
WSDA

Animal Disease Traceability Animal Health and Livestock Inspection Programs

Phase 1 Implementation Plan

Version 1.0

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Project Scope

BACKGROUND

The Washington Department of Agriculture (WSDA) needs to modernize current processes, systems, and equipment used to gather, manage, analyze, and report on animal health, ownership, and movements into and out of Washington State to be able to meet United States Department of Agriculture (USDA) traceability requirements.

The new federal Traceability for Livestock Moving Interstate rule became effective on March 11, 2013. This new rule covers cattle and bison, sheep and goats, swine, horses and other equines, poultry and captive cervids (deer). USDA is focusing on cattle because they are the least identified when moving interstate and to ensure we are prepared to respond to new or foreign animal diseases in the future. This project is divided into two phases: Phase 1 will focus on cattle; Phase 2 will focus on the other covered livestock and poultry species.

There is an increasing need for efficiency and to improve customer service and support capabilities in order to meet ongoing budgetary constraints and customer service requests in a manner that is appropriate to the times. To this end, there will be a focus on automation, self-service, and digitization of records wherever appropriate. In addition, a shared central repository will be necessary for the collection, storage, and management of information to enable timely planning for and response to adverse animal health events; reducing the cost of business for WSDA as well as the cost of protecting animal related industries that the State of Washington is dependent upon.

SCOPE STATEMENT

A system will be developed to enable the collection and storage of animal health, change of ownership, and movement information for the purpose of identifying the relationship between animals, their contacts and locations at specific points in time.

The primary method of data collection will be electronic through digital interfaces, web sites, and modernized software and hardware tools. A secondary method of data collection will be manual entry by WSDA staff from paper based documents.

BUSINESS GOALS

The business goals that this project will attempt to satisfy include the following across several years but not necessarily in the order listed:

- Goal 1
 - Develop a system known as "Animal Tracks", which will be the central repository for animal health, change of ownership, and animal movement data.
 - Measurable outcome - In five years:
 - 80% of in-state animal movement information is collected digitally.
 - 70% of out-of-state animal movement information is collected digitally.
 - 100% data in central repository is searchable anywhere an internet connection is available.
- Goal 2
 - Develop a digital Certificate of Veterinary Inspection (CVI) to integrate into the central repository by making it available and deploying to accredited veterinarians conducting animal health inspections.
 - Measurable outcome - In five years
 - 70% of CVIs received by WSDA are in a digital format.
- Goal 3
 - Add a module to the Animal Tracks system that enables staff to record CVI data from paper records that is completely searchable.
 - Measurable outcome - In five years
 - 100% of CVIs received in paper format are recorded and completely searchable.
- Goal 4
 - Add a self service reporting site for staff to design, execute, share, and save custom reports of Animal Tracks system data.
 - Measurable outcome - In five years

- Staff can build, execute, and save custom reports to meet research, statistical, and emergency or traceability response needs.
- Goal 5
 - Add a module to Animal Tracks to enable staff to manage Washington State recorded brands. Also include a feature for other WSDA programs to download current recorded brand data.
 - Measurable outcome – In five years:
 - 100% of Washington State recorded brands are maintained in the central repository.
 - Other WSDA systems can download recorded brand data from Animal Tracks.
- Goal 6
 - Identify and implement a Livestock Inspection based system that captures change of ownership and movement information in a digital form at the time of inspection as required. The data is uploaded to the central repository making it available and searchable.
 - Measurable outcome - In five years
 - 80% of in-state change of ownership and movement information is collected digitally.
- Goal 7
 - Add a module to the Animal Tracks system that enables staff to record Federal Test data from paper records that is completely searchable.
 - Measurable outcome - In five years
 - 100% of Federal Test records received in paper format are recorded and completely searchable.
- Goal 8
 - Add a module to the Animal Tracks system that enables staff to record Federal Vaccination data from paper records that is completely searchable.
 - Measurable outcome - In five years
 - 100% of Federal Vaccination records received in paper format are recorded and completely searchable.

- Goal 9
 - Add a module to the Animal Tracks system that enables staff to record Pasture to Pasture information from paper records that is completely searchable.
 - Measurable outcome - In five years
 - 100% of Pasture to Pasture Inspection paper form data is recorded into the central repository and completely searchable.
- Goal 10
 - Add a module to the Animal Tracks system that enables staff to record Entry Permit requests from paper documents and telephone calls that is completely searchable.
 - Measurable outcome - In five years
 - 100% recording of Entry Permits that are received in paper format or telephone call into the central repository and are completely searchable.
- Goal 11
 - Redesign current public Entry Permit web site application to be more user-friendly, expand the types of permits that the site accepts, and enable more mobile device types.
 - Measurable outcome - In five years
 - 200% increase in use of the Entry Permit web site.
 - 50% reduction in Entry Permit requests received from paper documents and telephone calls.
- Goal 12
 - All official identification devices distributed by WSDA are recorded in the central repository.
 - Measurable outcome - In five years
 - 100% official identification devices distributed by WSDA are recorded in the central repository.
- Goal 13
 - Secure ongoing funding support by industry to sustain Animal Disease Traceability.

- Measurable outcome - In five years
 - Biennial review by cattle industry advisory committee along with WSDA continues commitment to funding of Animal Disease Traceability.

Functional Requirements

Goal 1 -- The Animal Tracks system provides a repository to:

- Store animal health, livestock brand recording, change of ownership, and animal movement information from various access points (automated processes and user input screens) such that it is correlated, searchable, and exportable.
- Allow authorized users to add and edit animal health, livestock brand recording, and animal movement data from paper copies through data management screens.
- Allow authorized users to view but not edit animal health, livestock brand recording, change of ownership, and animal movement data that were imported into the Animal Tracks repository from automation processes and electronic forms.
- Allow authorized users to search across and within all animal health, livestock brand recording, change of ownership, and animal movement data record types to perform traceability analysis identifying at risk comingled animals and their owners for the purpose of protecting the industry and meeting USDA traceability standards.

Goal 2 – Develop a digital Certificate of Veterinary Inspection (CVI) and Saleyard Release process to integrate data into the central repository by making a form available to accredited veterinarians conducting Washington state animal health inspections.

- Accredited veterinarians will be able to complete Washington state animal health inspections using an interactive digitized form supplied by WSDA which contains features to enforce data integrity and to email the finished product to WSDA.

- An automated process will enable staff to upload digitized CVI and Saleyard Release forms received from accredited veterinarians into the Animal Tracks repository.

Goal 3 – Develop a CVI module for Animal Tracks

- WSDA staff is able to enter CVI data from paper based documents into the Animal Tracks repository.
- WSDA staff can search CVI's that were entered by WSDA staff and those entered through the automated digital process by any record attribute to meet USDA traceability requirements.

Goal 4 – Develop a self-service reporting site for Animal Tracks

- WSDA staff can design, execute, share, and save custom reports of Animal Tracks data to meet research, statistical, and or emergency response needs.

Goal 5 -- The Livestock Inspection Brand Recording program is modernized to enable staff to:

- Create and maintain accurate brand recording records.
- Create, publish, and distribute a registry book in print and on CD format once every 4 years.
- Create monthly supplemental registry book updates for all staff and registered owners.
- Create reports for staff to analyze and validate record accuracy and evaluate productivity.
- Search brands by any attribute to meet staff needs and public record requests.

Goal 6 -- The Livestock Inspection program field and sale processes are modernized to enable staff to:

- Use mobile devices to record change of ownership and animal movement data electronically at the time of inspection as required and then upload the data to the Animal Tracks repository.
- Allow authorized users to add change of ownership and animal movement data from paper copies through data management screens.
- View summary sale reports that validate full accountability of animals inspected for sale matching animals exchanged at a sale location.
- Print receipts and change of ownership documents for the customer at the time of inspection.

- Synchronize data gathered on mobile devices with data from the central repository so field staff and office staff can both work in real time.
- Integrate and associate recorded in-state and out-of-state animal brands as appropriate and possible with change of ownership and animal movement records.
- Create robust search capabilities to meet USDA traceability requirements utilizing change of ownership and animal movement records.

Goal 7 – Develop a Federal Test module for Animal Tracks

- WSDA staff is able to enter Federal Test data from paper based documents into the Animal Tracks repository.
- WSDA staff can search Federal Test data by any record attribute to meet USDA traceability requirements.

Goal 8 – Develop a Federal Vaccination module for Animal Tracks

- WSDA staff is able to enter Federal Vaccination data from paper based documents into the Animal Tracks repository.
- WSDA staff can search Federal Vaccination data by any record attribute to meet USDA traceability requirements.

Goal 9 – Develop a Pasture to Pasture module for Animal Tracks

- WSDA staff is able to enter Pasture to Pasture data from paper based documents into the Animal Tracks repository.
- WSDA staff can search Pasture to Pasture data by any record attribute to meet USDA traceability requirements.

Goal 10 – Develop an Entry Permit module for Animal Tracks

- WSDA staff is able to enter Entry Permit data from paper based documents and telephone calls into the Animal Tracks repository.
- WSDA staff can search Entry Permit data that is sourced from paper documents by any record attribute to meet USDA traceability requirements.

Goal 11 – Redesign current public Entry Permit web site

- Customers can create Entry Permits from mobile devices such as mobile phones and tablets in addition to desktop and laptop computers.
- Customers will be able to create Entry Permits for all types of animals as required.

- WSDA staff can search Entry Permit data that is sourced from public web site by any record attribute to meet USDA traceability requirements.

Goal 12 – All official animal identification devices distributed by WSDA are recorded in the central repository.

- WSDA staff is able to manage and search the inventory and distribution of animal identification devices.

Goal 13 – Secure ongoing funding support by industry to sustain Animal Disease Traceability.

- A biennial review by cattle industry advisory committee along with WSDA will be conducted to confirm continued commitment to funding of Animal Disease Traceability.

Timeline, Milestones & Resources

TIMELINE

Timelines and Gant Charts

Goal	Milestone	Time (est. hrs)	Resources
1	Animal Tracks repository created	10	SQL DBA
2	Electronic CVI (ECVI) and Electronic Saleyard Release training packet is created	20	Animal Health program staff
2	ECVI and Electronic Saleyard Release form is distributed with training packet to accredited veterinarians	60	Animal Health program staff
2	ECVI and Electronic Saleyard Release automated process is developed, tested, and deployed	80	IT Developer
3	Create RFP for grey-box framework to build application modules and post to WEBS	20	IT Developer, Project Manager, Contracts Program Manager
3	Evaluate responses and choose vendor	12	IT Developer, Project Manager
3	Sign contract and begin work	10	IT Developer, Project Manager, Contracts Program Manager
3	Create Animals Tracks application shell to host modules	80	IT Developer, Vendor
3	Create and deploy CVI module to manage paper document based CVI's	360	IT Developer, Vendor
3	Create dynamic search feature for CVI's	160	IT Developer, Vendor
4	Create self-service reporting site with initial reports for CVI	80	IT Developer, Animal Health program staff

Goal	Milestone	Time (est. hrs)	Resources
5	Create Livestock Brand Recording module requirements	30	IT Developer, Livestock Inspection staff
5	Create and deploy Livestock Brand Recording module into Animal Tracks	140	IT Developer, Livestock Inspection program staff
6	RFP for mobile device data capture system created and posted to WEBS	40	IT Developer, Project Manager, Contracts Program Manager
6	RFP responses evaluated and apparent successful vendor chosen	40	IT Developer, Project Manager
6	RFP Contract awarded and Statement of Work signed	30	IT Developer, State Veterinarian, Contracts Program Manager
6	Plan first sale yard data system implementation	40	IT Developer, IT Help Desk, Livestock Inspection program staff, Vendor
6	Implement first sale yard data system implementation	30	IT Help Desk, Livestock Inspection program staff, Vendor
6	Integrate first sale yard data sharing process with Animal Tracks	20	IT Developer, Vendor
6	Plan subsequent sale yard data system implementations	30	IT Developer, IT Help Desk, Livestock Inspection program staff, Vendor
6	Implement subsequent sale yard data system implementation	150	IT Help Desk, Livestock Inspection program staff, Vendor
6	Integrate subsequent sale yard data sharing process with Animal Tracks	40	IT Developer, Vendor
6	WSDA staff can search sale yard data within Animal Tracks	12	IT Developer
6	Train staff on Field Inspection screens	20	Vendor, Livestock Inspection inspectors

Goal	Milestone	Time (est. hrs)	Resources
6	Create process to synchronize Field Inspection data with Animal Tracks	10	IT Developer, Vendor
7	Create Federal Test module requirements	20	IT Developer, Animal Health program staff
7	Create and deploy Federal Test module into Animal Tracks	60	IT Developer, Animal Health program staff
8	Create Federal Vaccination module requirements	20	IT Developer, Animal Health program staff
8	Create and deploy Federal Vaccination module into Animal Tracks	60	IT Developer, Animal Health program staff
9	Create Pasture to Pasture module requirements	20	IT Developer, Animal Health program staff
9	Create and deploy Pasture to Pasture module into Animal Tracks	60	IT Developer, Animal Health program staff
10	Create Entry Permit module requirements	20	IT Developer, Animal Health program staff
10	Create and deploy Entry Permit module into Animal Tracks	60	IT Developer, Animal Health program staff
11	Create Entry Permit Website change requirements	20	IT Developer, Animal Health program staff
11	Create and deploy Entry Permit Web changes to internet site	60	IT Developer, Animal Health program staff
11	Create Entry Permit Mobile Device requirements	20	IT Developer, Animal Health program staff
11	Create and deploy Entry Permit Mobile Device website code	60	IT Developer
12	Create Official Animal Identification Device Distribution module requirements	20	IT Developer, Animal Disease Traceability staff

Goal	Milestone	Time (est. hrs)	Resources
12	Create and deploy Animal Identification Device Distribution module into Animal Tracks	60	IT Developer, Animal Disease Traceability staff
Total Est Hours		2674	

ESTIMATED TIMELINE

Goal	Item	Start	Finish
1	Animal Tracks repository created	Mar 2013	Mar 2013
2	Electronic CVI	Mar 2013	Apr 2013
3	Create RFP for grey-box framework to build application modules and post to WEBS	Feb 2013	Feb 2013
3	Choose vendor and Begin Work	Feb 2013	Feb 2013
3	Create CVI Module for Animals Tracks application	Mar 2013	Jun 2013
4	Create Self Service Reporting Site	June 2013	Aug 2013
5	Create Livestock Brand Recording module in Animal Tracks	Jun 2013	Aug 2013
6	RFP for mobile device data capture system created and posted to WEBS	Apr 2013	Apr 2013
6	RFP responses evaluated, vendor chosen, contract signed	May 2013	Jun 2013
6	First sale yard Implemented	Jul 2013	Sep 2013
6	Integrate first sale yard data sharing process with Animal Tracks	Aug 2013	Sep 2013
6	Subsequent sale yard implementations	Sep 2013	Dec 2013
6	WSDA staff search of sale yard data within Animal Tracks	Jan 2014	Feb 2014
6	Field Inspection System Implementation	Sep 2013	Dec 2013
6	Create process to synchronize Field Inspection data with Animal Tracks	Dec 2013	Feb 2014
7	Create and deploy Federal Test module into Animal Tracks	Aug 2013	Sep 2013

Goal	Item	Start	Finish
8	Create and deploy Federal Vaccination module into Animal Tracks	Sep 2013	Oct 2013
9	Create and deploy Pasture to Pasture module into Animal Tracks	Oct 2013	Dec 2013
10	Create and deploy Entry Permit module into Animal Tracks	Jan 2014	Feb 2014
11	Create and deploy Entry Permit Web changes to internet site	Feb 2014	Mar 2014
11	Create and deploy Entry Permit Mobile Device website code	Apr 2014	May 2014
12	Create and deploy Animal Identification Device Distribution module into Animal Tracks	Jun 2014	Aug 2014

ESTIMATE OF COSTS

Goal	Item	Est Labor Cost
1	Create and deploy Animal Tracks	\$ 500
2	Create and distribute eCVI and Electronic Saleyard Release form and complete automated process	\$ 5,000
3	Complete RFP and choose Vendor for Greybox application builder	\$ 1,000
3	Create and deploy CVI module to manage paper document based CVI's	\$ 31,000
4	Create self-service reporting site with initial reports for CVI	\$ 10,000
5	Create and deploy Livestock Brand Recording module into Animal Tracks	\$ 21,000
6	Complete RFP and choose vendor for field and sale inspection system	\$ 1,000
6	Plan and implement first sale yard	\$ 3,000
6	Plan and implement subsequent sale yard inspection systems	\$ 1,000
6	Train staff on Field Inspection screens (11 people to be trained)	\$ 2,000
6	Create process to synchronize Field and Auction Sale Inspection data with Animal Tracks	\$ 8,000
7	Create and deploy Federal Test module into Animal Tracks	\$ 7,000

Goal	Item	Est Labor Cost
8	Create and deploy Federal Vaccination module into Animal Tracks	\$ 7,000
9	Create and deploy Pasture to Pasture module into Animal Tracks	\$ 9,000
10	Create and deploy Entry Permit module into Animal Tracks	\$ 5,000
11	Create and deploy Entry Permit Web changes to internet site	\$ 2,000
11	Create and deploy Entry Permit Mobile Device website code	\$ 2,000
12	Create and deploy Animal Identification Device Distribution module into Animal Tracks	\$ 6,500
Labor Cost Total:		\$ 122,000

Year 1 – Auction, eCVI, and Tagging Sites			
Hardware	Qty	Cost Per Unit	Total Cost
Set-Up Existing Standard Archers	8	\$ 110	\$ 880
New Mesa Archers	4	\$ 3,000	\$ 12,000
WiFi Upgrade	17	\$ 380	\$ 6,460
Archer Batteries	20	\$ 80	\$ 1,600
Spare Battery Charger	4	\$ 220	\$ 880
PC Laptop/Monitor	13	\$ 2,700	\$ 35,100
Router Wiring	4	\$ 1,200	\$ 4,800
Printer	7	\$ 300	\$ 2,100
Router	12	\$ 800	\$ 9,600
New Standard Archers	5	\$ 1,605	\$ 8,025
Sub-Total:			\$ 81,445
Software	Qty	Cost Per Unit	Total Cost
Brand/Auction Mobile	9	\$ 2,495	\$ 22,455
eCVI/Auction Mobile	8	\$ 790	\$ 6,320
Brand/Auction Primary PC	7	\$ 2,495	\$ 17,465
Brand/eCVI Backup PC	6	\$ 3,495	\$ 20,970
Central Office Primary	1	\$ 4,995	\$ 4,995
Central Office Secondary	2	\$ 2,495	\$ 4,990
Remote Log-in	1	\$ 500	\$ 500
Brand/Auction Mobile Add'l Seats	5	\$ 2,495	\$ 12,475
Qrtly Brand Database Updates	72	\$ 125	\$ 9,000
Sub-Total:			\$ 99,170

Installation / Training	Qty	Cost Per Unit	Total Cost
Initial Installation	1	\$ 25,280	\$ 25,280
Follow up Onsite Training	1	\$ 31,200	\$ 31,200
Sub-Total:			\$ 56,480

Year 1 – Field Brand Inspections			
Hardware	Qty	Cost Per Unit	Total Cost
New Standard Archers	7	\$ 1,605	\$ 11,235
WiFi Upgrade	4	\$ 380	\$ 1,520
Spare Archer Batteries	7	\$ 80	\$ 560
Travel DC Chargers	19	\$ 125	\$ 2,375
Mobile Printers	19	\$ 1,195	\$ 22,705
Car Charger for Printer	19	\$ 125	\$ 2,375
Paper	19	\$ 100	\$ 1,900
Printer Mount	19	\$ 500	\$ 9,500
Sub-Total:			\$ 52,170
Software	Qty	Cost Per Unit	Total Cost
Brand/Country Mobile	6	\$ 2,495	\$ 14,970
Brand/Country Mobile on Auction Archers	13	\$ 1,248	\$ 16,224
Qrtly Brand Database Updates	28	\$ 125	\$ 3,500
Sub-Total:			\$ 34,694

Auction, eCVI, and Tagging Sites	\$ 237,095
Field Brand Inspections	\$ 86,864
Year 1 Start-Up Grand Total:	\$ 323,959

Summary

This project is designed to provide WSDA with the tools needed to protect the Washington state Cattle industry by modernizing current processes, systems, and equipment used to gather, manage, analyze, and report on animal health, ownership, and movements into and out of Washington State to be able to meet USDA traceability requirements. These tools and improvements focus on automation, self-service, and digitization of records wherever appropriate. They also provide for the WSDA to improve customer service and support capabilities in order to meet ongoing budgetary constraints and customer service requests in a manner that is appropriate to the times. The following are the funding projections related to this project over the next five years. Efficiencies should be realized by year three and continue to grow.

Funding Projections					
	1st Year	2nd Year	3rd Year	4th Year	5th Year
Animal Tracks	\$ 122,000	\$ 84,140	\$ 32,570	\$ 32,570	\$ 32,570
Data Entry *	\$ 131,035	\$ 131,035	\$ 98,276	\$ 78,621	\$ 65,517
Auction, eCVI, Tagging Sites	\$ 237,095	\$ 75,471	\$ 75,471	\$ 75,471	\$ 75,471
Field Brand Inspections	\$ 86,864	\$ 28,982	\$ 28,982	\$ 28,982	\$ 28,982
Totals:	\$ 576,994	\$ 319,628	\$ 235,299	\$ 215,644	\$ 202,540

* Data entry costs for years 3, 4, and 5 are estimates of reductions from increased veterinarian usage of the eCVI forms by a concerted effort from WSDA and other states.