Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation
Crowley Building, 311 West Main Street, Lewistown, MT
Prepared for Snowy Mountain Development Corporation

I. Introduction & Background

a. Site Location

The site is located at 311 West Main Street, Lewistown, Fergus 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 30027C1883D, the Site is located within a Zone X, and is in an area with minimal flood hazard.

Based on the nature of the Site and its proposed redevelopment, these are not likely to significantly affect the Site.

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

The Site is in Lewistown, MT and located in a row of buildings in downtown. The building was constructed in 1913 and has been used by various businesses and commercial space. The current owner purchased the site in the 1990's and remodeled the main floor to accommodate multiple businesses or office spaces. The basement and upper floors have not been remodeled.

The Targeted Brownfields Assessment recipient has purchased the building to allow redevelopment for the Bighorn Valley Clinic. A Phase I Environmental Site Assessment (ESA) was performed in June 2017 and identified the potential for asbestos-containing material (ACM) and lead-based paint (LBP) to be present. In addition, mercury thermostat switches and mold were identified during the Phase I ESA. A Phase II ESA was performed in July 2017 to assess and evaluate suspected contaminants that may be present at the Site.

c. Site Assessment Findings

The Phase II assessment fieldwork was conducted on July 10th and 11th, 2017. Results of the Phase II ESA 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 by Weston Solutions Superfund Technical Assessment and Response Team (START) at the Site:

Asbestos-Containing Material (ACM): Of the 59 samples submitted for laboratory analysis, 10 samples were determined to be "positive" (>1% asbestos) for asbestos. Based on the results of the ACM survey, asbestos is present in 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, posts, and baseboards in the building. Since there were no positive XRF readings ($\geq$ 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, no PCB ballasts were encountered. PCBs are not considered COCs in relation to the Site.
- Nine mercury thermostat containing switches/thermostats were observed in the building. Mercury is considered a COC in relation to the Site.
- Small spots of mold and areas with mildew staining were observed in the basement; however, no large areas were encountered at the Site in both sections. Mold is considered a COC in relation to the Site.

d. Project Goal

The planned reuse and redevelopment of the Site is for community space.

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, mold, 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, 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.*, notify 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 Mold and Encapsulation of LBP, and
Alternative #3: Remediation of all Hazardous Materials.

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.

<u>Effectiveness – Including Climate Change Considerations</u>

- 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 mold and the encapsulation of LBP will preserve the historical value of the structure, and allow the building to continue to be used.
- Alternative #3: Abatement of all hazardous material will remove the COCs from the Site, preserve the historical value of the structure, and allow the building to continue to be used.

<u>Implementability</u>

- 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 environmental assessment, the following recommendations were made by Weston Solutions Superfund Technical Assessment and Response Team (START). 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 redevelopment (e.g., abatement). ACM remediation is recommended prior to any renovation activities at the Site.

- Contracting an accredited lead remediation company to address the LBP at the Site during the cleanup phase of redevelopment. Under this alternative all of the LBP would be encapsulated. All work performed should be done so by an EPA Lead-Safe certified firm.
- Mercury containing equipment should be properly removed during renovation.
- Mold should be removed during renovation. Clearance air samples would be recommended in areas where mold has been removed.
- ACM clearance sampling should be completed in accordance with the Sampling and Analysis Plan (WWC Engineering 2019).

- Alternative #3: Removal/Abatement of all Hazardous Materials from the Site:
  The abatement procedures would have the same level of implementability as Alternative #2, with the exception of LBP. In this alternative, all LBP would be removed and disposed of. Removing the LBP will be more labor intensive and expensive than encapsulation.
  - Contracting an accredited lead remediation company to address the LBP at the Site during the cleanup phase of redevelopment. Under this alternative all of the LBP would be removed and disposed. Dust control methods should be implemented for the debris. All work performed should be done so by an EPA Lead-Safe certified firm. It is recommended that the construction debris disposal facility be contacted to determine if Toxicity Characteristic Leaching Procedure (TCLP) samples will be required.
  - LBP clearance sampling should be completed in accordance with the Sampling and Analysis Plan (WWC Engineering 2019).

Cost

- There will be no costs under Alternative #1: No Action and no cost.
- Alternative #2: The total cost estimate for this alternative is $154,517.66.
- Alternative #3: The total cost estimate for this alternative is $192,132.65.

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #2: Remediation/abatement of ACM, mercury containing equipment, and mold and encapsulation of LBP for the Site for the purpose of redevelopment. All hazardous materials need to be removed or encapsulated from the Site since it is listed on the National Register of Historic Places and to protect the adjacent businesses. For these reasons, Alternative #2: 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.