



SOLUTION

CONSULTING ENGINEERS  
& ARCHITECTS

## SITE MANAGEMENT PLAN

Brown's Canyon Storage  
5520 High View Rd.  
Peoa, Ut 84061

PREPARED FOR OWNER:

The High Mountain View Land Trust, Date Sept 1, 2017  
John Tidwell Trustee  
P.O Box 684209  
Park City, Utah 84068

December 26, 2019

**The High Mountain View Land Trust  
Site Management Plan  
December 27, 2019**

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## 1.0 Introduction

This Site Management Plan (SMP) has been prepared by Red Brick Solution , LLC (RBS) on behalf of The High Mountain View Land Trust, Dated September 1, 2017 ("Owner") and describes requirements for the long-term management of contaminated soil and ground water at the Park City Stone Commercial Storage located at 5520 High View Road, Peoa, Ut 84061 (the Property; see Figure 1).

This SMP has been prepared in accordance with the requirements of R315-101 "Cleanup Action and Risk-Based Closure Standards". The R315-101 standard describes the information required to support risk-based cleanup and closure standards for facilities where remediation of hazardous constituents to residential screening levels or background concentrations will not be achieved.

### 1.1 Site Description

The Property is approximately 55 acres and consists of Assessor Parcel Number SS-76-3 and is currently occupied by Brown's Canyon Storage, a commercial storage company leasing storage space to twelve commercial tenants consisting of general contractors, excavators, landscapers, masons, and truckers.

**1.1.1 Legal Description:** The legal description of the parcel obtained from a Title Report issued by Stewart Title Guaranty Company is:

Lot 69, SS 76-3

FEE SIMPLE AS TO PARCEL 1, EASEMENT AS TO PARCEL 1A

PARCEL 1:

Lot 69, being located in section 16 and 21, township 1 south, range 5 east, salt lake base and meridian; and being more particularly described as follows:

Beginning at a point that is due south 4,025.952 feet and due east 13,278.554 feet from the Northwest corner of section 18, township 1 south, range 5 east, salt lake base and meridian; (said northwest corner bearing north 0°06'56" west from the southwest corner and being the basis of bearing for this description); thence south 48°30' east 1689.850 feet to a point on the northeasterly right of way line of state highway 196; thence along said right of way line the following courses: south 38°14'42" west 94.171 feet to a point of tangency with a 1095.916 foot radius curve; thence southwesterly along the arc of said curve to the right with a central angle of 10°53'18", a distance 208.266 feet; thence south 49°08' west 335.448 feet to a point of tangency with a 11,509.156 foot radius curve; thence southwesterly along the arc of said curve to the left, through a central angle of 1°35'00", a distance of 318.049 feet; thence south 47°33' west 310.082 feet to a point of tangency with a 2914.789 foot radius curve; thence southwesterly along the arc of said curve to the left through a central angle of 11°54'00", a distance of 605.386 feet; thence south 35°39' west 193.294 feet to a point of Tangency with a 2814.789-foot radius curve; thence southwesterly along the arc of said Curve to the right, through a central angle of 8°51'00", a distance of 434.778 feet; thence

South 44°30' west 767.327 feet; thence leaving said right-of-way line north 8°30' west 113.235 feet; thence north 30°34'45" east 766.16 feet; thence north 12°23'10" east 1305.383 feet; thence north 23°39'47" east 485.850 feet; thence north 2°12'09" west 260.192 feet; thence north 17°29'45" east 482.312 feet; thence north 00°58'46" east 260.892 feet to the point of beginning.

Parcel 1a:

Subject to and together with a 50-foot right-of-way designated as right of way "a".

A 50-foot right of way, 25 feet on each side of its center line, more particularly described as follows:

Beginning at a point north 89°48'46" east along the section line 91.760 feet from the Northeast corner of section 16, township 1 south, range 5 east, salt lake base and meridian, said section corner being north 89°49'27" east 15,876.138 feet from the northwest corner of section 18, township 1 south, range 5 east, which corner is north 01°06'55" west (used as the basis of bearing in this description) from the southwest corner of said section 18, thence south 22° west 637.266 feet; thence south 14°32'04" west 418.390 feet; thence south 49°29'05" west 723.464 feet; thence south 62°35'33" west 608.276 feet; thence south 36°52'12" west 275.00 feet; thence south 06°57'11" west 826.075 feet; thence south 32°20'51" west 177.553 feet; thence south 69°42'30" west 634.370 feet; thence south 38°20' west 274.089 feet; thence south 18°12'31" west 400.031 feet; thence south 0°58'46" west 585.085 feet; thence south 17°29'45" west 482.312 feet; thence south 02°12'09" east 260.192 feet; thence south 23°39'47" west 485.850 feet; thence south 12°23'10" west 1305.383 feet; thence south 30°34'45" west 766.616 feet; thence south 08°30' east 113.235 feet to the northerly right of way line of the state highway.

Situated in summit county, state of Utah.

**1.1.2 General Topography and Drainage:** The site is bounded on the west by High View Road, the road being a ridgeline separating to two drainage areas. The site is also bounded on the east by Brown's Canyon Road which is the drainage conveyance for the easterly watershed. The site slopes from the west to the east with the westerly half of the site sloping down at an approximately 10% grade and then increasing to an approximately 2:1 slope to the Brown's Canyon Road. The drainage is collected along the Brown's Canyon road and flows to the northeast off-site.

**1.1.3 Current Land Use:** The current site has been receiving offsite fill material to support future development. In addition, the northwestern 20 acres has been used for contactor's material storage and light industrial use. Although the site had a Conditional Use Permit (CUP) for light Industrial use, the site is currently zoned for residential use. On December 11, 2019 Brown's Canyon Storage sent notifications to its Commercial Tenants informing them that they must vacate the property by January 15, 2020 until a new CUP is obtained. Currently the owner stores construction equipment and construction materials. The owner has one permitted structure on site, several mobile home/offices, and sheds used for storage and/or stone cutting. No metal manufacturing or treatment occurs on the Property, although stones may be cut or drilled prior to sale if requested by the customer.

The Property is accessed from a gated driveway at 5520 High View Road at the south and north ends of the Property. Drinking water is supplied by a permitted well located on-site and sanitary services are disposed of through a septic system and private commercial portable sanitary waste services. Currently the property has an active agricultural use and grading permit.

The current adjoining properties to the north are operating under industrial and commercial business CUP's, offering commercial storage, mining, and stone crushing.

## **1.2 Site Background**

### **1.2.1 Summit County Revokes CUP**

During the owner's absent while on vacation, some suspicious material was placed on site and reported to Summit County Environmental Health Department. During their observations, questions arose about the fill material that was placed previously. On September 7<sup>th</sup>, 2018 a letter from Summit County was received revoking the February 6, 2008 CUP for "commercial open storage of rock/stone veneer and related equipment". As part of the motion and vote to revoke the CUP, the members of the Planning commission encouraged the owner in their letter to apply for a new CUP that better matched the uses proposed on site as quickly as appropriate once the site has been brought into compliance with Summit County Standards.

On November 18, 2018 an email was received from Phil Bondurant, the Director of the Environmental Health Summit County Health Department, who, via email, requested a series of tests that outlined procedures by the State of Utah in areas where questions about possible soil contamination exist. Additionally, these tests were to indicate if there was a risk to groundwater that could potentially impact overall water quality in the area. The following tests were requested and accomplished.

Test 1: The initial screening levels and Tier 1 screening criteria test for environmental assessments where soil contamination is a concern. These tests will provide information on the presence/ absence of potential petroleum contaminants.

Test 2: RCRA 8 heavy metal test such as Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg), Selenium (Se), and Silver (Ag) to be accompanied by a Toxicity Characteristic Leaching Procedure (TCLP) test.

In additions, these two tests would be able to determine if mine tailings were present and if they need to be removed.

### **1.2.2 Soil Sampling**

Based on the Director of the Environmental Health Summit County Health Department's recommendations, The High Mountain View Land Trust contracted with Red Brick Solution, LLC to conduct soils sampling as instructed. In addition, the water well sampling data was presented showing no contamination to the ground water had occurred.

On Thursday, November 29, 2018, Red Brick Solution (RBS) Field Crew collected samples of soils excavated from 24 test pits within the fill slope materials received from off-site construction contractors and three baseline samples of the native undisturbed in-situ material over 100-foot outside fill areas. The material was excavated using a JCB 200 backhoe known to leak hydraulic fluid. Although careful attention was given to this potential contamination, crews collected samples from the middle of the soil piles to ensure samples did not come in contact with the excavation bucket. Visual observation of the test pits showed that the soils strata was homogeneous in both color and grain size. There was no evidence of discoloration in the pits except for one, test pit #17, that showed a band of dark soil.

Soil samples were sent to American West Analytical Laboratories in Salt Lake City and Chemtech-Ford Laboratories in Sandy, Utah.

The test results for Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) showed that diesel range organics were detected and are widespread, yet specific results for benzene, naphthalene and other contaminants were not detected and organics did not need further evaluation. (see Red Brick Solution, LLC's Soil Sampling Reported, Dated December 17, 2019 for details)

Soil samples were also tested for heavy metals and a screening level risk assessment was completed to determine if metals contamination above background exceeded the residential or industrial standards of R315-101 or the groundwater protection values of R315- 101-3. To identify if the site meets the R315-101 standards, the maximum concentration of each metal was compared with EPA Regional Screening Levels (RSLs) and groundwater protection values found at this website: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>. A dilution attenuation factor of 20 (DAF-20) was used as the groundwater protection value.

The residential RSLs for the metals of concern are arsenic – 0.68 mg/kg, cadmium – 71 mg/kg, chromium – 12,000 mg/kg, hexavalent chromium 0.3 mg/kg, lead – 400 mg/kg, silver 390 mg/kg and thallium 0.78 mg/kg. As shown in Table 1 of Red Brick Solution, LLC's Soil Sampling Reported, Dated December 17, 2019; arsenic, lead, thallium and potentially hexavalent chromium exceeded the residential RSLs or groundwater protection value and were the only contaminants further evaluated.

Arsenic exceeds the industrial RSL of 3.0 mg/kg. To further evaluate site specific risks a ratio approach was used to evaluate arsenic and hexavalent chromium in a site-specific industrial setting. This was done as follows: maximum site concentration/industrial RSL x  $1.0 \times 10^{-6}$ . For arsenic the values are:  $226/3 (75) \times 10^{-6} = 7.5 \times 10^{-5}$ . Since chromium was detected, but hexavalent chromium samples were not collected a similar approach was used. The values used for hexavalent chromium are  $69/6.3 (10.9) \times 1.0 \times 10^{-6} = 1.09 \times 10^{-5}$ . The summed total cancer risk value for both contaminants is  $8.4 \times 10^{-5}$ , which is below the risk value of  $1.0 \times 10^{-4}$ .

### **1.2.3 Site Remediation**

The Property owner, The High Mountain View Land Trust, retained Red Brick Solution, LLC to prepare a final soils sampling report with oversight by the Utah Department of Environmental Quality, Division of Waste Management and Radiation Control (WMRC) to define the nature and extent of contamination. Details of the investigation and subsequent remediation are presented in the Soil Sampling and Testing Report (Red Brick Solution, LLC., 2019 c).

Soil samples collected at various areas across the site provide adequate data to assess the site. The sample results indicate arsenic, lead, thallium and possibly hexavalent chromium exceed EPA residential RSL values. Arsenic and potentially hexavalent chromium also exceed industrial RSLs, but do not exceed site specific industrial cancer values. Arsenic, lead and hexavalent chromium exceed DAF-20 groundwater protection values, but several lines of evidence as listed above show the contamination in shallow soil does not represent a source of ground water contamination.

Based on the risk assessment results, the site does not qualify for residential land use. However, the site does qualify for industrial land use as defined in R315-101.

## **2.0 Proposed Site Management (SMP)**

This SMP is designed to minimize potential risks to human health and the environment through a combination of site management and an environmental covenant (EC). The use of the Property is recommended to be rezoned to industrial land use. Site workers and construction workers would be the most likely exposed individuals; potential exposures to customers visiting the Property are not expected to be significant. Unless land use changes as described in Section 2.1, below, the SMP is applicable to all owners of the property.

### **2.1 Land Use Limitations**

Due to contamination of surface soil by arsenic, lead, thallium and possibly hexavalent chromium at concentrations above the residential use standards of R315-101, use of the Property is limited to commercial and industrial land use consistent with applicable local zoning laws. Residential land use, land uses with human exposure scenarios similar to residential land use (e.g., homeless shelters and long-term care facilities), and land uses that may expose children or the infirm to contaminants (e.g., schools, day care facilities, managed care facilities, and hospitals) are prohibited. Planting crops or fruit trees for consumption by humans or livestock is prohibited.

Thus, the revocation of the previous CUP reverting the property back to residential land use places significant health risks to development and required advanced written notification to Utah Department of Environmental Quality, Division of Waste Management and Radiation Control (WMRC).

In consideration of human health risk assessment, adjacent property uses, corrective actions outlined in this SMP, and the implantation of an Environmental Covenant; the requirements allowing for a change in land use of the property to commercial light industrial can be approved by the Director of WMRC.

## **2.2 Groundwater Use**

Considering the depth to groundwater, migration rates of contaminants, and current water testing reports, no groundwater restrictions are deemed necessary and groundwater at the site may be used for drinking water. However, groundwater generated on-site shall be monitored for potential contamination annually and reported to WMRC noting any deviations from previous samplings.

## **2.3 Land Disturbance & Remediation**

In consideration of the Owners intent to develop the site to a light industrial commercial park, the following development considerations are presented to help mitigate transmigration of heavy metals.

1. Any additional imported soils used for fill material will be tested at its source and pre-approved by Summit County Health Department prior to placement on-site.
2. No existing soil fill material on-site will be exported off site without prior testing to determine heavy metal concentrations and appropriate uses are met.
3. Relocating existing soil fill material on-site may be considered without prior testing if the material is relocated where it will be covered with impervious pavement or receive a minimum cover of 36-inches of clean fill material.
4. All existing soil fill areas will be capped with impervious pavements or foundations.
5. Future planters within the currently identified contaminated fill areas will be over excavated to receive 36-inches of clean fill soils.

### **2.3.1 Pavement Maintenance**

Although contaminated surface soil can be mitigated by being covered with impervious pavement, the Owner shall maintain the pavement above the contaminated fill areas in good condition so as to prevent water migration into the sub-soils.

### **2.3.2 Soil Removed from the Property**

The Owner shall sample and analyze for total metals and TCLP metals any soil to be removed from the Property. There are no restrictions for the off-site disposal of soil if TCLP results show the soil is not hazardous and total metals concentrations are below both the current EPA Regional Screening Levels (RSLs) for Residential Soil and the EPA Protection of Ground Water Soil Screening Levels (SSLs) calculated with DAF-20, and for arsenic, below background concentrations (20.34 mg/kg; UDEH 1991). If metals concentrations exceed TCLP limits the waste must be managed as hazardous waste. Contaminated soil that exceeds the screening/background levels but does not exceed TCLP values shall be disposed of at a permitted Subtitle D solid waste landfill.



### **3.0 Environmental Covenant**

The Owner will reduce potential risks for site workers and construction workers through an Environmental Covenant (EC) that complies with Utah Code 57-25 Sections 101-114. This EC will include the activity and use limitations described above which have been designed to reduce or eliminate exposure to contaminated soil and groundwater.

### **4.0 Site Management Contacts**

The contact for The High Mountain View Land Trust, for any questions or comments regarding this plan is:

Manager  
Paul Trunnell  
Brown's Canyon Storage  
P.O Box 684209  
Park City, Utah 84068  
Tel: (208) 290-6758

The contact for WMRC for any questions or comments regarding this plan is:

Director  
Utah Department of Environmental Quality  
Division of Waste Management and Radiation Control  
195 North 1950 West  
P.O. Box 144880  
Salt Lake City, Utah 84114-4880  
801-536-0200

## 5.0 References

- SCCDDPD. 2018. Letter from Patrick Putt, Director, Summit County Community Development Department – Conditional Use Permit for property located at 5520 North High View Road to Paul Trunnell.  
September 2018
- UDEQ. 2019. Letter from Ty L. Howard, Director, Department of Environmental Quality , Site Inspection of cleaned-up Disposed Solid Waste 5520 North High View Road, Summit County to Paul Trunnell, Brown’s Canyon Storage, LLC.  
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- Red Brick Solution, LLC. 2019. Soil Sampling and Testing Summary Report, 331 S Rio Grande Street Suite 203, Salt Lake City, Utah 84101, Utah, RBS.  
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- USEPA. 2017. Transmittal of Update to the Adult Lead Methodology's Default Baseline Blood Lead Concentration and Geometric Standard Deviation Parameters Calculations of Preliminary Remediation Goals (PRGs) for Soil in Nonresidential Areas. U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee. OLEM Directive 9285.6-56. May 17, 2017.
- USEPA 2019. Reginal Screening Levels (RSLs) and groundwater protection values found at this website: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>.  
November 2019