Description of the Project
The Department of Livestock, in concurrence with the Legislative interim study (HB 661, 2017) Montana State Laboratories, is submitting a new construction proposal to build a modern Montana Veterinary Diagnostic Laboratory adjacent to the old Marsh Laboratory Complex (1961) on MSU Bozeman’s campus. This new facility is in response to failing accreditation requirements for inadequate infrastructure including the current workspace footprint, design, and ventilation. Additionally, the new lab will feature enhanced biosecurity and accommodate future growth and testing capabilities to help ensure Montana maintains a disease-free economic landscape.

Why Montana needs this Project
Without a State run veterinary diagnostic laboratory, numerous opportunities are lost not only to the State’s $2B annual cattle industry but also for the wildlife and public health safety of our State’s precious resources. The advantages of a State run veterinary diagnostic laboratory including the following:

- **Availability of critical surveillance streams from animal sample submissions from Montana vets.** There is no ability to mine historical testing data housed at out of state testing labs.
- **Montana Animal Health Bureau is better poised to respond to emerging disease threats and emergencies.**
- **Authority over laboratory to prioritize work.** Lose same day diagnosis capability when going out of state especially in the event of a regional disease outbreak.
• Keep money within the state. It does not make sense to send money out of state when we have the expertise and capacity in state to identify, adjust, and solve local issues.

Without a comprehensive upgrade to the facilities the State should seek to close the Lab in the next six years.

• Loss of industry accreditation, federal cooperation, and national funding are threatening.
• Mechanical systems cannot be suitably upgraded without extensive modernization.
• Other State Labs are currently technologically better positioned to service Montanans’ daily business.
• Current working space conditions are outdated, unattractive, insufficient, and out of compliance with industry standards.

Alternatives Considered
Renovation of the current space was explored by outside designers and dismissed as not a viable option primarily given that there is not enough space in the facilities to modernize operational, mechanical, and safety requirements for the services performed currently. Additional rationale for rejecting this alternative included:

• The disruption of services during a renovation would be detrimental to business and likely lead to irrevocable erosion of the Lab’s customer base.
• Other tenants in the building would be adversely impacted by mechanical and common space upgrades affecting them.
• Renovation costs are very comparable to new construction and contingency risks are much higher.

A lease versus build alternative was explored as part of the Legislative (2019) HB 586 Committee’s objective to the Department of Administration (DOA) to come up with a funding
solution. The DOA reported back to the committee that leasing would annually cost an additional $1M plus when compared to a building through the traditional LRBP process.

**Rationale for Selection of Particular Alternative**

New Construction and thereby enlargement of the current footprint is required for sustaining current operations and essential to future-proofing facility requirements.

- The operational safety and accessibility of a modern laboratory is regulated from a spatial standpoint through modular planning. This type of laboratory planning establishes a module that assists the designer in regulating the width of the work benches and the safe clearance between the work areas which is vital when the laboratory staff is routinely handling samples of infectious agents and hazardous chemicals used in normal lab operations.

- Most of the existing laboratories in Marsh Lab were designed to accommodate a very tight laboratory module. In many areas, this has led to narrow aisles and benches that overtime have reduced their margin of safety.

- A portion of the growth assumed in the study was provided to help alleviate this condition. When the module is widened to the modern range of 10’-6” to 11’-0”,

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**Diagram**

- [Diagram of laboratory layout](Image)
it will generally lead to an increase in overall net square footage to accommodate an equal amount of working bench space.

- Other areas of growth shown in the study arose out of the need for additional space to accommodate new sections and containment procedures that have evolved since Marsh Lab was constructed.
  - One example of this is the Molecular Diagnostics laboratory section which is based on specialized equipment for identification of pathogens at the genetic level. The current Molecular Diagnostics section at the Montana VDL is housed in space that was designed before these techniques had been invented and it is anticipated in most VDLs that this particular section will continue to grow rapidly.
  - Another example of new growth in the field of veterinary diagnostics is the addition of higher bio-safety level containment. Most new VDLs being built or contemplated around the country now include consideration of BSL-3 (biosafety level) space to more safely manipulate, test, and contain samples that are suspected of harboring select agents.
Funding of the Project
The Montana Veterinary Diagnostic Laboratory (MVDL) performed nearly 180,000 tests in fiscal year 2020. The pie chart below illustrates that approximately two-thirds of the costs of those tests are performed in support of public health. Examples of the other 42% of zoonotic tests done at the lab include rabies, avian influenza, Salmonella, and Listeria. Also of note is that the MVDL just signed an MOU with Fish Wildlife & Parks (FWP) to perform up to an additional 11,000 tests for chronic wasting disease (CWD) this year.

![MVDL TESTING BY SECTOR](chart1)

The cost sharing involved for these tests consist of three major components: lab fees charged to the consumer; state general taxpayer funds; and additional fees paid by our livestock producers. Price setting for lab fees is a function of national market forces that the MVDL reviews annually to remain competitive in their sector. Apart from some federal dollars coming in for support of national initiatives, the remaining costs of maintaining a state lab must be supplemented via citizen taxes and fees. The chart below breaks those costs out for fiscal year 2021.

![MVDL FUNDING](chart2)

With a Governor's Long-Range Building Program (LRBP) submission and communications amongst our industry stakeholders the Department of Livestock (DOL) is proposing to fund the new lab construction project through a 50/50 cost sharing structure similar to the funding support already established for MVDL operations as apparent in the chart above. The fifty percent born by the
livestock industry would entail both the use of one-time-only reserves of per-capita fees and ongoing payments for bonding and additional operation and maintenance (O&M) costs. The table below details the financing breakdown of the department’s proposal.

<table>
<thead>
<tr>
<th>MVDL Financing Breakdown</th>
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<tbody>
<tr>
<td>Total Project Construction Costs</td>
<td>33,643 Square feet</td>
</tr>
<tr>
<td>General Fund OTO</td>
<td>13,096,696</td>
</tr>
<tr>
<td>User Fee Reserves OTO</td>
<td>7,672,646</td>
</tr>
<tr>
<td>SSR Amount to be Bonded</td>
<td>5,424,051</td>
</tr>
<tr>
<td>Annual SSR Bond Payment (30 years @ 2.5%)</td>
<td>257,179</td>
</tr>
<tr>
<td>Additional O&amp;M Costs, Net</td>
<td>418,725</td>
</tr>
<tr>
<td>General Funds - Ongoing</td>
<td>209,363</td>
</tr>
<tr>
<td>User Fees - Ongoing</td>
<td>209,363</td>
</tr>
<tr>
<td>Total User Fee Annual Contributions</td>
<td>$466,541</td>
</tr>
</tbody>
</table>

If successfully authorized this legislative session and thus completed by the summer of 2026, from the table above, total project costs for a new MVDL of 33,643 square feet is estimated at $26,193,393. Down payment one-time-only funding totals $20,769,342 with livestock owners bonding for the remaining costs of construction. Ongoing O&M and repair costs are projected to increase an additional $418,725/year for the new building’s substantial footprint increase and upgraded biosecurity containment system requirements. After splitting these costs evenly with taxpayer dollars, the livestock and veterinary fee payers will shoulder an annual increase of $466,541 in order to support a viable state laboratory safeguarding Montana’s public and animal health concerns far into the future.