

Using Readiness evaluations to Reality Check SOP's

Dr Jimmy Tickel

Institute for Infectious Animal Diseases

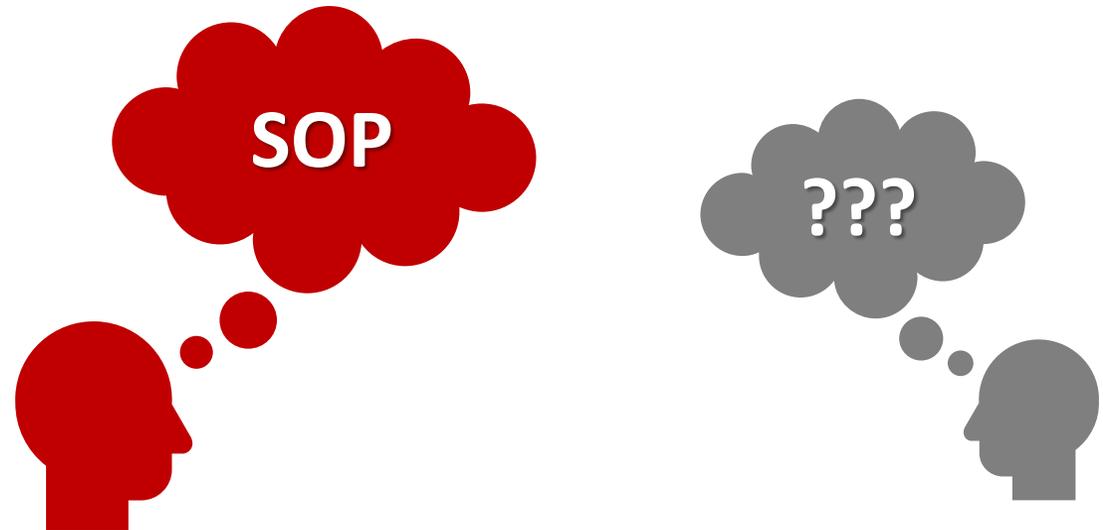
Texas A & M

Good SOP's share the following attributes:

- Well Written

- Workforce can **UNDERSTAND** the task as described

- steps are clearly stated with technical terminology described
 - avoid Acronyms
 - test with different audiences



Good SOP's factor in all considerations:

SOP needs to consider effects of different conditions

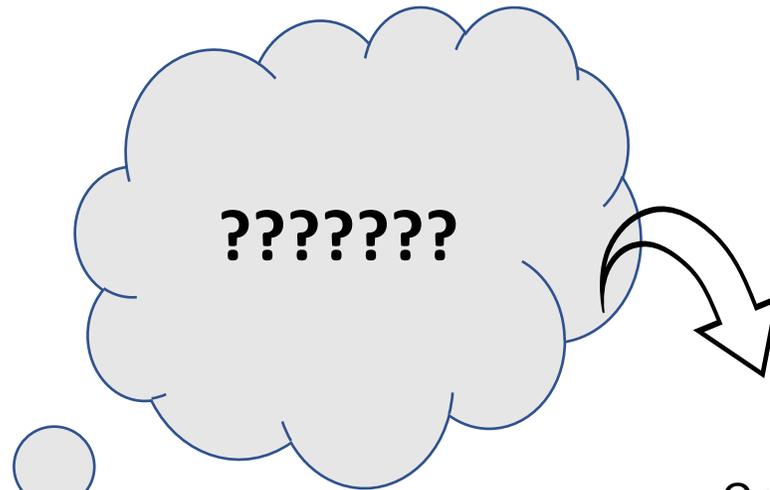
Example: weather/seasons



Good SOP's factor in all considerations:

SOP needs to consider effects of different conditions

Example: weather/seasons



Options:

- ✓ commercial truck wash
- ✓ Alter access to farm

Good SOP's need to be realistic:

- Workforce can **PERFORM** the task as described
 - Not rocket science (not extremely complex)
 - Equipment and Technology exist
 - Personnel can be trained to be **READY** to execute tasks



SOP tasks must be evaluated



Capability



Capacity

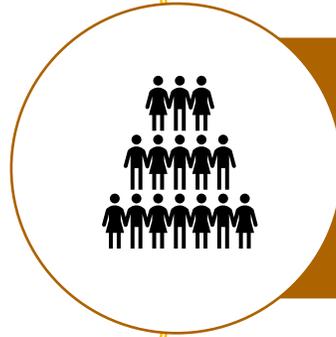


Timeliness

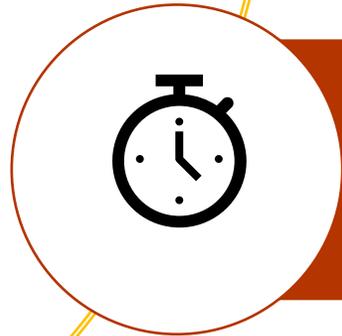
Readiness Status



Capability: knowledge and expertise exists to perform task



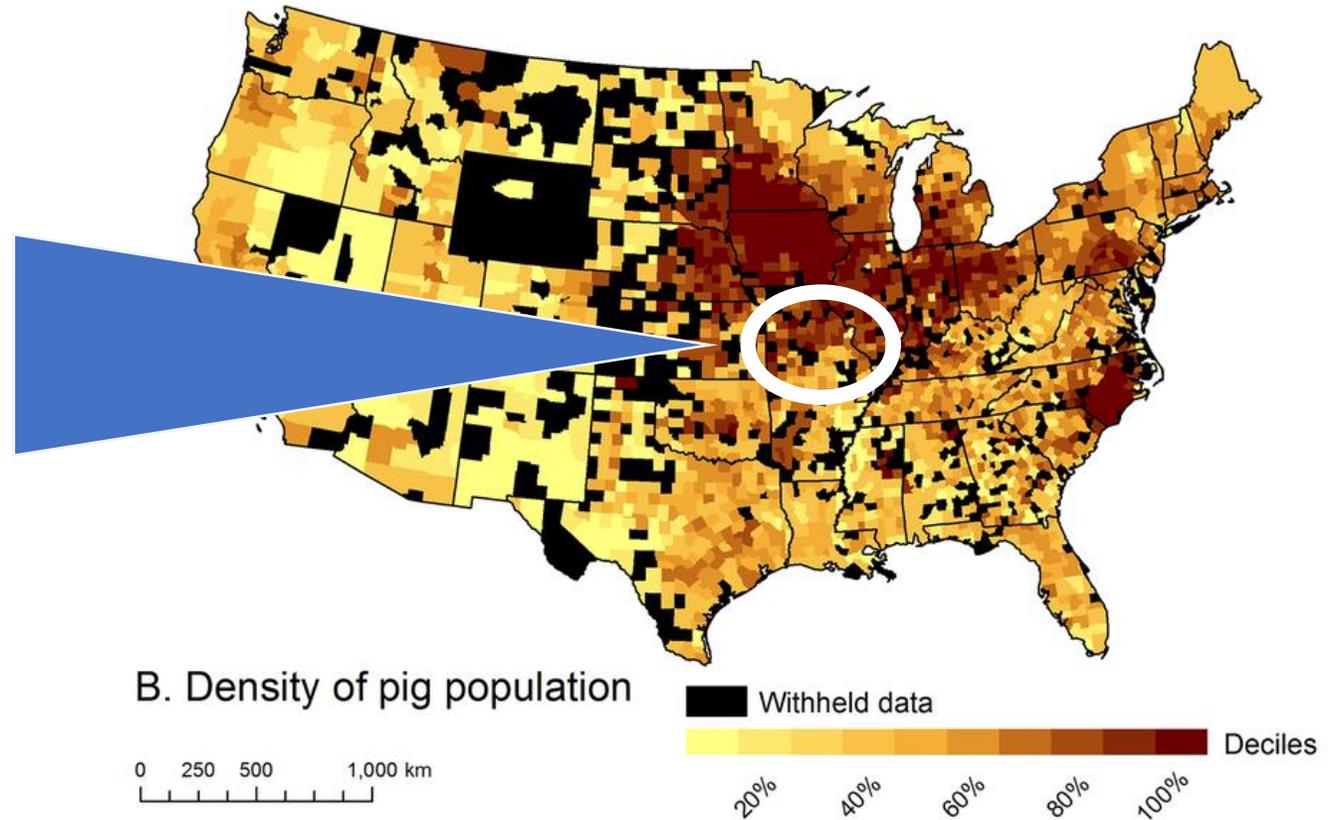
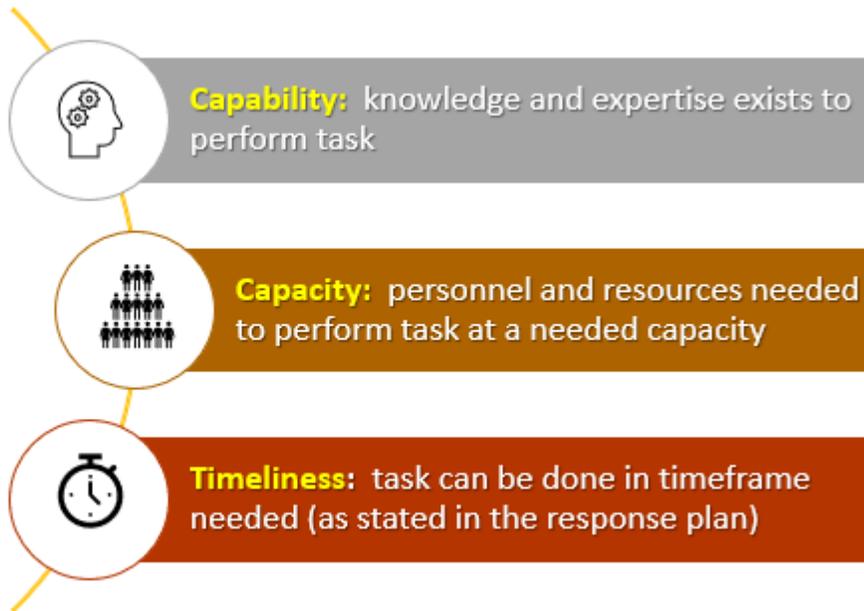
Capacity: personnel and resources needed to perform task at a needed capacity



Timeliness: task can be done in timeframe needed (as stated in the response plan)

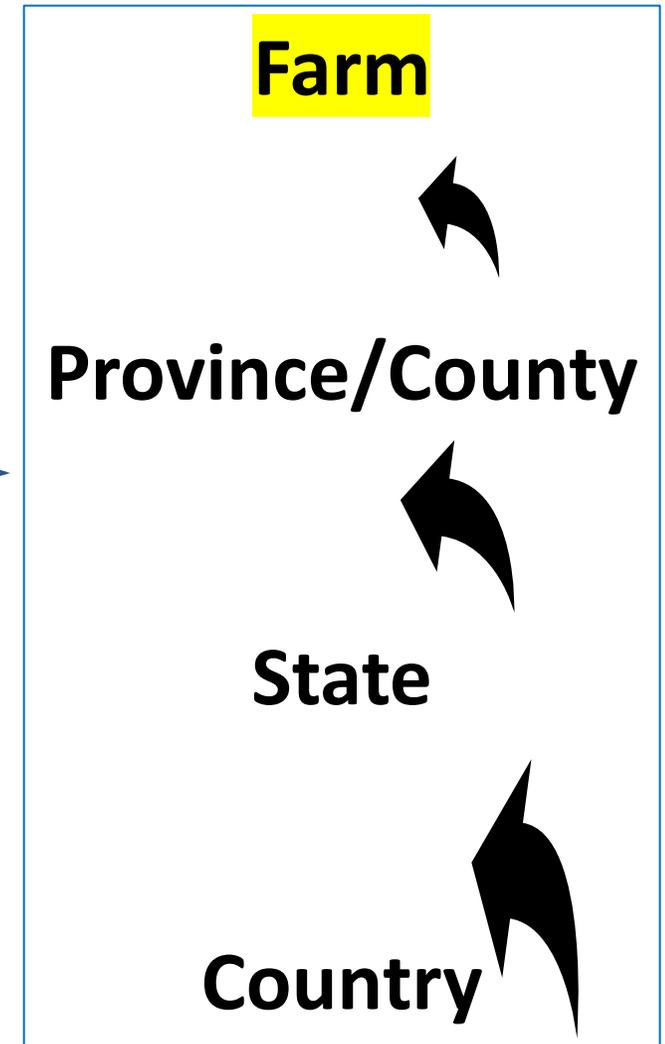
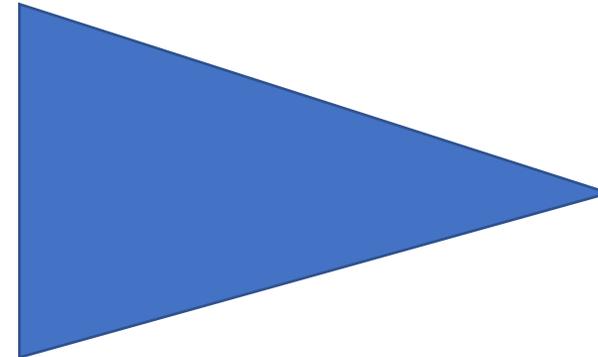
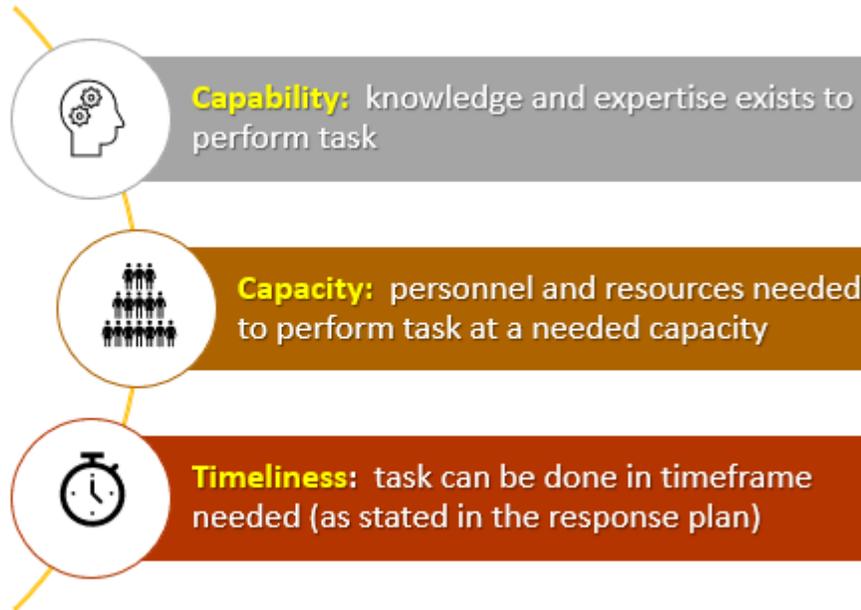
Readiness applied to Population at Risk

Readiness Status

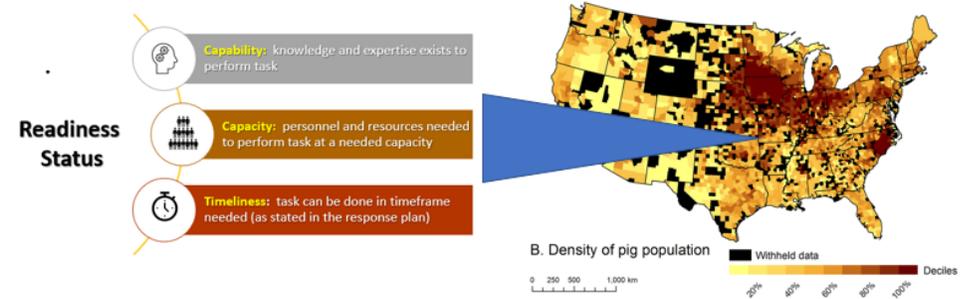


Readiness applied to Population at Risk

Readiness Status



Population at Risk & Readiness Goal



What % of the **Population at Risk** does the SOP need to address for a Capability **GOAL**?

Our scenario to use for an example:

Based on Modeling, past disease outbreaks, or best guess for Disease X:

Depopulation Readiness needs to be prepared to:

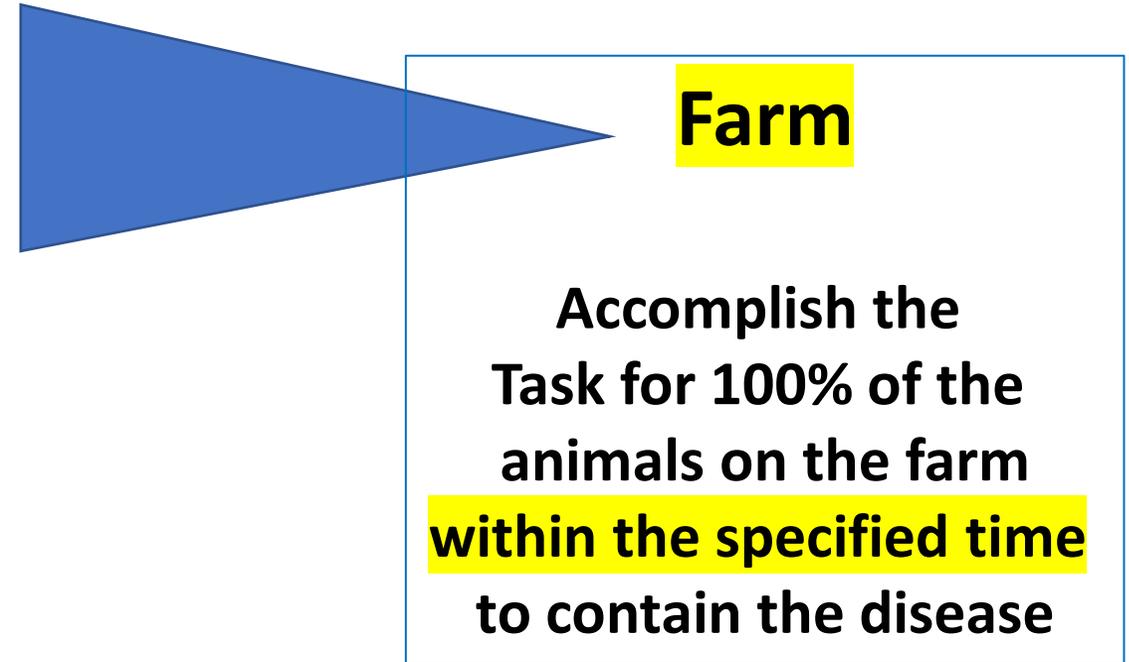
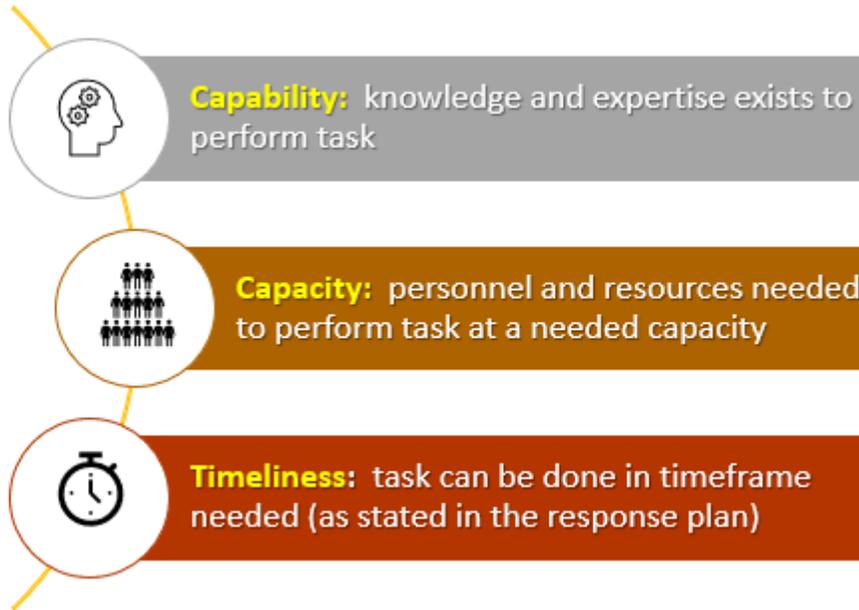
Depopulate 2 % of the susceptible population within 24 hrs to contain the disease for
“ _____ ” (county, province, zone, state, country)

Depopulation SOP

- The SOP describes the process for depopulating animals and lists several options
 - Captive bolt
 - Electricution
 - CO2
- For captive bolt depopulation, it has been determined that a 7 person team using 10 captive bolts (3 extra for equipment failure) can depopulate 200 animals per hour. Thus, in an 8 hr shift, approximately 1600 hd can be depopulated.
- Animals for Foot and Mouth Disease should be depopulated within 24 hrs.

Readiness Goal for a Farm

Readiness Status

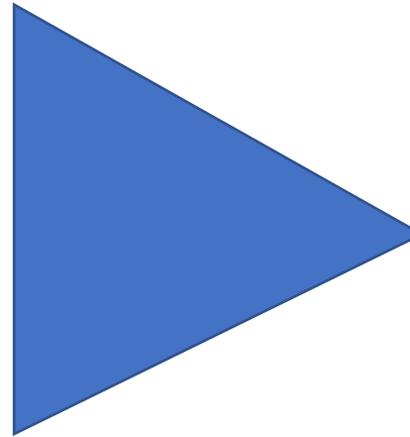
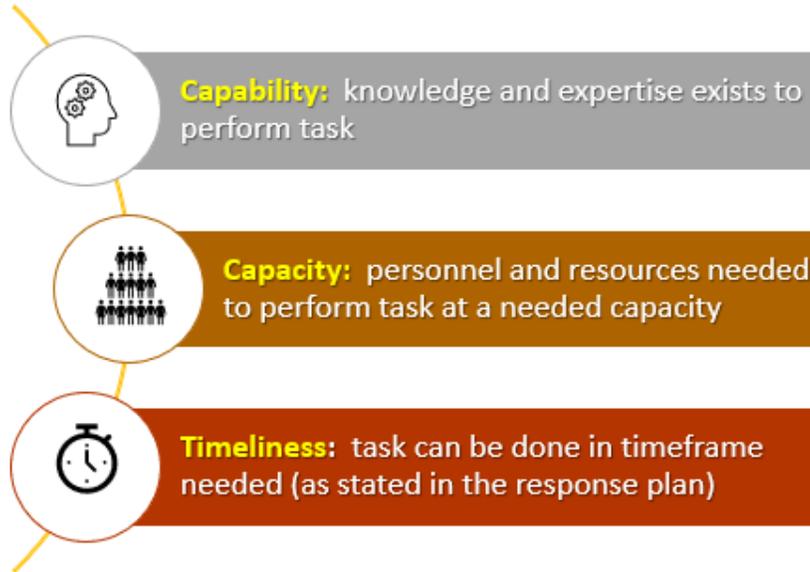


Capability	Capacity	Timeliness
Depopulate	2400 sow farm	24 hrs
	2 Depopulation Teams	
	= 14 people/20 captive bolts	

Readiness Goal for a County



Readiness Status



County/Province

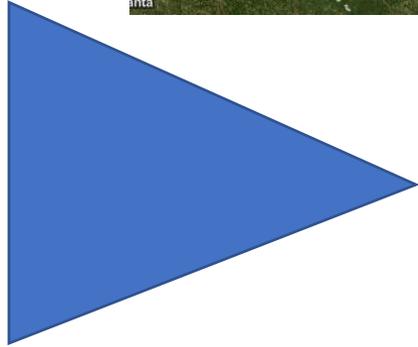
2% of Susceptible population

Capability	Capacity	Timeliness
Depopulate	2 % of population = 8,000 hd	24 hrs
	5 Depopulation teams	
	35 people/50 captive bolts	

Readiness Goal for a Zone



Readiness Status



Zone
2% of Susceptible population

Capability	Capacity	Timeliness
Depopulate	2 % of population = 40,000 hd	24 hrs

Our Depopulation SOP needs to account for this Readiness Goal for success!

Readiness Goal for a Zone



Capability	Capacity	Timeliness
Depopulate	2 % of population = 40,000 hd	24 hrs
Task Force	7 personnel/10 captive bolts + = depop 200/hd hr	8 hr shift = 1600 hd / Team
	25 teams needed	

Working through the capacity and factoring the in the timeliness will provide a reality check! 25 teams would equal 175 people and 250 captive bolts. This is a VERY LARGE work force that would need to be trained and ready to start operations quickly after notification.

Can we realistically do the SOP as written once we consider the resources needed and the time frame specified???

- Can a team perform 2 shifts of work per 24 hrs which would equal 3200 animals depopulated per team?
- Is there another method that would depopulate more animals?
- Can training and purchase of equipment be done and maintained over time?

Always remember that some Capabilities are tied to other Capabilities

- Example:

Another Example: US FMD Exercise

Scenario: 27,000 hd sow complex infected with FMD

- Response plan strategy: Depopulate complex within 48 hrs
 - Use captive bolt

 - Reality:
 - Task would take 71 days with available personnel and equipment

 - By 71 days, there would be a very high potential that most if not all pigs would be clear of signs of disease and could be approved for slaughter.

Another Example: US FMD Exercise

Scenario: 27,000 hd sow complex infected with FMD

- Response plan strategy: Depopulate complex within 48 hrs
 - Use captive bolt
 - Reality:

Using Readiness Goal for a Zone to build capacity



Capability	Capacity	Timeliness
Depopulate SOP	2 % of population = 40,000 hd	24 hrs
Training Program and Funding for Equipment purchases:		
Year 1 Goal	1% of susceptible population	24 hrs
Year 5 Goal	1.5% of susceptible population	24 hrs
Year 7 Goal	2% of susceptible population	24hrs

SOP writing process using readiness evaluation

- Describes the task and how to perform it
- Allows for goals to be established so that preparedness improvement efforts can be measured
- Avoid underestimating/overestimating resources
- Avoid delays in accomplishing response missions
- Provides the understanding for when additional support should be requested, or different strategic approaches/options should be considered
- Provides guidance for the training and exercise needs to prepare the work force
- Provides guidance for funding prioritizations