

# WARRP Agricultural and Symposium Tabletop Workshops - Lessons Learned

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Lori P. Miller, PE  
Program Manager  
Agricultural Defense Branch  
Science & Technology Directorate  
*US Department of Homeland Security*



**Homeland  
Security**

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Science and Technology



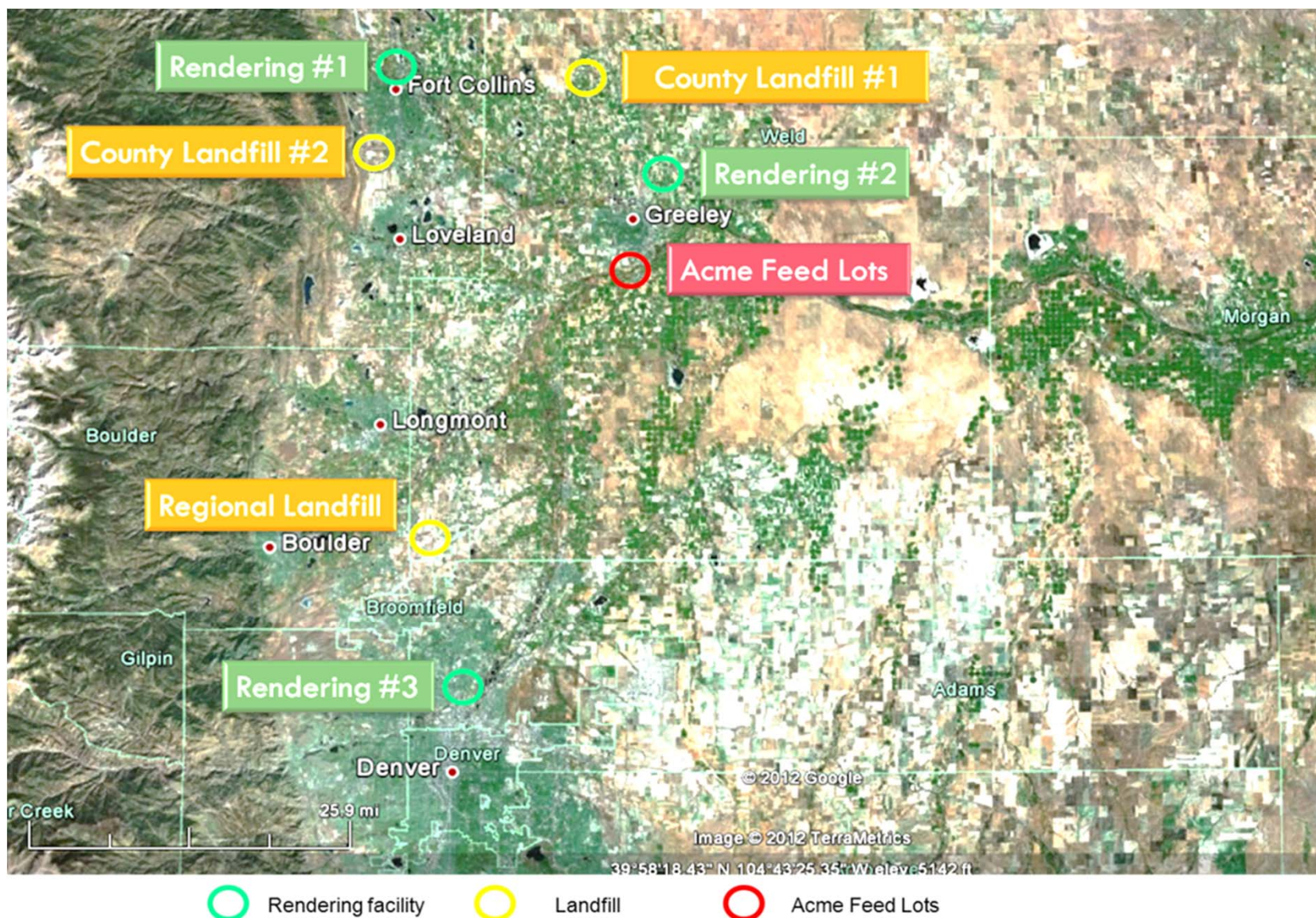
# WARRP Workshop - Goals

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1. Advance federal, state and local waste management planning for livestock disease outbreak in Colorado.
2. Test existing APHIS disposal tools to identify areas for improvement in preparation for upgrading tools.
3. Assess overall usefulness of tools to determine if different approach is needed.



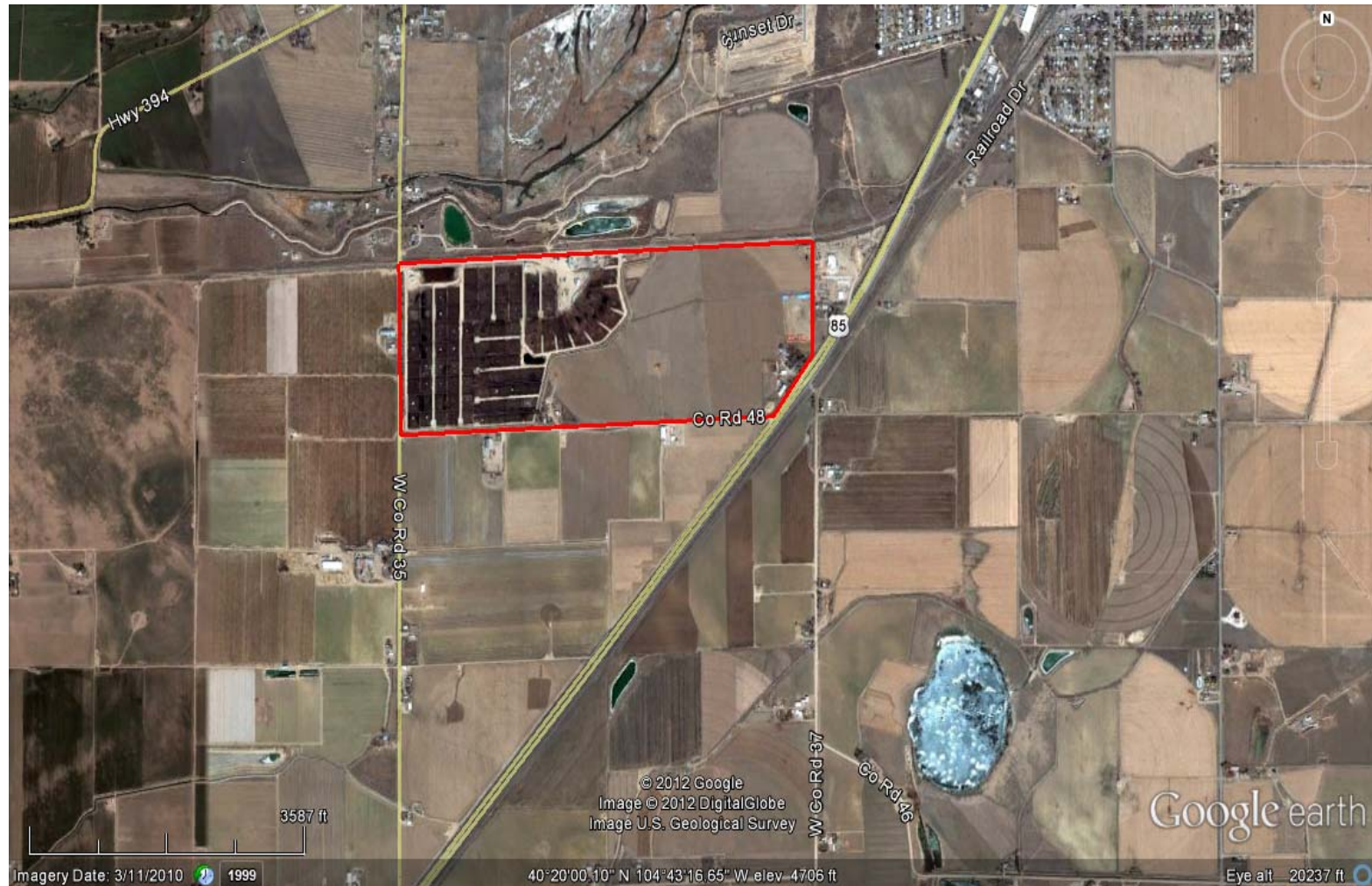
# Scenario







# Study Site – 20K Head Feedlot





# Disposal Options Matrix

	Composting	Rendering	Off-Site Landfill	Off-Site Incineration	Open Air Burning	On-Site Burial	Mobile Treatment Technologies
Public Health Risk	3	3	3	3	2	1	?
Need to Transport Carcasses Offsite	3	1	1	1	3	3	3
Byproducts	3	3	2	3	1	1	?
Biosecurity	2	3	2	2	1	1	?
Pathogen Inactivation	3	3	1	3	2	1	?
Cost Effectiveness	3	2	3	1	1	3	?
Environmentally Sustainable	3	3	2	2	1	1	?
Volume Reduction	2	3	2	3	3	2	?
Capacity	2	2	3	1	2	3	1
Throughput	2	3	3	1	2	2	1
Availability	2	2	3	1	3	1	1
Speed to Implement	2	2	3	2	1	1	?
Public Acceptance	3	2	3	2	1	1	?
Efficiency	2	3	2	2	1	2	?
Operability	2	2	2	2	2	3	1
Total Points	37	37	35	29	26	26	7
Average Score	2.5	2.5	2.3	1.9	1.7	1.7	1.4

## Matrix Explanation

Green technologies were scored 3 points

Yellow technologies were scored 2 points

Red technologies were scored 1 point

Scores for each measure were added up and then assigned an average score

If information was not available, the score was not included in the average

## Color Key



Ideal



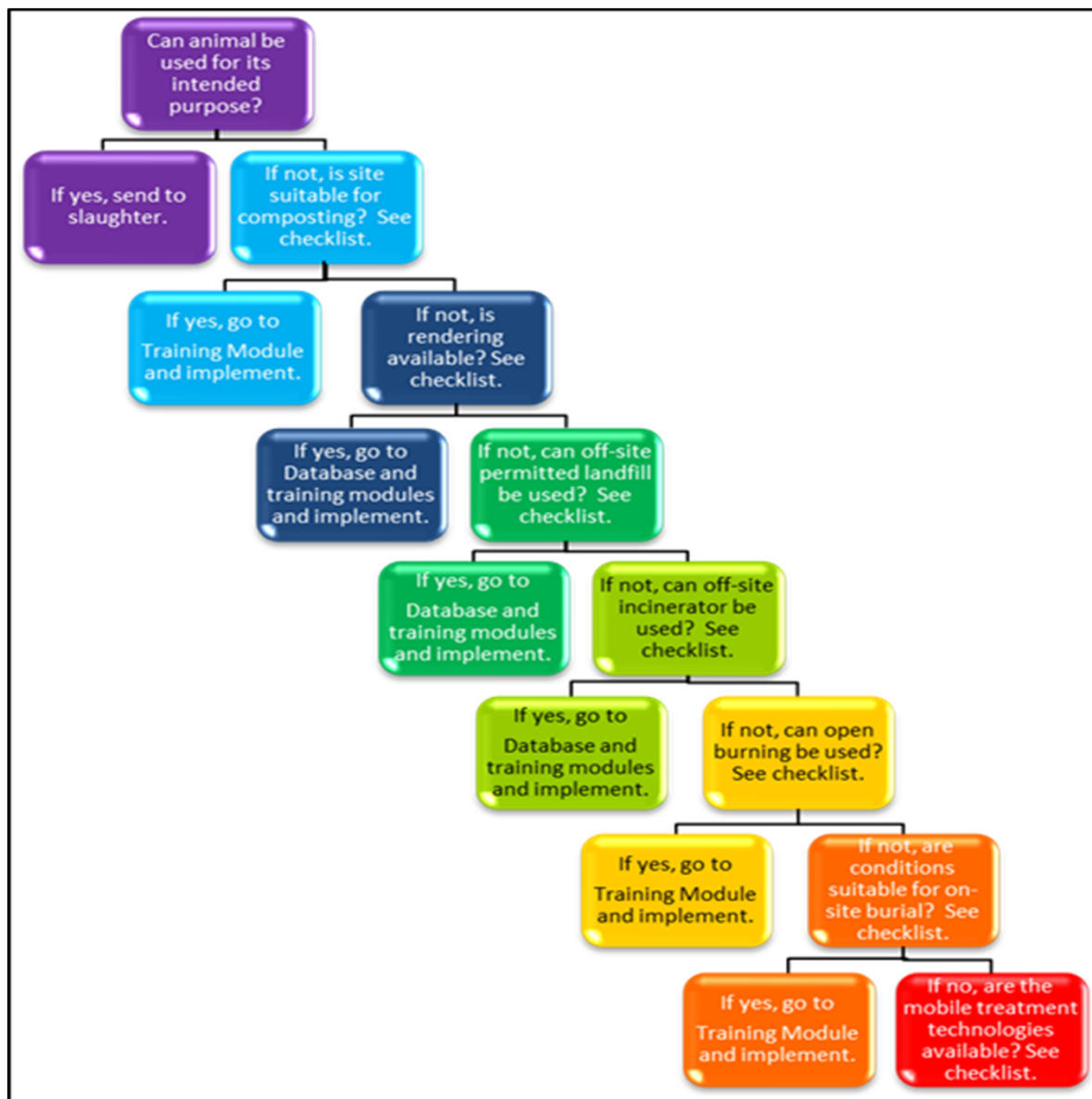
Not Ideal



Not Suitable



# Decision Tree





## First Option - Can Animal be used for its intended purpose?

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- Can animal be used for its intended purpose?
- If so, send to slaughter or other processing. **If not,**



## Second Option - Is site suitable for composting?

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- Based on expert opinion of trained and qualified compost specialist, are site conditions suitable for composting number of animals affected?
  - At least 200 feet from water wells, surface water bodies (lakes, streams, rivers, etc.), sinkholes, seasonal seeps or other landscape features that indicate the area is hydrologically sensitive.
  - Adequate land area to build compost piles
  - Located away from neighbors and/or out of sight.
  - Located downwind from neighbors and/or houses.
  - Located away from environmentally-sensitive areas.
  - Located close to livestock facility or have clear access for transport.
  - Clear of overhead utility lines.
  - Void of excess water.
  - Located on gentle slope (1%-3%) so there will be no water ponding.

**Etc.**



# Composting Outcomes

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- Education on the process is critical, best to hire a specialist.
- Public perception may be an issue.
- To enhance composting process, grinding may be needed, but then aerosols could be a problem.
- Labor costs need to be evaluated.
- State resources, such as mapping information, may be available.
- Carbon source may be limited and costly, unless local landfills can provide it at a low cost.

# Rendering Outcomes

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- Potential shortage of rendering capacity is a key issue.
- Biomass from emergency may have to be fed into rendering plants slowly over time.
- Storage will be needed.
- Keep animals alive until capacity available? Vaccinate?
- Transportation will have to be performed safely to contain pathogens.



# Permitted landfill outcomes

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- Abundant landfill capacity and waste disposal containers.
- Minimizes environmental impacts.
- Where would decontamination take place at landfill?
- How can transport be performed safely to contain pathogens?



# Fixed Incinerator

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- Not a viable option due to lack of capacity and inability to maintain biosecurity during operation.





# Open Burning

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- Although the Colorado State Veterinarian has the authority to allow open burning in case of an animal disease outbreak, it will not likely be publicly acceptable and would only be used under extraordinary circumstances.



# Unlined Burial

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- Least desirable of all disposal methods.
- Would not be a first choice because of land-use restrictions.
- Groundwater contamination is the primary concern.



# Mobile Technologies

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- Limited throughput and capacity.



# Transportation Considerations

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- Transportation is a limiting factor for off-site technologies because of increased risk of pathogen spread.
- Vehicles may need to accommodate expansion of carcasses during transport.



## Tools (MaTCh) and Learning Package

- The checklist and matrix would be **great for pre-planning**, not for actual use in an emergency because it would take so long. You would spend 48 hours just getting answers to questions before you could even start mobilizing resources.
- This would be a great exercise to **bring to the farmers** themselves. This would enable us to be proactive by bringing it to the industry groups; they would get a lot out of it. This workshop overall was a **testament to proactive education**.
- **Indemnification** of compensation guidelines have been released – **should incorporate** into the checklist or assumptions.
- There was too much script, too many assumptions, and the scenario can be too limiting.
- There is limitation in the usefulness of tools; especially the decision tree. Going down in a **sequential order might not be the most practical**. Might be best to **consider more than one option at a time**.
- The Decision Matrix – debate over the values (e.g. oversimplifying pathogen inactivation). Maybe need to look more into the decision-making that resulted in the ratings.
- The Decision **Checklist was helpful** to further discussion in this area
- **Exercise is useful** because it shows the difficulties with disposing of only 20,000 head of cattle.



# Plans/Guidelines Comments

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- The State of Colorado should add these decision tools to their state plans.
- The target number that the state should be able to handle is all the livestock in their state.
- NCBA has a lot of issues that compete for their attention and they do not address FMD at this level. It is at the bottom of the priority list.
- If we don't know what the plan is, then it is hard to prepare. They won't invest \$\$ without directions and a plan. New plans are more compatible with the interests of the industry.
- If they are within 6.2 miles then the cattle will need to be put down. These are old guidelines.



# Next Steps

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- Transportation was mentioned several times as the next priority workshop
- Another priority topic for a workshop would be media, including social media
- Future workshops could benefit from more video presentations on FMD, cattle & swine feed lot operations, etc (perhaps COTS from NOVA, NatGeo, TLC that already exists )
- Agricultural media should be engaged from this point forward
- Industry & trade groups should also be engaged
- Need an even better understanding of the economic impact of FMD

STATUS: Transportation workshops in progress.

## Symposium Cross-Border Workshop - Goals

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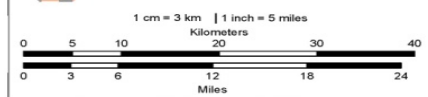
1. Identify gaps in cross-border outbreak emergency response.
2. Summarize findings in After Action Report.
3. Prioritize needs and work with Canada to resolve gaps.



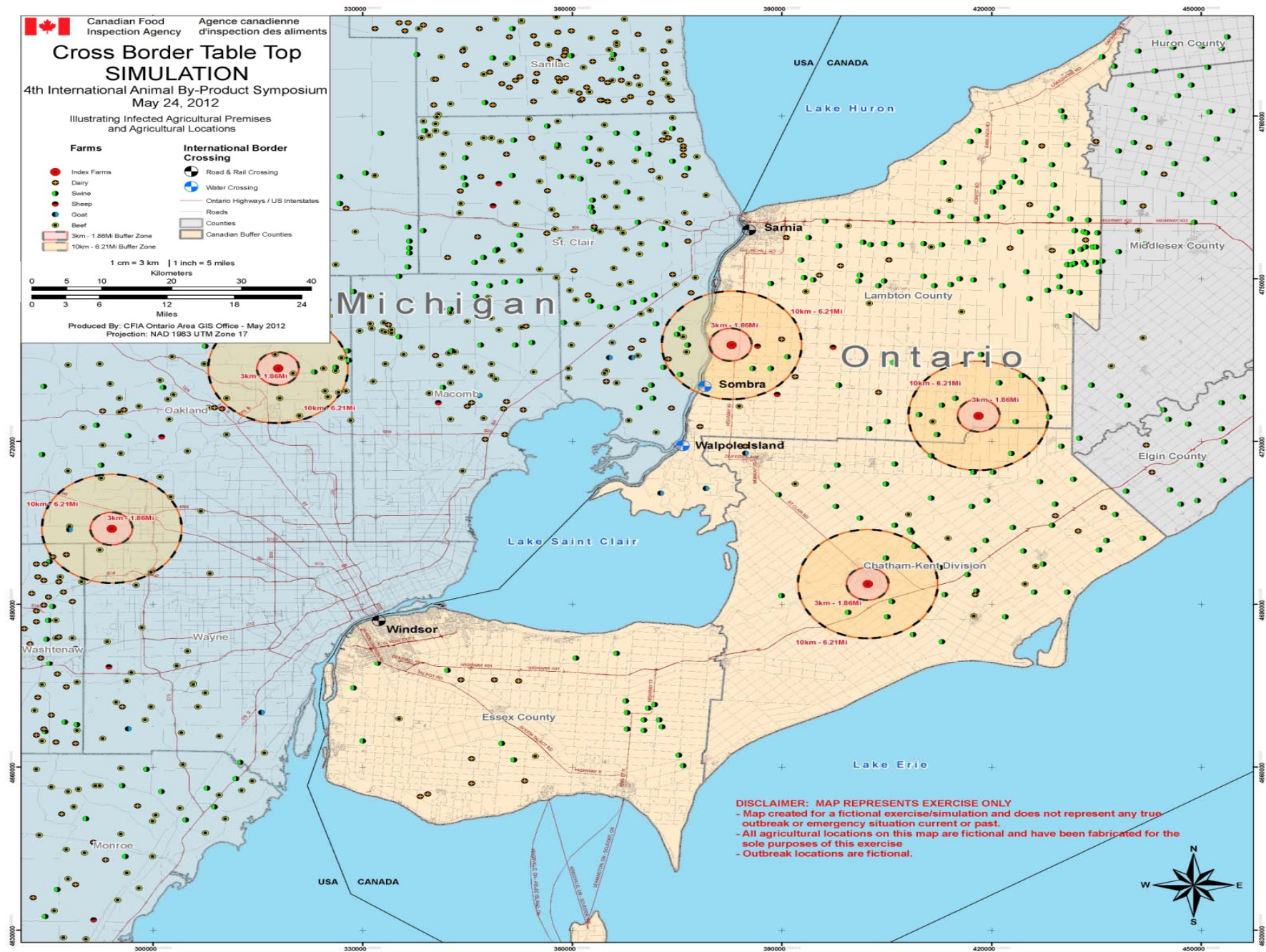
# Cross Border Table Top SIMULATION 4th International Animal By-Product Symposium May 24, 2012

Illustrating Infected Agricultural Premises  
and Agricultural Locations

- | Farms  | International Border Crossing  |
|--|--|
| <ul style="list-style-type: none"> <li>Index Farms</li> <li>Dairy</li> <li>Poultry</li> <li>Sheep</li> <li>Goat</li> <li>Beef</li> </ul> | <ul style="list-style-type: none"> <li>Road &amp; Rail Crossing</li> <li>Water Crossing</li> <li>Ontario Highways / US Interstates</li> <li>Roads</li> <li>Counties</li> <li>Canadian Buffer Counties</li> </ul> |



Produced By: CFIA Ontario Area GIS Office - May 2012  
Projection: NAD 1983 UTM Zone 17



**DISCLAIMER: MAP REPRESENTS EXERCISE ONLY**  
 - Map created for a fictional exercise/simulation and does not represent any true outbreak or emergency situation current or past.  
 - All agricultural locations on this map are fictional and have been fabricated for the sole purposes of this exercise  
 - Outbreak locations are fictional.





# Movement Control Issues

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- Are there written movement control plans and do they address cross-border issues?
- How are livestock carriers in transit handled?
- Who calls truck back? How is it done? Turn back or pull over?
- Who communicates Movement Control information to affected stakeholders?
- Stop all livestock movements? Does that mean load of infected animals are now sitting next to clean animals?
- Pull carrier over at rest stop? Weigh station? What if animals overheat? Better to pre-identify potential locations for staging where animals can be fed and watered until humane depop process in place.
- How will non-livestock vehicles be handled? Will there be a customs declaration at road crossings, with subsequent seizure of prohibited items?
- Will cross border movements be allowed? What about susceptible species not originating in outbreak areas?



# Depopulation Issues

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- Who makes decision on which premises are depopulated vs vaccinated vs allowed to recover? Trade issues?
- Who will pay for the activities? Who will direct the activities? Who has jurisdiction for animals from one country that have already entered the other country?
- Do countries have the ability to recover costs from each other? Are international agreements needed?
- Where are in-transit animals depopulated? At rest stop? What methods are used? How is security and public view controlled?
- If in-transit animals will be held prior to depopulation, how will animals be fed, watered, and protected from the elements?
- Where will feed, water, troughs, chutes, gates, and euthanasia supplies/equipment come from?



# Disposal Issues

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- What if disposal in one country causes environmental contamination in the other country? Who is liable? How is clean-up handled?
- What if animals have already crossed the border? Are they turned back, or depopulated and disposed in destination country? Who pays and who has liability?
- What if the nearest disposal site is in the other country? Can it be used and under what circumstances?
- How can material be safely transported? Can it be transported across the border? Are standards the same in both countries?
- Are international agreements in place or are they needed?
- Is material classified as Dangerous goods?





# Decontamination Issues

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- Is airborne dispersal a concern?
- Where are vehicles decontaminated? Who decides?
- Are vehicles decontaminated at border crossings?
- Are decon methods the same on both sides?
- How are vehicles entering and exiting control zone handled?
- Who talks to drivers at check points?
- Will language interpreters be needed?



## Next Steps

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1. Identify gaps in cross-border outbreak emergency response.
2. Summarize findings in After Action Report.
3. Prioritize needs and work with Canada to resolve gaps.

STATUS: Report in progress; potentially incorporate priorities into existing US-Canada Collaboration Working Group efforts



# Homeland Security

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