Advancing Animal Disease Traceability (ADT) Road Map for the Commonwealth of Massachusetts

A Three-Year Plan

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I.   EXECUTIVE SUMMARY

This Roadmap serves as the guidance for Animal Disease Traceability (ADT) for the Commonwealth of Massachusetts (MA, state) by the Massachusetts Department of Agricultural Resources Division of Animal Health (MDAR, Department, Division) from 2023 through 2025.

ADT is the ability to use unique animal identification, movement, sales, and testing records to determine and locate animals which may be at risk for disease due to association with other infected animals or premises. ADT information is also used for all-hazards and secure food supply planning and response, MDAR approaches this across the various programs and responsibilities of the Division, and pursues traceability for all livestock species, as well as companion animals to the extent possible.

MDAR collects ADT data from animal identification, movement, sales, permits, and testing records. The state performs and annual inventory of all livestock premises ("Barn Book") conducted by local municipal animal inspectors. This data is entered into CoreOne, a web-based central database. Certificates of veterinary inspection that are required for interstate movements and for exhibitions are made available to both the sending and receiving states by being created and issued using an electronic service or by scanning paper documents for routing to CoreOne and to receiving states using a complementary product, CVI Central. CoreOne is being customized to suit MDARs departmental needs and will be more fully integrated and implemented throughout the 3-year period.

The funding for these subscriptions and for the full-time ADT Coordinator is a mix of APHIS Cooperative Agreement (CA) funding and MDAR budgets. There is a need for additional staff to complete Barn Book data entry and to support CVI Central, with partial funding coming from the annual Umbrella CA. A limited number of RFID tags for cattle are supplied to MDAR annually by USDA and provided for free to producers and veterinarians, although this is subject to continued program funding. NUES tags for swine, Scrapie tags for small ruminants, and backtags to be used by cattle dealers are similarly provided for free. ADT funds have also been used to purchase ID applicator and RFID readers that are given to MA- accredited Category 2 veterinarians who agree to use eCVIs and RFID tags. The MDAR budget would not otherwise support these purchases. Items must be free to the public as new legislation would be required to allow the department to collect money for them.

Developing and implementing methods to monitor, validate, and report animal import/ export and identification statistics is a major goal for the first year of this agreement. Supporting the transition to electronic ID and documentation and enduring compliance with ADT regulations are goals throughout the timeframe.

Evaluating and potentially beginning the process to update state regulations related to ADT is planned for years 2-3.

MDAR conducts outreach and provides technical assistance to stakeholders that include the Department itself, producers and industry, veterinarians, and members of the public who depend on the Division to protect the health of MA herds. This includes training and continuing education on ADT components for veterinarians, municipal animal inspectors, fair and show inspector and exhibitors, and other stakeholders. MDAR works with sister agencies in MA and other states, USDA, and with national organizations to further policy, education, and regulatory compliance.

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

The Division of Animal Health within the Massachusetts Department of Agricultural Resources (MDAR) is the primary entity overseeing ADT in the Commonwealth of Massachusetts. Those with related responsibility within the Division are the ADT Coordinator, the State Veterinarian and Assistant State Veterinarian, the Director, and nine Animal Health Inspectors. There are an additional five office staff within the department with different programmatic roles. The Division oversees animal health for all domesticated species, including companion animals. MDAR partners with the Animal Rescue League and Massachusetts Society for the Protection of Animals, quasi-governmental agencies that have responsibility for animal welfare enforcement in the state.

MDAR works closely with internal and external stakeholders to promote and achieve animal disease traceability. Key regulatory agency partners include USDA APHIS VS and other states' ADT administrators, particularly the SAHO offices in the states that form the New England States Animal Agricultural Security Alliance (NESAASA) along with MA: Maine, New Hampshire, Vermont, Rhode Island, and Connecticut. Non-governmental individuals and groups include accredited veterinarians and veterinary associations, the Cooperative Extension Service, Massachusetts Farm Bureau, fair and show boards and inspectors, and breed associations.

MDAR licenses livestock (bovine, porcine, caprine, and ovine), equine, and poultry dealers and transporters annually. There are four livestock markets within the state, all currently working as cull markets.

Animal owners (producers) are the key stakeholders for ADT: their stock and economic well-being are at risk in the event of animal disease outbreak. They also bear responsibility for working with their veterinarians and requesting and applying animal IDs and maintaining

herd records while employing appropriate animal management methods to mitigate or prevent the spread of animal disease.

MA also has a unique group of stakeholders that are central to the state's ADT efforts. Each municipality has at least one animal inspector (municipal animal inspector, or MAI) who is an employee of the town but who is appointed by the Director of Animal Health. In addition to managing rabies quarantines, the MAI verifies the health certificate and import permit information for bovines and camelids by visiting the destination premises and performs an annual inventory of all the livestock premises in the town. This inventory, referred to as the "Barn Book," provides MDAR with information about the locations, species, and uses of livestock throughout the state.

Dealer and market records are often used in real-world traces but are often found to be incomplete or inadequate. Additional and updated regulation and laws will be necessary to increase and improve the record-keeping requirements. New USDA market agreements will likewise be needed to close some gaps, for example, markets are not required to record existing IDs on consigned animals.

2.2   Where are we now?

ADT is the ability to use unique animal identification, movement, sales, and testing records to determine and locate animals which may be at risk for disease due to association with other infected animals or premises. ADT information is also used for all-hazards and secure food supply planning and response, MDAR approaches this across the various programs and responsibilities of the Division, and pursues traceability for all livestock species, as well as companion animals to the extent possible.

The ADT Coordinator works closely with the State Veterinarian and the Director to implement processes and infrastructure to manage ADT. This person's areas of responsibility include managing import/ export documentation such as CVIs and permits, barn book information, tag distribution, tracebacks, reportable disease reporting, animal health fair and show rules, public record request response, and cooperative agreement writing and reporting. The coordinator identifies the premises targeted for surveillance in the event of HPAI or other disease outbreak and assists with that surveillance. Outreach, education, and technical assistance are a large part of the role. In addition, the MA ADT Coordinator is the NESAASA representative for the VS National Training and Exercise Program and coordinated the annual joint-approval process for health certificates to be used throughout the fair season in the New England states. A significant portion of the salary for this position is provided through the annual ADT cooperative agreement and the role is dependent on that funding.

MDAR purchased and began implementing a private instance of CoreOne in 2022 after having used the USDA's SCS/CoreOne since 2017. In addition to serving as the ADT database for tag and movement records supplemented by CVI Central (funded via ADT cooperative agreement), implemented in 2021, CoreOne will be used as a unified resource for records across the Division, including licensures of dealers, licensed stables and riding instructors, pet shops, animal rescue organizations, and garbage feeders, vaccination and testing records, and dairy and other testing and inspection records. The first priorities are data base clean-up and developing a form for inputting Barn Book information in a quick and efficient manner. A temporary worker will input the data from the 2022 Barn Books which are all on paper records submitted by the municipal animal inspectors, with a goal of direct data entry into CoreOne by the MAIs by the MAIs using phones, tablets, or computers for the 2023 livestock inventory. This will be a huge benefit, eliminating the year-long data entry process and ensuring that the information entered is more correct and meaningful that that collected on paper. MDAR will pay the annual subscription fees for the private instance of CoreOne.

CVI Central is used minimally as of 2023 for sending and managing received CVIs. The ADT coordinator is learning about additional functionality through user groups and from Trace First that may be of use to MDAR and will implement these features as the opportunity arises. In addition, temporary workers or future MDAR clerical staff will be trained to use the system to support the ADT Coordinator.

Barn Book data entry and full implementation of CVI Central were affected by the small animal health staff and by state limitations on temporary workers and in-office work due to COVID-mitigation efforts but should be on track again during the time covered by this Roadmap.

Requests for tags, CVIs, permits, PINs, and other ADT resources are currently made by phone or email to MDAR staff, who work a hybrid schedule. The ADT Coordinator can be reached by work phone at most hours, or at any time by the State Veterinarian or Director, who carry pagers for 24-hour emergency calls. Additional staff are being trained as back-up for all ADT functions. In addition, MDAR is creating forms that can be filled out on the state's website, mass.gov, which will send a message to the appropriate staff members and initiate the process for issuing tags and PINs, distributing CVI forms, and licensing livestock dealer. This functionality has been implemented for veterinarians to use for reportable diseases (2021) and by producers and veterinarians for HPAI suspects in 2022. ADT-related requests should be functional in 2023.

ADT success is formally measured by APHIS VS via Trace Performance Measures. MA continues to meet or exceed expectations for TPMs and should improve over the three years of this Roadmap as new systems and processes are implemented.

2.3   Strengths and Weaknesses

MDAR's greatest strengths are found in the Division's personnel. The members of the small staff are skilled and willing and innovative and have historically been able to work together and across program lines to achieve meaningful results with limited resources. An early retirement-driven reduction in force in 2015-2016 and subsequent hiring freezes put in place by the Governor's office resulted in a loss of both numbers of workers and a great deal of subject matter expertise and institutional knowledge and have prevented MDAR from adding staff even as responsibilities increased. Infrastructure has been minimal, with many resources and processes remaining wholly- or partially paper-based years after useful technology became reasonably available. Annual USDA cooperative agreements are critical to the Division's funding, particularly for ADT.

MDAR does not have authority to charge for tags or for documents such as CVI forms for accredited veterinarians without legislative action. Thus, any that are distributed by MDAR must be free to the recipients. Electronic IDs have been limited to the free tags distributed by APHIS VS due to cost; the purchase of additional tags would have to be funded by cooperative agreements, which have remained at the same finding levels for several years aren't expected to increase in the short term.

Changes to regulations that are necessary to improve ADT in MA are subject to a lengthy and expensive rule-making process that includes public comment periods. Legislation may be needed for some processes, as previously noted. These are both weaknesses in MDAR's ability to regulate and require components of ADT and threaten the Division's ability to make changes.

2.4   Opportunities and Threats

The limitations brought by COVID-mitigation steps demonstrated that a pivot to electronic options is essential to future success, especially with a hybrid-based office structure going forward. The move to using a private instance of CoreOne improves MA ADT through customization options and creates the opportunity to integrate data from across the department in web-based applications. This will help bridge access gaps within the Division and provide long-needed instant records access to the 11 field

staff members. It also allows access to critical information by authorized users from any secured web access or via VPN, eliminating the need to be present in an office with access to paper records when a response is needed. This is both more efficient and the web-based storage is backed up, unlike physical documents. MDAR phasing out the storage of paper as records reach their destruction dates.

Moving to electronic ID requirements for bovines, anticipated during the timeframe of this Roadmap, and receiving free RFID tags for distribution to MA producers and veterinarians allows MDAR to assist their stakeholders with the move to more efficient electronic records and increase the opportunities for livestock ID to be recorded and added to AHER. Updated market agreements requiring the recording of existing animal IDs is impractical without the use of electronic IDs and readers.

The high risk of HPAI continuing to be found in MA domestic bird flocks within the three-year period presents both a significant need for traceability information and a significant strain on MDAR's staff. MA HPAI response is led by MDAR and the MA Department of Environmental Protection (MDEP). Although contactors would be hired for large flock depopulation and disposal, MDAR staff would be needed in the field along with a similarly small number of undeployed District 1 VS personnel. This would strain the human resources needed for traceability functions such as tracing and permitting movements and establishing surveillance zones. The ADT Coordinator assists with surveillance and other response functions.

MA has a new Governor and administration for the first time in eight years, during which time the ADT Coordinator was hired, and the program started up as a specific function of MDAR. A new Commissioner of Agriculture is expected to be appointed during the next three years. It is uncertain how these changes will affect the regulatory environment in general and animal health programs and goals. This change may present additional opportunities or threats.

Failure to take advantage of these opportunities or interruptions to the funding sources associated with them are threats that would result in limited improvement in ADT in MA

2.5   Inventory of existing infrastructure and suitability assessment

Human Resources
The ADT Coordinator works closely with the State Vet, Assistant State Vet, and the Director of Animal Health. The Pet Shop Coordinator and Shelter/ Rescue Coordinator are frequently involved in small animal traceability issues. The Rabies Program Coordinator is also the

administrator for the appointment of Municipal Animal Inspectors in each town and sends out and receives Barn Books from them. They will be managing access to CoreOne for MAIs when the interface that allows local inspectors to input Barn Book data directly into the system has been implemented (Goal; 2024 Barn Books at latest). Temporary staff are used when available to scan paper CVIs received in the office into CVI Central and will assist with routing CVIs when the system's features have been more. MDAR's nine field inspectors all participate in ADT outreach and technical assistance activities part of their regular interaction with stakeholders.

Managing Paper and Electronic Records
Implementing CVI Central for handling paper CVIs received in the MDAR office eliminates the need for hard-copy storage for most of these documents (copies may be kept for compliance investigations, for example). Tuberculosis and brucellosis test and vaccination charts will similarly be scanned and saved in premises records in CoreOne after data entry. MDAR strongly encourages veterinarians to convert to electronic records that are automatically communicated to AHER for animal movement and testing. The majority of CVIs received by MDAR are now eCVIs, and scanned and emailed documents received into CVI Central outnumber hard copies sent in via USPS. This trend is expected to continue throughout the period covered by this Roadmap.

Although CoreOne will be utilized as a whole-department system, CVI Central is exclusively used for ADT functions and is supported by ADT cooperative agreement funds.

Paper records are on a set destruction schedule according to how long they are required to be maintained. The older, unscanned records remain available in the MDAR Boston office for traceability purposes rather than being stored off-site with a 24–48-hour retrieval window.

Technology and Security
This transition to electronic services included approvals by Massachusetts Executive Branch Information Services officials who are satisfied that the data security inherent in the products and by MDAR's internal information security standards and practices meet the needs for ADT data. Training is required annually for all MDAR personnel. State-issued laptops and smartphones are used, and two-factor authentication is required for system access. Systems cannot be accessed via open Wi-Fi and VPN is available to all Division staff for working away from the MDAR offices.

Additional personnel are being trained to use CoreOne and CVI Central to handle ADT information, perform traces, and complete disease program data entry. Additional log-in credentials have been obtained for AIMS,

VSPS, EMRS, and other USDA systems used for ADT. This cross-training and the integration of tying departmental access to premises, people, and individual animal records in a centralized database will continue and expand as CoreOne is customized an implemented across the areas within the Division's purview.

MDAR is seeking funding via the annual APHIS Umbrella agreement to purchase and support iPads for field staff use. These will be used to complete electronic records and forms used to input inspections and animal health records, directly into CoreOne premises records, including reportable disease records, NPIP testing, etc. This cross-functional reporting and access to information would support ADT in the state and region and improve the timeliness and quality of information used for emergency preparedness planning and mitigation efforts.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

MDAR supports, regulates, and enhances the rich diversity of the Commonwealth's agricultural community to promote economically and environmentally sound food safety and animal health measures, and fulfill agriculture's role in energy conservation and production.

3.2 Mission Statement

The Massachusetts Department of Agricultural Resources' mission is to help keep the Massachusetts food supply safe and secure, and to work to keep Massachusetts agriculture economically and environmentally sound.

IV. TRACEABILITY REQUIREMENTS

The Massachusetts Department of Agricultural Resources (MDAR) will work through its Division of Animal Health to implement an Animal Disease Traceability (ADT) program that works in concert with other states, Tribes, and territories and the USDA to advance ADT with the following goals:

4.1 Strategic goal(s)

1. Enhance electronic sharing of data among Federal and State animal health officials, veterinarians, and industry, including sharing basic ADT data with the Federal Animal Health Events Repository (AHER)

2.   Increase use of electronic ID tags for animals requiring individual identification to make the transmission of data more efficient.
3.   Enhance the ability to track animals from birth to slaughter through a system that allows tracking data points to be connected; and
4.   Elevate the discussion with States and industry to work toward a system where animal health certificates are electronically transmitted from private veterinarians to State animal health officials.

4.2   Programmatic goals (objectives)

1.   Target, develop, and implement outreach messaging regarding data quality and processing for animal health information forms
2.   Monitor ICVI data quality
3.   Input data into appropriate systems
4.   Improve retrieval of available traceability information
5.   Establish and/or update tag distribution record system
6.   Share data with States/Tribes/Territories and USDA when needed
7.   Develop policy
8.   Enhance IT infrastructure

4.3   ADT Trace Performance Measures (TPMs)

Years 1-3, 2023-2025
MDAR will participate in National Priority Trace (NPT) exercises in association with as assigned by VS District 1 and national teams. These events will be treated as if they were actual traceability requests and will be reported in EMRS as they are worked and completed so that the results may be used to determine both state and national traceability values. In addition, MDAR will record real-world traces of animals of all livestock species as they are completed.

Should MDAR's performance on trace exercises fall below acceptable ratings for either elapsed time or successful completion, MDAR will identify actions or activities to be implemented to improve in the necessary areas. These plans will be shared with, and progress reported to VS through quarterly reports.

MDAR will report any potential compliance issues identified while administering NPT or regular operational activities to the AVIC for inclusion in the ADT Enforcement Action Summary Report. In addition, MDAR will partner with VS, particularly Dist. 1, to address compliance issues identified that potentially affect MA animals. These may result in actions taken by MDAR or by EIS. This will apply to all livestock species and reported to Dist.1 VS ADT quarterly.

4.4   Data requirements

MDAR mirrors the USDA and other New England states in the forms of documentation and identification accepted and distributed for use by MA stakeholders. MDAR uses CoreOne and CVI Central for processing and maintaining ADT data. Electronic CVIs are handled automatically by the systems themselves with specific routing channels set up by the Division. A private instance of CoreOne was purchased in 2022 and will continue to be customized and implemented for use across Animal Health functions throughout the time frame covered by this Roadmap.

As required by CFR, MDAR accepts all approved methods of official, individual identification for livestock. Ear tags, particularly RFID tags, are highly preferred for bovines, swine, and small ruminants. In addition, ear tags or microchips may be used for camelids. MDAR encourages the use of thermal microchips for horses and requires that a thorough description of each equine be included on health certificates. Swine and small ruminants must be officially identified before leaving their premises of origin unless entering the slaughter chain and group lot IDs are not used.

MA distributes the RFID tags for cattle that the state receives from the USDA warehouse annually. Providing RFID tags to state producers and veterinarians is dependent on this program or other USDA funding as the state cannot afford to purchase them and provide them for free and legislation and a regulation promulgation process would be required to allow the MDAR to collect money for them. NUES tags are distributed for swine and for cull and feeder cattle. Scrapie tags are distributed for small flocks by the Division and larger flocks are referred to the VS Div.1 scrapie program coordinator for flock IDs and tags. Tag distribution to producers and veterinarians are recorded in CoreOne.

Individual ID records are critical to achieving traceability. Premises IDs are required for all tag distribution and for all premises where program disease testing or vaccination occurs. Individual IDs from test and vaccination charts (currently all paper) are entered into CoreOne. Persons receiving tags from the state must return a record, either using provided paper form or Excel spreadsheet, listing the tag number, date and location applied, and animal information to MDAR before being issued additional tags. These are records are intended to be entered into the database but are currently filed due to lack of data entry assistance. A goal over the period of this agreement is to develop a method to develop and implement a spreadsheet that can be used to upload these records into CoreOne. A paper option will remain available for our non-veterinary tag appliers who prefer it, with these records being entered when staffing is available.

Veterinarians are encouraged to adopt electronic formats for testing and vaccination charts to improve the efficiency and accuracy of that data in the system.

The use of electronic CVIs is similarly encouraged. MDAR will explore issuing regulations requiring the use of electronic CVIs during the Roadmap time frame and with the new Administration beginning in 2023. By an Order issued by the Director in 2019, the APHIS 7001 form cannot be used for small animals for either imports or exports, and electronic CVIs must be used when shipping from states that don't provide a small animal form for their accredited veterinarians. This change has profoundly increased the percentage of eCVIs received by MDAR. As of January 2023, eCVIs from Global Vet Link, VetSentry, and the state-developed forms approved by NASAHO are accepted. MDAR is open to reviewing additional products and will follow the lead of NASAHO regarding approvals. Paper forms purchased by the Department are still provided for free to MA accredited veterinarians for small animals, large animals, and equines. Legislation and new regulations would be required for MDAR to charge for these forms and developing a state electronic format has not been explored to date.

MA joins the other NESAASA states annually in providing reciprocity so that a single CVI can be used for the summer show and fair season in the six states providing certain requirements are met, including listing all expected fairs on the document and meeting all permit and vaccination requirements. MA has not approved the 6-month equine passport product offered by Global Vet Link. The state has no commuter herd agreements and all animals crossing the state line must move on either a CVI or an owner/shipper statement. Dealers are provided backtags but are not permitted to receive NUES or RFID tags to tag their own animals to prevent potential mis-tagging of non-MA animals.

MA data in CoreOne is reflected in AHER and MDAR will share traceability date upon request from animal health officials. Certain documents such as CVIs are considered public records and are subject to Freedom of Information Act Requests; however, Barn Book data, quarantine information, and other records which could be used to threaten critical agricultural infrastructure are protected information and are for official use only.

4.5   Information technology plan

MDAR uses a private instance of CoreOne, transitioning from SCS in 3Q2022. This is intended to be the system of record throughout Animal Health as it is customized and implemented fully over the next three years. The subscription and maintenance are funded by the state.

MDAR also uses CVI Central to handle movement documentation. This system is still being implemented fully due to restraints on hiring temporary workers during the period the office was closed due to COVID mitigation effort. MDAR is reliant on ADT cooperative agreement funding for this annual subscription and maintenance and on the availability of clerical personnel to utilize it more fully. There has been a freeze on the number of employees allowed in the Division over the last five years, preventing hiring a clerical FTE. MDAR has not been made aware of changes to this policy under the new administration as of January 2023.

Tablets will be purchased by MDAR and issued to field staff to access electronic records and forms more effectively when on farms and other premises beginning in 2023. The state is authorized the use of iPads, so these will be used despite being unable to use EMRS2Go on Apple products.

4.6   Resource requirements

Based on plans for implementation and use as of January 2023, the additional resources needed to fully use ADT data tools and systems are continued funding for the ADT Coordinator and CVI Central through the ADT cooperative agreement, and the availability of temporary workers to do data clean-up end entry of 2022 Barn Book data into CoreOne. This has been included in the Umbrella agreements beginning in 2018, but employment of temporary workers was limited by COVID mitigation efforts and by the transition to a private instance of CoreOne.

4.7   Organizational needs

MDAR has selected CoreOne as a unified records management across the Division and began customizing it in 2022. This is a significant organizational change that will benefit ADT efforts, imbedding the capture of usable ADT data within the day-to-day processes that use it. This is also a milestone for addressing outbreaks and mitigating animal disease risks by making personnel working in different areas aware of any issues associated with a premises or person.

4.7.1 Executive support

A new Governor and administration took charge in 2023, the first since a formal ADT program was started in MA in 2016. The approach to regulation and agriculture is yet to be seen and will certainly result in changes that may have major effects on

MDAR. This administration is expected to be in office throughout the three years covered by this Roadmap.

4.7.2   Coordination and oversight procedures

The effect of the Administration in place as of January 2023 has yet to be seen. A new Secretary, Commissioner, and at least one Assistant Commissioner are expected to be appointed. These are the Legislative liaisons for MDAR.

MDAR enjoys an excellent working relationship with sister agencies including DEP and the MA Department of Public Health as well as the MA Emergency Management Agency. These groups have been part of recent successful HPAI response in partnership with APHIS VS and continue to improve animal disease and all-hazards plans based on lessons learned.

The state is similarly engaged with the other 5 NESAASA states and VS to prepare continuity of operations and secure food supply plans. New England agriculture is closely linked across state borders and a regional approach is a necessary supplement to state plans and efforts. A unified command structure would be used as needed during a response.

4.7.3   Policy

Massachusetts' ADT policies mirror those set out in 9 CFR part 86. The state doesn't currently have regulations regarding identification for bovines that are moved within the state. However, cattle going through one of our four (cull) livestock markets enter "in interstate commerce" upon leaving their MA premises as many of these animals are trucked out-of-state for slaughter. MGL Sec. 129 pt. 42 states:

> *No person, other than a licensed veterinarian or an agent of the director, shall tag a bovine animal with a state or federal identification tag.*

This law is unenforced (tagging by producers is highly encouraged) but bills that would update or repeal it not moved out of committee during the Legislative sessions where they were introduced.

MDAR licenses livestock dealers annual for the sale and transportation of cattle and swine. This license is intended to include small ruminants, but the law and regulations must be updated to allow enforcement. An Animal Health Emergency Order issued in 2006 requires the official identification of all MA

sheep and goats before they are moved from their premises of origin or upon arrive at a MA livestock market (slaughter tags only) or by age 18 months, whichever comes first.

New and updated regulations would increase the capture and use of ADT data, leading to more efficient and effective traceability. Updates to regulations require a lengthy promulgation process, including legal review, public review, comment, and response periods, and Governor's office approval. This is typically a multi-year process. MDAR plans to begin this process for small ruminants and the equine program within the next three years. Additional regulatory changes may be required following the USDA's expected announcement of a timeline to transition to RFID tags for bovines. MDAR also plans to determine whether eCVIs can be required for all interstate movements for domestic animals and whether official ID can be required for all livestock moved from their premises of origin within the state by order of the director, or whether regulatory or legislated changed would be needed.

A new Governor took office in January 2023. MDAR expects changes in administrative staff and policies as a result, but these and their effects are still unknown.

4.7.4   Staffing

MDAR is the primary entity overseeing ADT in the Commonwealth (state, for purposes of this Roadmap). Those with related responsibility within the Division are the ADT Coordinator, the State Veterinarian and Assistant State Veterinarian, the Director, and nine Animal Health Inspectors. There are an additional five office staff within the department with different programmatic roles. The Division oversees animal health for all domesticated species, including companion animals. ADT is both a core departmental program and the outreach, technical assistance, and the collection, management, and use of ADT data are inherent in the day-to-day roles of office and field staff.

The ADT Director oversees imports and exports; performs traces for animals of all domesticated species; reviews CVIs and other documents; manages tag and RFID reader distribution; investigates and response to ADT compliance issues; performs data entry of ADT data; supervises temporary staff; issues PINs; writes and reports on USDA cooperative agreements; performs outreach and provides technical assistance to internal and

external stakeholders; participates in NESAASA and the USAHA Traceability Committee; updates, posts, and distributes annual fair and show rules for MA and the annual New England states reciprocity agreement for use of a single exhibition CVI; identifies and communicates premises information for surveillance during an animal health outbreak (HPAI); serves as part of the MA HPAI Working Group; issues movement and import permits; and assists with additional departmental and multi-agency planning and operations.

Data entry and CVI routing for ADT data is limited when using only the Division personnel available at the beginning of Year 1. A 3/5-time temporary worker is funded under the Umbrella CA (HPAI and FDA preparation) for entering the annual livestock premises data from the (paper) Barn Books, a process that has historically taken approximately year. Customizations in CoreOne are underway early in 2023 and are expected to reduce this time from collection to data entry for the 2022 Barn Books. The goal is to create a form that can be used by the municipal animal inspectors to update premises records directly in CoreOne from a phone, tablet, or computer by the 2024 annual inventory.

MDAR staff scan all CVIs received in the office into CVI Central, which routes them according to species and import and export. Reviewing and further routing this data to the correct premises has been sporadic since the service was implemented in 2020. A temporary worker was planned for to support CVI Central in the 2021 ADT CA, but state offices remained closed and temporary workers were not allowed to work from home due to security, equipment, and connectivity concerns. This limitation continued into 2022. MDAR has determined that ADT CA funding must be used for a portion of the ADT Coordinator's salary and the annual CVI Central subscription beginning with the 2022 agreement. However, the Department will support a part-time temporary worker to assist with ADT functions beginning in 2023, enabling the use of additional features resulting in more efficient management of traceability information.

4.7.5   Budget requirements

A hiring freeze has limited the number of FTEs that the Department may have in each Division since 2016 following a state-wide reduction in force in 2015. This may change under the new Governor and administration started in January 2023.

4.7.6 Outreach (required to be addressed within the Road Map)

4.7.6.1 *Accredited veterinarians*

Outreach efforts for accredited veterinarians will include the following (program years 1-3 in parentheses).

- ADT topics are included in the three veterinary accreditation sessions held annually (1-3)
  - o Official ID methods, distribution, and record-keeping
  - o Correctly completing CVIs and the advantages of eCVIs
  - o Meeting destination import requirements
  - o Program disease forms and results submission
- Continuing education modules/ sessions for presentation at MA veterinary conferences (2-3)
- Articles and alerts regarding regulatory changes (for example, a timeline for RFID transition) placed in MAVMA and similar newsletters and via veterinary organization email lists (as needed)
- Direct outreach to veterinarians by the ADT Coordinator and State Vets (1-3)
  - o Training for welfare agency Category II veterinarians regarding ID, testing, documentation, and records requirements (1, 3 or as requested)
  - o Direct contact by phone/ in person with large volume cattle veterinarians to encourage the use of eCVIs and RFID tags- a limited number of readers/scanners will be made available for practices who will convert to or continue using eCVI (1-3)
  - o Information about eCVIs and electronic ID (if appropriate for species) are sent to vets requesting paper CVI forms or NUES tags (1-3)

- Letters are issued to veterinarians submitting official forms late or incorrectly (1-3)
- Veterinarians are encouraged to tag client animals using free ID tags provided by MDAR and to instruct their clients on proper ID and record-keeping as part of regular departmental operations (1-3)

4.7.6.2 Slaughter plants

- MDAR will work with USDA and the four cull livestock markets in MA to update market agreements, including the recording of existing ID (APHIS-led partnership; TBD)
- MDAR will provide technical assistance to MA livestock markets and conduct direct outreach regarding the expected rule change requiring RFID for bovines (Following rule change announcement; expected in 2-3)

4.7.6.3 Industry as a whole

- ADT information including official ID and owner-shipper requirements sent to all licensed livestock dealers (1-3)
- Outreach through 4-H, county agricultural schools, fairs and shows (The Big E,) Farm Bureau, local agricultural commissions and other organizations through publications and presentations by MDAR personnel (1-3)
- Municipal animal inspectors perform outreach and refer producers to the ADT coordinator for additional assistance as part of annual "Barn Book" livestock inventory (1-3)
  - Trained on basic information on ADT (tags, eCVIs, permits) at 3-4 annual training sessions that are recorded and available for download as webinars
  - Materials made available for distribution to animal owners
  - Owners contacted by ADT Coordinator after referral from MAI

      o Reaches underserved communities via local inspectors
      o Materials to be translated into Spanish and Portuguese in partnership with MA Diversity programs (2)

4.8 Monitoring and reporting interstate movement activity

Monitoring movements and validating data will be a major focus for MDAR ADT over the course of this agreement. As of year one, providing year-to-date import/ export numbers for animals by species, identification status, eCVI type, and other metrics would involve querying multiple systems (Global Vet Link, VSPS, CVI Central, Vet Sentry, CVI@mass.gov emails, paper documents) and adding up the results by hand. The ADT Coordinator will work with TraceFirst University, CVI Central-users group, APHIS ADT staff, and other resources to determine and implement best practices for monitoring, validating, and reporting these numbers. (1-3 with a continuous improvement goal). Continued funding for the annual CVI Central subscription with the ADT CA; for the ADT Coordinator shared between the ADT CA and MDAR; for the private MA-instance of CoreOne by MDAR; and for CVI handling support by a temporary worker or new MDAR FTE (to be determined as departmental budgets and policies change under a new state administration) are all necessary in years 1-3 to make this possible.

Tag distribution by MDAR is recorded in CoreOne for all RFID, NUES, and backtags. Veterinarians and producers who receive tags from the state must return individual animal ID records (on paper or in a spreadsheet) before receiving additional tags. In year 1, MDAR will develop a means and distribute a spreadsheet to tag recipients that can be used to upload that information directly into CoreOne. (1-early 2).

V. ADVANCING TRACEABILITY

5.1 Ranking of priorities for advancement and implementation of objectives

1. Performing traces, sharing information with other animal health officials, providing animal location and movement data in the event of animal disease outbreak.
2. Data entry into CoreOne and CVI routing, etc. using CVI Central, including customization of CoreOne to allow:
    o Direct input of Barn Book inventory data by Municipal Animal Inspectors.

- Upload of individual animal record information submitted by veterinarians and producers receiving free ID tags from MDAR.
- Reporting of species and premises data .

3. Supporting the transition to electronic ID and eCVIs through training, outreach, potential state regulations or laws, and by providing RFID tags and readers made available to MDAR by APHIS for free to producers and veterinarians.
4. Providing outreach and technical assistance to internal and external stakeholders.
5. Working with sister agencies in MA, from other states, and Federal partners to implement and enforce ADT regulations.
6. Provide NUES tags and paper CVIs to producers/ veterinarians as appropriate by species and class of animal.
7. Participate in continuing education about ADT for MDAR personnel.