

ADVANCING ANIMAL DISEASE TRACEABILITY ROAD MAP FOR NEW JERSEY

A Three-Year Plan

Submitted by:

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I. EXECUTIVE SUMMARY

The New Jersey Department of Agriculture (NJDA) has been the lead agency in New Jersey for Animal Disease Traceability (ADT) since 2004. The NJDA as the primary New Jersey agency with regulatory authority over livestock has developed this ADT Road Map following the guidelines and requirements of USDA to present a framework that will guide the national effort for a tenable National ADT Program.

Animal health officials have long recognized a need for a workable national ADT Program. New Jersey State animal health officials have supported the efforts of a nationally aligned program. Including:

- Advancing electronic sharing of data among federal and state animals health officials, veterinarians and industry: including sharing the federal animal health events repository.
- Use of Electronic ID tags for animals requiring individual identification.
- Enhance the ability to track animals from birth to slaughter through a system that allows the tracking of data points to be connected.
- Elevate use of electronic CVI from veterinarians.

The NJDA remains committed to the principles of a state and nation-wide ADT Program. The state appreciates that protecting agriculture in the Garden State requires that animal agriculture, producers, and consumers be safeguarded against the incursion of detrimental disease.

The current USDA rule, which became effective March 11, 2013, has brought some stability to animal traceability standards nationally. The National ADT program instructs the states to implement the programs in such a way that national goals are met in exchange for co-operative agreement funds. The ability of New Jersey to accomplish a fully integrated and plausible program will depend on the financial resources available.

Since the federal rule was adopted, the state has experienced strong compliance by mainstream stakeholders. Current state regulations defer to National Animal ID and traceability rules. It is expected that stakeholders will continue to provide compliance and require personnel more than current availability at the state level.

The rule, at some point, requires enforcement to be taken with entities that continually shirk the tenets of the rule. This enforcement requires both state and federal actions. Resources available at the state level for enforcement are minimal. Due to the exceptions built into the current ADT rule, both state and federal agencies are challenged to enforce ADT regulation. Enforcement activities are very resource intensive, and resources are very limited.

The ability of the information from New Jersey to be shared with other state and federal officials is paramount during a disease outbreak. To this point, this interoperability is supported by USDA data systems and New Jersey will be able to share such data.

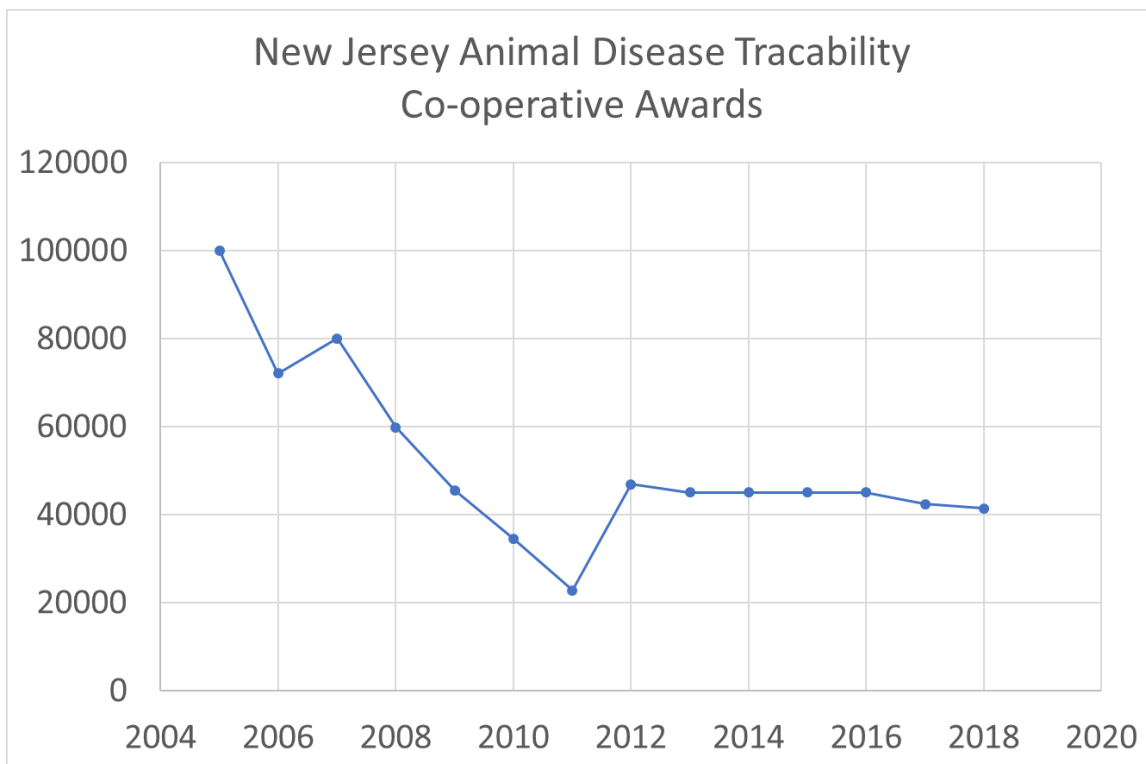
A viable ADT program must consider all the variables that are present in agriculture at national, state and local levels to protect animal agriculture. It must be able to easily integrate past, present and future disease control programs while being scalable and financially sound.

Since the initial involvement of New Jersey with ADT, the state has experienced continuous support for traceability in the form of federal co-operative agreements and allocation of state resources. However, it is essential to note that the federal funding available to New Jersey for the

program has decreased by more than 50% (see figure below) from the highest level even as the resources needed have increased.

In recent years New Jersey continues to allocate substantial in-kind resources. These resources include personnel, equipment, and infrastructure that is estimated to be equal to or greater than the entirety of the most recent federal co-operative funding made available to the state. This level of resource allocation has been adequate to allow the state to keep a functional but easily overwhelmed system in place.

Current projections for a fully functional ADT in compliance with the four pillars of the program is in excess of \$250,000.00 per year including state and federal funds. The majority of the increase is due to a long-standing need for information technology skilled ADT personnel to leverage both currently available technologies in order to decrease human resource outlays for the program. New Jersey would like to integrate electronic data sharing to allow quick and efficient sharing of data. Because this traceability data currently resides in dozens of federal, state and independent locations in New Jersey, NJ has long sought the ability to leverage these sources to trace animals efficiently. This is similar to the principal of the USDA's recently described AHER system. It is our belief and USDA's belief that there will be a need to develop ways to integrate with AHER once it becomes available.



II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

The New Jersey Department of Agriculture (NJDA) has legal authority over livestock animals in the State of New Jersey. The head of the Department, the Secretary of Agriculture, sits on the New Jersey Board of Agriculture and is a member of the state's executive cabinet. Through this mechanism, the Department

has broad authority over agricultural issues in the state of New Jersey including livestock, poultry, horses and animals raised for food or fiber. The New Jersey State Board of Agriculture (NJSBOA) has been serving as the ADT Advisory Group since 2009. Animal Disease Traceability issues are brought to the board on an as needed basis during regularly scheduled monthly open public meetings. Generally, the board hears about matters on a twice-yearly basis from the State Veterinarian. Because the state board of agriculture is made up of agricultural stakeholders of all kinds, the group can serve well as an advisory group. Through this representation, the Department reaches and engages the farming community at large.

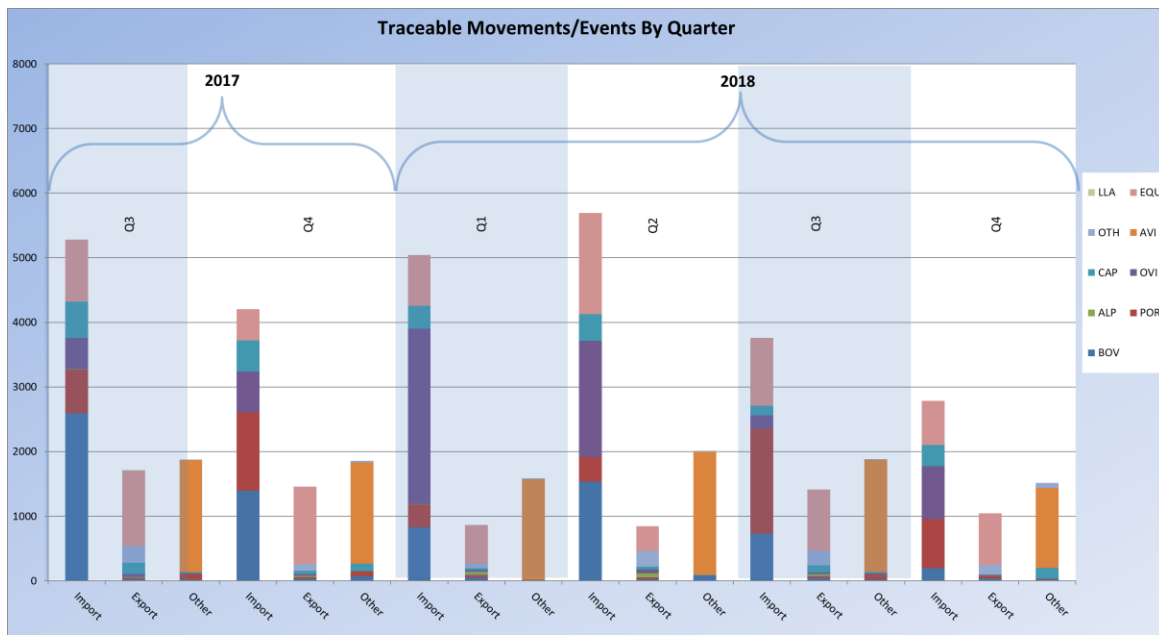
- Who are the primary constituents?
The constituents are the NJSBOA, New Jersey Department of Agriculture-Division of Animal Health (DAH), the United States Department of Agriculture-Veterinary Services (USDA-VS), and all livestock owners in the state of New Jersey. Livestock includes all animals traditionally raised for food or fiber and horses regardless of whether the specific animals are being raised for food or fiber.
- Who are the external constituents?
The New Jersey Agricultural Experiment Station (NJAES), New Jersey Beef Quality Association (NJBQA), and the New Jersey State Agricultural Development Committee (NJSADC).
- What does statewide, tribal-wide, territory-wide mean?
Statewide means all livestock, horses, and poultry within NJ. New Jersey does not have any tribal or territorial areas that would affect the implementation of an ADT program in the state.
- How are traceability data used internally, externally?
Specific traceability information is used internally during disease outbreaks. This information is not released externally. The state does not own or house this information currently or will be able to in the future. Non-specific information gleaned from traceability data efforts may be used for planning and budgeting provided that no specific information is released per applicable agreements with those who house and maintain the data (i.e., the number of sheep imported into NJ during the fiscal year).
- What values guide the animal disease traceability system?
ADT in New Jersey strives to be low cost/low effort for producers, livestock owners, and other stakeholders. The program seeks to assure that disease outbreaks, can be traced in as short a time frame as possible to avoid and minimize costs of an outbreak to the agricultural industry in NJ and nationwide. To accomplish this, the federal data that NJDA manages needs to be reliable, accurate and accessible.
- What is the make-up of the animal disease traceability advisory group? How and how often are they engaged?
The New Jersey ADT Group is a function of the New Jersey Board of Agriculture. This group is made up of eight appointed, term members from the New Jersey agricultural community. NJSBOA are engaged as needed, usually two to three times a year in their function as the ADT Advisory Group.

2.2

Where are we now?

Since the 2012 Co-op period and even before NJDA has been able to manage the entry of ADT relevant data into searchable databases. NJDA has been challenged to keep up with that data entry (within a month of receipt) and has been unable to keep up with equine data entry. The chart below represents the known animals that could be entered through paper forms—not what has actually been entered. Due to an identified lack of data entry personnel, challenges with QA/QC, and the overwhelming need for a data/programmer analyst NJDA is struggling to meet the goals described by the Federal ADT program for all livestock species (see Table 1). NJDA is exploring the increased use of eCVI to streamline data entry. As private, federal, and state eCVI systems matures, it is expected that they will transmit data to surveillance databases, and to AHER.

Table 1: Traceable Events by Species as of December 2018



- How is animal disease traceability currently defined? Is it viewed as a cross-cutting component to animal health information systems? Is it viewed as a stand-alone initiative?

ADT is a function that is handled through the current regulatory structure in the state. It is identified as a critical part of the modern function of the DAH. Therefore, every effort is, to the extent possible, to make sure it is reflected in not only the DAH but NJDA, to the extent required by the Federal rule.

- What measures of traceability capability are currently being used? What are the specific values and associated interpretation? To the extent possible
Currently, the traceability capability is measured by the percentage of official forms that are entered by species into a searchable database. Data entry of paper forms is prioritized by form and species in this priority order (4-54 > 4-33 > 4-26 > 6-22 > import CVI > export CVI), (Bovine > Porcine > Caprine > Ovine > Camelid > Avian > Equine). Currently, all 4-54, 4-33, 4-26, 6-22 and import

CVIs for Bovine, Porcine, Caprine, Ovine, and Camelids are being captured electronically.

In addition, the Department continues to perform trace-forward and -back activities independently and as part of USDA Trace Performance Measure Exercises. Small scale traces normally take less than one day to accomplish; however, larger trace activities would quickly overwhelm the system.

Finally, trace exercises are performed quarterly to meet USDA co-operative agreement requirements. NJDA has, to date, met or exceeded the requirements of the program when tracing cattle.

Required Metric*	Current Estimate	Improvement Goal***	Measured for 2018 Exercises
a) Time for NJDA to report another state that an animal in question found in NJ was tagged in that state. (time to report to the State/Tribe of official tagging/identifying of an animal in question that has moved interstate)	2 days	1 day	<1 day
b) Time for NJDA to confirm that an animal in question was tagged in NJ and confirm the person who received the tag #. (time for the State/Tribe of first officially tagging/identifying an animal in question that has moved interstate to provide a record of the official tag distribution)	5 days	3 days	<1 day
c) Time for NJDA to trace an animal in question found in NJ but originally tagged in another state to the last state it was from. (time to report to the State/Tribe from which an animal in question has moved interstate)	5 days	3 days	<1 day
d) Time for NJDA to provide the contact location and information of a premise from which an animal was moved interstate. (time for the State/Tribe from which an animal in question has moved interstate to provide the location and contact information from which the animal was moved interstate)	5 days	3 days	<1 day

- How is coordination being currently achieved within the unit?
Field, laboratory, and administrative staff are aware of the ADT Program both at the national level and the state level. Information about ADT is shared at monthly meetings of staff and outside government partners. Since traceability is part and parcel of the entire state’s disease control program, all personnel have an opportunity to have an active role in ADT.
- How is coordination being currently achieved state-wide, tribal-wide, territory-wide?
NJDA personnel take every opportunity to speak with state stakeholders regarding animal ID and ID requirements. This may occur by engaging large groups or by engaging individuals during other program activities.
- How does the present unit coordinate activities with other existing agencies/units?

The DAH holds monthly face to face meetings with all Animal Health related agencies present in the state. Information is disseminated at these meetings to help the agencies better understand the importance of traceability, a good, close relationship with the VS office and their individual roles in traceability.

- What standards for traceability are currently being used? Are they appropriate? The DAH is by and large able to perform individual trace-backs within one day. Confirmation of trace-backs with individual producers or stakeholders is more time consuming and will usually delay the final disposition of trace-backs by one to two days.

- What is the state of technology infrastructure? Capability in terms of size? Compatibility within and outside the agency/unit/department/etc. for sharing data when needed?

Due to funding and confidentiality rulings regarding this information and the state's Open Public Records Act (OPRA) New Jersey is unable to house any electronic data pertaining to individual farms without making that data public. Therefore, NJDA is currently completely reliant on Federal infrastructure regarding the storage of data for ADT, and has no control of how compatible that system is, but assumes that USDA will maintain a system compatible with AHER and any other shared database. Additionally, for the data to be useful for the state, unfettered access to database resources housed and maintained by USDA is required. The DAH is exploring and continues to explore solutions that would fully allow access to the data to perform tracebacks, and use data by creating queries and reports to leverage the vast amount of information available to the advancement of the State/Federal Co-operative program.

- Are requests for information available 24/7, or only available M-F, 40 hours per week, if authorized personnel are present?

Data resources are as available as USDA makes them. This has proven to be a challenge at times, although USDA systems are remotely accessible, there can be extended unplanned or planned downtimes. Additionally, because of sometimes strict password and access protocols and subsequent slow access reinstatements, these resources can be unavailable for extended periods. Finally, there is limited expertise at the state and federal local offices to access this information.

Although the information is available 24/7, routine access to this information is available during business hours only.

- What is the impact of state, tribe, or territory funding on capability? How does Federal funding fit into the plan?

There is extremely limited state funding available for this program or any other program. Federal funding is required for the state to meet even minimum goals for this program. Funding is currently heavily leveraged for every program the state needs to run. Without adequate federal funding, this program will only have limited success. Currently, the state share of the financial resources devoted to traceability continues to be approximately 50% of the overall project and is expected to continue. NJDA would very much like to increase the amount of funding for the program and receive additional co-operative funds to elevate the program as an archetypical program in a small North-eastern State.

2.3 Strengths and Weaknesses

- What are the strengths of the organization in terms of technology, human resources, personnel capabilities, etc.?

NJDA is a small vertically integrated organization. The NJDA-DAH consists of administrative, regulatory field, and laboratory units that can all be leveraged to make ADT a success. The DAH is strongly aware of the challenges logistically and financially for ADT, as well as the very real and everyday challenges of the state's agricultural stakeholders. The NJDA's ability to leverage current regulations as they are written to improve the amount of data available for trace-back activities provides a solid foundation for future ADT activities. The state ADT coordinator has remained unchanged since the initial co-operative agreements from USDA and is well versed in the challenges of the program in New Jersey and at the National Level.

- What are the weaknesses in terms of "lack of" technology, human resources, personnel capabilities, etc.?

There has been a longstanding weakness in the state of New Jersey's ADT activities in the form of human resources. The DAH continues to need a general-purpose Database Administrator or Programmer to leverage currently accessible data sources for the benefit of the ADT as well as perform imperative data quality functions and planning. Additionally, the current program suffers from a lack of dedicated data entry staff, which continues to plague the program, as other administrative staff members with limited expertise are being multi-tasked and retrain to perform these tasks. This further plagues the program by low-quality data, which can limit the application of the data to disease outbreaks.

Enforcement remains a major area where the department's current staffing precludes effective performance. Enforcement is expensive, time and personnel intensive. Although the state's current regulations should adequately address the needs of ADT, the lack of enforcement resources dictates that only the most negligent and severe infractions can be enforced.

Finally, the state's ADT data relies heavily on federal IT infrastructure. The main system that NJ uses is SCS. NJDA has not been able to gain access to individual animal level data that NJDA almost exclusively enters into the system for reporting purposes.

2.4 Opportunities and Threats

The basis for this component is the assumption that improving animal disease traceability capability will create opportunities for those involved that would not be available should traceability not be optimized. At the administrative level, implementation of standards for improving efficiencies of information collection, storage, sharing, and security would be an opportunity. Every State/Tribe/Territory is subject to catastrophic events, such as tornados, wildfires, drought, winter storms, animal/zoonotic disease, flooding, possibly hurricanes.

- Does this plan create an opportunity in ability to respond?
Yes
- Does this plan enable or avoid consequences of potential threats?

Yes, by instituting this plan the State of New Jersey will be better able to minimize or avert the impact of disease outbreaks.

- Does this plan provide for better use of available resources than current approaches?

Yes, by using a programmer analyst and data entry personnel to leverage the technology and information that is already available in paper form and electronic form, current personnel would be freed up to perform trace-backs and enforcement actions in relation to traceability.

- Does this plan enhance networking opportunities?

Since the implementation of ADT at the national level NJDA has had excellent contact with animal agriculture of all sectors leading to increased opportunities for NJDA and RCE to network with producers.

- If this plan is not implemented, what are the threats?

Without the implementation of ADT successful tracing will take more time. It is possible that it will be impossible to control some disease outbreaks.

- If this plan is not implemented, will others be tasked with doing so?

If it is unfeasible for NJDA-DAH to implement a sound ADT Plan in the state, there is no chance that another entity would have the ability to implement it. The ability of NJDA to leverage current resources to implement this effort substantially decreases the cost of program implementation. Additionally, there are no other agencies that have the authority in New Jersey to implement the federal ADT plan statewide.

- Have previous efforts to coordinate with other entities within the applicant's boundaries, and outside the applicant's boundaries, been complicated or unavailable for not having this plan in place?

Yes. It has not been possible to engage other entities in a meaningful way because of the constantly changing and redirection of the federal rule. With the adopted rule it now allows the NJDA to engage entities in the state more effectively.

2.5 Inventory of existing infrastructure and suitability assessment

- Human resources

The current NJDA Traceability Co-op calls for 99% of a currently hired Administrative Assistant to undertake data-entry and ADT Coordinator responsibilities respectively. Actual time sheet values for the last 12 months for ADT related activities through the entire NJDA-DAH staff is 25% of a full-time Principal Veterinarian and approximately 60% of a full-time employee (FTE) for data entry and administrative tasks spread across 4 currently hired FTE.

- Space availability

The DAH has adequate space for all currently housed personnel and equipment as well as any growth foreseen in this plan.

- Connectivity resources, both in office and in the field

Currently, all employees have access to adequate computer resources and internet resources in the office. Field staff has access to laptops and internet-enabled smartphones.

- Access to USDA animal disease traceability and animal health information resources

The DAH has front end access to all USDA databases associated with the state's traceability efforts. However, because the NJDA's traceability data is entered directly into USDA databases for confidentiality reasons, we are 100% dependent on that connectivity for the state's traceability program. The majority of our historical traceability data was in the USDA GDB. Currently, all data entry occurs in the SCS. As it was projected in the original traceability road map, the NJDA has no or limited access to extract data from SCS in a meaningful way. More recently NJDA has lost access to GDB data. The DAH did not receive the resources requested in the originally approved roadmap to write internal SOPs aligned with the SCS system or perform the necessary quality and productivity audits on the moved data. Data moved from GDB into SCS poorly mapped in some instances leading to a lot of errant data in the SCS. Backend data access and reporting is a tenet of the SCS's parent system Core One & would allow excellent utility for ADT if it were available in SCS.

- Organization of all existing paper record systems used to access animal disease traceability or animal health information

Paper records that could be used for trace-back activities are retained for 3-10 years

- Computerized data management capability, including present storage size, speed, security, etc.

100% reliant on USDA for these.

- Automated data capture capability.

None.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

The overarching vision of ADT in NJ is to provide a tool for the livestock industry to respond to emergencies, to assure that livestock are healthy, and support livestock agriculture in the state even during emergencies.

3.2 Mission Statement

Advancing ADT in NJ will support all aspects of the NJDA-DAH's mission. That mission requires the protection of the livestock in the state and the public.

Primary mission areas are:

- ✓ Disease control and prevention
- ✓ Emergency Support Functions (ESF)
- ✓ Regulatory and enforcement
- ✓ Support and service

IV. TRACEABILITY REQUIREMENTS

4.1 Strategic goal(s)

- ✓ Implementation of a statewide ADT infrastructure to advance traceability nationally.
- ✓ Use the current regulatory structure in concert with the federal ADT rule to assure that traceability continues in the state.
- ✓ Increase the capability of the state to make traceability documentation electronically available.

4.2 Programmatic goals (objectives)

- ✓ Target, develop and implement outreach messaging regarding data quality and processing for animal health information forms
- ✓ Monitor ICVI data quality
- ✓ Input data into appropriate systems
- ✓ Establish compatible standards for sharing data with States/Tribes/Territories and USDA when needed
- ✓ Integrate surveillance and traceability data
- ✓ Develop plans to allow adequate enforcement of current regulations in support of federal ADT
- ✓ Distribute more tags with emphasis on eID
- ✓ Improve stakeholder acceptance for RFID and electronic data collection
- ✓ Enhance and improve ADT related human resources
- ✓ Identify and fund human resources to support ADT (Programmer Analyst and Data Entry)
- ✓ Maintain or modify ADT Traceability Advisory Group as needed
- ✓ Obtain back-end data access to data
- ✓ Quickly respond to all trace requests

4.3 Animal disease traceability performance measures (required)

- How has performance been measured to date?

Since 2010 the NJDA has been performing traces as exercises and real disease traces. The traces are recorded on actual hours are taken from the time that numbers are given to the time that paper documentation is found indicating the source or destination. Exercises were done on swine or cattle. Actual traces are generally performed on equine. Below is an excerpt from the 2010 Traceability co-op.

“Through the market records, 100% of the animals were traced forwards one step within 12 hours of the trace request. 56% of the animals could be traced backward one step within 72 hours. 8% were able to be traced-back out of state within 72 hours, and 46% were traced forwards out of state.”

For the 2014 co-op, the state performed 10 trace exercises required metrics. These exercises were traced on the USDA trace form as requested. They were cattle chosen at random from forms submitted to the state. What follows is the excerpt from the 2014 first quarter report:

“Of the 9 traces undertaken in the first three-quarters of the 2014 Co-op, 8 were traced in less than one work day. The remaining trace ended as an untraceable event.”

For the 2017 co-op, NJDA has performed 14 traces with 100% success. Average time expected per trace is 10 minutes. In the 2018 Co-op, NJDA performed 14 traces and an additional 2 priority traces for a total of 16 with 100% success taking less than 15 minutes per trace.

- What is the current baseline?
- Measures should be offered as performance per unit of time
- If the four recommended performance measures are not used, when will they be used?

4.4

Data requirements

- Fully describe standards to be used for location identification, if used
NJDA uses the location information as described in the national standards.
- Fully describe standards to be used for official animal identification, including arrangements with other States, Tribes, Territories, as well as official identification methods/devices used within the cooperator's jurisdiction
The current code defines official animal identification as those "approved by the State Veterinarian." In practice, NJDA defers to the CFR for acceptable identification methods.
- Will the State/Tribe/Territory be using official metal ear tags beyond the current system involving accredited veterinarians only applying the tags at the time of performing regulatory animal disease work? What formats? What volume is expected for use? How will they be distributed? What is the plan for distributing taggers? VS Memo 578.12 is to be used for reference guidelines. (required to be addressed within the Road Map)
National uniform ear tagging system – ear tags have been used almost exclusively for official identification in NJ. These tags are distributed directly to program employees and accredited veterinarians for use in tagging New Jersey livestock. Starting in 2019, NJDA began distributing tags to a tagging site under a "Tagging Site Agreement." Per the 2019 cooperative agreement guidance, NJDA is hopeful that 840-style electronic ID will be more widely distributed based on availability and cost. VS Memo 578.12 serves as a guidance document for the distribution and use of tags in NJ. The expected volume of tags for the current year should not exceed 1000.
- What tag distribution record keeping systems will be used? (required to be addressed within the Road Map)
Record keeping is recognized as a core premise of a viable animal ID system. The fields required for the use of NUES or electronic ID tags would be the minimum required for the use of these tags. It is the responsibility of the person's applying the tags to confirm that the information is submitted to the NJDA. NJDA will then electronically enter the distribution in an applicable database if not already entered through another system.

- What data requirements exist for commuter herd agreements?
NJDA is not aware of any commuter herds that operate in the state. These will be handled on a case by case basis if they occur.
- What forms are approved for interstate movement in addition to ICVIs?
ICVI are the only forms accepted for interstate movement of non-slaughter livestock animals in NJ.
- How and when will data be shared with other States, Tribes, Territories, and USDA? (required to be addressed within the Road Map)
Electronic data is available to USDA at all times. Data is entered and housed in USDA databases exclusively. Paper records are available, for specific requests for disease tracing needs, and under special agreement for other purposes. All data will be available to other states on a case by case basis.
- How will group/lot official numbers be handled within the system?
Group/lot identification will be handled per federal guidelines and regulation.

4.5 Information technology plan

NJDA hopes to bring together all the data sources available for the purposes of ADT. Currently, the department uses many individual federal databases, SCS, VSPS, SPRS, AHSM, AIMS, EMRS, AHER, etc. for traceability in the state. Additionally, the state has state databases pertaining to dealers, humane cases, disease cases, as well as the NJDA's Animal Health Diagnostic Laboratory (AHDL) data. Also, many practitioners in NJ are using GVL's data systems.

The need for specialized ADT centric IT expertise at the co-operator level is underscored by the limited resources available at the federal level and the lack of state-level resources that have the ADT business knowledge to be successful.

In order to further ADT in NJ, and most likely many other states, each state will have to develop IT resources that are highly specialized to their specific needs and ADT in general.

4.6 Resource requirements

- Is specific expertise needed that is not currently available?
Yes, the DAH has access to statewide IT resources, but the lack of a specialized DAH IT staff means that the predominant activities with general state IT resources are familiarizing them with changing business requirements of a very fluid state and national program. Statewide IT resources are currently consumed by larger state users. The state's IT resources are not available to DAH for specialized projects in a cost-effective manner. Since ADT is highly IT-dependent NJDA continues to need a local Systems Analyst/Programmer Analyst position to keep up with demands as well as to leverage all state and federal resources to minimize additional human resources dedicated to ADT. This position will allow the DAH to meet the flexible and evolving demands that ADT requires. There is also a need to have dedicated data entry staff. Current data entry tasks have been moved to telephone, administrative, laboratory, professional, VS and other staff. Data entry and data QA/QC tasks have been prioritized. Currently, an estimated $\frac{1}{4}$ to $\frac{3}{4}$ of all traceability data

(100% of cattle, swine, goat and sheep data) is entered into an electronically searchable form. While equine data was being entered for some time, the needs of other more immediate program disease issues caused a reallocation of resources. No additional QA/QC of that data is performed after data entry.

- Will consultants be needed?

There are no plans for the use of consultants. However, the Programmer Analyst/Systems Analyst could be sourced as a consultant. NJDA does not think that this would be beneficial to the ADT program because of the depth of specialized knowledge that would be required to integrate with ADT, federal, and state resources would use a great deal of the consultant's time.

- Is a continuity of operation plan (COOP) in place and how frequently is it tested?

Yes, NJDA participates in the state's COOP. Testing occurs at least annually.

- Are automated data capture resources needed?

Automated capture would be a great benefit to reduce the need for human resources. However, the DAH would consider this as an additional resource that would not negate the need for human resources as paper forms will continue to be a predominant format.

- Will additional or new space be required?

There is no expectation that additional space will be needed to facilitate the ADT program necessities.

4.7 Organizational needs

- Does a need for organizational change exist? Is it recognized?

No, none is needed.

- Can additional resources be leveraged within the current administrative structure?

Yes, by using a Systems Analyst/Programmer Analyst to leverage already entered data the expectation would be that some if not all the multiple data entry scenarios currently required could be rectified. At this time current data entry staffing only allows for single data entry, and even then of less than ¼ to ¾ of traceability data available, therefore all databases are not being populated with all available traceability data.

4.7.1 Executive support

- Is additional support from executive management needed?

The NJDA is, in theory, supportive of a national and state ADT program. The task is delegated to the DAH where all the administrative and programmatic knowledge resides.

- How is accountability provided?

The Animal Health Division Director routinely updates the Secretary of Agriculture and the other agency Division Directors through monthly meetings and monthly reports.

- How are officials briefed on progress and baseline measures of performance?
Yearly co-operative agreements and their subsequent quarterly reports are shared with the Secretary of Agriculture.

4.7.2 Coordination and oversight procedures

- What is the make-up of the applicant's animal disease traceability advisory group? How frequently are they engaged?

In 2008/2009 the State Veterinarian engaged the New Jersey State Board of Agriculture to act as NJ's ADT Steering Committee. This group consists of term members selected from the agricultural community at large, elected by the State Agricultural Delegates, confirmed by the Secretary of Agriculture and appointed by the Governor with the consent of the State Senate. They are engaged for traceability as needed and updated regularly by the Division Director for Animal Health. This group holds regular monthly meetings which are open to the public and can meet more often as needed. The DAH monthly report is used to update the board members on ADT related issues.

- How are emergency preparedness resources engaged or responded to when necessary?

Because the NJDA is the lead state agency for animal disaster response, and the DAH is the lead division, the engagement of emergency preparedness resources is seamless.

- How is compatibility with other States, Tribes, Territories, and USDA monitored?

NJDA uses federal databases almost exclusively. Therefore our compatibility with other stakeholders is dependent on the systems stood up by USDA. If NJDA were to migrate away from federal databases compatibility with other states, tribes, territories, and USDA would be of paramount consideration.

- How are responsibilities assigned for implementing the plan?

The DAH is almost exclusively responsible for implementing the plan.

- How are disputes arbitrated?

Disputes over ADT are handled within the governance structure of the State Board of Agriculture.

- How is feedback obtained relative to perception of successful implementation above and below the administrative authority?

Information is shared upwards from the Division Head to the Department, to the State Board.

- How is transition achieved when administrators are replaced?

Per New Jersey Statutes Annotated, Title. 4 (N.J.S.A. 4).

4.7.3 Policy

- How do existing mandates assist, limit, or modify what is intended to be achieved?

The division has integrated flexible language into many state regulations (New Jersey Administrative Code N.J.A.C.) designed to build upon and utilize federal

animal identification requirements. By that means it is expected that the current rules will allow adequate ADT program involvement by persons in the state.

- ✓ N.J.A.C. 2:2 Disease Control Program
- ✓ N.J.A.C. 2:3 Livestock and Poultry Importation
- ✓ N.J.A.C. 2:5 Quarantines and Embargoes
- ✓ N.J.A.C. 2:8 Humane Treatment of Domestic Livestock
- ✓ N.J.A.C. 2:9 Avian Influenza

- Is there a need to address any specific mandates and act to modify them to align them with current goals and objectives?

At this time, it is expected that the regulations as currently written will suffice to meet foreseeable mandates. However, improvements in language will be undertaken as needed during the rule re-adoption process.

4.7.4 Staffing

- How is full-time, paid support staff justified?

In the most current ADT Co-operative agreement there are no full-time employees working on ADT. The Co-operative agreement calls for 98% of an FTE Administrative Assistant (Data-Entry). These FTE include required fringe costs that have hovered around 50% per year. All other FTE are services-in-kind. Actual time sheet values for the last 12 months for ADT related activities through the entire NJDA-DAH staff included but not limited to 25% of a Principal Veterinarian acting as the State Traceability Co-Ordinator and a further ~20% of FTE spread between 6 currently hired FTE. This level of staffing allowed ¼ to ½ full implementation of the Federal ADT Plan in the state. With the wider use of eCVI as called for in the 2019 federal guidance, it is estimated that up to 75% of the data could be entered with the current staffing levels.

- What personnel are needed to implement the plan?

Two specialized human resources have been identified that would allow ADT efforts to progress in the state past minimum levels. A programmer analyst or systems analyst and a dedicated data entry person.

- Can other human resources be leveraged to assist in implementing the plan?

Current staff resources are leveraged to the maximum. Current non-specialized FTE is entering approximately 25% of all data required for complete ADT in the state. Using an additional specialized data entry FTE and an analyst to leverage current and future available technology it is expected the department will be able to handle all data requirements for the New Jersey ADT.

With the staffing scenario in this plan, NJDA would have 3.25 FTE dedicated to ADT and would be capable of capturing 100% of the data. In other words, NJDA would go from capturing 25% to making 100% of all ADT data electronically traceable.

More importantly, the analyst position would allow NJDA to respond to data requests more quickly with greater confidence in results. The analyst position would also be able to set up tools to streamline QA/QC tasks for existing

personnel and further leverage human resources to provide better more consistent data quality.

- Are professional credentials and certification an issue?
For both the specialized data entry position and the Programmer Analyst/Systems Analyst credentials and certifications will be an issue.
- Are job descriptions for the roles needed provided?
Job descriptions will and are described for all positions. For the currently engaged staff, the ADT efforts are a percentage of their overall job title/description. However, for the analyst position, a very specific job description will have been developed.
- Is animal disease traceability information a distinct function within the unit or an add-on “coordinated by committee” versus an individually coordinated, stand-alone sub-unit?

ADT is a distinct function that is woven into all division activities.

4.7.5 Projected Budget requirements

	Year One	Year Two	Year Three
Personnel	\$82,501	\$149,500.00	\$149,500.00
Fringe Benefits	\$0.00	\$36,950.00	\$36,950.00
Equipment	\$500.00	\$5,000.00	\$5,000.00
Office Supplies	\$5,000.00	\$5,000.00	\$5,000.00
Vehicles	\$3,000.00	\$3,000.00	\$3,000.00
eID	\$5,750.00	\$5,750.00	\$8,050.00
Software/Licenses	\$62,500	\$55,000	\$47,500.00
Total	\$159,251.00	\$260,200.00	\$255,000.00

- How are you funded for animal disease traceability? State, Tribe, Territory versus Federal?
Specific funding for ADT is through State/Federal Co-operative agreements. Additional funding comes from general state funds and other cross-agency funding sources.
In the current co-op period to date, approximately 50% of funding for ADT has come from the Federal ADT Co-operative agreement, while the remaining 50% has been from other leveraged sources.
- What are the funding requirements projected by year one, two, and three for implementing this plan?
New Jersey has spent significantly more than its cooperative allocation on ADT related activities in the current year. The level of funding provided is barely sufficient to do the minimum requirements of the program. A fully operational program is expected to about \$250,000.00. The current and projected federal funding for the NJ ADT program leaves a gap of more than \$200,000.00 that needs to be covered to fund an entry-level analyst in year one and continued

funding for year two and year three. This includes staffing and a subscription to a cloud-based ADT Information System provided that the state can maintain current in-kind funding levels for this program.

- How is cost sharing achieved?

While in kind is not included in the budgets for this program, the NJDA has routinely spent state funds on keeping this program functional. New Jersey had been required to illustrate a cost sharing of no more than 20% in every State/Federal Co-op until 2014. Actual cost sharing has been greater than 20% during every co-op period since 2011. For 2018 actual state outlays for the program was greater than 50% of the total expense of the program just in salary. This was the minimum needed to meet the requirements of the Federal Co-operative agreements.

- Can other funding sources be leveraged to support this plan?

Every opportunity to leverage funding from state sources has been accomplished and have been leveraged to meet the minimum needs of traceability to date. These needs have increased as the federal rule took effect and new and increased funding will be needed to meet the demands of the ADT.

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

Successful implementation of any plan to advance animal disease traceability cannot be achieved without outreach to constituents primarily affected by the plan.

4.7.6.1. Accredited veterinarians

Accredited veterinarians are instrumental to the new framework focusing on interstate movement of livestock and poultry.

- What is the plan for informing accredited veterinarians of the new framework and the specific three-year plan for implementation?

Veterinarians will be informed of general ADT frameworks using the division's broadcast fax and emails. Movement and testing documents will be monitored for appropriate ADT usage, and veterinarians will be contacted and educated on an as needed basis. Additionally, the information will be shared at meetings to which the DAH attends such as the New Jersey Veterinary Medical Association and Atlantic Coast Veterinary Conference annual meetings.

- What continuing education is being planned for improving data quality relative to animal health information systems being used? Submitting official forms in a timely manner?

Accreditation of veterinarians is the first step to the continuing education of veterinarians. Additionally, the monitoring and feedback of official forms are also used for educating/reeducating veterinarians. This individualized approach is possible due to the limited number of veterinarians working on livestock in NJ.

- What is the plan for enhancing the use of eICVIs, if any?

NJDA has already implemented the use of GVL, VSPS, and SPRS systems. The roadmap, as planned, provides the resources to make further investments in other eCVI systems. If the USDA or other entity is able to standardize eCVI through all vendors, NJDA is hopeful that the state will allow the use of any vendor that meets the standards.

- What role, if any, does the accredited veterinarian have in providing low-cost, official identification tags/devices to producers?

Veterinarians are currently the main source for producers to receive tags in the state. This is considered part of their responsibilities as an accredited type II veterinarian.

4.7.6.2. Livestock markets

Because of frequent commingling of livestock, and sometimes poultry, at livestock markets, increased biosecurity risks are incurred and, as a result, the importance of access to traceability information when needed is important.

- What continuing education efforts are being planned for addressing the concerns of the livestock markets in the jurisdiction?

Information is shared during the annual relicensing and through regularly scheduled inspections. The standards are revisited during every opportunity or visit to the premises.

- What is the plan for accessing or requesting traceability information from livestock markets?

As part of market agreements, livestock dealers in New Jersey are required to keep records that comply with ADT. Additionally, they are required to make those records available to NJDA upon request.

4.7.6.3. Industry as a whole

- How is industry being informed of the implementation plan?

New Jersey industry is being informed through veterinarians, markets, dealers, Farm Bureau, State and County Boards of Agriculture, SADC, NJDA, annual New Jersey Agricultural Convention, and NJAES.

- How is the advisory committee being leveraged for this continuing education purpose?

The Steering Committee is engaged with all the facets mentioned above.

- What other resources are available for industry outreach?

The groups involved in the implementation plan have direct access to livestock owners. Also, animal ID is a topic that is addressed by the states Animal Emergency Working Group.

- What constitutes industry? What species are involved?

The industry in NJ is any livestock or poultry as defined in N.J.S.A. Title 4. This includes any animals traditionally raised for food or fiber, horses and poultry regardless of their use.

- How are under-represented and under-served communities being included in the outreach plan?

New Jersey Animal Agriculture Stakeholders, on the whole, are underserved. By using every avenue and opportunity to disseminate information pertaining to ADT, these groups will have an opportunity to be educated about ADT.

4.8 Monitoring and reporting interstate movement activity (required)

The new traceability framework is focused on interstate movement and the accompanying ICVI or similar documentation for that movement.

- How will the number of animals and the number of shipments be monitored that move interstate?

The number of animals is currently tabulated using ICVI and other paper forms available to the state. These are added to the SCS with the expectation that the state will be able to tabulate a total number. The department has no resources to enforce or estimation of the number of illegal shipments that are occurring. Additionally, because statewide slaughter surveillance has ceased to exist in NJ because of changes to the federal programs, it will not be possible for NJDA to tabulate the number of slaughter animals moving into or out of the state without an unreasonably large expenditure of resources.

- How will the data be verified or validated?

Every paper CVI is validated for compliance with ADT by administrative staff and by the ADT coordinator. All outgoing eCVI are inspected, and deficiencies are brought to the attention of the submitting veterinarian and USDA with a corrective letter.

- The following data must be reported for quarterly reports beginning with calendar year 2012:

- Number of ICVIs and other interstate movement documents created within the State/Tribe/Territory on a year-to-date basis for move-out animals

This data is available for non-slaughter legally moved animals and should be able to be reported. However, there is currently no ability to reliably extract this data from the federal database where this information resides.

- Number of ICVIs and other interstate movement documents received for move-in animals

This data is also available for non-slaughter legally moved animals. However, it is available only as paper forms. Additional human-resources will be necessary to allow for electronic reporting of this data.

- Number of animals by species and class for move-in events associated with ICVIs and other interstate movement documents, indicating the number of animals officially identified and the number not officially identified

This data is available for non-slaughter legally moved animals. Additional human-resources will be necessary to allow for electronic reporting of this data.

Since 2010 the DAH has, due to the limited financial and personnel resources available to this project, prioritized the data entry activities. Data entry are prioritized by form (4-54 > 4-33 > 4-26 > 6-22 > import CVI > export CVI) and species (Bovine > Porcine > Caprine > Ovine > Camelid > Avian > Equine). During recent co-ops, NJDA has collected all 4-54, 4-33, 4-26, 6-22 and import CVIs for Bovine, Porcine, Caprine, Ovine, and Camelids.

Therefore, NJDA would be able to supply reports on the information that we are currently recording dependent on database access limitations. Without additional personnel resources, there will be no feasible ability to report on any equine events.

- Number of animals by species and class for move-out events associated with ICVIs and other interstate movement documents, indicating the number of animals officially identified and the number not officially identified

This data is available for non-slaughter legally moved animals. In order to allow for fully electronic reporting of this data, additional human-resources will be necessary.

Since 2010 the DAH has, due to the limited financial and personnel resources available to this project, prioritized the data entry activities. Data entry are prioritized by form (4-54 > 4-33 > 4-26 > 6-22 > import CVI > export CVI) and species (Bovine > Porcine > Caprine > Ovine > Camelid > Avian > Equine). During recent co-ops, NJDA has collected all 4-54, 4-33, 4-26, 6-22 and import CVIs for Bovine, Porcine, Caprine, Ovine, and Camelids.

Therefore, NJDA would be able to supply reports on the information that we are currently recording. The Department will require additional resources to make this type of reporting feasible for any/all species.

- Volume of distribution for each official numbering system/device issued by the State/Tribe/Territory and/or AVIC office, including backtags by market or processing (slaughter) facility

This information is currently recorded. Back-tags are distributed directly by the area VS office and provided that they can provide the information all of this information should be readily available.

V. TRACEABILITY IMPLEMENTATION

5.1 Ranking of priorities for advancement

- What specific steps are needed to advance from where the initiative currently resides?

There are several steps needed to maintain and advance Traceability in NJ in order of priority are:

1. Maintain current infrastructure for ADT
 2. Build on the ability to enter the data into searchable databases
 3. Improve data QA/QC
 4. Outreach
 5. Improve the ability to query ADT data
 6. Regulatory Structure/Enforcement.
- Is a phased-in approach appropriate over the three-year period?
Yes.
 - Are various components dependent upon measurable successes rather than defined time periods?

Most components will require a certain degree of success in the previous component to be effective. Where federal co-ops require a measurable success, that success will be used as a benchmark. Additionally, the division will expect certain levels of success in terms of the percentage of records accepted and the quality of the data being entered.

5.2 Implementation of objectives

- Maintain current infrastructure for ADT *(year 1 to year 3)*
- Build on the ability to enter the data into searchable databases
 - Add additional human resources *(year 2 to year 3)*
 - System Analyst/Programmer Analyst *(year 2)*
 - Data Entry *(Beginning of year 3)*
 - Leverage other available data sources to use in ADT *(year 2 to year 3)*
- Electronic Sharing of Data *(year 1 to year 3)*
 - Utilize AHER and other USDA tools as appropriate to facilitate electronic sharing of data *(year 1 to year 3)*
 - Continue to encourage the use of eCVI *(year 1 to year 3)*
 - Continue to make any paper and non-eCVI searchable by keying in those CVI *(year 1 to year 3)*
- Increase use of electronic ID *(year 1 to year 3)*
 - Inform Veterinarians and other Stakeholders of USDA's timeline to phase out free NUES tags in favor of eID *(year 1 to year 3)*
 - Work to facilitate the familiarity and use of eID by getting readers into the hands of veterinarians and stakeholder *(year 1 to year 3)*
 - Build a repository of eID at the state office for disbursement to veterinarians in lieu of NUES *(year 1 to year 3)*
- Improve data QA/QC
 - Add additional human resources *(year 2 to year 3)*
 - System Analyst/Programmer Analyst *(year 2)*
 - Data Entry *(Beginning of year 3)*
 - Develop data entry QA/QC standards *(year 2)*
 - Develop mechanisms to monitor and correct QA/QC errors *(year 2)*
- Outreach
 - Perform one on one outreach *(year 1 to year 3)*
 - Engage the State Tractability Steering Committee *(year 1 to year 3)*

- Work with practitioners to encourage appropriate use and reporting of ADT relevant data *(year 1 to year 3)*
 - Work with sister agencies to message constituents *(year 1 to year 3)*
- Improve the ability to query ADT data
 - Add additional human resources *(year 1 to year 3)*
 - System Analyst/Programmer Analyst *(year 2)*
 - Purchase and install database with back-end access and searchability *(year 1)*
 - Develop mechanisms that will speed access to valuable traceability data for lay staff *(year 2 to year 3)*
- Regulatory Structure Enforcement.
 - Realignment of current traceability FTEs to allow for effective regulatory oversight and enforcement *(year 2)*
 - Regulate/enforce current identification and traceability pertinent regulations *(year 2 and beyond)*
 - Adjust current regulatory structure as needed to encompass future traceability needs *(year 1 and beyond)*