

Analysis of Brownfields Cleanup Alternatives - Preliminary Evaluation
Farmers Union Building, 101 2nd Street East, Roundup MT, 59072
Prepared for Snowy Mountain Development Corporation

I. Introduction & Background

a. Site Location

The site is located at 101 2nd Street East, Roundup, Musselshell County, MT, USA (herein referred to as “the Site”).

a.1 Forecasted Climate Conditions

According to the US Global Change Research Program (USGCRP) through NOAA National Centers for Environmental Information, Montana’s average annual temperature has increased approximately 2°F since the early 20th century. This increase is most evident in winter warming, which has been characterized by fewer very cold days since 1990. Under a higher emissions pathway, historically unprecedented warming is projected by the end of the 21st century.

Montana’s mountains and river systems provide critical water resources not only for Montana but also for other downstream states. Projected increases in spring precipitation may have both beneficial (increased water supplies) and negative (increased flooding) impacts.

Higher temperatures will increase the rate of soil moisture loss during dry spells, leading to an increase in the intensity of naturally occurring future droughts. The frequency of wildfire occurrence and severity is projected to increase in Montana.

According to FEMA Flood Zone Map 3001740014A, the Site is located within a Zone A, and is in a special flood hazard area.

Based on the nature of the Site and its proposed removal of the building, these forecasted climate conditions are not likely to significantly affect the Site.

b. Previous Site Use(s) and any previous cleanup/remediation

The building in Roundup, MT was built in 1935 and was a gas and service station. It was originally built as a one-story building with a small mechanic’s garage entrance on the northeast half of the primary façade. Once the gas and service station were closed in the mid-20th century (exact date unknown), the building was converted into two commercial spaces and the original garage and customer entrance were removed. The building was remodeled with a two-story addition to the southwest side of the building. From approximately 1992-2014 the building housed the local food bank (Musselshell County Food Bank) and the Golden Thimble Clothing and Thrift store. By 2014, both the food bank and the thrift store were moved to a different location in Roundup. The building has been vacant since 2014.

A Hazardous Materials Survey (HMS) was performed in June 2019 and identified the potential for asbestos-containing material (ACM) and lead-based paint (LBP) to be present. In addition, mercury thermostat switches and a PCB fluorescent light were identified during the HMS.

c. Site Assessment Findings

The Hazardous Materials Survey (HMS) was conducted on June 20th, 2019 by Weston Solutions. Results of the HMS have confirmed the presence of contaminants of concern (COCs) at the Site. The following list is a summary of the results and conclusions regarding COCs and associated media identified at the Site by Weston Solutions:

Asbestos-Containing Material (ACM): Of the 81 samples submitted for laboratory analysis, 9 samples were determined to be “positive” (>1% asbestos) for asbestos. Based on the results of the ACM survey, asbestos is present in roofing materials of the building. ACM is considered a COC in relation to the Site.

Lead-Based Paint (LBP): Based on the X-ray fluorescence (XRF) results, elevated lead concentrations are present on the walls, ceilings, door frames, and windows in the building. Since there were no positive XRF readings (≥ 1 milligram per centimeter squared) on the exterior or bare soils present, lead impacts to surface soil or the environment are not applicable to the Site. Interior LBP is considered a COC at the Site.

Polychlorinated biphenyls (PCBs), Mercury, and Mold: A summary of the observations regarding the visual inspections conducted are presented below:

- Of the light ballasts observed, one PCB ballast was encountered. PCBs are considered COCs in relation to the Site.
- One mercury thermostat containing switches/thermostats was observed in the building. Mercury is considered a COC in relation to the Site.
- No mold was observed. Mold is not considered a COC in relation to the Site.

d. Project Goal

The planned reuse and redevelopment of the Site is for commercial use.

II. Applicable Regulations and Cleanup Standards

a. Cleanup Oversight Responsibility

The Montana DEQ Asbestos Control Program will be the regulating entity providing all appropriate permits and approvals of the asbestos abatement work performed at this property. The certified asbestos abatement contractor will submit all asbestos abatement plans to the Asbestos Control Program prior to commencing work. Upon review and approval, the Asbestos Control Program will then issue the asbestos abatement permit authorizing the asbestos abatement plan. This plan will include all necessary third-party clearance sampling confirming the abatement is complete. Once the abatement contractor has submitted their final abatement report, Snowy Mountain Development Corporation (SMDC) will request an audit to be performed by the Asbestos Control Program. The Asbestos Control Program will then review the final abatement report and confirm that the work plan was completed appropriately.

b. Cleanup Standards for major contaminants

SMDC will follow all the state cleanup standards for proper remediation of the asbestos containing material, lead based paint, and any other hazardous material found on the Site.

c. Laws & Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon

Act, state environmental law, Montana Prevailing Wages, and Town by-laws. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed.

In addition, all appropriate permits (*e.g.*, call before you dig, soil transport/disposal manifests) will be obtained prior to the work commencing.

III. Evaluation of Cleanup Alternatives

a. Cleanup Alternatives Considered

To address contamination at the Site there are three different alternatives considered:

Alternative #1: No Action,

Alternative #2: Remediation/Abatement of ACM, Mercury Containing Equipment and PCB containing equipment, removal of all LBP prior to building demolition.

Alternative #3: Remediation/Abatement of ACM, Mercury Containing Equipment and PCB containing equipment and complete demolition of the building.

b. Evaluation of Cleanup Alternatives

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

Effectiveness - Including Climate Change Considerations

- Alternative #1: No Action is not effective in stopping the health risks from the identified COCs at the contaminated Site. The Site is in a commercial area and needs to be remediated.
- Alternative #2: Abatement of building hazardous materials through the removal of ACM, mercury containing equipment, and demolition of LBP prior to full building demolition.
- Alternative #3: Abatement of building hazardous materials through removal of ACM, mercury containing equipment and PCB containing equipment then complete demolition of the building. (No demolition of LBP in the building)

Implementability

- Alternative #1: No Action is easy to implement since no actions will be conducted.
- Alternative #2: Removal/Abatement of all Hazardous Materials from the Site:

Based on the results of the Hazardous Material Survey, the following recommendations were made by Weston Solutions. These are standard abatement procedures for the COCs and are easy to implement using contractors with the appropriate training.

- Contracting an accredited asbestos remediation company to address the ACM at the Site during the cleanup phase of demolition (*e.g.*, abatement). ACM must be removed before any demolition activities begin to prevent ACM from becoming friable. ACMs are present only

in the roofing materials, which are considered non-friable. Roof removal should be performed to maintain the non-friable status of the ACM. If materials remain non-friable then disposal can be done using a class II landfill. Care must be taken during the removal process and workers must be made aware of the ACM present. Proper protective measures must be taken.

- Contracting an accredited lead remediation company to address the LBP at the Site during the cleanup phase of demolition. Under this alternative all the LBP would be demolished separate from standard building demolition. All work performed should be done so by an EPA Lead-Safe certified firm. Dust control methods should be implemented for the debris. The disposal facility should be contacted ahead of time to determine if Toxicity Characteristic Leaching Procedure (TCLP) samples will be required.
 - Mercury containing equipment should be properly removed.
 - PCB containing equipment should be properly removed.
 - ACM clearance sampling should be completed in accordance with the Sampling and Analysis Plan (WWC Engineering 2020).
 - LBP soil confirmation sampling should be completed after building demolition.
- Alternative #3: Removal/Abatement of ACM only from the Site and building demolition:
The abatement procedures would have the same level of implementability as Alternative #2, with the exception of LBP specific demolition. Building demolition would be performed without prior LBP removal.
 - Contracting an accredited asbestos remediation company to address the ACM at the Site during the cleanup phase of demolition (e.g., abatement). ACM must be removed before any demolition activities begin to prevent ACM from becoming friable. ACMs are present only in the roofing materials, which are considered non-friable. Roof removal should be performed to maintain the non-friable status of the ACM. If materials remain non-friable then disposal can be done using a class II landfill and disposed of as construction waste. Care must be taken during the removal process and workers must be made aware of the ACM present. Proper protective measures must be taken.
 - Mercury containing equipment should be properly removed.
 - PCB containing equipment should be properly removed.
 - ACM clearance sampling should be completed in accordance with the Sampling and Analysis Plan (WWC Engineering 2020).
 - LBP soil confirmation sampling should be completed after building demolition.

Cost

- There will be no costs under Alternative #1: No Action and no cost.
- Alternative #2: The total cost estimate for this alternative is \$25,373.85.
- Alternative #3: The total cost estimate for this alternative is \$23,955.38.

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3: Remediation/abatement of ACM, mercury containing equipment, removal of PCB ballast light fixtures and building

demolition. Alternative #1, No action does not provide any health protections or remove the hazardous building materials from the site. Alternative #2 requires special attention be given to the LBP hazards before building demolition. There would be added safety concerns for LBP demolition since removal of the roof section containing ACM could reduce the structural integrity of the building. The roof removal must be performed first in order to reduce the potential for creating friable ACM materials during LBP demolition. Therefore, additional safety precautions would be required with Alternative #2. This will ensure the LBP hazard is completely addressed and the hazards eliminated after the demolition is completed. For these reasons, Alternative #3 is the recommended alternative.

Green and Sustainable Remediation Measures for Selected Alternative

To make the selected alternative greener, or more sustainable, several techniques are planned. The most recent Best Management Practices (BMPs) issued under ASTM Standard E-2893: Standard Guide for Greener Cleanups will be used as a reference in this effort. SMDC will require the cleanup contractor to follow an idle-reduction policy and use heavy equipment with advanced emissions controls operated on ultra-low sulfur diesel. The number of mobilizations to the Site would be minimized and erosion control measures would be used to minimize runoff into environmentally sensitive areas.