ADVANCING ANIMAL DISEASE TRACEABILITY (ADT) ROAD MAP FOR NORTH CAROLINA

A Three-Year Plan

Submitted by:

MICHAEL P MARTIN, DVM

STATE VETERINARIAN
NORTH CAROLINA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
2 WEST EDENTON STREET,
RALEIGH, NC 27602
(919) 707-3250

[SIGNATURE]

Submitted to:

LEWIS E DODDS, DVM
AREA VETERINARIAN FOR NORTH CAROLINA
VETERINARY SERVICES
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

930 MAIN CAMPUS DRIVE, SUITE 200
RALEIGH, NC 27606
(919) 855-7600

October 20, 2022

Table of Contents

I.   EXECUTIVE SUMMARY

North Carolina is a major agricultural state with beef cattle, pork, and the poultry industries being the leading animal commodities. An important element in the international and national marketing of these products is the capability to trace an animal back to its origin with the goal to safeguard animal health and public health using the latest technology allowing for an accurate and efficient response to a livestock disease event or incident of concern. The North Carolina Department of Agriculture and Consumer Services (NCDA & CS), Veterinary Division coordinates efforts to implement the 2013 Animal Disease Traceability (ADT) Program as outlined in 9 CFR in the state of North Carolina. The challenge is to develop a system that meets the State and stakeholders' needs and objectives in such a way as to be accepted by all.

Resources needed to establish, implement, and maintain an animal disease traceability system include personnel, educational, financial resources, hardware, and software. Personnel resources are necessary for regulation of the program administratively and to have regulatory staff implement changes in the markets; developing educational resources to engage stakeholders; and financial resources to fund personnel and educational resources as well   as provide supplies, equipment, technical support, and other items necessary for implementation and maintenance of a functioning and efficient animal disease traceability system.

Achieving a workable ADT system requires stakeholder input and buy-in, cooperation with other states and federal partners, and state legislative action. The reality of the wide variety of inputs will dictate a plan based on short- and long-term goals.

North Carolina has taken efforts to advance ADT focused on promoting premises identification, developing a database that has traceability capacity, and education and outreach initiatives with stakeholders. These efforts serve as a base for developing further disease traceability efforts plans. The current plan is built around implementing programs based on achieving the performance standards, guidelines and other goals and objectives of the new framework for ADT, as well as updating current North Carolina general statutes and administrative code. Since this plan is focused on developing, implementing, and maintaining an animal information system within the State, all activities and actions summarized above will support the animal health information systems within the State.

The North Carolina ADT information is compatible and interoperable with other States/Sovereign Tribal Nations/Territories and USDA and allows sharing animal disease traceability data. The individual identification used is official and originates from legitimate premises or licensed livestock markets utilizing premises identification as the location identifier. The individual identification devices are unique ear tags identified under the Animal Identification Numbering tags (e.g., 840 and RFID tags) or the National Uniform Ear Tagging System (NUES) defined in 9 CFR 86.

The objectives of the North Carolina ADT Program are:

1. Maintain current animal disease traceability infrastructure within North Carolina.
2. Conduct outreach activities; and
3. Advance the animal disease tracing capabilities of the North Carolina Animal Disease Traceability Program by utilizing advanced technology capabilities and software, such as CVI Central, which facilitates more accurate and efficient animal traceability.
4. Reducing risk of spread of disease by having the ability to quickly complete tracebacks to determine spread and origin of disease; and
5. Honest and transparent interactions and communication with all our partners and stakeholders.

An important element in the marketing of beef cattle and swine is the capability to trace an animal back to its origin, with the goal to safeguard animal health and public health and resulting in an efficient and accurate response to a livestock disease event or incident of concern.

NCDA & CS Veterinary Division promotes the traceability rule by encouraging livestock markets, veterinarians, swine, cattle and other livestock owners located in the State to participate in identification programs by:

- Registering for premises identification numbers.
- Requiring identification on swine for intrastate movement; and
- Assigning Animal Health Technician staff to support education and enforcement of ADT at markets, rodeos, exhibitions, etc.

The objective of the ADT program is to have epidemiological information prior to any disease inquiry or response need, thus supporting effective animal disease surveillance plans that documents disease free status.

CVI Central Costs & Benefits

Item	Year 1	Year 2	Year 3
CVI Central Commissioning fee	$16,000	$0	$0
CVI Central Annual subscription	$37,080	$38,192	$39,338
Training (web based)	$4,010	NA	NA
Total Cost	$57,090	$38,192	$39,338

II.   CURRENT TRACEABILITY SITUATION

2.1   Who are we?

The lead agency of the North Carolina ADT Program is the North Carolina Department of Agriculture and Consumer Services Veterinary Division.

External constituents include animal industry stakeholder groups (which includes, but is not limited to):
- Small- and large-scale producers.
- Livestock market operators.
- Licensed livestock dealers.
- Private accredited veterinary practitioners.
- County extension at both the university and local levels.
- Managers of livestock and agricultural fairs and exhibitions and shows.
- SAHOs from states that conduct animal movement with North Carolina.
- The Southern Animal Health Association (SAHA)
- USAHA
- USDA APHIS VS

State and federal field personnel visit 14 accredited livestock markets regularly on sale days for purposes of inspection and monitoring activities throughout the state of NC, with the exception of the Eastern Band of Cherokee Indians tribal lands, including verification that all livestock are identified according to the new traceability rule, that identification tags are properly placed, and that required record keeping and transmission of ID data is being done in timely fashion and in accordance with instructions. Field personnel, consisting of eleven (11) animal health technicians and four (4) Veterinary Medical Officers, who work closely with the livestock markets and market veterinarians on all matters pertaining to the Federal traceability rule. Also, state, and federal field personnel will visit with accredited veterinarians and livestock producers to address ADT rules. The Livestock Unit director serves as the ADT Coordinator and provides oversight to the program.

Traceability data is used internally to traceback suspects in program disease efforts, federal ADT cooperative agreement exercises (including assisting other states conducting exercises), assist other Divisions within the NCDA & CS, assist industry in health and management decisions regarding their specific industry sector and interactions with other industry sectors, and to assist USDA APHIS FSIS and VS within North Carolina. Externally, traceability data is used to assist other states with interstate movement of animals, assist other states in tracebacks of program diseases that are found in our state, and to provide resources to national industry groups and USDA

for use when formulating policy, developing programs, and planning emergency response plans.

The ADT Advisory Committee consists of:

- Eastern Band of Cherokee Indians.
- North Carolina Alpaca Breeders and Owners.
- North Carolina Aquaculture Association.
- North Carolina Association of Agricultural Fairs.
- North Carolina Cattlemen's Association.
- North Carolina Cooperative Extension Service (NCSU & NCA&T).
- North Carolina Dairy Producers Association.
- North Carolina Deer and Elk Farmer Association.
- North Carolina Department of Agriculture and Consumer Services, Veterinary Division.
- North Carolina Farm Bureau.
- North Carolina Horse Council.
- North Carolina Livestock Market Association.
- North Carolina Meat Goat Association.
- North Carolina Meat Processors Association.
- North Carolina Pork Council.
- North Carolina Poultry Federation.
- North Carolina Sheep Producers Association.
- North Carolina Veterinary Medical Association (NCVMA); and USDA APHIS VS Area Office (AD and AIC).

The Advisory Committee meets annually and at other times as appropriate and necessary.

2.2   Where are we now?

Current traceability is defined in terms of accurate, efficient and successful tracebacks on program reportable diseases, the ability to locate specific back tag and individual animal ID information, the ability to locate the farm (or state) from where an individual animal originated, the level of individual animal identification on ICVIs, and the number/percentage of ICVIs that are approved vs. disapproved by the State Veterinarian's office. In light of this definition, it is apparent that the traceability system is not a standalone initiative but an integration of a wide range of animal health-related issues and programs. Successful, efficient and accurate acquisition of these ADT data are the standards for traceability that are currently being used.

Traceability coordination is currently achieved through routine communication between office and field staff, field staff and producers, office and field staff with industry and federal partners, and all the iterations

of all these various components and other constituents and/or units.

The technology infrastructure for the cooperator's traceability system includes the Standard Premises Registration System (SPRS) / Standard Premises Identification System (SPIS) repository for national Premises Identification Numbering System (PINS), Animal Health Service (AHS), Animal Health Event Repository (DIS-AHER), SCS Core One, AHS cooperator's Animal Health Programs (AHP) database. The State AHP data base contains information on approximately 35,000 premises in the State that is critical to our traceability system and will continue to be so. The SPIS contains traceability information on approximately 19,045 premises. All premises that are in the SPIS are also in the AHP data base. In the event of an animal disease emergency and at the discretion of the North Carolina State Veterinarian, the AHP data would be made available to appropriate individuals; this access is governed by North Carolina General Statutes and altering that protocol is not possible without legislative action.

Coordination of animal traceability information is currently provided to other state and federal agencies on request. Accuracy and speed are the current standards of traceability. The current state of technology infrastructure is adequate for our traceability needs and is compatible within and outside of our department for the purpose of sharing data as needed. As mentioned previously, the purchase of the CVI Central software program will greatly increase the accuracy and speed of our ADT program.

Requests to the cooperator for information are routinely available Monday through Friday from 8 A.M. to 5 P.M. The North Carolina Department of Agriculture and Consumer Services, Veterinary Division is an emergency response unit. In the event of a declared emergency the NCDA&CS Veterinary Division is expected to be available for 24/7 coverage, including providing information from the AHP database necessary for managing the emergency, including traceability data if needed.

Federal funding is essential for software, hardware, and personnel. State funds are utilized for personnel.

2.3   Strengths and Weaknesses

The strengths of the North Carolina Animal Disease Traceability program are:

a.   An Animal Health Program (AHP) database was developed four years ago as a tool that included traceability components for animal identification (swine), for premises identification, and additional software and hardware have been purchased to enhance the accuracy of animal traceability.

b.   Personnel, both administrative and field staff, provide tremendous

resources such as knowledge of programs, relationships with industry, and experience with response to disease outbreaks and/or eradication.

c.   One full-time administrative position assigned to oversee import/export of animals to/from North Carolina to ensure movement requirements are being met and ICVIs are properly completed by accredited veterinarians (full-time position working with a temporary employee who serves as back-up for the program);

d.   Mandatory individual identification for certain species (goats and sheep are required to participate in the Scrapie program, and swine are required to have ID for movement).

e.   NC FarmID program to create and trace both State and national premises IDs; assign new tags in AIMS.

Weaknesses in North Carolina's animal traceability program include:

a.   There are limitations within the AHP regarding tracing animal identification numbers that other databases (e.g., Core One or USA Herds) have identified and corrected. Also, IT staff limitations restrict the amount of programming that can be accomplished per year. We are currently in the process of purchasing a software program, CVI Central, to improve the efficiency and accuracy of ADT. NC also uses USDA software for traceability.

b.   Financial resources are not available to hire personnel for additional field enforcement of livestock movement regulations.

c.   Reliance on utilization of a paper filing system of ADT documents combined with the lack of a searchable ICVI electronic database.

d.   Employee turnover (specifically temporary position) impairing our ability to have two people effectively manage and coordinate an animal traceability program with the number of animals moving through North Carolina; and

e.   A lack of a strong electronic animal identification system within its markets to easily capture Radio Frequency Identification (RFID), technological enhancements (e.g., RFID scanners, electronic animal identification, tablet PCs at livestock markets and software purchases or enhancements to existing systems). Some progress has been made, however, opportunities remain.

2.4   Opportunities and Threats

This plan offers the opportunity to increase the number of animals identified, present a more accurate picture of interstate movement, develop a more complete and extensive database of owner information, animal locations and inventory, trace animal identification numbers, and enhance the ability to respond more accurately and efficiently to animal disease or

emergency events.

Without this plan, the converse of these opportunities would exist, however, the information necessary for response would still be required. Obtaining this information during an emergency response situation would be inefficient and ineffective, prolonging the event, increasing financial impact to the State and industries, and threatening continuity of business for the livestock and poultry sectors. Previous efforts and exercises have demonstrated these complications in preparedness, response, and recovery activities.

Industry groups have shown interest in assisting with traceability in North Carolina by exploring possibilities for making producer information they hold available in an animal disease event. The NC Cattlemen's Association is a member of the Southeast Livestock Network (SELN). NCDA&CS Veterinary Division have also seen robust industry enrollment and engagement in the Secure Pork Supply Plan utilizing the RAB app housed at NC State. There is also active participation in Secure Milk Supply Program from dairies in North Carolina. The Scrapie program encourages traceability within the small ruminant industry in the State.

2.5   Inventory of existing infrastructure and suitability assessment

- Human resources
  - We currently have 6 office staff involved with ADT (4 full time, 1 part time, 1 temporary employee)
  - There are 4 field Veterinary Medical Officers (one currently vacant) and 11 Animal Health Technicians in the field that participate in ADT activities
- Space availability is limited
- Connectivity resources, both in office and in the field
  - AWR 300 wand readers
- Access to USDA ADT and animal health information resources
  - NCDA&CS has access to all USDA programs used for Animal Disease Traceability
- Organization of all existing paper record systems used to access ADT or animal health information
  - CVIs – StateVet.com, paper copies are scanned and entered
  - Laserfiche to store ICVIs
  - The Tagging Report from livestock markets records animals tagged at the market destined for interstate movement
- Computerized data management capability, including present storage size, speed, security, etc.
  - Laserfiche is inadequate and requires more data input from paper ICVIs

- o CVI Central will greatly improve our ICVI accuracy and efficiency
- Automated data capture capability

  - o Animals tagged at the market and range of back tags used are put in AHP database
  - o Utilization of AHER
  - o AIMS (Animal Identification Number Management System) for looking up RFID tag numbers when animals move interstate
  - o SCS Core One for Animal Movements

The North Carolina Department of Agriculture and Consumer Services Veterinary Division has one full-time administrative staff that has been trained and dedicated to traceability efforts and two (2) part-time administrative staff that function as back-up and support. Four (4) field Veterinary Medical Officers (VMOs) and eleven (11) Animal Health Technicians (AHTs) in the livestock section are also fully trained and capable to perform traceability activities. Poultry field and office staff are also available for back-up and support. The Directors of both the Poultry and Livestock Health Programs oversee and direct these activities.

Office space is available for two computer stations, and multiple filing cabinets and dedicated to ongoing traceability efforts. Additional office space requirements may be available for use but is limited due to the physical layout of the building. Existing office equipment for administrative use is greatly overtaxed, outmoded and limits effectiveness and efficiency. New technology will be reviewed as a possible replacement for existing technology as needed.

Office and field staff have direct access to the AHP database.

Administrative staff have access to and make frequent use of USDA databases (e.g., SCS Core One, AHER, AIMS, EMRS) and animal health information resources. SCS Core One is being explored to possibly replace some of the current AHP functions.

Records and data relative to traceability are available in electronic and paper record systems. Computer databases include state and federal programs (e.g., AHP and SCS Core One). Paper records include, and are not limited to, ICVIs that are maintained for two-to-five-year periods as outlined in 9 CFR 86. The databases contain extensive data of animal agriculture-related information in North Carolina.

III.   VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1   Vision Statement

The mission of the North Carolina Department of Agriculture and Consumer Services Veterinary Division is to serve, protect and promote animal agriculture in North Carolina. The Division works diligently to ensure a healthy, profitable and expanding animal agriculture industry. The Division partners with private veterinarians and livestock industries to provide programs aimed at preventing, controlling, and/or eradicating certain infectious or communicable diseases of livestock and poultry.

3.2   Mission Statement

The North Carolina ADT Program strives to be an effective disease surveillance program by continuing to improve every aspect of animal identification. The overall objective of this program in advancing animal disease traceability is to have accurate, searchable epidemiological information prior to responding to any disease inquiry or response need, and by so doing, support an effective animal disease surveillance plan that document disease-free status. This same data is essential for supporting interstate animal activity, as well as for planning continuity of operations.

IV.   TRACEABILITY REQUIREMENTS

4.1   Strategic goal(s)

North Carolina seeks to advance ADT to ensure that State Animal Health Officials (SAHOs) can promptly determine the origin of any reportable disease affected or exposed animal in North Carolina, or to promptly trace animals moved into North Carolina from another state. Should a determination be made that the animal did not originate in North Carolina, SAHOs should be able to determine the state of animal origin - the animal's state of birth or the state of initial tagging of the animal, if the two are not the same. North Carolina ADT should also be able to determine the identity and location of other North Carolina animals potentially exposed to an affected animal. Traceability activities are time-sensitive and should be accomplished as quickly as practical and appropriate for the disease of concern.

Guiding Principles

- Enhancing 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).

- North Carolina continues to promote the use of RFID tags through the Breeding Heifer Replacement Program which requires individual identification in order to make the transmission of data more efficient, enhance the ability to track animals from birth to slaughter through a

system that allows tracking data points to be connected; and

- North Carolina has made progress in increasing the number of electronic animal health certificates (eCVIs). North Carolina is also currently incorporating a new software program, CVI Central-an advanced traceability platform, to minimize errors and maximize efficiency in tracking inter- and intrastate movements of animals, as well as facilitate receipt of health certificates electronically from private veterinarians to SAHOs.

- Maintaining a statewide infrastructure for advancing animal disease traceability compatible with State, Sovereign Tribal Nation, Territory and USDA standards.

Livestock producers are the most important members of the animal agriculture industry. Numerous industry groups, government organizations and academia support the producers. The North Carolina Department of Agriculture and Consumer Services, which includes research stations throughout the state, North Carolina Farm Bureau, North Carolina Cattlemen's Association, North Carolina Horse Council, North Carolina Pork Council, North Carolina Poultry Federation, and many other organizations seek to defend the interests of our producers and to preserve and extend markets for North Carolina agricultural products. North Carolina State University Extension Services provide education and support for producers to apply the latest scientific advancements in production.

4.2   Programmatic goals (objectives)

The overall objective of the North Carolina ADT program is to have accurate, searchable epidemiological information prior to responding to any disease inquiry or response need. This information supports an effective animal disease surveillance plan that document disease-free status, which is essential for supporting interstate animal activity and for planning business continuity of operations.

Objective 1: Maintain and Improve Current Animal Disease Traceability Infrastructure within North Carolina.

Animal identification of cattle is performed by livestock market personnel, state animal health technicians, and livestock market veterinarians. The NCDA & CS Veterinary Division provides field support for livestock markets to facilitate implementation of the ADT program. The livestock market veterinarian and/or market personnel apply official 840 RFID tags or official NUES metal tags, and USDA approved back-tags, to cattle over 18 months of age. The livestock market or field staff will then submit the official identification numbers linked to the corresponding back-tags to the

12

NCDA & CS office where the data is then transferred to the AHP, SCS Core One and/or AIMS databases.

The additional accessibility and use of scanners for electronic identification would further increase the accuracy and efficiency of information transfer. NCDA & CS will engage with external stakeholders to continue to develop a successful program.

NCDA&CS Veterinary Division office staff will continue to receive, track and monitor ICVI information, and convert paper ICVIs into digital format for storage. Staff will also continue to use the recurrent USDA exercises to objectively assess and monitor traceability performance standards and help identify any potential areas for improvement. The purchase and implementation of the CVI Central program will greatly increase accuracy and reliability of our ADT programs.

In addition to activities performed directly by NCDA&CS employees, accredited livestock veterinarians and producers have also been encouraged to participate in the animal identification program. Participating producers and veterinarians are utilizing NUES ear tags to identify cattle, swine, goats and sheep (via Scrapie tags). This program requires that participating herds have a premises identification number. Identification data is entered directly into the North Carolina AHP or SCS Core One by NCDA&CS staff. The Veterinary Division staff will continue to do this while also investigating other potentially superior methods of online data entry from veterinarians or livestock markets.

North Carolina producers and veterinarians can obtain official NUES tags and tag applicators through NCDA & CS Veterinary Division. The Division will continue to monitor the successes and challenges of this tag distribution system and will review and implement changes as necessary to improve efficiency.

Objective 2: Conduct outreach activities.

NCDA & CS Veterinary Division will continue to identify, develop, and implement outreach messaging for producers, accredited veterinarians, livestock markets, harvest facilities and other industry shareholders to obtain input, buy-in and support for traceability programs.

In addition to the routine visits to sales at livestock markets, NCDA&CS Veterinary Division staff have opportunities for ADT program outreach as part of their professional interactions with food animal veterinary practitioners, extension offices, livestock associations, etc. Outreach activities may consist of, but are not limited to, personal communication or

training, as well as the creation and distribution of educational materials. At the statewide and regional levels, Division personnel may conduct outreach activities through participation in state and regional industry and veterinary organization events, as well as other agriculture-oriented county, and state fairs and events.

Objective 3: Advance the animal disease tracing capability of the North Carolina Animal Disease Traceability Program.

The main goal of the NCDA&CS Veterinary Division ADT program is to increase the amount and accuracy of traceability data collected at the field and office level. This is best accomplished by developing methods to voluntarily increase the usage of electronic identification tags by livestock markets and producers. In addition, the electronic submission of official identification numbers matched with backtags from livestock markets to our ADT databases at the Division will further facilitate a greater volume and improved accuracy of traceability data. Further progress with the ADT program may be accomplished by developing agreements for use of state-owned equipment at markets for use in capturing and transferring traceability data to the State. Options will be explored for allowing veterinarians and livestock markets online access to databases, spreadsheets, or other methods to allow direct and secure entry of animal identification information.

In addition to electronic animal identification traceability data, the NCDA&CS Veterinary Division continues to work on plans to promote the increase in the use of electronic certificates of veterinary inspection (eCVIs) by veterinarians within the state through the use of Veterinary Services Process Streamlining (VSPS), or other third-party software programs, such as GlobalVetLink. The purchase and implementation of the CVI Central program and software will facilitate the more accurate and efficient conversion and storage of paper ICVIs to a searchable, electronic ADT program database.

The program will continue to assess current regulatory authority given by the legislative body, and request adoption of appropriated regulations as required to support the ADT traceability program.

To achieve the proposed ADT program goals, NCDA&CS Veterinary Division must have engagement and support from all relevant external stakeholder groups in order to achieve. The Division will continue to prioritize outreach and collaboration will all applicable organizations.

4.3   ADT Trace Performance Measures (TPMs)

North Carolina's Trace Performance Measure (TPM) Rating Time for the 2020 and 2021 Cooperative Agreement Period:

TPM	2020 Avg. Elapsed Time (Hrs.)	2021 Avg. Elapsed Time (Hrs.)	USDA Rating
TPM 1	0.38	0.48	Completed successfully
TPM 2	0.41	1.29	Completed successfully
TPM 3	0.36	0.69	Completed successfully
TPM 4	0.66	1.57	Completed successfully

TPMs are indicative of the response time that it takes to trace an animal/animals' origin. This encompasses tracking animal identification, premises identification, animal movement and dealer records, as well as permits for livestock markets, events and sales. North Carolina will continue to support and monitor these essential processes as important indicators of the overall success of traceability in North Carolina.

If USDA amends the performance measures during this time frame, North Carolina will modify to remain compliant.

4.4   Data requirements

Most of the traceability information is provided on ICVIs. This information includes premises, official animal ID, as well as origin and destination contact information. In addition, the cooperator has worked continually since before the inception of the various national animal identification and traceability systems to establish state and federal premises identification systems. National PINs have been entered in the SPRS/ SPIS and managed through use of the AIN management system; there are around 13,500 such identified premises in North Carolina. State premises identification began earlier and has around 35,000 premises identified. Both state and national ID numbers are contained and cross-referenced in the AHP database.

Official animal identification will be in accordance with 9 CFR and include AIN tags (840 and RFID), NUES tags, microchips, Scrapie tags, etc., with the type of official tag often being species specific. Currently there are no arrangements with other states for other means of official animal identification beyond 9 CFR standards. Official AIN and NUES (metal ear

tags) and RFID/840 will be distributed by the state directly to producers and livestock market operators as well as to accredited veterinarians. A federal and/or state premises number will be required to assign tags and distribute them to an owner. The owner information and the tag numbers assigned to that individual will be kept in the AHP database and/or SCS Core One and can be queried for reports and retrieved for traceability requirements.

At this time North Carolina a has limited number of commuter herd agreements. Pending final disposition of animals, ICVIs and Owner Shipper Statements (OSS) are the only forms that are approved for interstate movement of animals. Group/lot official numbers are already maintained on official ICVIs, and this is anticipated to continue.

Traceability data will be shared with other States/Sovereign Nations/Territories/USDA upon request and approval by the North Carolina State Veterinarian. Confidentiality statute (G.S. 106-24.1) prevents releasing this information except upon approval by the State Veterinarian in the event of an emergency response. Both electronic and hard copies could be made available under this approval process.

4.5   Information technology plan

North Carolina's information technology plan is based on continued utilization of the AHP database or SCS Core One for routine management of animal health within the state, program disease efforts, and response to emergency animal health event; animal traceability is a component of all of these activities. The AHP data base is housed on a Sequel server platform at the NCDA & CS and is part of the Multi-Hazard Threat Database (MHTD) which serves the entire Department in emergency response situations. In addition, The NCDA & CS has adequate backup and security in place for this system. North Carolina has recently purchased a new traceability program software, CVI Central, to improve the accuracy and efficiency of our ADT program. Data collection on animals is critical at each significant animal-life event: tagging, movement, and harvest. This data collection depends upon the cooperation of producers, markets, dealers, laboratories, slaughter facilities, etc.

4.6   Resource requirements

Continued federal infrastructure development and support is required for success of the ADT program. This may include anything from continued financial aid for EID reading equipment and EID tags, to developing or modifying Veterinary Services Processes Streamlining to allow capture and reporting of EIDs at markets or by accredited veterinarians.

4.7   Organizational needs

4.7.1   Executive support

The ADT program has the full support of the North Carolina State Veterinarian's office, Assistant Commissioner, and Commissioner of Agriculture. The ADT program is recognized for its importance in international and national trade. The baseline measures captured for ADT reviews are listed in the "Current Status" of traceability portion of this Road Map and include monitoring the number of ICVIs vs. eCVIs issued for imports and exports each quarter, as well as EIDs issued by the State through the USDA breeding replacement RFID program.

4.7.2   Coordination and oversight procedures

North Carolina's ADT advisory group includes NCDA&CS, USDA APHIS, producers and industry representatives, NC State University Cooperative Extension, and other governmental agencies. Meetings with this advisory group are scheduled annually, or on an as-needed basis.

Emergency preparedness and response is an on-going function of the Emergency Programs and Veterinary Divisions of the NCDA&CS. The Veterinary Division is an integral part of regular planning and training exercises with regards to this ESF-11 function. Other States/Sovereign Nation/Territories/USDA are included in these trainings and exercises to insure compatibility and uniformity between these agencies and units.

For emergency preparedness, NCDA&CS participates on several committees addressing questions surrounding ADT during emergency disease events (e.g., animal identification, premises identification, movement zones, etc.). Participation includes the National Assembly's African Swine Fever working group, the Southern Agriculture and Animal Disaster Response Alliance (SAADRA) as well as participate in TPM exercises.

Disputes are handled via the chain of command until a resolution is achieved. Feedback from producers, livestock market operators and other livestock and poultry industry groups will be sought out and encouraged, and this input will be a top priority throughout the administration of this program. Any change in administrative personnel will be handled according to state personnel policy.

17

4.7.3   Policy

State general statute and codes of regulations align with ADT general standards. Additional federal changes are needed to implement true ADT using official EID tags within 9 CFR 86 and are encouraged to standardize to all species including replacing or incorporating the Scrapie tag program into the ADT program.

4.7.4   Staffing

All full-time staff are compensated through state-appropriated programs. These salaries are considered in-kind contribution by the cooperator toward achieving the goals and objectives of the traceability cooperative agreements. As such, these full-time personnel meet state- mandated justifications and qualifications with clearly defined job descriptions approved by the Office of State Personnel. The Traceability (NCFarmID) Section of the Veterinary Division, NCDA & CS (the cooperator) is staffed by two full-time state appropriated employees and one, part-time federally funded employee who devotes approximated one-fourth of their time to the traceability work plan goals. Other Livestock Section staff in the Veterinary Division also make themselves available when necessary and requested by the Director of Livestock Health Programs. In a livestock emergency event, the Poultry Section would support the Traceability and Livestock Sections. Thus, the Traceability Section works in a coordinated fashion with others within the Veterinary Division. Additional information can be found under "Inventory of Existing Infrastructure and Suitability Assessment."

4.7.5   Budget requirements

Funding for animal disease traceability efforts is provided by both federal funding through cooperative agreements and state appropriated funds. Additional projects may receive funding through other division budgets. If budget shortfalls and cuts occur, the cooperator will make necessary adjustments in plans so that resources are allocated according to priorities.

Funding for various projects will be fluid over the years with priorities based on external stakeholder buy-in, legislative updates in current North Carolina law, and technological updates for field staff and livestock units, etc.

Currently, there are three systems of electronic identification (EID) available:

1.   Low frequency (LF) identification tags
2.   Ultrahigh frequency (UHF) identification tags
3.   Microchips

The low frequency tags are the most common and popular form of EID tags available for use in multiple species today. The system has both portable and permanent equipment that can be used in various environments for tracing animals. The drawback with the LF system is the short-range distance the tags transmit to readers which somewhat limits its usefulness to producers for functions other than identifying animals. USDA has recently approved the use of UHF animal identification tags that have been successfully tested in various scenarios in a number of states through cooperative agreement funding. These tags and the portable as well as panel readers are available for purchase. In addition, UHF animal identification numbers are now recognized as official tags. As this is new technology, there are fewer states and producers using it at this time. What is more promising about this technology is the greater distance the tags transmit to portable or permanent readers and the likelihood that they will offer producers greater usefulness outside of only being used for animal identification. We appear to be heading into a transition period where technology may switch from one format to the other.

One of the major expenses for the requested ADT planning budget over the proposed period of this road map will be to develop a usable EID tracing system within the State of North Carolina. This will need to be a well thought out process we are currently in a phase of technological transition. Purchases with budgeted funding from the cooperative agreement may include (and is not limited to) Low Frequency and Ultra High Frequency handheld or panel EID readers that can be used by field staff within the division or can be loaned to markets through memorandums of understanding between the State and market; software and hardware for the information scanned by handhelds or panels to be linked into databases for more accurate recording and tracking; electronic animal identification number ear tags that can be distributed to markets, various livestock groups (such as extension) that will promote the use of EID in animals for traceability within the state; etc.

Additional budgeting considerations will need to be given to include transitioning from a paper filing retrieval system to an electronic, searchable database for certificates of veterinary inspection, which is our goal with the purchase of CVI central. Continued federal financial support is important to continue to promote a national program.

4.7.6   Outreach

One of the main objectives of the North Carolina ADT Program is to conduct outreach activities to producers, accredited veterinarians, livestock markets, harvest facilities and other industry shareholders. In addition to the weekly visits to sales at livestock markets, field staff also participate in various opportunities for program outreach through their contacts with food animal veterinary practitioners, feed stores in conjunction with programs offered by the Food and Drug Protection Division, livestock and poultry associations, and extension offices. General outreach activities consist of personal contact, verbal communications and distributing printed educational materials. At the statewide and regional levels, staff personal conducts outreach activities through participation in statewide and regional industry and veterinary organizations.

4.7.6.1 Accredited veterinarians

Accredited veterinarians constitute the backbone of animal identification efforts by being the main connection to livestock and poultry producers and program disease eradication efforts such as TB and Brucellosis. The cooperator will engage accredited veterinarians at every opportunity, such as local and state meetings, offer teleconferences to veterinarians and their office staff, industry settings where they are present, and mass mailings of educational/outreach materials regarding the new traceability framework. Continued outreach to accredited veterinarians advancing the use of eCVIs, promoting EID usage, traceability program education, proper ICVI completion refresher trainings and official tag inventory and reporting procedures. Outreach is made through (and not limited to) direct contact, emails or paper mail, social media, website, and through state veterinary medical and livestock association meetings. The use of eCVIs is being facilitated by the recent purchase of the CVI Central Program. This program will increase traceability efficiency and accuracy. North Carolina fully supports the use of eCVIs. During this period of the Roadmap, NCDA & CS will also encourage the use of third party federal and commercial eCVIs such as USDA's VSPS, GlobalVetLink, etc. The Division will continue to encourage greater use of these systems for easier and more accurate transfer of

information into electronic databases. All electronic formats explored must be consistent with USDA requirements for data transfer. The Veterinary Division will also continue to work with accredited veterinarians and producers to distribute the free tags issued to the state associated with USDA breeding replacement RFID tag program.

Additionally, the NCDA & CS Veterinary Division works with the district USDA VS office in annual Core accreditation training for new graduate veterinarians, as well as those who have recently moved to the state. This day-long training is another opportunity to educate and raise awareness of animal disease traceability and issues directly related, such as following standard procedures and requirements for ICVIs, the availability and use of eCVIs, and the role of accredited veterinarians in distributing official animal identification to producers. The NCDA&CS Veterinary Division also utilizes USDA funds to sponsor a USDA booth at the NCVC (North Carolina Veterinary Conference) in Raleigh each November.

With the focus of developing a stronger, voluntary electronic animal identification program over the next period of this road map, veterinarians will be encouraged to utilize permanent type ear-tags, such as the 840 RFID tags, to identify cattle for their clients. The accredited veterinarian receives an incentive for promoting and performing animal identification in his/her practice area. Participating cattlemen are required to have a premises ID, along with a physical farm address, in order to participate in the program. Identification data is entered directly into the North Carolina AHP or SCS Core One.

4.7.6.2 Slaughter plants

NCDA&CS is home to the North Carolina Meat and Poultry Inspection Division and has a good history of working relationships with state inspected and crossover plants. USDA VS North Carolina office has relationships with the federally inspected plants. Communication channels exist to request and access

records from plants. During the Road Map's operational period, NCDA&CS will communicate with slaughter plants to listen and address their concerns as able.

4.7.6.3 Industry as a whole

USDA APHIS VS has been conducting a dialogue with state animal health officials, producers, and other industry representatives about the potential next steps nationally for ADT, especially in cattle. North Carolina participates in these discussions and keeps our stakeholders informed. In North Carolina, we have seen significant progress in our ability to trace livestock and poultry more effectively and efficiently as described earlier in this plan. The traceability program is essential to safeguarding the health and economic well-being of the livestock industry.

4.8   Monitoring and reporting interstate movement activity

Animal movements, numbers of shipments, and number of ICVIs for both imports and exports are currently being monitored by the Livestock Unit Coordinator and ADT staff. Increased scrutiny for accuracy, legibility, official animal identification, correct address of consignor and consignee and other items that are currently required under 9 CFR 86 will continue. Traceability data is available by species, state of origin, date of shipment, as well as other parameters. Quarterly accomplishment reports capture and report required traceability data to USDA.

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

The following data will be submitted quarterly reports spreadsheets provided by USDA:

• Number of ICVIs and other interstate movement documents created within the   State/Sovereign Tribal Nation/Territory on a year-to-date basis for move-out animals.
• Number of ICVIs and other interstate movement documents received for move-in animals.

- 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.

- 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; and

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

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

V.   ADVANCING TRACEABILITY

5.1   Ranking of priorities for advancement

Moving forward, development and implementation of a cost-sharing or other infrastructure development financial aid support program that minimizes the financial impact of the cost of infrastructure to read EIDs and the cost of switching to only EIDs as official identification for cattle and other livestock species is important. We have concerns about the impact that expansion of individual ID requirement to feeder cattle may have on speed of commerce in our markets and elsewhere, one of our core principles. This strategic plan will be revisited and adjusted as appropriate should USDA APHIS VS reach a final decision or publish a new rule because of the current dialogues.

5.2   Implementation of objectives

Maintain current traceability infrastructure: premises registrations (including managing exceptions), traceability web page, coordinating steering committee, data entry from paper ICVIs to make information electronically accessible, education and outreach activities. This will require Federal funding, including personnel at 0.5 FTE.

Continue outreach to accredited veterinarians: advancing the use of ECVIs, promoting EID usage, traceability program education, proper CVI completion refresher trainings and official tag inventory and reporting procedures. This will require Federal funding for travel.

Continued NCDA&CS Veterinary Division compliance with current North Carolina laws and regulations regarding the use of Animal Disease Traceability Data. No Federal funding required.

Continue to encourage use of alternative methods to document actual interstate livestock movements and increase the use of electronic ICVIs. This will require Federal funding for personnel at 0.5 FTE.

Continue to educate producers on advancing use of animal identification for management and marketability. No Federal funding required.

Continue to adapt tag inventory system for visual official ID and EIDs, and plan to provide financial assistance for infrastructure required to read EIDs in commerce and for purchase of EIDs as those resources become available. Federal funding required.

Continued participation in USDA-directed national and state trace performance measure (TPM) exercise(s) throughout the region. Supports USDA developing new exercises to test traceability standards. Federal funding for personnel at 0.5 FTE.

Continue to educate producers and stakeholders on consequences to the State for failure to comply with animal disease traceability regulations. No Federal funding required.

Seek harmonization of interstate movement regulations for movement of swine with other states. No Federal funding required.

Record individual AIN for cattle from paper ICVIs. Federal funding is required for the purchase and maintenance of this CVI Central software.

Each of the objectives and projects will evaluated on an annual basis to prioritize and modify accordingly to meet the state plan. Additional funding requests will be made accordingly based on interest of markets to increase electronic animal identification.