INFORMATION FOR THE JANUARY 22, 2020
TONOPAH LIBRARY DISTRICT
BOARD OF TRUSTEES MEETING

4-7

AGENDA ITEM:
Discussion, deliberation and possible action to select preferred Brownfields Cleanup Alternative and Reuse plan for property located at 155 Central Street;

PETITIONER: (Include Name, Address, Phone Number, E-mail)

Chris Mulkerns, Administrative Manager
P.O. Box 151
Tonopah, NV 89049
775.482.3591

BACKGROUND OF ACTION ITEM REQUESTED:
Please see attached.

FISCAL IMPACT:
To be determined.

Please note: Due to posting requirements, all agenda items must be turned in by 12:00 noon five working days (Wednesday) prior to the day of the scheduled meeting or by 12:00 noon six working days (Tuesday of the prior week) if a holiday falls prior to the meeting.

NOTE: (The days in parentheses are for regular scheduled Library Board meetings which fall on the second and fourth Wednesday of each month)

In order to facilitate the review and consideration of an agenda item presented to the Tonopah Library Board, please include all documents or any relevant material or information with your request.

Chris Mulkerns — 1/13/20
Signature (required) — Date

Request taken by: J Mill — Date: 1.13.20

Analysis of Brownfields Cleanup Alternatives and Cleanup and Reuse Plan

Tonopah Library Expansion Project

155 Central Street
Tonopah, Nevada 89049

Portion of
Nye County Assessor Parcel Number (APN):
008-139-12

Prepared For:
Nye County
2100 East Walt Williams Drive, Suite 100
Pahrump, Nevada 89048

Tonopah Library District
P.O. Box 449
Tonopah, Nevada 89049

On Behalf Of:
Nevada Rural Brownfields Partnership

Prepared By:
BEC Environmental, Inc.
7241 West Sahara Avenue, Suite 120
Las Vegas, Nevada 89117
(702) 304-9830
www.becnv.com

Project No. 804.14.001
December 5, 2019

bec environmental, inc.
Environmental Services

Table of Contents

List of Tables

List of Appendices

STANDARD ACRONYM LIST

ABCA	Analysis of Brownfields Cleanup Alternatives
ACM(s)	Asbestos Containing Material(s)
APN	Assessor's Parcel Number
ASTM	American Society for Testing and Materials
bgs	Below Ground Surface
CFR	Code of Federal Regulations
CoC	Chain of Custody
DRO	Diesel Range Organics
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
GPR	Ground Penetrating Radar
GRO	Gas Range Organics
HAZWOPER	Hazardous Waste Operations and Emergency Response
LBP	Lead-Based Paint
LCS	Laboratory Control Samples
MDL	Method Detection Limit
MRL	Minimum Reporting Limit
NDEP	Nevada Division of Environmental Protection
NELAC	National Environmental Laboratory Accreditation Program
NESHAP	National Emission Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NRBP	Nevada Rural Brownfields Partnership
NVLAP	National Voluntary Laboratory Accreditation Program
ORO	Oil Range Organics
OSHA	Occupational Safety and Health Administration
PAH	Polycyclic Aromatic Hydrocarbons
Pb	Lead
QC	Quality Control
RACM	Regulated Asbestos Containing Material
REC(s)	Recognized Environmental Condition(s)
RC(s)	Reportable Concentration(s)
RCRA	Resource Conservation and Recovery Act
RDSBC	Rural Desert Southwest Brownfields Coalition
RL	Reporting Limit
RLF	Revolving Loan Fund
RSL	Regional Screening Level
SAP	Sampling and Analysis Plan
SHPO	State Historic Preservation Office
SVOCs	Semivolatile Organic Compounds
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
UST(s)	Underground Storage Tank(s)
VOCs	Volatile Organic Compounds

COMMON UNITS OF MEASURE

in.	inches
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
ppm	parts per million
lb.	pound
psi	pounds of force per square inch
sq ft	square feet
yd^3	cubic yards
wt%	weight percent

1 INTRODUCTION AND BACKGROUND

BEC Environmental, Inc. (BEC) has been authorized by Nye County, Nevada, on behalf of the Nevada Rural Brownfields Partnership (NRBP) to prepare this Analysis of Brownfields Cleanup Alternatives (ABCA) and Cleanup and Reuse Plan for the Tonopah Library Expansion Project, located on a portion of Nye County Assessor's parcel number (APN) 008-139-12. This document is being prepared as part of the NRBP Revolving Loan Fund grant (BF-99T03101) funded by the United States Environmental Protection Agency (EPA). The subject site comprises the undeveloped northeastern and southern portions of a 0.13-acre parcel and is being utilized as part of a phased expansion of the Tonopah Library onto this parcel. The address currently associated with the parcel is 155 Central Street, Tonopah, Nevada 89049. The structures associated with parcel APN 008-139-12 will not be included in the subject site for the purpose of this ABCA.

1.1 Site Location

The subject site comprises the northeastern and southern portions of APN 008-139-12, approximately 0.13-acres of the parcel, at 155 Central Street, Tonopah, Nye County, Nevada 89049, in Township 3 North, Range 42 East, Section 35, Mt. Diablo Meridian. Refer to the **Vicinity Map** (**Appendix 1, Figure 1**) and the **Assessor's Parcel Map** (**Appendix 1, Figure 2**) for the location of the subject site addressed for the purposes of this study.

The subject site adjoins a residential property to the north and the Tonopah Public Library to the south. The subject site is situated between Summit Street to the west and Central Street to the east. The surrounding properties are mixed use, with predominantly residential properties north and west of the subject site and predominantly commercial properties south and east of the subject site.

1.2 Ownership and Previous Use

Nye County Assessor's data recorded a 678 square foot residence, constructed in 1931. It appeared to have been used for only residential purposes and was not occupied at the time of site reconnaissance. The subject site was included in the Tonopah Multiple Resource Area National Register of Historic Places – Nomination Form, listed as the Judge Sawle house (TON-116) as an example of a frame cottage with traces of traditional Victorian ornamentation (SHPO, 1982). Due to the potential historic significance of the structure, the Library District is coordinating with local interested parties to plan long-term redevelopment of that portion of the project site and it will not be included in the subject site for the purpose of this ABCA.

The subject site is an undeveloped portion of the 0.13-acre parcel, at 155 Central Street, Tonopah, Nye County, Nevada 89049. A shed formerly located on the west side of the parcel was removed after 2013 based on aerial imagery. The former property owner informed BEC the shed collapsed and was removed.

1.3 Site Assessment Findings

BEC conducted a Phase I Environmental Site Assessment (ESA) for the subject site in August 2017, for Nye County on behalf of the Rural Desert Southwest Brownfields Coalition (RDSBC). The ESA was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-13 to identify Recognized Environmental Conditions (RECs) associated with current or past uses of the property or nearby properties. The following were the relevant findings of the Phase I ESA:

- Based on the presence of potential vent, fill, and propane feeder pipes observed during site reconnaissance, the potential exists for an unregistered heating oil underground storage tank (UST) on the subject site. The potential USTs on site and the corrosive soils in the vicinity

indicate the potential exists for a release of petroleum hydrocarbons on the subject site. As such, this potential UST was a REC for the subject site.

- Based on the assessed age of the dwelling on the subject site, the potential exists for lead-based paint (LBP) on interior and exterior portions of the structure. BEC considered the potential presence of LBP a Business Environmental Risk (BER).

A Limited Phase II ESA was completed by BEC in January 2019 (BEC, 2019), to evaluate the aforementioned RECs. Findings from the portions of the Phase II relevant for this cleanup effort are discussed in the following sections.

1.3.1 Underground Storage Tanks

A ground-penetrating radar (GPR) survey was performed by Nathan Rasnick, GPR Data, utilizing a GPR and an M-scope metal detector on October 4, 2018 (GPR, 2018). The survey did not find evidence of an underground storage tank but did find evidence of an underground gas line and two septic tank cleanouts.

1.3.2 Petroleum Hydrocarbons in Soils

Soil samples were collected to be analyzed for total petroleum hydrocarbons over two sampling events. Soil samples locations were selected during the initial site visit on October 4, 2018, to determine whether underground conveyance lines leaked, or contamination was present in the vicinity of the septic cleanouts. Additional surface samples, collected from 0 to 2 inches (in.) below ground surface (bgs), and subsurface soil samples, collected at approximately 6 in. bgs, were collected on November 28, 2019, to delineate the horizontal and vertical extent of contamination. All soil samples were analyzed for total petroleum hydrocarbons (gas, diesel, and organic ranges) (TPH-G, TPH-D, TPH-O), volatile organic carbons (VOCs), and semivolatile organic carbons (SVOCs) (polycyclic aromatic hydrocarbons [PAHs]). Subsurface soil sample locations and results are depicted in **Appendix 1, Figure 4 – TPH Soil Samples: Subsurface**.

Laboratory results indicated TPH was present above the Nevada Division of Environmental Protection (NDEP) reportable concentration of 100 milligrams per kilogram (mg/kg) for total petroleum hydrocarbons (TPH) in four surface soil samples. In three surface soil samples, petroleum constituents were present in concentrations greater than the NDEP reportable concentration, as well. Surface soil sample locations and results are depicted in **Appendix 1, Figure 3 – TPH Soil Samples: Surface**. Constituent concentrations greater than the reportable concentration are depicted in red.

Laboratory results indicated TPH was present above the NDEP reportable concentration of 100 mg/kg for TPH in one subsurface soil sample collected at six inches below ground surface. In three subsurface soil samples collected at six inches below ground surface, petroleum constituents were present in concentrations greater than the NDEP reportable concentration, as well. Subsurface soil sample locations and results are depicted in **Appendix 1, Figure 4 – TPH Soil Samples: Subsurface**. Constituent concentrations greater than the reportable concentration are depicted in red.

1.3.3 Lead in Soils

Composite soil samples were collected on October 4, 2018, to determine the average concentration of lead in the drip lines of the house and from the footprint of a of a building that collapsed and was removed prior to assessment activities as depicted in **Appendix 1, Figure 5 – Pb Soil Samples: Composite**. These composite samples were collected in accordance with U.S. Department of Housing and Urban Development (HUD) Guidelines under Title X – Residential Lead-Based Paint Hazard Reduction Act to assess potential risk of exposure for sensitive receptors. Laboratory results of this initial composite sampling event indicated total lead was present in excess of 400 mg/kg. This is the threshold established

by HUD for areas dedicated as child play areas. None of the samples exceeded 1,200 mg/kg, the HUD threshold for non-child play areas. The future planned reuse was not anticipated to be a child play area.

However, NDEP also established a threshold of 400 mg/kg for lead in soil. To determine if the quantity of lead impacted soil would be a reportable release, a follow up sampling event collecting grab samples for lead was conducted on October 23, 2019. Twenty-four soil samples were collected from eight locations and three depths: 0-2 in. bgs, 6 in. bgs, and 12 in. bgs (**Appendix 1, Figure 6 – Pb Soil Samples: Surface, Figure 7 – Pb Soil Samples: 6 inches bgs, Figure 8 – Pb Soil Samples: 12 inches bgs**). Each sample was analyzed for total lead and for mobile lead using the Toxicity Characteristic Leaching Procedure (TCLP). Two surface soil samples and one sample collected from six in. bgs exceeded the NDEP reportable concentration of 400 mg/kg for lead. None of the leachate samples exceeded the toxicity characteristic screening level of 5.0 mg/L. Based on the results of this follow up sampling event, there did not appear to be sufficient quantity of lead impacted soil to warrant reporting a release to the NDEP.

1.4 Project Goal

The project goal is to mitigate the adverse environmental and human health impacts presented by the contaminated soil on the undeveloped portions of the parcel.

2 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

This section identifies the cleanup oversight responsibility and cleanup standards for major contaminants.

2.1 Cleanup Oversight Responsibility

Based on the nature of a release and its possible impact on human health, safety, and the environment, different types of agencies have jurisdiction over regulation of the site, and in some cases, jurisdiction is shared between agencies. Site assessments were funded as part of the RDSBC Assessment grant (BF-99T-61801), funded by the United States EPA. The Tonopah Library District is seeking assistance for cleanup expenses through the NRBP RLF Program. The environmental contamination identified on the site did not exceed their associated NDEP reportable quantities, and no spill report was required. Therefore, the EPA Brownfields office will have oversight responsibility for the cleanup should the Library District's application to receive a cleanup sub-grant be approved.

Upon initiation of the RLF cleanup process, the EPA Project Officer will be required to coordinate with the State Historical Preservation Office (SHPO) regarding cleanup and redevelopment plans for the site.

2.2 Cleanup Standards for Major Contaminants

The NDEP Bureau of Corrective Actions (BCA) has published draft guidelines establishing Reportable Concentrations (RCs) for discovery events. The NDEP RCs are based upon the principles applied by EPA Region 9 in calculating regional screening levels (RSL). These screening levels are chemical-specific concentrations for individual contaminants in air, drinking water, and soil that warrant further investigation or site cleanup. Typically, screening levels are not cleanup standards. For this site, the NDEP RCs served as preliminary remediation goals during the assessment phase to select appropriate detection limits for investigative sampling. Soil samples exceeded the regulatory threshold for TPH, benzo[a]-anthracene, benzo[a]-pyrene, benzo[b]-fluoranthene, indeno[1,2,3-c,d]pyrene, and lead. However, the total volume of impacted soil appears to be less than three cubic yards. Therefore, no NDEP spill report was required based on the analytical information collected during the Phase II process.

The NDEP RC of 400 milligrams per kilogram (mg/kg) for lead in soils was derived from the EPA RSL for Residential Soil. The mass of impacted soil appeared to be lower than the NDEP reportable quantity

of 10 pounds (lbs.). However, the property owner has chosen to perform due diligence and install engineering barriers to prevent exposure of site users to the contaminants identified in the soil.

2.3 Laws and Regulations Applicable to the Cleanup

Preconstruction cleanup activities at the Site will be conducted by contractors operating in accordance to the US Department of Labor, Occupational and Safety Health Administration (OSHA) Hazardous Waste Operations, and Emergency Response Standard (HAZWOPER), 29 CFR §1910.120. HAZWOPER applies to clean-up operations at sites recognized by federal, state, local, or other governmental body as uncontrolled hazardous waste sites.

Nevada OSHA follows the federal OSHA standards pertaining to all construction work where an employee may be occupationally exposed to lead. These regulations are found in OSHA Title 29 CFR Part 1926 Safety and Health Regulations for Construction Subpart D Occupational Health and Environmental Controls (20 CFR §1926.62).

Laws and regulations applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, and county laws regarding procurement of contractors to conduct the cleanup. In addition, excavation and grading permits and underground service alert notifications will be obtained prior to the work commencing.

3 EVALUATION OF BROWNFIELDS CLEANUP ALTERNATIVES

The following sections discuss and evaluate the cleanup alternatives to determine a preferred alternative.

3.1 Cleanup Action Objectives

The objective of remediation at the site is to protect human health and the environment from potential exposure by demonstrating a condition of no significant risk has been achieved for current and future users of the site. To achieve such an outcome, exposure to concentrations of lead and petroleum hydrocarbons in soil through direct contact must be prevented for the continued use of the site.

3.2 Identification and Evaluation of Cleanup Alternatives

Several potential alternatives were considered to address environmental hazards at the site. BEC evaluated the alternatives and identified a limited number of practicable remedial alternatives that could be implemented based on available site data and professional experience. The “No Further Action” alternative was also included as part of the evaluation to establish a basis for conducting remediation actions at the site. The remedial alternatives identified for consideration include:

1. No Further Action
2. Excavation of Lead-Contaminated and TPH-Contaminated Soil, and Off-Site Disposal
3. Paving Over Lead-Contaminated and TPH-Contaminated Soil with Asphalt
4. Paving Over Lead-Contaminated and TPH-Contaminated Soil with Concrete

Evaluation criteria included effectiveness, implementability, and cost. The evaluation for effectiveness considered the appropriateness of the alternative with respect to long and short-term satisfaction of cleanup goals, and comprehensiveness in terms of protection to human and environmental health and safety. Implementability addresses the technical and administrative feasibility of the remedial alternative. Cost evaluations address the short and long-term costs associated with remedy implementation.

3.2.1 Alternative 1 – No Further Action

Under the No Further Action Alternative, the site would remain unchanged. Any TPH, PAHs, and lead would remain in place.

3.2.1.1 Effectiveness

This alternative would not lower concentrations of contaminants known to pose a potential risk to children, families, future Tonopah Library workers, and other users of the site. For this reason, the No Further Action Alternative is considered to not be effective with respect to human health.

3.2.1.2 Implementability

No implementation would be involved.

3.2.1.3 Cost

No direct costs would be incurred. Indirect costs might result from user exposure to lead and petroleum hydrocarbon constituents associated with the contaminated soil.

3.2.2 Alternative 2 – Excavation of Lead-Contaminated and TPH-Contaminated Soil, and Off-Site Disposal

This alternative would involve the scraping of contaminated surface soil within the undeveloped portions of the parcel and excavating soil to a depth of 12 inches in areas where deeper contamination was observed. Contaminated soil would be containerized onsite and would be transported to and disposed of at an appropriately licensed disposal facility. Confirmation sampling would be conducted to ensure the concentration of TPH did not exceed the NDEP RC of 100 mg/kg, PAHs in remaining soil did not exceed the NDEP RC's for individual constituents, and lead in remaining soil did not exceed the NDEP RC of 400 mg/kg or the toxicity characteristic level for leachates of 5 mg/L. If more than the reportable quantity of soils are determined to be hazardous, based on confirmation sampling, this would need to be reported to NDEP.

3.2.2.1 Effectiveness

This alternative would remove the majority of site contaminants, significantly reducing exposure pathways. The extent of lead-, TPH-, and PAH-impacted soil is understood to be less than three cubic yards. Based on limited visual evidence of contamination, confirmation sampling along the bottom edge of the excavation boundaries would be conducted to provide enough information that further excavation was required, or to support a finding of no significant remaining risk.

3.2.2.2 Implementability

This alternative could be readily implemented.

3.2.2.3 Cost

The cost for TPH, PAH, and lead removal is approximately $49,100, based on preliminary quotes conducted with hazardous waste removal specialists and include excavation, transport, and disposal fees. However, this does not include the cost of importing fill material to complete redevelopment activities of the project site and the overall cost of implementing this alternative would be higher.

3.2.3 Alternative 3 – Paving Over Lead-Contaminated and TPH-Contaminated Soil with Asphalt

This alternative would involve paving over the soil with TPH, PAH, and lead concentrations greater than their individual reportable concentrations. The undeveloped portion of the parcel will be paved over with asphalt to permanently remove any potential exposure pathways at the surface. Because the property would be repurposed to be used as a parking lot for the public library a civil engineer is required to design

and survey the property. Paving over the contaminated soil would be considered an effective engineering control for this alternative.

Leaving contamination in place in the soils with pavement acting as a barrier would necessitate an Activity and Use Limitation on the property, meaning a restriction would be placed on the deed or lease prohibiting the disturbance of the pavement, and requiring monitoring and maintenance to preserve the integrity of the pavement.

3.2.3.1 Effectiveness

This alternative would satisfy regulatory requirements and significantly reduce exposure pathways by creating an impermeable barrier between users of the site and contamination in soils. However, the average life expectancy of an asphalt parking area is only 15 years, and the barrier would need to reinstalled or restored on a cyclical basis for effective implementation.

3.2.3.2 Implementability

This alternative could be readily implemented.

3.2.3.3 Cost

The cost for a Civil Engineer to survey and design parking lot is approximately $10,000, based on preliminary quote.

The cost to pave approximately 5,000 sq ft of asphalt over the undeveloped portion of the parcel is approximately $29,600, the cost estimated was derived using standard asphalt paving per square foot and includes labor and materials.

3.2.4 Alternative 4 – Paving Over Lead-Contaminated and TPH-Contaminated Soil with Concrete

This alternative would involve paving over the soil with TPH, PAH, and lead concentrations greater than their individual reportable concentrations. The undeveloped portion of the parcel will be paved over with concrete to permanently remove any potential exposure pathways at the surface. Because the property would be repurposed to be used as a parking lot for the public library a civil engineer is required to design and survey the property. Paving over the contaminated soil would be considered an effective engineering control for this alternative.

Leaving contamination in place in the soils with pavement acting as a barrier would necessitate an Activity and Use Limitation on the property, meaning a restriction would be placed on the deed or lease prohibiting the disturbance of the pavement, and requiring monitoring and maintenance to preserve the integrity of the pavement.

3.2.4.1 Effectiveness

This alternative would satisfy regulatory requirements and significantly reduce exposure pathways by creating an impermeable barrier between users of the site and contamination in soils. The average life expectancy of a concrete paved parking area is 30 years. The barrier would need to be reinstalled or restored on a cyclical basis for effective implementation.

3.2.4.2 Implementability

This alternative could be readily implemented.

3.2.4.3 Cost

The cost for a Civil Engineer to survey and design parking lot is approximately $10,000, based on preliminary quote.

The cost to pave approximately 5,000 sq. ft. of concrete over the undeveloped portion of the parcel is approximately $95,000, the cost estimated was derived using six-inch concrete slab, no reinforcement, 450 psi concrete and the excavation of 6 inches of existing grade (EPA, 2019).

3.3 Comparison of Alternatives

Alternative 1, No Further Action, would leave the current situation at the site unchanged. No hazards would be removed, and the site would remain unusable.

Alternative 2, Excavation of Lead-Contaminated and TPH-Contaminated Soil, and Off-Site Disposal would require soil containing TPH, PAHs, and lead to be fully excavated and properly disposed of. While the exposure pathway would be eliminated, this would require the excavation and removal of an approximate 622.71 yd^3 of potentially contaminated soil. If the excavated soil is determined to be hazardous, a formal spill report would be required to be submitted to NDEP by the Tonopah Library District. Additional confirmation sampling would be required after excavation.

Alternative 3, Paving Over Lead-Contaminated and TPH-Contaminated Soil, using Civil Engineer design, would establish an asphalt cap over the onsite contamination and users of the library. Asphalt has an expected lifetime of approximately 15-20 years, but according to National Asphalt Pavement Association (NAPA) periodic maintenance and replacement is required (NAPA, 2019).

Alternative 4, Paving Over Lead-Contaminated and TPH-Contaminated Soil, using Civil Engineer design, would establish a concrete cap over the onsite contamination and users of the library. Concrete has an expected lifetime of approximately 20-30 years without resurfacing anything according to Environmental Protection Agency (EPA) (EPA, 2019).

Table 3-1 provides a summary of the cleanup alternatives considered.

Table 3-1: **Cost Estimate Comparison for Cleanup Alternatives**

	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**
Description	No further action – no remediation conducted	Excavation of Lead-Contaminated and TPH-Contaminated Soil, and Off-Site Disposal.	Civil Engineer survey and parking lot design. Paving over Lead-contaminated and TPH-contaminated soil using asphalt.	Civil Engineer survey and parking lot design. Paving over Lead-contaminated and TPH-contaminated soil using concrete.
Cost Estimate[1]	No associated direct costs	$49,022.79	$39,558.84	$105,000.00

The Site Cleanup Plan for the preferred alternative will be included in **Appendix 2** once selected by the Tonopah Library District. The selected alternative will be expanded, modified if necessary, and incorporated into the final Site Cleanup Plan for review by the community, project partners, the regulatory oversight agency, and the EPA.

[1] Costs are preliminary estimates based on consultant review of alternatives.

Consideration of Climate Impacts

Scientific evidence demonstrates climate is changing at an increasingly rapid rate. The EPA must adapt to climate change if it is to continue fulfilling its statutory, regulatory, and programmatic requirements. The EPA is therefore planning for future changes in the climate to ensure it continues to fulfill its mission of protecting the human health and the environment. As part of the EPA's Region 9 Climate Change Adaptation Implementation Plan (EPA, 2014), projects funded through Brownfields grants and remedial cleanups are required to consider the effects of changing climate on the environment and on effective means of accounting for this change in our decision-making and long-term planning.

According to the Implementation Plan, the "three severe potential impacts in EPA Region 9, relative to EPA's mission, are:

1) Decreased water availability due to drought and loss of snowpack;
2) Flooding due to more extreme weather events and sea level rise; and
3) Degradation of coral reefs due to ocean acidification and bleaching."

Potential impacts for the Nye County regional area include lack of rainfall, future droughts, and temperature increases (National Climate Assessment, 2014). The effects of these changes will likely impact groundwater recharge, increase in fire occurrence and area burned, agricultural productivity, habitat viability, and ecosystems.

Both **Alternative 2**, **Alternative 3,** and **Alternative 4** would result in adequate protection from soil containments. Under **Alternative 2**, surface soil would be scraped, chemically characterized, and disposed of at an appropriate facility. **Alternative 3** and **Alternative 4** would be capped and maintained to inhibit exposure to all future users. The long-term effectiveness of capping material in **Alternative 3** and **Alternative 4** could be directly impacted by projected climate impacts in this area. However, the following measures will be implemented where applicable, beneficial, or feasible, to improve the overall sustainability of the proposed remedial alternative.

3.3.1 Green Remediation Steps

3.3.1.1 Administrative

- Green remediation principles will be incorporated into the contracting process, where possible.
- Interim and final documents will be submitted in digital rather than hard copy formats, unless otherwise requested by EPA or required by law, in an effort to save paper and reduce carbon emissions associated with document transport.
- The use of electronic and centralized communication and outreach to the local community will be optimized.

3.3.1.2 General Site Operations

- Energy efficient equipment will be used.
- Water will be reused or recycled whenever possible.
- Water will be protected and conserved.
- Alternative fuel vehicles (hybrid-electric, biodiesel, ultra-low sulfur diesel) will be used, where possible.
- Carpooling for site visits and project meetings will be encouraged.
- Activities will be scheduled efficiently to minimize travel to and from the site.

3.3.1.3 Remediation Operations

- The use of fuel-efficient/alternative fuel vehicles and equipment will be encouraged.

- Mobilizations will be minimized.
- The use of diesel engines that meet the most stringent EPA on-road emissions standards available upon time of project's implementation will be encouraged.
- An idle reduction policy will be implemented, and idle reduction devices will be installed on machinery as practicable.
- Ultra-low sulfur diesel and/or fuel-grade biodiesel will be used as fuel on machinery where available.
- The use of machinery equipped with advanced emission controls will be maximized where practicable.
- Efficiency in transport/disposal of soils and backfill, utilizing practices such as backloading will be maximized.

4 LIMITATIONS AND ADDITIONAL ASSESSMENT NEEDS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. Recommendations provided are not necessarily inclusive of all possible conditions. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. This document is intended to be used in its entirety. No portion of this document, by itself, is designed to completely represent any aspect of the project described herein. Nye County should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The conclusions presented in this report are professional opinions based solely upon indicated data described in this report. The conclusions and recommendations are intended exclusively for the purpose outlined herein and for the site location and project indicated. This ABCA has been prepared for use by Nye County and the RDSBC. This document should not be relied upon by or transferred to any additional parties, or used for any other purpose, without the express written authorization of Nye County.

The findings, opinions, and conclusions contained herein are based on analytical results from soil, building material, and paint samples collected at the site during a Limited Phase II Environmental Site Assessment performed in January 2019. The conditions of the site can change with time as a result of natural processes or the activities of man at or within the vicinity of the site. Additionally, changes made to applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this document may, therefore, be invalidated over time, in part or in whole, by changes over which neither Nye County nor BEC has any control. Neither Nye County nor BEC can warrant or guarantee that not finding indicators of any particular hazardous material means this particular hazardous material or any other hazardous materials do not exist on the parcel. Additional research, including invasive testing, can reduce uncertainty, but no techniques now commonly employed can eliminate uncertainty altogether.

5 NEVADA ENVIRONMENTAL MANAGER CERTIFICATION

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312.

Additionally, in accordance with the Nevada Revised Statutes 459.500, Section 1, a holder of a certificate who is responsible for service requiring certification shall ensure that each document relating to the service includes the following language:

I, Rachel O. Schlick, hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state, and local statutes, regulations, and ordinances.

_____ _____

Rachel O. Schlick, CEM
Certified Environmental Manager
No. 2447
Expires: October 18, 2021

Date

6 REFERENCES

BEC. (2019). *Limited Phase II Environmental Site Assessment Tonopah Library Expansion* . BEC .

EPA. (2014, May). *Region 9 Climate Change Adaptation.* doi:EPA-100-K-14-011P

EPA. (2019, Cotober). *Construction and Demolition Debris Generation in the United States, 2015.* Retrieved from Environmental Protection Agency : https://www.epa.gov/sites/production/files/2018-09/documents/construction_and_demolition_debris_generation_in_the_united_states_2015_final.pdf

EPA. (2019, October). *Superfund Lead- Contaminated Residential Sites Handbook.* Retrieved from EPA: https://semspub.epa.gov/work/05/940518.pdf

GPR. (2018). *GPR Investigation for Underground storage tank for Tonopah Library Expansion Project* .

NAPA. (2019, October). *Asphalt Industry Update and Overview Straight Answers* . Retrieved from NAPA: https://www.asphaltpavement.org/index.php?option=com_content&task=view&id=379&Itemid=862

National Climate Assessment. (2014). *Chapter 20 Southwest.* Retrieved June 27, 2017, from Global Change: http://nca2014.globalchange.gov/downloads

NDEP. (2009). *Draft Guidelines for Discovery Events.* Retrieved from Bureau of Corrective Actions: https://ndep.nv.gov/bca/cem/appendix_a2_version2009_01_28.pdf

SHPO. (1982). *Tonopah Multiple Resource Area National Register of Historic Places - Nomination Form.* NPS . Retrieved May 16, 2018, from http://shpo.nv.gov/uploads/documents/64000532_-_Tonopah_MRA.pdf

APPENDIX 1

Figures

Figure 1 - Vicinity Map
Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

0 0.125 0.25 0.5
Miles

N

bec environmental, inc.
Environmental Services

Figure 2 - Assessor's Parcel Map

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

Not to Scale

N

bec environmental, inc.
Environmental Services

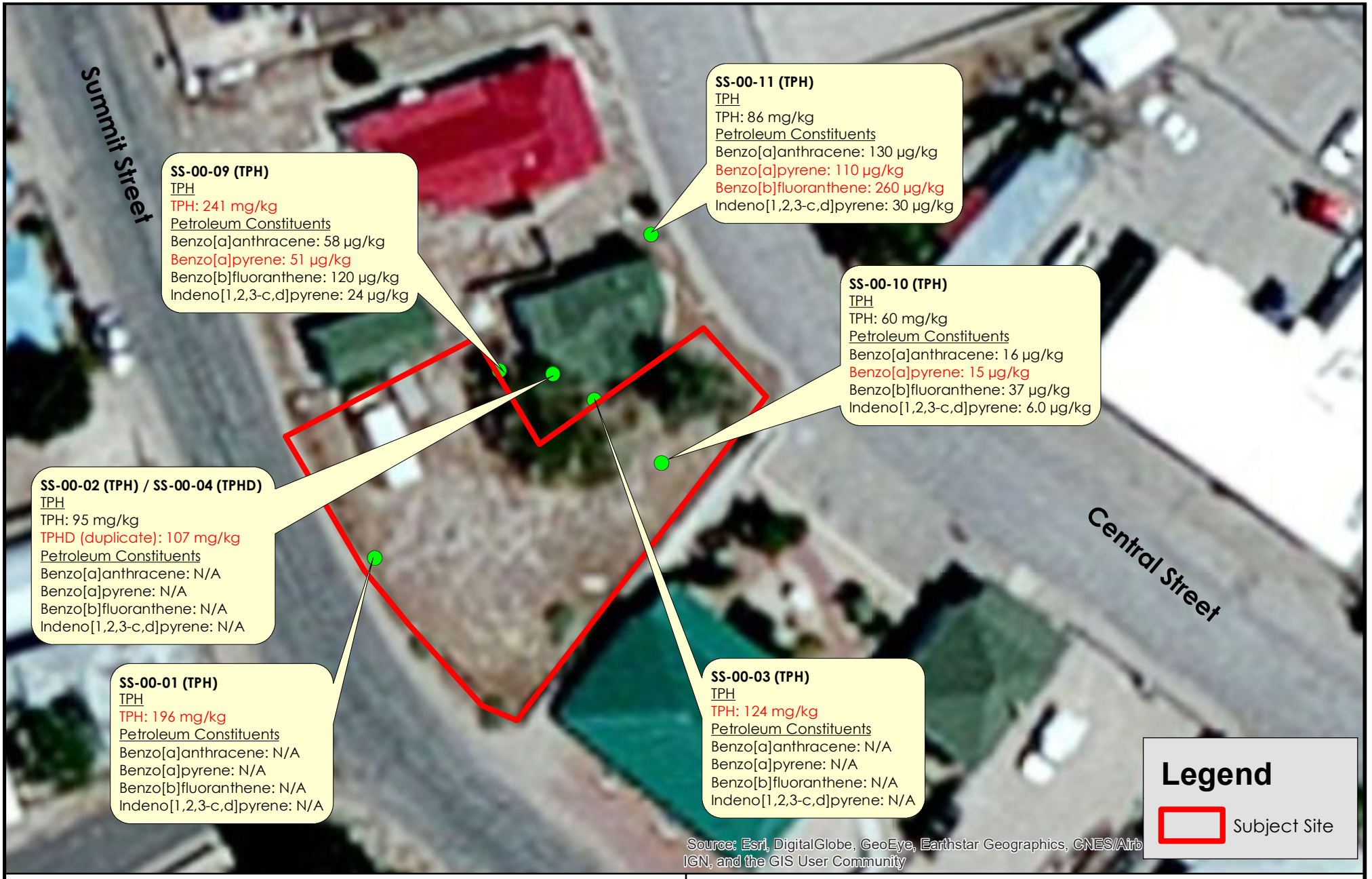

Figure 3 - TPH Soil Samples: Surface

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

0 25 50 100 150
Feet

N

bec environmental, inc.
Environmental Services

Figure 4 - TPH Soil Samples: Subsurface

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

0 25 50 100 150
Feet

N

bec environmental, inc.
Environmental Services

Figure 5 - Pb Soil Samples: Composite
Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

0 25 50 100 150
Feet

N

bec environmental, inc.
Environmental Services

Figure 5 - Pb Soil Samples: Surface

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

bec environmental, inc.
Environmental Services

Figure 7 - Pb Soil Samples: 6 inches bgs

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

bec environmental, inc.
Environmental Services

Figure 8 - Pb Soil Samples: 12 inches bgs

Tonopah Library Expansion
155 Central Street
Tonopah, Nevada

0 25 50 100 150
Feet

N

bec environmental, inc.
Environmental Services

APPENDIX 2

Cleanup Plan Alternative (#)

APPENDIX 3

Community Relations Plan

TONOPAH LIBRARY DISTRICT COMMUNITY RELATIONS PLAN
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) BROWNFIELDS REVOLVING LOAN FUND
GRANT/LOAN
TONOPAH LIBRARY EXPANSION SITE
155 CENTRAL STREET, TONOPAH, NEVADA 89048

DECEMBER 2019

OVERVIEW

This Community Relations Plan (CRP) outlines the communication strategy for the Tonopah Library District in addressing the needs and concerns of the citizens of Tonopah, Nevada, potentially affected by the proposed mitigation of environmental contamination present at the Tonopah Library Expansion site, located at 155 Central Street, Tonopah, Nevada 89049. The CRP outlines how the Library District will continue to involve residents and local organizations in the decision-making process regarding mitigation measures implemented at the site.

SPOKESPERSON & INFORMATION REPOSITORY

The Spokespersons for the project are:

Chris Mulkerns
Chief Financial Officer
Tonopah Library District
P.O. Box 449
Tonopah, NV 89049

[NAME]
[TITLE]
[ENTITY]
[ADDRESS LINE 1]
[ADDRESS LINE 2]

SITE DESCRIPTION & HISTORY

Site Location:

The subject site comprises the northeastern and southern portions of APN 008-139-12, approximately 0.13-acres of the parcel, at 155 Central Street, Tonopah, Nye County, Nevada 89049. One building is located on APN 008-139-12, but will not be included in the mitigation efforts for this brownfields project.

Site History:

Based on a review of historical documents, including historic aerial imagery and topographical maps, a structure located on the northeast corner of the property was constructed after 2006 and was no longer present after 2013. The former property owner informed representatives from BEC Environmental, Inc. (BEC) the shed collapsed and was removed.

Nature of Threat to Public Health & Environment:

A Phase I Environmental Site Assessment (ESA) was conducted for the site in August 2017. The Phase I ESA identified petroleum hydrocarbons in soil as a Recognized Environmental Condition and lead-based paint as a Business Environmental Risk. A Limited Phase II ESA was completed in January 2019. Samples were collected from the soil at the subject site. Laboratory results indicated petroleum hydrocarbons and lead were present in the soil, but the quantity was not large enough to require reporting the results to the Nevada Division of Environmental Protection as a release.

A draft Analysis of Brownfields Cleanup Alternatives (ABCA) document is in development for the site. This document outlines multiple mitigation options for the Tonopah Library Expansion site. The final alternative will be selected by the Tonopah Library District after community outreach activities have been conducted.

COMMUNITY BACKGROUND

Community Profile:

The properties surrounding the Tonopah Library Expansion site include residential and commercial development in a mixed-use neighborhood. The Tonopah Public Library is located south of the subject site.

Tonopah, located in northern Nye County, Nevada, has a population of approximately 2,355 based on the 2017 American Community Survey. Local government and education services are Tonopah's top employers.

Chronology of Community Involvement:

The chronology for community involvement related to this project includes the following outreach efforts and redevelopment timeline:

- On [DATE], the Tonopah Library District authorized applying for a Nevada Rural Brownfields Partnership site cleanup sub-grant.
- Notice of intent to redevelop the site and initiation of the public comment period for the ABCA will be published on the Nye County Board of Commissioners agenda on [DATE] for inclusion in the [DATE] Nye County Board of Commissioners meeting.
- A public meeting will be held at the Tonopah Library on [DATE] to provide an opportunity for interested members of the community to respond to the proposed mitigation efforts.
- Coordination with the Nevada State Historic Preservation Office will be conducted to determine if there are subsurface cultural resources of historic significance on the site which would require protection during the redevelopment process.
- Mitigation is anticipated to begin on [DATE].
- Mitigation is anticipated to be completed by [DATE].

Note: Nye County Board of Commissioner meetings are rotated between County Commission Chambers at 101 Radar Road, Tonopah, Nevada 89049; and County Commission Chambers at 2100 East Walt Williams Drive, Pahrump, Nevada 89048. The meetings are video-conferenced in both locations and are available to the general public on Nye County Streaming Media Archive website. This website has links for upcoming and archived meeting footage and allows live streaming of public meetings.

Key Community Concerns:

Concerns of community residents regarding the nature and extent of environmental contamination, and the proposed mitigation efforts for the site will be addressed as part of community relation efforts. Information will be shared regarding contaminants identified during assessment activities, as will the potential environmental and health risks.

Questions and concerns will be solicited in a public notice, published prior to the Nye County Board of Commissioners and Tonopah Library meetings. The notice will be published in the Tonopah Times, on the Tonopah Library District Facebook page, the Town of Tonopah Facebook page, the Nye County Facebook page, and the Rural Desert Southwest Brownfields Coalition Facebook page. The notice will encourage community members to attend the public meetings to have their concerns and ideas addressed.

Continued Community Involvement:

A legal notice will be published in the Tonopah Times to notify residents of a public meeting regarding the proposed mitigation measures implemented at the Tonopah Library Expansion site. In conformance with the Brownfields Cleanup Revolving Loan Fund requirements, the legal notice will also announce the central information repository for the project, including the ESAs and other pertinent information. The repository will be open and documents available for viewing during business hours and by appointment. The notice will also announce the start of the thirty-day comment period for the ABCA.

The Tonopah Library District and the Nye County Grant Manager will accept comments on the ABCA during the comment period, which is anticipated to begin on [DATE] and end on [DATE]. Written responses to comments will be provided as necessary and will become part of the administrative record. Residents can contact the Spokesperson at any point during the project with questions or concerns, which will be answered and responded to as appropriate.

The information repository will be updated with the inclusion of all meeting minutes, status reports, and other communications related to site mitigation. The information repository will retain project documents for 14 days following the implementation of mitigation measures. Project documents will be retained by Nye County for a minimum of three years following the close of the grant.

The selected alternative is to [COMPLETE AFTER ALTERNATIVE SELECTED].