BACKGROUND:

Funding sources to address expenses related to the presence of Libby Amphibole Asbestos (LA) on properties in the Libby Asbestos Superfund Site (Site) is a pivotal issue to both the inhabitants of the Site, Lincoln County, and the regulatory agencies (EPA and DEQ). For brevity, this document does not expound on the liability, responsibility and general funding issues, but focuses on quantifying the shortfall of Federal O&M funding sources to meet the objective of “no LA related costs to property owners” that is a foundational policy and goal of Lincoln County.

Use of State controlled O&M funds is the sole remaining avenue to address this shortfall. The Libby Asbestos Site Oversight Committee (LASOC) was created in part to advise DEQ on such matters, and to provide recommendations.

Since early in the history of the O&M Workgroup (EPA, DEQ, County), efforts have been made to clearly define what will be paid for and by whom (source). While this has been useful and served to support the overall planning and development of documents, it has not been clearly defined all of the elements of what will, will not or might be funded, and by whom.

In November 2019, the facilitator for the Group and LASOC (Bret Romney) initiated discussion with EPA’s Program Manager (Mike Cirian) to extract a clear listing of what categories would likely not be funded by EPA O&M funds that would flow to DEQ. This effort was borne out of the need to be able to clearly define the scope of a funding request for State funds by LASOC.

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1 The discussions and estimates herein are related specifically to OUs 4 and 7, but may have relevance to other overall Site areas.
2 The “No” entries in the EPA columns represent the shortfall situations, and are the subject of this document. They are shaded for easier identification.
The table below was the outcome:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Sampling Paid By</th>
<th>Cleanup Paid By</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPA</td>
<td>State</td>
</tr>
<tr>
<td>If a developer is proposing the work - *Based on reasonable expectations</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>relative to timing and minimum cleanup requirements (not their desired end</td>
<td></td>
<td></td>
</tr>
<tr>
<td>product).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the property and/or engineered controls have not been maintained</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If the property is a refusal</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If insurance will pay for part or all of repairs and owner provides</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>insurance contacts - *EPA will pay for the applicable portion not paid by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If property owner will not provide insurance contacts</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If property undergoes a land use change - *if necessary</td>
<td>Yes*</td>
<td></td>
</tr>
<tr>
<td>If property is outside the Superfund boundary - *EPA may possibly pay for</td>
<td>No*</td>
<td></td>
</tr>
<tr>
<td>if there is hard evidence that can tie the contamination back to the mine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If there is a ‘miss’ or ‘unforeseen condition’ – private property owner</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If there is a ‘miss’ or ‘unforeseen condition’ – developer</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

This table is a much needed breakthrough in being able to define a request via LASOC for funding, and is also very encouraging by the relatively few situations that are funding shortfalls.

Shortly after the production of this table, the author (as a LASOC member) solicited further input from EPA (Mr Cirian) to help define the range in costs that might be associated with such situations. The rationale was that EPA and its remediation team is best positioned with its institutional knowledge to estimated ranges of occurrences and costs. The balance of this document is based on input from EPA. Our request in framing the discussion with EPA and CDM representatives was that this information would be used to develop a request to LASOC, and that the ranges should not be biased or understate the upper range. We are appreciative of their assistance in developing the table and the estimated scope/cost projection.
INDIVIDUAL SITUATIONS:

Developers (Sampling Costs):

History:

Lincoln County requires permits for any subdivision of property, based on statute definition of subdivision. The number of applications in the last 6 years for Libby and Troy combined (generally OUs 4 and 7) are:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>2017</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>2</td>
</tr>
<tr>
<td>2019</td>
<td>1</td>
</tr>
</tbody>
</table>

Some applications were received but not finalized/approved. Generally, there are historically 5 or less per year.

Assumptions:

Considering we may be in a growth period, assume the following numbers and magnitude of developments:
- Splitting Single Lot into Two: 5 per year
- Splitting property into Multiple (5-10) Lots: 2 per year

Estimated Cost (Screening/Sampling Investigations):

- Single Lots: Use $1,000 ea including labor and sampling= $5,000 per year
- Multi Lots: Assume $1,000 each for labor and $200 per sample. Thus, for 5-10 samples, $2,000 to $3,000 range per division. For 2 multi lot divisions, $4,000 to $6,000 per year.

Total Estimated Cost: $9,000 to $11,000 per year
**Not Maintained:**

**History:**

During the remediation phase, issues on properties related to being “not maintained” were not common. In general, the required clean ups (follow ups) were small. There was one significant occurrence for a large structure that was not typical, and considered not to be an appropriate basis for estimating future costs. It was also noted that the occurrence of this category declined as the remediation progressed.

**Assumptions:**

A range of 2-5 occurrences per year of small clean ups was suggested. However, for purposes of estimating, the upper end of 5 will be solely used.

**Estimated Cost:**

**Sampling:**

Assume 3 interior and 2 exterior sampling events, respectively, at an average cost of $500.

5 events x $500 = $2,500 per year

**Clean Ups:**

Assume on average that the clean ups are modest, $1,000 each.

5 events x $1,000 = $5,000 per year

**Total Estimated Cost: $7,500 per year**
**Refusals:**

**History:**

There are about 220 properties in OUs 4 and 7 that were refusals during remediation. Owners may have been nonresponsive, or refused offers to conduct sampling and/or clean up.

**Assumptions:**

The estimate of those properties that might require attention for cleanup activities is based on the history that the overall rate of properties requiring clean up was about 3.5%. Assuming this rate holds, then 8 properties would be assumed to need clean up in the future. This is not an annual rate. It is also noted that the rationales that prompted owners to refuse service may persist to a significant degree into the future, thus the 3.5% rate is probably high, since it assumes all 220 come forward at some time.

**Estimated Cost:**

**Sampling:**

Assume all 220 properties come forward over the next 30 years. Apply a cost of $1,000 per property, which is a moderate cost that somewhat balances the high assumption of all 220 properties being addressed.

220 properties x $1,000 per site = $220,000 over 30 years.

**Clean Ups:**

Over the course of the remediation, the general range in clean ups has been about $5,000 to $30,000 per property.

8 properties x $5,000 to $30,000 per property = $40,000 to $240,000 over 30 years.

**Total Estimated Cost:** $260,000 to $460,000 over 30 years, or about $9,000 to $15,000 per year.

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3 EPA recommended time period, consistent with other O&M cost estimating practices.
Refusal to Provide Insurance Coverage Information:

History:

In almost 20 years of remediation experience, only three instances of this type of refusal have been encountered.

Assumptions:

Assume that over the next 30 years, 5 refusals to share insurance information occur.

Estimated Cost:

Sampling:

Assume $1,000 per property. Thus, 5 x $1,000 = $5,000 over 30 years.

Clean Ups:

As before, use $5,000 to $30,000 per property. 5 properties x $5,000 to $30,000 per property = $25,000 to $150,000 over 30 years.

Total Estimated Cost: $30,000 to $155,000 over 30 years, or about $1,000 to $5,000 per year.
Outside NPL:

History:

Over the past 30 years there have been 3 occurrences of needing to address a property outside the NPL for clean up activities.

Assumptions:

These occurrences are rare, and justifying clean up would require unique circumstances. However, since they have occurred and been funded in remediation, and are specifically listed in the EPA identified areas of nonfunded categories, they are included. For this estimate, it has been assumed that there might be 10 occurrences warranting cleanup in the next 30 years.

Estimated Cost:

Sampling:

Assume $1,000 per property. Thus, 10 x $1,000 = $10,000 over 30 years.

Clean Ups:

As before, use $5,000 to $30,000 per property. 10 properties x $5,000 to $30,000 per property = $50,000 to $300,000 over 30 years.

Total Estimated Cost: $60,000 to $310,000 over 30 years, or about $2,000 to $10,000 per year.

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4 The highly unique nature of this situation might also result in EPA agreeing to funding; however, for completeness, this situation is retained in the estimate.

G. Jamison
OVERALL COST ESTIMATE:

Based on the foregoing discussion, the following overall cost estimate results:

<table>
<thead>
<tr>
<th>Category</th>
<th>Est Annual Cost Range, $</th>
<th>Est 30 Yr Cost Range³, $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers</td>
<td>$9,000 $11,000</td>
<td>$270,000 $330,000</td>
</tr>
<tr>
<td>Not Maintained</td>
<td>$7,500 $7,500</td>
<td>$225,000 $225,000</td>
</tr>
<tr>
<td>Refusals</td>
<td>$9,000 $15,000</td>
<td>$270,000 $450,000</td>
</tr>
<tr>
<td>Insurance Info</td>
<td>$1,000 $5,000</td>
<td>$30,000 $150,000</td>
</tr>
<tr>
<td>Refusal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside NPL</td>
<td>$2,000 $10,000</td>
<td>$60,000 $300,000</td>
</tr>
<tr>
<td>TOTALS</td>
<td>$28,500 $48,500</td>
<td>$855,000 $1,455,000</td>
</tr>
</tbody>
</table>

Abbreviated Comparison to State O&M funds:

- The upper end of estimated annual costs is less than half of the $120,000 allocated to the cleanup trust annually. Additionally, this does not include funds ($480,000 less admin costs) that comprise the balance of the annual $600,000 annual allocation.
- Additionally, the $5+ million in the State bankruptcy settlement is available for O&M purposes.
- Finally, EPA’s reserving of the excess remediation funds from the Grace settlement for possible future O&M costs, is additional financial assurance that the O&M period can proceed with no LA related cost burden shifted to the property owners.
- Risks of starting O&M with a commitment to fund these areas are very low, and are especially minimized by the responsibility of LASOC with DEQ to regularly monitor the O&M program including costs. Such monitoring would also be part of annual reporting to the EQC.

³ 30-year costs are based on annual estimates; some rounding as noted was applied.