



TEXAS A&M
VETERINARY MEDICAL
DIAGNOSTIC LABORATORY

Strategic Priorities | 2018 - 2020

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Purpose

With the increasing need to invest in new equipment, contribute to workforce development, ensure a pipeline of future diagnosticians, and streamline workflows, TVMDL leadership met in late 2017 to develop a list of priority needs for all agency locations. While priorities can be reset with changes in TVMDL's business operations, this document will serve as a guide for prioritizing financial and personnel resources.



Strategic Priority: Staff

A. Implement Cross Training/Cross Utilization	<ul style="list-style-type: none">• To fully engage staff across sections and to diversify our workforce, cross training and cross utilization of staff between sections will be explored. In addition to providing support to sections with unexpected staffing shortages, cross training increases job satisfaction and job knowledge amongst staff.
B. Further Define Technical and Administrative Roles	<ul style="list-style-type: none">• The introduction of new technology and streamlined processes in laboratories provides many opportunities for staff to more appropriately specialize in an area of a particular process. Taking advantage of changes to our LIMS system, TVMDL will work to assign technicians to perform all bench-level work and administrative staff to perform non-scientific duties.• In early 2017, TVMDL restructured two administrative assistants to report to one of College Station's two Branch Chiefs. Almost a year into the transition, the structure will be evaluated to determine what's working and what could be improved to maximize the utility of these positions, and determine if a similar model is needed in other parts of the organization.
C. Nourish a Pipeline of Leadership	<ul style="list-style-type: none">• September 2018 will mark one year under the newly implemented TVMDL Career Ladder. This anniversary is also an opportunity to determine the program's strengths and opportunities for improvement.• Nationwide, it's becoming more difficult for diagnostic labs to recruit and retain DVMs. TVMDL will explore formal residency programs and less formal training opportunities for DVMs with a few years of practice experience who are looking to make a career shift.• TVMDL will continue to train and educate its future leaders in management, leadership, and business principles designed to prepare staff for future advancement within the agency.
D. Support Professional Development	<ul style="list-style-type: none">• Continuing education and professional development are key to ensuring staff remain up to date on changes and developments in their respective disciplines. Travel fund allocation will be reviewed to better appropriate funds for professionals in all sections.• The concept of a professional development day will be explored wherein professional staff may have one day a month dedicated to journal review, research, and other educational endeavors.

Strategic Priority: Equipment

A. Upgrade Existing Equipment	<ul style="list-style-type: none">• While TVMDL employs many state of the art instruments, some are no longer in warranty, no longer supported by service departments, or in need of upgrades. As funds are available, priority equipment to replace/upgrade includes:<ul style="list-style-type: none">o Chemistry Analyzer at Amarillo Clinical Pathologyo Three (3) 96-well Kingfisher units at Amarillo and College Station Molecular Diagnosticso Autostainer at College Station
B. Invest in Technology Solutions to Support Automation	<ul style="list-style-type: none">• Automation is equally important to increasing productivity and throughput, and reducing human error. As funding allows, TVMDL places priority on the following automation investments:<ul style="list-style-type: none">o Tablets for technicians to enter test data directly into LIMS from the benchtopo Mobile bar code scanners and printers to improve traceability of samples and reduce transcription errors.o Increased throughput and high-resolution scanners at Amarillo, Center, and Gonzales to support a paperless environment.o Touch screen monitors to increase speed at which data is entered into our LIMS system.
C. Devote Resources to New Capabilities	<ul style="list-style-type: none">• Equipment is available that will increase TVMDL's capacity that has not yet been purchased by our agency. The following are priority areas for new agency equipment:<ul style="list-style-type: none">o Centrifuges at Centero Biomic instrumentation at Amarillo Bacteriologyo Automatic stainer at College Stationo Digital slide scanner at College Stationo Automated ELISA system, to include plate washers and plate readers for Biomek robot at College Stationo Liquid handling robotics at College Station
D. Ensure Efficient Integration with Staff and Existing Processes	<ul style="list-style-type: none">• As with any new technology addition, TVMDL will review and modify the workflow and staffing associated with any new or upgraded instrumentation to ensure maximum efficiency.

Strategic Priority: Agency Process

<p>A. Streamline Workflows</p>	<ul style="list-style-type: none"> • TVMDL has made great strides in streamlining workflow processes in 2017 to eliminate duplicative effort, introduce technology, increase throughput, or increase value added aspects of a process. Many more processes across all sections will be reviewed to continue the agency’s implementation of new technology, streamlined workflows, shared staff, and other cost and time-saving efforts. Revisiting and evaluating workflows keeps processes nimble; lessons learned in one section can translate to other cost or time saving measures throughout the agency. • TVMDL has some resources internally, but additional formal training or external assistance is needed to maximize the process.
<p>B. Adapt Staffing Schedules</p>	<ul style="list-style-type: none"> • TVMDL will review the workflow processes, employee schedules, and employee task assignments to best correlate with the arrival and processing of samples and the needs of clients. This effort will maximize throughput, fully engage staff, improve efficiency of testing, take full advantage of available technology, and reduce stress on all sectors of the organization.
<p>C. Select and Implement a New LIMS</p>	<ul style="list-style-type: none"> • TVMDL’s Laboratory Information Management System (LIMS) is the backbone of our agency. An efficient, user-friendly, robust LIMS has the potential to change many processes across locations. In 2018, TVMDL will select a LIMS vendor via a formal procurement process and begin working with the vendor to prepare a system customized for our needs. • Key to a successful transition is the alignment and cleaning of data to be imported into the new system. A team has been established that will streamline tables of information into a standardized set of information to export from the existing system.
<p>D. Implement Digital Processes</p>	<ul style="list-style-type: none"> • The use of paper accession forms, testing worksheets, logs, and other documentation should be reduced and instead the data collected should be recorded electronically. The process will reduce paperwork, reduce transcription errors, increase efficiencies, and possibly realize cost savings. • The new LIMS must support electronic accessioning by clients. Leadership will explore a reduced accession fee for accessions submitted electronically. • Tablets, touch screen monitors, and other technology mentioned in the Priority: Equipment section above will allow transition to collecting and recording data digitally.
<p>E. Transition Agency IT Services to Cloud Services</p>	<ul style="list-style-type: none"> • The cost, time, and risk associated with maintaining traditional servers continues to increase. More powerful, robust, and secure options exist in using Cloud services. TVMDL will transition to Cloud services to increase flexibility, disaster recovery and decrease costs of information.

F. Implement an Annual Fee Review	<ul style="list-style-type: none"> • About 60% of TVMDL’s revenue is generated from testing services. The price of labor, supplies, reagents, equipment, maintenance agreements, and other inputs rise annually, thus test fees will be evaluated annually. TVMDL will implement an annual process to review the cost of performing its tests and the associated prices charged to our clients.
G. Review Testing Schedules	<ul style="list-style-type: none"> • TVMDL’s test catalog numbers close to 700; a review of when and how often each test is offered is overdue. Cost savings, improved turnaround time, and other efficiencies could be realized with such a review.
H. Strengthen BSL-3 Operations	<ul style="list-style-type: none"> • TVMDL maintains BSL-3 laboratories at both its Amarillo and College Station locations. However, maintaining the space is only part of ensuring we are ready to respond to a high consequence disease event. TVMDL will dedicate efforts to annually complete the following: <ul style="list-style-type: none"> i. Identify staffing, equipment and supply needs to operate an activated BSL-3 ii. Training for individuals authorized to work in BSL-3 iii. Revisit and revise related SOPs iv. Conduct exercises to test the functionality and practicality of TVMDL’s processes



Strategic Priority: Services

A. Evaluate and Implement New Testing Services	<ul style="list-style-type: none">• Section leadership are responsible for working proactively to evaluate existing test offerings, retire outdated services, and validate/begin to offer new services in their respective sections/locations. Leadership must remain engaged in their discipline to learn of the latest technology and techniques available.• Section leadership are encouraged to explore increased digital services when practical and applicable to clients.• Leadership will also engage stakeholders and industries to determine our clients' needs and collaboratively work to provide tests to meet expectations.• Agency leadership will commit to exploring additional testing services, taking into consideration profitability and increased services to clients.
B. Expand Client Outreach	<ul style="list-style-type: none">• TVMDL has found success with marketing and communications efforts, and the natural expansion of that program is to increase outreach to our clients beyond trade shows and electronic communications.• With the addition of Veterinary Services professionals, along with Resident Directors, all locations will be challenged to visit 10-12 clients/clinics each quarter to engage the clients, seek feedback, promote services, and overall build relationships with decision makers in each practice. When appropriate and practical, section leadership, lab supervisors, senior scientists, and/or senior technicians should be included to increase exposure of staff to our clients and vice versa.• All licensed veterinarians in Texas are required to obtain a certain number of continuing education (CE) credits annually, and many earn CEs at regional Veterinary Medical Association (VMA) meetings. When possible, TVMDL will attend and present at every regional VMA in Texas at least one time a year.
C. Increase Interactions with University and College Students	<ul style="list-style-type: none">• TVMDL was recently successful in expanding the 4th year veterinary medicine student's time at TVMDL. We have also taken a formal role in the large animal rotation for veterinary students at Texas A&M. However, there are many more avenues whereby we can interact with our future employees and clients. TVMDL will explore opportunities to interact with undergraduate students in biomedical sciences, animal science, and related disciplines.• Working in proximity to area and regional universities and colleges, TVMDL has a unique opportunity to engage undergraduate and graduate students. TVMDL will explore opportunities for students enrolled in "special topics" courses (i.e. 485- or 685- numbered courses) and post-doctoral students to gain hands-on experience in diagnostics and laboratory work at TVMDL. Expanding connections with students studying veterinary medicine, animal science, and other science disciplines serves to expose potential future clients and staff to opportunities at TVMDL.• An invitation to TVMDL's successful monthly case round series will be extended to veterinary students.• TVMDL staff are a wealth of real-world experience and expertise. TVMDL will work to create opportunities for staff to deliver lectures, departmental seminars, and other presentations to undergraduate, graduate, and professional program courses at regional universities and colleges.

D. Develop Centers of Excellence for Bovine, Equine, Small Ruminant and Companion Animal Diagnostics

- With TVMDL's strategic locations in the Texas Panhandle and Central Texas, combined with the size of the state's cattle industry, TVMDL aims to develop a program of diagnostic test panels, consultation, educational resources, outreach, and problem solving that will be considered a center of excellence for bovine diagnostics.
- A team of veterinary diagnosticians have been working to develop diagnostic plans and other resources for cattle veterinarians and producers. With that program complete, the team will use the bovine model to develop similar resources and services for the equine, small ruminant and companion animal industries.

E. Create Value Added Reporting

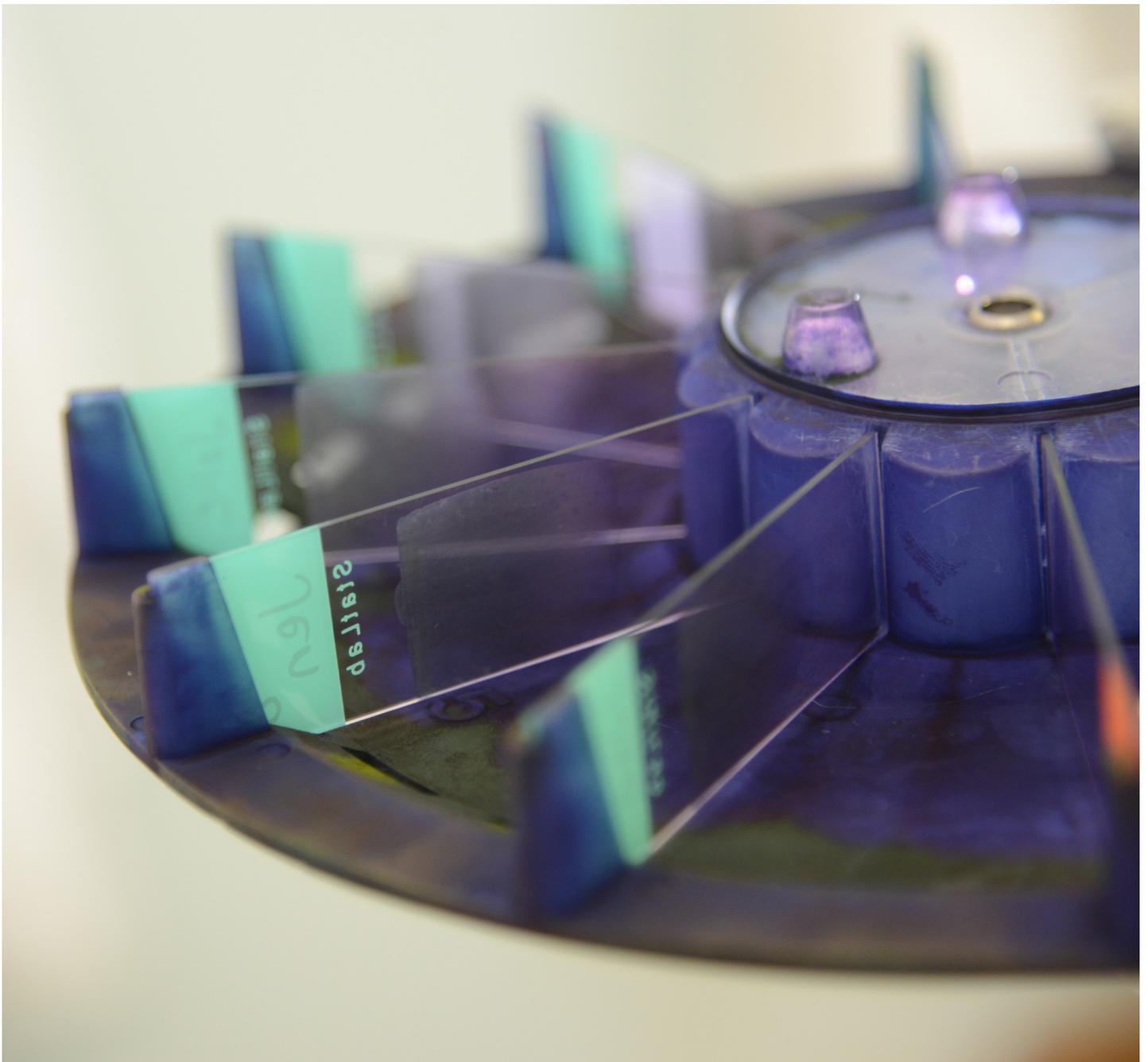
- TVMDL's LIMS is a rich resource of data. The agency has access to information to allow much more than simply reporting results from each individual test. The data available to TVMDL professionals can be collated and evaluated to show trends to track an animal's health, herd health, or the movement of a disease. Presenting this information in easy to read infographics, charts, tables, and other visual layouts will give TVMDL a competitive advantage over other diagnostic labs.
- The work to accomplish this objective is best managed by a veterinary epidemiologist. If funds become available, adding an epidemiologist to the TVMDL team will yield significant, tangible benefits for our business and our customers.



Strategic Priority: Facilities

A. Replace the TVMDL-Amarillo facility

- Obtain funding through the legislature to support design and construction of a new facility on the campus of West Texas A&M University in Canyon, Texas
- Complete design and construction by mid-2020
- Successfully transition services to the new facility







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