ADVANCING ANIMAL DISEASE TRACEABILITY ROAD MAP FOR NEW YORK STATE

A Three-Year Plan

Submitted by:

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Table of Contents

I. EXECUTIVE SUMMARY 3

II. CURRENT TRACEABILITY SITUATION 5
- **2.1** Who are we? 5
- **2.2** Where are we now? 7
- **2.3** Strengths and Weaknesses 9
- **2.4** Opportunities and Threats 10
- **2.5** Inventory of existing infrastructure and suitability assessment 12

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY 13
- **3.1** Vision statement 13
- **3.2** Mission statement 13

IV. TRACEABILITY REQUIREMENTS 13
- **4.1** Strategic goal(s) 13
- **4.2** Programmatic goal(s) (Objectives) 13
- **4.3** Animal disease traceability performance measures 16
- **4.4** Data requirements 17
- **4.5** Information technology plan 19
- **4.6** Resource requirements 19
- **4.7** Organizational needs 20
  - **4.7.1** Executive support 20
  - **4.7.2** Coordination and oversight procedures 21
  - **4.7.3** Policy 22
  - **4.7.4** Staffing 22
  - **4.7.5** Budget requirements 24
  - **4.7.6** Outreach 25
    - **4.7.6.1** Accredited veterinarians 25
    - **4.7.6.2** Livestock markets 25
    - **4.7.6.3** Industry as a whole 26
- **4.8** Monitoring and reporting interstate movement activity 26

V. TRACEABILITY IMPLEMENTATION 28
- **5.1** Ranking of priorities for advancement 28
- **5.2** Implementation of objectives 29

I. EXECUTIVE SUMMARY

[The length of this section should be two pages at most. Sufficient detail should be provided to allow the reader to quickly understand what needs to be done, what are the benefits, and what resources are needed to accomplish the objectives. A simplified timeline should be included indicating anticipated milestone achievements during the lifecycle of the plan. A tight narrative of several paragraphs, followed by a list of key bulleted items, would be appropriate.

- What is the fundamental problem(s) this plan addresses?

  New York State's livestock industry is dominated by the dairy cattle sector which accounts for 90% of the value of annual production from livestock in the state. In order to protect and promote the dairy industry, the state in the 1960's, and 1970's established aggressive enforcement of laws and rules requiring identification of cattle and recordkeeping. All calves were vaccinated for brucellosis and at the same time permanently identified until 1973. Routine tuberculosis testing of all adult animals in cattle herds was done until 1987. This was to facilitate the eradication of brucellosis and tuberculosis in New York which was achieved during that time period.

  That system was primarily paper based, still exists virtually unchanged today, and is still the primary means to perform livestock traces. However, the decline of brucellosis vaccination and the elimination of area tuberculosis testing have greatly reduced the number of animals officially identified and recorded by veterinarians. Under law, the department has access to the records of livestock markets and dealers but it occasionally takes time to get the information needed. In addition, milk testing and artificial insemination organizations have official tag records but the state has had mixed results in attempting to trace cattle through these due to incompleteness of their records. In 2011, the change in policy by the APHIS deputy administrator for Veterinary Services to supply USDA ear tags to producers has opened up a new opportunity to identify cattle at the premises of origin. It will take some time before the industry, especially small beef producers, fully accepts this practice.

- What are the key elements in summary form?

  The plan presented here has three major components.

  1. Maintenance of the existing traceback capability
  2. Increase the searchability of the paper-based system by recording tag numbers from significant events and putting into New York's CoreOne database.
  3. Develop more cost effective methods to capture data such as direct entry by producers and veterinarians and data uploads from other organizations issuing or recording identification numbers such as breed registries, DHI's, and bull studs.

- What are the primary benefits?

  The primary benefit of this plan is the gradual transition from a paper based system to a more efficient electronic system which will meet the Interstate Traceability Performance Standards.

- How does this plan build upon previous efforts to advance animal disease traceability?

  New York has spent ten years and invested heavily in identifying premises data and producing a robust electronic system for recording premises identification. Starting with deer inventories for Chronic Wasting Disease, this system now has the capability to record individual animal identification associated with those premises which is flexible and can be searched easily. During the Winter and Spring of 2015 we have begun an intensified effort to update GPS coordinates for premises listed in our CoreOne database.

- How does this plan fit within USDA's new framework for animal disease traceability?

  This plan adopts and implements the components of the USDA's new framework for animal disease traceability in a manner which will be cost effective over the long term.

- How does this plan support animal health information systems within the State/Tribe/Territory?

  Ultimately, this plan will greatly speed up the retrieval of data used in livestock tracing. It will also make that data available on the internet 24/7.

- How does this plan support animal health information needs with other States/Tribes/Territories and USDA nationally?

  The goal of this plan is to be able to provide to receiving states information on interstate shipments electronically. This will assist other states in meeting Performance Standard 3.

- What alternatives were explored?

  New York has already invested in an electronic record keeping system for animal traceability and cannot long support an infrastructure to maintain both a paper record system and an electronic system. The primary alternative to this plan would be to maintain the current paper based record system. A switch to a primary electronic system will produce benefits in time and economy. Efficient data capture will improve data quality, timeliness of information retrieval and cost savings.

  Currently, there are no other alternatives available. This may change as other states, private companies and USDA develop animal disease traceability information systems.

- What are the projected costs for FY2015, FY2016, and FY2017, and benefits?]

  The major benefit is that traceability data will be put into retrievable databases and time involved to do traces will be reduced from days and weeks to minutes.

  Costs to the government for this plan will run approximately $500,000 per year for the foreseeable future. As automated data capture becomes available, clerical costs, which represents half of that amount will begin to decline. It is improbable that significant cost savings can be achieved

within the three year timetable but it is very likely that as software is developed, veterinarian and producer acceptance will increase. Much depends on the costs and ease of use but cost savings should start to be seen in five years.

II. CURRENT TRACEABILITY SITUATION

2.1 Who are we?

- Who are the primary constituents?

Primary responsibility for the prevention of the introduction and spread of contagious disease of livestock in New York is shared jointly between the New York State Department of Agriculture and Markets, Division of Animal Industry (DAI) and the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (VS). In addition, these agencies work closely with the New York State Department of Environmental Conservation and USDA/APHIS/Wildlife Services (on diseases affecting wildlife) and the New York State Health Department (on zoonootic diseases).

- Who are the external constituents?

In addition there are numerous statewide livestock groups which will be actively involved in developing and implementing New York's animal Disease traceability road map:

- Empire State Meat Goat Producers Association
- Empire Sheep Producers Association
- New York Angus Association
- New York Ayrshire Club
- New York Beef Producer's Association
- New York Brown Swiss Association
- New York Deer and Elk Farmers Association
- New York Holstein Association
- New York Pork Producers
- New York Simmental Association
- New York State Dairy Goat Breeders Association
- New York State Guernsey Breeders
- New York State Horse Council
- New York State Jersey Cattle Club

There are also numerous support organizations in New York which have an interest in Animal Disease Traceability:

- Cornell Cooperative Extension
- Dairylea Cooperative
- Dairy One Cooperative
- Empire Livestock Marketing
- New York State Veterinary Diagnostic Laboratory
- New York State Veterinary Medical Association
- Pro-Dairy
- Quality Milk Production Services
- Upstate Milk Producers
- Agri-Mark

- What does statewide mean?

  This roadmap includes virtually all of the state of New York. Although there is some limited livestock agriculture in lands held by sovereign Native American nations within New York's borders, these are fully integrated with the state's marketing infrastructure. Although they act as independent bodies, they have fully cooperated with USDA initiatives.

- How are traceability data used internally, externally?

  During an infectious disease investigation, traceability data is used to determine the source of an imported disease and to ascertain any other flocks and herds that might have been exposed due to animal movement. The information is vital to New York State's chronic disease program. It is used in inventory maintenance and for the approval of movement permits.

  Externally, this data is used to assist food safety agencies determine the source of residues found in food products. Most commonly this is to determine the herd of origin of cattle with drug residues at slaughter. The data is also used to determine ownership of strayed animals.

- What values guide the animal disease traceability system?

  Although large amounts of data are collected, stored and used, any small inaccuracy renders the system worthless. The primary goal is accurate data entry. Since animals in interstate commerce are the most likely introduction of a disease threat, priority will be given to those animals over livestock which spend their entire lives on one premises.

- What is the make-up of the animal disease traceability advisory group? How and how often are they engaged?]

New York State held ID Summits in 2006, 2007, and 2008. Due to uncertainty of the future of the NAIS program and budget restrictions, face to face meetings have not been held since then. More innovative technologies must be explored such as audio or web conferencing to re-establish a viable stakeholder group. Without the expenses of a face to face meeting, the committee can meet at least quarterly to address issues in a timely manner.

2.2 Where are we now?

- 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?

  New York has traditionally had a robust system of animal identification requiring the permanent identification of all livestock moving through livestock dealers and auction markets including those in slaughter channels. USDA-VS in New York uses AINM to record small ruminant ID distributed to sheep and goat producers as part of the scrapie program, and RFID tags procured by New York through previous cooperative agreements and for scrapie eradication activities are also distributed to the producer level in AINM. Ear tags for use in cattle, deer, and swine are purchased in bulk from a local manufacturer and inventoried at the cooperator's central offices in Albany. Slaughter back tags for cattle, sheep and swine; and metal NUES eartags are ordered from the USDA warehouse. Written records are kept on all shipments of official tags to veterinarians, livestock dealers, livestock markets, and livestock producers. Required recordkeeping by veterinarians, markets and dealers has led to the ability to reliably trace back animals to the last premises they were held.

- What measures of traceability capability are currently being used? What are the specific values and associated interpretation?

  Under previous cooperative programs such as brucellosis, tuberculosis, pseudorabies, and scrapie, accuracy was determined to be much more important than timeliness of trace. Especially in tuberculosis and scrapie, New York typically was asked to trace animals months or years after they had left the state. Most records were held locally by livestock markets and dealers and it generally took a week to get information from those sources. A successful trace back was defined as the identification of all possible premises where an animal may have been infected or spread infection. A successful trace forward was defined as the identification of all possible premises exposed by an animal. While length of time taken to complete a trace is important, it was secondary to accuracy and completeness.

- How is coordination being currently achieved within the unit?

  Currently, virtually all clerical work including distribution of identification devices is done by the five members of the Animal Disease Control Unit. The unit is hierarchical with a principal clerk supervising the four other clerks. If the workload is especially heavy, the Department of Agriculture and Markets utilizes a trained keyboard specialist in another division to do data entry on the more routine tasks.

- How is coordination being currently achieved state-wide?

  All tag ordering except for scrapie tags goes through the state office. All scrapie orders go through the federal office. Efforts are being made to coordinate electronic record keeping with other organizations which issue official tags such as Dairy One (a DHIA) and Genex (an AI stud). We have seen marked improvements in Dairy One's records in recent years.

- How does the present unit coordinate activities with other existing agencies/units?

  Record systems maintained by veterinarians, livestock markets and livestock dealers are held on paper or in local computer systems. New York puts into our TraceFirst database all tags issued through this department to veterinarians, dealers, livestock markets, and producers. At the present time, New York is also working with regional DHIA's operating in New York to make tags issued by those entities more easily traced electronically. To further increase compliance and data accuracy, New York is actively encouraging the use of identification devices in livestock (horses, cattle, and cervids) which can be read electronically. In recent years, the cooperator has made full and half duplex RFID tags available to large cattle producers willing to tag their entire herd. During the 2014-2015 cooperative agreement period we acquired a large number of official plastic bangle tags in the NUES format. This is response to concerns received from affected industries about the difficulty of reading metal NUES tags in the flow of commerce.

- What standards for traceability are currently being used? Are they appropriate?

  Current animal disease traceability standards were designed to identify the last premises an animal was previously housed. At best these standards reliably looked back a few weeks or months. In the case of highly infectious diseases and chemical residues

found in meat and milk, this was effective surveillance. However, transmissible spongiform encephalopathy and diseases caused by *Mycobacterium sp.* and lentiviruses have long asymptomatic latent periods. In these cases, an animal must be traced back months to years to find the source of infection.

- 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?

  The state of New York has been partnering with Trace First and its predecessor, Via Herd for the past five years to develop person and premises registration and animal tracking software. The result is a robust database system which is kept updated, backed up, and made available off site. Because the database is held offsite, there are no size restrictions. The database allows for the free exchange of data with the federal Standardized Premises Registration System (SPRS) and Generic Database (GDB). Automated links have been developed to both these systems.

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

  Because the system is web-based, information can be retrieved 24/7/365 by any authorized user who has access to the internet.

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

While New York State has invested much to develop this system, it still requires funding to maintain. Although not a large amount, funding must be found year to year.

2.3 Strengths and Weaknesses

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

  New York developed a comprehensive and robust system of traceability in order to make rapid progress in the tuberculosis and brucellosis eradication programs in the 1950's, 1960's, and 1970's. This program required permanent identification on all cattle handled by dealers and livestock markets even those going direct to slaughter. In addition, complete records are required on almost all cattle handled.

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

  Currently, New York does not require that calves less than 200 lbs. be officially identified in commerce. Because of changes in marketing, these young calves which once were destined to be slaughtered for veal are now being raised for dairy replacement or

beef production. In addition, many of these calves are being moved between premises and livestock markets and dealers several times before they finally enter the dairy string or go to slaughter, amplifying the opportunities for disease propagation and transmission.

Although an increasing number of dairy herds are utilizing RFID tags for management, infrastructure at most livestock handling facilities is inadequate to capture that information. Presently, the visually reading of the small RFID tags is a challenge and the recording of 12 or 15 digits correctly is problematic.

Also, because of tag failure, New York has not previously discouraged the use of multiple official identification devices on individual animals. In fact, in the case of brucellosis vaccinates, and captive cervids NY has actually required the use of multiple official identification devices on animals. We anticpate that "breaking" the habit of applying more than one official ID tag will continue to require effort throughout the period covered by this Road Map.

The major difficulty in data capture is an electronic ICVI system to compete effectively with the paper based system. New York has no provision to charge for forms or processing so the least cost option is the use of state provided forms. The VSPS interstate is too cumbersome to use and the cost of available commercial applications cannot be justified for livestock. Global Vet Link appears to be getting some traction and we have been in touch with New Planet Technologies about their products, which should place the labor involved with data entry in the hands of veterinarians and producers.

One problem with each state developing its own system is that there is a large amount of redundancy in data entry. For example, animals being tested for export will have identification entered from test charts and also the same information from the ICVI's. Animals entered as exports in New York will then be entered as imports by the receiving state and vice versa. The recent development of a common .xml standard by USDA should help this problem.

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?

- Does this plan enable or avoid consequences of potential threats?

  Before routine sampling of all of the dairy herds in New York for Brucellosis ceased, the department could maintain lists of all herds producing milk in New York. Although recording distribution of official identification and interstate movements cannot replace that information, it will give the state a better idea where the more active farms are.

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

  By emphasizing inputting identification data prior to a trace back, this plan is much more personnel intensive but vastly quicker than pouring through paper records after an outbreak. In addition, this plan may produce trace outs from unrelated premises which could never be found through the paper based system.

- Does this plan enhance networking opportunities?

  As standardized ways to store and transmit data develop, the time it takes to retrieve and transmit vital information will be reduced from days to minutes.

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

  Failure to implement this plan will greatly reduce New York's ability to trace animals. The reduction of funding for tuberculosis and brucellosis programs has reduced staff available to keep current the CoreOne database.

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

  The animal identification and traceability program helps support other functions such as food safety, producer payment security, and the identification of strayed and stolen animals. In the absence of the Division of Animal Industry coordinating this effort, there is no other entity that can do so.

- 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?]

  The lack of consistent national standards for identification devices and databases has greatly hindered the interoperability of the various systems of animal identification. The uncertainty over devices should be solved by the adoption of the proposed animal disease traceability rule, leading to the simplification of record keeping. The state has started working with the smaller DHIA's to

receive reports of tag usage and plans to review DairyOne's (the largest DHIA in New York) record-keeping.

2.5 Inventory of existing infrastructure and suitability assessment

[This section is intended to provide a more detailed and technical assessment of existing infrastructure than the "Who we are" section. An outcome of this section is to support the requirements analysis for funding prioritization and justification.

- Human resources

  Currently, the Division of Animal Industry employs 11 veterinarians and fifteen licensed veterinary technicians in the field throughout New York State. In the central office, there are 7 veterinarians and 7 clerical positions.

- Space availability

  Due to cut backs in other program, there is more than adequate space availability for personnel and storage. However, due to underutilization of space, the department may be subject to space reallocation.

- Connectivity resources, both in office and in the field

  Because the current traceability database is housed by a commercial concern and available through the internet, there are no connectivity problems except in the limited areas where high speed internet is unavailable.

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

  Due to security constraints, and changes in the system, the USDA computer programs are currently unavailable to the state.

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

  As the state transitions to electronic record systems, the traditional file system is being maintained. Currently, 75 five drawer file cabinets are used to file ICVI's and test reports by premises for cattle, bison, goats, deer, camelids, swine, and sheep. Original brucellosis vaccination charts are filed by the computer input number because of their longer retention schedule.

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

  Because all information is maintained on a commercial contract server, there are no constraints in data management capability, storage size, speed or security.

- Automated data capture capability]

  Due to the nature of carbonless forms, ICVI's and original test and vaccination charts are almost exclusively hand written and cannot be adequately captured in an automated system.

III. VISION AND MISSION CONTEXT FOR ADVANCING TRACEABILITY

3.1 Vision Statement

The Division of Animal Industry intends to maintain its achievements in animal disease traceability, improve traceability wherever practical, and accomplish these intentions at minimal cost to our livestock industries.

3.2 Mission Statement

The mission of the New York State Department of Agriculture & Markets is to foster a competitive food and agriculture industry to benefit producers and consumers.

IV. TRACEABILITY REQUIREMENTS

4.1 Strategic goal

To continue developing and implementing a State-wide infrastructure for advancing animal disease traceability compatible with New York State and USDA standards.

4.2 Programmatic goals (objectives)

Objective 1: Manual data capture and preservation of currently available data into a retrievable database.

- Monitor ICVI data quality
- Input data into appropriate systems
- Improve retrieval of available traceability information
- Integrate surveillance and traceability data

Each paper ICVI is already reviewed for completeness and compliance with applicable regulations. All identification on animals moving in interstate commerce and other associated information should be entered into a database for instant retrieval in case of a disease outbreak. The challenge is the manual entering of all of this information. As technology develops, electronic ICVI's may become more popular. For the foreseeable future, the majority of ICVI's will be in the conventional multi-part forms which are filled out by hand. The poor quality of the copies and the handwriting precludes any optical data recognition so clerical help will still be used to enter identification information. One benefit of this personnel intensive operation is that forms do not have to be standardized. All available data is captured. New York makes no differentiation between surveillance and traceability data.

As noted elsewhere, New York has an established traceability database, CoreOne, provided by TraceFirst, an international leader in the industry. All identification information is entered into New York's CoreOne database. The CoreOne system is a system that facilitates retrieval of any animal identification and movement information. Until usable electronic ICVI technology is developed and implemented, there is no alternative to the costs of manual data capture.

The goal is to capture identification and premises information from all test and vaccination charts, and all incoming and outgoing ICVI's for cattle and cervids.

Estimated costs are as follows:

2015- 4 FTE Clerks @ $41,755= $167,018 + fringe @ 53.48% = **$256,341**

CoreOne system maintenance- **$100,000**

2016- 4 FTE Clerks @ $41,755= $167,018 + fringe @ 53.48% = **$256,341**

CoreOne system maintenance- **$100,000**

2017- 4 FTE Clerks @ $41,755= $167,018 + fringe @ 53.48% = **$256,341**

CoreOne system maintenance- **$100,000**

Objective 2: Development of electronic capture of data from underutilized data sources

- Enhance IT infrastructure
- Take advantage of compatible standards for sharing data with States/Tribes/Territories and USDA as they become available.
- Establish and/or update tag distribution record system]

With the introduction of the traceability rule, a set of standards has been established for official identification. Once the rule is in place, it will be easier to exchange information with other governmental agencies. Data standards for data exchange should be established on a national/international basis. It is anticipated that as electronic ICVI's become more popular, systems to monitor the data quality will be instituted into the software. New York's current CoreOne software requires that official identification follow the federal standards.

As transitions are made to automatic data capture and electronic documents, this database will need to keep up with the varying data sources. It will be a priority that as the USDA tag allocation system is updated or replaced, automated data transfer between it and CoreOne is established. With the introduction of MIM, integration will be made to download MIM data into CoreOne. Several independent data bases exist which hold official tag numbers and which are not integrated into the CoreOne system such as those used by DHI and livestock marketing cooperatives. Data transfer protocols and privacy concerns must be addressed prior to the capture of this information. Electronic ICVI's will push that burden of accurate data entry onto the veterinary office which completes the form so suitable incentives must be developed to encourage the use of electronic ICVI's.

Objective 3: Stakeholder outreach

- Target, develop, and implement outreach messaging regarding data quality and processing for animal health information forms
- Re- establish advisory committee

One of the most effective outreach methods is to keep local food animal practitioners informed of the importance and traceability. The department keeps in contact with this essential group through e-mail, mailings, attendance at veterinary meetings, and conferences and one-on-one with veterinary practices.

New York has a large dairy cattle industry which accounts for most of the livestock in the state. New York does not have any state wide livestock commodity groups that can influence a majority of their respective industries. The most influential group representing livestock in New York is the New York Farm Bureau which through its county grassroots organization represents more livestock producers than any other organization. New York will continue to work with the Farm Bureau and specialty livestock groups to keep stakeholders to stress the importance of traceability. In addition, outreach can be made to producers at venues such as the New York Farm Show and Empire Farm Days and through Cornell Cooperative Extension.

New York plans to re-establish an advisory committee when the final federal rule on traceability comes out. Committee makeup will be similar to previous advisory committees.

Estimated costs are as follows:

2015- Professional time preparing materials, communication, and at meetings- Veterinarian @ $49.44 per hour for 500 hours- $24,720 + 53.48% fringe = **$37,940**

Travel costs for outreach- **$10,000**

2016- Professional time preparing materials, communication, and at meetings- Veterinarian @ $49.44 per hour for 500 hours- $24,720 + 53.48% fringe = **$37,940**

Travel costs for outreach- **$10,000**

2017- Professional time preparing materials, communication, and at meetings- Veterinarian @ $49.44 per hour for 500 hours- $24,720 + 53.48% fringe = **$37,940**

Travel costs for outreach- **$10,000**

Objective 4: Transparency

- Establish authority
- Develop policy

The commissioner has authority to prevent the introduction and spread of infectious diseases in the state. New York will enforce the federal traceability rule and expand it to include some movements within the state such as moving animals to public exhibition.

Policy will flow from the consensus of the advisory committee as New York develops a traceability program in conformation to the national program.

2015- Professional time preparing regulations and policy materials, and at meetings- Veterinarian @ $55 per hour for 180 hours- $9,900 + 53.48% fringe = **$15,195**

Travel costs for outreach- **$1,000**

2016- Professional time preparing regulations and policy materials, and at meetings- Veterinarian @ $55 per hour for 180 hours- $9,900 + 53.48% fringe = **$15,195**

Travel costs for outreach- **$1,000**

2017- Professional time preparing regulations and policy materials, and at meetings- Veterinarian @ $55 per hour for 180 hours- $9,900 + 53.48% fringe = **$15,195**

Travel costs for outreach- **$1,000**

4.3 Animal disease traceability performance measures (required)

[This section should specify the animal disease traceability performance measures used for documenting progress and accountability. Contained within the FY2011 Animal Disease Traceability Cooperative Agreement announcement, the four performance measures recommended by the Traceability Regulations Working Group are listed. It is to the cooperator's advantage to use these four measures of traceability capability as future cooperative agreement applications will be based upon these four measures. As part of the new framework, establishing baselines for these uniform performance measures is critical to document progress made through the new approach and critical for obtaining Federal funds in the future.

- How has performance been measured to date?

The traditional method of measuring traceability has been "successful traces", that is the ability to trace a disease animal back to the premises where the animal was exposed to the disease. Because New York has used tamper-proof tags in all cattle, even slaughter cattle, and required the recording of this information by markets and dealers, virtually all traces are successful traces. The only failed traces occur when animals cannot be identified in other states by the identification used when the animal left New York. This has occurred when identification is misplaced at slaughter or when a receiving state re-identifies (at brucellosis vaccination for example) the animal without recording its previous identification.

- What is the current baseline?

The current baseline is trace back to the herd of origin of any animal based on the identification devices it bore when it left New York.

- Measures should be offered as performance per unit of time

The new Animal Disease Traceability performance standards emphasize a timely as well as adequate response. At the current time, New York can determine the following in real time primarily through written logbooks and paper files:

Performance standard 1: Determination of the state of origin and

Performance standard 2; Confirmation of tag distribution within New York for all NUES tagged animals.

Performance standard 4: Determination of the premises in New York which shipped an animal when the receiving state can document the shipment.

Performance standard 3 is more difficult to meet under short time constraints. The ability to trace 95% of the animals moved into New York in 3 business days necessitates pre-loading of the identification numbers of all imports. As noted elsewhere, automated data transfer is impossible with the current system and the alternative, hand entry of individual identification numbers, is costly.

- If the four recommended performance measures are not used, when will they be used?]

4.4 Data requirements

[This section should reflect a thorough examination of how animal disease traceability data are acquired; monitored for quality; organized; stored; secured; retrieved; used for surveillance; and shared when required. This section would also contain a listing of needs for the near term and possibly mid-term future. Since valuable traceability data are being, and will likely continue to be, collected and provided via paper formats, even if the intent is to diminish its use, this section should include a discussion relative to how paper and electronic animal health information systems are intended for use and integration in developing animal disease traceability information.

- Fully describe standards to be used for location identification, if used

  Location is based on front gate longitude and latitude. In addition, premises 911 addresses are recorded if they are not the same as the premises mailing address.

- 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

  New York is transitioning to the identification standards contained in the August, 2011 proposed Animal Disease Traceability rule. New York already requires standard NUES tags for animals moving through livestock dealers and livestock markets. As AIN identification becomes more common, the markets and dealers will utilize those as the official identification number in lieu of the NUES tag. The hardest part of the transition will be limitation to one official identification device per animal.

- 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 [option to distribute NUES tags direct to producer is determined by State or Tribe)

New York has always provided to livestock dealers and markets tamper-proof tags at state expense. In February, 2008, these tags were started to be in compliance with NUES. All tags were coded starting with "21M". Applicators for these tags are provided to dealers and markets at state cost.

In December 2011, New York began to send out NUES tags to producers. The tags are the standard USDA eartags, provided in bulk to the central state office. From there, the tags are sent directly to producers who are responsible for providing their own tag applicators. These tags all start with "21P".

In 2014, New York began issuing official plastic NUES eartags starting with 21C and 21H. These are issued directly to producer and livestock dealers and records maintained that reveal to whom each group of tags is issued. We anticipate continuing this throughout the period covered by this Road Map.

- What tag distribution record keeping systems will be used? (required to be addressed within the Road Map)

  New York currently keeps written logs which are then entered into a TraceFirst database which is kept offsite at a commercial server farm. Trace outs can be easily done either from the logbooks or through the database.

- What data requirements exist for commuter herd agreements?

  New York has no commuter herds so no special provisions need to be made to accommodate them.

- What forms are approved for interstate movement in addition to ICVIs?

  In addition to state issued ICVI's, New York accepts both the USDA VSPS eCVI and Global Vet Link eCVI's. Beginning in 2105 we will accept New Planet Technology's data. Regulations have been proposed to allow horses to move into the state using an Equine Event Permit.

- How and when will data be shared with other States, Tribes, Territories, and USDA? (required to be addressed within the Road Map)

  New York has no opposition to sharing traceability data with other governments with a valid need which can maintain the security and the privacy of the data. New York needs to be informed whenever its data is being used, however.

- How will group/lot official numbers be handled within the system?]

Group/lot identification has never been used in New York. If required to do so by federal rule, the system can be easily configured to accept group/lot numbers.

4.5 Information technology plan

[This section is to be devoted to specifying the IT needs as projected for FY2015, FY2016, and FY2017. A plan should be provided describing how the needs would best be addressed using State, Tribe, Territory and Federal resources. It should also include a description of how it fits within the broader architectural system and plan of the applicant's umbrella governmental or Tribal system, including specific back-up processes and services. A description of how the IT plan is compatible with business processes could be included as well.]

The state plans to continue to utilize and upgrade its TraceFirst database, CoreOne. In addition, during the term of this roadmap, further progress to integrate laboratory and automated tag distribution information into the system. As USDA develops the Animal Health Surveillance and Monitoring System, it is anticipated that further integration may be done to facilitate electronic data transfer between state and federal systems. As the technology behind electronic ICVI's matures and data is standardized, real time capture of this important data will be made possible.

4.6 Resource requirements

[This section is intended to describe additional resources needed to implement the road map.

- Is specific expertise needed that is not currently available?

  New York has access to the expertise required to meet these goals and objectives.

- Will consultants be needed?

  The current working relationship with TraceFirst will be adequate to maintain and expand New York's traceability program.

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

  All original (paper) records are stored at the department's offices in Colonie, NY. These are considered backup to the electronic records which are maintained by a commercial company in Texas. Because of the thoroughness of this redundancy, the continuity of operation plan has not been tested.

- Are automated data capture resources needed?

  If and when RFID tags become more accepted or required, additional scanners and handheld computers may be required. As electronic movement of documents becomes more common, there may be a need for updated and additional document scanners for the central office and field. We are currently in the process of exchanging RFID equipment obtained through previous cooperative agreements for equipment that is more useful for New York.

- Will additional or new space be required?]

No: due to recent downsizing, the division has excess work and storage space.

4.7 Organizational needs

[This section is intended to identify any organizational transformation that might be needed to implement the road map.

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

Organizational changes in the division have already been implemented due to elimination of all brucellosis surveillance, down-sizing, and reorganization. The present staff is cross trained in all of the important surveillance and tracking systems.

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

The department retains a number of keyboard specialists in the Informational Technology Division who can be used for repetitive data entry if needed.

4.7.1 Executive support

- Is additional support from executive management needed?

Priorities in department over the past several years have been to economize operations i.e. do more with less. It has been a number of years since the last significant disease outbreak and there have been a number of administrative turnovers. The importance of the traceability system needs to be emphasized from the bottom up but also through national forums.

- How is accountability provided?

There are two staff veterinarians responsible for overseeing day to day operations to ensure traceability standards are being met.

- How are officials briefed on progress and baseline measures of performance?]

The state veterinarian is consulted when decisions are required, resources needed, or other significant matters come up. The commissioner's suite is kept fully briefed on matters influencing policy and public relations.

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?

Presently, the advisory group is not meeting. Now that a coherent national program exists after the publication of the traceability rule and the publishing of the state traceability road maps, the group will be reinstated. All livestock and affiliated industries will be asked to participate as often as needed. The advisory committee will meet at least once a year with quarterly updates of ongoing activities. We should be able to take advantage of existing audio-visual equipment to facilitate tele-conferences and keep costs low.

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

The Department of Agriculture and Markets and the Division of Animal Industry are integral components of the New York State Comprehensive Emergency Management Plan. In the case of disaster or large scale emergency, resource allocation is coordinated through the NYS Division of Homeland Security and Emergency Services.

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

One of the priorities of New York's traceability program is to send staff people working on the traceability to program to the USAHA and NIAA meetings to interact with personnel from other states and USDA on traceability.

- How are responsibilities assigned for implementing the plan?

Since traceability is the backbone of the effort to protect New York's livestock from introduced diseases, it has a top priority in the central office. A veterinarian 3, reporting directly to the state veterinarian, is responsible for the planning and reporting of the program. A staff veterinarian 2 in the central office is responsible for direct implementation of the program including attendance at national meetings, preparation of outreach materials, and coordinating field activities. Field veterinarians are responsible for outreach to local veterinarian and farm groups in their assigned territories.

- How are disputes arbitrated?

The state veterinarian is ultimately responsible for the success of the traceability program and would, with the advice and consensus of the Assistant District Director, have authority to arbitrate any disputes that might occur.

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

With responsibilities spread over several levels from the state veterinarian down to the field veterinarian, there is ample opportunity to receive feedback from those directly and indirectly affected by the program. In addition, feedback will be obtained at outreach events and advisory board meetings. The state veterinarian frequently solicits direct input for affected farms and businesses.

- How is transition achieved when administrators are replaced?]

  The team effort involved with the traceability program will insure continuity in case administrators leave or are assigned to other tasks.

4.7.3 Policy

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

The Department of Agriculture and Markets has sufficient legal mandate to require identification and tracking of animals for disease control purposes.

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

The largest obstacles to achieving that mandate are lack of adequate funding and ability to insure privacy of the regulated parties. The latter issue was largely addressed by 7 USC 8791, which exempted data voluntarily submitted by producers to participate in a USDA funded program.

4.7.4 Staffing

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

Although reduced by attrition over the past several years, existing support staff is viewed as essential to the division's disease control efforts. Reductions due to attrition or reassignment have occurred in recent years, but we anticipate being able to maintain our current staffing level for the duration of this Road Map. Much of the justification for the fulltime support staff comes from the need to fulfill work supported by cooperative agreements.

- What qualifications are needed?

  Existing staff have been hired and promoted through the state's merit based civil service system.

- What personnel are needed to implement the plan?

  Current division personnel are adequate to implement this plan if not reduced by attrition or reassignment of duties.

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

  The division has access to keyboard operators in the Division of Information Technology and can, if necessary recruit and train temporary employees to meet the terms of a cooperative agreement.

- Are professional credentials and certification an issue?

  The current group of administrative veterinarians is highly trained, most with advance education in epidemiology and disease control and some with advanced degrees and specialty certifications.

- Are job descriptions for the roles needed provided?

  Each person working in traceability has a civil service job description which can be found at http://www.cs.ny.gov/cc/tsplan.cfm.

- 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?]

  With the success of the cooperative disease eradication program, disease specific program responsibilities have declined greatly. The New York Division of Animal Industry now employs 5 clerks who primarily support traceability efforts. These are surveillance, premises identification, and animal tracking programs.

  While the number of clerical people required to work in large cooperative agreement programs such as Brucellosis and Tuberculosis have declined, many new responsibilities such as emergency preparedness, animal health assurance programs, animal welfare, captive wildlife, live bird markets, and on farm food safety have emerged. Commensurate with this increasing diversity, the state now employs seven veterinarians in the central office, many with advanced training in epidemiology. In addition,

the state has eleven field veterinarians and fifteen licensed veterinary technicians working throughout the state.

4.7.5 Budget requirements

[This section is to include not only amounts by project, but also a description of sources and accountability.

- How are you funded for animal disease traceability? State, Tribe, Territory versus Federal?

Funding for traceability comes from the cooperative agreement and the state budget. Money used from the state budget is allocated to the Department of Agriculture and Markets and discretionarily allocated to the Division of Animal Industry. The annual budget for this plan is estimated to be $501,780. Included in the annual budget is $348,048 of current discretionary spending, $143,892 from the current traceability agreement, and $9,840 of new spending.

- What are the funding requirements projected by year for FY2015, FY2016, and FY2017 for implementing this plan?

Approximate estimate of the annual cost for this plan is $501,780. This estimate does not include indirect expenses.

- How is cost sharing achieved?

In general, personnel expenses and some computer maintenance expenses are paid by the state and non-personnel expenses such as outreach, travel, meetings, and development of computer program to interface with USDA and private systems are expenses paid for with outside i.e. cooperative agreement monies.

- How can the applicant insulate against budget cuts and shortfalls?

Most of this plan is scalable; reductions may delay but not preclude the eventual accomplishment of the objectives and goals. That is, data entry and outreach can be reduced and the system will still be operable but at a reduced capacity.

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

There is no other available funding at the present time other than use of the discretionary money from the Department of Agriculture and Markets or through a cooperative agreement with USDA-APHIS.

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?
- 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?
- What is the plan for enhancing the use of eICVIs, if any?
- What role, if any, does the accredited veterinarian have in providing low-cost, official identification tags/devices to producers?]

New York currently has approximately 780 category I and 1340 category II accredited veterinarians. Within the National Veterinary Accreditation Program, current e-mails were obtained for virtually all of them. Quarterly newsletters are sent out to all accredited veterinarians. For those which do not use e-mail, the newsletter is printed and mailed out. In addition, e-mail alerts are sent out as needed.

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

Livestock markets are an integral link in traceability. Each of New York's approximately 30 livestock markets has several federal and state employees assigned to it. Direct contact with market managers and personnel is made on a weekly basis.

4.7.6.3. Industry as a whole

[Implementation of any plan to advance animal disease traceability impacts a variety of constituents, likely none more so than industry itself.

- How is industry being informed of the implementation plan?
- How is the advisory committee being leveraged for this continuing education purpose?
- What other resources are available for industry outreach?
- What constitutes industry? What species are involved?
- How are under-represented and under-served communities being included in the outreach plan?]

New York's commercial livestock industry is dominated by the large number of dairy cattle in the state. New York is currently the fourth leading producer of milk in the US. Farm consolidation has greatly reduced the number but increased the size of the average dairy farm in New York. At the same time, the abandonment of smaller and marginal dairy farms has lead to increased interest by small and part time operators to produce specialty crops which can be marketed locally. This includes goat and sheep dairies, meat goat and sheep production, and "free range" hog and poultry production. This activity has acted to stabilize alternate livestock numbers in the state but also has brought in many new producers who do not have a traditional farm background or training.

Because of this, many of the small producers are suspicious of governmental activities which seem to be intrusive. Government programs are viewed as primarily benefiting large farms and government regulations as unfairly restricting small producers or food artisans as some prefer to be called. Since many are part time farmers with full time obligations elsewhere, they generally do not affiliate with state and regional groups and rarely attend meetings or training sessions offered by Cooperative Extension. Since there is a mistrust of the government the best way to provide outreach is through proxy, that is, through the private veterinarians, livestock markets, and cooperative extension.

4.8. Monitoring and reporting interstate movement activity (required [to be reported through cooperative agreements)

[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?

Currently, summary data from all import and export shipments are put into a spreadsheet including the New York premises involved, the number and species of animal, the date, and the state of destination/origin. Original paperwork is filed by the New York premises name and can be retrieved easily.

The goal is to eventually more fully automate this system to avoid entering identification numbers in one system and summary information in another.

- How will the data be verified or validated?

The system is self validating for the format of the tag numbers.

- 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
  - 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
  - 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

The following data is currently collected and can be reported for quarterly reports beginning with calendar year 2012:

- Number of ICVIs and other interstate movement documents created within New York for move-out animals
- Number of ICVIs and other interstate movement documents received for move-in animals
- Number of animals by species for move-in events associated with ICVIs and other interstate movement documents
- Number of animals by species for move-out events associated with ICVIs and other interstate movement documents
- Volume of distribution for each official numbering system/device issued by the State of New York, including backtags by market or processing (slaughter) facility

The following data is can be collected and can be reported for quarterly reports beginning with calendar year 2012:

- 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

V. TRACEABILITY IMPLEMENTATION

5.1 Ranking of priorities for advancement

[This section is intended to "divide and conquer" the breadth of elements encompassed in advancing animal disease traceability. This ranking should identify sufficient projects prioritized for funding over the next three years. It will be the basis of comparison for the annualized cooperative agreement work plans. If it is not listed here, more extensive justification will need to be provided within the annual work plan for approval.

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

  The traceability system framework in New York is already in place. The one overarching need remains to be recording data in a timelier and less expensive manner. This will require developing automated data capture and transfer systems while maintaining the current system.

  In addition, some work will remain to be done in producer outreach to meet the requirements of the proposed traceability rule. Cattle producers will need to start routinely utilizing official identification. Now that NUES ear tags are available to the producer at no charge, a gradual transition should occur to reach compliance with the rule. Most of the dairy sector is currently identified with official ear tags. The challenge will be to identify animals on the premises of birth. The beef industry in New York consists of many small producers, most of which do not commonly sell animals in interstate commerce. As the purebred producers move to the use of official identification on all animals, other producers will follow similar to the pattern seen in the sheep industry.

- Is a phased-in approach appropriate over the three-year period?

  The CoreOne database is fully functional for New York's traceability needs. It will not be fully utilized until populated with complete and accurate data. This will take at least three years.

- Are various components dependent upon measureable successes rather than defined time periods?]

The major obstacle to a fully implemented plan is the lack of way for stakeholders to submit data electronically. While New York could solve this problem, a national solution is ultimately required, even if it is just to specify standardized data to be transmitted. Once standards are formed, private companies and states can begin to offer electronic forms to replace multi-part paper forms. Reducing barriers to private veterinarian use of CVIs in VSPS would be an outstanding achievement.

5.2 Implementation of objectives

[Accepting that each year's cooperative agreement work plan will likely be a collection of objectives, this section is intended to identify each of the objectives prioritized in V.5.1. and correspondingly listed in IV.4.7.5. and describe how each project will be conducted or approached. Objectives should be listed and ranked as priorities for each of the planned three years, aligning with the three-year budget plan.]

1. Maintenance of the current system.

   New York has spent 13 years developing database system to track premises with livestock. With the addition of individual animal identification, it is essential that the premises data be constantly updated.

2. Development of automated data exchange between New York's CoreOne and outside databases.

   Manual entry of tag numbers is expensive, slow, and prone to transcription errors. This system will not be fully viable until data is entered automatically or by the first user. Incentives must be created to encourage electronic submittal of documents.

3. Promotion of the traceability program

   Stakeholders must accept and see benefits to the program in order to get buy-in. Outreach can be direct to producers and indirectly through trusted sources of information such as veterinarians and cooperative extension.

4. Use of automated readers.

   This has been disappointing in New York. It's possible that small independent dealers and markets may feel threatened by complete visibility of all their livestock transactions. NY also has had a number of bureaucratic roadblocks to having permanent RFID systems installed in livestock markets. We need examples of markets in neighboring states that have "taken the plunge" and are reaping the benefits in increased efficiency or profitability. I am currently reluctant to put more resources into RFID systems until we see how things work out with UHF vs LF tag standards. New York invested heavily in RFID technology from 2004 to 2009 with not much to show in the way of functional systems at the end and I am quite guarded now about further investment until a dominant technology emerges and I can show my livestock industries nearby examples of why RFID makes sense for them.