilization design features for the outlet of the pond.
    d. Determine adequate freeboard for the dam to account for wave runup, earthquake loads, or for settlement of the embankment. Provide supporting engineering analysis to determine adequate freeboard.
    e. Show fire protection for the HDPE outlet pipe so that the outlet does not burn, or become inoperable in case of a wildfire.
    f. Verify corrugated HDPE pipe roughness used in flow calculations, and account for fittings, trash rack, etc.
    g. Show the pipeline from the well to the pond on the site plan.
    h. Float switches hard-wired to the pump controls and other safety redundancies shall be designed to prevent overtopping and failure caused by clogged piping.
    i. Provide a reliable and permanent power source for the well system and dam facility. Appropriate utility and power permits are to be identified on the plan.

WATER RIGHTS (County Code 422)
Contact Information: Timber Weiss, P.E. (775) 954-4626

Discussion:

1. The application identifies water right Permits 77786 and 77787 to be utilized to provide water for this pond. These permits both identify their manners of use as Irrigation and Domestic. The proposed works under those permits include "Drilled well, pump and

motor, irrigation lines, and sprinklers." The Proofs of Completion of Work for both permits were filed on August 17, 2010, which confirm the described distribution system, including a 2,500-gallon underground tank, reservoir, and sprinkler system were constructed at that time. The Special Use Permit Application specifies water rights will be used for wildlife purposes, by means of a pond.

2. The current plan does not show a system in place to divert water from Bryan Creek to the pond.

Conditions:

1. Prior to the issuance of the first building permit, the owner shall provide approved water right permits for the proposed manner of use.
2. If water under Permit 74350 is to be used for this pond, a diversion structure on Bryan Creek and a method of conveyance shall be shown on the site plan.

From: Steve Shell
To: Weiche, Courtney
Subject: WSUP24-0015
Date: Thursday, November 14, 2024 1:53:38 PM
Attachments: image001.png
image002.png
image003.png
image006.png
image008.png

The application indicates the need for approximately 5.0 acre-feet of water for this project.
There are three water rights appurtenant to the subject property.
74350, Surface Water, 32.0 AFA, for Decreed Purposes (Irrigation).
77786, Underground Water, 12.95 AFA, for Irrigation purposes.
77787, Underground Water, 12.74 AFA for irrigation purposes.

A change of place and of manner of use will be required before the water can be impounded for storage use.

Please address all correspondence for Subdivisions to NDWR-Subdivisions@water.nv.gov

Steve Shell
Water Rights Specialist II
Department of Conservation and Natural Resources
Nevada Division of Water Resources
901 S. Stewart St., Suite 2002
Carson City, NV 89701
sshell@water.nv.gov
(O) 775-684-2836 | (F) 775-684-2811

NORTHERN NEVADA Public Health | Environmental Health

November 4, 2024

Washoe County Community Services
Planning and Development Division

RE: Bryan Canyon Road Pond and Restoration; 055-301-38
Tentative Parcel Map; WSUP24-0015

Dear Washoe County Staff:

The following conditions are requirements of Northern Nevada Public Health (NNPH), Environmental Health Division, (EHS) which shall be responsible for determining compliance with these conditions.

Contact Name – James English - jenglish@washoecounty.us

1. Condition #1: EHS has reviewed the application as submitted and has no concerns with the approval of the application as submitted.
2. Condition #2: If the application is approved, be sure to protect the developed wells during construction activities from damage.

If you have any questions or would like clarification regarding the foregoing, please contact James English, EHS Supervisor at jenglish@washoecounty.us regarding all NNPH comments.

Sincerely,

James English, REHS, CP-FS
EHS Supervisor
Environmental Health Services
Northern Nevada Public Health

From: COOPER, CLIFFORD E
To: Weiche, Courtney
Subject: Special Use Permit Case Number WSUP24-0015 (Bryan Canyon Road Pond and Restoration)
Date: Thursday, October 17, 2024 8:11:33 AM

Courtney,
AT&T does not have any adverse comments regarding this project.

CLIFF COOPER
SR SPECIALIST-OSP DESIGN ENGINEER
AT&T NEVADA
1375 Capital Blvd rm 115
Reno, NV 89502
ROW Office: 775-453-7578
Cell: 775-200-6015
Email: cc2132@att.com
TEXTING and DRIVING...It Can Wait

From: Lustenberger, Fred
To: Weiche, Courtney
Subject: Application Review Case#WSUP24-0015
Date: Friday, October 18, 2024 12:19:30 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

Hello, Courtney,

Building Has no comments for the proposed project.

Best,
Fred

Fred Lustenberger, MPA, CBO
Building Official/Building Manager | Community Services Department
flustenberger@washoecounty.gov | Office: (775) 328-2035
1001 E. Ninth Street, Building A, Reno, NV 89512

From: Lemon, Brittany
To: Weiche, Courtney
Subject: WSUP24-0015 (Bryan Canyon Road Pond and Restoration)
Date: Wednesday, October 30, 2024 10:40:09 AM
Attachments: image001.png

Hi Courtney,

TMFPD has no specific comments for this project.

Thank you!

Brittany Lemon
Fire Captain - Fire Prevention | Truckee Meadows Fire & Rescue
blemon@tmfpd.us | Office: 775.326.6079 | Cell: 775.379.0584
3663 Barron Way, Reno, NV 89511

"Committed to excellence, service, and the protection of life and property in our community"

WASHOE COUNTY
COMMUNITY SERVICES DEPARTMENT
Regional Parks and Open Space

1001 EAST 9TH STREET
RENO, NEVADA 89520-0027
PHONE (775) 328-3600
FAX (775) 328.3699

TO: Courtney Weiche, Senior Planner

FROM: Faye-Marie Pekar, Park Planner

DATE: November 19, 2024

SUBJECT: Special Use Permit Case Number WSUP24-0015 (Bryan Canyon Road Pond and Restoration)

I have reviewed the application for case number WSUP24-0015 on behalf of the Washoe County Regional Parks and Open Space Program (Parks Program) and prepared the following comments:

If approved, this special use permit would allow for grading for the creation of a dam structure to build a 1 acre pond (approximately 8 feet deep) and to rectify illegal grading done in the past and restore pre-disturbed area that includes a vegetation restoration and a planting plan. Revegetation will be incorporated around the proposed pond as well as the restoration area. 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 proposal includes 5.94 acres of disturbance with ±14,754 cubic yards of cut, ±14,754 cubic yards of fill. No imported material is anticipated.

Given these considerations, the Parks Program requires the following conditions of approval:

1. Any earthen materials imported to the site shall be "certified weed free" to prevent the spread of noxious and invasive weeds.

2. The project shall comply with Washoe County Code Section 110.412.67, Revegetation.

3. Prior to the issuance of building or grading permits, the applicant shall submit a revegetation/planting plan, prepared by a biologist or other qualified professional to the Parks Program for review and approval. At a minimum, the plan will include: the selection of native/perennial adapted plants or seed mixes to be utilized on the undeveloped, disturbed areas of the subject site; revegetation success criteria; appropriate monitoring provisions; and measures to prevent the spread of noxious and invasive weeds.

4. All undeveloped areas disturbed as a result of project activities shall be revegetated utilizing a native seed mix as reviewed and approved by the Washoe Storey Conservation District and/or Washoe County Regional Parks and Open Space.

From:	Weiche, Courtney
To:	rvsls2020@gmail.com
Cc:	Weiss, Timber A.; Thomas, Janelle K.; Smith, Dwayne E.; Lloyd, Trevor; Giesinger, Chad; Code-Enforcement
Subject:	RE: WSUP24-0015
Date:	Tuesday, November 19, 2024 10:00:00 AM
Attachments:	image006.png image007.png image008.png image009.png image010.png

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Good Morning Rod,

Below are responses from Engineering and Planning staff to your questions shown in red. Thank you for your patience.

1. It appears this application is going in front of the Board of Adjustment and not the Planning Commission as a response to the B of A decision of October 7, 2021 (WSUP21-0024). Why then does this application appear to be a new application?

   This is a new application. The 2021 special use permit was heard and denied by the Board of Adjustment and therefore is not applicable. Here is a link to the October 7, 2021 Board of Adjustment Meeting Minutes/Action. This new application will also be heard by the Board of Adjustment as required by Code. The meeting is currently scheduled for December 5th and will be confirmed before the agenda is posted.

2. At the time of the previous application members of the neighborhood and I met with then Commissioner Lucey and Director Dwayne Smith to discuss the dam issue retaining water above our residences. They assured us that no dam would be built! Now it appears that the applicant is again suggesting reusing the dam, just not as big of a pond as was proposed in the previous application. At the time we met, the application was for a below grade pond with no dam.

   Washoe County Engineering has completed its review of the current request and has provided the appropriate conditions of approval that conform with Washoe County Code, Nevada Revised Statutes, and other relevant statutes, regulations, and policies. These required conditions are provided for both the applicant and the Board of Adjustment consideration when the application is heard at a regularly scheduled public meeting.

3. I have reviewed the WSUP21-0024 Conditions of Approval and find that none of the conditions have been met to date, such as:

   Those conditions associated with WSUP21-0024 were never applicable due to

the denial of the application at that time.

a. A grading bond of $2000/ acre prior to any grading. Please see the explanation above.
b. Disturbed areas left undeveloped for more than 30 days shall be treated with dust palliative. Please see the explanation above.
c. Disturbed areas left undeveloped for more than 35 days shall be revegetated. Please see the explanation above.
d. Prior to Grading permit approval, provide a Dam Permit. Please see the explanation above.
e. The list goes on: Why hasn't the County been proactive in following up with insuring these Conditions of Approval have been satisfied in a timely manner? Please see the explanation above.

We have also copied Code Enforcement in this email who addresses unpermitted construction activities within the County.

Courtney Weiche
Senior Planner, Planning & Building Division | Community Services Department
cweiche@washoecounty.gov | Direct Line: 775.328.3608
Have some kudos to share about a CSD employee or experience?
Submit a Nomination

From: stan haskell
To: Weiche, Courtney
Subject: WSUP24-0015
Date: Tuesday, November 5, 2024 10:31:26 AM

My name is Stan Haskell, I live at 7465 Bryan cyn rd in Washoe valley. Dams and levies burst all the time even with the best engineering. Has anyone stopped to ask the what if? If something should happens less than a mile up steam, the only thing holding 8 feet of water one acre deep is a 36 inch culvert to a 25 inch culvert which provides drainage for the Bryan cyn residence below. Dams don't have to over flow, they can break below too. I've been told he needs this pond to reserve his water rights that he purchased with the land and only has a so much time to do it. I don't think this is true so why is this pond necessary?

From: rvsls2020@gmail.com
To: Weiche, Courtney; Smith, Dwayne E.; Clark, Michael
Cc: "Stan Haskell"; "Laurie Carey 2"; Claudia Rosa
Subject: RE: WSUP24-0015
Date: Wednesday, November 6, 2024 9:29:28 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

Courtney. I have talked with Chad Giesinger and he was very helpful in explaining the county's process for approving Board of Adjustment conditions of approval. In rereading the Board of Adjustment minutes of October7, 2021, I found that the Board was very specific in regards as to their approval denial of SWUP21-015. Specifically the denial states, "The board of adjustment deny the Special Use Permit Case Number WSUP21, not having made all five findings in accordance with Washoe County Code Section 110.810.30, specifically findings #3and #4." I looked up the specific code and read the code information which specifically states, "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:"

County Code Section 110.810.30 states:

#3- Site Suitability. That the site is physically suitable for the major grading and for the intensity of such a development.

#4- issuance Not Detrimental. That 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.

I have reread the information attached to application WSUP24-0015 and find these two issues are again addressed in the Special Use Application- Supplemental Information items 4,5,6. I do not believe the responses shown in these three questions are any different or adequate to address the potential issues dealing with an unapproved dam above our properties and the potential for a dam overflow or failure. A major storm a few years ago washed out the lower part of the drainage and creek used by the proposed dam and required major road work by the applicant. Another major storm concurrent with a dam overflow or break could cause even more extensive stream and property damage to downstream residents. I look at this application as a redo of the previous application without any consideration for correcting the items that caused the first application to fail. This project reminds me of the old definition of "insanity- doing the same thing over and over expecting to get a different answer." In addition, our neighborhood had been assured by Commissioner Lucey and Director Smith that no dam would be built in the valley above our residences.

Why are the County and applicant spending time and money when it appears the application as written should again be denied?

Please add this letter to my previous letter as a neighbor response to be read at the public hearing.

In reviewing this application and the one before it, I find that there was no public meeting advertised for this application as there was for the previous application. Has the County changed it's policy or did I miss it? Is your message below in lieu of your proposed Zoom meeting? If so, please give me information as to who to talk to in the State water department,

Rod Smith

From: Weiche, Courtney <CWeiche@washoecounty.gov>
Sent: November 6, 2024 12:46 PM
To: rvsls2020@gmail.com
Subject: RE: WSUP24-0015

Hello Rod,

I wanted to let you know Engineering will be responding to your email of questions below in writing shortly.

Courtney Weiche
Senior Planner, Planning & Building Division | Community Services Department
cweiche@washoecounty.gov | Direct Line: 775.328.3608
Have some kudos to share about a CSD employee or experience?
Submit a Nomination

From: rvsls2020@gmail.com <rvsls2020@gmail.com>
Sent: Friday, November 1, 2024 5:06 PM
To: Weiche, Courtney <CWeiche@washoecounty.gov>
Subject: RE: WSUP24-0015

Thanks Courtney for your reply. I have a commitment on Monday morning. Early afternoon would be best for me, say 1pm? I will be available all afternoon if 1pm does not work for you.
Rod

From: Weiche, Courtney <CWeiche@washoecounty.gov>
Sent: November 1, 2024 4:55 PM
To: ROD SMITH <rvsls2020@gmail.com>
Cc: Smith, Dwayne E. <DESmith@washoecounty.gov>; Clark, Michael <MEClark@washoecounty.gov>; John & Laurie Carey <laurie.a.s.c@icloud.com>; Karen & Brian <zapkgbg@gmail.com>; Lloyd, Trevor <TLloyd@washoecounty.gov>
Subject: RE: WSUP24-0015

Hello Rod,

I apologize I was unable to call today, I was planner on duty today and am just finishing the day and have an appointment I can not miss at 5. I do want to let you know I met with planning and engineering this morning to review the case for WSUP24-0015 and your questions presented below. I am still investigating answers to each but would like to speak with you on Monday. Please let me know if there is a time that works best for you for a call.

Thank you,

Courtney Weiche
Senior Planner, Planning & Building Division | Community Services Department
cweiche@washoecounty.gov | Direct Line: 775.328.3608
Have some kudos to share about a CSD employee or experience?
Submit a Nomination

From: ROD SMITH <rvsls2020@gmail.com>
Sent: Thursday, October 31, 2024 2:10 PM
To: Weiche, Courtney <CWeiche@washoecounty.gov>
Cc: Smith, Dwayne E. <DESmith@washoecounty.gov>; Clark, Michael <MEClark@washoecounty.gov>; John & Laurie Carey <laurie.a.s.c@icloud.com>; Karen & Brian <zapkgbg@gmail.com>; Lloyd, Trevor <TLloyd@washoecounty.gov>
Subject: Re: WSUP24-0015

Thank you for the update.

On Thu, Oct 31, 2024, 12:33 PM Weiche, Courtney <CWeiche@washoecounty.gov> wrote:

> Good Afternoon Rod,

Apologies for missing your phone call this week, I have been out of office for medical reasons and am just catching up on calls and emails. I would like to review your below questions with my planning manager due to the history of the site. I should be able to provide you with responses to your questions tomorrow.

Courtney Weiche
Senior Planner, Planning & Building Division | Community Services Department
cweiche@washoecounty.gov | Direct Line: 775.328.3608
Have some kudos to share about a CSD employee or experience?
Submit a Nomination

From: rvsls2020@gmail.com <rvsls2020@gmail.com>
Sent: Wednesday, October 30, 2024 2:00 PM
To: Weiche, Courtney <CWeiche@washoecounty.gov>
Cc: Smith, Dwayne E. <DESmith@washoecounty.gov>; Clark, Michael <MEClark@washoecounty.gov>; 'John & Laurie Carey' <laurie.a.s.c@icloud.com>; 'Karen & Brian' <zapkgbg@gmail.com>
Subject: WSUP24-0015

Courtney, after trying for three days to reach you by telephone I am resorting to email as you suggest in your phone message. I have reviewed application WSUP24-0015 and have the following issues:

1. It appears this application is going in front of the Board of Adjustment and not the Planning Commission as a response to the B of A decision of October 7, 2021 (WSUP21-0024) . Why then does this application appear to be a new application?
2. At the time of the previous application members of the neighborhood and I met with then Commissioner Lucey and Director Dwayne Smith to discuss the dam issue retaining water above our residences. They assured us that no dam would be built! Now it appears that the applicant is again suggesting reusing the dam, just not as big of a pond as was proposed in the previous application.
3. I have reviewed the WSUP21-0024 Conditions of Approval and find that none of the conditions have been met to date, such as:

    a. A grading bond of $2000/ acre prior to any grading.

b. Disturbed areas left undeveloped for more than 30 days shall be treated with dust palliative.
c. Disturbed areas left undeveloped for more than 35 days shall be revegetated.
d. Prior to Grading permit approval, provide a Dam Permit.
e. The list goes on: Why hasn't the County been proactive in following up with insuring these Conditions of Approval have been satisfied in a timely manner?

4. What authority does the County have in assuring the follow up actions are acted upon in a timely manner? What penalties can be assessed?
5. I would like to see a cross section view of the proposed project and its relationship/ water level with the existing illegal dam. As part of the land restoration, it appears that the new pond is still being held back by the existing dam, just at a lower level.
6. Yes, there are three water permits as mentioned in the application but it appears some important facts have been excluded from the application:

    a. Permit 74350 deals with Bryan Creek. It allows up to 32 afa but not to exceed 4 ac per acre of irrigated land annually from any/all sources. This water source is somewhat moot as the creek is normally dry.
    b. Permits 77786 and 77787 allow for the drilling of wells. The maximum combined duty shall not exceed 32.94 acre-feet of water annually for the irrigation of 3.5 acres.
    c. The proposed pond size now is 1 acre. Based on the wording in permit 74350, the total available water would be 4 acre feet per year.
    d. The evaporation rate of Lake Tahoe is considered to be 3 feet per year. Assuming the evaporation rate of the pond would be similar to Lake Tahoe, all but two acre feet of the available water would evaporate on an annual basis.
    e. It does not appear that a Perc Test has been performed. The percolation rate could possibly consume at least 1 acre- foot thus leaving the pond near dry for much of the year.

7. One acre foot of remaining available water per year will probably not support a one acre pond:

    a. The pond then turns into a swap supporting mosquitos, not fish, which is supposedly the reason for the lake.
    b. Assuming some amount of water exists year around, how will it be circulated to support the "fish."

8. Other issues brought about by the recent application.

    a. No electricity available for pump operation:

i. There is no residence on site so solar is not allowed per the previous application.

ii. Who is responsible for maintenance of a generator?

iii. Who is going to plow the snow to access the generator in the winter?

9. The only water level control is proposed to be a vertical 6" pipe. With no on site pond supervision how will that one small outlet be monitored for cleanliness? During storms and wind events this small outlet is sure to clog!

Why would a pond be permitted that all it did was use valuable and expensive fuel to pump valuable water to be evaporated or seeped back into the soil. In my mind, this does not equate to a beneficial use of the ground water. In addition, the neighborhood will now have a swamp and mosquitos to contend with.

I am leaving town for an extended vacation early next month and will not be home to attend the proposed hearing on December 5. I request that this email and these issues be addressed at the hearing and become a part of the hearing record. My request to talk to you by phone still stands to further discuss and understand these issues.

Rod Smith
7450 Bryan Canyon Rd.
Washoe Valley NV 89704
776-883-7451 (h)
775-240-9605 (c)
Rvsls2020@gmail.com

Public Notice

Washoe County Code requires that public notification for a special use permit must be mailed to a minimum of 30 separate property owners within a minimum 500-foot radius of the subject property a minimum of 10 days prior to the public hearing date. A notice setting forth the time, place, purpose of hearing, a description of the request and the land involved was sent within a 1,000-foot radius of the subject property. A total of 37 separate property owners were noticed a minimum of 10 days prior to the public hearing date.

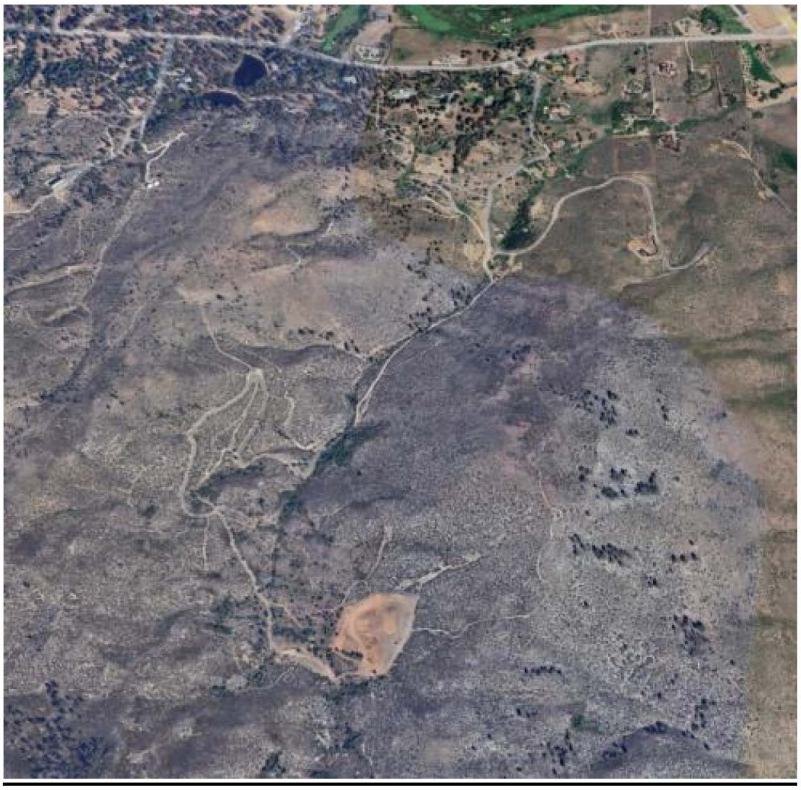
WSUP24-0015

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.

February 2024

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

Additional Appendices

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.

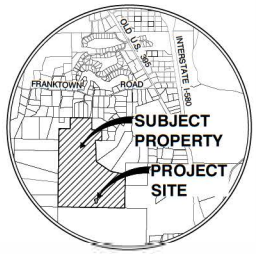
c) Issuance Not Detrimental. Issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area; and

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

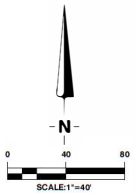
d) Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

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



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:	348.48 ACRES
MASTER PLAN DESIGNATION:	RURAL
CURRENT ZONING:	GR GENERAL RURAL
FEMA FLOOD HAZARD ZONE:	X (UNSHADED) PANEL 32031C3430G

811 Know what's below. Call before you dig.

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Stateline, NV 89449
775-588-7355
Carson City
340 N. Minnesota St.
Carson City, NV 89703-4152
775-883-1600
RCI
Resource Concepts Inc.

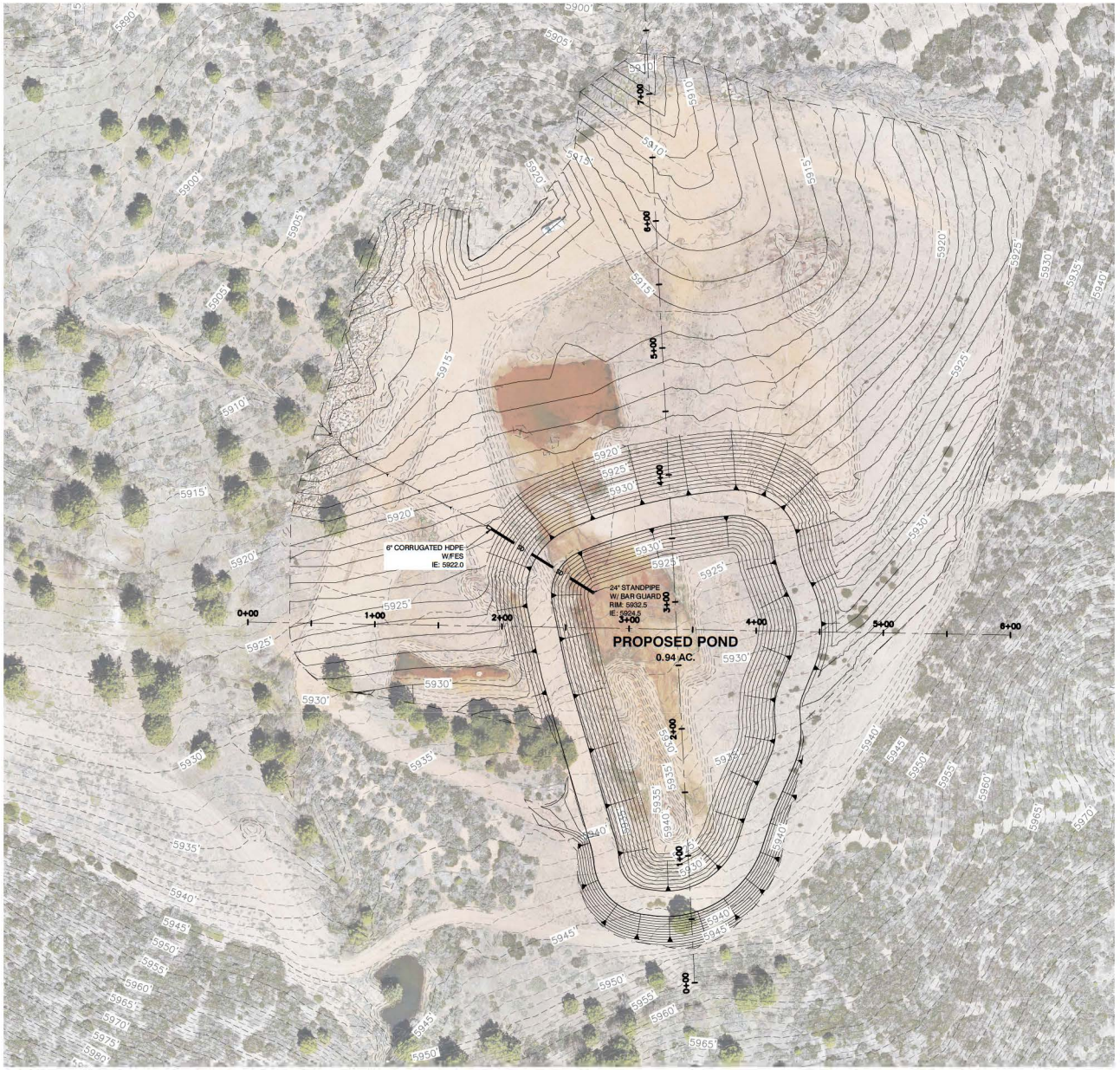
REVISION	DATE

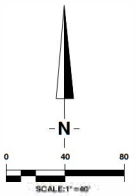
SPECIAL USE PERMIT
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

EXISTING SITE PLAN

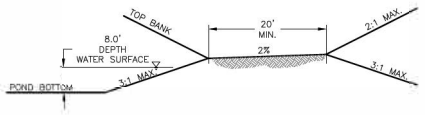
JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN:	MB
CHECKED:	DH

C1





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'	3,453 SF
AREA OF FILL GREATER THAN 10'	11,865 SF
AREA OF FILL GREATER THAN 6'	21,837 SF
POND VOLUME @ EL 5932.5	4.99 AC./FT
HIGHWAY WSEL	5932.8



POND SECTION
N.T.S.

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775-883-1600

Lake Tahoe
276 Kingsbury Grade, Ste. 206
Stateline, NV 89449
775-588-7353

Resource Concepts Inc.

REVISION	DATE

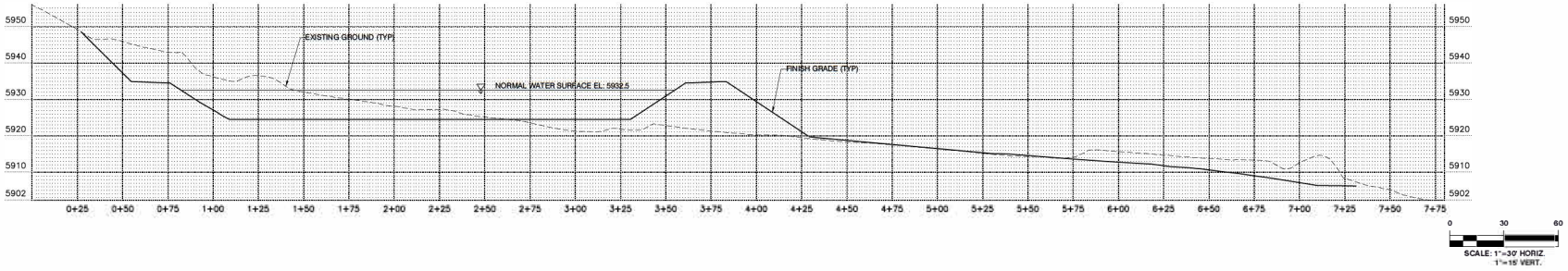
SPECIAL USE PERMIT
BRYAN CANYON ROAD POND
WASHOE COUNTY, NEVADA

PRELIMINARY GRADING PLAN

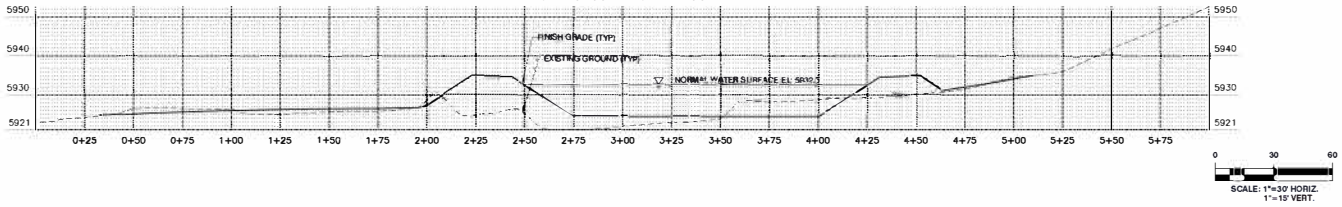
JOB NO.:	24-150
DATE:	10/08/2024
DESIGNED:	DH
DRAWN :	MB
CHECKED:	DH

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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CROSS SECTIONS

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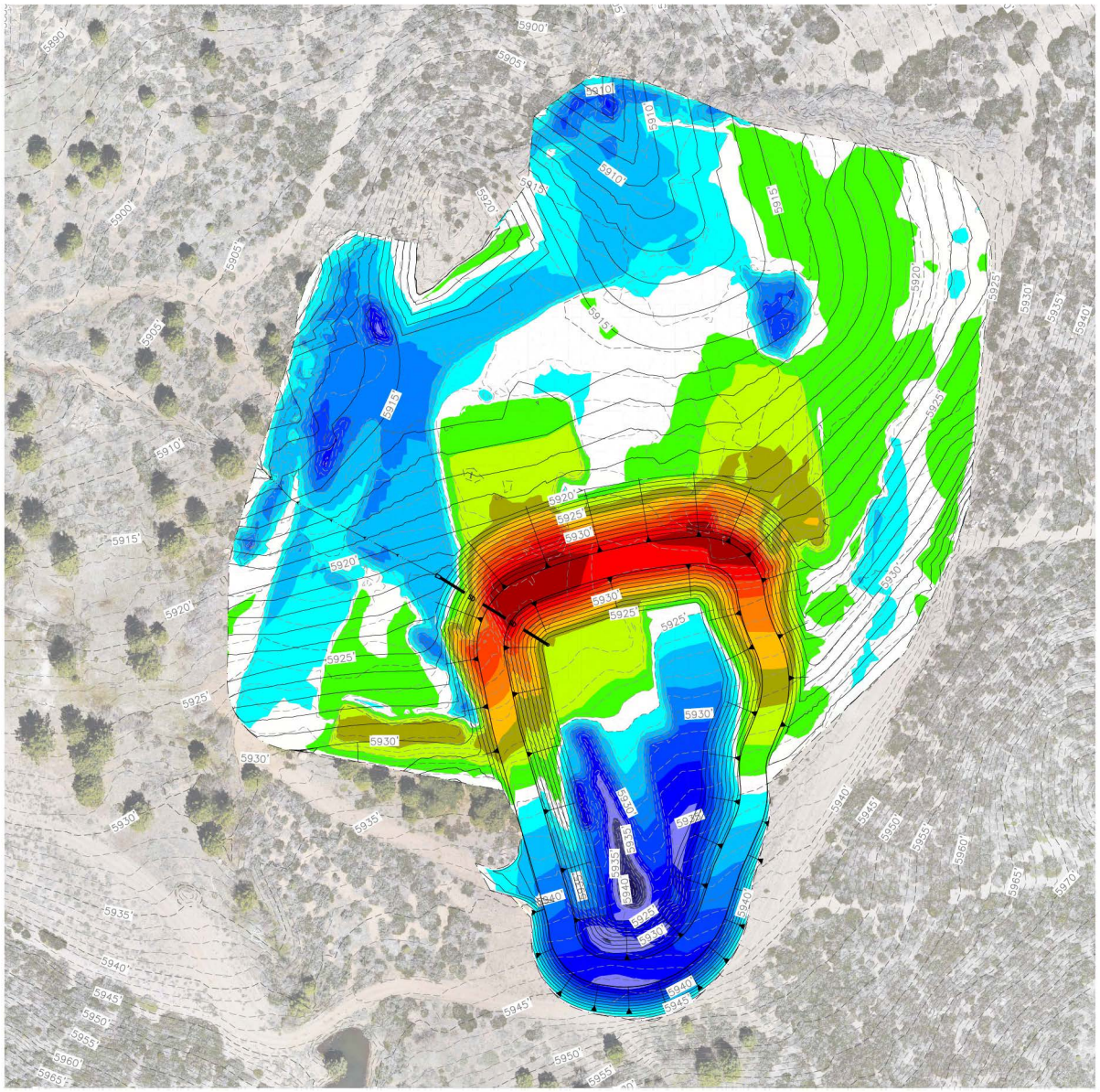
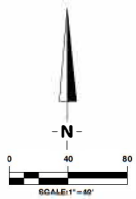
C3





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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CUT/FILL ANALYSIS MAP

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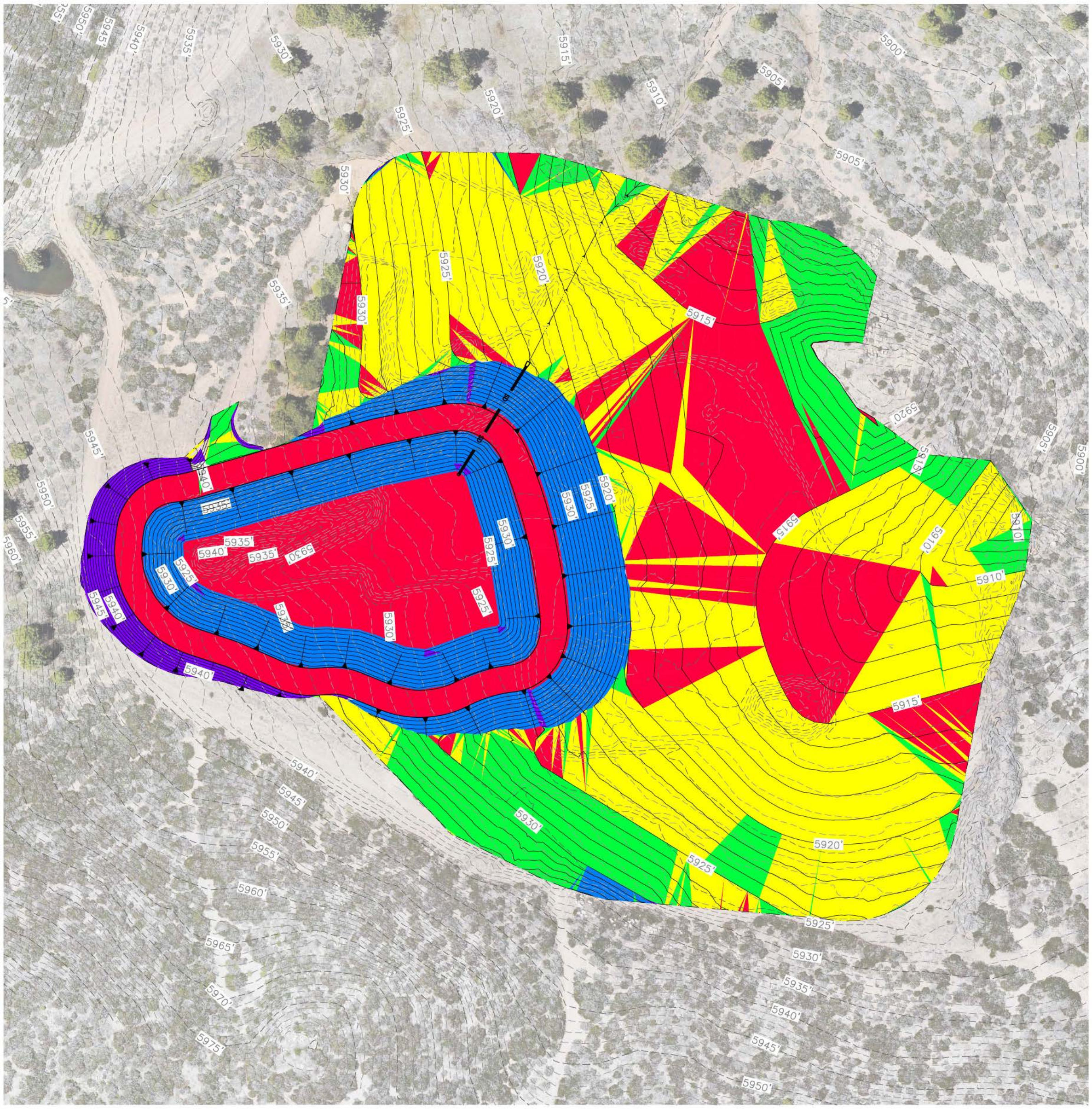
C4



SLOPE ARROWS TABLE

Number	Minimum Slope	Maximum Slope	Color
1	0.00%	5.00%	Red
2	5.00%	10.00%	Yellow
3	10.00%	25.00%	Green
4	25.00%	34.00%	Blue
5	34.00%	55.00%	Purple

SCALE: 1"=40'
0 40 80
N

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WSUP24-0015
EXHIBIT E

JOB NO.: 24-150
DATE: 10/08/2024
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C5

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SLOPE ANALYSIS

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Planting Specifications

GENERAL NOTES

1. Revegetation treatments shall be installed as per these specifications and notes on the plan sheets and shall consist of seed bed preparation and drill seeding.
2. Seeding should occur in late summer or fall.
3. To the extent practicable, retain all established shad scale and sof native vegetation.
4. All machinery must be clean before arrival 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 glaymoides	Bottlebrush squirreltail	2
Poa secunda ssp. ampla	Sherman big bluegrass	0.5
FORBS		
Balsamorhiza sagittata	Arrowleaf balsamroot	1
Eriogonum umbellatum	Sulphurflower	0.5
Lupinus argenteus	Silver lupine	2
SHRUBS		
Artemisia tridentata ssp. 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 soil should be scarified to a depth of 6 - 12 inches.
   b. Seed beds should be clean of weed sand sufficiently firm to allow proper seed placement.
   c. Soil firming – prior to drill seeding, the seedbed should be uniformly firm enough to present a ¼ inch bootfootprint 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. Certification 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 (4.7 Ac.±)

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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

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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

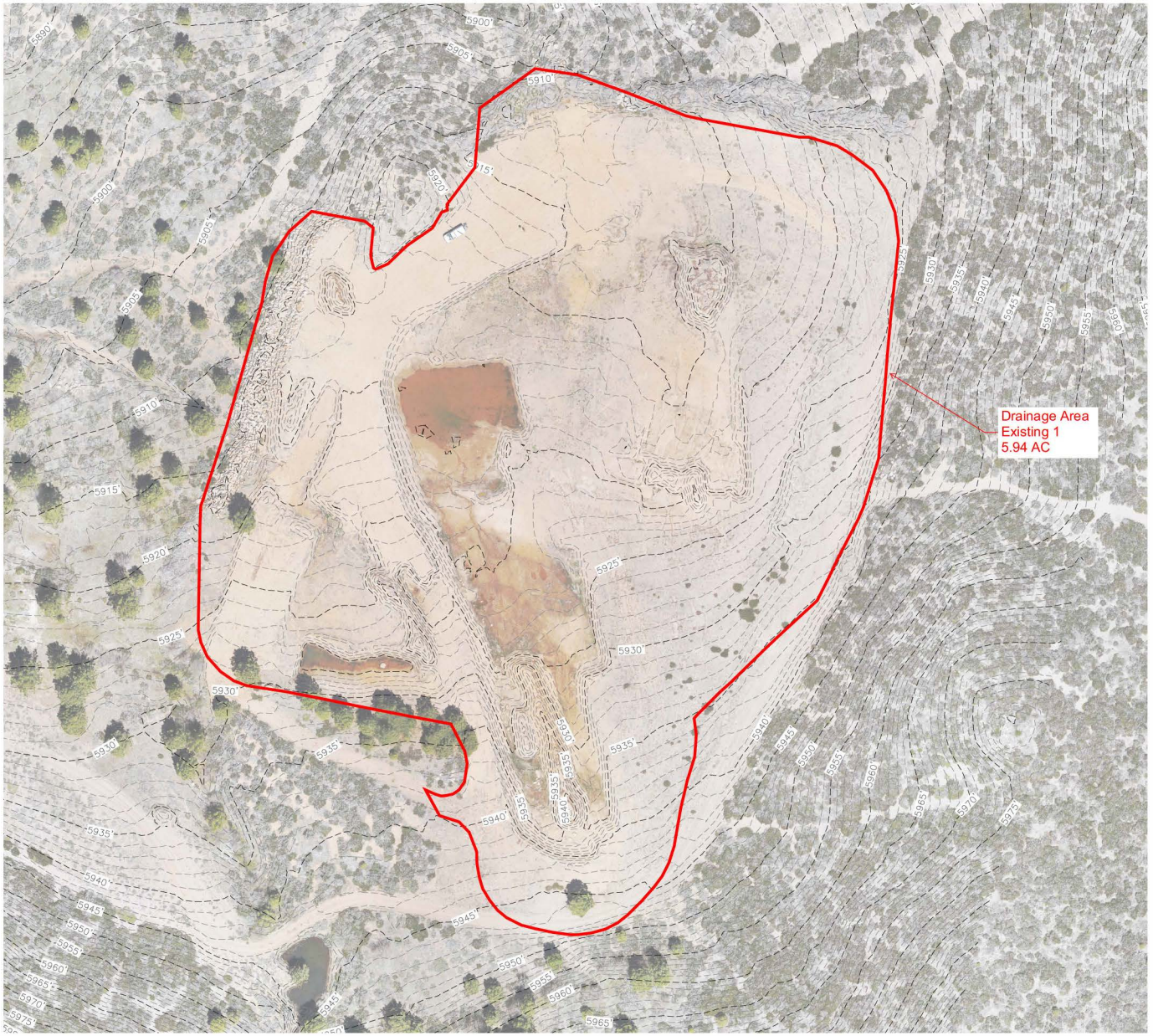
B. Drainage Calculations and Pipe Sizing

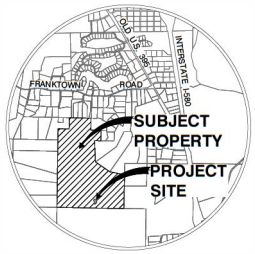
C. FEMA Floodplain Map

D. SCS Custom Soil Resource Report

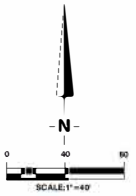
Appendix A

Drainage Plans





VICINITY MAP
NO SCALE



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:	346.46 ACRES
MASTER PLAN DESIGNATION:	RURAL
CURRENT ZONING:	GR GENERAL RURAL
FEMA FLOOD HAZARD ZONE:	X (UNSHADED) PANEL 32031C3430G

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EXISTING SITE PLAN

JOB NO.:	24-150
DATE:	10/01/2024
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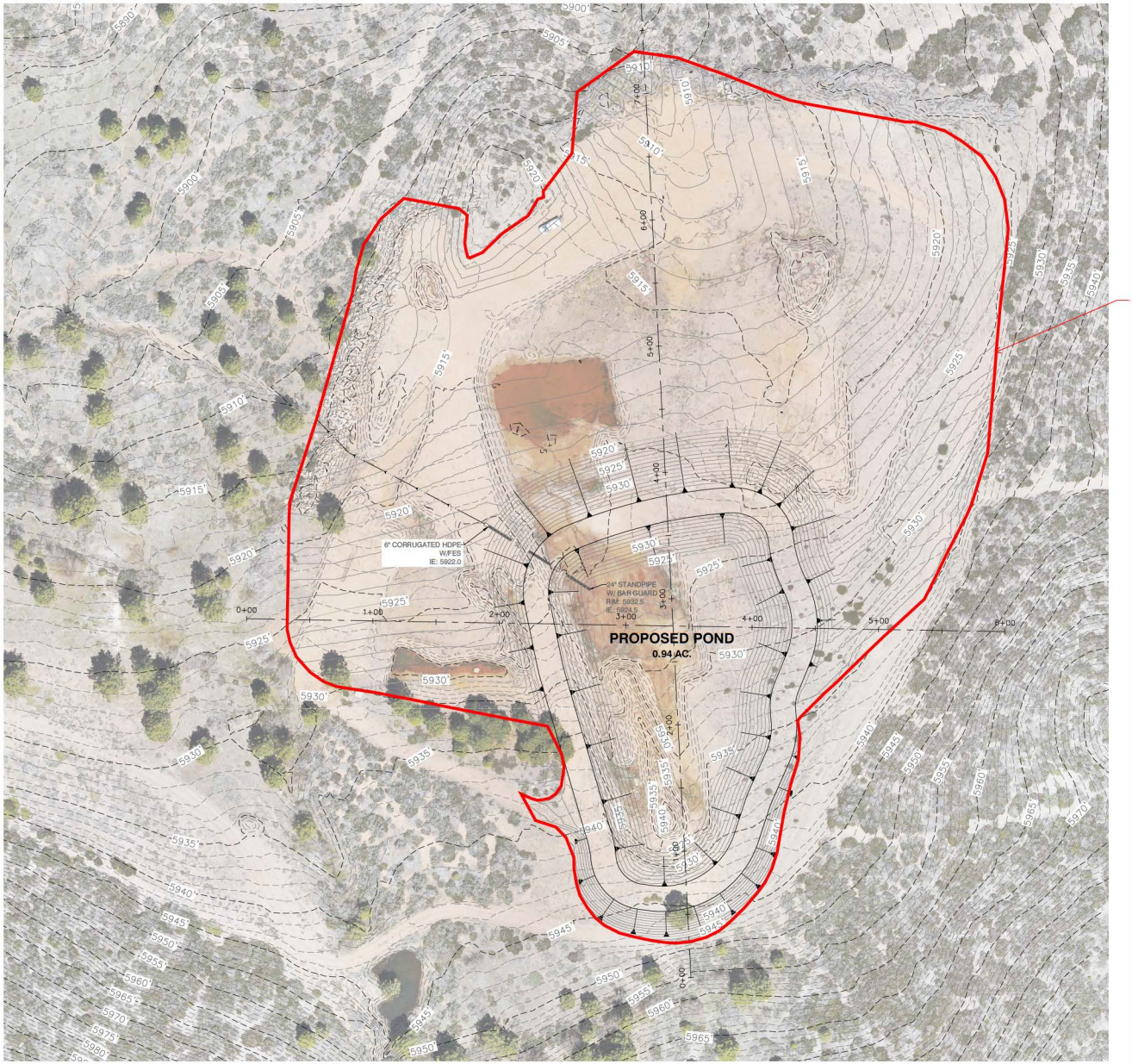
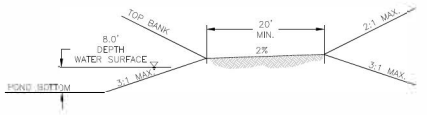
C1

WSUP24-0015
EXHIBIT E



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	
MAXIMUM DEPTH OF FILL	
AREA OF CUT GREATER THAN 10'	
AREA OF FILL GREATER THAN 10'	
AREA OF FILL GREATER THAN 0'	
POND VOLUME @ EL 5932.5	
NORMAL WSEL	



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PRELIMINARY GRADING PLAN

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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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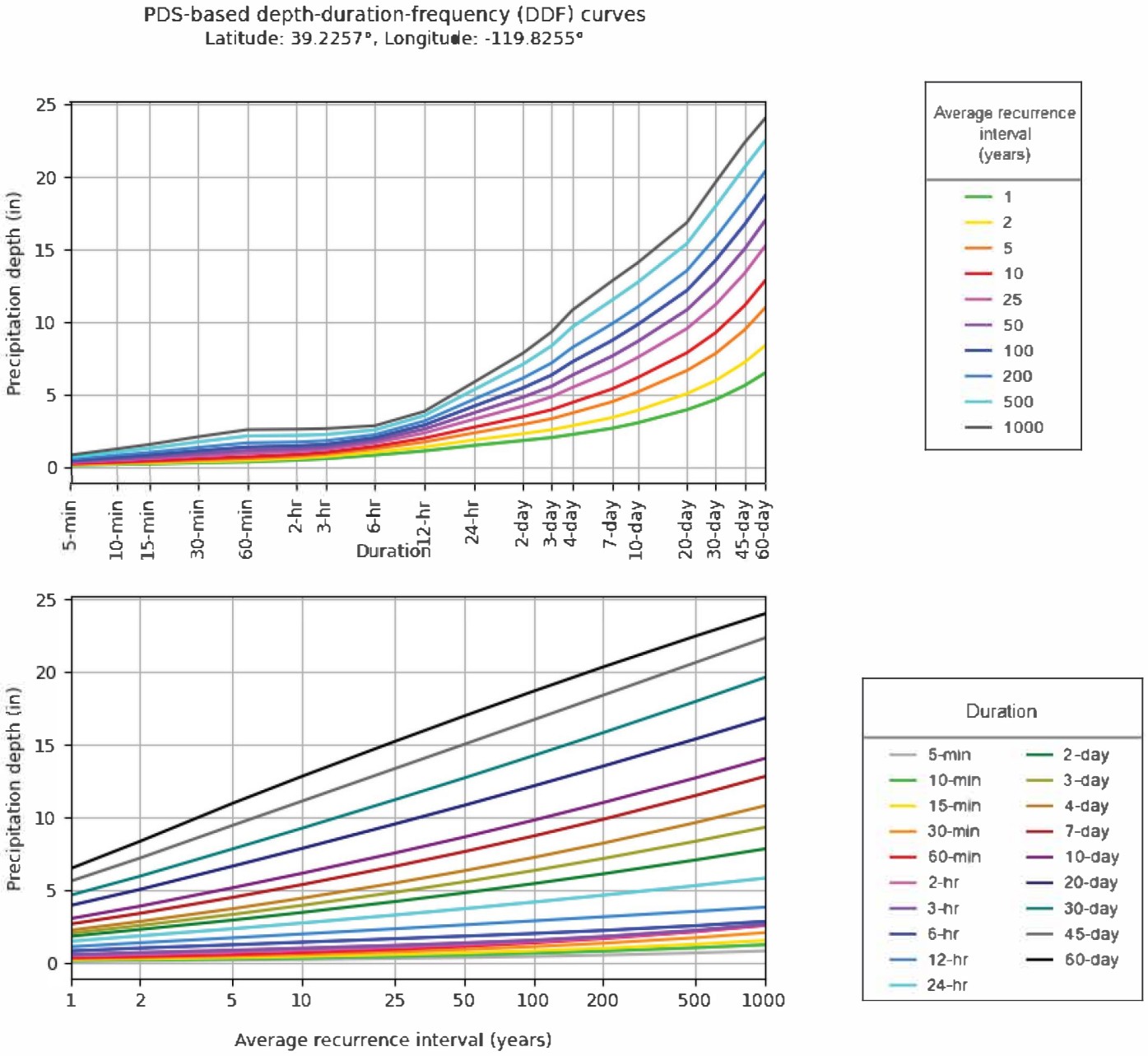
PF graphical



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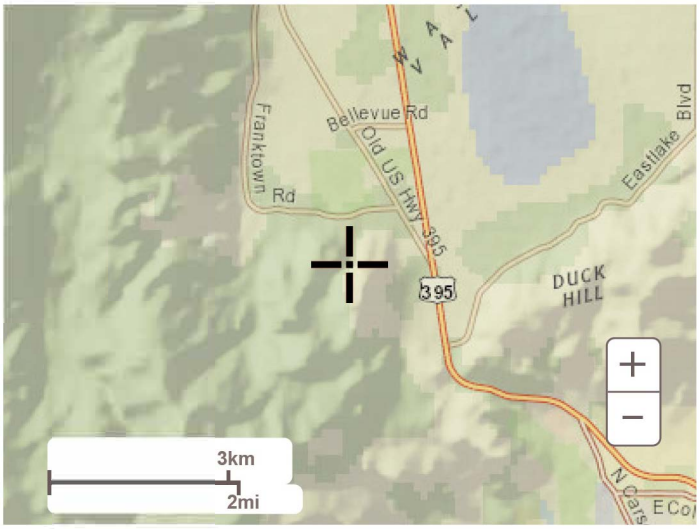
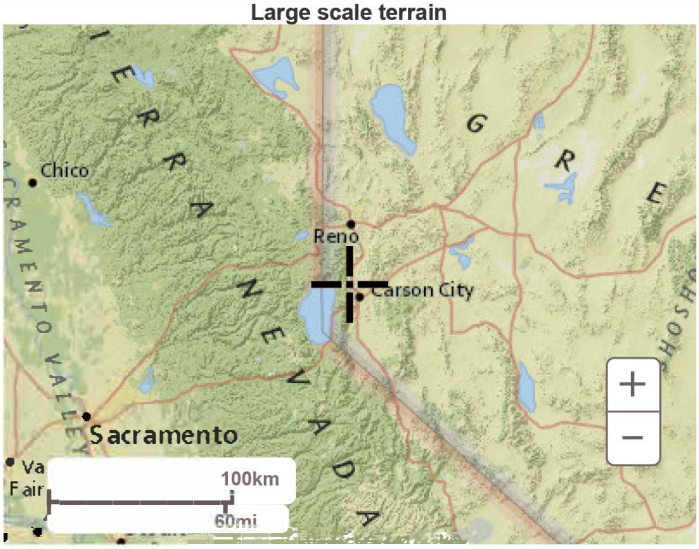
Maps & aerials

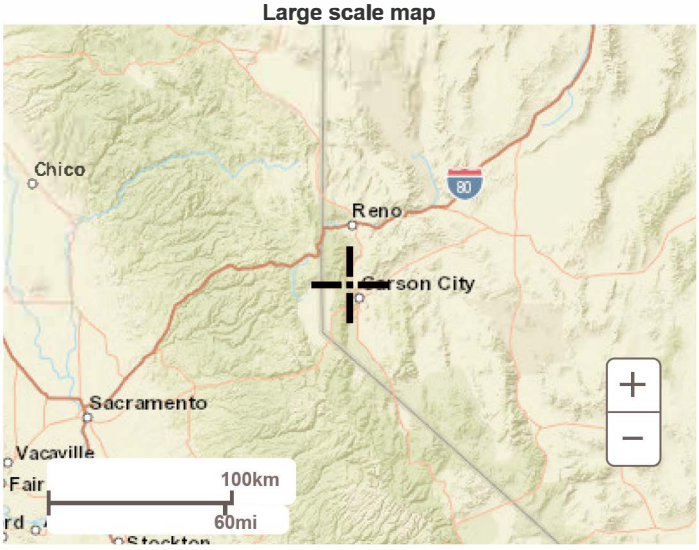
Small scale terrain



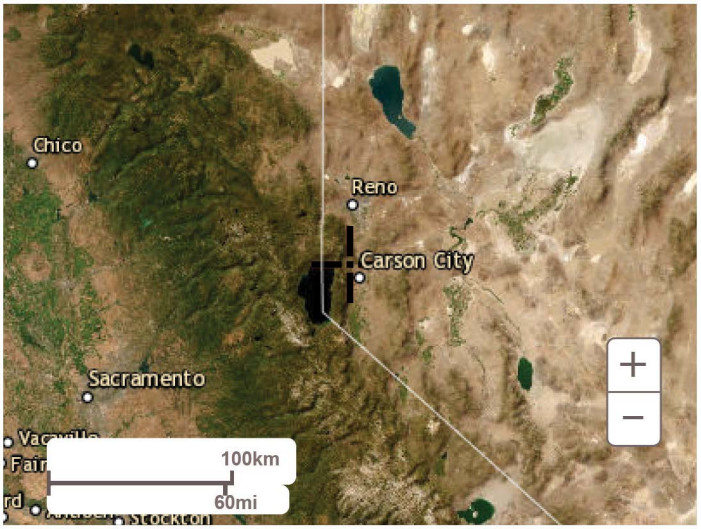
Large scale terrain



Large scale map



Large scale aerial



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

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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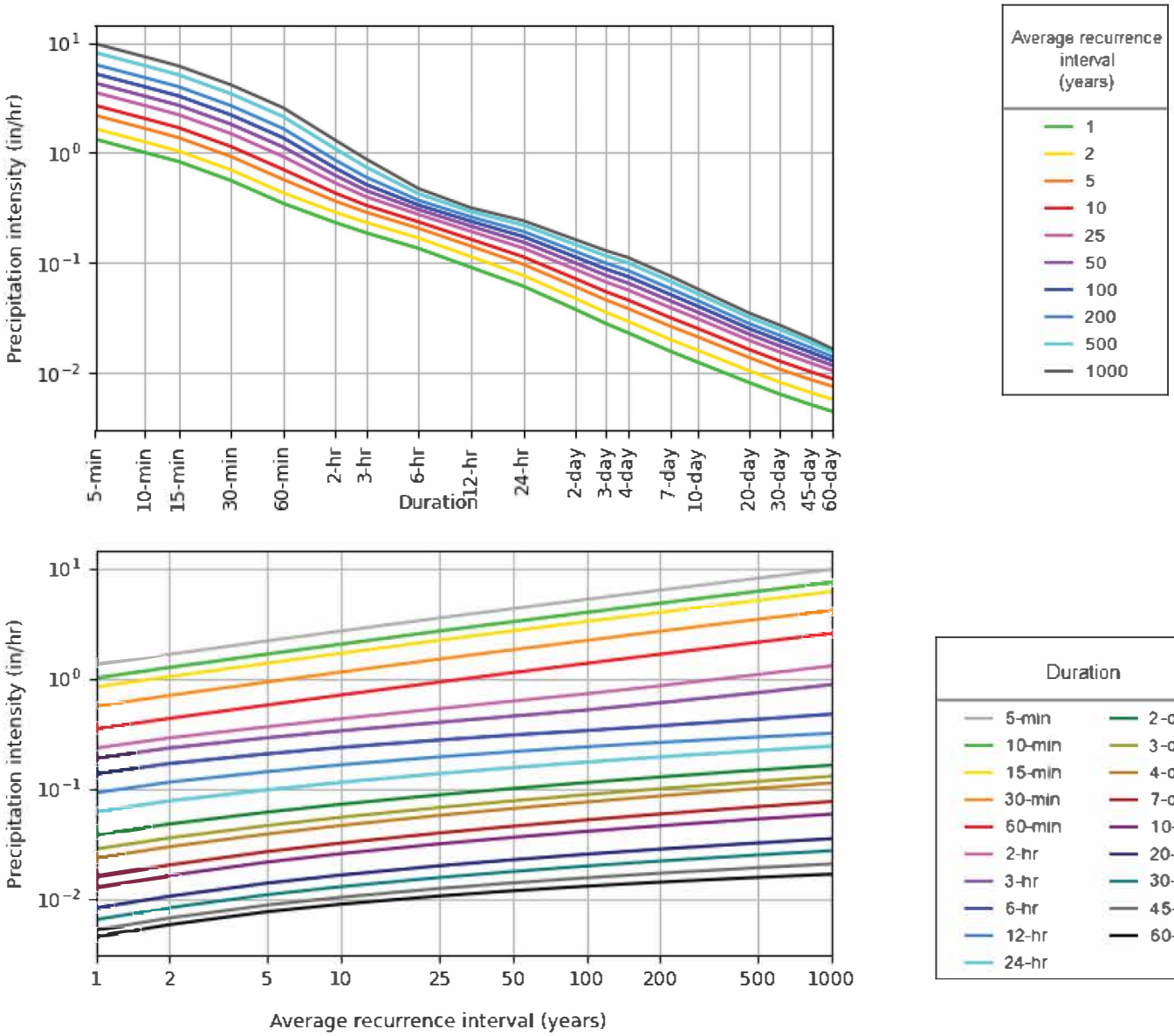
PF graphical

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



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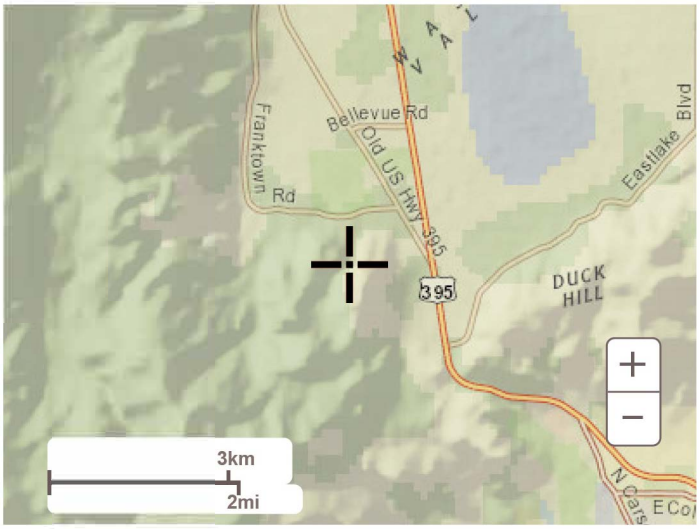
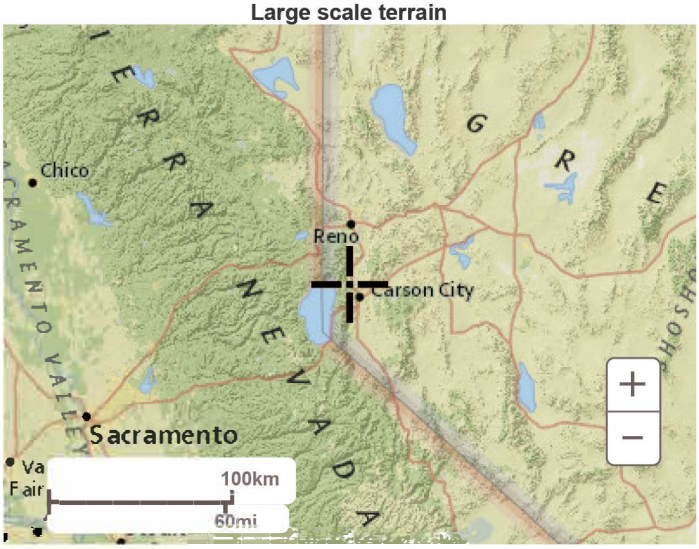
Maps & aerials

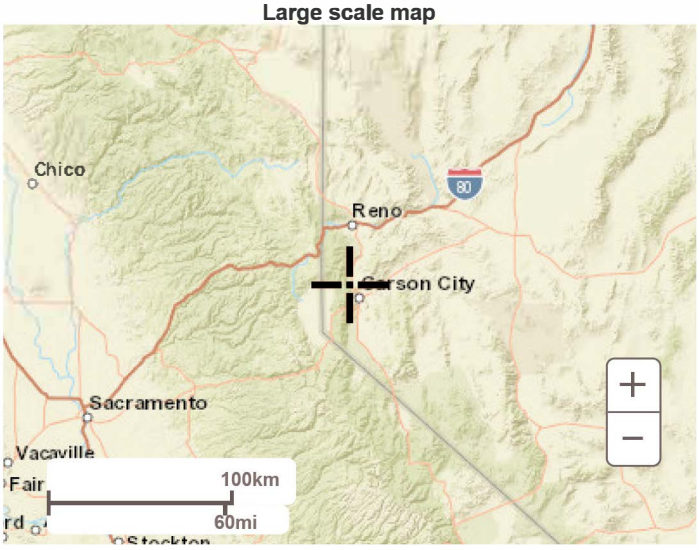
Small scale terrain



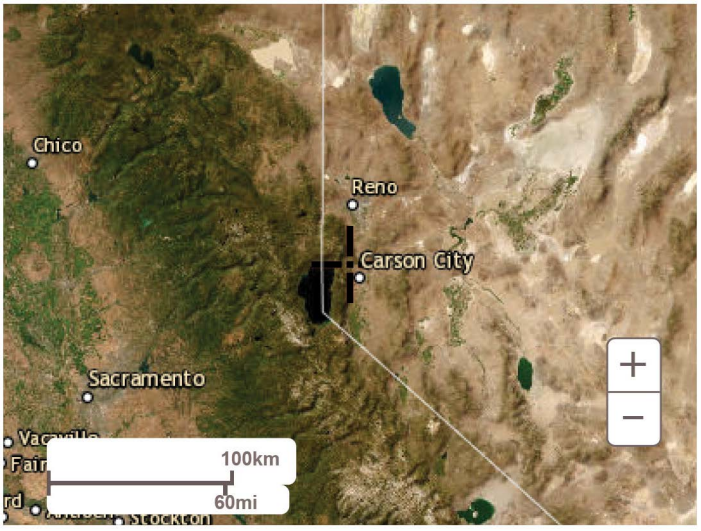
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
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 ft²
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

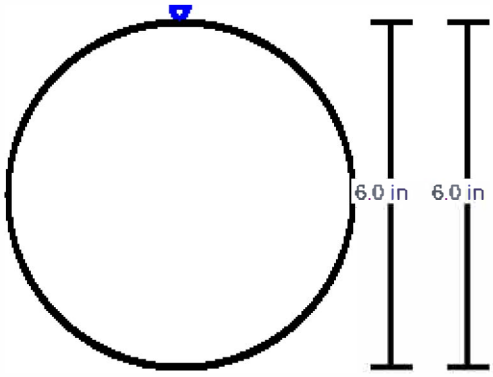
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

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

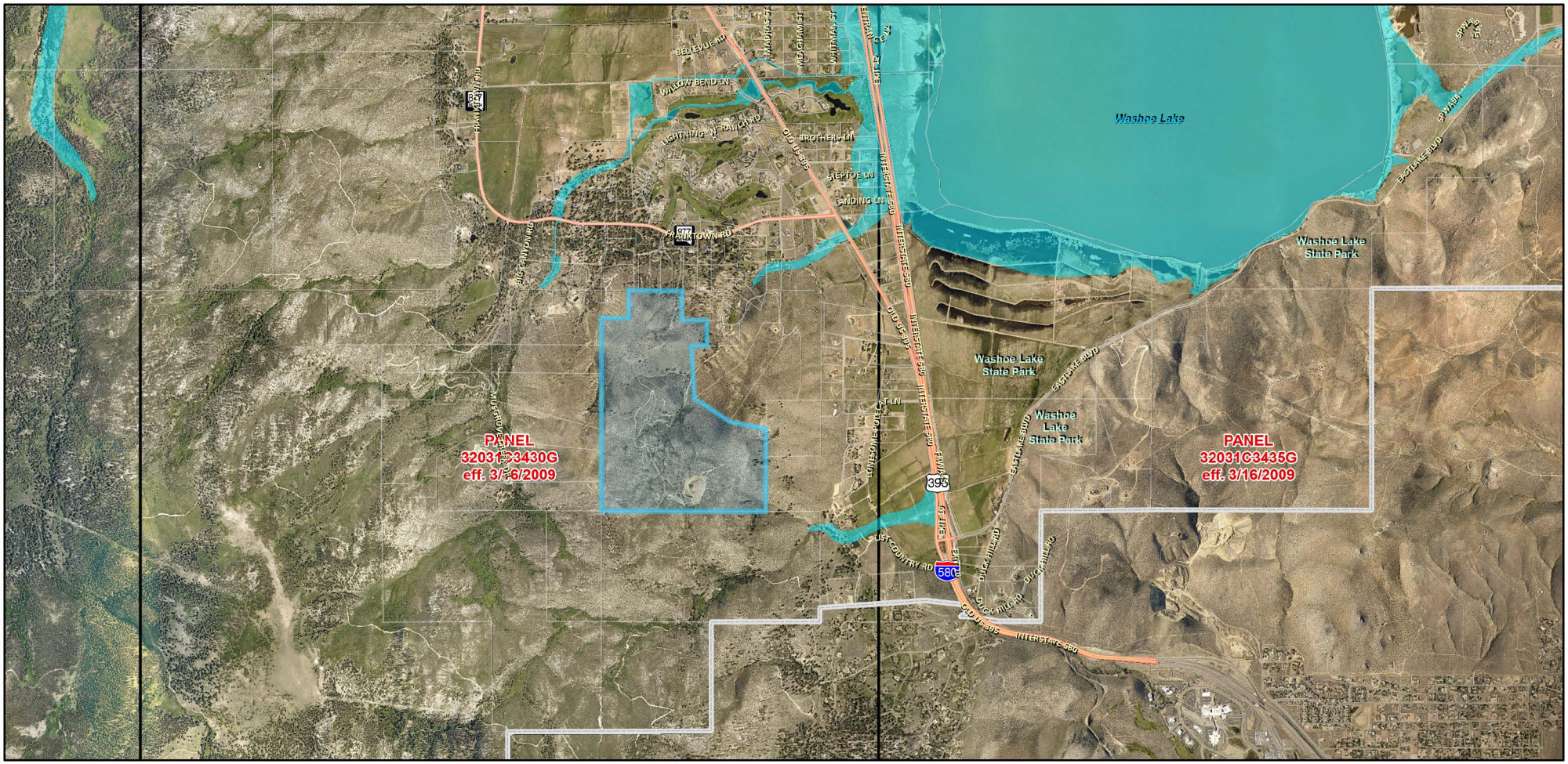
Input Data	
Roughness Coefficient	0.010
Channel Slope	0.027 ft/ft
Normal Depth	6.0 in
Diameter	6.0 in
Discharge	1.20 cfs



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

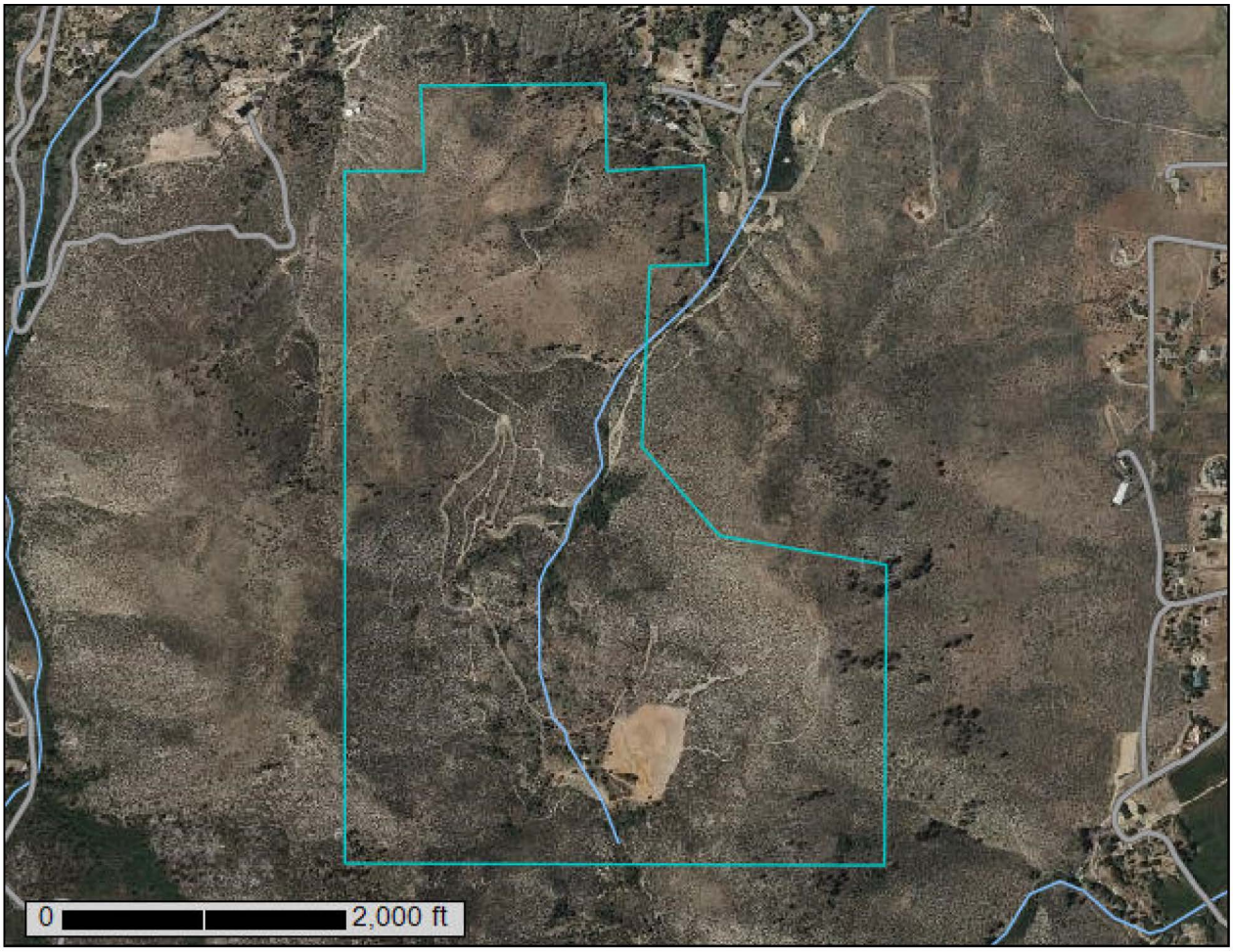
NRCS

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



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.

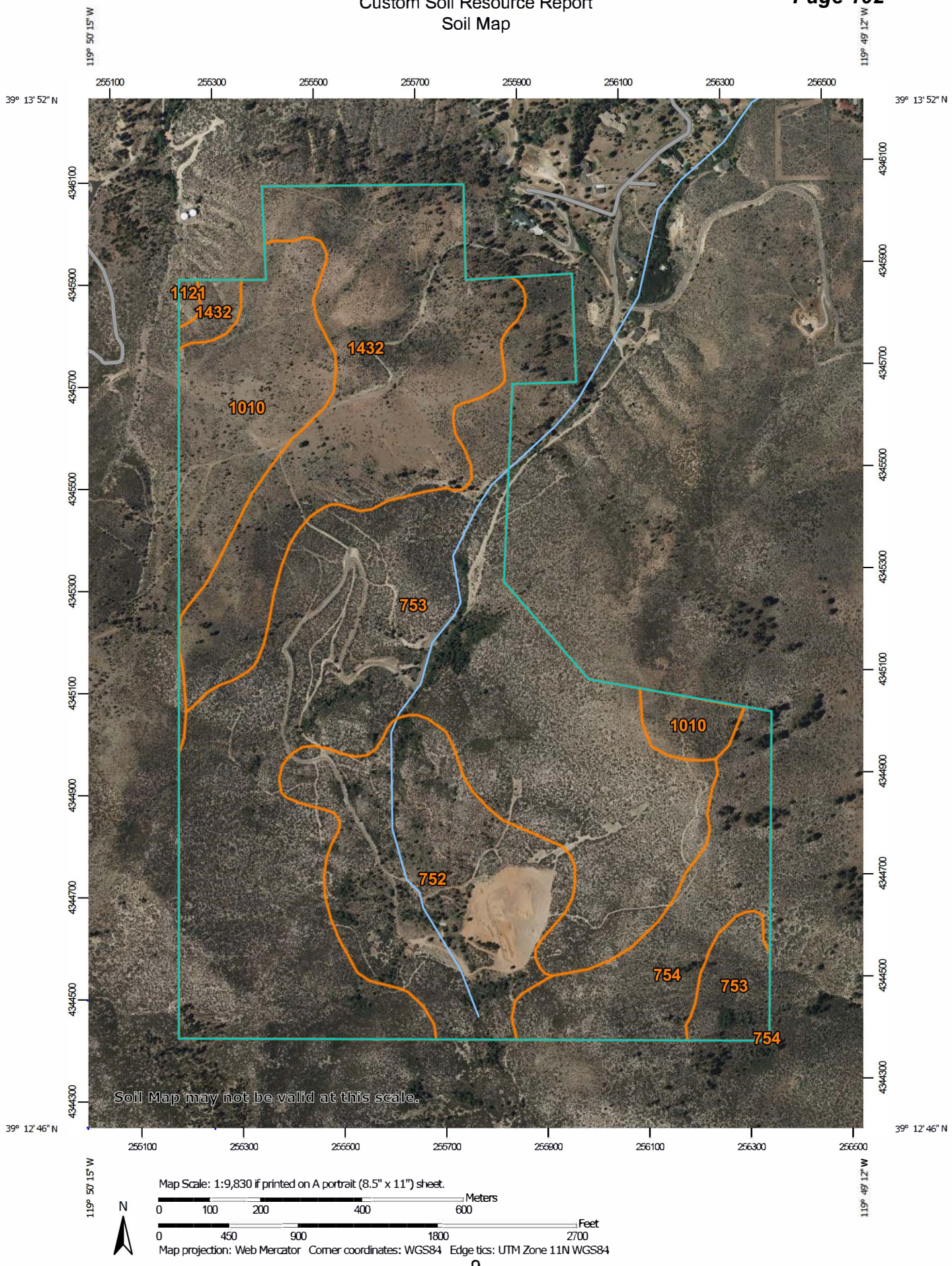
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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 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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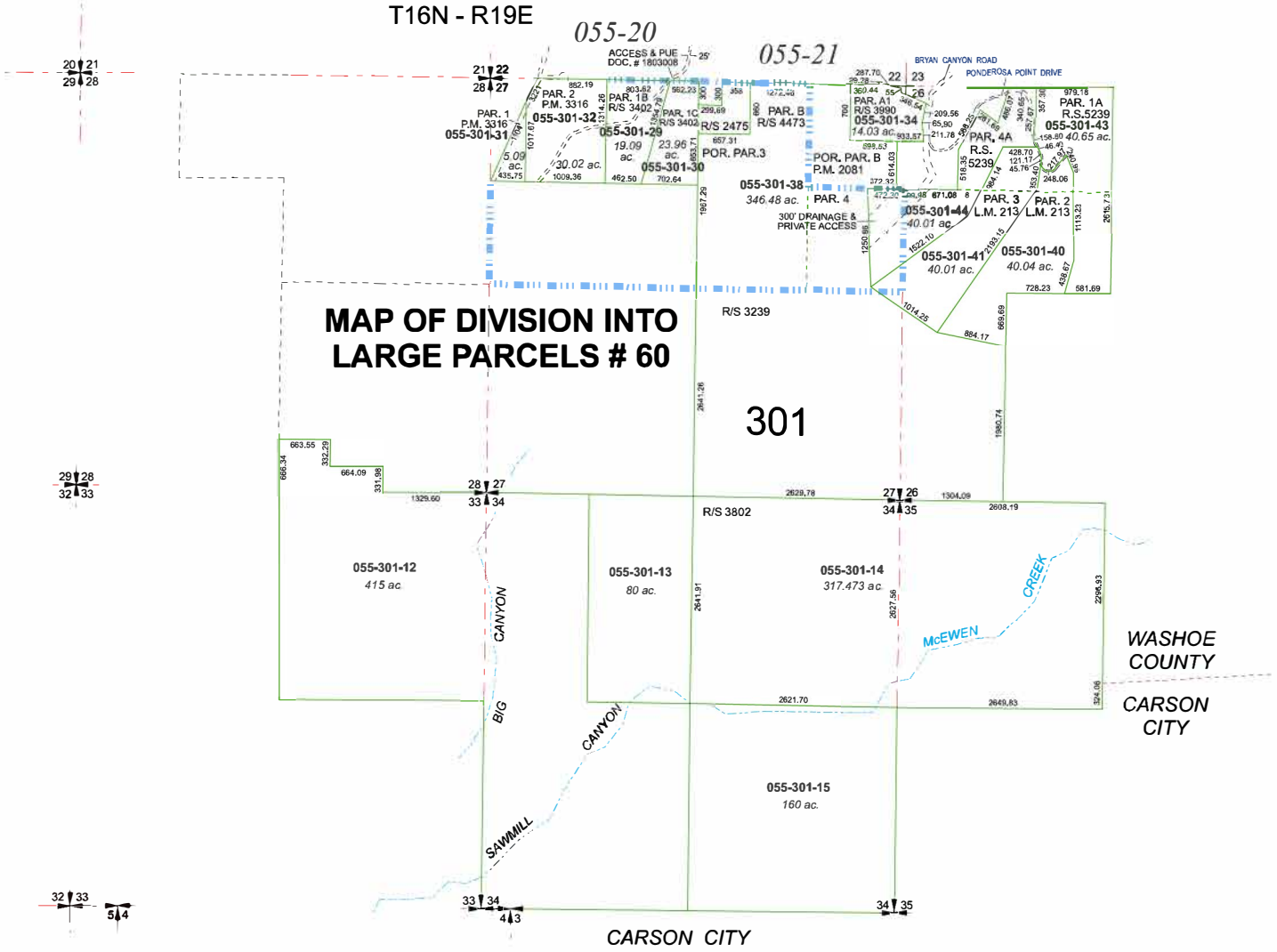
Appendix D

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



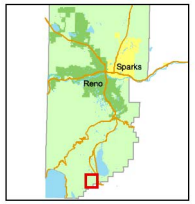
Assessor's Map Number
055-30

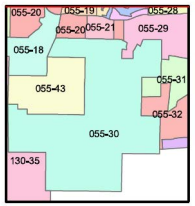
STATE OF NEVADA
WASHOE COUNTY
ASSESSOR'S OFFICE
Joshua G. Wilson, Assessor

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

areapreviously 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 thepremises. No liability is assumed as to the sufficiency or accuracy of the data delineated hereon.

WSUP24-0015
EXHIBIT E

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**

Tracy 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 12 2009

Returned to applicant for correction _____

Corrected application filed _____ Map filed JUN 12 2006 under 74302

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.

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:

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

(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

Permit No. 77786

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**

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

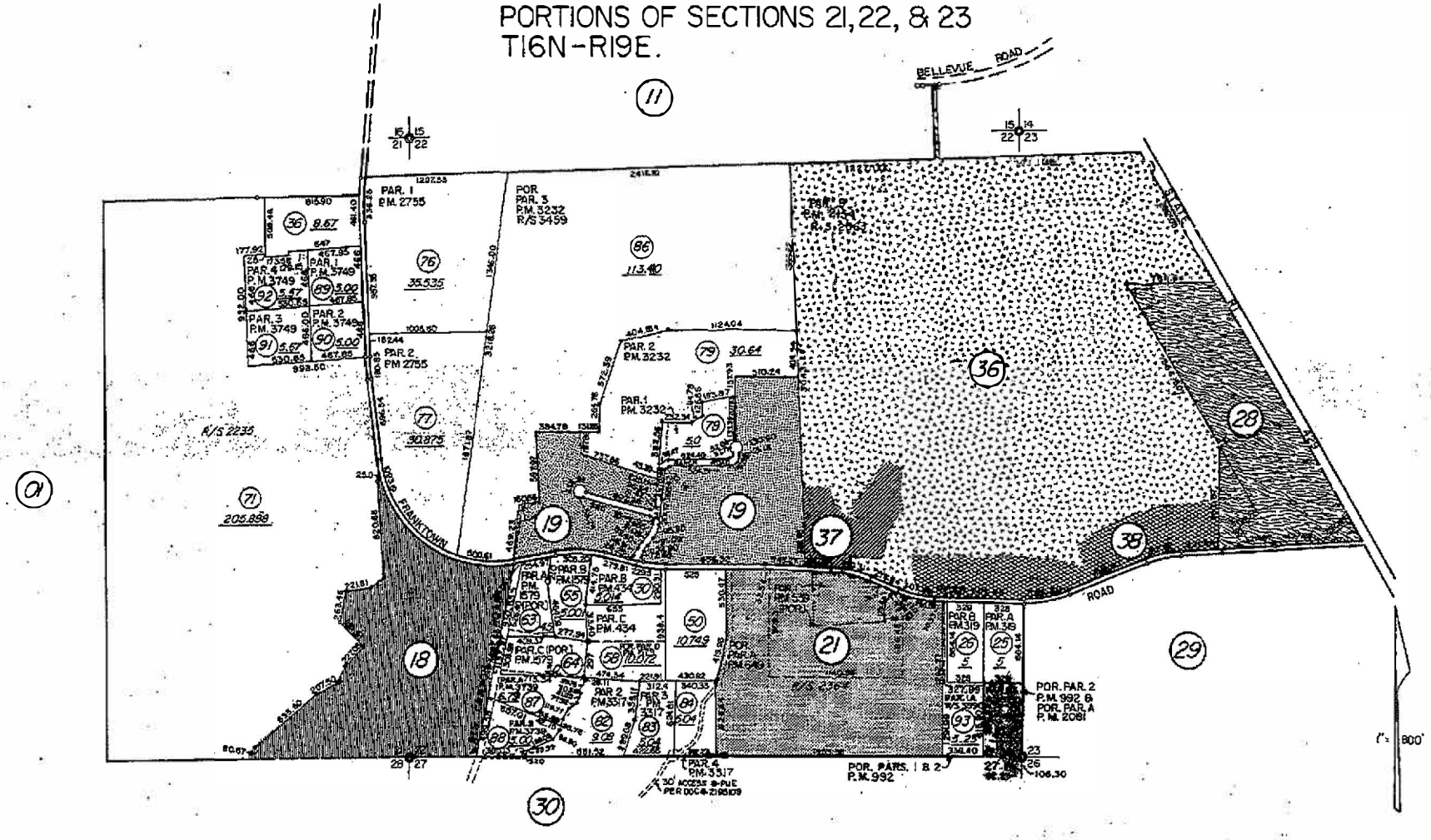
Cultural map filed _____

Certificate No. _____ Issued _____

llb

77786

55-20



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)

Permit No. 77787

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**

TT P.E.
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 equal's 44883 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

o 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.

o 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.

o 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.

55

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		

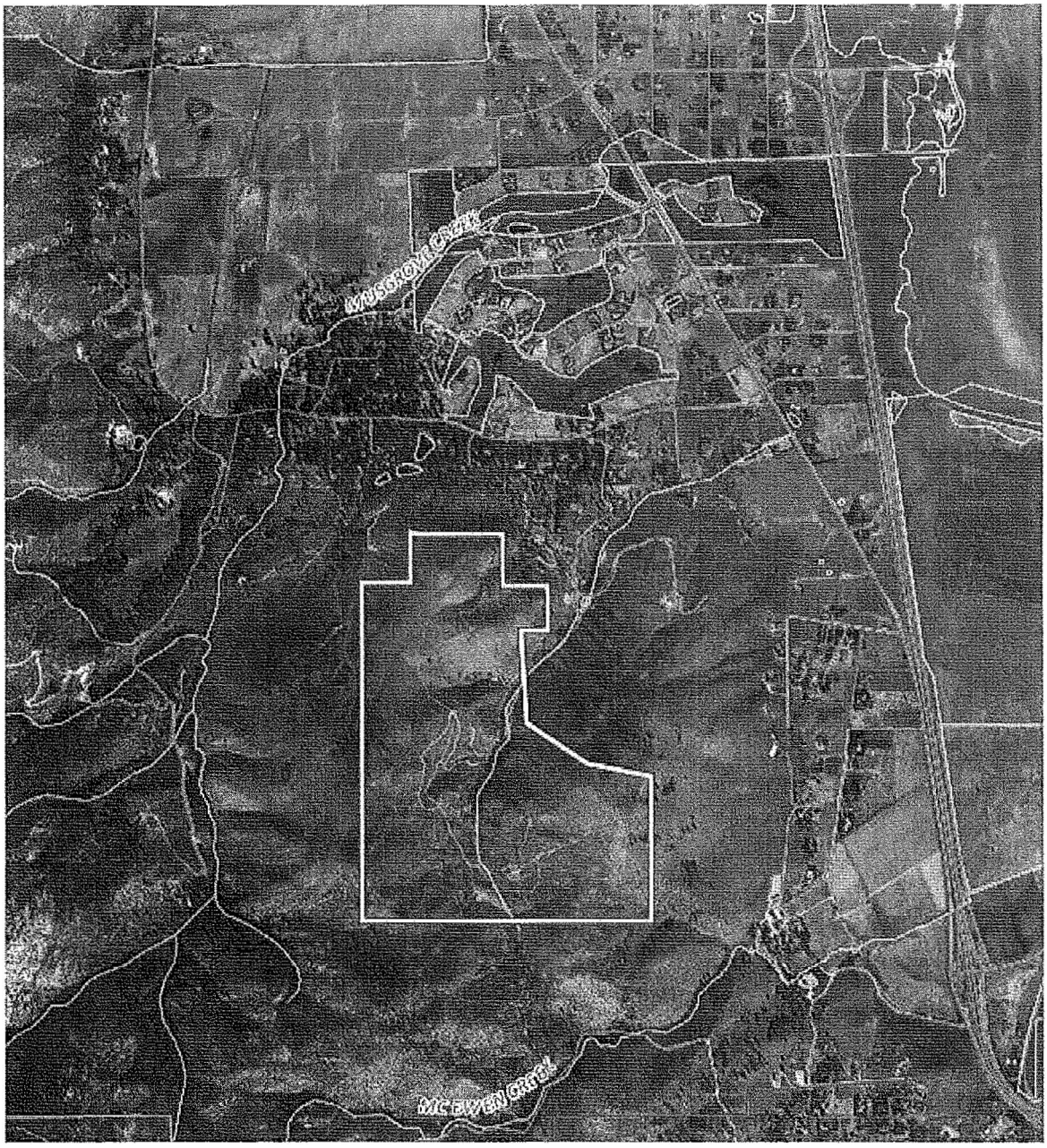
Up to 7 Sales/Transfer Records/Recorded Document (additional information/records)

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)


MCEWEN ORTEL

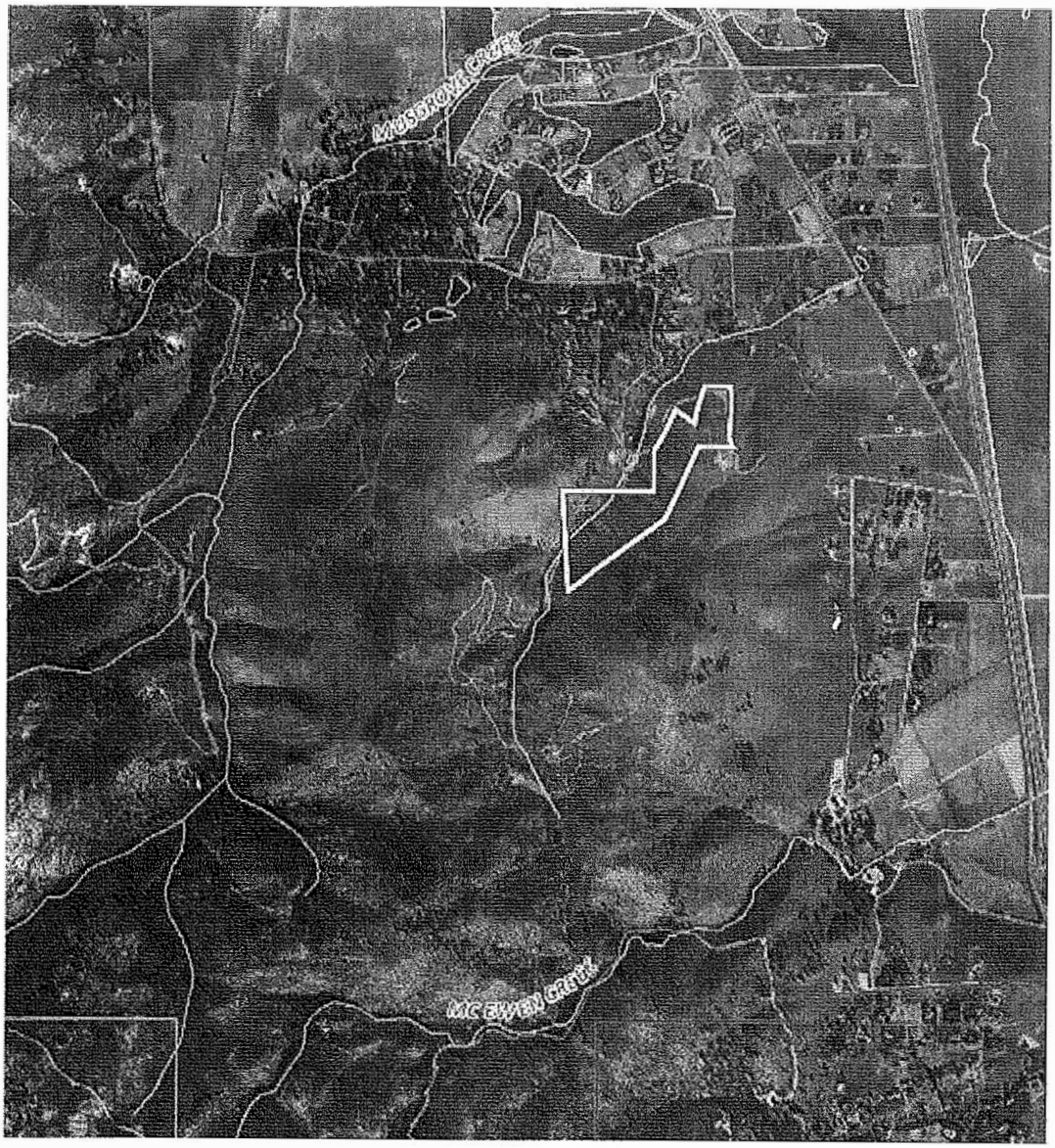
All data on this form

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)

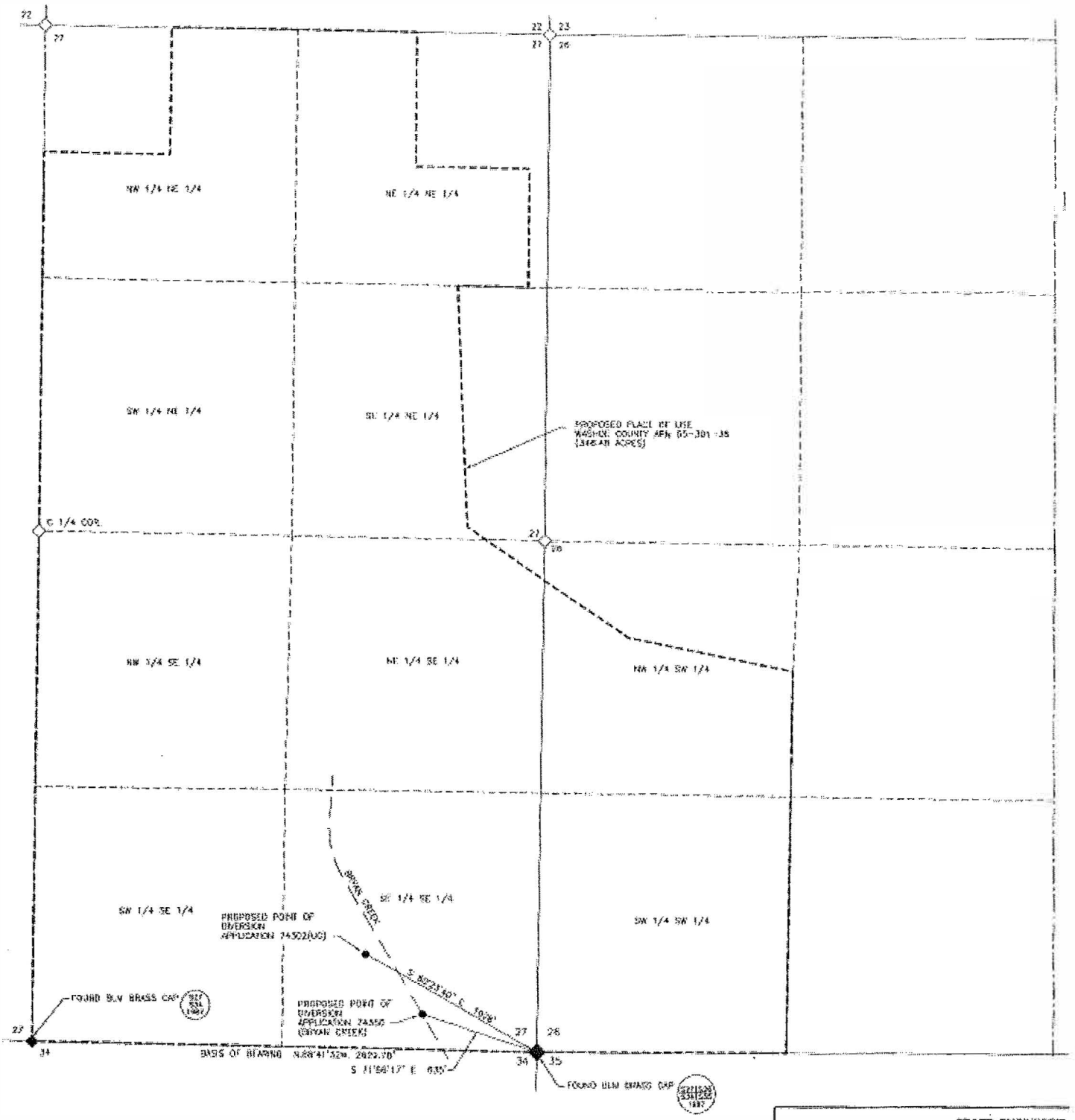
Change of App No	POD	POU	MOU
21413	Y	Y	

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

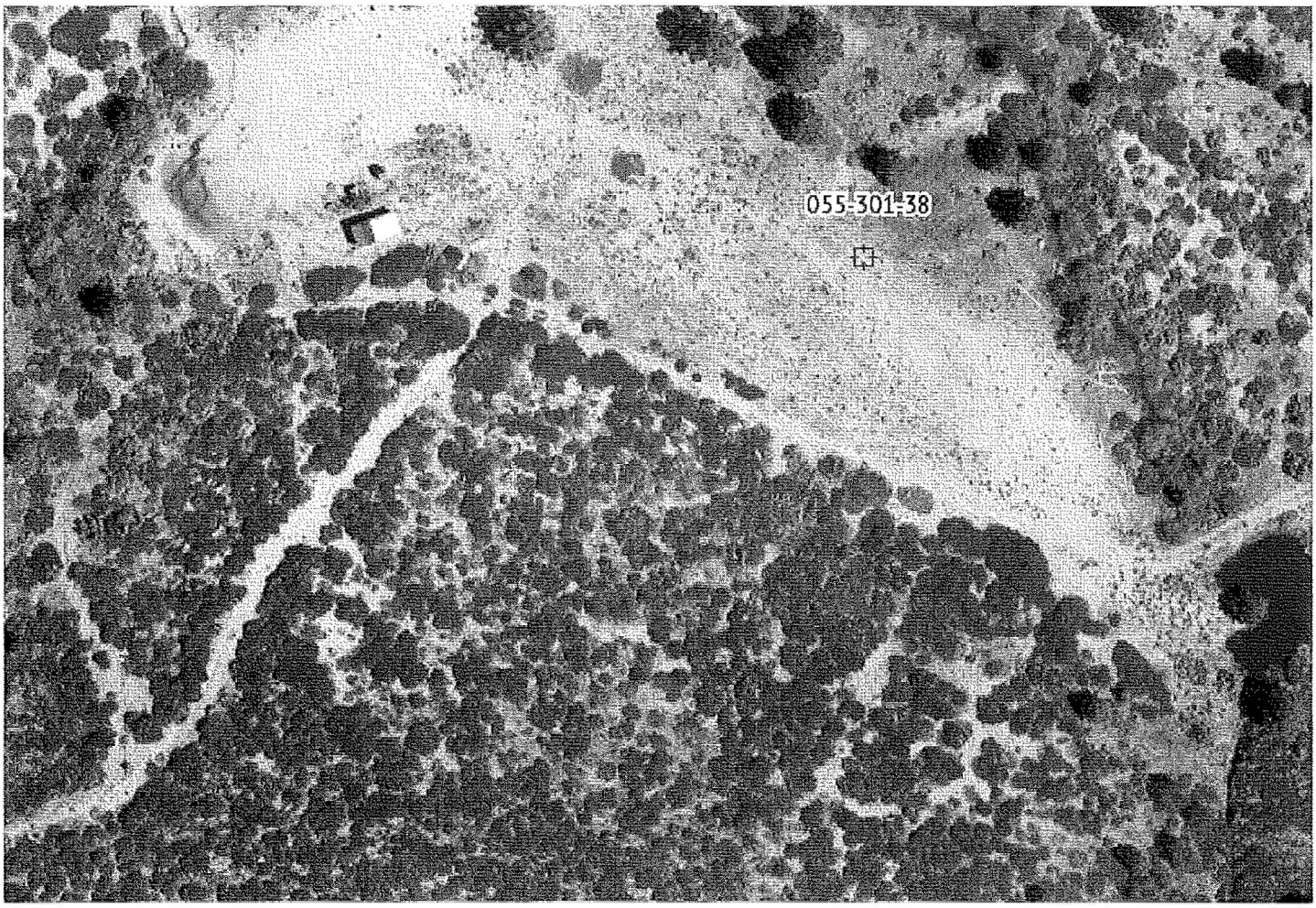
Duty-Balance 12.95 AFA
Div Balance 0.0256
Acre-Feet Storage 0
Well Logs:
Remarks:



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

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		

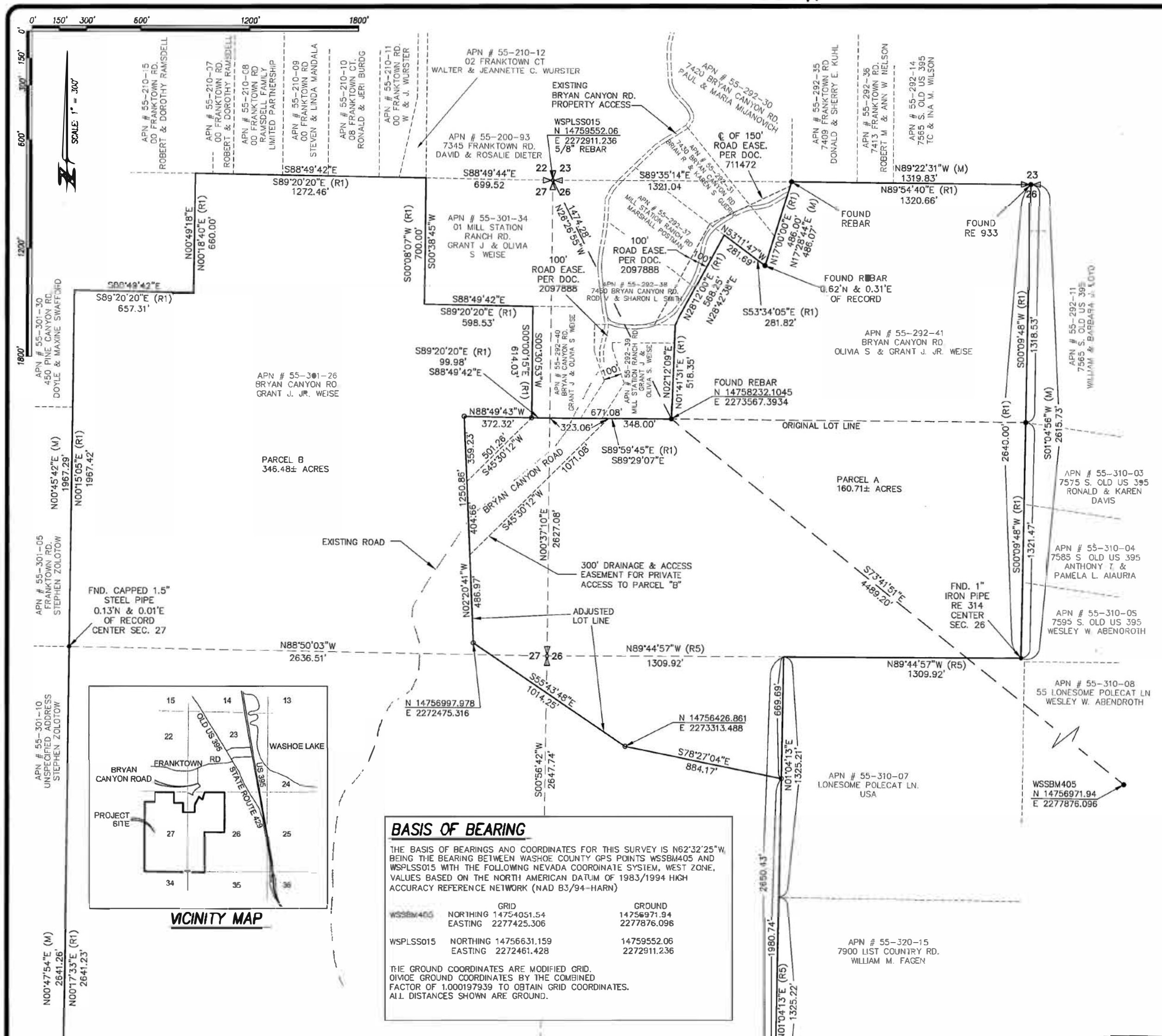
Drilling Contractor Information

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

4473



BASIS OF BEARING

THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY IS N62°32'25"W, BEING THE BEARING BETWEEN WASHOE COUNTY GPS POINTS WSSBM405 AND WSPLSS015 WITH THE FOLLOWING NEVADA COORDINATE SYSTEM, WEST ZONE, VALUES BASED ON THE NORTH AMERICAN DATUM OF 1983/1994 HIGH ACCURACY REFERENCE NETWORK (NAD 83/94-HARN)

		GRID	GROUND
WSSBM405	NORTHING	14754051.54	14756971.94
	EASTING	2277425.306	2277876.096
WSPLSS015	NORTHING	14756631.159	14759552.06
	EASTING	2272461.428	2272911.236

THE GROUND COORDINATES ARE MODIFIED GRID. DIVIDE GROUND COORDINATES BY THE COMBINED FACTOR OF 1.000197939 TO OBTAIN GRID COORDINATES. ALL DISTANCES SHOWN ARE GROUND.

LEGEND

- ● FOUND CORNER, AS NOTED
- 22 23 / 27 26 SECTION CORNER, AS NOTED
- ○ SET 5/8" REBAR W/CAP PLS 7998
- ⊥ NOTHING FOUND, NOTHING SET
- (M) MEASURED DISTANCE/BEARING
- (R1) MAP REFERENCED DISTANCE/BEARING

TOTAL PROJECT AREA = 507.19 ACRES ±

3113133

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
COUNTY OF WASHOE } SS

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 278.530 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 9/27/04 DATE

PROFESSIONAL LAND SURVEYOR - STATE OF NEVADA
RANDAL L. BRIGGS
No 7998
exp 12-31-04

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 9-28-2004 DATE

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 10/06/04 DATE

REFERENCE DOCUMENTS

R1 RECORD OF SURVEY MAP #3239 FILED FOR RECORD MAY 19, 1997, OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA, DOCUMENT NO. 2099106.

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

LUMOS AND ASSOCIATES, INC.

DATE: AUGUST, 2004
JOB NO: 5737.004
SHEET 1 OF 1

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 P.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

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

Record of Survey Map 4473